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Baltic Rim Economies Expert Articles 2011

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Baltic Rim Economies (BRE) review continues as an up-to-date discussion forum

In the year 2011, the Pan-European Institute, an economic policy research-focused unit of Turku School of Economics at the University of Turku, published close to 300 expert articles in the Baltic Rim Economies (BRE) review. The articles dealt with a great variety of topics and countries. Russia received a lot of attention on the pages of the BRE in 2011. The texts related to Russia covered almost everything from Russia's approaching WTO membership and modernisation to the country's military reform.

Also Jose Manuel Barroso, the President of the European Commission, dealt with the modernisation theme in his article, when he emphasised a need to bring EU-Russia relations to a new level. Jyrki Katainen, the Prime Minister of Finland, discussed about potential of the Baltic Sea cooperation, and referred to the Turku Process as a regional cooperation agenda between the Baltic regions of the EU and Russia. Aleksi Randell, the Mayor of the City of Turku, described in his contribution the Turku Process in more detail.

Regional security was touched by several writers, including Artis Pabriks, the Minister of Defence of Latvia, who intellectually phrases as follows: *"The Baltic Sea region is not only one of the most prosperous regions in the world, but it is also one of the most secure regions with relatively low possibility of military conflict or tension. However, it does not mean that Baltic Sea region in general and the Baltic countries in particular do not face security challenges affecting the Baltic security in the long run. ... But they do require the political will of the Baltic and Nordic politicians to look beyond the old nation state paradigm and promote ways of closer and more interdependent cooperation among the countries contributing to an eventually integrated, and thus, more secure and successful region."*

The Pan-European Institute started cooperation with the City of Turku, the Turku Chamber of Commerce and the Centrum Balticum, Finland's think-tank on the Baltic Sea issues, a year ago. Three aforementioned organisations co-finance the review while the collecting of the articles remains on the responsibility of the Pan-European Institute. This financial support allows us to concentrate more on dissemination of the review. Currently, the BRE review is distributed to over 80 countries.

The Pan-European Institute, which celebrates its 25th anniversary in autumn 2012, continues to put a lot of emphasis in enhancing public discussion concerning the Baltic Sea region. I wish to thank all the writers for their valuable contribution to the Baltic Sea work and encourage our readers to write short articles to the BRE review.

Kari Liuhto

Editor-in-Chief (responsible for writer invitations)

Baltic Rim Economies (BRE) review

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Stability, partnership, responsibility – Latvia's way out of the global financial crisis*

By Solvita Āboltiņa

Latvia has been increasingly praised in the international arena as an example of how to successfully overcome the ordeals caused by the economic crisis. This experience undoubtedly makes us feel proud of ourselves to a certain extent. However, it is more important for us to understand why Latvia suffered so severely from the global economic crisis. Likewise, we must understand what enabled our country to brace itself, stand up and avert insolvency. Understanding both of the aforementioned aspects is of great importance for Latvia and Europe.

The short answer to the question why Latvia suffered so heavily from the economic crisis is this: we found ourselves in a deep crisis as a result of ignoring the basic laws of economics and following thoughtless politics. The key factors that have turned Latvia into a success story include persistent work, along with adherence to the principles of stability, partnership and responsibility while forming the state budget for 2011.

Preserving Financial Stability

This is the second government led by Valdis Dombrovskis, whose primary objective is to lead Latvia out of its deep economic and financial crisis. In beginning this work two years ago, one of the most urgent tasks of the government was to provide financial stability. The results of the elections held in October 2010 – the victory of the political union Unity and the repeated nomination of Valdis Dombrovskis for the post of Prime Minister by the President of Latvia – show that Latvian people appreciate what has been achieved so far. And once again, we feel proud of ourselves, but we are well aware that the difficult path towards stabilisation is still ahead of us.

The state budget for 2011 that was drafted by the government and adopted by the parliament at the very end of the previous year represents a clear turning point towards economic growth of Latvia. The previous two state budgets can be regarded as crisis budgets, whereas this is a stabilisation budget. I am truly gratified by the fact that in spite of cutting the government's spending, we still have managed to allocate one-fourth of the state budget specifically for development.

Now it is important for Latvia to balance its revenues and expenditures in order to stop living on credit. Latvia's economic indicators continue to improve, and the economy stabilisation programme is being implemented. The GDP growth has improved, the deficit has to be cut by a smaller amount than forecast, and the basis for the 2011 budget is much better than expected. These indicators will probably have a positive impact on the state's credit rating, which might be raised in the following months. This success story is the direct result of the perseverance of the two governments led by Valdis Dombrovskis, which did its work, step by step, in spite of scoffing, criticism and opposition.

Involvement of Social and Cooperation Partners

In the 21st century, a modern public administration is characterised by partnership. NGOs, trade unions, local governments, professional associations – all these partners are an integral and necessary element in the process of shaping politics at any stage of economic development be it in times of growth or crisis.

In Latvia's current economic situation, the state budget for 2011 can be characterised as a stabilisation budget that has been drafted as a result of in-depth and high-quality discussions. In the budget drafting stage, the government

consulted a wide range of social and cooperation partners and reached several significant compromises. This partnership continued in the parliament in the form of cooperation with the Speaker of the Saeima and with parliamentary committees.

Partnership should also characterise subsequent development processes. Now that the 2011 budget has been adopted, the parliament has to involve social and cooperation partners in other discussions on the country's strategic goals. This makes it possible to achieve joint development goals more successfully and to narrow the gap between the government and society that is evident throughout Europe.

Responsible attitude

The decision making which accompanies the process of economic recovery should also be responsible. One can already feel a tendency to give up austerity at the first positive signs. One can also see a revival of the illusion that after 2012 salaries in this country might reach the level of the boom years before the crisis. But they will not. I would even say that the real crisis occurred when all of Europe was living beyond its income; it was a crisis of values and of moderation. Therefore, I am glad that Latvia's budget for 2011 was prepared by looking several years ahead and by keeping in mind both immediate and future goals – primarily, adoption of the euro in 2014. At the same time, this budget protects pensioners, people with children and people with low or medium low income. Therefore, this is also a socially responsible budget.

We expected the principle of responsibility to be evident in the proposals that MPs, social partners, parliament's cooperation partners and other groups of society submitted regarding the 2011 budget. Successful partnership does not mean approving all proposals but rather detailed discussions and well-considered decisions permeated by a sense of responsibility towards all groups in society.

From stability to growth

Despite previous economic development forecasts according to which the consolidation measures for 2011 budget amounted to more than LVL 400 million, the government of Valdis Dombrovskis managed to limit the necessary consolidation of the 2011 budget to LVL 280 million. This is the result of careful work and proof that the decisions adopted by the Latvian government were aimed at more successfully overcoming economic hardships.

Stability, partnership and responsibility are the key words describing the process of adopting the state budget for 2011 and Latvia's way out of the global economic crisis. I am gratified by the fact that Latvia is one of the few European countries that has managed to draft a stabilization budget for the year 2011. We have to join our efforts and do our best in order for the 2012 budget to be a development budget. And I wish the same to our European partners.

Solvita Āboltiņa

Speaker

The Republic of Latvia



*This article has been written in January 2011.

Working for revival of the European economy

By Olli Rehn

Europe is struggling to recover from the worst economic slump since the 1930s. The legacy of high public (and in many cases also private) debt, high unemployment and low investments act as a drag on growth for years to come. Moreover, over the past year or so, tensions in the European sovereign debt market have fuelled exceptional uncertainty and led to high interest rates for some Member States.

At the same time, unprecedented measures have been taken by Europe to contain financial market turbulence. While they have been effective in the sense of preventing financial chaos – there has been no Lehman type of catastrophe – more needs to be done.

In addition to making sure that financial backstops are strong enough for all eventualities, the policy response has to tackle the root causes of the current crisis. Crisis management cannot be separated from addressing the key structural weaknesses of the European economy, the scale of which has been starkly revealed by the financial shock.

The problems are well-known: lack of fiscal prudence in good times in many Member States; labour market practices and tax and benefit systems that are un-conducive to high rates of employment and swift reallocation of labour in the face of shocks; slow-moving and uncompetitive innovation system; and a still fragmented internal market.

To understand the European challenges, it is important to note that the issue is not just – and sometimes not at all – the average performance, but the great diversity. For example, as a whole, EU public finances are in a better shape than those of the US. This holds whether one uses general government deficit or debt as a measure. The specific EU problem is that in some countries public finances are in a really bad shape and this spills over to other countries in different ways.

To improve European competitiveness - the capacity to increase productivity and create jobs - one needs to do different things in different Member States. However, at the same time we must coordinate the actions to obtain the full benefits of synergies. Therefore, policy coordination is always a key element of European competitiveness policy.

The crisis has brought about a sea change in the European economic policy. First, there is a much broader understanding and acceptance that major reforms – many of which are painful in the short term – must be taken. Secondly, the willingness to coordinate economic policies is much higher than ever before.

The drastic fiscal and structural policy measures which have been taken Estonia, Latvia and Lithuania, and more recently by Greece, Ireland and Spain witness of the former. Many countries are encouraged by the success of the reforms in several countries of the Baltic Sea region over past years, the fruits of which are now clearly visible.

The legislative package for reinforced economic governance proposed by the Commission, which is currently under discussion in the European Parliament and the Council, is concrete evidence of changed attitudes towards coordination. In fact, we have already introduced the new architecture in the form of the European Semester, which was launched by the Commission's Annual Growth Survey on 12 January.

The proposals in the Annual Growth Survey form the basis for the European Council recommendations to Member States in March. The European Council of February gave clear and strong support to complete the legislative package by summer, to conduct ambitious stress tests, and to strengthen the existing financial backstop, the EFSF.

The Treaty and the new economic governance provide the right framework for a truly European response, and can enable members of the euro area to go further on some issues to improve competitiveness if they wish. The policy objectives discussed in this context are in line with the Annual Growth Survey, which constitutes the blueprint for fiscal consolidation, structural reform and growth-enhancement, while the European Semester provides the framework for the work.

All this shows that a momentum is indeed building up for a step change in European policy making towards stronger promotion of sustainable growth and job creation. But to ensure that concrete actions follow on a broad basis, we must find an inclusive way of taking the process forward.

The Annual Growth Survey provides the Commission's assessment of the economic challenges, takes stock of the progress made in implementing the Europe 2020 growth strategy and spells out the Commission's priorities for urgent policy action. It is written in a blunt language, not always characteristic to the Commission's documents, and brings together 10 priority actions encompassing three main areas:

- rigorous fiscal consolidation to enhance macroeconomic stability;
- labour market reforms for higher employment;
- structural reforms to enhance sustainable growth.

As regards structural reforms, tapping the full potential of the Single Market is one of Europe 2020's priorities. Deepening the Single Market will have strong evidence-based economic underpinnings and focus on a limited number of actions, including:

- full implementation of the Services Directive,
- completing a European framework for intellectual property
- rapid and interoperable standard-setting including in ICT
- removing tax disincentives for trade or investment.

Shared determination will be the decisive element for pursuing this ambitious agenda and for paving the way for a more prosperous future for all of us. For Europe, 2010 was the year of crisis and survival. With shared determination 2011 can be made the year of reform and revival.

Olli Rehn

Member of the European Commission responsible for Economic and Monetary Affairs



Regional policy ensures an intact future for the European Union

By Riikka Manner

Regional policy is a policy area that does not leave anyone cold in Finland. It has its passionate advocates and opponents. Personally, I am one of those that believe that there will be an even greater need for it in the 2010s.

Efficiency and competitiveness are the watchwords of the era that we are now living in, and which will in due course enter the annals as an economically epoch-making one. They are also the highest objectives of EU policy in this decade, entered in the Europe 2020 programme. Some people claim that regional policy is a monetary burden and an ideology of the past. The antithesis between so-called old and new policy areas is unnecessary and in itself old-fashioned. I am of the opinion that regional policy is one of the most important tools, if we are going to achieve the Europe 2020 objectives.

A stronger Europe calls for powerful regions striving from their own points of departure. The long existence of regional policy does not mean old age and political outmodedness but, rather, a ready system for promoting changing policy areas. Known most of all for its subsidies, regional policy is about solidarity and a broader way of thinking. Regional policy is a tool with which we are developing a Europe that is competitive and, at the same time, balanced and fair.

Regional policy is often associated with the economy and accordingly with what are termed tough policies. I myself consider that regional policy is not only about directly fostering entrepreneurship and regional development, but that it also has a profoundly human dimension and significance. Each region is made up of its inhabitants – people. The region's geography and people form a culture unique to that region. Each region is distinctive and valuable in itself. It is a strong ground for all the regions and their inhabitants having the most equal opportunities possible to develop their strengths. We permit difference, for example, in social policy, and there is no reason why we would not accept it in regional policy. It is more challenging for some regions to keep pace with development than it is for others, and supporting them is sensible and right.

The traditional core idea of regional policy is that the regions identify their own strengths, with support from public funds. When the regions harness their own strengths as efficiently as possible, the region's greatest benefit for the whole of society, too, is in the form of taxes paid. Without subsidies, the situation could evolve in such a way that the region would be left to depend on some other system of society, for example, unemployment subsidies. In my opinion, regional development subsidies are a positive alternative, and also humanly right. I regard regional subsidies as a kind of short-term loan granted by society. Repayment takes place through taxes.

The ideological debate on regional policy at European Union level has intensified owing to the new financing period commencing in 2014. Sharing the money pot between different policy areas, and the internal defining of the criteria for an individual policy area, renders political reasoning two-layered. Firstly, one has to affirm the significance and topicality of the policy area under pressure from other policies. Secondly, one considers the various challenges within the policy area side by side. The subsidy criteria of regional policy have traditionally related, for example, to the low level of gross domestic product, geographical handicaps or sparse population. These criteria will surely hold their own still, but, alongside them,

other factors with a negative impact on regional development have also been identified. Finland has actively brought demographic factors into this debate, and in particular ageing, which affects it most of all of the Union's member countries.

One must not focus over much on the absolute quantitative development of ageing but, rather, its relationship to the population of working age should be examined precisely regionally. This viewpoint is a decisive factor in determining whether ageing presents a challenge for the region at all. We are well aware of the fact that the elderly are also an active part of the population and the needs for their services are not a burden in regions where the population of working age is relatively large. As a consequence of ageing, the maintenance relationship also weakens. In Finland, ageing affects Eastern Finland in particular. Similar regions are found especially in Western and Central Europe; that is why the challenge is common to the whole of the Union.

Ageing is a good example of a criterion that would in a way be a factor that levels regional policy as a whole. Large economies inside the Union began to shun regional policy, because as a system it was ending up such that it was seen to be necessary to level out only the Union's internal development disparities. An individual country's internal development disparities are nevertheless just as relevant when it comes to improving the competitiveness of the regions of the entire Union. In countries that are important in terms of their gross domestic product, it is precisely geographical and demographical factors that slow down overall economic growth. It is possible that Eastern Europe, with its young population, perceives regional development differently from, say, Germany, with its high GDP. In my opinion, however, part of the idea of the European Union is that, in principle, each European can feel that the Union works precisely for him or her. The idea is hard to justify if, for example, a region in Finland undergoing intense structural change cannot obtain EU subsidies for its new business ideas, even though it is one of the Union's net contributors. At its best, regional policy is the field that gives the Union a face of objectivity and solidarity at the same time.

The European Union is currently grappling with major objectives. Regional policy is one example of how the supranational level with respect both to funding and criteria produces better end-results than the national level. We in Europe must keep going along this path. Each era calls for solutions of its own. The European Union started out as a peace project and nowadays solves global challenges relating to the economy and environmental protection. The Union has simultaneously promoted its internal integration and enhanced its global worth. Europe will be in demand in future, too, both internally and externally.

Riikka Manner

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Nordic cooperation – as important as ever

By Ulla-Maj Wideroos

Denmark, Finland, Iceland, Norway and Sweden, the Nordic countries, have always been strongly linked to each other. For centuries they were ruling each other from time to time, forming strong unions and being the kingdoms of the north. Over time they developed a common language, Scandinavian, which most of their people could understand. Their cultures were similar, but with differences, and they could easily interact with and understand each other.

During the past century they have all become independent countries with their own characteristics. But they are still closely connected to each other. They have been cooperating in the Nordic Council and later also the Nordic Council of Ministers for decades and they have been trying to eliminate all kinds of barriers between their countries. Each and every citizen of a Nordic country is, for example, able to work in any other Nordic country and to travel freely, without a passport, to all Nordic countries. These are just two small examples of what the Nordic cooperation has brought to the Nordic people.

But how is it today? Are the people interested in a Nordic dimension? Does the cooperation matter anymore? Is the cooperation important – or is it a boring relic from ancient times, without importance and of no use to the modern people in the Nordic countries? Do a common language and an ability to communicate in Scandinavian matter anymore or is English being the world language, taking over? Do we need a Nordic cooperation when we are already part of broader European, transatlantic and global organizations? Are we, the people of the Nordic countries, interested anymore?

These questions are of much importance and I truly believe that we should spend a moment considering each and every one of them. It is a matter of fact that the European Union has gained much power during the past decades. Three of the Nordic countries, namely Denmark, Finland and Sweden, are also members of the EU. But Iceland and Norway are not. Within the EU only Finland is a member of the eurozone, so far both Denmark and Sweden are standing outside the monetary union.

There are differences, but one thing is common for our Nordic EU members – they have all transferred some of the decision making and legal powers from the national level to the European Union. Another thing they have in common is that they are small EU members in an expanding union. This means that it is becoming more and more important to cooperate and to find your allies amongst the other members, otherwise you will hardly be able to influence the decision making. The other Nordic countries and also the Baltic countries are natural partners in this effort.

One of the arenas for Nordic cooperation may have changed a bit, but most of the partners are still the same. The Nordic countries are built on the same values – and we need to cooperate to be able to defend these values within the EU. At this point I would like to

state that EU membership does not exclude excluding Nordic cooperation – instead it is showing the importance of Nordic cooperation – on all levels.

There are also other examples to be found, where the Nordic countries have chosen different roads. Denmark, Iceland and Norway are NATO-members, but Finland and Sweden are not. Despite cooperating with other organizations in slightly different ways, one choice has been clear from the beginning; the importance of the Nordic Council and the Nordic Council of Ministers. There is still a lot to do within the region itself.

New agreements and exchanges between the Nordic countries are still needed. There are several problems to be solved, regarding, for example, social benefits and taxes, when people are working and living in another Nordic country. It is still necessary to decrease the bureaucracy needed when moving from one country to another. Despite having overcome most of the big obstacles, a lot of work still remains. And the goal is clear; to have equal opportunities and rights in each country. This leads to another question, which has been discussed a lot lately; do we need a new Nordic Union? Personally, I don't think we are ready for that yet, but I do think we could take steps towards a single Nordic market, towards increased cooperation in higher education and towards a single labour market.

In the work towards an even more integrated Nordic region, we need to remember the importance of languages. The language debate in Finland today is of much sorrow to me. We need more languages, not less, to be competitive in a global world. And we need close partners with similar values. There are no other countries as close to us as the Nordic countries and I strongly believe that we need to communicate in Scandinavian or Swedish with these neighbours of ours. If you speak Swedish your working and studying opportunities are much larger. The Nordic countries are an important and valuable labour market – we need to speak Swedish to be able to access that market. And I truly hope that we are speaking Swedish also in the future.

Our history links us together; I hope that our dreams for the future will follow the same path, forming an important region in northern Europe. That region should be taking care of its citizens and it should be known for its high standards on human rights, equality and democracy. That region should be a role model for good governance and environmentally friendly living. That region should be formed by its own citizens. Is that a region you would like to form and live in?

Ulla-Maj Wideroos

Member of Parliament

Finland



The many faces of natural gas

By Arja Karhuvaara

Europe's increasing energy demand

As the economy recovers and new EU member states' industries and infrastructure develop, the demand for energy in the EU will inevitably increase. At the same time, energy prices will have an increasing impact on the competitiveness of European production compared to competing production regions like Asia, Indonesia and India.

We must develop cleaner forms of energy and wide-ranging distribution solutions in order to protect our climate, nature and health. The all-encompassing EU single market helps to stabilise energy prices and complements peaks in demand, and it should also secure operating conditions for industries and the functionality of societies everywhere in Europe. The need to save energy in order to conserve our natural resources and the need to put a full stop to the use of fossil fuels are creating new markets and industries all over the world. Energy-efficient construction and the development of renewable energy sources gradually reduce the demand for fossil fuels.

One suggested solution for the transitional phase is the already widely used natural gas, consisting mainly of methane and a gaseous mixture of other light hydrocarbons. Natural gas does not contain sulphur, heavy metals or solid impurities from combustion. In addition, it can be transported easily either in liquid form on ships or through pipelines. Its price is linked to the price of oil, and it is often based on long-term supply agreements signed with individual countries. This causes conflicts and sub-optimisations in the development of a common EU energy policy. According to the European Commission's statistics, just over 40% of the natural gas imported into the EU is from Russia, 24% from Norway, and 18% from Algeria. Cartel-like features have been detected in agreements harmonising production and pricing between some oil and gas producing countries.

Russia developing through partners

Russia is the world's largest natural gas producer. 60% of its export revenues come from the oil, coal, or gas trade, and around half of the government budget revenues come from production and export taxes and customs duties. Its economy has grown at a rate of about 7% in the 21st century. However, the mining and energy sector employs less than 3% of the working-age population.

Russia needs to undergo structural reform and develop its regional infrastructure. It needs foreign partners in reforming its economy and industry, but also in exploiting all areas where energy sources have yet to be tapped into because of challenging natural conditions or degenerated energy transmission networks. The country's own energy demand will also increase as its industry, economy, and citizens' wellbeing improve, as will its need of export revenues. Its national electricity and heat prices must remain attractive for foreign investors, but also at a reasonable level for individual citizens.

At the present rate, Russia's natural gas reserves will suffice for the next 80 years, and the government-owned natural gas company, Gazprom, gets 2/3 of its revenues from natural gas exported to the EU; a fourth of its entire production. Gazprom is actively seeking to expand its natural gas pipeline

network in Europe. How profitable is this expansion now that there is already a supply of natural gas in the market, the spot market price of which, mainly in liquid form, is lower than that of a long-term supply agreement with Gazprom?

Energy as a political weapon

Russia's active expansion of its supply of natural gas to Europe, e.g. through the new North Stream pipeline in the Baltic Sea and the South Stream pipeline under the Black Sea, is also a political opportunity. A long-term agreement with Kazakhstan and Turkmenistan ensures that natural gas from Central Asia will only be imported into Europe through Russia. The constant disagreements with Ukraine and Georgia and interruptions or reductions of gas supply into Europe are testament to the reaction speed of this natural gas supplier. Russia has also authorised Gazprom's security service to use military force and to protect Russia's interests and pipelines even outside of its borders. It is also interesting to watch Russia's attempts to interfere in the construction of a third, southern pipeline from Azerbaijan and Turkmenistan to Europe, supported by the EU and the U.S.A., through some German and Austrian groups. The Nabucco pipeline, financed by the European Investment Bank, the European Bank for Reconstruction and Development and the World Bank, would introduce a separate pipeline from Russia into Europe, competing with the Russian South Stream project. Energy policy is linked to both national security and trade politics. It is increasingly common to see former prime ministers and foreign ministers from Russia and Europe behind these companies. Denmark approved the northern pipeline once Danish fishermen were supplied with special equipment, France is negotiating warship contracts, Turkey attempted to acquire a 15% share in the natural gas passing through its soil through Nabucco and link this chip to its EU membership negotiations. Iran does not want to get involved in Nabucco because of its conflicts with the U.S.A., and countries around the Baltic Sea feel uneasy about the increasing presence of the Russian Navy in Arctic regions and the Baltic Sea. New Kremlin-approved management teams are leading companies that were in control of vital drilling areas. Run-of-the-mill energy politics?

Europe's self-sufficiency

The creation of self-sufficient European energy production and a single market, the exploitation of all energy sources and the construction of reserves and transmission networks are necessary elements of the reasonably priced, renewable and sustainable energy policy of the future. The possibility of transmitting Nordic energy to continental Europe helps to stabilise energy prices. Increasing reciprocity with Russia makes it unnecessary for individual countries to blunder and blunder and also develops Russia's market economy, which may strengthen Europe's connection to China and other developing economies. The creation of energy partnerships and distribution networks in Arctic regions will tell us how much political will exists to work hand in hand for the benefit of Russia and the citizens of the enlarging Europe.

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Arctic – the world's new playground

By Krista Kiuru and Vera Lindman

The Arctic region plays a completely new role in international politics. The region is becoming increasingly important in the political, economic and environmental spheres. Climate change, natural resources and rising oil prices have recently made the Arctic region extremely attractive for various actors. Moreover, it is believed that the melting Arctic ice opens new shorter transport routes via the sea.

The question on how to define the term "Arctic" is in itself an intriguing topic. Usually the Arctic region refers to the geographical area consisting of eight Arctic states. They are Iceland, Canada, Norway, Sweden, Finland, Denmark (due to Greenland and the Faroe Islands), Russia and the United States (because of Alaska). But in fact, the Arctic region is much larger, as it comprises 8 percent of the Earth's surface. Furthermore, not only the official Arctic states but also other countries, such as China, Japan and South-Korea, as well as international companies, are keen to utilize the new possibilities of the Arctic in the future.

Especially the members of the Arctic Council share regional security policy interests in the coming years and it is likely that military activities and presence will continue in the area. Nevertheless, international experts today tend to claim that the Cold War era and time of confrontation is over in the Arctic and that now is the time for cooperation. Yet, the question is: how will all these actors be able to coordinate and develop the needed cooperation and which are the challenges created by the amount of various actors?

The Arctic states form the Arctic Council, which is the existing and recognised intergovernmental body promoting cooperation, coordination and interaction among its members. In order to develop the cooperation further, Finland has actively been promoting an Arctic Conference at the highest level. It would give a new direction to the Arctic cooperation and perhaps become a milestone in the development of the Arctic Council.

However, increased economic activity and shipping, even if organised in a cooperative atmosphere, could also create new forms of security challenges for the Arctic states. Are the states with an Arctic coastline prepared to deal with an environmental catastrophe like the one in the Gulf of Mexico or even with a smaller accident? The Arctic is an enormous area with an extremely vulnerable and unique nature. Damaging the nature could also endanger the indigenous people's traditional ways of living and livelihood.

In recent years Finland has realized the importance of outlining the goals and resources of its Arctic policy, as well as monitoring implementation. Even though

Finland does not have an oceanic coastline, it has profiled itself as an Arctic and Nordic state. Finland wants to be, and is undoubtedly, a significant Arctic actor with its own strategy. Finland's asset and potential is considered to be its knowhow in technology and shipping with regard to the Arctic, as well as in environmental protection. Moreover, Finland can also bring added value to Arctic research. The idea of establishing an EU Arctic Information Centre in the city of Rovaniemi as a part of the Arctic Centre of the University of Lapland is very welcome in Finland.

Finland is not the only one among the Arctic and other states to have already drawn up an Arctic strategy. It is in the interest of the international community to deal with Arctic questions by increasingly closer cooperation. Therefore, the status of the Arctic Council should be further strengthened in order to ensure that it remains the key platform of international Arctic cooperation. In addition, the work of the Arctic Council and Arctic matters should be promoted within the various levels of the European Union. The EU should also gain an observer status for the Arctic Council in the future.

The Arctic region is the world's new playground. Therefore, the questions of the Arctic should not remain solely an issue for politicians. Civil society can and should play a more active role in the coming years. Throughout its history STETE (the Finnish Committee for European Security) has had an important role, particularly in raising awareness of new issues related to international security. We will continue with our frequent awareness-raising on security-related topics of the world's new playground also in the future.

*The Finnish Committee for European Security
(STETE)*

*Krista Kiuru
Member of Parliament
STETE's Chair*

*Vera Lindman
Secretary General
STETE*

Finland

Foreign direct investments in Baltic States – lessons learned and prospects for the future

By James Zhan and Astrit Sulstarova

The Baltic States – Estonia, Latvia and Lithuania – have been through an experience of contrasting performance in their transition period. Impressive growth rates were recorded for more than a decade driven by domestic demand linked with rapid financial deepening. Starting in 2007 the boom turned into bust as the build up of external and internal imbalances proved to be unsustainable. Mirroring these dynamics, foreign direct investment (FDI) flows to Baltic States leapt 7-fold between 2000 and 2007, followed by a sharp decline in 2008 and 2009. As economic recovery takes shape, it is the right time to raise the question how FDI evolved during this period and what are the FDI prospects for the future.

The Baltic FDI boom of the mid-2000s was driven by several factors. Investors from Northern Europe, in particular, were eager to leverage their financial positions and stock market gains in projects carried out in the Baltic States. The latter were attractive locations for those investors due to their geographical and cultural proximity, impressive economic growth, and the new business opportunities resulting from the transition to a market economy and EU accession. The dynamics of FDI flows was determined by one-off large privatization-related deals, and more recently by greenfield projects. During the boom period, all three components of FDI – equity capital, reinvested earnings and other capital (mainly intra-company loans) – played an important role in FDI directed to the Baltic States. Over time however the share of reinvested earnings was on the rise, from 20% in 2000 to more than half in 2007¹, at the expense of new equity investment.

During the boom years, financial intermediation and banking attracted the lion's share of FDI. In 2005, in what remains the largest FDI deal ever for the three countries, Swedish Swedbank took over the Estonia's Hansabank, which had several affiliates in Latvia and Lithuania. Other industries in the services sector targeted by foreign investors included trade, transport and storage activities, benefitting from the subregion's geographical position as a transit hub, as well as telecommunications, in which the Baltic States undertook major efforts towards modernization. As a result, the bulk of FDI inflows during 2000–2007 targeted domestic market oriented services. Manufacturing was less preferred by investors; there

were, however, sizeable projects in downstream hydrocarbons, cement, paper, wood and alternative energy industries.

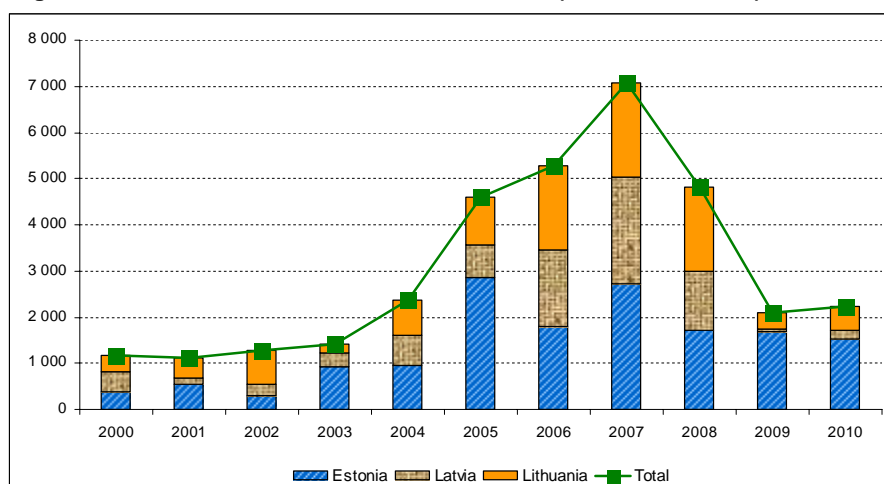
There were some notable differences between the three Baltic States in terms of FDI in the boom period. Estonia – the smallest of the three – was the leader in the transition countries in terms of inward FDI per capita. Lithuania – the largest of the three – attracted 35% of FDI stock in manufacturing. Latvia attracted a major part of FDI from neighboring Estonia, which became the largest investor in the country.

By the end of 2007 the global financial crisis pushed the Baltic countries into a severe recession. Unsurprisingly, FDI also declined in 2008 and 2009, by 32 and 56 per cent respectively, as both cross-border mergers and acquisitions (M&As) and greenfield investments fell. Reinvested earnings turned negative, and intra-company loans dried out, particularly in the financial sector. However, foreign banks in the Baltic States demonstrated a long-term commitment to the region by providing liquidity to their Baltic operations during the worst stage of the crisis in October 2008. Despite the fact that foreign investment continued to flow in 2008, albeit at a much reduced pace, FDI inward stock declined for the first time in these countries, reflecting a falling asset valuations. The industry composition of FDI also changed in 2008 and 2009: in Estonia the financial sector continued to account for the lion's share, but in Latvia and Lithuania there were large divestments in the services sector, while investments in manufacturing continued.

FDI flows to Baltic countries recovered slightly in 2010, to an estimated \$2.2 billion mainly due to gradual improvement of macroeconomic conditions, recovering corporate profits and stock market valuations. Recovery proved to be uneven: while greenfield investments rebounded, cross-border M&As remained subdued. From 2011, prospects for FDI in the three countries are expected to improve, as the key factors driving their FDI such as growing per capita income, relatively low labor costs in manufacturing, low investor risk as measured by credit risk premia are in place now. In addition, in Estonia, institutional strength and financial stability, linked to the country's entry into the euro zone on 1 January 2011, will give further impetus to FDI flows.

¹2005 was an exception

Figure 1. FDI flows to the Baltic States, 2000–2010 (Billions of dollars)



Source: UNCTAD. *Preliminary estimates.

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Health care reform in the Russian Federation

By Maria Gaidar

Russia as many other countries is facing the need to reform its health care system. Demographic changes, advances in medical care technologies, and higher expectations of patients put an upward pressure on spending. Budgetary constraints drive the need to seek the highest return on this spending as well as look to for financial sustainability in a long run.

For Russia the agenda is even more urgent. Despite 20 years of transition, Russian health care system resembles the Soviet socialist model. There are more physicians, hospitals, and healthcare workers per capita than almost any other country in the world. At the same time, life expectancy is now just 68 years at birth, which is nearly 12 years shorter than the overall average for the European Union or the United States. Even though social factors such as high alcohol consumption, stress, smoking, traffic accidents, and violent crimes are significant contributors to mortality, an essential factor is a healthcare system that cannot adequately meet today's challenges and is not yet modernized.

For the past 20 years many efforts have been made to improve the situation but the Health care system remains overly underfunded, fragmented and inefficient.

Country	Doctors/ 10000hab.		Nurses/ 10000 hab.		Hospital beds/10000 hab.	
	2005	2010	2005	2010	2005	2010
Australia	24.7	25	91.2	109	40	39
Germany	33.7	35	100.5	80	89	83
Greece	45.3	54	31.0	35	49	48
Israel	36.7	36	62.0	61	61	58
Italy	44.6	37	61.9	69	41	39
USA	27.9	27	97.2	98	34	31
France	33.5	34	73.0	81	78	72
Russia	42.5	43	85.1	85	105	97
Japan	20.1	21	86.3	95	147	139
World av.	12.3	14	25.6	28	26	27

Source: WHO report.

Constant underfunding makes technological development difficult and, importantly, stimulates illegal side payments from the population to medical personnel.

Country	% in GDP		Share of government spending		Share of government spending in all spending		Government Spending per capita a year in US dollars	
	2000	2007	2000	2007	2000	2007	2000	2007
Australia	8.3	8.9	66.8	67.5	15.3	17.6	1728	3986
Germany	10.3	10.4	79.7	76.9	18.2	18.2	2372	4209
Greece	7.9	9.6	60.0	60.3	10.1	13.2	919	2679
Israel	7.7	8.0	62.8	55.9	10.2	10.1	1557	1893
Italy	8.1	8.7	72.5	76.5	12.7	13.9	1541	3136
USA	13.4	15.7	43.2	45.5	17.1	19.5	4703	7285
France	10.1	11	79.4	79.0	15.5	16.6	2256	4627
Russia	5.4	5.4	59.9	64.2	9.6	10.2	96	496
Japan	7.7	8.0	81.3	81.3	16.0	17.9	2827	2751
World av.	9.2	9.7	57.9	59.6	14.5	15.4	481	802

Source: WHO report.

In 1993 a mandatory health insurance fund was introduced. After 18 years the level of funding pooling remains low: budgetary allocations are not pooled within mandatory health insurance (MHI) leading to the fragmentation of financial flows and inconsistency in health care purchasing. There are great distortions in

funding and delivery across Russian regions. The same compulsory medical insurance program varies from 2 603,1 rubles per capita a year in Ingushetia to 15 373, 3 in Moscow to as much as 33 132 in Chukotsky Region. It is hardly possible to guarantee the same range and quality of basic medical services, with spending per capita varying more than 10 times.

Despite constant effort to eliminate excess bed capacity and create incentives for primary health care he substantial distortions in the structure of service delivery remain. Almost one third of the populations are hospitalized at least once a year with an average duration of stay of around 10 days. In some municipalities of Kirov Region people stayed 30 -40 days a year on average which means that a significant number of people stayed in a hospital about three months during one year.

Another example of unaccomplished reform is insurance: more than 300 private insurers and numerous public ones now coexist in the market. In many cases, they are passive intermediaries, making money by simply channeling funds from regional Mandatory Health Insurance funds to healthcare providers for a fixed fee. They are paid 2-3% from payments to providers financed by MHI Fund. They don't bear any risk and cannot get any additional revenue. That is why the insurance companies do not have incentives for cost-effective interventions.

The Government of Russian Federation started a new Health Care reform. At the end of 2010 a new "Law of Mandatory Health Insurance in Russian Federation" was adopted. Its main changes are related to finance mechanisms and introduce competition of insurance companies and providers.

From 2011 the payroll tax rate for mandatory contribution to Health Insurance Fund will increase from 3,1% to 5,1%. Presumably this will bring additionally 230 billion rubles year (6,7 billion dollars) to the Federal MHI fund. During the first transitional years 2011-2012 this money will be distributed to regions as subsidy for reequipping of state and municipal providers. From 2013 the resources will be channeled from Federal Health Insurance Fund to regional Funds In order to level off the coverage of basic medical services across the state. Along with compulsory tax contributions regional authorities will have to make a legally mandated per-capita insurance contributions on behalf of non-workers that will bring additional 240 billion rubles to MHI.

From 2011 employers and insured persons are given the choice of insurance companies. They can also choose a health care provider that participates in the mandatory health insurance system. The Mandatory Health Insurance Fund cannot deny access to any provider no matter whether it is private or state owned. This measure aims to create incentives for providers and insurance companies to increase efficiency and quality of medical service and to attract private investment. At the same time it contradicts the need of global budgeting and does not encourage limiting unnecessary utilization of medical care.

According to the new law insurance companies still do not bear any financial risk for the insured. But now they can receive 30% remuneration if they find excessive medical services at the side of providers. It is difficult to predict how effective this could be in reducing excess treatment but still this measure does not create any stimulus for preventive care and early diagnosis.

This reform seems interim. Many problems remain unsolved and many measures are not consistent one with another. But it is still an important step forward for Russia. These measures could be a good financial platform for future changes. Russian health care system still needs to find a reasonable balance between coverage quality and cost, and introduce incentives to

keep the balance. There is a strong need to create a system of check and balances and find a right place for insurance companies, doctors associations, and NGO's. This will be an important agenda in Health care for the next decade.

Maria Gaidar
Deputy Governor
The Kirov Region
Russia



Mecklenburg-Vorpommern as logistics hub for Baltic Sea transport

By Volker Schlotmann

Mecklenburg-Vorpommern is situated right at the Baltic Sea - and in the middle of Europe, between the European centres of Berlin, Hamburg, the Øresund region, the Baltic states or St. Petersburg. European transport axes intersect in Mecklenburg-Vorpommern: In the East-West direction from the regions around the North Sea to the Baltic states and on to Russia, and also in the North-South direction from Scandinavia all the way to the Adriatic Sea. That is a locational advantage. Efficient ports, well developed transport routes and room for growth make sure that, already today, the federal state is able to benefit from international traffic flows. The ports are not just places of transshipment nowadays, they are also industrial and logistics sites. The aim is to be able to respond quickly to requests for space from investors in order to allow for further industrial location and jobs to be created. That is why the area available is being extended against the background of growth forecasts up to 2025.

Both the ports and the industrial sites are very well connected with the German motorway network. In some cases the motorways go right up to the quayside. By now the federal motorways A 19, A 20 and the A 24 connect the metropolis regions of Berlin and Hamburg with the Baltic ports. The motorway network will be extended further with the completion of the A 14 to Magdeburg which is expected by 2020.

Via Mecklenburg-Vorpommern to Lithuania and Russia

Thanks to short sea routes we offer an efficient transport infrastructure to the Baltic states and Russia. In order to assure competitive connections to Lithuania and Russia via our Baltic Sea ports, among others, around 40 partners from Denmark, Sweden, Lithuania and Russia jointly work on improving the East-West transport corridor in the so-called Interreg project EWTC II (East-West Transport Corridor). The project has a term of three years.

Furthermore, Russian and German representatives of political bodies, authorities, companies and institutions have been working for several years on establishing an intermodal railway ferry link between the new port of Ust-Luga west of St. Petersburg, Baltijsk in Kaliningrad Oblast and Sassnitz on the German island of Rügen. The German-Russian ferry advisory council Ust-Luga – Baltijsk – Sassnitz was established in July 2008 in order to remove administrative obstacles such as customs issues and border clearance procedures. Today the shipping company Finnlines already operates vessels to Ventspils (Latvia) and St. Petersburg (Russia) via Sassnitz twice a week.

The largest port in Mecklenburg-Vorpommern is Rostock seaport. All told it has 150 companies with approx. 4800 jobs in port services and logistics. The new areas being developed will add an estimated 500 jobs, possibly more. All the ports of Rostock combined handled approx. 25 million tonnes of goods in 2010.

Well-developed transport routes in all directions

Apart from the East-West connections the North-South axis through Mecklenburg-Vorpommern also plays an important role. Already today the so-called Baltic-Adriatic corridor offers modern, flexible infrastructure with few traffic jams. Intermodal transport in particular benefits from an efficient logistics chain. Apart from ferry and ro-ro connections from the ports of Rostock and Sassnitz to Gedser and Trelleborg, there are also cargo trains running, for instance, from

Rostock to Verona and Basel. The state government actively advocates integration of the hinterland connections especially of the two ports of Rostock and Sassnitz into the system of trans-European transport networks (TEN-T). The directives currently in force for the trans-European transport networks are due to be revised still this year (2011).

In doing so the focus will be on the best possible use of existing transport routes. Transport is to be made more efficient and selected transport axes and junctions are to be upgraded even more. Furthermore the EU transport policy is meant to make a contribution to the targets of climate policy agreed on a European level.

Interlinking the current priority projects will play a special role in determining a 'core network', i.e. a priority network of transport connections. The obvious thing to do would be to link the priority projects No. 1 (Berlin-Palermo rail connection) and No. 22 (Dresden-South-Eastern Europe rail connection) with priority project No. 12 (road and rail connection 'Northern Triangle' between Oslo, Stockholm and Helsinki) via the ports of Rostock, Sassnitz, Gedser and Trelleborg. The bridge function between Central Europe and Scandinavia may be performed by the priority project No. 21 ('Motorways of the Sea').

The granting of both 'Motorways of the Sea' projects, Rostock-Gedser and Sassnitz-Trelleborg, by the European Commission advocates the inclusion of the ports of Rostock and Sassnitz in the future core network.

Apart from the EWTC II project already mentioned the two projects 'SoNorA' and 'SCANDRIA' are about transport in the Baltic-Adriatic corridor, i.e. from Scandinavia via the ports of Rostock and Sassnitz to Munich and Verona (TEN 1) or via Dresden and Prague to South-Eastern Europe (TEN 22) and to the Adriatic ports. While 'SCANDRIA' focuses on the Baltic Sea region we cooperate with partners from Italy, Austria, Slovenia and the Czech Republic, among others, for 'SoNorA'. The 'SoNorA' partners pursue the aim of creating a North-South network as the basis for regional development in Central Europe.

In this, the development of transport axes via Mecklenburg-Vorpommern is an important precondition for creating logistics chains and thus for developing our federal state into an efficient European logistics hub and a good industrial location. This does not only mean increasing cargo handling volumes for the ports in Mecklenburg-Vorpommern, the entrance gate to the Baltic boom region, but also economic growth for the entire industry involved in logistics in the hinterland all the way to Berlin and Brandenburg.

Volker Schlotmann

Minister for Transport

*Building and Regional
Development of
Mecklenburg-Vorpommern*

Germany



Baltic Sea organisations put budgetary pressure on EU decision-makers

By Knud Andersen

These days the budget discussions are high on the EU agenda. EU needs a budget reflecting the need for growth and new jobs. For this reason, the next financial perspective (2014-2020) must focus on international cooperation and give priority to the policy areas ensuring growth, development, innovation, research and transfer of knowledge. Being closest to the regional challenges and hence the solutions, the regions play an active role in enhancing the European competitiveness and create sustainable growth and new jobs.

The regional and local growth strategies are essential to ensure the interaction between public authorities, research institutions and business. Through the EU programmes the regional and local authorities support this cooperation and add on the knowledge and development that has already been created in the European regions and municipalities. Thus, the regional and local authorities work as engines for growth.

In order to create growth and new jobs in the EU all regional and local authorities have to be seen as driving forces along with the cohesion policy. Commission figures show that the cohesion policy helped to create 1.4 million new jobs and provided training for millions of European citizens between 2000 and 2006.

The regional organisation of BSSSC (Baltic Sea States Sub-regional Co-operation) wishes to contribute actively to the ongoing debate and is in support of maintaining structural funds to all regions after 2013. The BSSSC along with two other Baltic Sea Organisations urge the decision-makers to put weight on those parts of the EU budget that support Europe 2020. I have been appointed BSSSC coordinator and spokesperson on the topic.

The Baltic Sea Region is already a dynamic region characterized by high levels of trade and cooperation, but still it has a huge potential for further development and prosperity. The EU's structural funds play an important role in this. In this context five key messages are of special concern for the Baltic Sea Organisations.

First of all, EU regional policy must cover all EU regions. The regional programmes and funds are designed to bridge the difference in prosperity and development to the benefit of all. Only by supporting all areas, it is ensured that the potential of all regions and municipalities are used to enforce the overall European growth and thus to support Europe 2020. In an increasingly globalised world, growth in one region leads to the creation of new jobs in another region. Moreover, regional and local investments lead to growth and prosperity not only for the region or municipality but for all of Europe.

Secondly, the European Territorial Cooperation (Interreg Programmes) should be strengthened. Interreg is an integrated part of the Cohesion Policy. The Interreg programmes supporting cross-border, transnational and interregional co-operation have shown good value for money. To the benefit of the whole community, the Interreg programmes have contributed to diminishing border barriers and increasing exchange of experiences on best practices within many fields between partners from two or more countries.

Thirdly, the EU Baltic Sea Strategy is of great importance to the Baltic Sea Organisations. After 2013 the transnational programmes should be programmed specifically for the support of the macro-regional strategies, e.g. the Baltic Sea Strategy. The macro-regional strategies will thus constitute the strategic framework behind the use of the transnational

Interreg funds. At present, the financial support for the Strategy for the Baltic Sea Region is not satisfactory because various programmes, e.g. national programmes, have supported the strategy without any coordination. The European Parliament should maintain a budget post for the coordination of the implementation of the Baltic Sea Strategy, as was the case in the EU budget for 2010.

Fourthly, the Baltic Sea Organisations stress that rural development resources should to a higher degree serve to promote the business opportunities and economic development in rural areas. The EU rural development policy should be seen in close connection with the cohesion policy. Activities such as creating more jobs and making rural areas more attractive places to live in should be given higher priority.

Finally, the Eight Framework Programme for Research (FP8) must be added the extra funds needed to support the Europe 2020 goals. Particularly cooperation between industry, government and the knowledge institutions should be strengthened. A greater emphasis in the coming FP8 on innovation, commercialisation, technological development and development of key technologies is needed in order to substantiate the Baltic strongholds within these fields. Strengthening research, science and innovation communities will render the region as a whole more competitive and also benefit the development of the European Research Area in general.

The position paper presenting these five messages has already been distributed to a wide circle of policy-makers and administrators in Brussels, such as commissioners, CEMR's working group and the Baltic Europe Intergroup in the European Parliament.

The Baltic Sea Region is Europe's first macro region representing over one fifth of the EU's total population and one sixth of its economy. Inter-territorial cooperation has already fostered mutual understanding between neighbouring regions and promoted high-quality political and economic relations. This has made the region more competitive and attractive. This has to a large degree been possible due to the structural funds. However, more efforts are needed. A first step has been taken by the Baltic Sea Organisations by working together to ensure the resources for future growth and new jobs. We look forward to contributing further to the negotiations on the EU budget 2014-2020.

Knud Andersen

Member of the BSSSC Board

*Member of the Board of
Danish Regions*

Denmark



The Baltic Sea States Sub-regional Co-operation (BSSSC) is a political network for decentralised authorities in the Baltic Sea Region (BSR). It co-operates closely with other key institutions in the BSR and Europe.

Arctic challenges – a Finnish view

By Hannu Halinen

The Arctic Strategy of Finland

In the Arctic the move towards a state change – the Arctic Tipping Points – has been recognized during the last few years by the circumpolar governments as well as researchers. What used to be considered periphery is becoming the center of global politics. This has led to national assessments and reassessments of the situation. In Finland we have approached the new Arctic challenges and opportunities by adopting the national Arctic Strategy. Our basic principle is that Arctic issues should be dealt with in a rules based-multilateral framework with an emphasis on comprehensive security and environmental sustainability.. All Arctic and non-Arctic actors need now to remain committed to an approach based on constructive cooperation, not confrontation.

The Finnish Arctic Strategy from June 2010 draws together views on Arctic issues in one package and provides an assessment of the challenges and the potential of the region from a Finnish perspective. The Strategy defines our goals in the Arctic region as well as the means to reach them; it deals among other issues with the utilization of Finland's Arctic know-how and research, institutional issues, and regional cooperation; and it emphasizes the importance of environmental matters and questions related to the indigenous peoples.

The opening of the Arctic Sea offers new perspectives for exploitation of natural resources in energy, mining and fish-stocks. New sea routes attract both tourists and commercial transport. Finland has wide Arctic expertise and knowhow to offer in this context. A key issue for Finland – and I believe to all stakeholders in the Arctic - is to combine economic activities in the Arctic with environmental concerns, keeping sustainable development as the basic platform.

The utilization of the regions natural resources require both know-how, caution and responsibility as compatibility with the principles of sustainable development is necessary due to the fragile nature. We for our part believe that education, research and application of our Arctic expertise is the key to a responsible exploitation of the Arctic. Finland has plenty to offer in this regard as we have strong traditions in winter shipping and technology, shipbuilding, as well in offshore industries, such as oil and gas rigs and vessels needed for Arctic circumstances.

The Arctic Council

The Arctic Council is the primary intergovernmental forum to deal with Arctic policies. Last summer the Foreign Minister of Finland, Mr. Stubb, presented some concrete proposals on the strengthening of the Arctic Council, such as the establishment of a permanent secretariat for the Council; better burden sharing with a joint budget; review of the Council's mandate and improvement of its' working methods; and the role of observers.

Enhanced interaction between Arctic and non-Arctic stakeholders and players is indispensable – an integrated approach requires engagement from all with legitimate interest in the Arctic. The eight Member Countries have concluded that the Council is the platform for Arctic considerations. This includes the bilateral as well as cooperation between five coastal states, on one hand, and indigenous peoples, observer countries, institutions and organizations on the other. The Arctic Council Foreign Ministers meet in Nuuk in Greenland in May 2011. In our view a firm decision on observers at that meeting is indispensable for the future of the Council.

Finland has also proposed a meeting at the top level to discuss the Arctic issues. This First Arctic Summit, under the auspices of the

Arctic Council, would give new direction to the Arctic cooperation and become a milestone in the development of the Council itself. An Arctic Summit should not be seen solely as a supporting track in the process of strengthening of the Council. The high profile attention given by the Heads of States of the Arctic countries could substantially contribute to the reaffirmation of the multilateral and rules-based approach we are witnessing in the Arctic today. Idea of an Arctic Summit is not new, it has been raised by researchers during the years. A serious consideration of the initiative gives in itself an added value and content to the emerging region with global reach. The Summit would have a major impact in reaching "High North with Low Tension".

The European Union

The Arctic policy of the European Union is to some extent still a work in progress. During 2008 and 2009 we have seen the European Commission and the European Council publish Arctic Communications and Conclusions that have laid the foundation for Arctic thinking within the Union. Finland will continue to assist to shape the Union's Arctic policies for the years to come. A new Communication is currently under preparation in the Commission. This will be, we are confident, a step again to the right direction.

The European Parliament has consistently contributed to the formulation of the EU's arctic policy with resolutions, statements and conferences. The Parliament recently adopted a much awaited "Report on a sustainable EU policy for the High North". Finnish Members of the European Parliament took actively part in the preparations of the Report. The latest Report will undoubtedly be duly noted in discussions within the EU institutions, including the Commission while preparing its Communication.

To support EU's Arctic policy and increase its visibility Finland is proposing the establishment of an Arctic Information Center for the European Union. EU's Arctic Information Center would be essential for awareness raising on Arctic issues both within the Partner countries and outside the Union. There is an obvious need both among the public, as well as decision makers and the scientific community in gaining easy access to information relevant to the Union's Arctic policies. The Saami, as the only indigenous people in the EU, could have a specific role in the Center. Our candidate for hosting the EU Arctic Information Center is Rovaniemi. The Arctic Center at the University of Lapland in Rovaniemi would be the best location for the Center for a number of reasons, the most important being the strong and internationally acknowledged cross-disciplined scientific Arctic research conducted at the Center. The Arctic Center already serves as the hub of the existing network of Arctic Universities, known as UArctic.

Another dimension of EU's arctic policy is the concept of so called Arctic window of the Northern Dimension policy of the EU. Geographically, the region covered by the Northern Dimension closely coincides with the Barents Euro Arctic Council. In our view, as a first step, there is an added value in the synergy and positive overlapping between the Northern Dimension Partnerships and the Working Groups of the Barents Council. The ND Partnership on Environment has demonstrated the viability of the concept. The newest Partnership on Transport and Logistics is particularly relevant in dealing with the development of harbors and transport corridors leading to them from mainland. This could be the platform to extent the cooperation broader to the Arctic.

Hannu Halinen

Arctic Ambassador

Ministry for Foreign Affairs

Finland



Modernisation of Russian economy in collaboration with Finnish partners

By Valery Shlyamin

The global financial-economic crisis has yet again revealed weak spots in domestic economy – oil and gas sector dependence, traditional raw-material export orientation, low rate of economy and external trade diversification, high labour intensity and power consumption of industry, insufficient receptivity to innovative proposals, lack of market development in broad sense of the term, low labour output and wage, domestic financial market underdevelopment.

The crisis has shown that Russia requires undelayable economy modernisation. At that taking into account relative limitation of state and corporate financial resources that could be invested in modernisation process it stands to reason that the state should target its efforts and resources at a rather narrow list of modernisation priorities with a view of achieving structural improvements by 2020 and directed at attainment of the Russian economy competitiveness in chosen fields.

President Dmitry A. Medvedev approved a list of priority fields for modernisation and technical development of Russia: medical technologies and pharmaceuticals, energy efficiency, nuclear technologies, computer technologies and software, space technologies and telecommunications. Implementation of the above priority tasks is carried out by federal and regional bodies in cooperation with companies, scientific community and higher education institutes. Within this process major importance is attached to the external economic factors such as foreign investments, technologies import, hiring of qualified foreign specialists, added-value goods export development, scientific, technological and production cooperation.

Finland is in full sense one of the Russia's strategic trade and technological partners in Europe. It's non-random that in the course of Finland's President Tarja Halonen visit to Moscow in November 2010 Russian leadership proposed to sign a Declaration on partnership for modernisation. The Declaration is expected to contain approved plans of both parties and an appendix of perspective projects implementation of which will enjoy state assistance.

I presume that proposed partnership will evenly contribute to economy modernisation goals achievement in Russia as well as in Finland. Our Finnish partners are experienced in technological projects commercialising with full chain path: "idea – invention – technological trials / market testing – certification - product marketing". We expect that Russian-Finnish modernisation partnership will contribute to creation of tools providing for the various projects implementation within the modernisation priorities designed on the basis of Russian specialists' technology.

Among the project ideas proposed for discussion I would like pick out a number of projects within the fields of telecommunications, computer technologies and software, energy efficiency, medical technologies and pharmaceuticals developed with participation of such well-known companies as "Nokia", "Nokia Siemens Networks", "Fortum", "Farnos" and others.

The Trade Representation of the Russian Federation in Finland is working on continuation and intensification of business cooperation between Russia and Finland also in other economy fields, expanding of production cooperation between our countries in various forms including subcontracting. The most promising sector of cooperation between Russia and Finland from the point of view of production cooperation expected outcome is shipbuilding.

Freight management on the Northern Sea Route, development of new oil and gas deposit fields will demand vigorous efforts on creation of fleet that would be capable of fulfilling the national Arctic strategy. Russian shipyards can provide no more than 30% of the new first class ships demand as calculated up to 2030. Finland is one of the world's shipbuilding leaders and old-time USSR and Russia partner. In this sector Russia has also gained a unique practical experience and created considerable scientific potential. As is well known in 2009 Russia and in 2010 Finland have adopted national Arctic strategies. At this point we consider it expedient to reveal the points of intersections between the two countries' strategies. In all probability this task should be solved by means of intergovernmental dialogue because the matter in question concerns spatial planning in

the mega region. Russian and Finnish companies displayed eagerness for joint projecting and building of maritime ships (Arctic class tankers and gas carriers, ice-breakers), modern depot drilling stations necessary for development of new hydrocarbon deposit fields in northern seas with use of Russian technologies as well as Finnish "know-how".

Shipbuilding cooperation is not limited to direct vessel construction. This sector implies interaction of the wide spectre of machine-building and instrument-making enterprises involved in design, production and maintenance of diverse equipment as well as metallurgical companies and chemical industry enterprises.

At present time a number of perspective Russian-Finnish projects are being successfully implemented within the framework of production cooperation. These are: construction of Arctic tankers in Russian shipyards under Finnish license; production of low-speed vessel engines with use of Finnish technologies on the Russian enterprise; joint design of multifunctional diesel-electric ice-breaker with capacity of 25 megawatt for operation in the Arctic region; joint construction of ice-breaker for oil-overflow counteraction in the Gulf of Finland; joint design and projecting of drilling stations; propulsion systems production; supply of Finnish azipod propulsion systems for ice-breakers built in Russia; supply of Russian screw propellers and spare vanes to Finnish shipbuilders. These projects are being implemented by Russian companies "Objedinennaya sudostroitel'naya korporatsiya" (Joint shipbuilding corporation), "Sovcomflot", "Admiralteiskie verfi" (Admiralty shipyards), "Petrobalt", "Baltiyskiy zavod" (Baltic plant), "Rosmorport", Bryansk machine-building enterprise, "Zvyozdochka" (Star) with Finnish companies "STX Finland", "Aker Arctic Technology", "Wärtsilä", "ILS", "ABB Marine", "Steerprop", "Raahen Tevo", "SET Group". Companies "STX Finland" and "Objedinennaya sudostroitel'naya korporatsiya" (Joint shipbuilding corporation) have started a joint venture "Arctech Helsinki Shipyard" for joint production of high-level technology Arctic class vessels. The Agreement on production of two multifunctional supply ice-breakers for "Exxon Neftegaz" company in Sakhalin has already been signed.

Collaboration in the field of production cooperation is also carried out in other branches of machine-building. The perfect example of it is the long-term cooperation between companies "Metso Paper" and ZAO "Petrozavodskmash": The Russian enterprise produces accessories and assemblies for paper-making machines. In May of 2010 Finnish company "Wärtsilä" and ZAO "Transmashholding" signed a contract on starting a joint venture in Russia for production of modern multifunctional economy-type and environmentally safe diesel engines "Wärtsilä-20". Partners started a holding company which will set up diesel-making enterprise in the city Penza for assemblage and testing of engines and production of major engine parts.

One cannot but mention possibilities provided by Finnish companies in Russian pulp and paper and wood industries. Modernisation of Bratsk and Kotlas pulp and paper plants is carried out with significant assistance of Finnish machine-building companies "Metso" and "Andritz". New saw-mills in the Russian Far-East and East Siberia are supplied by companies "Järtek" and "Heinola Saha Koneet". Projects on construction of new pulp and paper mills are under preparation. We expect active participation of Finnish business in these break-through projects and are ready to render needed assistance to them.

Valery Shlyamin

Doctor of Economics

Trade Representative of the Russian Federation in Finland

Russia

Finnish presence in St. Petersburg

By Olli Perheentupa

Tsar Peter I founded his new Capital in the middle of what Pushkin later called Finnish marsh and swamps. In 1809 the Grand Duchy of Finland was established within the Russian Empire. A new Minister State Secretary's office presented all affairs concerning the Grand Duchy directly to the Emperor. We had even a passport expedition for issuing documents to Finns who came to work in St. Petersburg. In 1880 there were 24400 Finns in the City, more than in Turku, the second largest town of the Grand Duchy.

Till 1809 'Finland' was economically and administratively an integral part of Sweden. The separation from Sweden took actually several decades when the economy of the Grand Duchy very slowly turned from the West to the East. The Imperial Capital imported goods, hands and heads. Most Finns worked in handicraft and factories, but there were also generals, admirals, academicians or masters in jewelry and chimneysweeps etc. Several Finnish entrepreneurs were successful, e.g. in grain trade, foundries and shipping. Actually we might say that Finns enjoyed much of what would be in modern terms called four freedoms: free movement of goods, services, capital and persons.

Now St. Petersburg is by population the fourth largest City of Europe. Together with the surrounding Leningrad region it forms an integrated economic area, with a population of more than 6 million people. This area is one of the most important growth centers of the country and the most important corridor for foreign trade. Finland has three main trade partners: Germany; Sweden and Russia, each with a 10 % share. In regional terms St. Petersburg is our most important export area.

The main sectors of our export are machinery, equipment, chemicals, food, but also services incl. tourism. Today, according to our rough estimation, there are 400 - 500 Finnish companies active in the City. Finnish companies have invested in Russia over 6 billion euros. Direct investments have been made by 100 companies. Finnish enterprises employ 50 000 persons. We do not have any regional statistics, but it is clear, that most investments are concentrated in St. Petersburg and Leningrad region. According to the Russian statistics Finland is St. Petersburg's fifth trade partner and the third among investor countries.

Just to give a few examples. of larger investments: In retail trade Stockmann's flagship in Russia is the new Nevsky Center in the heart of the City. Kesko has 8 K-rauta hardware stores, S-group 5 Prisma supermarkets and three hotels. In food sector we have Fazer Bakeries, Kotipizza, Atria's meat processing Pit-Product, Valio (milk products) are well known. In construction sector we have YIT, SRV, Lemcon, NCC Finland, in production of construction materials there are also several companies real estate Sponda, in banking and finance sector Nordea and others. One should mention also Neste Oil (petrol station chain), Tikkurila (paints), Fortum (electricity), EKE (office premises) and Technopolis (office hotel for innovation companies).

Of course many big companies are not any more "pure" Finnish companies, but that is one of the aspects of internationalization. On the other new hand subcontracting chains are being created between big companies and SME.

Problems met by Finnish companies are obviously common to all foreign - and in many cases to Russian - companies. Lack of suitable lots of industrial land, especially in the City, lack of infrastructure - e.g. water and energy supply, waste water canalization - in the Region can cause delays and extra cost. The immense number of permits, licenses, inspections require often a lot of time and additional expertise. Behavior of tax and other authorities is not always predictable, but courts do not always fail to respect the law and the rights of foreign companies. Many companies face various forms of corruption or attempted corruption. Big companies can resist corruption better than SME, because they can wait and appeal to higher

authorities. During, say, past 15 years, the situation has in general become better - it's easier to import, to establish, to repatriate. Although business visas, work permits and registration are a permanent theme, but in these issues there has also been some progress, and we can expect more in future.

Finnish companies have many supporting organizations in St. Petersburg. The Consulate General first of all maintains contacts with all relevant Federal, City and Regional authorities. We discuss with them on general issues, e.g. work permits, registration, implementation of construction norms etc. But we also try to find tailored solutions, e.g. water supply to a specified investment object. We organize general, sectoral and regional meetings.

In the House of Finland we have now such organizations as Finpro, Finvera, Chamber of Commerce to provide e.g. market research, feasibility studies, legal and financing services first of all to SME. Helsinki, Tampere, Turku, Lahti, Kotka are represented, as well as Aalto University and Lappeenranta University of Technology, a couple of regional development organizations and private companies are also represented. Consequently the Consulate General does not have to everything itself. On the contrary, we all together form quite a network to support the Finnish presence in St. Petersburg. In our staff we have experts not only from the ministry of foreign affairs, but also from the ministries of interior, environment, labor and economic development, social welfare and health. The Basic institutions in the House of Finland are the (Cultural) Institute and the Finnish school, both supported by the ministry of culture and education.

If you ask about the results of our activities in St. Petersburg, I would pick up first of all the encouraging experience in environmental co-operation: Russians are willing to learn knowledge and obtain and develop modern technology, they have shown that they are capable to modernize basic infrastructure of a big city. In this field we have moved from bilateral projects to Northern Dimension Environmental Partnership. Energy efficiency might well be the next objective.

And what about the four freedoms today and tomorrow?

We issued last year in St. Petersburg 751 000 visas, about 90 % multiple. Last year the number of border crossings on our South-Eastern land border stations was almost 7 million, the share of Russian citizens was over 5 million. In February this year we opened a separate Visa Center for reception of the ever increasing amount of applications without the famous queues we have had 20 years in front of the Consulate. Now we shall improve the visa issuing process itself to be able manage with 1 000 000 - and more - applications. We can only hope that the Russian Consulates in Finland will work in the same direction. Russia has unilaterally given ferry passengers the status of cruise passenger, that is a 72 h visa free stay. The new high speed train Allegro takes you from Helsinki to St. Petersburg in three and a half hour. An analogous right of 72 h to the train passengers is already been discussed in Russia. One might ask, whether a general mutual 72 h visa free travelling could possible before the joint target of visa free regime will be reached.

This is of course an EU-Russia issue. And so is the question of free movement of goods, services and capital. Russia's membership in the WTO, new agreement and deep FTA between the EU and Russia would without doubt contribute in many ways to the strengthening of the Finnish presence in St. Petersburg.

Olli Perheentupa

Consul General of Finland in St. Petersburg

Lithuania – the adjustment process towards the euro

By Ramune Zabuliene

After the major contraction in the first half of 2009, the Lithuanian economy started to stabilize in the middle of 2009 and is now back on a growth path. Economic recovery takes place mostly in the tradable sector, driven by strong and broad-based rebound in the manufacturing. Exports almost returned to their historic peak observed two years ago. Domestic demand is also about to start recovering – confidence indicators improved, retail sales stabilized, the housing market is showing signs of strengthening. The economic growth is forecasted to increase considerably in 2011-2012.

Economic recovery has been supported by the internal adjustment process that has been crucial for correcting external and internal imbalances and rebalancing the economy towards the tradable sector. The key element in the adjustment process has been the fixed exchange rate regime under the currency board arrangement. The fears of possible currency devaluation dissipated in the second half of 2009, when the ongoing “internal devaluation” proved the flexibility of the economy. Other most important policies in the adjustment process have been fiscal consolidation, wage and price restraint, and measures to maintain and strengthen financial stability.

The Government has undertaken strong and ambitious efforts to maintain stability and soundness of the public finance by implementing tight fiscal consolidation measures, totaling about 12% of GDP in 2009-2010. However, despite the substantial austerity measures already undertaken, further fiscal tightening in order to put public finances on a sustainable path and to limit debt accumulation is inevitable. Recently, the parliament passed a 2011 budget with a fiscal deficit target of 5.8 percent of GDP. Lithuania is committed to reduce fiscal deficit to below 3% of GDP in 2012 with a view to the euro adoption.

The economic downturn was followed by a sharp adjustment in labor costs and a decline in consumer price inflation. From the peak to the trough, gross wages fell by one-tenth with a somewhat stronger adjustment in the private sector. The average annual inflation rate, as measured by the HICP, stabilized at 1 percent. While developments in wages and prices helped to strengthen competitiveness of the economy, it is important to note that Lithuania was able to contain costs in the tradable sector during the boom time, since the highest wage and price inflation was in the non-tradable sector, mostly construction and public services. Unit labor costs in tradable sectors increased less than in trading partners, helping more than double the country's share of global exports over the decade. The process contributed to a relatively favorable initial position to rebalance towards the tradable sector.

Financial sector in Lithuania demonstrated strong resilience to the global financial crisis. Lithuania benefited from the deep financial integration with the Nordic-Baltic

region, as strong presence of the Nordic banks contributed to systemic stability. The Bank of Lithuania has been paying close attention to preventive prudential measures. Recommendations to hold sufficient capital and liquidity buffers and apply conservative risk management encouraged banks to improve their liquidity positions and prudential ratios.

Overall, the reoccurrence of macroeconomic imbalances is much less likely in the years to come, having in mind the ongoing structural changes in the economy, transforming lending practices and adopted macro-prudential measures. Both lenders and borrowers learned a costly lesson during the recent years, and currently they show strong commitment to maintain prudent credit standards and make more grounded borrowing decisions.

The risks of domestic price and cost increase are expected to be contained. First, situation in the labor market is not likely to provide inflationary pressures from the supply side. Second, the ongoing household deleveraging process will also weigh on the rebound in private consumption. Third, the capacity utilization rate shrank during the economic crisis, thus the significant supply side pressures on inflation should not reappear in the coming years. Fourth, the banking sector is unlikely to resume lending to the pre-crisis levels. Finally, the necessity of fiscal consolidation and public debt growth stabilization will also discourage the acceleration in the consumer price growth.

Despite the significant impact of the global financial crisis on the economic developments in Lithuania, the broad monetary strategy remains unchanged – Lithuania intends to adopt the euro as soon as the economic convergence criteria are met. Lithuania has not determined the exact target date for euro introduction, but preparatory work has been ongoing. Much has been done already in 2006, when Lithuania was thoroughly preparing for the introduction of the euro. The plans have been modified to take into account the necessary improvements. The success of the euro introduction depends to a large extent on the attitude of the public towards the adoption of the euro. Therefore, the provision of the relevant timely information to the public is one of the primary tasks in the preparatory process.

Ramune Zabuliene

Deputy Chairperson

Bank of Lithuania

Lithuania

It pays to invest in the welfare of children and families

By Maria Kaisa Aula

The first meeting of the prime ministers of the Nordic countries, the Baltic countries and Great Britain took place in London in January. Convened by David Cameron, the British premier, the meeting could rather be described as a brainstorming session, where experts from various countries shared their best practices and policies in technological innovations, green economy, family, work and equal opportunities, and entrepreneurship.

Familiarising himself with the 'Nordic model' was one of Prime Minister David Cameron's motives in convening the meeting. One of the main topics for discussion in London covered family, work and equal opportunities. Accordingly, speeches given by the premiers focused on issues such as parental leave, parents' joint child-care responsibilities, paid and unpaid work at home, day care services for children, and support for the continuity of relationships.

The Norwegian, Swedish and Icelandic premiers outlined the parental leave arrangements in these countries. In Finland, the parental leave system is undergoing a major revision. Cameron's government plans to enhance the role of fathers in child-care through the introduction of an earmarked period for them in parental leave. In the 2000s, this tendency has also been apparent in the Nordic countries.

What causes the premiers to address family issues that are traditionally viewed as 'soft'? Why should there be a national policy focusing on the welfare of children and families? There are several good reasons for this.

First of all, the indicators of a nation's success are changing. GDP, or economic growth, is no longer a sufficient indicator of a nation's strength and welfare. Both in Finland and in the United Kingdom, governments are looking for more extensive and versatile indicators of welfare. Their aim is to combine the growth of GDP with the welfare of the people.

The people's welfare consists of both objective and subjective factors, such as their views and experiences. A happy nation is likely to be economically strong and better capable of surviving crises. The sources of both economic and non-materialistic, psychological well-being are combined in family and work.

Secondly, people are interested in the success of the Nordic model. The recent past has witnessed a period of strong and continuous economic growth in Finland, Sweden, Norway and Denmark. These countries are both innovative and flexible in their approach. People's mutual trust and their faith in public institutions in these countries are relatively strong.

A significant factor in economic growth in the Nordic countries has been the active participation of women in the labour market, both as workers and, increasingly, as entrepreneurs and managers. There is also a long tradition of equal opportunities. This can be seen in their parliamentary institutions, where the proportion of women is the largest in the whole of Europe. Likewise, the number of women on corporate boards is increasing, albeit slowly.

In all Nordic countries, public services aimed at families are designed to support both the employment of mothers and fathers and the welfare of the children. The most important of these is day care. Recent years have seen the development of new, flexible solutions that emphasise families' freedom of choice. These make it possible for mothers and fathers to stay at home with the children during the first few years of their lives. The general atmosphere in workplaces has also changed, and nowadays people's attitudes to parental responsibilities and the combining of work and family are more tolerant. The best companies and workplaces even try to outcompete each other in their family-orientation.

In terms of the welfare of children, the Nordic countries have traditionally been at the top of international surveys, both OECD and Unicef. These surveys measure the objective and subjective

welfare of children, their material well-being, health, academic performance, family relations, and risk behaviour. The Nordic countries also have the highest birth rates in Europe, with more children per family than any other European country.

It is often said that the Nordic countries have managed to combine a strong economy with good public services, gender equality, and children's well-being. Indeed, it can be argued that the Nordic economies are strong because of the equal opportunities for both boys and girls and men and women, as well as because of their investment in the welfare of their children. Healthy and happy girls and boys are also the best guarantee for long-term economic competitiveness and expertise. But expertise is not based on good learning outcomes in theoretical subjects and mathematics alone. Naturally these are also necessary, but another important factor in the creation of expertise is the appreciation of the opinions and active participation of children and young people. This is where the Nordic countries all excel.

The objectives of family policy are also increasingly on the agenda because modern child research emphasises the importance of the early years as the foundation for human welfare. Good interaction and a close relationship between the child and those looking after him or her during these early years will support the child's health, functional ability and learning skills. It pays to support parenting skills and the continuity of relationships. The OECD also recommended investment in children's early years in its recently published review 'Doing Better for Children'.

Finding the right balance between work and family will support both the parents and the welfare of the children. On the other hand, many parents in their daily lives are faced with the competitiveness of modern working life, working increasingly at nights and at weekends, and the difficulty of coping with their workload. It seems that businesses are aiming for a 24/7 society where all services are available night and day. Mobile technology and the Internet allow us to work anywhere and at all times. In many respects, these developments are not in the best interest of children and do not support their well-being. We cannot bring up the new generation through distance work.

Economic and industrial policies always have an impact on children and families. Unfortunately, in most cases these impacts are not studied or assessed beforehand, prior to the decisions being made. An ideal economic and industrial policy combines the interests of working fathers and mothers on one hand and employers and the labour market on the other with those of the children. A short-sighted economic and industrial policy may result in quick pickings in the short term, but in the long run it will lead to the ill-being of children, marginalised youth, and broken families. It will not support sustainable economic growth.

Following this meeting of the Nordic, Baltic and British premiers, the hope is for future continuation of the discussions that took place, leading to increasing focus on the well-being of children and families in the policies of these countries. It pays to invest in the welfare of children and families.

Maria Kaisa Aula

The Ombudsman for Children in Finland

The Office of the Ombudsman for Children in Finland



Aalto University – think again

By Tuula Teeri

This article will review the foundation of Aalto University and discuss the new university's strategy, exploring the contribution Aalto seeks to make in the Baltic region - as well as beyond. It posits that universities in the Baltic region should embrace change, sharing the knowledge gained through developing new initiatives to strengthen the sector overall.

Aalto University is a spearhead initiative in Finland's Innovation Strategy and was established through a full merger between three of Finland's leading universities in their fields; the Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki. The merger was championed by the Rectors of the three universities as well as partners from industry. At the same time as the university was established, the government of Finland created the Aalto Foundation to fund us and redefined the University Law establishing Aalto as an independent legal entity. The University has been active from the 1st January 2010. I have the privilege of being Aalto's first President.

Both ideas and commerce have played significant roles in the development of the Baltic region; we have had to stay smart to stay ahead, making intelligent use of our talented populations and natural resources. Aalto University was founded in this spirit, with the goal of ensuring that Finland continues to strive for excellence in research, whilst at the same time working to ensure that research findings have impact on society through educational programmes and innovation activities. Perhaps uniquely, the creation of Aalto provides a brilliant opportunity to redefine the nature of a modern European university. The distinctive capabilities bought to Aalto by the three founding universities coupled with the independence given to direct our own future, enable us to rethink our understanding of how knowledge is produced, indeed, to "think again" about what it means to be a university. Whilst it is challenging to bring together artists, scientists, economists, designers and technologists, the long-term benefits of developing, as well as deepening, the ways in which we think will provide the fertile ground upon which the seeds of fresh, original and high-impact growth can be nurtured. I encourage other universities in the Baltic region to "think again" a share below some of our initiatives.

Promoting top quality research

Aalto University has as its vision the ambition to be amongst the leading institutions in the world in its chosen research and education fields by 2020. We have identified excellence in research and artistic endeavours as amongst our core values, believing that subsequent activities in education and innovation can only be sustained when built on a foundation of quality. The current status of activities within the existing universities and Finland's longstanding commitment to research, combined with generous funding for the Aalto Foundation, make this a vision which can be realised. Over the coming years, we will nurture our own research talents, setting robust criteria for promotion through establishing a Tenure Track Programme and relating rewards to achievements. We will only make international calibre recruitments and aim to diversify the talent pool we have access to. We will focus our resources on the fields where we know we can have a global impact, seeking to develop rather than expand.

Surpassing traditional boundaries

Whilst proud of our heritage, Aalto University is not willing to rest on existing merits. This merger provides unique possibilities to build links between different disciplines and to breakdown traditional boundaries between education, research and innovation. Disciplinary excellence will remain our first priority, however, we already see exciting opportunities to work together for example in projects that consider the functioning of the human brain from both physiological and social perspectives. We

are particularly proud of the Aalto Design Factory that brings together young engineers with artists and students from our School of Economics to address real life industrial design challenges together with partners from industry.

We work constantly to re-imagining our relationships with society. Sometimes this work focuses on the social; students from our different Schools are actively considering how rural communities, that often find their younger populations depleted by the promise of "big city life", can sustain themselves and continue to thrive. This work is having impact in China as well as Finland. At other times our focus is economic. Students from Aalto University have established their own society supporting start-up companies and almost 60 companies have been founded already! The Aalto Centre for Entrepreneurship (ACE) is developing education and research programmes in the innovation field, as well as providing support for researchers commercialising their ideas. It is in the innovation field that we see particular opportunities to link together activities in the Baltic region so that we can deepen concepts and build critical mass.

Pioneering education

Our most profound impact on society will be through the graduates we produce. Aalto aims to educate responsible, broad-minded experts with a comprehensive understanding of complex subjects to act as society's visionaries and agents of change. Our programmes will always be based on a deep understanding of the core principles of each discipline; however we will seek to reconsider how the students can best learn these principles. Our leading Faculty will teach so that students become inspired. We are re-thinking the traditional lecture format to explore how problem-based learning and individualized learning plans can enable our students to take responsibility for their own continuous development. Gradually, we are introducing inter-disciplinary courses and programmes. Our new Masters Programme in International Design Business Management is proving to be particularly popular.

Embracing renewal

With the granting of our independent status, it has also been possible to reconsider how a modern university is lead and managed. In particular I have enjoyed interactions with our now wholly external Aalto Foundation Board, seeing this as a robust and engaging forum within which to discuss the long-term future of Aalto in a global perspective. We have reflected on our administrative systems, redeploing these as services that provide our researchers and students with the high quality support they both want and need.

As President, I have profound respect for the manner in which the Aalto community, despite being just one year old, has embraced the idea of this new university and made it a reality through their actions. Aalto is very much alive! Through its evolution, I feel certain that Aalto will make a powerful and exciting contribution to society in Finland, the Baltic region and countries beyond. Each of us is adapting to being part of a high-pace, global knowledge economy. By experimenting, by "thinking again", and sharing the experiences gained, we can develop faster and together, furthering the Baltic's impact on the global economy.

Tuula Teeri

President

Aalto University

Finland



The University of Turku has its roots far behind and a look into the future

By Tapio Reponen

The new University act, valid from Jan 1st, 2010 gives Universities in Finland more autonomy, but at the same time financial responsibilities increase. Separated from the state, the Finnish universities became either public universities (corporations under public law) or foundation universities. To increase the global competitiveness, there was a merger between University of Turku and Turku School of Economics that led into a new public university. This action was in line with the Finnish higher education strategy to build globally recognized universities.

University of Turku (UTU) is one of the leading Finnish Universities in science and education, with a high position in many international rankings. UTU is a multi-faculty university having six faculties, business school and several special units. With its 20 000 students it is one of the biggest Universities in Finland. The annual graduation rate is around 1500 master's degrees and 150 doctor's degrees.

According to the strategy University of Turku will be developed as a multidisciplinary and international community, focused on basic research and teaching based on research. The University of Turku also takes a positive view of the incorporation of business activities and cooperation enterprises, provided that the activities are economically viable and the solutions made support carrying out the University's basic missions. According to the *Action plan for societal interaction*, the University of Turku develops its innovation activities with a special platform ("Turku Innovation Platform") as part of activating the interdisciplinary knowledge clusters. In addition to the commercial exploitation of research, the University of Turku offers and markets know-how connected with the development of companies' business activities. Cooperation partners can be found at the University for research and for developing new innovations. Enterprises also have the possibility to utilise the testing, measuring and analysis equipment at the University's research laboratories. At the University of Turku, services are produced especially in the special units outside the faculties and in the units of the Turku School of Economics.

The operation is founded on advanced, strong and profiling areas of research, which are complemented by selected development targets and special national assignments. The synergy is strengthened by the cooperation between subjects, merging related subjects and actively searching for new combinations of research and education on discipline interfaces. The new University will also become a strong centre of business competence where specialised business know-how is applied to different substance areas.

UTU has a strategy to focus on the following research areas to keep it status in the world class also in the future:

- Molecular biosciences
- Cardiovascular and metabolic research
- Ecological interactions and ecological genetics research
- Learning and education research
- Future studies
- Research on institutional design and social mechanism

To meet its objectives in the future the Universities need multiple sources of funding. The Ministry of Education and Culture provides the core funding. The most important financiers of the University's research activities were 2009 the Academy of Finland (20.0 million euros) and Tekes (3.7 million euros + funding portions of companies 0.2 million

euros). The share of other jointly funded research activities was 5.5 million euros, of which the EU's share was 4.1 million euros.

Besides of these UTU is now running a fund raising campaign with special terms until the end of June, 2011. Special terms include tax reduction to donations from 850 to 250 000 euro, and additional funding from the state budget. For each euro the University collects, the state pays 2.5 euro. The objectives is to reach both a high number of donators and a significant amount of capital. As the first Finnish-language university, the University of Turku has from the beginning, since 1920, upheld its founding message *from free people to free science and learning* as its starting point. The University was founded with donations of 22 040 citizens from all over the country. To maintain this same spirit the objective was to reach within a few years the same number of donators.

The campaign has been done with enthusiastic marketing, but with very limited resources. Multiple ways of communication has been used to reach both organizations and private persons. These actions have included social media, print media, presentations and by word of mouth. The members of the small fund raising organization have been moving around and contacting people throughout the campaign. This has also been an attempt to change national culture more favorable to donations.

After the merger Turku School of economics is now a part of UTU. In the fund raising campaign this has had a significant influence. Business world has regarded this as a strong combination of research and business knowledge. Many donators have indicated that they want to direct their support to strengthen business research and education, but within this new environment. Income from the capital gained by donations will have a role in implementing University's strategy.

UTU has always operated with exterior partners but this going to be increasingly strengthened. Take one example. At the *Laboratory of Industrial Physics* the research services for industry are significant. The Laboratory has long traditions in collaboration with industry starting from metallurgy studies. Although the laboratory is small, it is now one of the leading laboratories in Finland in this research field due to its specialization, and it is continuously developing new methods and instrumentations to keep its leading role. The main part of the external funding comes from the big international companies, but most of the partners are local small size Hi-Tech companies emphasizing local business impacts of the laboratory. The department has had important impacts to generate several new Hi-Tech companies. The collaboration with companies and good employment of the students are important to the department. Ph.D. studies have been changed to better meet industry demands and currently also the M.Sc. studies are to be reformed.



Tapio Reponen

Vice-rector

University of Turku

Finland

The European Research Area needs to go global

By Marja Makarow

More than 50 years ago European governments embarked on their first international research collaboration by establishing the European Organisation for nuclear Research, CERN, as a research institute based on voluntary membership of national governments. CERN is still the most significant cross border common pot investment in fundamental research outside of the European Commission's Framework Programme, addressing questions such as the birth of the universe. Innovation, development and engineering are part of CERN's research agenda, and indeed a number of countries have been able to fetch back their membership fees, and even more, in the form of commercial deals with industry providing CERN with high tech products.

After the establishment of CERN a number of similar intergovernmental research institutes were created, referred to as "EIROFORUM" organisations, including for example the European Molecular Biology Laboratory EMBL, The European Southern Observatory ESO and the European Space Agency ESA. The total investment into these organisations is annually about 10% of the entire research investment in Europe. These institutes have returned value in the form of excellent research, training of young scientists, technological development, mobility of researchers, industry-academia collaborations, and cohesion by providing access to infrastructure to researchers from countries lacking large-scale facilities.

Some 35-40 years later, two international efforts, again on voluntary basis, were initiated in Europe, COST (European Cooperation in Science and Technology) for networking of researchers, and ESF (European Science Foundation) for coordination of cross-border collaboration in research, funding of research and science policy. Today the members of COST are 36 governments and the funds are provided by the European Commission. The 78 funding members of ESF are national research councils, research performing organisation, academies and learned societies that cover 30 countries.

In the mean time the European Commission established its Framework programmes, the ongoing 7th programme managing about 5 % of the total investment in research in Europe. The EC achieved a milestone when it in recent years adopted the notion of excellence in research in its ERC programme (European Research Council), which funds principal investigators according solely to the quality of their track record and research proposal. The content and form of the next Framework programme as of 2014 is in the making, but it is evident that it will concentrate on the Grand Challenges menacing mankind, such as impacts of climate change and the aging population, threats on health and lack of sustainable clean energy sources. Science can help to solve these problems, but only if researchers embark on global collaborations, and that national policy makers and funding organisations allocate resources for cross-border programmes. Indeed, the European Commission is already promoting an instrument to tackle the Grand Challenges, designated Joint Programming. The research consortia of Joint Programming Initiatives would be paid directly by the national organisations, while coordination costs would be financed from Commission's Framework programme.

It is not only research and funds that need to cross borders within Europe and beyond, there is a need for world-wide access to state-of-the-art infrastructure and for transversal activities like agreeing on procedures and criteria of assessment of applications, and on standards for research integrity and ethics. And the mid-set should change. The existing and emerging scientific powers on other continents should be seen as instrumental partners rather than hostile competitors. The risk of national silos is the lack of new ideas restricting the increase of quality of research and development of new technologies. It is useful to realise that mediocre research is very expensive as it is redundant and does not create original new knowledge.

For research to contribute to tackling the Grand Challenges, and indeed to the economical and cultural development of our societies, we need strong national institutions that are engaged in European and global efforts with adequate budget shares for international collaboration. We need a new pact between researchers, funders, society and decision-makers. This pact should acknowledge the importance of freedom of thought, have the courage to take risks, share responsibilities, build mutual trust and partnerships, and adopt evidence-tested political decision-making.

The Commissioner for Research and Innovation, Ms Geoghan-Quinn highlights the importance of innovations in solving Grand Challenges. The advisory body to the Commission, the European Research Area Board composed of 22 independent experts, published in October 2009 its vision on the characteristics of a successful European Research Area. The key drivers for change were identified to be globalisation and virtualisation of research, and the Grand Challenges. In its second report in October 2010, the ERAB put forward concrete recommendations to accelerate the translation of fundamental research findings into innovations. In this context, also the ERAB identified internationalisation beyond Europe, in a reciprocal way, to be instrumental to manage global challenges by research. The new challenges call for adding relevance to the criteria of excellence in science in the form of return to society, with the understanding that frontier research is key for innovation, and that the forms in which research yields impact, and the time-lines, are different for different scientific disciplines.

ESF was established 36 years ago to coordinate Europe-wide collaboration between its member organisations. Half of the ESF organisations are covered also by the EUROHORCs, an association of the Heads of the European Research Councils of the EU and its Associated States. The EUROHORCs and ESF have worked together over the past years on strategic issues and published a joint vision on the ERA, the "EUROHORCs and ESF Vision on a Globally Competitive European Research Area and their Road Map for Actions". The signatories of this document have committed themselves to engage in activities which foster collaboration in Europe and beyond. The organisations of ESF and the EUROHORCs manage together about 30 billion euros annually, three times more than the Commission's Framework Programme. This is why they are key for realising not only Europe-wide but also global collaborations. The ESF has embarked on discussions with EUROHORCs to create a qualified merger of both organisations, to aggregate the national strengths in order to provide a unified voice for European science. National visions and strategies need alignment, together with the supranational one. The urgency is tremendous to get Europe working together.

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Russia and reform

By Joseph Nye

When Barack Obama became president of the United States in 2009, one of his first foreign policy priorities was to “reset” relations with Russia. This came after a campaign in which his rival, Senator John McCain spoke of “expelling” Russia from the G8 because of its poor record on human rights. Obama believed that a healthy relationship with a healthy Russia was essential to global security. Now with the recent ratification of the START Treaty by the Senate and the Duma, it looks like Obama’s policy has succeeded. But just under the surface, problems lurk as evidenced by the recent Khodorkovsy trial, rising ethnic tensions, and the desultory performance in Davos as President Dmitri Medvedev presented his plans for the modernization of Russia.

Americans have often misjudged Russia’s future. In the 1950s, Americans feared that the Soviet Union would surpass the United States as the world’s leading power. The Soviet Union had the world’s largest territory, third largest population, and second largest economy, and it produced more oil and gas than Saudi Arabia. It possessed nearly one-half the world’s nuclear weapons, had more men under arms than the United States, and had the highest number of people employed in research and development. It exploded a hydrogen bomb only one year after the United States did in 1952, and it was the first to launch a satellite into space in 1957. In terms of soft power, following World War II communist ideology was attractive in Europe because of its resistance to fascism and in the Third World because of its identification with the popular movement toward decolonization. Soviet propaganda actively fostered a myth of the inevitability of the triumph of communism.

When Nikita Khrushchev visited the United States, he boasted that the Soviet Union would overtake the United States by 1970 or by 1980 at the latest. In 1976, Leonid Brezhnev told the French president that communism would dominate the world by 1995. Such predictions were bolstered by reported annual economic growth rates ranging between 5 and 6 percent and an increase in the Soviet share of world product from 11 to 12.3 percent between 1950 and 1970. Yet what in fact was happening was that the Soviet Union was failing to cope with the “third industrial revolution.” Its central planning system was optimized for heavy industry, but turned out to be all thumbs and no fingers when it came to the new information revolution. After that, however, the Soviet growth rate and share of world product began a long decline. In 1986, Mikhail Gorbachev described the Soviet economy as “very disordered. We lag in all indices.” A year later, Foreign Minister Eduard Shevardnadze told his officials, “You and I represent a great country that in the last 15 years has been more and more losing its position as one of the leading industrially developed nations.” Reform proved impossible. As he tried to arrest the decline with perestroika and glasnost, Gorbachev inadvertently accelerated the breakup of the Soviet Union.

The end of the Soviet Union left a Russia significantly shrunken in territory (76 percent of the USSR), population (50 percent of the USSR), economy (45 percent of the USSR), and military personnel (33 percent of the USSR). Moreover, the soft power of communist ideology had virtually disappeared. Nonetheless, Russia had nearly 5,000 deployed nuclear weapons, and more than 1 million persons under arms, though its total military expenditure was only 4 percent of the world total (10 percent of the U.S. share), and its global power projection capabilities had greatly diminished.

In economic resources, Russia’s \$2.3 trillion gross domestic product was 14 percent that of the United States, and its per capita income (in purchasing power parity) of \$16,000 was roughly 33 percent that of the United States. Its economy was heavily dependent on export of oil and gas, with high-tech exports representing only 7 percent of its manufactured exports (compared to 28 percent for the United States). In terms of soft power, despite the attractiveness of traditional Russian culture, Russia has little global presence. In the words of Russian

analyst, Sergei Karaganov, Russia has to use “hard power, including military force, because it lives in a much more dangerous world and has no one to hide behind from it, and because it has little soft power—that is, social, cultural, political and economic attractiveness.”

Russia is no longer hampered by communist ideology and a cumbersome central planning system, and the likelihood of ethnic fragmentation, though still a threat, is less than in the past. Whereas ethnic Russians were only 50 percent of the former Soviet Union, they are now 81 percent of the Russian Federation. The political institutions for an effective market economy are largely missing, and corruption is rampant. Russia’s robber baron capitalism lacks the kind of effective regulation that creates trust in market relationships. The public health system is in disarray, mortality rates have increased, and birthrates are declining. The average Russian male dies at fifty-nine, an extraordinarily low number for an advanced economy. Midrange estimates by UN demographers suggest that Russia’s population may decline from 145 million today to 121 million by midcentury.

Many Russian futures are possible. At one extreme are those who project decline and see Russia as a “one-crop economy” with corrupt institutions and insurmountable demographic and health problems. Others argue that with reform and modernization, Russia will be able to surmount these problems and that the leadership is headed in this direction. President Medvedev has issued a sweeping call “for Russia to modernize its economy, wean itself from a humiliating dependence on natural resources and do away with Soviet-style attitudes that he said were hindering its effort to remain a world power.” But as Katynka Barisch of the Centre for European Reform argues, Russian leaders’ concept of modernization is too state led, and problematic because public institutions function so badly. “An innovative economy needs open markets, venture capital, free thinking entrepreneurs, fast bankruptcy courts and solid protection of intellectual property.” Instead there is “wide-spread monopolies, ubiquitous corruption, stifling state-interferences, weak and contradictory laws.” Dysfunctional government and pervasive corruption make modernization difficult. A Russian economist says flatly that “there is no consensus in favor of modernization.”

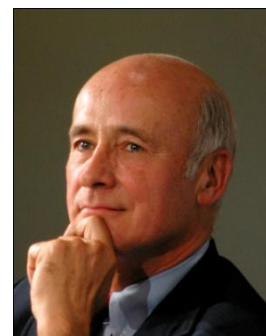
Whatever the outcome, because of its residual nuclear strength, its great human capital, its skills in cyber-technology, its location in both Europe and Asia, Russia will have the resources to cause major problems or to make major contributions to a globalized world. In that sense, Obama was right. We all have an interest in Russian reform.

Joseph Nye

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USA



The author of *The Future of Power*, Public Affairs Press, February 2011

Russia at another cross-road

By Fyodor Lukyanov

Year 2011 marks the 20th anniversary of the collapse of the Soviet Union, and there will certainly be plenty of analyses about what that meant and where Russia stands two decades later. But one of the most important results became apparent in 2010: Russia made a psychological (although not conscious yet) break with its past and its former status as an empire. While Russia has left its imperial ambitions behind, the main reference point for defining itself is no longer rooted in the Soviet collapse but somewhere in the uncertain future. The main task facing the country is to do everything it can so this future will be stable and prosperous.

Despite all obvious differences between three presidents of Russian Federation – Boris Yeltsin, Vladimir Putin and Dmitri Medvedev – until recently their agenda was similar in terms of objectives. All of them had basically two main goals – to restore Russia as major international player and as principal actor on the post-Soviet space. Means available were very much different from one period to another, Russia-1995 had little in common with Russia-2005, but the framework sustained. Russia's foreign policy attempted to convince the West that the country's weakness throughout the 1990s was a historical accident and that the ascendancy of the West in relation to Russia was a mere coincidence. Until recently, the Soviet collapse served as the main prism through which the country's identity was defined, and the foreign policy of the first three presidents focused on the West. This agenda has been exhausted by late 2008. Georgian war marked Russian readiness and ability to defend "red line" against expansion of Euro-Atlantic structures eastwards. But it also showed limits of real capacities. The latter was boldly confirmed by world financial crisis which stressed vulnerability of Russian economy.

So, the system of priorities, which shaped Russian politics after 1991, has been largely implemented. But now Russia is facing another, much more difficult task – filling its restored status with new content. Its real capabilities for that are limited, and new requirements are now set for foreign policy.

First, major global actors have de facto finally recognized that Russia has priority interests in the former Soviet Union. Neither US, nor EU are keen to intervene. The question now is whether Russia is able to effectively capitalize its newly returned status. Very cautious behavior in Kyrgyzstan last year demonstrated new sense of reality in Russian foreign policy. True, the decision was strongly driven by pragmatism since the risks of intervention far outweighed the chance for success in resolving the situation in Bishkek. But it was also another example that the Kremlin is not willing to take advantage of instability in its backyard to restore – even in part – its lost empire.

Second, Russia's policy has turned towards the East, towards Asia – from the point of view of international relations and in the context of territorial development of Siberia and Russia's Far East. Although past Russian policy toward Asia was meant to show the West that Moscow had an alternative partner, now that policy is independent of other considerations. The problem is that in its relations with Asia, Russia must essentially start from scratch. Even when Russia was at its weakest in the 1990s, it still held considerable political significance for Europe. But for most Asian countries, Russia practically never existed as a regional strategic factor, and this remained true even when it became more powerful in the global arena in the 2000s.

And **third**, Russia has been rethinking its relations with Europe – they have ceased to be strategic and are largely

becoming socio-economic. This is because Russia has proclaimed a policy of domestic modernization, which historically has a source in European countries, while Europe is rapidly and apparently irreversibly losing its status of a global political actor. Although Russia continues to see Europe as a source of modernization, Moscow no longer views it as the sole source, looking at Asia as well. The reduction in tensions between Russia and both NATO and the EU is linked to their gradual declines. The stakes in European politics have fallen sharply. Two years ago, it seemed as if the question of keeping the Black Sea Fleet at Sevastopol was almost worth going to war over. But when leaders reached an agreement last spring to keep the fleet in place for many more years, the world hardly noticed.

The global frameworks, within which these three processes, important to Russia, are taking place, are set by actions of the two most influential powers in the world – the United States and China. The growth of China's economic and political influence on the international scene is gradually becoming a dominant of Russia's foreign policy. Russia will have to position itself vis-à-vis its great neighbor. Different options are available from becoming part of "political West" to position of junior partner to Beijing. All are under discussion. The desire to use opportunities offered by the growth of Asia in general and China in particular is mixed with concern that Russia may turn into a second-rate power in Asia, which would entail a decline of its global status.

The shift of the U.S. strategic interest towards South Asia and the Asia-Pacific region requires a new agenda for Russian-U.S. relations. It must be basically different from the present one which was largely inherited from the Cold War times and which, therefore, does not meet the 21st-century reality at all. The New START treaty will probably be the last in the series of Cold War-style disarmament treaties. Most likely, Russia's nuclear strategy in the future will no longer be based on maintaining nuclear parity with the United States. Moscow is beginning to understand that it needs a nuclear arsenal of sufficient size to deter threats from other countries, first of all China. But inertia is very strong both in the U.S. and Russia. Course of Asian affairs can still change previous attitude.

Everything happening now is a result of fundamental shifts in the world order, which were set off by the end of the Cold War's ideological standoff. However, their end – just as the expected configuration of the future international system – is nowhere in sight yet. During last two decades the reference point for all Russian activities was in the past, collapse of 1991 and how to overcome consequences of that. The new reference point is ahead of us – what place will Russia occupy in the 21st century. The answer is open and not at all predetermined.

Fyodor Lukyanov

Editor

Russia in Global Affairs

Russia

Russia, Belarus and Kazakhstan on way to closer economic co-operation

By Seija Lainela

A customs union was formed last year by Russia, Belarus and Kazakhstan. Although various plans for economic cooperation among former Soviet republics have existed on paper since the early 1990s, in the end, it all happened very quickly. After years of slow motion, the idea of a customs union was actualised in 2007, and the timetable for its realisation was announced by the Russian Prime Minister, Vladimir Putin in the summer of 2009. Concrete preparations by the three countries' authorities gained momentum after that, with less than a year left till the 2010 deadline

An explanation for the rapid progress lies in the fact that in many respects the organisation does not yet function like a genuine customs union. The construction of the actual union is still underway and implementation of several decisions is due to take place only gradually.

The path to the customs union has been short but rough. It has been troubled by serious disagreements between Russia and Belarus. Disagreements have occurred regularly over the past few years with the issues at stake mainly concerning Russian deliveries of energy to and via Belarus. Although sooner or later an agreement has usually been found, there is no guarantee that such problems wouldn't recur.

The reasons behind the countries' search for regional cooperation stem from their wish to find broader outlets for their products, which do not always meet the requirements of other, more developed markets. For Russia, there are certainly also political reasons – gaining more influence in its neighbouring countries and strengthening the process of rapprochement within the CIS as a whole.

Customs union

The customs union was launched in January 2010, but in a restricted form with unified import regulation and licensing only. In July 2010, when the union started functioning at a broader scale, its competence was extended to common import duties and a common customs code to regulate customs procedures. Unification of import duties was a tough task as each of the countries had their special interests to guard. Russia wanted to protect for example its automobile and aviation industries with high import duties while Belarus did not want to restrict imports of second-hand passenger cars. Kazakhstan supported as little regulation as possible on goods imports by private citizens. An even more difficult problem was the export duty that Russia levied on part of its crude oil exports to Belarus and which Belarus wanted to have abolished. The issue was finally settled in July 2010 a few days after the official inception of the customs union.

As Russia is by far the biggest economy of the group, it has the strongest say in the formation of cooperation principles and practices. On the whole, of the three countries, Russia has pursued the most protectionist foreign trade policies. This meant increases in the level of protection for the other members. For instance, common import duties of the union are to some 90% based on Russian duties. The unification increased duties for 18% of Belarus imports and 45% of Kazakhstan's imports, while Russia saw only 4% of its import duties increased. For nationally sensitive product categories, unification of tariffs will take place gradually, over a transition period of a few years.

Yet another point of contention in the negotiations was how the common import duty proceeds would be divided among member countries. It was agreed that Russia will get 88%, Belarus 4.7% and Kazakhstan 7.3% of the income.

In principle, a customs union should have open internal borders for the transportation of goods. According to the agreement on the Russian-Belarus-Kazakhstan customs union,

customs controls were lifted from the Russian-Belarus border at the start of 2010 and they will be abolished from the Russian-Kazakhstan border on 1 July 2011. However, in practice border controls still exist in some form at the Russian-Belarus border, and it is not certain that they will be abolished from the Russia-Kazakhstan border in July 2011. Due to the gradual unification of tariffs, border checks will be carried out at the internal borders until all transition periods for tariffs have ended. Another reason is that in particular the outer borders of Kazakhstan are not secure enough to handle customs controls according to the union's requirements. The southern Kazakh borders have become a significant route for drug trafficking to Russia.

On average, customs, border and other foreign trade procedures are more developed in Kazakhstan and Belarus than in Russia. The moment importers and exporters in the customs union can freely decide in which member country they present their goods for customs clearance, the Russian customs will face tough competition from the other two member states. So far a transitory rule is in force requiring companies to clear goods in the country whose residents they are. For instance, Russian importers cannot clear goods at a Kazakhstan border point even if they import goods through Kazakhstan.

The competitive situation should put pressure on Russia to improve its standards. Indeed, the Russian government has admitted the situation is worrisome and wants to improve the operation of border authorities in order not to lose income from customs procedures to other member countries.

Common economic space

The three-country customs union is soon to turn into a common economic space (CES). By the end of December 2010, after a hectic autumn, Russia, Belarus and Kazakhstan had signed all the basic documents governing the principles of the CES. Concrete procedures for carrying out common policies are to be prepared in the course of 2011. This would allow for the launch of the CES at the start of 2012.

The documents cover a wide variety of areas such as competition policy, macroeconomic policies, financial markets, and currency regulation. At first the authorities had very ambitious plans concerning the scope of the common economic space. It was planned, among other things, that common limits be set e.g. for member countries' budget deficits, inflation rates, and public debt. During the talks these limits were, however, abolished. In the end, the agreements became far less binding. It was obvious that differences in the three countries' economic structures, sizes of their economies and perhaps also the degree to which they were ready to give up their sovereignty made the unification of economic policies too difficult a task.

In the same way as the customs union that currently operates in a restricted form, the common economic space may at the beginning exist more in principle than in practice. The common currency area, which according to the Russian President Dmitri Medvedev is the final goal of the integration, lies very far in the future.

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Russia and World Trade Organization (WTO) – end of journey or endless one?*

By Sergei F. Sutyryn

Both options suggested by the title of this small article could be sensible argued. Indeed, on the one hand, top ranking Russian officials including Prime Minister Vladimir Putin and President Dmitry Medvedev express their hopes for the successful completion of the WTO accession in 2011. This optimism was shared by the organization Director-General Pascal Lamy who told a news conference on the sidelines of the latest World Economic Forum: "I believe Russian accession to the WTO before the end of this year is doable". On the other hand, similar type of forecasts has already been made (at least in Russia) for more than a half of decade. Under the circumstances pessimists might really expect that current prognosis would share a sad destiny of the previous ones. Recently declared extension of the end of talks till June, instead of April indicated just a week earlier, supports skepticism.

According to an official cite of the WTO the process of Russian accession was launched in June 1993 when the country applied for GATT membership. After establishing of World Trade Organization in 1995 initial application was transformed into application to the WTO. This means that among all currently acceding countries RF has the second longest accession story after Algeria (application was submitted in June 1987).

So far forty one new members joined the club since it started to operate. Thinking about certain general trend of the WTO enlargement one might claim that each next participant (taking under consideration its size, structure, level as well as dynamics of economic development) tended to pay higher entrance fee in terms of concessions and duration of negotiating process. Under the circumstances Russia – at least after Chinese accession – really had not that many chances to finalize the deal fast and easy.

From purely technical point of view only bilateral talks with 62 members of the Working Party on Russian accession¹ were doomed to be very lengthy. Similarly, just due to the scope of issues on agenda multilaterals also were extremely time-consuming. In some cases negotiating parties aspired to secure the best possible outcome for themselves regardless of their *vis-à-vis* interests, concerns and arguments² substantially contributing to extension of the talks. At last but not least, trying to understand why during certain periods negotiations either almost stopped or produced no results one might recall famous "*Cui prodest?*" Indeed, because of various economic, political, ideological reasons different groups of both domestic and international stakeholders benefited from the delays in Russia's accession. Hence, they could influence the process accordingly.

Taking under consideration several evident previous failures to fulfill initially announced schedules, is it of any sense to declare once again yet another date for completion of the talks? In spite of an obvious risk, time targeting has its own and pretty powerful logic. Generally speaking schedules are needed to mobilize available resources, to focus them on achieving clearly defined ends.

In a specific case under discussion announced dates tend to introduce additional internal discipline for the negotiators. In addition to that, time targeting demonstrates to the other party seriousness of our intentions. Even if it simultaneously

might diminish our bargaining power, nevertheless it looks fair to claim that without any schedules at all negotiations could last almost forever. By the way, Russian accession is far from being the only example of relatively poor time management. Already more than six year delay in completion of Doha Development Agenda³ provides critics of the WTO with a very convincing argument. Under the circumstances it is not that clear who has to take the bulk of responsibility for protracted talks with Russia.

Meanwhile, from an author of the present article point of view nowadays chances to bring the negotiations to the successful end are higher than before. On the one hand, there are fewer reasons to expect any serious developments similar to June 2009 Russia's Prime Minister Vladimir Putin declaration. He said that RF together with Belarus and Kazakhstan halted their separate talks on accession to the World Trade Organization. Instead they would apply to join the WTO as a single customs union. At least in a short run this dramatic shift in Russian position generated additional tension between negotiating parties and required extra time to bring them back to fruitful discussion. On the other hand, global economy this year most probably will not experience new wave of economic turmoil similar to 2007-2009 crisis. The latter, as is well known, initiated substantial growth of protectionist pressure, making whatever trade liberalization initiatives more difficult to implement.

At the same time, whether completion of negotiations under review will happen in 2011 or later, adjustment to Russia's new status in comparison with accession *per se* will by all means present much more diverse set of challenges – both threats and opportunities – to the substantially greater number of stakeholders in the country as well as internationally.

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* *The paper was written within a framework of the project "The WTO Chair in St. Petersburg State University"*

¹ Such an impressive membership will for sure stay as an absolute record of the WTO accession.

² This type of tough negotiating strategy is sometimes referred as "Generation me" philosophy.

³ According to Doha Declaration a new package of agreements on wide range of international trade related issues had to be agreed by 1 January 2005.

Baltic Sea electricity market needs a functioning grid infrastructure – EstLink 2 will be one of the main electricity highways in the region

By Jukka Ruusunen

Setting the scene

In the previous issue of Baltic Rim Economies (6/2010) Einari Kisel wrote an excellent story about the long dream of a common Nordic-Baltic electricity market coming true. Nordic-Baltic electricity market integration is actually part of a much bigger process of creating a European electricity market. And indeed in parallel with the market integration process around the Baltic Sea region, the Nordic market is integrated with the Central West European market, i.e. Belgium, France, Germany, Luxembourg, and the Netherlands. This North West European market is the biggest electricity market in the world with a total consumption of around 1500 TWh! Estonia is already today part of this market and hopefully Latvia and Lithuania will join during 2011 - an even bigger Baltic dream is coming true soon.

The driver for the electricity market integration is our common European Union energy policy with ambitious climate goals together with the goals of ensuring energy security and guaranteeing competitive electricity prices to European companies and citizens. It is very obvious that these goals cannot be met by the historic national approaches but we need deeper cooperation between the Member States.

If electricity could be stored and shipped from one country to another we would definitely have a European electricity market today! But as this is not the case today, the only way to integrate markets is to have enough transmission capacity so that electricity can flow within and between countries in the most efficient way. Instead of national planning we have to plan the grids from a regional perspective taking the regional benefits as the goal to be maximized.

The first Baltic Sea regional grid plan

The transmission system operators around the Baltic Sea started to make the first common regional grid plan in 2007 and the final plan was launched in 2009. Before that there had been discussions of various individual projects but this was the first time when experts from the companies sat down around the same table to develop a common view about the required grid reinforcements in the region. The grid has to be planned using a system level approach since the benefits of one connection are typically tightly linked to the existence of other connections.

The plan included three new major cross-border connections: Estonia and Finland (EstLink 2), Sweden and Lithuania (NordBalt), and Lithuania and Poland (LitPol). But this was just a plan and things tend to become much more complicated when we start to turn a plan into reality. But this time we had some luck...

Baltic Energy Market Integration Plan (BEMIP) speeds up the process

In June 2009 the Prime Ministers of eight Baltic Sea Member States and the President of the European Commission signed a Memorandum of Understanding on the BEMIP. This started a real regional process with a strong commitment from various stakeholders including the Member States, the regulators, the transmission system operators and Nord Pool Spot as the regional power exchange. The active role of the European Commission as a facilitator should not be underestimated. The process has really been a success story and can act as a model of electricity market integration for the whole EU.

When we talk about a non-storable commodity like electricity, the market integration plan in fact becomes quite complex. There has to be an agreement on the development of the grid infrastructure that will make possible the integration - electricity can be traded only if there is enough transmission capacity. But this is not enough since the market design, i.e. the market rules, also have to be defined and agreed on a very detailed level. It is due to this complexity and the long lead times in building grid infrastructure that make electricity market integration such a long process compared with the integration of other commodity markets. This is actually why we do not have a European wide electricity market yet.

On the other hand, when the market design has been agreed and there is enough transmission capacity available for the market, the market functions very efficiently. We have already seen this in the Nordic market. The day-ahead hourly market prices defined in the

daily auctions provide a good basis for the efficient use of power plants and transmission capacity for the next day. This is complemented by the intra-day market where electricity for each hour is traded continuously until one hour prior to delivery. "The invisible hand" of the market has really shown its superiority in optimizing the resources of the power system - almost in real time.

EstLink 2 will be one of the main electricity highways in the Baltic Sea market

BEMIP action plan defined the way forward in terms of common market rules and new interconnections. Very soon Estonia was taken on board to the Nordic - or North West European - electricity market. And we expect the whole 25 TWh Baltic electricity market to be integrated into the 1500 TWh North West European electricity market during 2011.

When a transparent market mechanism was introduced to the trade between Estonia and Finland, the lack of capacity in the current 350 MW Estlink connection became very transparent. In fact, this border has been the most congested one when comparing with other borders in the Nordic market showing that more transmission capacity is definitely needed.

EstLink 2 HVDC connection has been under discussion for several years, but now both studies and practice have confirmed that this connection is really an important part of the Baltic Sea grid infrastructure in the future. We have also introduced the market mechanism that will ensure that this connection will be used in the most efficient way. From the funding point of view the decision of the Commission of the European Union to give 100 million euros as investment subsidy as part of the European Economy Recovery Package was also very important. The total budget of the project is approx. 320 million euros, which will be divided between Fingrid and Elering.

The connection will have a transmission capacity of 650 megawatts, which increases the total transmission capacity between the countries to 1,000 megawatts. The total length of the link is approx. 170 km, some 14 km of which is overhead line in Finland, about 145 km submarine cable laid on the bottom of the Gulf of Finland, and about 12 km underground cable in Estonia.

The timetable of the project is very ambitious. The cable will be laid at the bottom of the sea in the summer of 2013, and the testing of the connection will commence in the autumn of 2013 so that the new link can be made available to the electricity market at the beginning of 2014. I am confident that we can keep this timetable with good co-operation between Fingrid and Elering and all the other players that are participating in the project. The common goal of this excellent team is to ensure that the companies and citizens in the region have reliable electricity deliveries with competitive prices and that the grid infrastructure makes possible the increase of low carbon energy sources in the Baltic Sea region.

Jukka Ruusunen

President and CEO

Fingrid Oyj

Finland



Vice President of the European
Network of Transmission System
Operators for Europe

Lithuanian Energy after the decommissioning of the Ignalina nuclear power plant

By Aloyzas Koryzna

2010 was a very important and productive year for the Lithuanian energy sector. During this period, all necessary works for successful and prompt achievement of the key aim of Lithuania and other Baltic States, i.e. creation of a successful, reliable, effective, competitive and environmentally-friendly market, which would be integrated into the energy system of the continental Europe and not dependent on one supplier, were accomplished.

When decommissioning the Ignalina Nuclear Power Plant, Lithuania, as well as France, was on the top of the list of the countries, the electricity demand of which was satisfied by nuclear power. The Ignalina Nuclear Power Plant produced over 70 percent of the energy consumed by the country.

After Lithuania finally decommissioned the turbines of the second unit of the nuclear power plant (the first unit was decommissioned 6 years ago) on 1 January in fulfilling the obligations it assumed upon its joining the European Union, about 80 percent of the energy it consumes is imported from Latvia, Belarus, and Russia. All these countries are still dependent on the UPS/IPS synchronous zone created in the Soviet period.

In other words, Lithuania as well as Latvia and Estonia are still energetically isolated from the European Union, which means that the Russian energy monopolies, which are the only energy suppliers to the Baltic States, regulate the prices and under necessity use their monopoly as a geopolitical weapon.

Therefore, Lithuania is facing two strategically essential problems: shortage of energy generation and energy security. In 2010, Lithuania developed the preconditions for energy independence.

First, pursuant to the EU Third Energy Package, Lithuania performed the reorganisation of enterprises in the energy sector, thus separating, clarifying and forming four blocks: energy production, transmission, distribution and the block of maintenance of the sector enterprises.

Second, the country has actually launched the implementation of energy security strategic projects, i.e. continued with the preparatory works for the construction of Visaginas Power Plant, construction of the power link with Sweden "NordBalt" and with Poland "LitPol Link", preparations for the connection to the continental Europe in order to ensure synchronous works of electricity transmission networks, created a successfully functioning electricity exchange "BaltPool" and, in cooperation with the Baltic States and the electricity exchange of the Nordic States "NordPool", developed a common electricity market of the Baltic States.

Third, the Ministry of the Energy of Lithuania drafted the National Energy Independence Strategy.

In 2010, legal acts for the reorganisation of the energy market regulator, construction of the new power plant and continuation of the energy reform were drafted and submitted to the Parliament. In addition, Lithuania will have to draft and adopt legal acts necessary for demonopolisation of the gas sector in accordance with requirements of the EU Third Energy Package.

Production

At the end of 2010, all the main energy sector reorganisations were finally accomplished and the sector structure consisting of 4 blocks was developed. When reorganising energy sector enterprises, it was expected that

the separation and clarification of activities of certain enterprises will improve the overall efficiency of the system, increase the sector transparency and protect the consumers. The production block based on AB LIETUVOS ENERGIJA has been created for the concentration of production capacities.

The production block unites the enterprises LIETUVOS ELEKTRINĖ, Kruonis Pump Storage Plant and Kaunas Hydro Power Plant. The lion's share in the production belongs to the Lithuanian Thermal Power Plant situated in Elektrėnai; however, so far, it cannot compete with imported energy because of its dependence on the natural gas prices and outdated technologies.

One of the main tasks of LIETUVOS ENERGIJA is to find ways (for example, use of renewable resources, effective heat production and realisation, etc), which would reduce the energy production cost.

Therefore, the works in the national energy production sector are further implemented starting with the announcement of a tender for the construction of the fifth unit of Kruonis PSP. The new unit will fundamentally serve for the development of national alternative resources, since it is designed for energy generation from renewable resources for capacity reservation and system balancing.

The construction works of the ninth unit of the combined cycle gas turbine at LIETUVOS ELEKTRINĖ are further performed. The new combined cycle gas turbine and generator have been brought to Elektrėnai. The ninth unit will enable LIETUVOS ELEKTRINĖ to generate energy at 30 percent lower costs than using the older units.

However, these changes will not solve the main problem, i.e. the shortage of capacities. Therefore, Lithuania and its regional partners from Poland, Latvia and Estonia are further searching for a strategic investor into the project on the new power plant in Visaginas and its further construction.

So far, the major part of preparatory works of the construction site have been implemented and positively assessed by IAEA specialists.

Transmission

Pursuant to the EU Third Energy Package, after the separation of transmission networks by AB LIETUVOS ENERGIJA, a new company LITGRID TURTAS was formed. This company manages the transmission infrastructure and functions as an operator of the energy transmission system. This company is also responsible for a very important task, i.e. the implementation of projects of electricity links with Sweden and Poland. The company must ensure the conditions for Lithuania's connection to the energy network of the continental Europe for synchronous work. In addition, LITGRID and the electricity exchange "BaltPool" have a common task – liberalisation of the energy market.

The capacity of "NordBalt" link with Sweden is 700 MW, the length of the link is 450 km. The launch of the link operation is scheduled for December 2015. The project is being implemented successfully. In December 2010, an agreement on the cable construction and equipment and construction of converter stations with AAB, the winner of the tender announced as per Sweden's public procurement law, was signed.

The first part of the "LitPol Link" project on the link with Poland (500 MW) is planned to be accomplished by 2015. The preparatory works on the coordination of the line and environmental impact assessment surveys were performed.

The total cost of the project of 1000 MW line is EUR 237 million.

On 31 December, the new 330 kV switchyard started its operation. The switchyard connected high-voltage air lines Klaipėda-Sovietsk and Jurbarkas-Sovietsk. The switchyard connected Lithuanian electricity transmission lines in an interrupted circle, which will ensure electricity supply to the western regions of Lithuania and have an important function after the launch of the operation of the electricity link "NordBalt".

Distribution and maintenance

At the beginning of 2011, the company LESTO commenced its activities. The company will unite electricity distribution and supply companies AB RYTŲ SKYRSTOMIEJI TINKLAI and AB VST. Centralisation and automatization of the management of Lithuanian distribution networks will enable LESTO to operate more efficiently and have a greater focus on clients' demands. It is expected that the first year of the reorganisation will bring in LTL 25 million, which will be invested into service improvement, modernisation of electricity networks of garden communities, electrification of remote households, etc.

The maintenance block of energy sector was successfully created last year, i.e. 2 identical network maintenance enterprises, a production maintenance enterprise, an asset management enterprise accumulating non-technological

immovable property and transport were incorporated. A commercial IT company, which will sell the services of data transmission and data centres to the market was established. This company together with the new Technology and Innovation Centre will create and install a smart network and accounting technologies.

The implementation of these and other unmentioned works, i.e. the reorganisation of the national gas infrastructure, will enable Lithuania to protect the interests of its consumers as well as of the consumers of other Baltic states by gaining freedom from energy monopolies, refusing the necessity to buy energy and resources for the generation of energy, i.e. gas, from one source. The integration of the Baltic States into the EU market would allow solving the problems of energy security as well as provide conditions for a civilised and consumer-oriented competition.

Aloyzas Koryzna

Director General

LIETUVOS ENERGIJA

Lithuania

A new nuclear race

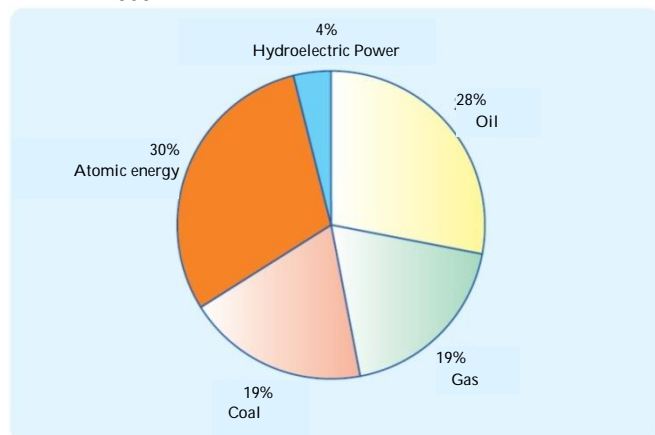
By Sergei Pereslegin and Artiom Zheltov

The current state of global nuclear power is meta-stable. At international conferences, countries keep a close eye on each other. Only a small push would drastically change the situation towards rapid development of next-gen nuclear power technologies. Russia with its long history of technological breakthroughs is eager to take its part.

The expected new nuclear technological system would be based on so-called fast nuclear reactors and encompass a closed nuclear fuel cycle. This technology would be capable of solving the problem of generating capacities shortage and giving hope of eliminating the main burden of nuclear power, the nuclear waste stockpiles. In this case, fast expansion of nuclear power would be practically inevitable. New nuclear power technologies permit construction of scalable, reliable and clean capacities of virtually any size. In future, nuclear power would be capable to reduce the role of coal, oil and gas generation. Of course, it would be not a single-step event but quite a long process, but its consequences would be quick and roughly comparable with replacement of wire phones with wireless cell phone technologies.

The economic background for the expecting technological revolution is dozens of percentage points in the world power generation pie. In the "Nuclear world" scenario, structure of primary energy resources consumption, in terms of fuel equivalent, would drastically differ from that of today:

Fig. 1. Forecast of Primary Resource Consumption for 2050



The future energy market size could be roughly estimated on the basis of electricity consumption forecast for 2050 at about 45,000 TW*h and an electricity price of 0.05 (2006) dollars per kilowatt hour. Taking into account accompanying markets, we have a rough annual figure of about a thousand billion dollars.

World first nuclear technological platform with closed fuel cycle and minimum SNF burden would inevitably become a *de facto* standard, and in certain conditions, it would to become a *de jure* standard. It means that this platform is likely to occupy up to two thirds of world power market; all other competitors, supported by state protectionism, would "hold" together the rest.

Therefore, as soon as a country or corporation starts development of such fast nuclear system and the entire new technological platform, all the other players would be forced to do the same. The point is that creation of the new technological platform would immediately make traditional nuclear reactors obsolete and commercially unattractive.

That is what the current moment in global technological development is about.

Because of the Chernobyl accident, the diversification of generating capacities in nuclear energy was delayed for twenty years. Moreover, it has practically coincided with the next,

upcoming stage - displacement of traditional thermal energy with nuclear power and mass construction of economically efficient, safe and clean large and middle-power reactors. Hence the actors in this global technological strategic game today are facing a difficult choice: to concentrate resources on more or less commercially viable Generation 3 reactors, or to embark on a technological venture and concentrate all effort on development of a new, far more competitive generation of units. Moreover, current economic calculations underestimate profitability of closed-cycle fast reactors for various technical reasons.

In fact, we are facing a typical "prisoners dilemma". If none of the actors on reactor market starts work on "fast reactors" and closed fuel cycle, the current situation will be prolonged. If one of the actors develops a new technological platform and others do not, then the market would be completely redistributed in favor of innovator. If everyone succeeds in development of the new generation units, nuclear power would receive a number of bonuses at the expense of coal, gas, and to some extend of oil. However nuclear market would experience serious competitive struggle where the winner receives superprofits, and others get return of investments and remain in the game.

It seems that when global nuclear industry actors grasp the "prisoners dilemma", all nuclear countries and corporations will start working feverishly on the design of reactors and new generation power system.

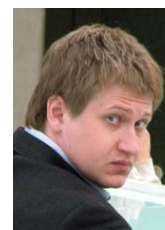
This would be recorded in history as the "second nuclear race".

Russia is capable to win the "second nuclear race" by consistently implementing hardly probable but possible "Nuclear Breakthrough" scenario for its nuclear industry. The core of this scenario is to establish a new technological platform as a system integrator for the entire energy system. The scenario includes intensive construction of all reactor types including sodium breeder reactors, closed-fuel cycle reactors integrated into an NPP, lead- cooled reactors, gas-cooled reactors with hydrogen cogeneration, and liquid-salt burner reactors. The problem of spent nuclear fuel would soon be generally solved. The long-term goal here is to make Russian Federation leader of the global nuclear energy market. The scenario requires clear political will at the state and corporate levels, as well as of the Academy of Sciences and the scientific and expert communities. Certainly, there are no reasons to postulate that this scenario would surely be implemented in Russia, but we are keen to do so.

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Whither Gazprom – can Gazprom survive in a shale gas world?

By Alan Riley

The Great Recession was bound to damage Gazprom's gas sales to Europe. The scale of that damage has been however been compounded by global gas liquidity caused by the shale gas revolution. At first sight the enormous global shale gas resource base would appear to threaten Gazprom's future. However, there is a compelling argument that far from threatening Gazprom the shale gas revolution could give the company a new lease of life.

Gazprom's traditional business model operated on a number of key assumptions. First that it need long term supply contracts with large energy incumbents in EU Member States who could ensure high gas prices across their national territory by effectively foreclosing the market. Second, the revenues from those high gas prices could be then deployed to cover the cost of expensive transit, exploration and production operations in Siberia. Underpinning those two assumptions was a third assumption that gas was a scarce premium resource and that Russia increasingly had most of it.

Even before the shale gas revolution that business model had come under some pressure due to the activities of the European Union. EU liberalisation legislation had made the traditional energy incumbent customers of Gazprom, such as ENI, GDF and E.ON far less masters of their own domestic markets. Third party access and other EU energy rules had begun to reduce the scope to foreclose national markets. Reinforcing energy liberalisation, the European Commission's DG Competition brought a series of antitrust prosecutions against major energy incumbents. It was these prosecutions that broke the back of the traditional model of dominant vertically integrated domestic monopoly energy companies. This liberalisation had already new competitors into the market place; greater transparency and some liquid natural gas (LNG) to enter the market.

The shale gas revolution threatens all the assumptions that underline Gazprom's business model. The world no longer needs mega-projects to generate gas production from the high north or the seas of the Arctic. Gas can now be brought into production near where it is needed. Gas is no longer a scarce premium fuel current IEA figures suggest that the resource base in North America is over 230 trillion cubic metres; over 100 tcm in China and even in Europe over 30tcm. These figures are almost certainly an under-estimate of the total resource base due to the fact that these figures were compiled when looking for conventional resources. The US experience is that when geologists start examining the resource base the size of the base expands. This US experience is confirmed by the first assessments of Indian and Argentinean shale plays which suggest that there is a very significant unrecognized resource base in both those countries.

Worst still for Gazprom is at about the time the shale gas revolution took off in the United States global LNG production began to be ramped up. With capital committed LNG production will rise from 240bcm in 2008 to 410bcm in 2013.

It is the interaction between shale gas production and the ramping up of LNG production which is generating Gazprom's current problems. Although no gas production from European shale plays has yet been developed and significant production is probably unlikely till 2015 at least Gazprom is already feeling the effects of the shale gas revolution.

One of the principal reasons for the increase in global production was the prospect of supplying the US market. Unfortunately for LNG producers just as they committed capital to increased LNG production found that shale gas production had taken off. As a result US demand for LNG has collapsed. A significant proportion of LNG demand has now, using market access provided by EU liberalisation rules, been diverted into

European markets. This LNG diversion has cutt the spot market price to below that of the Russian border price for gas.

Gazprom has already had to respond by providing discounts to its European customers to ensure that they do not lose too much market share to the LNG sellers. This 'shale gas' effect is happening all before a single molecule of shale gas is produced in Europe. As more states generate their own gas from shale there is a real danger that LNG will become largely restricted to the European and Japanese markets.

In addition, there is a strong likelihood that the prospect of surging gas production in the United States will encourage shale gas producers to seek overseas markets. It will take a few years for liquefaction plants to be developed but Gazprom does face the prospect of 'shale as LNG' arriving in Europe in significant quantities by 2020 (the first actual shipments of US shale as LNG arrived in Great Britain in December 2010).

Shale gas does threaten Gazprom's current business model but it does not necessarily threaten Gazprom. Gazprom itself has enormous amounts of unconventional gas around its existing conventional gas reserves and near its existing infrastructure. The argument within Gazprom is between those who say that for \$30 billion as much unconventional gas can be generated as spending \$150 billion developing the conventional gas fields of Yamal or Shtokman.

Such external realities and internal debates are likely to force Gazprom to fundamentally reassess its business model. Gazprom could provide cheap and plentiful gas to its domestic market and into the EU and go head to head in competition for the European market with LNG producers. In such a market EU energy liberalisation is welcome as it allows Gazprom maximum market penetration.

Gazprom should also be cheered by the increasing European hesitancy over shale gas. Following the hype surrounding the European launch of the anti-shale gas film *Gasland*, moratoriums on drilling have been imposed in France and some of the German states while environmental protests have escalated across the EU. This is likely to significantly delay any European shale gas development leaving the gas market to Gazprom and the LNG producers.

While European delay presents an opportunity for Gazprom seizing that opportunity will require a fundamental shift away from mega investment projects to smaller scale shale gas drilling projects. It will also require Gazprom to reassess its pipeline strategy. In a world of gas to gas competition the cheapest gas wins. This reality suggests that Gazprom requires access to the cheapest major capacity pipelines: which means the Ukrainian pipeline network and not Nordstream (although that now may be a sunk cost) or Southstream (cancellable).

One final thought for Gazprom. Plentiful gas will lead to a final termination of the link between oil and gas prices. Gas will be cheap and plentiful. Gazprom will have a lot of cheap gas on its hands if it develops its own shale gas resources. Would not Gazprom generate much bigger revenues if it built a gas to liquids plant and converted the gas to oil? In other words will the shale revolution ultimately turn Gazprom into an oil company?

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Tallinn 2011 invites the world to hear its sea and its people

By Jaanus Mutli

In 2011 the capital of Estonia Tallinn is also the European Capital of Culture, proudly wearing the title that was first introduced 25 years ago in the cradle of European culture – Athens.

European Capital of Culture is the only Europe-wide culture brand. It is a strong brand yet it doesn't come with a certain format like the Olympic Games, but rather leaves every city the option to fill it according to its own ideas, needs and possibilities.

To Tallinn and Estonia the title means first of all our own big party that enables positive changes in the city environment and the cultural life – it's not merely a festival but rather a chance to channel the positive energy properly and long term.

At the same time it is a unique chance to present us to Europe through our culture – every serious media channel in Europe will at least once during this year ask, what is going on in Tallinn? And they will all want to find out more. This grants a long term attention on many levels – both from media and from the people all over Europe. Estonia and Tallinn don't currently have another event of that scale and we can even say that it is the most important cultural event in Estonian history.

It was not difficult to create the programme for the Capital of Culture year. Through an open bid we aimed to include and involve all creatives of the city who wanted to participate in what is happening here. Everyone could be part of creating the face of the Capital of Culture.

The creative council received over 900 ideas, out of which 251 have been developed as the core programme resulting in about 7000 single events throughout the year. We wanted to find out what topics and issues are important in the city, in order not to create empty slogans or an artificial campaign but rather support genuine real ideas and events. An ongoing theme that linked many proposals and ideas like a red thread was the relationship or non-relationship of Tallinn to the sea. The proximity to the sea has been both a blessing and doom for Tallinn; the sea has brought us wealth, European culture and foreign invaders.

However during the soviet occupation everyday life was cut off from the sea as the seashore in city centre was a restricted zone, both military and industrial. The area was not accessible and has been neglected in the recent past. So instead of bustling seaside promenades with cafés, restaurants, cultural attractions and amazing sunsets we have had to live with wastelands in supreme locations. And this has been in the minds and hearts of so many people in this old maritime town. The year as European Capital of Culture offers a chance to recapture the seashore for the people of Tallinn. The sea has not been part of Tallinners' lives in 70 years; we want to bring this connection back to people's minds through our stories - awareness of how much more beautiful the city could be with this connection. That's where the main core of the Capital of Culture year programme came from – stories of the seashore.

The sea offers the programme a poetic inspiration and countless beautiful backdrops for so many events. At the same time, as this practical need to reconnect to the sea has been recognised, many actual projects involving the seashore redevelopment have started because of the Capital of Culture. The Seaplane hangars will open as the most state-of-the-art maritime museum in Northern Europe in July 2011 to be linked to the harbour and the city centre by a promenade – the Culture Kilometre.

The concept of stories enables us to place the events in other areas as well, not just physically at the seashore. The programme we present during 2011 offers a good balance between traditional events that have shaped the cultural identity of Tallinn and Estonia for many years and completely new ideas that will spread their wings with the help of Capital of Culture.

Certainly the Song and Dance Festival in the beginning of June would be a great opportunity to take a peek into Estonians' souls for people who have not experienced Estonian culture before. To see and hear 30 000 children singing together on stage and 100 000 people listening and singing along would offer a chance to get a taste of the „singing revolution“ that enabled Estonia to regain its independence 20 years ago. This nearly 150 year old tradition is one of the most important pillars of the Estonian identity and therefore an essential event during the year 2011. The Song Festival Grounds will also be the venue of an international rock and pop concert „Song of Freedom“ on 20 August, celebrating the 20th anniversary of regaining the independence.

NO99 Straw Theatre is the biggest event especially created for the Culture Capital year. It is an installation, a public space and a venue for cultural events. Straw Theatre will be built on the Skoone bastion, next to the famous Old Town of Tallinn. It will be open from May to September 2011 and after that, it will disappear. NO99 Straw Theatre, based on the idea of Ene-Liis Semper, an internationally renowned video- and stage artist and director, is a functional installation surrounded by a consumption-free public space. Everybody is welcome to do their morning workout there, play with their children on the playground, read intellectually enthralling magazines, eat healthy food or just listen to the birds singing and gaze at the sea. From May to September NO99 Straw Theatre will host numerous famous contemporary artists with plays, space- and sound installations. Among others the creations of Sebastian Nübling, Gob Squad, Christoph Schlingensiefel, Kristian Smeds, Nature Theatre of Oklahoma, Siren can be seen. The curator of the programme is award-winning Theatre NO99 and its creative directors Tiit Ojasoo and Ene-Liis Semper, who themselves will bring productions and projects to stage.

Another major highlight of the programme is a unique ceremony on Tallinn Bay – 60 Second of Solitude in Year Zero. A full-length, open-air cinema session will feature one-minute films made by directors from all over the world especially for the event. It is also the premiere of a film anthology – as part of the ceremony, the sole copy of the film will be burnt during the screening, right before viewers' eyes. Each frame of the film will be lost forever. Just like every second in a minute, or a moment in your life. It is homage to larger-than-life cinema's fragile fabric, unsullied prophecy, and those you watch, see and remember.

A major visual arts event will start right at the beginning of the year. 'For Love, Not Money' – 15th Tallinn Print Triennial will be held at the Kumu Art Museum. The 'For Love, Not Money' exhibition will look at contemporary graphics in the broader context of the creation of and trends in modern art. The project will be attempting to reflect current trends in modern art, set against the backdrop of the global financial crisis, and to examine problems associated with the creation, exhibiting and reception of art in this context.

Contributing to the exhibition will be 51 invited artists and 63 additional artists who won places as part of a fiercely

contested international competition. Part of the main exhibition will showcase the work of the grand prix winner from the last triennial, Colombian artist Óscar Muñoz. The triennial also traditionally shines the spotlight on art from the Baltic States, maintaining the fundamental identity of the event through the participation of artists from Estonia, Latvia and Lithuania. The exhibition will focus on the latest trends in modern art, including video, performance, photography and print media.

The summer's grand exhibition 'Gate(way)s' presents new, experimental, media-based forms of art by Europe's younger generation. The projects are a study of how digital networks and technology influence our everyday lives, activities and perception. At the centre of this are works that deal, in various ways, with gateways to information and knowledge in today's digital, networked culture, and offer up alternatives to the mainstream consumerist approach.

For the first time two European Capitals of Culture – Tallinn and Turku – are so close to each other both geographically and culturally. There are many projects that involve and bring together creatives from both cities. Like Sasha Pepelyaev's Dancing Tower. Produced to mark Turku's Aurinkobaletti's 30th anniversary, the Dancing Tower will rise into the firmament of Tallinn and Turku. The ten-metre tower represents the core of humanity: a soul bursting with energy, creativity and dreams. Dancing Tower fuses dance with physical theatre and music, presenting captivating tricks, trained monsters, ventriloquists, fire and water. The international project features artists from Finland, Russia, Estonia and the United States. The moving force behind the performance is visionary Sasha Pepelyaev.

Another theatre project involving both Turku and Tallinn is Kristian Smeds' Karamazov Workshop. There is no doubt that Kristian Smeds is currently Finland's most outstanding and daring theatre director. His unexpected and highly personal takes on classics are famous, sometimes even

notorious, and make theatre festival circuits from Moscow to Brussels. They require a new type of flexible actor – just the kind trained by Von Krahl Theatre in collaboration with the University of Tartu's Viljandi Culture Academy. So that the task is worthy of the performers, Dostoevsky enters the picture with his most complex and weighty work. The big questions of the novel turn into powerful pictures on stage through music, dance and DIY art: God, love and death; the state of humanity; good vs. evil; and guilt and fear. Smeds leads an expedition into the depths of the Russian soul and does this in both Tallinn and Turku.

European Capital of Culture has offered a format for much more international cooperation. Tallinn will expect Cityrama from the United States, SIGNA from Denmark, Punkt Festival from Norway, artists, musicians, actors from Germany, France, UK, Austria, Russia, Spain, USA, China, Georgia, Latvia and many other countries bringing their ideas to Tallinn and hopefully taking inspiration back home.

We have seen great enthusiasm among foreign embassies in Tallinn to join in the programme with ideas and by supporting artists from their countries to come to Tallinn in that special year. The title of European Capital of Culture truly is a door-opener to people's hearts and minds and an excellent tool for international cooperation and European integration at its best.

Jaanus Mutli

Member of the board

Foundation Tallinn 2011

Estonia



Through great commitment a new tourist destination in the Baltic Sea is created!

By Anne-Marget Niemi

Tourism is one of the main themes in the Baltic Sea Strategy published by the European Commission in June 2009. Each main theme of the strategy contains flagship projects, the responsibility of which often rests at the national level. The implementation of the tourism theme is coordinated by the Mecklenburg-Vorpommern region in Germany. In Finland the responsibility rests with the Regional Council of Southwest Finland and Turku Touring (the region's marketing and sales organisation for tourism). Operating in close cooperation with the Centre of Expertise for Tourism and Experience Management, our focus is on a strategy that concentrates on the development of environmentally friendly coastal and rural tourism.

The Baltic Sea Strategy is the first sub-area strategy in the European Union. This is an honour and a challenge as the good results are likely to be copied in the future, which is why our work is being followed with such interest.

The Baltic Sea region has a good chance to become a globally attractive and competitive tourism destination. We are lacking a common vision about our future as a tourist destination and despite sharing a common history we have not yet identified a unifying concept to be marketed. This is important as the Baltic nations are relatively undiscovered by international tourists.

Turku Touring is a member of the Cruise Baltic-co-operation and through this collective we have, together with 10 countries and 26 cities, worked tirelessly as a team. We use the slogan "Ten countries on a string" where every city is a pearl, and together we build the world's greatest cruise experience, a glorious necklace to adorn the Baltic Sea. Our strengths lie in the history and culture of our old cities, many of them medieval towns and former centres for the Hanseatic League. One unifying agent could be the material Amber, used in a range of products in the various Baltic regions. Another commonality is the close proximity to nature that most of the cities have. We in Turku offer "Nordic Walking on the island of Ruissalo" - a neighbouring island and national park belonging to the city. However it is also a strength that the cities are not too similar and differ enough from each other. This enhances the attractiveness to the cruise passenger as they can enjoy a unique experience in every port. The cultural collective offers an enticing contrast to the Mediterranean or Caribbean regions.

At "Seatrade - Miami" (an exhibition for seatriade professionals) we are together promoting cruise opportunities in the Baltic Sea. Our central focus will be on the next two years as Turku and Tallinn are the European Capitals of Culture 2011, whilst in 2012 Helsinki enjoys its status as the World Design Capital. This is a fine example of cooperation at its most effective, with Baltic competitors co-operating professionally to achieve a greater share of the global market for Europe and the Baltic Region.

The Baltic region boasts a seascape that is truly unique. The most beautiful experience has to be island-hopping between Sweden and Finland. Together with the Swedes we are co-operating in marketing and product development. Our goal is to get the brand "Scandinavian Islands" (meaning the islands between Turku and Stockholm) onto the map and into the minds of people worldwide as one of the fascinating parts of the Baltic Sea region.

It is natural that the funded projects are targeting non-European markets, but I think it should be remembered that visiting our neighbours is also very important. We in the Baltic do not know our neighbours very well. There are many more possibilities in the region other than the cruise industry and the focus areas of our flagship-project. The key-word here when developing tourism is 'accessibility'. Sailing in the Baltic, biking in the Baltic, hiking in the Baltic, fishing in the Baltic - there are so many possibilities. Our colleagues in Poland have developed the "Amber route" and there is the possibility to enlarge this to other countries where they utilise amber. Of course this is not all we have cooking in the Baltic! The Baltic cuisine varies a lot, but

seafood dishes, berries, mushrooms, reindeer, lamb are all typical foods for Scandinavian countries. This exciting and varied mix of cuisine should be highlighted as a strength too when marketing the region as a tourist destination.

When talking about the near-markets, the events have an important role. When the city is easy to reach you can visit there many times a year: for concerts, exhibitions, festivals etc. With our closest neighbours there is no need to worry about image-marketing as you already know each other well. For non-Europeans, Russia is still an extremely exotic destination. All the cruise ships have St. Petersburg as a final destination and we try to gain what we can from this. St. Petersburg's cruise port is very modern with the possibility to take grey and black water from the vessels. Port facilities are one of the most important development areas for the whole Baltic Sea region.

We in Turku, are also promoting the new train-connection from Turku to St. Petersburg via Helsinki. Travelling between European Capitals of Culture is also easy: 1-2 times a week we have a flight connection operated by Air Baltic. The flight takes approximately 40 minutes, but cities can also be reached by land and sea, in which case travelling would take half a day. New, joint cultural ventures, born from co-operation between Estonians and Finns, will also be available. We are producing common products under themes such as, "Modern Life in Historical Towns", "Design and Architecture in Turku and Tallinn", "Facing the Sea" and "Food culture: Feed your soul."

I am very proud that my city of Turku has been honoured with the status as European Capital of Culture, with so much to offer for the tourist. Together with the many pre-existing art and artistic experiences that form the essence of Turku, the Cultural year will deliver a variety of intimate, unique, and above all, free encounters with art, culture and the people of Turku. Unfortunately, art and culture has often only been accessible to the privileged few. The "Turku 2011" programme has taken great effort to offer memorable and uplifting experiences for everyone - especially those on a tight budget!

Turku prides itself on the fact it is one of the few places to offer a Circus Art degree programme. This form of cultural creativity contributes to many of the cultural activities. Through circus performances, the "Fire! Fire!"- exhibition and many other events during the year, Turku 2011 offers a variety of ways in which visitors and locals can get physical with culture, with a real emphasis on the interactive possibilities of art.

All of us in the Baltic Sea have huge possibilities to turn the region into a number one tourist-destination, right on our doorstep. However, I would like to leave you with the reminder that, despite these opportunities and our ambition to see the region thrive internationally, we must remember the vulnerability of the natural world on which our progress depends. We must always endeavour to create sustainable means by which we can enjoy the sea, the landscape, the marine life and the wildlife, for many years to come.

Anne-Marget Niemi

Director of Tourism

*Turku Touring – Southwest
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Finland



Creation of a healthy and wealthy Baltic Sea Region (BSR)

By Wolfgang Blank, Leonas Grinius and Peter Frank

Health Challenges for the EU and BSR

The Health challenges for the EU member states, as described in the EU white paper "Together for health – A strategic approach for EU 2008 – 2013", are the following:

- As the EU population ages, changing disease patterns are challenging sustainability of EU health systems.
- Pandemic incidents and bioterrorism pose potential major threats to health of EU citizens.
- Rapid development of new technologies revolutionizes prediction, prevention and treatment of illnesses.

The white paper stresses the need to incorporate health concerns into all EU policies and to reduce health inequities in order to achieve tangible results for the EU member states and stakeholders. For the Baltic Sea Region (BSR), it is both a challenge and an opportunity to demonstrate how these intentions can be put into practise at the macro-regional level serving as a heaver for BSR and for the Northern Dimension Policies or even entire EU policies.

To our opinion, these challenges can only be met with Innovation in Health and Life Sciences, which are key factors to ensure prosperity and wealth in the wake of globalization and enhanced trans-continental competition. A broad range of policies, actors and stakeholders need to be involved, the relevant interests and responsibilities being:

- Providing public and private financing of social and health care systems.
- Funding of innovations from public and private sources.
- Increasing efficiency of governmental support for innovation in Health and Life sciences, which currently is dispersed among a variety of ministries responsible for health, environment, agriculture, regional development, education, research and finance, just to mention some.
- Increasing cooperation within the research triangle - science, education and economy – a process with many gaps, challenges and un-exploited opportunities.

These monumental challenges are not restricted to a single country and they are highly complex and closely interconnected cutting across sectors and disciplines. Therefore, it is necessary to strengthen trans-national, as well as cross-sectoral, approaches for removing disparities, gaps and barriers within the EU thereby facilitating the access to the market of innovative Health products and services.

Health Economy as an opportunity for the BSR

BSR plays an important role in modern Europe, as it comprises nine European Union member states plus Norway and Russia. The BSR has the following key features:

- Covers **1.745 Mio. Sq. Km.**, e. g. about **40%** of the **whole EU**.
- Hosts about **85 Mio.** Inhabitants - more than **20%** of the **EU's population**.
- Accumulated **GDP** amounts to **400 Bio. €**, making the BSR one of the EU's major **economic macro-regions**¹.

¹ For this paper the term macro-region means regions comprised of adjacent territories from several different countries that share a number of common challenges.

The region shares with the rest of EU common challenges like rising costs of health care, ageing population, environmental threats due to climate changes, and the need for alternative sources of energy. We would like to point out that health contributes to wealth and a healthy population is necessary for economic productivity. Therefore, investments in health foster long-term growth and sustainability of economies.

Furthermore, health care strongly and directly benefit from research and technological development in life sciences, and it also triggers technological innovations thus fostering "business driven technology".

Unfortunately, distribution of innovative SMEs and Health industries varies remarkably between metropolitan and remote regions of the BSR. More, SMEs have particular difficulties to participate in research and development of innovative technologies. All this leads to weak transnational and trans-sectoral coordination of the whole innovation chain, resulting in:

- Impeding generation of innovative ideas by research in Life sciences.
- Obstructing development of innovative ideas by SMEs.
- Slowing transfer of innovative products and services.

Also, a fragmented system of research and innovation demonstrates weak internal links and low level of cooperation between actors. Under-investment in the knowledge foundation, unsatisfactory framework conditions ranging from poor access to finance, high costs of IPR and slow standardisation, as well as ineffective use of public procurement, are additional challenges, as described in the "Innovation Union"² document.

Health Economy provides an opportunity to make BSR a global front-runner. To achieve this ambitious goal, it is necessary to identify the key stakeholders and to remove barriers for exploiting the full potential.

ScanBalt Health Region as a tool for Health Economy

The European Union adopted the "EU Strategy for the Baltic Sea Region"³ in 2009. The EU BSR strategy encompasses an integrated approach to enable BSR to enjoy a sustainable environment and optimal economic and social development.

The ScanBalt Health Region flagship is an acknowledged project within the BSR strategy's action plan. The ultimate goals of the Flagship are to promote a globally competitive BSR Health Economy by solving the grand societal challenges of Health within the BSR, and to play a leading role promoting global health.

The flagship is lead by BioCon Valley® GmbH (Greifswald, Germany), and the Lithuanian Biotechnology Association (Vilnius, Lithuania) based on mandates from German and Lithuanian Governments, respectively. These entities, together with the Västra Götaland Region of

² Communication from the Commission to the European Parliament, the Council, The European economic and Social Committee and the Committee of the Regions, Europe 2020 flagship initiative Innovation Union, SEC (2010) 1161.

³ The strategy is described in three documents: a Communication from the European Commission to the Council and the European Parliament, an associated Action Plan which complements the Communication, presented to the Council and European Parliament at the same time and a Working Document of the European Commission's Services which presents the background, approach and content of the strategy.

Sweden, ScanBalt fmba (Copenhagen, Denmark) and ScanBalt Academy (Oslo, Norway), have formed a task force with the support of many partners and associated partners in the BSR.

To promote coherence of regional policies, strategies and actions, the ScanBalt Health Region flagship has already launched the first cross-sectoral reference project entitled "Baltic Sea Health Region - Business acceleration support and training bridging innovative SMEs and health care organisations to strengthen BSR Health Economy" (acronym "BSHR HealthPort"). The BSHR HealthPort is co-funded by the Baltic Sea Region programme 2007-2013 and encompasses 9 partners together with 15 associated partners. Specifically, the BSHR HealthPort is focused on the following challenges of the Health Economy:

- Insufficient exploitation of ideas from health care researchers and practitioners.
- Procurement practises that limits access of SMEs to the BSR health care market.
- Insufficient innovation competencies of health care providers and SMEs and cultural differences across the Baltic Sea Region.

A key delivery at the end of the project is a Health Economy Innovation agenda for ScanBalt Health Region.

10th ScanBalt Forum: Balanced regional development based on smart growth and specialization between clusters

Ten years ago (in 2001), the first round table discussion took place, which subsequently led to formation of the ScanBalt BioRegion.

The 10th anniversary of the foundation of ScanBalt BioRegion will be celebrated September 21 – 24 this year in the German State of Mecklenburg/Vorpommern on the Pomeranian Island of Usedom organised by BioCon Valley. The Forum will focus on promotion of a balanced regional development based on smart growth and specialization between clusters.

Wolfgang Blank
BioCon Valley and Chairman of ScanBalt

Leonas Grinius
Lithuanian Biotechnology Association

Peter Frank
ScanBalt

New trends in business in Moscow–St. Petersburg

By Pirjo Karhu and Manfred Janoschka

New leadership and corporate culture in Russia

Russia has suffered a huge cultural change during last 20 years while moving from Soviet society to a market economy. The new trends in leadership and corporate culture are today hot topics in business.

From Soviet style...

As a Soviet heritage there was no proper corporate culture existing at the early 90's in Russia; the culture was more or less authoritarian and masculine: I tell you what to do. The management was based on a strong hierarchy, a huge bureaucracy, commanding and punishing people. As a result of that, the decision making was centralized and slow. The initiative and independency of employees were not accepted. The long term target setting or business orientation were missing. In that kind of environment the employees became passive, avoiding mistakes and shirking responsibility. The general manager was expected to be strong, dictatorial, self-confident and autocratic.

...to modern corporate culture

The new roles of managers are the opposite to the old ones. Cross cultural communication and understanding of the Russian way of thinking and acting is a continuous learning process. It's worth doing, because it encourages confidence inside the company. Today young Russian professionals are eager to work in companies, which allow them the independent thinking, the use of own talents and the advancement in career. It's also important that employees can internalize the company values as their own ones. Setting the common goals together increases the commitment and responsibility of people working for company. It also creates a wonderful atmosphere and a team spirit. This all reflects to the client service: the clients can sense that people who love their work, love also clients and want to make them happy with a surprisingly good service. This distinguishes 'the best from the rest'. A client can really feel him/herself as a king or a queen. The top manager's new role is extremely important. A good leadership consists of the efficiently organized work methods and resources, the comfortable work environment, the high-quality IT-solutions and tools and the quality system with the correct, functioning processes. As an umbrella there is a fair, incentive and inspiring leadership.

According to the survey made among American companies it's stated that the success companies do not go after the maximum profit; yet, they do make twice better profit than their competitors. The top companies focus on developing own business operations excellent, to be a forerunner on the market. They are not following how their competitors are running their business. And the top companies do the things differently than the others. When creating a new corporate culture in Russia there are some tips to be followed: Set clear targets and track results. Be present and reachable. Communicate actively, openly and honestly. Be yourself, don't hide your feelings. Create a friendly atmosphere. Keep your promises. Have a party now and then - and relax.

The new corporate culture consists of a well prepared road map: clear mission, vision, values, strategic targets and an incentive leadership. Everybody wants to be a part of a success story. The success depends mostly on a good client care: to keep clients always happy. When employees are highly motivated, there is no concern for the business results. A good leadership can be summarized by saying: We are in business for profit and fun. The more fun - the more profit. In Russia with love.

Need for modernization

Russia mainly got over the crisis. In 2010 the economy grew already by about 3,8 % after the hard decline of GDP by 8% in 2009. IMF forecasts for 2011 an increase by 4,5%. The Russian Government assumes further increasing GDP rates and rise of production up to 10 % in the next years. The Russian government wants to promote a profound diversification of the economy, an expansion of the values production chain and the development of innovations. Russia should become the world market leader in the production of different goods. Foreign investors should be won over through such great projects the Russian Silicon Valley "Skolkovo", the Olympic Games in 2014 and the Football World Cup in 2018. Eight foreign big companies – such

as for example Cisco, Microsoft, Boeing, Siemens, Nokia, Intel etc – already became partner in "Skolkovo".

Modernization offensive

Following branches should first bring forward the modernization of the country: measures for the improvement of the infrastructure, production of the technologies in the fields of medicine, energy and information, development of the telecommunication and space systems as well as the increase of the energy efficiency. The total investments are over a trillion US dollars for the next 30 years.

Measures for the improvement of the infrastructure concentrate on road construction, railways, local traffic (underground) and airports. Till 2015 over 6000 kilometers of roads should be built, tens of thousands kilometers should be improved. Besides 3000 kilometers of new railways are planned including improvement (St. Petersburg – Moscow –Nishnij Novgorod) and extension of the railways for the high-speed trains as well as a considerable extension of airports (among others also in St. Petersburg).

Medical branch is an extremely important Russia's building site. Hospitals as well as work of the medical institutions and structures and their management require profound renewal. There is no production of the modern medical equipment in Russia, important medicines must be imported. The government promotes the development of this branch. Russia possesses the biggest energy reserves (oil, natural gas, coal). At the same time it has the best possibilities to reduce the energy losses. Till 2020 Russia wants to reduce the primary energy consumption by 40% (in comparison with the level of 2007).

IT and telecommunication is a branch of economy, in which Russia wants to reach a world level. This branch is financed with the funds from the federal budget and the local budgets. These funds total over 70 billion\$. Other programs in the field of nanotechnology, aviation and space travel are also the points for the future industry.

Business activity in Russia

In case of an investment in Russia there is a following question: How should I make a business start-up, a business roll-out in the regions; in what kind of legal form and with what partner? Also, all the foreign employees need in Russia a work permit and visa. For "foreign specialists" this procedure has become easier since June 2010.

Conclusions

New leadership and corporate culture enable to develop continuously organization and services and work as a one dream team for the best of the clients. That is a base for a good business. Furthermore, the need for modernization in Russia and the modernization offensive which is introduced by the president and the government should attract in the first line the European companies and give them possibilities for their business in Russia. These are great chances for an investment in Russia.

Pirjo Karhu

Chairman of the Board

Konsu ACCOUNTOR GROUP

Finland-Russia-Ukraine



Manfred Janoschka

CEO/Managing Partner

Konsu ACCOUNTOR GROUP



Port development in the Baltic Sea Area

By Markku Mylly

The **Hanseatic League** (also known as the **Hanse** or **Hansa**) was an economic alliance of trading cities and their guilds that dominated trade along the coast of Northern Europe in the later Middle Ages. It stretched from the Baltic to the North Sea and inland during the Late Middle Ages and early modern period (c.13th–17th centuries). The Hanseatic cities had their own legal system and furnished their own protection and mutual aid, and thus established a sort of political autonomy and in some cases created political entities of their own.

Foundation and formation

Lübeck became a base for merchants from Saxony and Westphalia to spread east and north. Well before the term *Hanse* appeared in a document (1267), merchants in a given city began to form guilds or *Hansa* with the intention of trading with towns overseas, especially in the less-developed eastern Baltic area, a source of timber, wax, amber, resins, furs, even rye and wheat brought down on barges from the hinterland to port markets. The towns furnished their own protection armies and each guild had to furnish a number of members into service, when needed. The trade ships often had to be used to carry soldiers and their arms. The Hanseatic cities came to each other's aid.

Expansion

Lübeck's location on the Baltic provided access for trade with Scandinavia and Kiev Rus, putting it in direct competition with the Scandinavians who had previously controlled most of the Baltic trade routes. A treaty with the Visby Hansa put an end to competition: through this treaty the Lübeck merchants also gained access to the inland Russian port of Novgorod, where they built a trading post or *Kontor*. Other such alliances formed throughout the Holy Roman Empire. Yet the League never became a closely-managed formal organisation. Assemblies of the Hanseatic towns met irregularly in Lübeck for a *Hansetag* ('Hanseatic Day'), from 1356 onwards, but many towns chose not to send representatives and decisions were not binding on individual cities. Over time, the network of alliances grew to include a flexible roster of 70 to 170 cities.

End of the Hansa

At the start of the 16th century the League found itself in a weaker position than it had known for many years. The rising Swedish Empire had taken control of much of the Baltic. Denmark had regained control over its own trade, the *Kontor* in Novgorod had closed, and the *Kontor* in Bruges had become effectively defunct. The individual cities which made up the League had also started to put self-interest before their common Hansa interests. Finally the political authority of the German princes had started to grow—and so constrain the independence of action which the merchants and Hanseatic towns had enjoyed.

By the late 16th century the League had imploded and could no longer deal with its own internal struggles, the social and political changes that accompanied the Protestant Reformation, the rise of Dutch and English merchants, and the incursion of the Ottoman Empire upon its trade routes and upon the Holy Roman Empire itself. Only nine members attended the last formal meeting in 1669 and only three (Lübeck, Hamburg and Bremen) remained as members until its final demise in 1862.

Despite its collapse, several cities still maintain the link to the Hanseatic League today. The Dutch cities of Deventer,

Kampen, Zutphen, and the ten German cities Bremen, Demmin, Greifswald, Hamburg, Lübeck, Lüneburg, Rostock, Stade, Stralsund and Wismar still call themselves *Hanse* cities. Lübeck, Hamburg, and Bremen continue to style themselves officially as "Free (and) Hanseatic Cities." (Rostock's football team is named F.C. Hansa Rostock in memory of the city's trading past.) For Lübeck in particular, this anachronistic tie to a glorious past remained especially important in the 20th century. In 1937 the Nazi Party removed this privilege through the Greater Hamburg Act after the *Senat* of Lübeck did not permit Adolf Hitler to speak in Lübeck during his election campaign. He held the speech in Bad Schwartau, a small village on the outskirts of Lübeck. Subsequently, he referred to Lübeck as "the small city close to Bad Schwartau." After the EU enlargement to the East in May 2004 there are some experts who wrote about the resurrection of the Baltic Hansa

Baltic Sea ports today

The year 2009 has been difficult for the entire shipping industry and the majority of the Baltic ports saw their cargo volumes fall. Finland and Germany recorded biggest losses, but Sweden, Lithuania and Poland followed with considerable falls in their ports' cargo throughputs for the first three quarters of 2009. However, it seems that the end of the year has borne witness to some kind of recovery, at least in Lithuania and Poland. In addition, Estonia was able to boost its already positive growth during the last quarters. Preliminary data suggests that Estonia was the only state in the Baltic Sea region to increase its cargo volumes in 2009. According to the preliminary statistics, only three of the ten major ports in the Baltic Sea managed to increase their total cargo volumes during 2009, namely Primorsk, Tallinn and Riga. In the case of Primorsk, this positive development is explained by the increase in Russian oil transports, which is probably also behind the successful year experienced in the other two ports. Among the top 10 ports, two German ones – Lübeck and Rostock – saw the greatest decline. This reflects state level statistics, where 2009 appeared to have been most difficult for ports situated in the western or northern part of the Baltic Sea, with only Denmark being an exception.

A brief study of the quarterly statistics gives some grounds for optimism, despite the apparent over-all gloominess. We can see that in six of the nine Baltic Sea states, Q3 saw the best development when compared to the preceding quarter, and in one state (Lithuania) growth during Q3 was as high as during the preceding one (both being positive). Either this implies that some sort of turning point was reached in the development of cargo volumes after the first half of 2009, or Q3 merely represents a momentary peak on an otherwise downhill path. The first half of 2010 will be a crucial pointer to how things develop.

Baltic Port Barometer 2009: slow recovery expected

The Baltic Port Barometer is a survey designed to provide short-term trend information on Baltic Sea port development, by assessing business and traffic prospects across the BSR. It gathers the views of Baltic Sea ports on their future development, covering topics from economic and cargo development to planned investments and bottlenecks. In the Baltic Port Barometer 2009, a special theme was included on the ongoing recession. The Baltic Port Barometer 2009 had a wide geo-graphical coverage: 51 port authorities from nine BSR countries participated in the survey. The key results of the Barometer are related to the outlook on economic and

cargo developments as well as expectations on the duration of the recession and the timetable for recovery in the BSR. Ports' views on expected economic development in the BSR in 2010 varied from slightly negative to slightly positive, but those forecasting regional growth outweighed those expecting negative result. Big and middle-sized ports regarded future development in a slightly more positive light than the small ones. Moreover, the majority (63%) of the respondents expected growth in their cargo handling volumes in 2010, and same as with views of the overall economic development, big and mid-dle-sized ports' expectations were somewhat more positive about the cargo volumes.

Nearly half of the ports expected some growth in their liquid bulk volumes and only 7% saw them falling. Expectations were slightly more polarised with respect to dry bulk transport. Strong growth was foreseen by 8%, some growth by 33% and some fall by 15% of the ports. Half of the respondents expected growth in other dry cargo volumes (including all non-bulk cargo). The forecast for container volumes was the most positive one; two thirds of the respondents expected increasing volumes, and one fourth no change. The majority (77%) of ports with passenger traffic expected it to grow slightly in their ports in 2010. 71% of the respondents believed that the worst period for their cargo turnover was Q1, Q2 or Q3 of 2009, and only one tenth predicted the worst to come in 2010. Two percent believed it would occur later than 2010. The majority of respondents believed that the peak cargo volumes of 2007/2008 would be achieved again by 2011 or 2012. One fifth expected the recovery to take longer. Some of the respondents forecast that volumes would reach the levels of 2007/2008 by 2010 or even 2009. The months following the publication of the Baltic Port Barometer in September 2009 saw the fall in transport volumes halted; nevertheless, confidence in the market remains fragile. For example, Die Welt reported that the logistics industry in Germany touched bottom in the fourth quarter of 2009.

In January 2010 Jan Fritz Hansen, deputy director of the Danish Shipowners' Association, announced that he saw signs of the industry exiting the crisis, but forecasts the winding up of a number of companies in 2010 (Berlingske Tidende, 19.1.2010). As early as November 2009, the German Seaports' Association (ZDS) declared that it expected cargo volumes in German seaports to grow by 3% in 2010 (Hamburger Abendblatt, 18.11.2009), while the German logistics industry expected growth of 1% in 2010 (Die Welt, 22.10.2010). The Finnish Shipping Company barometer, published in November 2009, indicated that an economic upturn is expected during the first half of 2010 (SPC Finland).

The way forward

The BSR maritime transport has recently witnessed a series of changing trends. A brief summary of the main recent and forthcoming phases across the BSR is given below. High, but uneven total growth in volumes until early 2008, against generally strong economic development in the region; The global recession affecting the BSR from mid-2008 resulted in GDP levels close to the 2007 level, with a final effect on total cargo handled in BSR ports of -0.4% in 2008;

A deep economic recession during 2009 with increasingly positive signs of recovery towards the end of the year; maritime transport volumes falling in many BSR countries in quarters 1 to 3, but generally stabilising volume development towards the end of 2009. Varying growth paths in different BSR countries: growth rates in total cargo handled in the ports ranging from +6% in Estonia to around -19% in Finland; Expectations for a moderate economic recovery in BSR raised in forecasts for 2010; some 2/3 of BSR ports expect an increase in volumes from 2009 to 2010, with the logistics sector estimating modest growth for 2010. The bottom was probably reached during 2009; In 2011, economic growth is expected to accelerate, but within certain limits (+1.6% in the euro area). Most BSR ports predict a full recovery (to peak cargo levels of 2007/2008) by 2011-2012. In its European Economic Outlook from September 2009, the International Monetary Fund (IMF) predicts a slow and fragile recovery this year, with some risk potential inherent in reliance solely on rising exports. The IMF sees Europe facing a weaker outlook for medium-term growth due to a drop in investment, the threat of unemployment and various financial and real estate sector characteristics. For the year 2010, the IMF's GDP growth estimates are still somewhat guarded: 0.5% for the whole European Union, 0.3-1.2% for Finland, Germany, Denmark and Sweden, negative for the Baltic States, 1.5% for Russia and, as the highest score, 2.2% for Poland. In its most recent forecast, the IMF set expected growth in world output higher than anticipated, but with variations in different parts of the world. In the euro zone, the forecast implies 1.0% rise in 2010 and 1.6% in 2011. For Central and Eastern Europe, the estimates are 2.0 and 3.7%. Despite the more positive outlook, IMF estimates that real output in the advanced economies will remain below its pre-crisis level until late 2011. BSR maritime transports will probably also see a slow and fragile recovery. Overall development is ultimately dependent on certain major factors: the development of the Russian economy and oil exports, unemployment and consumption, general investment activity in the area and the performance of export-oriented industries.

Based on preliminary data on maritime transport volume development in 2008 to 2009, the total volumes handled in the BSR ports in 2009 should amount to around 750 million tons. This would mean a fall of 10% compared to the totals for 2008. While estimates going beyond 2010 are risky, I would give the following tentative forecast: the total volume handled in the BSR ports will see 2% growth in 2010, 2% growth in 2011 and 3% growth in 2012. This means that the peak levels of 2007/2008 in the Baltic Sea will not be reached until 2013.

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Impact of the recession on Baltic maritime transport

By Karl-Heinz Breitzmann

After several years of growth Baltic maritime transport considerably declined in the recession. Will it go back to post-crisis tendencies and growth rates? And are there structural changes, which evolved in the recession, already, or which can be expected?

Structure and dynamic of Baltic maritime transport

The Mare Balticum is a very transport-intense sea, its share in world sea-borne trade is in the range of 7 to 8 per cent. The reason for this extraordinary percentage can be found in the high internationalization of Baltic economies as well as the pronounced logistics-intensity of leading industrial clusters in the Baltic Sea region and its hinterland.

In 2008 the hitherto largest sea transport volume was reached, it amounted to about 620 million tons. For 94 per cent of these cargo flows, going through ports with an annual cargo handling of at least 1 million tons, we know the composition of transports according to groups of goods as well as their regional structures.

Liquid cargoes by far is the largest group. Nearly 60 per cent of the tanker transport is Russian export going through the Russian ports, but also in transit through ports of Latvia, Estonia and Lithuania. Dry bulk follows with about 25 per cent of all transports. Here coal, iron ore and grain as well as fertilizers and respective raw materials and building materials like cement, stone and gravel can be mentioned. Higher value investment goods and consumer articles on the Baltic are handled by two technologies. In Baltic external trade container feeder services are dominating, but in Baltic internal transport this function is realized by ferries and ro-ro ships. The last cargo group is dominated by forestry products and iron and steel, additionally it includes several other general and heavy cargoes.

From the year 2000 onwards Russia had become the main driver of transport growth. On the one hand Russia extended port capacities and constructed new ports what allowed to increase cargo handling from 38 to 174 million tons between 2000 and 2008. As furthermore big parts of cargo handling in Estonia, Latvia and Lithuania is transit mainly for Russia, we come to the conclusion, that in 2008 about one third of all cargoes handled in Baltic Sea ports is foreign trade from Russia, in 2000 that share was 20 per cent only.

Baltic maritime transport in the recession and structural changes

Baltic maritime transport and cargo handling of ports was severely hit by the financial and economic crisis in world economy and in economy and trade of Baltic Sea countries. For more than a decade, the Baltic Sea Area was among the European regions with the highest economic growth. But then in the recession it was going the other way round. Especially the Baltic republics saw GDP decreases of 14 to 18 per cent in 2009 and the rate in Russia was minus 8 per cent. Finland had the same downfall, whereas Germany, Denmark and Sweden came to about 5,0 per cent each. Only Poland was better off, reaching even a small increase in 2009.

The shrink in transport started in the second half of 2008, already. Then in the second quarter of 2009 the deepest point had been reached. All cargo types were affected, but the strength of the slump was quite different: Liquid bulk minus 7 per cent only, dry bulk minus 18 per cent, ferry and ro-ro cargoes minus 24 per cent, container goods minus 22 per cent and break bulk even minus 31 per cent (cargo handling in Baltic ports without Russia).

With a slight increase in the third and fourth quarter of 2009 the whole figures for 2009 compared to 2008 were a little bit better than in the second quarter. The total cargo amount was down to 92 per cent with liquids and dry bulk above this average and container, ro-ro goods and break bulk lower than the average (see table 1).

The shipping companies, ports and logistics providers had to adapt to these developments on the demand side. Reducing the costs was the overriding task. Ships were brought into lay-up, the frequency of lines went down, slow steaming was used and investments had to be postponed.

In 2010 economy, foreign trade and international transport in the Baltic Sea region recovered faster than generally believed. But nevertheless, several experts think that the high growth rates from the years 2000 – 2007/8 (see table 2) will not be reached again in the coming years. Much will depend on Russia, its economic recovery and the ability to master the modernization needed.

However it is not only the question on future growth, what is on the maritime sector's mind, rather several structural changes and environmental challenges have to be recognized and handled. In the container sector, for instance, in the recession several new developments occurred. It had been long discussed, if the actual hub-and-spoke system could be replaced partially by direct calls of larger overseas vessels in Baltic ports. Now a large deep-sea shipping company (Maersk) started to include a Baltic port (Gdansk) into its Far East transport system using container vessels of 8000 TEU. Will other carriers follow and which ports can grow into the function of Baltic hubs? Hamburg as the most important hub-port for Baltic feeder services lost substantial shares to Rotterdam, the port competition will even become stronger, when in 2012 the German deep-water port Wilhelmshaven will open its container terminal. There is an increasing number of containers on board of feeder ships, which as a part of short-sea shipments going from Western Europe to Russia and other Baltic countries, adding to the competition between different modes of transport.

Future challenges

Baltic maritime transport is facing several future challenges, for instance the adjustment of logistical and transport chains under the condition of substantially higher fuel costs for shipping, the improvement of transport connections into the ports' hinterland and the strengthening of multimodal/rail transport especially in the new market economies or the enlargement of port capacities and the development of cooperation among ports. One of the most important aspects is developing by the increasing requirements in the environmental and climate fields. So the new EU Baltic Strategy in the first thematic pillar of its Action Plan, dealing with the region as an environmentally sustainable place, formulates the aim to develop the BSR to a model region for clean shipping. That includes a broad bundle of challenges for shipping and ports. According to HELCOM the main negative effects of main negative effects of shipping include air emissions, illegal and accidental discharges of oil, hazardous substances and other waste and the introduction of alien organism via ships' ballast water and hulls.

In the framework of the International Maritime Organization (IMO) and the MARPOL International Convention for the Prevention of Pollution from Ships our Baltic Sea got the status as a Emission Control Area (ECA). According to Annex VI of MARPOL 73/78 the sulphur content of marine fuel oil in designated SOx Emission Control Areas

(SECA) has to be limited to 1,0 % by 2010 and 0,1% by 2015, whereas global shipping has to go down from hitherto 4,5 per cent to 3,5 per cent as from 2012 and to 0,5 per cent 2010 (or 2025). That has raised strong concern among shipping lines. They argue, that they have to switch to marine gas oil with much higher fuel and operating costs. In comprehensive studies prepared in Sweden, Denmark, Belgium and Germany it was demonstrated, that this 0,1% limit will burden not only maritime transport, but also the export and import industries. And more than that: Increasing costs for maritime transport will weaken its competitive position compared with road transport and that will result in a modal back shift from sea to road with higher negative effects for climate and environment.

In order to come to sound and sustainable solutions, it is necessary to study the respective problems in their complexity, before far-reaching decisions are taken.

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Table 1. Structure of Baltic maritime transport 2008 and 2009

Type of Cargo	Year	Total		Baltic external transport		Baltic internal transport	
		mill. tons	Share (%)	mill. tons	Share (%)	mill. tons	Share (%)
Liquids	2008	251	43,0	184	73,3	67	26,7
	2009	251	46,6	189	75,3	62	24,7
Dry bulk	2008	144	24,7	105	72,9	39	27,1
	2009	129	24,0	97	75,2	32	24,8
Ro-Ro	2008	71	12,2	13	18,3	58	81,7
	2009	59	11,0	11	18,6	48	81,4
Container	2008	59	10,1	54	91,5	5	8,5
	2009	48	8,9	43	89,6	5	10,4
Break bulk/ other general cargo	2008	59	10,1	44	74,6	15	25,4
	2009	51	9,5	40	78,4	11	21,6
All Cargoes	2008	584	100,0	400	68,5	184	31,5
	2009	538	100,0	380	70,6	158	29,4

Source: own estimations based on EUROSTAT and Russian port statistics

Table 2. Dynamic of cargo handling in Baltic Sea ports according to type of cargo

Type of cargo	Period	CAGR ^{*)} (%)
Liquids	2004 - 2007	7,0
Dry bulk	2004 - 2007	1,7
Ferry and ro-ro	2000 - 2007	7,4
Break bulk/other general cargo	2004 - 2007	-3,1
Container	2000 - 2007	13,8
Total	2000 - 2007	4,7

*) compound annual growth rate

Source: Own calculations using figures from EUROSTAT, Russian ports, Shippax

Russia's innovation policy and modernization agenda

By Natalia Ivanova

Despite impressive growth in Russia's GDP and industrial production, achieved in 2000s before the crisis, the quality of growth reveals the existence of certain problems in the competitiveness of the country. Since late 2008, the deep financial and economic crisis has underlined the importance of many challenges: relatively low level of GDP per capita and even lower level of labour productivity, technological decline in much of the manufacturing, agriculture and service industries; slow modernization due to relatively low industrial investment and innovation activity (both foreign and domestic). Modernization agenda, formulated by president D. Medvedev in September 2009, has been focused on these problems. Actually, innovation and modernization become the two facets of the same fundamental process through which the economy of the country should be renewed.

High-level commitment to innovation has created the conditions for renovating and building new infrastructures in support of S&T and innovation along strategic lines. Creation of the Presidential Commission for Modernization and Technological Development, and of the Government Commission on High Technology and Innovation provides an opportunity to consolidate a nation-wide consensus on the strategic tasks of innovation policy. The key technology priority of Modernization: energy efficiency, nuclear and space technology, medicine and pharmaceuticals, information technologies – has been defined and got new Government's attention and resources. The Skolkovo innovation city is under design as a hub for big high-tech companies. This initiative should become an experimental space for testing and demonstrating arrangements that could be extended to the wider economy and contribute to Russia's modernization.

Basically Government innovation policy objectives and targets has been formulated in several official conceptual and program documents issued in 2002-2006. The necessity to stimulate innovations has been also stressed in several Federal goal oriented and industrial strategies. The most important are "The Energy Strategy of Russia up to 2020", "Federal Space program", "Development of Civil Aviation Technology", and "The Strategies for Development of the Russian Chemical and Petrochemical Industry up to 2015". Although the government has declared a need to create favourable climate for innovation, the actual innovation policy measures implemented are mainly aimed at specific support actions and are largely based on direct financial support of R&D and innovation activity. When a comparison is made of this policy documents, the same list of innovation policy instruments tends to be seen with the predominance of public procurement projects. In effect, a major procurement item is R&D itself, which is largely purchased through the direct R&D financing of branch institutes. At the same time, the use of public procurement to drive innovation in other types of firms, whether public or private, remains under-developed. Firms are not the central objects of these projects and programs as they should be, which distorts the balance of contributions from the public sector to Russian innovation performance. Recently the new version of National Innovation Strategy has been elaborated by the federal Ministry of Economic Development. It is available on the Ministry's web-site and for public discussion and comments.

A major challenge for the Russian innovation policy is to redefine the responsibilities of the various actors within the system in the light of a more dynamic and open market economy and develop new ways of interaction among them. The greatest challenge here is to induce a stronger participation by the Russian business sector in the whole innovation process, including that of conducting and supporting research. In Russia business enterprise expenditure for R&D accounts for nearly two thirds of total Gross Expenditure for R&D. However, the R&D expenditure of the business enterprise sector is to a large extent funded by government, not – as is the practice in high-performing economies – by the business sector itself.

There is also a structural problem in Russia's economy – the predominance of low-tech industries. The significant growth of the Russian economy in 2000's was mainly achieved by raising the rate of production of the oil, gas and mining industries, including their export, and in many respects owing to favourable foreign market conditions for primary goods.

We also observe the most active investment processes in low tech industries: mining and primary metals production, infrastructure sector and services. All technologically advanced industries such as machines and equipment including carmakers, aerospace and defence, invest several time less than mining or transport and communication. And these heavily invested industries are primary exporters while import of machine and equipment is the major article of Russia's import.

Russian companies, being relatively young as private enterprises, are more engaged in the financial restructuring of their business, mainly with the idea of market capitalization growth, and tend to rely on foreign multinationals as a source of new technology and equipment. In terms of their innovation mode they are rather "technology adopters" and innovate primarily by adopting innovations developed by other firms or organizations.

Reorienting the current system towards production-oriented firms as the central players depends on firms' developing the interests and capabilities to innovate and carry out R&D. More favorable framework conditions for innovation, combined with an appropriate mix of financial incentives and other policy measures, will play an important part in this regard. A healthy business environment may be considered a precondition for boosting innovation activities.

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The National Innovation Strategy's impact on university of applied sciences learning environments

By Marja-Liisa Tenhunen and Irja Leppisaari

The national strategy of a strengthened knowledge base sets numerous challenges for higher education in Finland for the next several years. The National Innovation Strategy (2008) aims to create an internationally top quality learning development environment that widely encourages innovation, endeavoring to be an international pioneer in the development of *both educational content methodologies and technical tools*. Strengthening the knowledge base and developing a learning environment that widely encourages innovation and intrepidly combines multiple skills are emphasized as core measures. In terms of the strategy this means including entrepreneurship, innovation and internationality in the core of education, with the addition of incentives, opportunities for anticipatory education and continuous on-the-job learning. In our article, we raise linkages between National Innovation Strategy (2008) policy and developing a university of applied sciences learning environment. We briefly mirror development of university of applied sciences education against core strategic choices (borderless world, demand- and user-centrism, innovative individuals and communities, and systemics), which facilitate construction of an innovative learning environment.

Universities of applied sciences are significant players in regional business and public sector operational structural changes and internationalization. They develop technology, leadership, marketing, services and other knowledge areas directly impacting business and the public sectors. They also meet regional needs and endeavor in their areas of strength to be leaders in the delivery of teaching that meets practice, and in applied research and development. (TIN2010)

A working life oriented innovative learning environment

The core task of universities of applied sciences is to educate practitioners able to renew skills and apply knowledge in practice. Educational quality is continuously improved through increased working life linkages and tighter integration of working life oriented RDI to teaching. Future workplace skills are anticipated in both educational content and implementation methods. Reciprocal interaction between fields of study needs to be strengthened, as does collaboration in acquiring skills required in workplaces of the future. Availability of cross-disciplinary education also means developing collaboration between teachers and working life and restructuring teaching. Innovative educational implementations are in fact multidisciplinary and traditional boundary crossing integrations.

The MOE's Promoting Higher Education Based Entrepreneurship Report (2009) calls for a university of applied sciences learning environment that encourages entrepreneurship. Teaching that makes entrepreneurial activity more familiar, RDI ventures with companies, and promotion of an entrepreneurial climate and business skills in all fields of study is central in developing education. Working life representatives should be more strongly linked to the design and delivery of education in ways that are innovative and utilize educational technology and social media to promote sustainable development, e.g. e-mentoring methodologies.

Applied research has a central role in the realization of the National Innovation Strategy, relying especially on an identification of the needs of enterprises and their clients. The potential of universities of applied sciences in RDI and regional development are highlighted in the search for new operational models. In addition to business, design and organizational innovations, the significance of service innovations is emphasized alongside technological innovations. All in all, the profile of universities of applied sciences as regional innovators, intermediary organizations in practical implementation of innovations, and partners and players in enterprises and communities, needs to be strengthened.

A multicultural learning environment in a borderless world

The *borderless world* concept of the Innovation Strategy, which stresses speeding up development of internationalization in education and RDI (TIN 2010), is integral to constructing learning environments at universities of applied sciences today. Students at these institutions are able to complete part of their program in

student exchanges abroad and increasingly through virtual mobile study in collective global virtual learning environments. Likewise foreign teachers and students greatly enrich the physical and virtual learning environments of these institutions. Innovative, technology utilizing skill development operational models can be developed through collaboration between universities of applied sciences and working life RDI. They help to create borderless learning environments in which various skills are combined boldly and experts at various stages of development interactively enrich each other's performance.

Applying e-learning methods increases opportunities to develop and exchange skills with working life specialists or foreign partners in ways that reduce our carbon footprint and promote equal participation. There is a shift from closed classrooms and learning environments to learning situations in which the learning environment increasingly encompasses the entire world. In user-centric learning environments a mentor or peer group suitable to the development of one's needs may be physically close – or on the other side of the globe. The active participation of universities of applied sciences in international educational and applied research ventures deepens internationality and brings new abilities and knowledge to the region.

Conclusions

The challenge for universities of applied sciences is to support the construction of a top class learning development environment in Finland and transform threats to globalization, sustainable development and new technologies – the most significant drivers of change as identified in the Innovation Strategy – into opportunities. In order to achieve this objective, working life oriented teaching and RDI must be linked into a tight, viable entity, so that future working life skill needs are increasingly better met. Our challenge in education development is the construction of meeting places between learners, teachers, working life partners and various cultural representatives – which creates a foundation for skill-centric competitive advantage. Universities of applied sciences can be pioneers in creating modern internationally networked learning environments that combine multiple areas of performance.

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“Modernization from above” in historical perspective

By Leonid Polishchuk

“Modernization” is once again a buzzword in Russian policy quarters, and, consistently with the national tradition, the government is the protagonist and sole champion of the campaign. Such continuity makes lessons of history – both remote and more recent – highly relevant in today’s modernization debates.

The economic historian Alexander Gerschenkron in his famous essay *“Economic Backwardness in Historical Perspective”* identified common features of the most famous past waves of Russian modernization – from Peter the Great to Josef Stalin. All of these waves were initiated by powers that be in response to external threat and prospect of Russia’s losing its competitiveness vis-à-vis international rivals and potential adversaries, all relied on heavy borrowing of foreign know-how, and all required extraordinary mobilization of domestic resources at the cost of massive loss of life. Such modernization lapses did the job in the short run, propelling Russia to global leadership, but lost steam soon thereafter, failing to hold Russia from slipping back into backwardness.

A new coil of the Russian modernization spiral that the Russian government is about to unfold differs from the above pattern on one important count – it does not call for an extraordinary resource mobilization and draconian expropriation of income, property, and human life. This is not just impossible in today’s Russia, but luckily not even necessary, since modernization can be funded from resource revenues which are largely under government control. Are there other reasons to expect that this time there will be an exception from the “the Gerschenkron Rule”?

It is expected that the modernization will be powered by large-scale investment projects which the government will support not only financially, but also by offering preferential treatment. Such projects will be placed in “institutional enclaves” with special legal and regulatory regimes, tax and custom rules, etc. This strategy puts general institutional reform and infrastructure development outside of Skolkovo-like “institutional greenhouses” on the backburner as tasks of lesser priority. Anatoly Chubais, one of the key actors and advocates of the modernization-2011, while occasionally lamenting failures of Russian courts to impartially and consistently uphold the rule of law, flatly rejected the idea that modernization should be started from revamping of the *Basmanny* justice system.

And yet sustainable growth in the post-industrial era is hardly possible without open-access institutions providing non-exclusive protection of property and contracts, without infrastructure ensuring access to markets, and in the absence of other material, legal and political foundations of market economies. So why not *start* Russian modernization from laying down such foundations? The answer might well be a political one.

Taking Gerschenkron a step further, the American economists Daron Acemoglu and James Robinson in their recent article *“Economic Backwardness in Political Perspective”* point out that broad-based market modernization is fraught with political instability. Political risks do not stop such modernization in countries where ruling elites are either fully confident in their grip on power or, on the contrary, fiercely compete with each other and hence cannot give political rivals trump cards by delaying overdue reforms. In three empires of the XIX century – Russian, Austro-Hungarian, and Ottoman – ruling classes did not face serious political competition within their ranks, and yet were justly concerned about their political survival. Modernization

of these states was consequently blocked, which eventually sealed their fates.

But is “modernization from above” insulated from its own, perhaps no less serious, political risks? Success of China’s special economic zones is often invoked in support of the “Skolkovo” model. What such argument misses is that, first, these enclaves played albeit significant, but by no means pivotal role in the Chinese “economic miracle”, and second, that capital and innovations were en masse spilling over the boundaries of special economic zones to the rest of the country, where regional and municipal governments vigorously competed with each other for economic resources by offering business-friendly investment climates.

In Russia state support to selected high-tech projects is not synchronized with general improvement of conditions for innovations and doing business economy-wide. This mismatch is bound to leave behind vast human, intellectual and material resources that just happened to be outside the boundaries of the pre-ordained would-be modern sector of the Russian economy. Such discrimination will likely breed social tension – what can better illustrate “enclave modernization” than a German-built super-express train running on an obsolete railroad track past depressed towns and villages, disrupting conventional passenger and freight services and followed with grave glances of those left on the sidewalks...

Mr. Chubais’s conviction that institutional reforms in Russia are of lesser urgency than large-scale innovation projects, and that hence such reforms can be put off until after these priority projects are completed or at least firmly underway, produces a clear sense of déjà vu. Almost twenty years ago Mr. Chubais who was back then in charge of privatizing (not yet technologically modernizing) Russia, with equal confidence maintained that the first order of business was to transfer economic assets from public ownership into private hands. Missing institutional foundations for private property rights were not considered as an obstacle to large-scale privatization – such foundations, it was argued, would come about naturally at a later time. Dismal state of property rights in today’s Russia, two decades since the above scenario was unveiled, refutes the “institutions-could-be-fixed-at-a-later-time” mantra, both in its previous and present versions.

Successful modernization in Russia cannot be sequential, when resources are first concentrated on a relatively few priority projects, and only later, perhaps in a few years, the rest of the national economy will get its chance. Institutional reforms establishing an open economic order, and economic infrastructure development should be given the highest priority. Such reforms make economic growth broad-based and do not upset social and political stability in the country – if anything, they might prove to be the only means to preserve this such stability for foreseeable future.

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Russia's search for modernization

By Markku Kangaspuro

Modernization has already been on Russia's agenda for 300 years roughly speaking. Modernization in its various manifestations has been carried out using all possible methods from violence to huge investments in education and space technology. Typically Russia has focused on economic development while neglecting modernization of the political system.

Today, again, the real question is how modernization be undertaken and on what basis? The whole leadership of the country is speaking about the country's weaknesses while specific challenges of modernization are listed in numerous speeches. President Medvedev has devoted his political efforts and along this also his reputation in promoting modernization. He has focused on problems Russia needs to face: from corruption, the unsatisfactory state of democracy, primitive economic structure, oil and gas dependency and the lack of self-confidence in ideas and visions for the future of the state itself.

However, identifying problems is the easiest part of the task. The real question is how to overcome these problems and from where the reforms should start? Until now the focus has been on the economy translated into the discourse of international economic competitiveness. President Medvedev has determined that the basis of Russian modernization is technological overhaul of the entire sphere of production, which is based on both domestic innovations in special sectors of the economy along with foreign investments and the transfer of technology. Subsequently, he has identified several key sectors in which modernization with the help of investment and technical transfer are to occur: medical technology, the development of aerospace and telecommunications, and the improvement of energy efficiency.

In fact this programme doesn't include anything unexpected or new in terms of policy. Medvedev has said to several audiences that Russia can't trust its future solely to the continued exploitation of country's raw materials base and energy export due to the fact that Russia's capacity to increase or even maintain export at current level is not possible in the long run. Therefore, Russia's future has to be built on the basis of a diversified economy. Until now everything is clear and doesn't cause any major disagreement among enlightened audience.

The second and more complicated question under consideration is, "what is the relation between economic modernization and the existing political system." Again, in principal and at a general level there is nothing unclear. Medvedev has declared that his modernization policy is based on universal democratic values, market economy and respect of human rights. He has defined the overall state of democracy in Russia as developing gradually, but with the system itself possessing some deficiencies, and its evolution is uncompleted. Kremlin ideologist Vladislav Surkov has spoken several times in different tones on the unique features of Russian democracy, all of which are connected one way or other to the idea of the manipulation of democracy. Thus, what does that speech on democratic values mean in this context?

First of all democracy seems to be subordinated to the main ambition of attaining international competitiveness of the Russian economy. In other words that means keeping up the stability of society by all means. This then leads us to the discussion of historical experience of Russia's regime and historical development of Russian democracy, which refer always to the presupposed uniqueness of Russia and demand of strong centralized vertical power as a overthrow of Russia's experience. In regards to this question, President Medvedev has consistently followed his predecessor's line in emphasizing the uniqueness of Russian democracy and society.

To what does this uniqueness refer? At first arguments about Russia's geography predetermining the necessity for a strong central power to keep scattered and differentiated nations/ethnicities together and Russia strong come into the

picture. The second argument is usually based on historical experience which illustrates that without strong central power Russia has always been weak, exploited and subjugated by its neighbors. The third argument, emphasizing the role of strong state, has been state's strategic role concerning long-standing investments in innovations and science.

The difficulty determining the relevance of different discussions is how to define the role of state – private relation. On the one hand the ruling elite is convinced that a strong state is inseparable and an indispensable precondition for the prosperity of Russia. However, the elite it is convinced of the advantages of privatization for economic growth and development. The conflict comes from two different demands. In order to attract foreign investments and high technology from abroad Russia has privatized and attempted to convince investors of the consistency of policy based on private ownership and a limited economic role for the state. However, the lack of private capital for new investments and Russia's desperate need to initiate the country's own scientific-innovative sector in particular demand a strong state role in determining future economic policy. As a consequence the discussion on the role of state in modernization policy circular in nature. From ideological standpoints the Russian elite is inclined to emphasize as small a role for the state as possible, but from a pragmatic point of view they still see the state as an essential actor. It is not out of the question that economic interests of political elite can have also a role in the discussion, but it is difficult to estimate how much it influences opinions.

The final questions concern the type of state and democracy Russia needs and, what does Surkov's sovereign democracy and does it fit within the universal concept of democracy mean? In general Russia's leadership has sworn allegiance to a democratic system of government. However last September's speech in Jaroslav, Medvedev and his closest staff proved in many ways that parliamentary democracy does not fit Russia and that it would be even disastrous to continually refer to Russia's historical experience of the need to maintain strong vertical state power. Medvedev stated that parliamentarism would mean a weak and vulnerable Russia, everything opposite to what Russia needs to become competitive economy on world markets. In this context the concept sovereign democracy was not used and historical development of democracy substituted for it.

My conclusion is that the modernization discourse in Russia is mainly focused on the economy and its international competitiveness. That's probably one reason why the Kremlin is more worried about corruption than any deficit of democracy. Democracy is understood in a quite abstract and formal way. It is perceived as a commitment on the part of Russia's leadership to general principles and democratic institutions outlined in the constitution. Public opinion doesn't see the direct link between Russia's need to modernize the economy and develop democracy. On the contrary, Russia's population seems to support the idea of a strong state as a correlary to all notions of wider democracy even in the sense of developing parliamentarism. As Medvedev said, parliamentarism would mean a weaker Russia.

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Baltic Region will be the Silicon Valley of Europe

By Karri Hautanen

It is a well-known fact that entrepreneurship and the economic growth are linked together very closely; Robert M. Solow, who won the Nobel Prize in 1987 has said that 85% of the economic growth comes from innovations (new products and services, growth companies). The equation is not that simple though – creating business is one thing but creating successful, growth-oriented businesses, is another. The Baltic region has traditionally been poor in creating the latter. There are many reasons for why this is; this article will explain the reasons and outline simple solutions how to increase the success potential of the great companies we have in the region. The article will focus on Finland but most of the findings are also applicable to other countries.

Situation and the real problems

Finland has been recognized as being one of the most innovative, competitive entrepreneurial and skilful countries in the world by various studies. Despite being a small, distant and relatively cold country Finland has been able to foster great multinational companies like Nokia, UPM and Kone. Finland has also given birth to great innovations that have truly changed the way people live and do business. These include Linux, MySQL and IRC. The foundations for mobile telecommunications as we know it today were laid in Finland. Many great startups have been born here and found their way into an international success. Here are a few of those:

1. Habbo by Sulake – One of the most successful social networks in the world.
2. Rovio – Angry Birds is currently the number one mobile game in the world.
3. Solid Information Technologies – A database company acquired by IBM in 2008
4. F-Secure – An anti-virus company listed in the Finnish stock exchange

The list goes on... The list is relatively good for a country of five million people. So what is this fuss about Finland not being successful in creating great companies? The fact is that we have plenty of more great companies which never became successes and even more future successes in the pipeline – we need to find ways to ensure that those companies will make it – BIG.

There are some fundamental problems that make it hard for companies to succeed.

Problem 1 – The number of growth companies in the region is low – In the recent years especially the growth entrepreneurship has been in the spotlight for obvious reasons; according to an international study, only 3-5% (In Finland 1-5%) of all companies are so called growth companies. However, the growth companies create 60-80% of new jobs. Also, according to international studies, the Finnish growth companies are the 2nd worst among 24 industrialized countries when it comes to growth and internationalization.

There are many reasons for the low number of growth entrepreneurs. The economic growth in the Baltic region has come traditionally from traditional companies in traditional industries. The entrepreneurial ecosystem has really emerged here in the past 10-15 years. Even today most of the university graduates prefer working in a large international company rather than becoming an entrepreneur. However, this is the way it should be. The skills required in

an international business can be acquired by working with somebody else. The real question is how to turn these people into entrepreneurs after 5-10 years?

Problem 2 – The supporting Venture Capital industry is thin – Venture Capital and other private investors are crucial to growth companies. They enable companies to grow faster than their peers thus helping the domestic economy. According to a study made by the British Venture Capital Association “77% of companies believe that without private equity the business would not have existed at all or would have developed less rapidly.”

Finland has a handful of good investors from angels to venture capital companies. The number of active, domestic Venture capital companies is about 15 – but the real problem is in the cross border investments. The number (both in quantity and Euro) of international investments into Finland has been decreasing during the recent years. This is really worrying since in many cases the local investors simply cannot invest enough to support the rapid growth which could be achieved with adequate funding. This is especially true in the late stage funding rounds, where the capital requirements are high.

“An economy that does not have a strong venture capital sector is one that displays symptoms of deeper economic problems” – J.P. Cotis, Chief Economist, OECD.

Problem 3 – The visibility to companies in the region is poor – It really does not matter if we only have one or two great, noisy companies with real success potential who go out there and score funding from international investors. The region needs to be able to show all the great companies, people and innovations it has to get the investors excited. As an example, Israel has done a great job in promoting its industries and companies to the world but most of all the companies cross-promote each other. If Finland and the whole Baltic region want to develop itself into a real startup hub, which attracts investors and investments globally, we need to put our heads together and start promoting. What good does it do to anybody if we have great companies that nobody is aware of?

Despite the problems, the region has great potential. We have what it takes to become the next Silicon Valley – we simply need to stop creating endless number of reports and plans and start doing the real work. We need to work together, raise our sleeves and start sweating. Real question is how can this be achieved?

Solution

The Baltic Regions needs to shape itself into a “Silicon Valley” of Europe. We have what it takes; Companies, innovations and people. Currently, however, the region does not work together to ensure the visibility and access of our companies to the best investors. Companies work by themselves trying to make it in the big world.

I personally urge decision makers to build and support tighter, seamless and transparent collaboration in the region through some simple actions. Especially I recall actions that lead to results that can be measured.

Collaboration between and across the region – We need to realize that not all cities and countries are equal. Some are more interesting to investors than others – Sweden for example is interesting because of its success in web-based services; Denmark is well known for its life sciences

sector; Finland is world class in mobile telecommunications industry. However, there are still many great life sciences companies in Finland and mobile telecommunications companies in Denmark. We need to be able to collaborate and share information between the regions but most of all direct the region's message to the investors.

How can this work – Israel, again, have done great work in this. Many of Israeli companies have their headquarters in the US but R&D in Israel. The same thinking should be applied to the Baltic Region.

Create transparency and increase noise – Let's face it – many great but small companies don't simply have enough resources to raise their head above the surface and be heard. By joining forces the region can have a larger mass of better companies for the investors to screen. The region simply needs to build a common digital / physical platform for the companies to promote themselves. We need what Tech Crunch is for Silicon Valley or what Israel Venture Capital Online is for Israel. Through active online and offline marketing the international investors will have better access to the deal-flow and will eventually invest in and locate in the region.

Actions, not plans – All great successes are a direct result from excellent planning. However, enough is enough – The region needs to start the work and utilize the same methods in their work as the startups do – develop the region using the lean startup method; I have applied some of the thinking behind the Lean Startup in the following examples:

1. Continuous customer interaction – Customers (companies, investors) know best what they want / need. The region needs to be able to listen. Today we as a region sell what we have (companies), not what the customers need.
2. Revenue goals from day one – We need to be able to measure the success of all activities taken to increase the number of growth companies. It's not about how many events have been organized and how many companies have been trained – it's about the number of successful growth companies.

3. Low burn by design – There are already great activities in the region to support and endorse the growth entrepreneurship (Nordic Venture Forum, Arctic Startup, MoneyTalks events etc.). There is not much need to build something completely new – what we need is to find ways on how to ensure the best way of these programs & services to collaborate. This way, the low burn rate is by design.

At the end of the day it's all about passion. We need to have passionate entrepreneurs, employees, investors and even passionate government entities to create the Silicon Valley of Europe into the Baltic Region. It requires hard work but isn't that why we're being paid for and far more importantly – what we LOVE to do?

Let's create the future, together.

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R&D and innovation – a window of opportunity for enhanced cooperation with Russia?

By Manfred Spiesberger

Research and Development (R&D), and innovation have experienced remarkable changes over recent years in Russia. They have been identified by Russian policy makers as one of the key drivers of the much propagated modernisation of the country's economy beyond primary goods production. In line with economic expansion and GDP increases of around 7% up to the year 2008, funding of R&D has also significantly improved. This trend encountered a setback in the crisis years 2009-2010, but should be back on a growth track with current economic recovery. Gross Domestic Expenditure on R&D (GERD) as a share of GDP stays in Russia slightly above 1% (in 2009 it reached 1.18%). The allocation of R&D funds has become more competitive, especially through a range of Federal Targeted Programmes and funding tools implemented by the Ministry of Education and Science. New funding bodies for innovation were introduced with the Russian Venture Company and Rusnano, the latter one caring specifically for nanotechnologies. In this context, opening-up tendencies towards international cooperation in R&D and innovation, especially with the EU, have been developing.

Opening up through various Russian programmes,

Russia has started in recent years not only to attract emigrated Russian scientists to work with research groups back in their former home country, but is now reaching out actively to foreign scientists. In June 2010 the Russian Ministry of Education and Science launched the programme "Attracting leading scientists to Russian universities", which aims at stimulating research activities at universities and at internationalising them. This scheme comes with solid funding of approximately € 3.5 million per project. Scholars selected for funding will have to spend at least four months per year at a respective Russian university. As a result of the programme 40 scientists will receive support, whereby a majority is foreign residents and only 5 are permanent Russian residents. Among the foreign residents an important share are emigrated Russian scientists, but several non-Russians (especially Germans) were selected too. Review commissions included besides Russian also foreign experts, which is a new, but still rare feature of evaluations in the frame of Russian funding programmes.

In the field of innovation, President Medvedev's pet project Skolkovo shall be established with international partners. In the Skolkovo innovation zone specific privileges for research and business cooperation shall apply and development of high tech businesses be facilitated. But the success of the project and whether it can have an overall impact on the country's innovation system has still to be seen.

Developments at the EU level

Russia's cooperation with the EU in R&D is ongoing on a broad scale both multilaterally and bilaterally with its member states. This is shown by indicators such as co-

publication data or the number of joint bilateral R&D funding programmes.

At the EU level, the EU's Framework Programme for RTD and the EURATOM Framework Programme (FPs) are the main cooperation forums for R&D. Russia has consistently had the strongest participation in the FPs, of all countries not being EU member states or countries associated to the Framework Programmes. Through joint calls for RTD projects of the EU and Russia within the Framework Programmes ("coordinated calls") in various scientific fields (e.g. aeronautics, nanotechnology, energy, fission, etc.), cooperation has been intensified and Russia has funded its participating teams from own national resources. This has strengthened ownership of this activity and perceptions of cooperation on a par, a fact especially important for Russia.

A next step in rapprochement with the EU would be an association of Russia to the Framework Programmes. Russia expressed its interest in becoming associated to the FPs in 2008, which was inspired by the fact that EU countries are Russia's main cooperation partners as well as by a policy to internationalise and increase competition within the Russian R&D and innovation system. But association to the FPs is discussed controversially within Russia and the EU, and consequently negotiations have advanced until now only slowly.

Meanwhile new cooperation tools are in the process of being established through ERA.Net RUS, a European Research Area (ERA)-Net project funded by the EU. ERA.Net RUS aims at coordinating bilateral funding programmes; it has resulted in a call for R&D and innovation projects announced for February 2011. This call is jointly funded and managed by funding bodies from EU Member States, countries associated to the FPs and Russia.

Another joint EU-Russian initiative concerns a "modernisation partnership", which was agreed in spring 2010 between European Commission President Barroso and Russian President Medvedev. The partnership's priority is on facilitating trade and investment, and on intensifying economic relations. The EU focuses here on alignment of technical regulations and standards, on enforcement of Intellectual Property Rights (IPR), on the functioning of the judiciary and the fight against corruption. But the partnership includes as priority area as well innovation, research and development, and space.

At the bilateral level, cooperation with Germany stands out.

The countries have entered into a strategic partnership on education, research and innovation. Russia participates with significant financial shares in research infrastructure projects in Germany (e.g. it covers around a fourth of the costs of the German XFEL laser project), and a German-Russian scientific year starting in the second half of 2011 shall provide further impetus. The dense cooperation network is confirmed through data on co-publication, which indicate that German

colleagues are the second most important co-publication partner of Russian scientists, only narrowly behind scientists from the USA.

Tellingly, Prime Minister Putin launched in November 2010 the latest Russian charm offensive towards the EU in view of a visit to Germany. He proposed an enhanced cooperation in economic matters through a fuzzy “harmonic economic area” between the EU and Russia with a perspective of reaching a free trade area. Energy, R&D, innovation, mobility of students and researchers were also on his agenda.

The opening-up trend can be traced with several more examples, such as Russia’s efforts to become a member of the WTO and the OECD, or Russia’s repeated proposal to the EU to jointly lift the visa requirement. Lifting visas is indeed a constructive proposal, as they are an annoying hurdle for researcher mobility.

Barriers for cooperation persist

But Russia has to tackle and overcome serious barriers that hamper cooperation. Bureaucratic procedures, uncertainty about protection of property and Intellectual Property Rights (IPR), and unreliability of the judicial system limit the expansion of R&D and innovation cooperation. Exchange of scientific material and equipment with Russia is complicated and may be costly because of taxation and customs duties. Lack of funding for joint projects, housing problems and harsh living conditions in Russia are further factors. Clear regulations, property protection and a proper legal system and functioning of the judiciary are necessary.

Another drawback concerns the fact that changes in R&D and innovation are mainly driven by the state. Private business takes only limited initiatives in this field on its own and more or less independent funding agencies, such as the Russian Foundation for Basic Research see their budgets being reduced or stagnate. Less state control and more room for manoeuvre for non-ministerial actors could set free a cooperation stimulus.

Nevertheless, R&D and innovation, where an obvious common interest for enhanced cooperation between the EU and Russia and a solid basis for it are given, could provide a good practice example on how to advance jointly in a certain policy field. This would need to spill over to more critical fields such as human rights protection and democratisation. Windows of opportunity should be used and measures be taken in time. Russian proposals regarding visa policy and its interest in association to the FPs need to be taken seriously and negotiations not be delayed by diplomatic wrangles – notwithstanding the result of negotiations. Things may change quickly though, as one could learn just recently: in spite of a prickly relationship, a British-Russian oil deal was struck at top policy-makers level, when common interests came into play and were recognised.

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Russian modernisation – technological or socio-cultural one?

By Jukka Pietiläinen

Modernisation became a key word of Russian discussion in November 2009, when President Medvedev launched it as a programme for the country's technological development. This has also been reflected in the Russian press.

According to the Integrum database, which contains a large collection of Russian newspapers and magazines, modernisation was mentioned over 300,000 times in 2010 as compared to 200,000 times in 2009 or 2008, or to merely 150,000 times in 2005. In the state newspaper Rossiiskaya gazeta, the increase has been even more rapid, as modernisation was mentioned in 250 pages of the paper in 2005 and in over 1,000 pages in 2010. Just as the increase in the mention of glasnost and perestroika in Pravda in the middle of the 1990s signalled a change in the State policy, the same has occurred with the word 'modernisation' at the end of the 2000s.

Medvedev's view on modernisation is predominantly technological, but modernisation is also related to social changes and to the move toward capitalism, industrialization, secularization, and rationalization, which have taken place in Europe since the Middle Ages. Russia has been on the edge of the modernising centre and the modernising influences have arrived to Russia later, and have interacted with local traditions. As for Russia, as for many other peripheries of Europe, such as Northern Europe, modernising has been often directed by the elite and state leadership. In these countries, some parts of society developed further while others lagged behind.

Russian social scientists and culturologists have discussed the nature of Russian modernisation since the early 1990s. New books and articles with the key word 'modernisation' have appeared regularly, and for example, several of them were published in 2010.

Many Russian scholars see the history of Russian modernisation as cyclic. According to this view, Russian modernisation does not lead from traditional society to a modern one directly and through a clear path, but it remains cyclic: modernisation begins, finds itself in a cul-de-sac and ends, and begins again.

As a consequence, Russian modernisation has been referred to as 'catching-up', 'delayed', 'recidivist', 'conservative' and 'near-modernisation'. Russia has also been described as a 'collapsing traditional society'. All these concepts are related to incomplete or late modernisation. Russia has also been following the processes which have occurred earlier elsewhere. Russian modernisation has included elements of counter-modernisation and recidivist modernisation, and even modernisation without modernity. For Russia, an additional issue has been the conflict between the modernisation led from above and the population which has been only partly modernised. Historically, a move toward modernisation has always been followed by a return to traditionalism.

During the Soviet era, many modern aspects of life were adapted on the surface level only. Whereas the forms were modern, the content remained traditional, even if the traditional forms had been destroyed. These phenomena made some Western scholars in the 1970s believe that the Soviet society has been modernised and would become closer to the Western modern societies. From this point of view, the collapse of the social system was a surprise. But analysing the nature of the Soviet modernisation with the concept of 'fake modernity' first presented by Piotr Sztompka in 1993, the collapse of the Soviet system can be explained as a failure of this modernisation project. In fact, the society

was not modernised even though seemingly modern features existed and many visible manifestations of the traditional forms of culture disappeared. Moreover, the Soviet cycle of modernisation was led from above and achieved with little individual initiative: therefore the vital individual effort for modernisation was lacking.

The post-Soviet era presents a new cycle of modernisation which may have a better chance for success than the earlier cycles. The difference with the post-Soviet modernisation is that the market economy is now in practice and market processes are the ones which act for modernisation. A non-market alternative to modernisation, as was the case in the Soviet era, is gone and the process of modernisation is similar as in other peripheries of the Western world.

In a book published in 2010 by the Institute of Sociology of the Russian Academy of Sciences, the question, which was already found in the name of the book, was: 'Is Russian society ready for modernisation?' These scholars search for the answer by paying attention not only to technology, but to the question of how, by whom and under which conditions the modernisation in Russia can be successful.

The answer is that Russia has a significant socio-cultural potential for modernisation, although there are many paradoxes in the process of modernisation and it is dependent on many situational factors. Russians are characterised by an internal dynamism and a readiness for change. But achieving of this potential is rather complex.

While Russian leadership headed by president Medvedev argues for technological modernisation, social and socio-cultural modernisation is what Russia would mainly need. This would require progress in democracy, civil rights, good governance and the rule of law. Furthermore, Russian citizens have rather different perspective of modernisation as their President does. According to a recent opinion poll, most ordinary Russians see modernisation as equality before the law and as the observation of human rights (41%), fight against corruption (38%), social fairness and justice (31%) and effective innovative economy (by only 24% of Russians). The latter is among the priorities of the State but it might be not easy to attain without the fulfilment of the former elements. In addition, some Russians view modernisation as an enforcing power of the country (21%), as a renewal of Russian values and traditions (14%) or as creating opportunities for free enterprise and market competitions (12%). According to these results, it seems that most Russian citizens connect modernisation with good governance, social development and rule of law rather than with innovations and technology, as president Medvedev would like to see. In this respect, Russians are more realistic: innovations cannot take place if the social conditions do not favour them. This is the key to Russian modernisation.

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Modernisation of Russia – moving beyond rhetoric?

By Félix Krawatzek

Expectations for a turning political wind in Russia were high when President Medvedev came to office more than two years ago. The increasingly used rhetoric of modernisation contributed to optimism amongst domestic as well as international actors about the future of the country. Even though former President Putin stressed already in February 2008 the necessity to modernise the Russian economy and its society, it was with Medvedev that the topic received its current attention. When Medvedev asked rhetorically in 2009: “Should we drag a primitive economy based on raw materials and endemic corruption into the future?” the answer given through his article ‘Go Russia’ and the Speech to the Nation of that same year was clear: “No!”. The article and the speech constitute the core of how Russia’s political elite officially intends to prepare the country in economic, political and social terms for the 21st century. Since then modernisation has made an impressive career in political discourse. The term is not only the *leitmotif* of the Kremlin itself but also widely used by the political opposition and Russia’s international partners.

However, when these actors speak about modernisation they all refer to rather different processes and outcomes. International partners, such as the EU, would like its Eastern neighbour to become more ‘like-minded’, respecting inter alia rule of law or human rights, liberal voices in the country such as Igor Yurgens have emphasised the need for a deep, systemic and decisive modernisation, focussing on social innovation, a renewal of public and state institutions that goes along with a renewal of political culture. The Kremlin itself is advocating a modernisation that goes, in principle, beyond economic or technological aspects related with Medvedev’s key sectors. The role of civil society as well as the importance of deep political reforms are repeatedly stressed as integral part of modernisation. The ‘Partnership for Modernisation’, signed last June between the EU and Russia, reflects upon that and includes a section on the development of people-to-people links. In other words: strengthening civil society in Russia.

Throughout its history Russia has certainly never lacked ideas and attempts of modernisation – however, the success of many of these measures is debatable, to say the least. What has all the current modernisation rhetoric left behind? The list of impressive economic projects that have been launched is long and amongst the better known ones is Russia’s Silicon Valley in Skolkova or cooperation agreements that have been signed between European firms (Siemens or Deutsche Bahn) and Russian partners. In particular the energy sector attracts European firms (EON Ruhrgas or Gaz de France). However, one rightly has to doubt whether modernisation of the country is an importable good. Russia’s efforts that have so far concentrated on diversifying its economy risk being short lived if the nature of the political regime itself remains the same. Political and social modernisation has to come from inside as we can see looking at the transformation of Eastern Europe. Despite the involvement of international actors, the situation in those

countries only changed lastingly, once the domestic situation had evolved and when these countries were themselves willing and able to reform state and society structures.

In Russia however this willingness can hardly be found amongst the political elite. Public debate is having difficulties taking place due as well to restrictions on freedom of assembly and media freedom. Critical journalists live a dangerous life as the recent killing of Kommersant reporter Oleg Kashin illustrated again. The fact that Khodorkovsky and Lebedev have to stay in prison for almost exactly the duration that was requested by the prosecutor raises doubts about the independence of the judiciary system. That list could be continued for a long time and it all illustrates that there are not many things that have been undertaken to help Russian society modernise itself.

If Russia has not made much progress on the comprehensive modernisation, what about potential leverage from outside? The ‘Partnership for Modernisation’ was meant to bring urgently needed new dynamics to the EU-Russia relationship – hard to be confirmed. The last progress report mentioned advances in energy efficiency and transport. Beyond that no tangible progress was noticed. The leverage of the EU on policy dynamics within Russia, in particular beyond the economic sphere, can reasonably be doubted. In particular concerning the enhancement of the cooperation between civil society in Europe and Russia the EU lacks ideas, tools and resources.

The upcoming elections (Parliamentary December 2011, Presidential March 2012) will soon begin to shape the political debate in Russia. If Medvedev’s revolutionary promises of modernisation had translated in corresponding actions, he could have emerged as a genuine political alternative. However, as it stands, he has not proven being any different from Putin wherefore it might not be a major surprise to seeing Putin coming back to office – following the change of the constitution for six years to follow. Eight years of Putin showed what can be expected of him – what can be expected of Medvedev beyond hopeful words remains unclear. These words are unlikely to translate into any political or social change in the country if Russia continues to rely on its current system of personalised rules and weak institutions. In that case the auspicious words of the comprehensive modernisation agenda will not expand beyond political rhetoric and will not contribute to transform society more broadly.

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Internationalization activities of German cluster initiatives – the role of CEE

By Thorsten Posselt and Mathias Rauch

During the last two decades, the concept of economic clusters became increasingly popular among policy makers, economic agents or researchers. The formation of clusters typically leads to improvements in competitiveness and innovative capacity and output, for the individual company within the cluster as well as for the region, in which a cluster is located. Whereas clusters in general are characterized mainly through the close regional proximity of companies along and across the value chain, the term cluster initiative augments this with an institutional dimension. Cluster or network initiatives, both are used interchangeably in German policy, include a—normally explicit—commitment between the different actors to collaborate in various fields, often in the area of research and development (R&D). Initiatives focusing on the latter aspect are sometimes referred to as research clusters. In addition to companies, these networks comprise a variety of actors, such as independent research institutions, universities, public administrative institutions, professional institutions, financing institutions or other intermediaries.

Analyzing the structure as well as the internal and external relations of these networks can deliver important insights for innovation research. A number of international studies found that the close collaboration of companies, research and public institutions (*triple helix ap-proach*) in such networks could further innovation success, economic growth and subsequently employment growth as well as international competitiveness and prosperity of the respective regions. In recent years, Germany experienced a proliferation of such network and cluster initiatives thanks to broadly based public support. The aim was to establish and deepen the exchange between research and commerce to overcome a perceived deficit in the commercialization of research results, particularly compared with the US or some smaller European countries.

In recent years, the topic of internationalization of companies and clusters gained substantially in importance in economic policy discussions. Especially for clusters and networks, the establishment and expansion of contacts to—geographically—outside actors is seen as essential. As results of such transregional relationships and collaborations, maintaining and fostering the existing agglomeration advantages and the inclusion of external expertise or resources are mentioned in the literature. Other aspects are the avoidance of *lock-in* effects, i.e. the loss of innovativeness due to increasing self-referentiality and therefore increasing distance to customers and markets or potential market entries and developments.

As part of an ongoing research project at Fraunhofer Center for Central and Eastern Europe, a broad range of German cluster and network initiatives were surveyed for their internationalization activities. Major topics were regions of interest, motivation and objectives as well as actors and instruments of internationalization activities. Almost all questions were once asked without any regional focus and a second time again with CEE as the specific regional focus. This approach provides on one hand a reference measure for the assessment of CEE and on the other hand it permits a first assessment of strengths and weaknesses of CEE as the target and partner region for German clusters.

As a sample, cluster managers or central contact persons of around 200 cluster initiatives were chosen, which participated in one of the many cluster and network competitions initiated by federal or state public agencies. This guaranteed that all participants have an institutionalized cluster structure with professional management and at least some strategic planning. The response rate was around 1/3 with almost all respondents already implementing at least some internationalization activities.

Central and Eastern Europe (51% of respondents) together with North America (58%) and China (53%) formed the group of most important world regions for German cluster managers besides Western Europe (83%). Russia (38%), which was not included in the CEE category, was the next highest mentioned region, slightly ahead of the rest of the BRIC countries and South-East Asia. The individual CEE countries were also classified. Poland is by far the most important country in CEE, followed by the Czech Republic and, with considerable distance, Hungary. If weighted by the response rate of the entire CEE region, Poland is as important as Russia and the other countries follow, with Czech Republic on the level of India or South-East Asia.

Market development is the most important objective of internationalization activities. However, whereas this is in general followed very closely by knowledge and technology transfer (to increase the own knowledge base), this is not the case for CEE. This is further validated in questions about central areas of activity and their direct targets. Market entry and the expansion of contacts are in this context the most mentioned categories (around 60%). Generally, though, market entry is not rated in the most often mentioned group (around 70%), which includes, in addition to expanding contacts, increasing the international recognition of one's cluster and the cooperation and collaboration in R&D. Furthermore interesting are the differences in response rates for the individual categories. Market entry is mentioned as often for the CEE region as in general, whereas especially recognition of the cluster, but also R&D cooperation are mentioned significantly less often.

Such differences are again recognizable concerning actual activities. The reduced importance of the CEE region for brand building and related activities is supported by the low usage of joint external communication and marketing in the region compared to general answers (33% vs. 50%). In contrast, working together in joint projects is of relatively higher importance in the region than in general. Altogether, the most important and most often used activity is simply mutual official visits. And the higher the individual commitment of the partners, the less often used are instruments, with exchange programs between clusters the least frequently used (around 20%).

With respect to external partners, the CEE region is characterized by comparably low participation of companies and independent R&D institutions compared with the general assessment. All other potential partner institutions (universities, intermediaries, cluster management) show no differences. The low response for independent R&D institutions may, on one hand, simply be a result of their lower number in CEE compared with other regions, or, on the other hand, it may be an expression of comparably low international recognition and reputation. Differences in potential and actual obstacles between general internationalization activities and those focused on CEE may explain the lower participation of companies. Especially language barriers were more often mentioned for CEE, and these may be more acute in companies than in research institutions or the other potential actors. Also, lack of trust seems of higher priority in CEE than otherwise and again this may aim more at companies than at the rest of potential actors.

The generally high importance of the region and the view as an interesting market for German clusters let to expect a further intensifying of activities from German clusters. Additionally, with increasing familiarity between companies from CEE and Germany, a reduction of the voiced concerns seems likely.

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Innovation and “innoflation” – challenges of creative processes, systemic innovations, and ubiquitous technologies

By Sam Inkinen

A creative economy is the fuel of magnificence.

– Ralph Waldo Emerson, essayist and philosopher (1803–82)

Discovery consists of seeing what everybody has seen and thinking what nobody has thought.

– Albert Szent-Györgyi, a Nobel Laureate and Scientist (1893–1986)

Creativity, innovations, creative economy, and creative industries are examples of key concepts that spark a great deal of general interest and ambitious research as well action.

These concepts have, however, been somewhat “innoflated”: *creative this* or *inno-that* have often lost their true meaning or purpose. The same kind of exaggeration and unrealistic hype was earlier directed to all things beginning with *cyber*, *digi*, and *mobile*.

Thus, a thoroughly analytic view and a Hegelian *Anstrengung des Begriffs* (testing of the concept) in the debate on creativity and innovation would be very welcome. The use of the words “innovation,” “creativity,” “social,” “sustainable,” “ubiquitous”, etc. should be examined more analytically and critically.

The classical distinction between “ideas,” “inventions,” and “innovations,” for example, might turn out to be rather useful in this discussion. According to the traditional definition, an *innovation* is a new product, a new process or a new organizational structure that enables an actor to be successful in the market. In the popular discourse, it is quite common to misuse the concepts and confuse between an “invention” and an “innovation.”

On the other hand, the key notions and buzzwords used in today’s academic and popular rhetoric belong to the *Zeitgeist* – i.e. “the spirit of the Age” of our contemporaries. The word “creative,” for instance, is used extensively, and, among other contributions, the ideas concerning the *creative class* by Professor Richard Florida have become key issues of dynamic regional development. The values and principles of the creative class also seem to be directly linked with the processes of the “creative economy.”

Openness is another significant keyword in our age. The traditional, *closed innovation* model is built upon the idea that one’s own organization and community possesses all necessary knowledge and knowhow. Protecting these knowledge assets is considered a way of securing a competitive edge in the market and society. In recent years, however, debate over *open innovation* has gained a lot of ground.

This change in the discussion is drastic enough to be called a paradigm shift. In addition, there is increasing interest towards *holistic approaches* and *systemic innovation*. In the Nordic countries, the main feature of innovation dynamics and policy making is the so-called *triple helix* model, i.e. co-operation and interactions between the universities, industry, and the government.

In addition, the rise of “innovation journalism” and “innovation media” reveals that the significant role of (social) media and journalistic practices has not been taken into consideration sufficiently in the traditional innovation models. In the ecosystemic view, the role and impact of media and communications is evident.

“When memories exceed dreams, the end is near. The hallmark of a truly successful organization is the willingness to abandon what made it successful and start fresh.”

These words of Professor Michael Hammer seem relevant in the discussion on creativity, creative industries, and innovation. The debate has been by no means scarce, but are economies, businesses, research groups, and technology developers heading in the right direction?

Maybe, maybe not. The main goal of the European science and technology policy is to develop innovativeness and related processes into a more sensitive, efficient and result-driven direction. This

standpoint is listed as a goal in various instances with regard to economic, science, and technology policies, and it concerns the public sector, higher education, and business life alike.

How to meet this challenge in practice? Contacts, connections, and serendipitous meetings in the in-betweens of various scientific and business fields and between different organizations are of great importance. One of the main concerns is how to understand innovation processes thoroughly. Recent research on *innovation environments* and *innovation ecosystems* includes wider and deeper viewpoints than the traditional research on *innovation systems*.

It goes without saying that tomorrow’s innovation potential lies to a great extent in technological developments and various R&D activities. Already existing and emerging key trends and approaches that can/will create structural changes in the global innovation ecosystems are

1. the (r)evolution of ICT and digital media (including so-called social media, web 2.0 solutions, mobile environments, and ubiquitous technologies)
2. increased *global competition* in various industries
3. increased global pressure to create new *service innovations* to achieve a more innovative and productive service economy
4. increased pressure to find a better balance between business developments and *sustainability* demanded by global warming, climate change, energy issues, and related challenges.

Albert Einstein (1879–1955) once stated that “imagination is more important than knowledge.” The main question in today’s innovation dynamics and policy is how to create something new and valuable; how to enable creativity to take place, to “happen” in the context of individual personalities, organizational strategies, operational principles, and in the context of human interaction.

In addition, we might add that futures are not found only through observation (trends, weak signals, wild cards, black swans...) but they are also an outcome of discovery and imagination (scenarios, roadmaps, creative thinking...). In the words of Nobel Laureate in Physics, Dennis Gabor (1900–79) : “The future cannot be predicted, but futures can be invented. It was man’s ability to invent which has made human society what it is.”

In this article I have shortly discussed and commented the concepts, aspects, and future trends of creative processes and innovation ecosystems. Such issues as synergy, network building, and “positive accidents” (*serendipity*) have been in focus.

In addition, innovation networks, various business models, and innovation quality are of importance. Finally, it is important to concentrate on effective foresight systems and processes, strategic agility, and the challenges of systemic innovations.

From policy makers’ and corporations’ viewpoint, real innovations and structural changes are wanted instead of unrealistic rhetoric and hype. Ever too often, concepts are used vaguely and imprecisely. On the other hand, we should encourage and support a more open-minded and boundary-breaking dialogue and sharing of ideas.

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The Kaliningrad Region as a modernization model of modern Russia

By Alexey Ignatiev

The world financial and subsequent economic crisis stipulated Russia's acknowledgement of the necessity and inevitability of changes in its current economic policy based on raw material export, which is mainly the export of hydrocarbon, through large-scale import substitution policy to high technology export-oriented industries. This is, generally, the economic modernization policy of the country supported by the authorities.

What could be the role of the Kaliningrad Region in this new strategic doctrine of Russia? A complete and thorough answer requires appeals to Russian modern history.

At the beginning of the 90-s when the region turned out to be separated from Russian mainland and its economy being fully integrated into the economic system of the USSR was on the edge of collapse, the region's authorities managed to persuade country's authorities to establish free (special) economic zone on the territory of the region. New economy based on a well-known import substitution policy was formed due to this regime. Components, raw materials and significant number of released products were and are still imported to the region from abroad on the terms of free customs zone which means import duty-free, while the products assembled in the region are sold on the territory of the whole country without any restrictions. As a result, enterprises established in the Kaliningrad Region gained advantage over similar enterprises from Russian mainland and gradually gained the foothold on Russian market.

At the beginning of the XXI century it became obvious that this scheme cannot always exist as stimulating import-substitution in one region impedes similar industries development on other territory of Russia due to artificially created favourable conditions for Kaliningrad entrepreneurs. It was nonsense from macroeconomic point of view. It was one of the reasons to adopt a new law on the special economic zone in 2006. The law was to change the image of Kaliningrad economy transforming it into a complex of large export-oriented industries and many small and medium enterprises oriented at requirements of "the largest". I believe that this ideology justifies the decision on Baltic Nuclear Power Plant building, the support of large energy-consuming enterprises (electrical power produced in excess must have a credit-worthy consumer!). Perhaps, this scheme of the Kaliningrad Region "modernization" has future but I am not sure that Kaliningrad citizens will appreciate large metallurgic enterprises and oil processing plants allocation in the tiniest region of the Russian Federation. In this case we shall forget about the unique nature of the region.

The world crisis of 2008 had a significant negative impact on Kaliningrad economy. Oil price drop determined Russian government's decision on stimulating import-substitution in the whole country by cutting import duties on number of imported assembles. As a result, many Kaliningrad enterprises functioning on this scheme moved to Russian mainland where logistics is better and resources are cheaper. Thus, the Kaliningrad Region having been an example of establishment and development of import-substitution sector in economy, is now back at the bottom of the ladder. Taking into consideration Russia's persistent eagerness to become a WTO member, the perspectives of import-substitution type of economy in the Kaliningrad Region are vanishing.

New authorities of the region seem to have two ways out in such a complicated situation. The first one is simple and proved – asking the federal center for resources for large region-forming objects such as the Baltic nuclear power plant with obvious export potential. The other one is more

complicated but more pragmatic – not to ask but to offer! To offer the things which the federal center intends to do but due to different reasons (high rate of persistence, resource limitation, pressure of external and internal factors) cannot do it quickly. The question is what Kaliningrad can offer to the Center? As I see it, it should be, first of all, deep real modernization of regional economy and development of all regional society.

In order to make a decision on ways of region modernization, it is worth examining the potential and real advantages of the region. First of all, the region is located almost in the center of Europe, within the European Union, on the cross point of traditional transport routes East-West, North-South. On the other hand, the Kaliningrad Region is a part of a big country which means that if Russia wants to activate the potential of traffic arteries on Vladivostok-Western Europe route, the region could play a key role of a large Russian multi-mode logistics center working both from East to West (Asian raw materials and assembles for European enterprises) and from West to East (European goods for Asia-Pacific Region market). Even rather preliminary calculations show that this course of country's economy development can become very important under competitive railroad rates (which is exclusively prerogative of Russian government) and completion of customs union formation. The Kaliningrad Region where the regime of free customs zone can be implemented fits well into this transcontinental project as a gigantic common European customs warehouse with a developed transport infrastructure and efficient pilot system of customs clearance of cargoes in all directions. It is obvious that this project is of Russian or even international significance as its implementation is not possible without coordinated and thoroughly considered activities of Russian government and a number of other countries concerned as well as large national and transnational companies.

Another evident advantage of the region is that being situated within an hour and a half – two-hour flight to the leading centers of European economic development (Moscow, Saint-Petersburg, Berlin, Warsaw, Stockholm, etc.) it is a natural oasis for comfort living. At the same time, as it has been noticed in one of Moscow newspapers, the Kaliningrad Region "is not devoid of European gloss" for Russian citizens while for Europeans it is a convenient and relatively safe launching pad for a start in big Russia. Thus, having this advantage, the region can attract not only "Gastarbeiters" from former USSR republics but those whose intellectual, creative and entrepreneurial potential can be and should be involved into innovation economy or, as it is said, economy of knowledge. But re-naming IKSUR into Baltic Federal State University is not sufficient for becoming Russian innovation leader within the EU. "Skolkovo" alone is not enough to modernize the country. We need a powerful center of mass transfer of the existing technologies into Russian market. We need a state programme for a system which traces all current innovation technologies and adopts them to the practical requirements of the country as the whole. Moreover, the adaptation should concern not only permitting certificates for these technologies but new businesses based on European innovation technologies formation and their promotion in Russia. The creation of such common Russian system in the Kaliningrad Region will not require federal investments as it has a unique Russian-European instrument of development: Cross-Border Cooperation Programme Lithuania-Poland-Russia 2007-

2013. The main priority of the programme is joint active development of innovation processes. At the same time, joint creation of innovation products, researches, elaboration of test samples of new products can be done within the Seventh Framework programme which incorporated Russia a couple of years ago. And this implies billions of Euros not only for academic institutions but for small and medium business as well in the sphere of new developments and innovations.

Of course, we need scientific schools and well-considered migration policy. The region requires not only working hands but clever minds. Federal University infrastructure and priorities and fields of scientific researches should be defined in coordination with the major Russian and European research and education centers to draft joint projects, programmes and establish new scientific schools. Both Russia and Europe are acquiring a deeper understanding of the fact that the consequences of global crises can be overcome only by joint efforts as well as a new leading center of modernization can be established.

Taking into consideration the latest activities and declarations of Russian leaders (Putin's speech in Berlin, November 2010), common European integration is becoming a cornerstone for not only country's modernization but its foreign policy. Agreements with the EU on four common European spaces and detailed roadmaps for their gradual formation confirm political will of the parties for unprecedented rapprochement. The problem is that this

process is very slow due to the abovementioned reasons. The process can be accelerated by convincing Moscow and Brussels that the Kaliningrad Region jointly with cross-border regions of Poland and Lithuania can create a realistic model of these spaces in economy, safety, science, education and other spheres. It is obvious that it is not that easy to implement this project without support of federal authorities, the European Commission and governments of Poland and Lithuania. But such a project of European significance is in line with integration political and economic tendencies and there are good chances to implement it by joint efforts. But it should be taken into account that initiative, definite suggestions and political will should come, first of all, from the authorities of the region. The first annual address of a new governor Nikolay Tsukanov made at the end of the previous year buoys definite optimism.

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How to make the challenges of Kaliningrad to become true?

By Jouko Grönholm

One of the most interesting slogans in the Kaliningrad region demonstrations during the last few years has been: "Dmitry Anatolevich, please re-establish the normal circumstances in our region."

These words contain an allusion to the beginning of Medvedev's presidency, when he was openly criticizing bureaucrats of making difficulties to the increasing business life in Russia. Now Kaliningrad inhabitants are showing that the leaders of "big Russia" have forgotten these principles at least in Kaliningrad.

"Big Russia" (bolshaja Rossija) is expression that Kaliningrad citizens are using talking about the enormous rest of their country. It is hard to estimate do Kaliningrad people really believe in the possibilities to fight against corruption in the region if the central of Russian state does not have the leading role in this process.

Russia's smallest region of Kaliningrad is an exclave located far away from the western border of Russia proper. Kaliningrad was a spoil of World War II, allocated from Germany to the Soviet Union at the Potsdam Conference that divided Europe between the allied powers in 1945.

The region (in Russian oblast) is a wedge-shaped piece of land along the Baltic Sea between Poland and Lithuania, approximately one-half the size of Belgium, 15 100 square kilometres. The oblast's primary and port city is also known as Kaliningrad.

The absence of a clearly defined policy from Moscow with respect to Kaliningrad has been evident throughout the past decade or past two decades. This lack of central policy has been one of the important causes behind the inability to turn Kaliningrad into a well prospering economic area.

Frequent changes in customs and tax regulations led to the difficulties of such ventures as the Free Economic Zone Yantar established in 1991 and its successor Special Economic Zone in 1996. In the coming years one should not expect changes which would enable business activities to be conducted in accordance with EU standards, either in Russia or Kaliningrad.

In various international studies and reports it has been fashionable to articulate a future for the Kaliningrad on the basis of choosing between two alternatives: either a military base or a very well prospering economic zone. The experiences of the 1990s and the first decade of the 21st century however show that this would be an inappropriate model. Contemporary Russia will choose neither scenario. It should rather be expected that central policy vis-à-vis Kaliningrad will remain vague, although probably with a tendency toward exercising greater control at the centre.

Moscow-Kaliningrad relations need to be perceived in the wider context of Russia as a whole. The centrist tendencies already of President Vladimir Putin and nowadays of President Dmitry Medvedev which far outperform those of Boris Yeltsin, exert a direct impact upon the situation of Kaliningrad. The establishment of seven Federal Districts (Kaliningrad belongs to the North-Western Federal District with its capital in St. Petersburg) reinforces central control over the regions and reduces the scope of autonomy for the governors.

This mechanism has already for a long time been visible in the case of Kaliningrad. One of the important causes of Moscow's unwillingness to accept a more self-directed development of the Kaliningrad enclave will be fear of the potential disintegration of the Russian federation. It should be expected that the policy of the Medvedev administration concerning enclave relations with the EU will correspond to the provision contained in the medium term Strategy for the Development of Relations of the Russian Federation with the EU.

The authors of that Strategy clearly underline the necessity to assure the full authority of Moscow over Kaliningrad, adding only that the district could still all the time, to such an extent as may be feasible, fulfil the role of a pilot region in the relations between Russia and the EU.

The ice-free port of Kaliningrad on the Baltic Sea was home to the Soviet Baltic fleet; during the Cold War 200 000 to 500 000 soldiers were stationed in the region. Today only 25 000 soldiers occupy Kaliningrad, an indicator of the reduction of perceived threat from NATO countries.

Railroads connect Kaliningrad to Russia though Lithuania and Belarus but importing food from Russia is not cost effective. However, Kaliningrad is surrounded by European Union member states, so trade on the wider market is indeed possible.

Approximately 400 000 people live in metropolitan Kaliningrad and a total of nearly one million are in the oblast.

The Russian exclave of Kaliningrad on the Baltic Sea is sandwiched between Poland to the south and Lithuania to the north and east. So Kaliningrad has still also big strategic importance for Moscow.

Since Lithuania joined the EU it has been impossible to travel between the exclave and the rest of Russia over land without crossing the territory of at least one EU state. There has been friction, particularly with Lithuania, over transit regulations. The Russian leaders have described as a matter of Russian national security the inauguration of a new sea route linking the region with Ust-Luga, near St. Petersburg.

The European Commission provides funds for business projects under its special programme for Kaliningrad. The region began to see increasing trade with the countries of the EU as well as increasing economic growth and rising industrial output. To fulfil all these goals enormous efforts are needed both from the side of Brussels and the side of Moscow – but little by little it would be positive if the Russian side would give bigger autonomy for Kaliningrad in the decision making.



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Kaliningrad as an international tourism destination – still a challenge

By Tatiana Chekalina

Kaliningrad region of Russian Federation is an area with rich natural, historical and cultural resources and favourable location. The Old Prussian, German, Soviet, as well as the contemporary Russian periods blend together to form a unique cultural and historical landscape of the region. The Baltic Sea coast locates the spa resorts Svetlogorsk and Zelenogradsk. The National park "Curonian Spit" is included into the UNESCO world heritage list. Yantarny settlement, where the amber is excavated, actively develops into a new tourism centre in the coastal zone. The inland area of the region provides possibilities for various types of tourism activities, including the rural and ecological tourism, rafting, biking etc.

Kaliningrad region received substantial international attention, when the neighbouring Lithuania and Poland were entering the European Union. In 2004 Kaliningrad region became the Russian enclave within the borders of the enlarged EU, which created both opportunities and problems for the development of Kaliningrad region and inevitably affected the tourism industry.

The region, which has no direct border with the mainland territory of Russia, is affected by the EU-Russia regulations in terms of visa regime and transport transit. An increased international awareness in the result of the EU-Russia dialogue regarding the Russian enclave was an additional outcome for Kaliningrad. While the name of the region became well known in the Baltic Sea region and beyond, the image of the area was far from being favourable.

At the same time, Kaliningrad is one of the most active Russian regions when it comes to international cooperation in business, governance, culture, education and many other activity areas. Thus, business and congress travel is an important direction of tourism development in Kaliningrad region, including meetings, exhibitions, conferences etc.

Not surprisingly, the region considers tourism as one of the priority areas for development. The tourism development remains an acute issue on the agenda of both the regional and local authorities. The tourism infrastructure develops rapidly, including the new hotels, greater variety of restaurants, cafes and bars, reconstruction and development of cultural and historical sites and attractions. The region puts a great effort to organize tourist events, including the international festivals of jazz music, organ music, handicrafts etc. The Immanuel Kant State University of Russia offers education programs for tourism and hospitality industry. One of the recent initiatives is the competence development programmes for the tourist guides. The tourism department at the Kaliningrad Regional Government coordinates the marketing policy of the region, including collaboration with the tourism industry stakeholders, participation in the international tourism exhibitions, information policy, on-line and off-line marketing communication etc.

The regional and local authorities, as well as the cultural and educational institutions actively participate in international cooperation aimed at the development of the cross-border tourism routes and products, joint marketing activities, development of human assets etc. Particularly, a number of projects have been implemented with the EU funding allocated within the Baltic Sea region and Lithuania-Poland-Kaliningrad region cooperation programmes.

According to Kaliningrad Regional Government, in 2005-2008 the number of tourists was steadily growing from 333 thousand tourists in 2005, including 256.6 thousand tourists from Russia and 76.4 thousand tourists from other countries, up to 520 thousand tourists in 2008 (425 thousand Russian and 95 thousand international tourists). However, in 2009, which was the year of economic crisis, the overall number of tourists declined down to 380 thousand tourists and somewhat increased up to 420 thousand in 2010.

The problems with transport accessibility greatly contributed to the decline of the tourist flows into Kaliningrad region.

Particularly, the local airline company KD Avia, which operated as the hub and directly connected Kaliningrad with 23 cities in Russia, Europe and Asia, became bankrupt. Today Kaliningrad is connected with the European countries via Riga and Warsaw.

The problems of the transport accessibility primarily affected the domestic (i.e., Russian) tourism. As for the international tourism, the notorious visa issue remains an important obstacle, as well as the registration procedure for the foreign citizens. The regional authorities continuously appeal to the federal bodies arguing for the simplification of current regulations to make the region more attractive for international tourists.

The border-crossing issues hold back the implementation of one of the most awaited and promising international tourism projects. Particularly, the agreement between Russia and Lithuania on shipping in the Curonian lagoon was signed by the President of RF in 2009. However, international cruising can start only after construction of the border-crossing point on the Russian side in Rybachiy. At the same time, according to the magazine "Jura", the construction will not start before 2016.

So far, Kaliningrad region primarily serves the domestic Russian market (mainly Moscow, St.-Petersburg and the North-West of Russia). According to Kaliningrad Regional Government, the majority of Russian tourists (43%) arrive to Kaliningrad region with the purposes of spa and recreation, 35% are interested in history and culture and 22% of domestic tourists visit the region with business and other purposes. On the contrary, the history and culture of Kaliningrad region is the main purpose of visitation for international tourists (i.e., 70%). Business and congress travel accounts for about 18% of international tourists, while spa and recreation is interesting for only 12% of international visitors.

The greatest share of international tourist comes from Germany, mainly for the purposes of the so called "nostalgic" tourism. The estimations of the share of German visitors among the international tourists vary from 56% to about 70%. Other main sending countries are the neighbouring Poland and Lithuania. The regional authorities expect that further development of event tourism, cultural and historical tourism, as well as ecological tourism can attract the new visitors from Germany, Poland, Ukraine and Sweden.

Obviously, there are many improvements, which still have to be done in terms of tourist infrastructure, entertainment, external and internal transport accessibility etc. At the same time, Kaliningrad region already has a lot to offer to the international tourist. The tourists' reviews of their experience, which can be found on travel websites, are quite positive. However, an important and not yet addressed challenge for the region is how to properly offer its unique resources to the international market.

It seems like the region is too focused on the development of infrastructure and promotion of activities, and simultaneously neglects more abstract experiential and symbolic components of the destination experience. In its marketing strategy the region should switch the focus from the types of tourism available for international visitors to the experiential and symbolic outcomes of the trip for both potential and actual international tourists. Thus, the destination promise communicated through the brand should provide guidance on how to assemble the resources offered by Kaliningrad region into valuable destination experiences.

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The middle class in Russia – emerging reality or old myth?

By Ivan Samson and Marina Krasilnikova*

The theoretical foundations of the middle class

Is there a middle class in Russia? The father of the theory of social classes is Max Weber, with his famous definition: *the class* reflected by the wealth, *the status* measured by the prestige attached to each position and *the party* as an expression of power, the ability of a group to reach its objectives. New inputs are provided by descriptive American sociology, with the pyramid model with three classes based on the criterion of shared attitudes¹; its criticism by Lipset and his diamond, broad in the middle, following the development of consumer goods and more equitable access to education². There is no such thing as analytic theory of the middle class. The descriptive analysis of the segments of the middle classes may become infinite because they depend heavily on criteria: income, authority, autonomy in work, education, subjective perception, etc.. Gilbert concedes: " *there is really no way to establish that a particular model is 'true' and another 'false'* ". Aristotle brought the idea of a moderator or stabilizing function of democracy exercised by the intermediate classes of society, whereas if class balance leans toward the rich or the poor, democracy turns into oligarchy or tyranny. But this thesis is far from unanimous and it is far from being verified.

The reality of the intermediate segments of Russian society

Several studies have been conducted by the Russian Institutes which have resulted in recent publications. They show that these intermediate segments or so-called middle class are still in their genesis.

A study done in 2008, just before the 2009 crisis and after 9 years of euphoric growth of the Russian economy provides a more precise analysis of the structure of the intermediate segments in Russia³. According to the material criteria, in 2007 26% of Russians were considered as middle class, according to professional criteria middle class were 19, 5% and according to subjective criteria it was 30%. The three criteria are met simultaneously only by 5% in average Russian households - it is the core of the middle class (13% in Moscow and St Petersburg). If we consider only two criteria among the three, it was about 20% of households in 2007, but it is already a very broad definition. The comparison with 2000 is instructive because the intermediate segments have not grown. The heart of the middle class has even decreased from 7% to 5%.

Why did not the increase in wages and education levels enable the growth of the middle class? The explanations of stagnation or even decline in Russian middle class during the years of growth are: the absence of an economic environment conducive to the development of small entrepreneurship, limited access for the population to property income, non-transparent systems of wage formation, low social assistance programs for families with children and the stagnant situation of public sector employees, as the primary source of middle class growth during the years of economic takeoff.

This study is complemented by a detailed analysis of attitudes and opinions conducted by the Levada Center, for which the existence of a middle class in Russia is not demonstrated⁴. Whereas for the whole population, the main concerns are economic (prices, employment) for the "middle class", the most threatening signs are violence in society, aggression, corruption, weak courts, pollution, the influx of immigrants and the poor state of health care systems and pensions. The majority of them consider that their position is not legally and politically safe, and 83% admit they can not influence the country's policy in any way, not only for decisions taken by the

government, but even in debates on the situation of the country or the issues vital to them. 63% want their children go to study or work abroad. Other forms of compensation mechanisms may be xenophobia, resentment or fear of foreigners and of the inflow of non-residents.

The non-existence of a middle class in Russia

The most common methodological error is that the descriptive approach of the Russian middle class focuses on quantitative approaches, without a theory or a conceptual definition of the middle class. In other words, the researchers measure an object, forgetting to base the existence, or rather acting "as if" it went without saying. For Maleva the middle class represents 20% of the richest households in Russia, and its upper segment is non-existent. Other social groups are: 10% the excluded class, and 70% "the class below average." One should keep in mind that with this social stratification, the "middle class" brings up the basket, there is no upper class. It could better say that the social stratification of post-Soviet Russia is not yet incorporated, and that Russian society is still in transition.

If one measures income distribution in Russia and assumes that the "middle classes" are in the third and fourth 20% of the population, we can observe that their weight has decreased from 41.6% in 1991 to 38 % in 2009. Apart from a certain material comfort in some segments of the population, which in itself is not enough to found a class, virtually all the attributes of the middle class are absent in Russia. It has not the stability of its financial situation, has little or no savings and cannot, even economically, exercise the stabilizing function identified by Weber. This is easily explained: the new incomes are less generated by an entrepreneurial activity that would ensure its independence than by the redistribution of the rent from the large raw material resources of the country. It has no more authority in the meaning of Weber and Dahrendorf⁵ than those below. The surveys confirm that the influence on political decisions and the sense of control over its affairs do not habit these intermediate segments as described by Mills⁶. Chilly, the Russian middle class is far from the intrinsic optimism associated with a growth that is supposed to be irresistible. A quarter of them are tempted to emigrate and three-quarters expect to send their children to live abroad. If we look now for a stabilizing role of political opinion, for the promotion of moderation and consensus, we may become disappointed. There is no *habitus* which constitutes a group and their very image is blurred by the new rich. Without class, status and party, the intermediate segments of Russian society can not exist as a social group. That reveals that the Russian middle class is a myth. Speculations on the middle class in Russia serve little understanding of Russian society. They serve to substantiate the myth that the whole world will eventually converge towards the Western model, and more specifically American. Myth that is echoed in Russia, where followers of the middle class say, "Look, we're almost like you!"

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¹ Warner W. L. (1949): *Social Class in America: A Manual of Procedure for the Measurement of Social Status*, Science Research Associates, Chicago.

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⁵ Dahrendorf R. (1959): *Class and Class Conflict in Industrial Society*, Routledge, London.

⁶ Mills C. W. (1951): *White collar: The American middle classes*, Oxford University Press, NY.

Russian military reform – what's next?

By Andrey Pavlov

Military reform in Russia became a hot topic in the Russian political discourse immediately after the collapse of USSR. For the last two decades it was one of the most important issues in governmental and presidential agendas. Occasionally military reported about successful completion of a certain stage. Analytics in Russia and abroad were criticizing the reform's development, calling it "ill-conceived", "illusory", "failed", etc... The Russian society has gotten accustomed to the military reform, perceiving it as a permanent process. In November 2004 Defense Minister Sergey Ivanov has announced the completion of military reform. But in fact the discussion about the reform continued in the political establishment, expert community as well as in media and the society in general. In 2008, the governmental decision to create a "new appearance" of the Russian army demonstrated once again, that the military reform continues.

But if the reform was a permanent process for almost twenty years, was it really a reform? Examination of the basic distinctions of the Russian army from its Soviet predecessor may show that until recently, the substance of the reform could be better described as "adaptation" and "modernization". Basically, the military force in Russia was organized in a similar Soviet way, having the same geographical principle of the forces distribution between military districts ("okrug"), using conscription, being headed by military-dominated Ministry of Defense and preserving the large-scale mobilization capability. In 1990-s, reduction of the army, merging of military districts and some command structures were aimed mostly at adaptation to the economic constraints.

Only once, in 1996 president Boris Yeltsin during his re-election campaign issued the decree on transition to purely professional army in 2000. However, nobody really took this populist act seriously. Later, having greater funds for military expenditures, the government was spending the money mainly to soften social problems in the Army and modernize it. The success in both spheres was rather limited.

Today we may admit that the changes that began in 2008, represent the first attempt to create a military force of the new age. In fact, the 2007 appointment of the first civilian Minister of Defense Anatoliy Serdyukov was a serious signal of the coming changes. This appointment infuriated the Russian military leaders who were ready to resist the new minister's policy. But the war of 2008 became an important threshold. Soon after, the new minister demonstrated that he will not hesitate to use his power when he needs to overcome the resistance of his military subordinates.

Today the changes are fundamental and comprehensive. For the first time since general Milyutin's reform in 1864, Russia has no traditional military districts. Though the new Western, Central, Eastern and Southern territorial commands are still called "okrug"; they cannot play the same role. Creation of a more flexible brigade structure instead of divisions and creation of the new command system remind very much of the widespread in the West network-centric concept. According to the reform plan the new military force will consist only of ready for combat units while previously, the general mobilization capability required the existence of numerous bases and units whose task just was to maintain the mobilization system. This shift from maintenance of the large-scale mobilization capability to the new structure of permanent ready units also reflects the deliberation to implement a definitive change in strategy long ago officially declared in the Russian Military Doctrine. A total war on a

state possessing a big modern army is not at the top of list of possible armed conflicts any more.

The new reform was developed in a quite unusual manner. Public discussion, testing of concepts, clarification of the intentions and aims, have not preceded, but have followed the decision and the government still has a lot to do to succeed in this way. There is still an urgent need to demonstrate that the army with the "new appearance" not only looks better on paper but can perform better. At least, soldiers and officers of the Russian Army have to be convinced that this new reform is not just another poorly thought-out and ill-prepared experiment which will inevitably bring nothing but confusion and disorder. Taking into account the recent developments in military, it is quite difficult to achieve. For example, the widely advertised experiment in 2004-2005 on creation of units with only professional personnel and attempt to increase the number of professionals in other units proved to be unsuccessful.

The decision to change nearly everything was made and already implemented – but only formally. To reorganize the magnitude of the Russian military system, one needs much more time than just a few years. It is not too difficult to divide a division on battalions and then combine them in brigades, but it will take years to train their commanders to operate in the new network-centric system. It is easier to break the resistance of high-rank military than to convince the society that there have been good reasons to do it.

It seems that the next natural step in the reformation of Russian military forces may become a reform of the Ministry of Defense itself. The main goal would be the division of power between civilian Minister of Defense and military Chief of General Staff, so that the first would be responsible for policy and finances and the second would be in charge of the training and commanding structures. However, I believe that this step will not be made soon. Political component of the Ministry of Defense is too weak to play an independent role, and the Ministry is still mostly a military institution. Yet some efforts to increase the political influence of the defense authority, at least in the domain of national security, could be made. Besides, the General Staff, today a part of the Ministry of Defense, have until recently been the center of opposition to the new reform and some other decisions of the Minister. Independence from the Ministry may cause the revival of the opposition.

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The perspectives of Russian radical nationalism

By Joachim Diec

Nationalist tendencies, unexpected in the post-internationalist space, woke up in Russia in the very end of the Soviet era, discrediting the universalist utopia. The early post-communist nationalism took two basic forms. One kind was an outspread of previously suppressed ethnic identity combined with xenophobic feelings, which was expressed in the anti-Semitic and ethnocentric ideology of the National-Patriotic Front "Pamyat". The origins of the group go back to the 1970s but its time of success began in 1986, when "Pamyat" took a well-structured organizational shape and got much popularity. The other side of Russian nationalism of the early years is associated with the imperialist doctrine of the Liberal-Democratic Party of Russia. Its leader, Vladimir Zhirinovski, used to proclaim the necessity to reconstruct the empire but in a state-controlled capitalist version. This statist approach refers neither to tribal traditions nor to the heritage of Russian Orthodoxy.

The next years brought about a relative stabilization of the nationalist trend and the appearance of some new groups. Their ideological image was quite diversified. Some focused on the religious and cultural grounds (like the Union of Orthodox Gonfaloniers), some emphasized the need for ethnic predomination of Russians within the Federation (Russian National Unity), some tried to support the Russian diaspora in post-Soviet states, especially in the Baltic countries (the Congress of Russian Communities and Rodina Party), some, like Russian National Union (later People's Will, People's Union), took a moderate and quite unspecified nationalist image.

In 1994 the situation changed radically initiating a new period of development. The Chechen wars worked out a feeling of hostility toward Caucasians. Paradoxically, the first years of the third millennium despite the terrorist attacks in Moscow (which are interpreted by some commentators as Russian secret service inside job) could be even called a golden age of Caucasian business in Moscow. However, a lot has changed after some symbolic events, which took place after 2003: the attack on Dubrovka Theater, the Beslan tragedy, which resulted in the death of Osetian children, blow-ups in Moscow subway. In addition, the local Russian tiny merchants began to feel fed up with the Caucasian mafias which took control of the markets in some cities.

In the eyes of ordinary Russians the Putin era is a time of relative stabilization and prosperity. Russia got a lot of unexpected opportunities to develop its economy, especially in the metropolitan areas and in the territories explored by gas and oil companies. The construction works in Moscow, St.Petesburg, Khanty-Mansiysk and other prominent places required cheap labor force, which was not always easy to find among the native Russian population. The time of stability in Russia combined with economic difficulties, authoritarianism and corruption in the southern part of the post-Soviet area took crowds of Central Asian workers to Russian metropolies. On the one hand they filled an essential gap in the reservoirs of labor force but their underdog lifestyle, religious beliefs and cultural standards provoked hostile attitudes among the ethnic Russian element.

The North Caucasian and Central Asian flows could have become less triggering if it had not been for serious demographic decline within the native Russian population. Even a very superficial insight into the data referring to the demographic situation in some administrative units prompts that vast territories in central and Northern Russia may be entirely abandoned within a century whereas the number of Chechens will triple according to the most tempered estimates.¹

The growing awareness of these tendencies fosters some Russians to take part in organized forms of xenophobic activity such as the Movement Against Illegal Immigration (DPNI) established in 2002 by Alexandr Belov (Potkin). It is usually described as one of the most extremist national groups in today's Russia. Not only does the DPNI organize actions against immigrants, its members provide legal help for people who suffered from real or imaginary aggression from the immigrants. DPNI uses advanced PR techniques and thanks to its horizontal organizational structure gets involved into the process of forming other extremist groups such as the Russian Social Movement (ROD).

Despite their internal instability the organizations are sometimes able to collaborate in several actions such as the yearly nationalist celebration - the Russian March in Moscow on Nov 4. In some areas DPNI cooperates with a militarized national-socialist group - The Slavic Union (Slavyanskij Soyuz, SS), which was delegalized in 2010. Another nationalist organization called National-State Russian Party (NDPR) is supposed to collaborate permanently with the DPNI.²

Contemporary Russian nationalism has several faces and its perspectives for the future are not equally distributed among all branches of the ideological tree:

1. The **religious traditionalists** probably overestimated the trends in the early 1990s. Although the links between religious traditionalism and nationalism are still strong within the ethnic Russian population, their offer still does not seem to be the main pillar of Russian solidarity.
2. The anti-western **imperialist** trend seems to keep its previous position. However, an internal shift of stock within this market might be taken into account as well. Despite the vigorous publication activity of the neo-urasianist leader, Alexandr Dugin, the Eurasian Youth Union does not seem to become more influential than it used to be. A similar kind of stagnation seems possible in the case of LDPR, which is loyal to the Kremlin and accepted by RF leaders but has not been a leading force of the Russian souls for a couple of years yet.

Therefore the nationalist stage in Russia will probably belong to two actors: Dmitry Rogozin with his Congress of Russian Communities and to anti-immigrant activists, especially anti-islamic organizations with DPNI in the head. The abilities and provenance of the two forces differ significantly:

1. **Rogozin**, despite his critical rhetoric toward the Kremlin is rather an entire part of the corporation. One cannot doubt it taking into account his latest posts such as his function of Russia's ambassador to NATO.³ Rogozin's comeback from Brussels will provide his charismatic personality with additional opportunities.
2. The **xenophobic groups** cannot enjoy Kremlin's support, their leaders like Belov might be easily marginalized by the Kremlin but they are spontaneous and have many supporters who are able to act without being steered by the authorities. Their plan to take advantage of the cold civil war by stimulating it in order to monopolize power has been working so far but the natural continuation of demographic and mental processes can make them get out of control.

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² Comp. Commentary: D.Shlapentokh, *The Evolution of Russian Nationalists and the Perspective of Russian's Relationship with Caucasian Minorities*, Central Asia-Caucasus Institute. Analyst, Johns Hopkins University, Sep 17, 2008, <http://www.cacianalyst.org/?q=node/4936>

³ Comp. Е.Михайловская, *Фракция "Родина" в контексте националистического дискурса в Государственной Думе*, in: *Русский национализм. Социальный и культурный контекст*, p. 71. The author (as well as some other commentators) believes that Rogozin's „Rodina” is a Kremlin project.

¹ See: Федеральная Служба государственной статистики, http://www.gks.ru/scripts/db_inet/dbinet.cgi

Kremlin takes its sport seriously

By Markku Jokisipilä

On 1 March 2010, only a day after the Winter Olympics in Vancouver had ended, President Dmitri Medvedev demanded the resignation of people responsible for the Olympic preparations. The three gold medals and 11th spot on the medal table represented the worst ever performance of by the traditional winter sport powerhouse. Two days later the president of Russian Olympic Committee Leonid Tyagachev handed in his resignation.

Although some of the criticized tried to do so, blame couldn't be put on the economic downturn of 2008-2009. On the contrary government had invested an unprecedented amount of money in sports during the preceding three years, in total almost 120 million US dollars. With the all-important first ever Russian Winter Olympics in Sochi only four years away, Vancouver fiasco created a nation-wide uproar.

During his eight-year presidency Vladimir Putin took the promotion of sport as his personal mission. He announced that Russian athletes should strive to equal the excellence of their Soviet predecessors and put his personal authority on the line to secure them the facilities and funding to achieve this.

Putin has also decidedly pursued to raise country's international profile through hosting of high-profile international sports competitions. Largely thanks to his tireless efforts Russia will host a historical royal flush of sports events in the coming years: World Championships in athletics in 2013, Winter Olympics in 2014 and World Cup of soccer in 2018. Granting of these mega-events is interpreted by many in and out of Russia as a symbolic indication of country's political resurgence on the world stage. Russia is also bidding for the 2016 ice hockey World Championships, again on the initiative of Putin himself.

Kremlin's keen interest in sport is hardly surprising. Many governments are deeply engaged with sportive nationalism, i.e. using sport for political purposes of constructing national identity, fostering of national unity and promoting country's international prestige. Because of the Soviet traditions of success, however, in Russia sport is something even more important. Putin and Medvedev have repeatedly stressed its value as a role model and display window for national vitality, and governmental subsidies have continuously grown especially through sponsorships by state-owned corporate giants.

Ice hockey with its huge stock of historical victories (seven Olympic and 22 world titles) has become a special protégé of Kremlin. After the disappointments in 2006 Turin Olympics and 2007 World Championships Putin commissioned Vyacheslav Fetisov, the former Soviet national side captain and sports minister of Russia, to completely renovate the Russian league system with the explicit aim of challenging the big and rich North American National Hockey League.

With Kremlin's backing the new Continental Hockey League (Kontinentalnaja Hokkeinaja Liga, KHL) was launched in autumn 2008. Besides talent from Russia, Belarus, Kazakhstan and Latvia it attracted a host of NHL-stars from North American teams, such as Stanley Cup – winners Jaromir Jagr, Sergey Brylin and Chris Simon. With its 24 teams from four countries, 720 players representing 15 different nationalities and the gigantic 6150-kilometer East-West span from Khabarovsk in the Russian Far East to Riga by the Baltic Sea KHL is truly an exceptional project.

Establishment of the KHL coincided with the first Russian hockey world championship in 15 years, conquered dramatically by an overtime goal against the biggest rivals

Canada on their home turf in May 2008. This tour-de-force was repeated a year later, testifying the competitive standard of the new league. In Vancouver everything seemed to be set for a third title in a row, but Canadian revenge smashed Russian dreams of ending the 18-year Olympic draught already in the quarterfinal game.

Regardless of its already huge geographical size the KHL is planning to expand. It has negotiated with two dozen teams from 12 countries, including Lithuania, Sweden, Finland, Germany, Austria, Czech Republic, Ukraine, and Croatia. The super heavyweight political and economic supporters of the KHL provide these seemingly fanciful plans with a degree of seriousness. Putin's role in the establishment of the league was instrumental, and after him President Medvedev has taken it under his wings.

In terms of political and economic weight the KHL top management is probably one of the most influential sports bodies in the world. Director-General of Gazprom Export Alexander Medvedev is the league president and the board of trustees is headed by Presidential Chief of Staff Sergei Naryshkin. Board of directors includes Deputy General Director Sergey Batekhin from industrial conglomerate Interros, Vice President Igor Solyarsky from Transneft, General Director Shafagat Takhautdinov from Tatneft, and the Magnitogorsk oligarch Viktor Rashnikov.

List of sponsors is impressive as well: Gazprom, Rosneft, Rosoboronexport, Evraz Group, Russian Railways, Magnitogorsk Iron and Steel Works, VTB Bank, and SOGAZ Insurance Group among others. After the 2008 economic recession many Western experts predicted that sports funding in Russia, largely dependent on oil, gas and steel, would plummet. Several KHL teams indeed had to resort to budget cuts and streamlining, but the league was able to pull through and finish its second season successfully.

With the dawning recovery KHL President Alexander Medvedev remains convinced of the expansion potential: "Beginning with the 2012-2013 season, we plan for the KHL to be a pan-European competition involving 24 clubs from the current KHL, and probably about 30 of the leading clubs in Europe". Kremlin's hockey enthusiasm hasn't diminished either. In January 2011 Russia captured the world junior championship title by beating the Canadians in the final. Only moments later Dmitri Medvedev congratulated the team on his Twitter account.

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The text is based on the author's forthcoming book on the role of hockey in international politics from Cold war era to present day

Szczecin – center of a truncated border region with geopolitical dilemmas

By Thomas Lundén

The Polish city of Szczecin (pop. c. 400 000) is situated at the German border, around 50 kilometres from the Baltic Sea coast, but separated from it by the large lagoon of Zalew Szczeciński/Stettiner Haff. The Baltic seaside is a stretch of land dominated by the resort area on the island of Uznam/Usedom where, at the eastern tip of the island, the land boundary directly connects to the outskirts of Świnoujście (c. 40.000). Its urban centre is located at the western side of the river Świna and it only has ferry connections to its eastern suburbs and to the mainland of Poland, while since only a few years back, two roads and one railway line connect with the German part of the island and the German mainland.

Both cities were included in the territory ceded by Germany after World War II, and the earlier population was expelled and replaced by in-migrants from central Poland and the eastern territories that Poland ceded to the USSR.

For a long time, Stettin played the role of a harbour for the export of coal from Silesia and agricultural products from the river Oder/Odra and its tributaries and the canal systems of Prussia including Berlin, but also for imports including iron ore and steel from Sweden. Stettin also developed shipyards and other industries related to the handling of goods. Swinemünde was a fashionable beach resort and a military garrison. After becoming Polish, Świnoujście became an important ferry terminal for goods and persons with lines to Sweden and Denmark, especially important during the years of relatively good relations to neutral Sweden.

After the establishment of the German Democratic Republic the border was closed for local crossing, except for certain times of 'thaw' in the rather strained relations between the two 'socialist' states. With the transitions since 1989, border crossing has been successively eased, leading to situation today where both states since Poland's entry into the Schengen area late 2007 have no formal checks on the border. Old roads and railway connections are being reopened. Szczecin is connected to Berlin (150 kilometres) by high quality motorway, whereas the road distance to Warsaw is 521 kilometres by roads of varying quality and through several towns. Train connections also favour Berlin; daily connections take around 2 hours while Warsaw is at best within 5½ hours. The local airport near Goleniów has daily flights to Warsaw and weekly connections to Britain and Norway, evidently for migratory workers, partly as a result of layoffs at the shipyard. Several shuttle bus companies connect with Berlin airports and train station. The Heringsdorf airport less than 10 kilometres from Świnoujście across the border operates during the summer season only, with flights serving the German seaside resorts.

Together with Gdańsk/Gdynia, Szczecin was the shipyard city of Poland and took active part in the uprisings in 1970 and 1980. After Poland's return to market economy the shipyard met with increasing difficulties and after several attempts of reconstruction the plant is now idle. A repair shipyard is active, and the harbour is increasingly used for pleasure boats and water tourism.

Świnoujście has a better location in relation to shipping, but the town is hampered by its location with the urban centre on one side, and shipping activities on the other side of the Świna River. Two local ferries link the two sides, a tunnel has been discussed for many years, but it has to be deep enough to allow for the ships from Szczecin to pass into the Baltic. Świnoujście has been prepared for a location of a terminal for deliveries of LNG (liquefied natural gas) to be completed in 2014, but two obstacles seem to impair an implementation. One is geopolitical and technical: the shipping route from the Baltic Sea into the mouth of the Świna will cross the NordStream gas pipeline, and Polish attempts to persuade the NordStream consortium to dig the pipeline deeper for the LNG vessels to safely pass have failed.

Another obstacle is the image of the area as an unspoiled beach resort, trying also to reach the German market.

The energy sector is a bone of contention between Germany and Poland. The Nordstream pipeline lands at Lubmin, the place of the East German nuclear plant, which was shut down in 1990, and continues near the Polish border southwards. Lubmin is only some 50 kilometres away from Świnoujście. In the negotiations between Poland and the German-Russian interests, Poland was offered a branch line, but declined. The LNG project can be seen as a direct response to the pipeline project, sometimes maliciously referred to as a new German-Russian pact.

In the energy debate between the two neighbouring states, nuclear energy has been launched as a Polish way to combat pollution from burning coal and gas. One location suggested for a plant has been at Gryfino, on the Odra River just 20 kilometres south of Szczecin and almost on the border. Bearing in mind the German popular resistance to nuclear power, such a location will be politically unrealistic. A recent offer from Russia is to provide to Germany an electricity line from the proposed nuclear plant in the Kaliningrad area, since the plant will be producing substantially more electricity than needed in the area, and that Kaliningrad's neighbours, Lithuania and Poland, have rejected deliveries from this plant. But Germany is unlikely to accept this offer of 'atomic energy'.

What will be the future of the Szczecin region?

On the market side, the opening of the EU borders has led to increasing possibilities for the region to open up to the neighbouring areas of Germany, for mutual benefit. The German local area has a dual structure. The Baltic Sea resort areas are modernizing and attracting wealthy tourism, but with the seasonal problems typical of Baltic area. The German areas near Szczecin are characterised as poor, declining and with high unemployment rates, but because of German subsidies still with higher formal wealth than the Polish area. As long as the price and wage level in Poland is lower, there is a market for shopping and services into the local borderland, but price levels are levelling out. Instead, Szczecin may take the role of an urban centre to the nearest German areas, but differences in language and culture will make the relation a skewed one. At the same time, Berlin is taking the role of a dominant centre to a small but important segment of Szczecin's population. Housing shortage in Poland and the opposite in the German side have led to a certain migration of Polish settlers into the small towns, but most settlers commute back into Poland for work.

From a geopolitical point of view, the relation between energy provision and sustainability aspects form the most problematic juncture. Local interests provide for border-transgressing solutions, while decisions made in Warsaw and Berlin may have other implications, leaving the area in the periphery of both states.

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Protecting the Baltic Sea – a challenge to the international environmental policy

By Markku Ollikainen

1. Introduction

The action plan for the protection of the Baltic Sea (BSAP) was concluded in the year 2007 (HELCOM 2007). One of its main purposes was to cut down drastically the nutrient loads. The situation today, however, shows that protection work is ineffective, and the Baltic Sea fares badly. Sadly, this situation is all too familiar. None of the former protection agreements have been honored, and, unfortunately, the same goes for the Baltic Sea Action Plan. One of the shortcomings in the latest plan lies in the following actuality: the recommended reductions set for the good ecological status of the Baltic Sea were set without taking into consideration the fact that the costs of reducing the nutrient load together with its benefits are unequally distributed among the various countries along this sea. Implementing BSAP incurs great costs to Poland, Russia, and the Baltic countries, while Finland and Sweden benefit from load reductions. It is precisely this asymmetrical distribution of net benefits that accounts for the major failure of the BSAP. Further, this asymmetry is directly tied up with features that are typical of the Baltic Sea, and it is of utmost importance that we get a clearer picture of these features.

2. The Hydrography of the Baltic Sea and the Asymmetry of the Nutrient Loads

The preconditions of the international protection policy of the Baltic Sea may be derived from two specific features. First, the Baltic Sea is a common property resource belonging to each and everyone, which, in turn, means that it does not exclusively belong to any specific country. Second, in comparison to other seas, the Baltic Sea has unique hydrographic features. It is my contention that the particular way in which these two factors combine together forms the basis for understanding the challenges of protecting the Baltic Sea.

The Baltic Sea has an unusually low amount of water, and it is this feature that makes it more vulnerable to nutrient loads than any other sea in the world. Further, the brackish water in the Baltic Sea has the tendency to stratify: salt water sinks to the bottom layers and stays there for a long time. As time goes by, the amount of oxygen keeps on diminishing, until it becomes hypoxic and no longer can bind the phosphorus, which rises up to the surface water as an internal phosphorus load. The less-salt surface water circulates counterclockwise, which means that it transfers from the coast of Poland via the Estonian coast to the Gulf of Finland, and from there along the Swedish coast to the Danish Straits, until it finally reaches the Atlantic.

This specific manner in which surface water circulates from one country to the next along the Baltic Sea unfortunately “ensures” that the nutrient load of each country visits the neighboring coastal borders of this sea. Consequently, each and every country is responsible for polluting its neighbors—thus, all are simultaneously polluters and victims of pollution. But the amount of loads makes a difference between heavy polluters and victims. This fact accounts for the asymmetry between countries: the greater the polluter, the higher the benefit from pollution: the polluter actually benefits, because the neighbor countries have to shoulder a large portion of the damages caused by nutrient loads. The polluting country saves in clean-up costs, while others pay the price. Thus Russia and Poland in particular, but also the Baltic countries to some extent, make Finland and Sweden the payers by transferring nutrient loads to Finnish and Swedish coastal and open sea areas.

What further augments the asymmetry of nutrient loads is the fact that the general principle of “the polluter pays” cannot be implemented among the countries along the Baltic Sea. From the perspective of international law, this sea is a common property resource to which all nations have an equal right—including the equal right of pollution. The coastal states of the Baltic Sea are sovereign, and there exists no supranational regulator who could force these states to comply with its decrees. Consequently, no country may evoke the law in order to stop other countries from polluting the Baltic Sea. It is entirely up to the country itself to curb its nutrient load. Hence only the voluntary dedication of the countries along the Baltic Sea to protect their shared resource can change its current status for the better.

What poses a further challenge to the protection of the Baltic Sea is the non-simultaneous, uneven socio-economic situations of the coastal states. The greatest polluters are transitional economies. The living standard of people in these countries is low, and business enterprises and other societal functionaries have as yet no established practices for environmental protection. The countries that suffer the most from nutrient loads—such as Finland and Sweden—enjoy a high standard of living as well as acknowledging the need for implementing various environmental policies.

Reducing the nutrient load in transitional economies in accordance with the Baltic Sea Action Plan means simply that those countries in which the standard of living is low to begin with will end up paying a great price for protecting the Baltic Sea, while the affluent countries reap the benefits. The key question is: why would these less well-off countries shoulder this payment voluntarily, when there is no one who could force them to do so?

3. The Incentive for the Protection of the Baltic Sea and a Fair Protection Agreement

In an symmetric situation like in the Baltic Sea economic theories suggest that the “polluter pays” principle be substituted with another policy that accords better with international environmental policy: “the victim of pollution pays” policy. What this means as regards protecting the Baltic Sea is that the countries that benefit from cleaning the sea up carry the costs together with the polluters. If the big polluters are compensated for their efforts to clean up the environment, and if their net profit for such clean up is made positive, these countries will have a real economic incentive to protect the Baltic Sea. In other words, making protection attractive presupposes that Finland and Sweden finance an increasing amount of the costs of reducing pollution in Russia and Poland. (To be sure, Finland and Sweden already shoulder a heavy responsibility for this work even today, which shows that this is the right direction to go.)

Reaching a binding agreement requires that a mechanism be created to divide equally the costs and benefits of protection among the participating countries. A binding agreement must be cost efficient and fair. In this context, cost efficiency means that the desired total reduction is achieved with the minimal costs. By speaking of fairness one alludes to distributing the net benefits among the participating countries in such a way that satisfies everyone. Economic theory cannot supply an unambiguous way of distributing net benefits in a fair way, but it does provide suggestions for various conceivable ways of doing so. Choosing among these suggestions involves searching for a satisfactory compromise, fierce negotiations about costs and benefits, as

everyone who has ever been engaged in drawing up international climate negotiations well know.

4. Baltic Sea Action Plan—an Anatomy of a Failure

The Baltic Sea Action Plan allocates Lithuania, Russia, and Poland really high targets of reducing phosphorus, while Lithuania, Poland, Sweden, and Denmark shoulder the highest targets in reducing nitrogen. The total costs of BSAP are 3975 million euros according to Ing-Marie Gren. They are 1000 higher than an alternative, cost-effective solution. Thus, BSAP is costly. Moreover, Poland, Latvia, Lithuania, and Russia together would bear 94% of the total cost burden and Poland alone 78%. If the cost burden is related to the solvency of the participating countries—that is, if it related to the number of tax payers and their prosperity as illustrated by BKT—the burden of these countries is even higher.

The economic analysis of the agreements previous to BSAP showed that any divergence from the cost-benefit principle is costly to the participating countries. In the light of the above mentioned figures it is evident that in drawing up the BSAP this criticism was not sufficiently taken into account. There is only one conclusion to be drawn: transitional economies and, in particular Poland, who carries the greatest responsibility for pollution, have no economic incentive whatsoever to commit themselves to the BSAP. Grounding the BSAP solely on ecological targets without consideration of net benefits is doomed to fail, because such a program forgets the hydrography of the Baltic Sea and asymmetries engendered by the common resource that this sea is. An ecosystems approach may help us picture the long-run goals, but it supplies no grounds for reaching a binding and fair protection agreement.

5. What Is to Be Done?

It is most likely that a new protection agreement is not foreseeable in the near future. Yet we may look to two directions for promising signs that promote protection. The urban waste water directive by the EU applies to all its members. This directive must be implemented in Poland and the Baltic countries, although it does not address Russia. If

phosphorus and nitrogen are reduced as decreed by this directive, it means considerable reduction of nutrient loads. Yet in all other respects, whatever success we may expect in the near future is dependent on what actions the two most active protectors of the Baltic Sea, Finland and Sweden, will take. They should actively search for cost beneficial solutions, while simultaneously investing in their credibility and negation initiatives as regards the well-being of the Baltic Sea in its entirety.

In my view, there are two specific ways in which Finland and Sweden can make their actions more effective. Without doubt, channeling money to environmental protection in Russia and in Poland gives currently the fastest and greatest protection benefits; thus offering investment support and forcefully supplying environmental education to these two countries would be smart moves. Moreover, both Finland and Sweden should reduce more effectively their own nitrogen loads. Finland, for example, should require that its bigger urban waste water plants reduce the nitrogen load up to 90 percent. This reduction would unarguably be the most efficient way of furthering the protection of the Finnish Archipelago, for which Finland alone is responsible. Contrary to what is commonly believed, the costs of reducing nitrogen are actually relatively low. If an aggressive nitrogen policy is coupled with a gradual reduction of phosphorus from agriculture, Finland would finally live up to its word in protecting the Archipelago.

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Baltic Rim countries in pole position in the eco-efficiency race?

By Håkan Knutsson

The countries in Northern Europe, the Baltic Rim (BR) countries, are in a good position to be successful in the race towards eco-efficiency. Eco-efficiency can be measured by the ratio of CO₂ emission to GDP. In these terms, Northern Europe is in a leading global position, which has also led to thousands of new jobs being created and less dependence on imported fuels like oil.

When it comes to eco-efficiency the US is lagging behind. The USA is painfully dependent on oil. A slight price increase in oil can destroy the recovery of the economy. There are a number of factors that will slow up the transition in the USA, but which favor Europe. This article will present some of these factors: climate, geography, regional infrastructure, urban design & solutions and public property management.

Climate

During the past 50 years there has been a population shift in the USA, with people moving from the North East of America to the South West. It is more attractive to live in sunny Arizona than in snowy Detroit. The South West States are suffering from chronic constraints related to water and energy. Living in a hot and dry climate is obviously much more energy consuming than living in our cooler Nordic climate.

Geography and Regional Infrastructure

The Baltic Sea has always been important for transportation, with sea freight being the most energy efficient way of transporting people and goods. The Baltic Sea gives us a long coast and plenty of ports. Improved inter-modal goods transports, changing from Sea Freight, Railway and Trucks can make transports even more energy efficient. Maybe it is time to refurbish our old inland canals?

North America, like China, is an enormous in-land continent, with relative short coast lines and few ports. The second most energy efficient transport system - the railway network - is in North America much weaker than the infrastructure in Northern Europe.

Urban Design and Solutions

The Baltic Rim Countries, as along with the rest of Europe, have maintained the traditional, medieval, formation of the cities – a dense city center. USA and Canada led global economic development during most of the 20th century. Huge low-density, low-rise city zones have been constructed. Urban sprawl makes it impossible to construct efficient Urban Technical Solutions for energy, heating, cooling, waste, sewage, buildings, communication and transports.

The Baltic Rim countries have a common Urban City System, an unique and valuable asset. This system- District Heating - has an “enabling function” that connects surplus energy with energy demand. Sweden has almost entirely phased out the use of fossil fuels (oil, gas, and coal) for heating purposes. This was largely as a result of the fact that in 1973, when the first Oil-Crisis struck, almost 100 % of all buildings in Sweden were heated by oil imported from Middle East. Today, the oil is replaced by waste, surplus heat from industries and power plants, biomass and electricity. For instance, the whole of Malmö City, with more than 250, 000 inhabitants, is heated by waste and surplus heat. Smaller towns like Bromölla and Sölvesborg are heated by surplus

heat from a nearby Pulp Mill. All countries around the Baltic Sea have a great potential to develop a similar, more secure and sustainable energy supply. A transition will enable the cities to close down worn-out and dirty coal-fired boilers.

A region like Skåne in southern Sweden has a regional government and city municipalities with very high ambitions in the area of sustainable urban resource management. The waste collection is very efficient, starting with sorting at source. Some waste fractions are recycled, toxic waste (batteries etc) is separated and other fractions are refined to electric power, heating, biogas and bio fertilizers. The regional government, responsible for all public transports and healthcare, has a goal to be fossil fuel free. Soon half of all city buses are fuelled with biogas, produced from waste and sewage.

Germany has also heavily promoted the development of biogas plants. There are more than 5, 000 biogas plants in the country, most of them producing small scale electric power. The trend now is to make the system more efficient by refining the biogas and injecting it into the natural gas grid. The gas can therefore be better utilized in Combined Heat and Power Gas Turbines. This recent biogas expansion in Germany has created 20, 000 new jobs.

Modern Cities are no longer competing for new industries. They are competing for the best and most capable people. Smart and well-educated people create new companies and jobs. This category of people requires attractive and green urban living. In Skåne, Malmö and Helsingborg have both created new attractive, green and sustainable city zones. It is very much a win-win situation. New fashionable areas have been developed on brown field sites, such as contaminated industrial zones in harbor areas. The value creation of such projects is enormous.

Public Property Management

The market price for supplying energy to buildings is usually not high enough to encourage full scale energy saving programs. Many countries have introduced policy instruments in order to drive energy savings and the introduction of renewable energy production. Carbon taxes and general energy taxes are common, although these are not usually sufficient. It is important that some property owners take the lead and start energy saving programs, even if the investments are not fully paid off by lower energy expenses. Large property owners are able to build up or buy professional energy management. In northern Europe, municipalities, universities and regional public hospital organizations are large property owners and in fact also the show cases to save energy. The US has fewer public owned property companies that can be in the forefront.

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Carbon markets in transition – opportunities and challenges

By Juha Ruukonen

The growth of the global carbon market has been rapid – in 2010 the carbon markets totalled €2 billion which is ten times more than in 2005. The largest market is the European Union Emissions Trading Scheme (EU ETS) which accounts for almost 80 % of the market with Kyoto Protocol's project mechanisms CDM and JI ranking as the second largest market. The foundations for the market are created by the Kyoto Protocol which is an international climate treaty that sets binding emission reduction targets for industrialized countries for the period of 2008-2012. Intensive negotiations are ongoing for the future emission reduction commitments, and the EU has already committed to reducing greenhouse gas emissions by 20% by 2020 and is willing to set more ambitious reduction targets provided other countries will make similar commitments.

GreenStream Network is one of the pioneers in the carbon markets. The company was established in 2001 and it currently employs 40 experts in eight countries. The services offered by GreenStream include asset management, advisory services and market intermediary services. The company has outstanding experience and expertise in identifying, assessing, developing and managing high-quality projects, including JI and CDM projects under the Kyoto Protocol. Currently the company has €150 million worth of assets under management in several carbon and renewable energy funds and vehicles.

The carbon markets are in a transition. The market set up, commitments and rules are clear for the 2008-2012 period but at the same time the uncertainty over the international climate agreement for the 2013-2020 period and beyond renders the market outlook cloudy. However, there are certain issues that are clear: the EU ETS will continue and the EU will seek to achieve the -20% emission reduction; the project based mechanisms, in particular the CDM, will continue to exist after 2012; countries will implement emission reduction policies despite developments in the international negotiations, and developing countries will play an important role in curbing climate change. By and large, the greenhouse gas emissions will have a value after 2013 and low cost emission reduction possibilities in the developing countries will be within the reach of compliance companies in one way or another under various emissions trading schemes.

As in other markets, uncertainty brings also opportunities. From the European perspective there is currently a window of opportunity to invest in the emission reduction projects in the developing countries through CDM mechanisms. Companies included in the EU ETS can use project based emission reductions credits from CDM and JI mechanisms for compliance in the EU ETS, and currently it seems that the supply of credits can relatively easily exceed the demand, putting downward pressure on emission reduction credit prices. At the same time, international negotiations are seeking to reach an agreement that would most likely include at least the CDM and create new demand outside Europe for the CDM credits. Moreover, let us not forget developments in the USA, Australia, Canada, Japan and South Korea that are developing national trading schemes that will create additional new demand for the CDM.

For the financial investors the main challenge in grasping the current market opportunities is making the right choice as to the most likely project types and the most likely host countries to provide emission reduction credits that can be widely used in the world carbon markets and consequently

will have a high value in the future. Moreover, at least in the mid-term, the carbon market is fragmented into several markets which are partially linked and finding a suitable target market for the credits is not necessarily a straightforward exercise. For companies such as GreenStream this provides the opportunity to take advantage of the in-depth understanding of the complexities of the international climate policy, rules of the national and regional emissions trading schemes, challenges of pushing projects through CDM and similar project cycles (documentation, verification of the emission reductions etc.) and legal challenges of contracting an abstract product that is used in the uncertain and complex legal frameworks.

Another interesting issue regarding the current climate and carbon market is the financial support that developed countries have pledged to provide for developing countries. In the Copenhagen climate negotiations in 2009 countries failed to reach an ambitious global climate agreement but they managed to agree on a "fast start climate financing". The developed countries pledged to provide financing of USD30 billion during 2010-2012 and to increase it to 100 billion annually by 2020. The aim of the fast financing is to finance climate change mitigation and adaptation. Channelling this additional financing to the developing countries efficiently and effectively is not an easy task. Part of the financing is provided through existing development programmes and vehicles but also new means will be needed. For private companies, such as technology providers and project developers, fast financing can open new markets and business opportunities. GreenStream is actively participating in various clean tech networks and programs, and the discussion over how the private sector thinks that the fast financing should be channelled to the market has been moderate. We believe that as private companies will play a key role in implementing and actually constructing and operating emission reduction projects they should be very keen on participating in designing how the financing should be distributed and channelled to the market.

Overall, the carbon markets are in an interesting phase. The market has grown fast and many lessons have been learnt and at the same time there is an uncertainty regarding the future direction of the markets. For companies this situation provides unique opportunities. GreenStream has actively participated in the carbon market from the beginning and will continue to do so. We have no doubt that greenhouse gas emissions or emission reductions continue to have value in the future – the question is rather in which market can you fetch the highest price and which markets are the most lucrative for various project types. Indeed, carbon markets and climate policies will provide opportunities for both financial investors and companies that are seeking cost effective solutions to meet their legal obligations under the emissions trading schemes.

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Through the integration in the Nordic Europe to the global value chains

By Sigitas Brazinskas

The Baltic region has ended year 2010 with optimistic signs where all three Baltic countries have demonstrated positive indicators in the economic recovery. The GDP grew, export figures started exceeding volumes which were achieved in 2006-2008 before the latest economic crisis. Large investment projects reached development phase or were completed. Estonia has made historical achievement by joining euro zone. Currently export still remains one of major recovery driven engine in the Baltic states where local consumption is still lacking far behind the level of years 2006-2008.

According to the latest statistics the entire Nordic Europe region is among the leading in Europe and has shown the most optimistic indicators in economic recovery throughout 2010. Growing internal integration within the Nordic Europe region could further strengthen its competitiveness through balance of innovation, knowledge, available multiple capital and attractive costs. Companies can export competitive products and services worldwide.

The Nordic countries (Denmark, Finland, Norway and Sweden) have long and close ties to the Baltics (Estonia, Latvia and Lithuania). Nordics have become a launching pad for business in the Baltic states because other multinational companies wishing to reach these Baltic countries as well as others in Eastern Europe have found the Nordic Europe to be an excellent base of operations. And in reverse, the Baltic region companies looking for higher integration degree have explored business ties with Sweden, Denmark, Norway and Finland. Value chains and value operations already exist within countries with an unique chance for the Baltic states to be "pulled" into global networks.

When it comes to trade, all three Baltic states have similar common export figures as the Nordic countries. However, when it comes to an individual Baltic country's export destinations, situation changes - Lithuania is still catching up with its trade figures with Sweden where Estonian and Latvian companies are more successful. However, Lithuania has larger volumes in trading with Denmark than Estonia and Latvia.

Wider global integration for the Baltic states can be reached not only through a closer cooperation with competitive neighboring Nordic European countries, but also through other countries. Companies from the Baltic states mostly utilise export opportunities in traditional sectors such as construction, furniture, apparel and sewing, transport and logistics. Services are forthcoming. Eight tenders out of ten in construction sector in Sweden are won by foreign companies from other European countries. Thus integration in the global value operations might depend on multiple opportunities, not only searching for new business in the geographically close areas across the Baltic Sea.

The challenges are huge in particular when Scandinavian manufacturing companies from traditional sectors (where enterprises from the Baltics have the most established business with the Nordic companies) start relocating their potential to China, Brasil and move along with their clients in value chain. Supplier villages expand and become more and more global.

The representatives from Western countries and business do not see the Baltic countries as a low wage locations any longer. This is a place of well trained, talented individuals who are available at a fair wage level. Baltic countries have a

competitive advantage in medium to high technology industries because it will never be as cheap as Southeast Asia but at the same time, the costs for a multinational company of employing a skilled specialist or graduate in the Baltic countries will never be as high as it is in the Western and Nordic Europe. Currently strong Swedish krona to euro makes concern for Swedish manufacturers and exporters. As the Baltic countries act directly or operate through their currency models in euro zone, current favourable situation could lead to their enhanced trade opportunities.

A recent author's survey was carried out among 50 Lithuanian companies from traditional manufacturing sectors which have developed their business opportunities towards Nordic countries. The survey aimed to evaluate degree of integration into global value chains through the Nordic Europe according to four criteria.

Firstly, Lithuanian companies have already developed different market entry strategies within the region based on real expectations and demands. Own brand development and relocation are used within the Baltic countries where subcontracting and private labelling dominate in cooperation with Nordic companies. Near-shore locations for Nordic companies across the Baltic sea still have a potential to be developed wider when it comes to complex, flexible and quick deliveries to maintain operations (which still remains in the Nordic Europe and not relocated overseas) in the value chain, recall and replace of manufactured and delivered goods. Services are on the way (shared service centers, design, data center hosting and others).

Secondly, Lithuanian companies which have established business with Scandinavian countries, have also had increased value added in their products and services. For those companies which do business within the Baltic region, the value added does not change significantly.

Thirdly, Lithuanian companies have achieved better integration degree into global value chains through cooperation with Danish companies. Potential with other Nordic countries is under development.

Finally, when it comes to high requirements for quality, state-of-the-art technologies, competitive transport costs and appropriate future based planning these remain the key criteria.

The survey has proven once again that close cooperation within the companies in the Nordic Europe region could enhance and strengthen competitive features.

Stable economic recovery largely depends on Lithuanian business success and integration capabilities into global value chains. Country has to demonstrate and expose economic recovery achievements along with measures which lead to improving business environment. Value for investors, competitive costs, competence and trained individuals, logistic opportunities, EU structural funds all together as a platform bring unique preconditions for sustain recovery and economic growth.

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The Baltic States – moving together or apart?

By Andres Kasekamp

With Estonia just having joined the eurozone on January 1st, the question whether the trajectories of three Baltic states are diverging is once again relevant. Looking from the outside, Estonia, Latvia and Lithuania are commonly viewed as a single unit. Two years ago as Latvia turned to the International Monetary Fund for assistance, speculation was rife that Latvia would be unable to make the necessary draconian cuts in its public expenditure and would be forced to devalue its currency. At the time, practically all the international media stories concluded that Estonia and Lithuania naturally would have to follow Latvia and devalue their currencies as well. Commentators failed to differentiate between the three states and did not examine the specifics of each individual economy.

The Baltic states as a term specifically denoting Estonia, Latvia and Lithuania is relatively recent, and only solidified in international parlance as a result of World War Two. Prior to the Twentieth century, Lithuania's history was connected more with that of Poland than with its northern neighbours. Cooperation among the three nations was strongest when confronting an external foe during their struggle to achieve independence from the Soviet Union.

Following the Nordic pattern, various formats of cooperation were established in the early 1990s, such as the Baltic Assembly and Baltic Council of Ministers. Perhaps the best known examples of cooperation were in the field of defence, starting with the formation of the joint peace-keeping battalion BALTBAT in the mid-1990s. External actors expected Estonia, Latvia and Lithuania to cooperate among themselves in order to demonstrate their maturity for membership in larger international organisations, such as NATO and the EU.

However, at an emotional level cooperation was not so appealing as the three pursued their own independent agendas. Their economies were not complimentary but rather rivals since they produced similar goods for the same markets and vied to attract the same foreign investors. 'The Baltics' - sometimes erroneously confused with 'the Balkans', which were embroiled in violence and ethnic cleansing in the 1990s - was not an attractive moniker and was usually linked with the unedifying term 'post-Soviet'.

Estonia sought to rebrand itself as a 'Nordic' nation while Lithuania began promoting its Central European identity. Both had good reasons for differentiating themselves from the Baltic states' label. Estonia had better prospects for early accession to the European Union while Lithuania was in a stonger position to obtain NATO membership. Both wanted to avoid being lumped together with the other two less advanced countries because they feared that this would delay their bids to join these two exclusive clubs. In the end, the EU and NATO both opted for the 'big bang' enlargement, treating the three Baltic states as equal, lest one be left behind to fend for itself. It is amusing to recall that ten years ago the conventional wisdom regarding enlargement was that absorbing all three Baltic states at once would be too much to digest!

As members of the EU and NATO, Estonia, Latvia and Lithuania have cooperated closely, but have naturally also pursued differing policies in various areas. The desire for cooperation is not always enough: when it comes to the issues of practical implementation and each country has its

own priorities. A field of paramount importance where reaching a common goal has unfortunately encountered hindrances (unintentional as well as intentional) is energy security. A prime example is the joint Baltic undertaking to construct a new nuclear power plant to replace the decommissioned Ignalina plant in Lithuania. Because of the confusion and delays surrounding the project, Estonia is now seriously considering building its own nuclear power plant instead – an idea that would have been considered absurd a few years ago. Another example are the rival proposed Liquefied Natural Gas terminal projects in each of the Baltic states, when obviously the region can economically sustain only one.

Returning to the question posed at the outset, it is clear that in the short-term there will be further divergence between the three states as Estonia's adoption of the euro gives it a competitive edge and helps attract foreign investment. However, in the longer run, there will once again be convergence as Latvia and Lithuania eventually achieve their goal of joining the eurozone (their present target being the year 2014).

Though eurozone membership gives Estonia a significant advantage in the short-term and appears to distance it from Latvia and Lithuania, Estonia's achievement should also benefit the other two Baltic states. First, because it sends a positive signal to international investors about the Baltic region as a whole, in a similar but contrary fashion to the media stories of two years ago. Second, Estonia's success will provide Latvia and Lithuania with a positive example and stimulate them to strive to emulate Estonia's path. That was the case in 1997 when Estonia was the only Baltic state initially invited to begin accession negotiations with the European Union. At the time, there were concerns about the negative impact on Baltic cooperation and solidarity, but it soon became apparent that the invitation of Estonia motivated Latvia and Lithuania to speed up their reforms and they rapidly caught up with Estonia. We can expect to see a similar scenario over the next few years.

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'Focus on the Baltic' book sums up the facts

By Päivi Toivanen

The Europe Information section of the Finnish Ministry of Foreign Affairs has contributed to Baltic Sea joint efforts with the publication of the 'Focus on the Baltic' book – Kansalaisen Itämeri, Fokus på Östersjön – in Finnish and Swedish in November 2010.

Matters to do with the Baltic will not cease to become relevant, although projects to save the sea hopefully will proceed and new innovations emerge. When all is said and done, it is essential not to give up hope of improving the condition of the sea.

The Baltic Sea is a government priority; the condition of the marine environment and the security of maritime traffic must be improved and cooperation in the region must be consolidated.

In February 2010, the Baltic Sea Action Summit gathered an eminent expert group from nine of the Baltic Sea's coastal states to consider how to bring the sea back to life and to give commitments to achieving improvements. Various companies and communities made more than 100 commitments. Since the Summit, the participants have continued their own work to save the Baltic Sea and occasionally we learn of new projects and improvements. Even so, some commitments remain unrealized.

There is sufficient work in this field for politicians, companies, authorities, researchers, organizations and other actors. But ordinary citizens can also do their share by following the progress of projects and considering how their own choices affect the condition of waterways and other environments.

Europe Information's 'Focus on the Baltic' is targeted at everyone interested in the environment and habitat. Although the condition of the Baltic Sea touches especially coastal habitants, vacationers and people earning their living from the sea, everyone should be informed about how the sea provides a highway for 85 per cent of Finland's external trade as well as how future visions can continue to benefit the nine coastal states.

The target of the book is to give concise and diverse information from the perspectives of economy, transport, fishing, recreation, culture and security policy.

Expert contributors are **Susanna Niinivaara, Jari Luoto, Eeva-Liisa Poutanen, Jouni Lind, Hiski Haukkala, Björn Grönholm, Marko Joas and Kjell Westö. Alexander Stubb, Kaisa Kononen, Anni Sinnemäki, Anita Mäkinen, Carl Haglund, Liisa Rohweder, Juha Nurminen and Ilkka Herlin** are among featured interviewees.

According to the experts, the main threat to the Baltic apart from eutrophication is the risk of an oil spill caused by heavy marine traffic. Over 2,000 vessels operate in the sea every day and it has been estimated that the total will increase to 3,000 in around 20 years. Even so, it is hard to place risks in order of importance.

In the book, **Ilkka Herlin** from the Baltic Sea Action Group asks if it is possible to make comparisons between a sea that is eutrophied by algae with one that is polluted by an oil spill or filled with dangerous chemicals.

The articles and interviews make it easier to summarize what should be done to benefit the sea: because the problems are so diverse, it is important to work towards solving each of them in order to be able to rehabilitate the Baltic Sea.

The respondents in Fact or Fiction interviews are asked to make a choice. Foreign Minister **Alexander Stubb** is challenged with the following statement: *The European Union does not take seriously the possibility of an oil spill in a situation where oil transportation in the Baltic is increasing faster than measures to safeguard maritime traffic or to prevent an oil spill.*

"Fiction! The best preventative work is in the improvement of the maritime traffic transport security," he replies. "Finland, Russia and Estonia have maintained a vessel registration system for many years, which has significantly decreased the risk of an accident. The EU is currently one of the financers of the monitoring system's development processes, together with authorities from ten states."

Under the title Act! the leader of BONUS Baltic **Kaisa Kononen** considers what a citizen can do for the Baltic Sea:

- Ask a politician what he is going to do to benefit the Baltic Sea
- Move to an environmentally friendly workplace
- Raise children in an environmentally aware manner
- Use environmental friendly products and recycle
- Write letters to the editor

During the editing process, it was especially pleasing to find that all those who were asked to participate did so in a whole-hearted fashion despite their other pressing engagements. Author **Kjell Westö**, for example, had just embarked on a substantial writing project but he considered the book personally important and found the time to write an excellent essay, *Nine Short Chapters on Love for the Sea*. The essay includes fragments from Swedish author's **Tomas Tranströmer's** book *Itämeriä* (1974), presented to the book by the author and translator **Caj Westerberg**.

I'd like to conclude the presentation of the book's content by expressing the wish that all Finnish and Swedish speakers will order it or acquaint themselves with the electronic version on Europe Information's homepage.

Ilkka Herlin offers an apt way to sum up why the Baltic Sea case remains relevant and why we have to be happy and proud, despite our anxiety, of the work we do for our shallow Northern Sea - no matter if we call it the Eastern Sea in Finnish, the Western Sea in Estonian, or the more widely-known Baltic Sea:

"It is worth recognizing that the Baltic Sea is truly a pilot area for the world, with problems that do not concern only saving this one individual stretch of water, but that are relevant also to the future of the globe, of all people and of the natural environment."

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Päivi Toivanen

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Political and social stability in Ukraine after the first year of Yanukovich's presidency

By Alexander Kulakov

In the interview with Rostislav Khotin, editor of BBC Ukrainian service, in Davos, Switzerland, the President of Ukraine Viktor Yanukovich summed up his first year in office. In particular, he said the following: "I think the main thing is that in Ukraine the political and economic stability was established. That is, the result of this work – this is a positive statistical data on almost all fronts."

I will try to analyze this statement of the President of Ukraine. To begin with, as a result of the presidential elections on February 7, 2010 the President of Ukraine Viktor Yanukovich was elected. His advantage over the main rival, Yulia Tymoshenko, was 3.5%. The key provisions of the election program of Viktor Yanukovich, entitled "Ukraine – for the People", were aimed at implementing the systemic reforms in the country and fundamental changes in society. As a result, the proposed measures suggested that in 10 years Ukraine could become one of the most economically developed countries.

To achieve these goals Viktor Yanukovich in his Program proposes to introduce *Investment – Innovative Model for Economic Development* of the national economy. It was declared that through changes in tax laws, as well as through the implementation of integrated action to improve access to markets of the country Ukraine could be made more attractive for investments in Eastern Europe. The election program of Viktor Yanukovich also stressed the need to implement a system of measures for the revival and development of Ukrainian agriculture. In addition, it highlighted the importance of supporting small and medium-sized businesses through improving their access to credit, reducing the tax burden and reducing their tax payments to companies that create new jobs. The program also included an intention to reform the system of local government, health and education. In the election program of the future president much attention was also given to social guarantees of citizens of Ukraine, including support for young families and retirees. It should be noted that the concept of "political and social stability" is never mentioned in this document, but the significance of its achievements implied as such, which would enable the authorities to carry out the implementation of assigned tasks.

It should be recalled that as a result of the global financial crisis, 2009 was the year of the catastrophic fall of the Ukrainian economy, which naturally affected the socio-economic situation in the country: GDP contracted by 14.8%, inflation stood at 12.3%, unemployment rose to 9.4%, volume of foreign trade declined by more than twice. Against this background the political standoff between President Viktor Yushchenko and his political supporters, Prime Minister Yulia Tymoshenko and Bloc Party, to which she relied, and the largest opposition party, the Party of Regions, headed by its leader Viktor Yanukovich had extremely aggravated. The result was paralyzed parliament of Ukraine – the Verkhovna Rada of Ukraine – and draft laws that were necessary to meet the challenges of overcoming the crisis in the economy were trapped. If the growth of ideological confrontation between different groups of citizens of Ukraine – based on linguistic differences and different assessments of historical facts and encouraged by both internal and external forces – is also added to this, a political-economic portrait of Ukraine on the eve of presidential elections in Ukraine in 2010 looked dismal. Note also that the outcome of the elections once again underscored the "split" of Ukraine to almost two equal opposing camps.

Since coming to power, Viktor Yanukovich considered as a priority task to build a so-called "vertical of power". By this it is meant to make legislative, executive, and local authorities to act in one direction, performing the tasks assigned by the President. And the first steps of Viktor Yanukovich were aimed at creating a parliamentary majority on the basis of the Party of Regions at

the Verkhovna Rada of Ukraine. Rather quickly such a coalition was formed. On March 16, 2010 the agreement on forming a coalition of factions "Stability and Reforms" was signed by representatives of the Party of Regions, Communist Party of Ukraine and Lytvyn Bloc.

The next step of Yanukovich became resonant action on the abolition of the political reform of 2004. (It should be recalled that during the "Orange Revolution" the compromise was gained, under which the constitutional reform in Ukraine was carried out. As a result, the President's powers were considerably limited, and the Verkhovna Rada of Ukraine had the opportunity to form a government of the country). On the basis of an appeal to the Constitutional Court of Ukraine of deputies of the Verkhovna Rada, the Constitutional Court made a controversial decision that the Constitution of Ukraine of 2004 was revoked. The Constitution of 1996 entered in the action and, thus, recovered very extensive powers of the President of Ukraine.

The final effort in the direction of building "a vertical of power" was the local elections in 2010. As a result of elections held on October 31, 2010, the Party of Regions had significantly increased its representation in local government in regions where it previously did not have much influence. It should, however, be noted that, according to representatives of opposition parties, the ruling party has widely used so-called "administrative resources", as well as pseudo-legal means for removal of these parties from the elections in some regions.

Concurrent with the work of the President and his government, aimed at concentrating power in the hands of one (pro-presidential) political force, General Prosecutor's Office initiated the investigations of a significant number of criminal offenses related to abuse of office, causing significant material damage to the state. The suspects in these cases were a large number of top-level government officials who worked in the government of Yulia Tymoshenko, and the former prime minister herself was among the defendants. To date, it is difficult to say if the accusations are valid, but the overwhelming majority of Ukrainian citizens consider these actions of the current government as political persecution. The decision of the Czech Republic with respect to the granting of political asylum to Bohdan Danylyshyn, the former Minister of Economy of the Tymoshenko's government, especially reinforced this view.

In the economic sphere, President Viktor Yanukovich and his government have focused on the country's withdrawal from the deep economic crisis. The urgent steps have been taken to stabilize the economic situation in the country. In 2010 official statistics recorded a noticeable progress, compared to the previous year. Thus, GDP growth for the three quarters of 2010 amounted to 3.4%, compared with the 14.8% fall in the previous year, inflation has declined somewhat, the foreign trade turnover increased by one third. The industrial production increased markedly and the agricultural output increased slightly. Statistical agencies have also reported an increase in real wages across the country and its regions. It should be noted, however, that many Ukrainian analysts believe that the main factor in the economic growth of the country has been the improvement of the economy of other countries – major importers of Ukrainian production.

In late 2010 the new government adopted two important laws that will govern the economic development of Ukraine in 2011: the Tax Code and the Budget 2011. As conceived by the government the Tax Code will classify the tax laws of Ukraine and facilitate their use by business entities. In addition, this document provides lower rates for income tax and VAT. So, from April 1, the tax rate on profits of enterprises will decrease by 2% to 23% in 2012 – up 21% from 2013 – up 19% from 2014 – up to 16%. VAT will be reduced from 1 January 2014 from 20% to 17%.

At the same time, this law has substantially limited the possibility of using so-called "simplified" taxation system, which applies with respect to small entrepreneurs, as well as some other provisions that make their continuing operation unprofitable. The result of these innovations was the "Tax Mайдan", which was attended by over 700,000 entrepreneurs throughout Ukraine. They demanded the abolition of this document. Eventually a compromise was reached whereby in the near future the Code will be amended, which, apparently, will satisfy the requirements of the protesters. Nevertheless, according to the forecasts of Ukrainian business associations, more than 150,000 business owners have to shut down their operations after April 1 this year.

As for the Budget 2011, in the opinion of experts, this paper shifts the tax burden from large taxpayers on the shoulders of small businesses and ordinary citizens. Most of the tax revenue will be paid by final consumers, one way or another. Experts believe that shifting the tax burden from large enterprises to small businesses and consumers is extremely risky and can put an end to the planned wage increases in 2011, which in turn automatically leads to a shortfall in the Pension Fund.

In this regard, attention should be paid to the January forecast of the European Bank for Reconstruction and Development, which noted that the growth of Ukraine's economy will slow down, and the result of 2011 will be 4% – not 4.5% as previously expected. Thus, the bank has lowered its estimates of GDP growth in Ukraine in comparison with its own previous estimates, made in October 2010 at 0.5%. In the official statement of the bank, the changes in the forecast for Ukraine are not clearly justified. However, one of the main causes of its decline is the concern about the "fiscal stability". It is not excluded that the increased risks of a slowdown in the Ukrainian economy appear because of changes in tax laws, as the single most important – from a macroeconomic point of view – event for the period from October 2010 to January 2011 was the adoption and entry into force of the Tax Code.

Since the second half of 2010 the President of Ukraine Viktor Yanukovich and his government embarked on the reform package. First, in accordance with IMF recommendations, the development of pension reform has been started. The draft law "On measures for the legislative support of the pension system", developed by the Government, in particular, provides for progressive – until 2020 – raising of the retirement age for women (from 55 to 60 years) and since 2013 - raising of the retirement age for male civil servants from 60 to 62 years, and sets term limits for public service. In addition, the bill proposes to increase the regulatory length of labour service required to obtain the minimum pension from 20 years for women and 25 for men to 30 and 35 years respectively. These proposals provoked a wave of protests. In several cities of Ukraine, in particular, Simferopol (Crimea), there were rallies of citizens (mostly women) who expressed opposition to the plans of the government. According to the protesters, the model of pension reform only puts the social responsibility on the shoulders of citizens and "presents" to public the raising of women's unemployment, lack of jobs for young people, and will worsen the pensions of military personnel. Apparently, due to the sharp criticism of the public on January 31 it was reported that the Government intends to withdraw the bill from Parliament for further elaboration.

Next step on the path of reforms was the administrative reform. It should be noted that from the point of view of Ukrainian and

European experts, this reform is a key to the implementation of economic reforms in Ukraine, since it provides power tools for their implementation. According to the Decree of President Viktor Yanukovich, the Committee on Economic Reforms was asked to "work out within a month the issue of optimizing the system of central bodies of executive power, to eliminate duplication of their powers, and to ensure reduction of administrative personnel and expenses for its maintenance." Shortly after the Decree, the new structure was introduced, under which the number of ministries was reduced to 16, and members of the Cabinet of Ministers of Ukraine to half. In addition, it was stated that the total number of civil servants working in the central organs of executive power will be reduced by 30% and will soon be approximately 130 thousand people. Appreciating the first stage of administrative reform, it should be noted however, that the "arithmetic" of action in this direction is still insufficient. It is necessary to clearly delineate the functions and powers of ministries, services and agencies, which are defined in the system of government. In addition, it would be necessary to think about what to do with 56 thousand mostly highly skilled public servants who may soon be in the labour market.

In conclusion, it should be noted that the president's team has also started very important reforms in the housing and communal services of Ukraine and system of education, working on a new Labor Code. All these areas have long needed a drastic change, and, therefore, the intention of President Viktor Yanukovich to bring all these spheres of public life in accordance with the requirements of modernity should be welcomed. At the same time, these spheres are all very "sensitive" as they affect the interests of the vast number of Ukrainian citizens. For example, according to statistics, 8.5 million people receive a pension of up to 1000 hryvnia per month. At the same time, February 1, 2011 electricity prices for the population which consumes on a monthly basis over 150 kilowatts increased by 30%. Tariffs for water supply also increased: in Kiev for 11%, in other cities up to 15%. In general, according to the National Forum of Trade Unions, in 2011 the average cost of each Ukrainian family for utilities will increase by 1,700 hryvnia.

Thus, the political and economic stability in Ukraine that the President of Ukraine Viktor Yanukovich was speaking about in his interview with BBC Ukrainian service is, in my view, in a state of unstable equilibrium. Any hasty actions to implement reforms that are unpopular to the public in the context of difficult economic situation of the large number of citizens of Ukraine can cause massive protests (an example of what can become a "Tax Mайдan" of small businesses). And given the actions of the authorities to suppress opposition, the aforementioned "economic" objections may be combined with political slogans, aimed at putting pressure on the President of Ukraine to change his policies.

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Ukraine

From industrial structures to agile global service networks – a disruptive revolution or led transformation?

By Markku Tuomola

Large production units, competitive edge by scale, organized global logistics and shaped ISO and quality manuals on the shelf are terms mounted to every western leader's mind educated in the 80's or 90's. These terms describe the spirit and foundation of the late industrial age. After the fall of Berlin wall, there has still been an accelerating growth moment of industrial production in the west. The opening of the Eastern market and especially China has created huge new demand still boosting the old industrial structures.

Behind the curtains we could have recognized another big starting wave. While production has started to find cost effective production plants in developing countries, old global companies and brands are trying to maintain their market shares in many ways.

Transformation of a global organization is a challenging process. It is like transforming the former Soviet Union to dynamic modern Russia. For this reason, it is possible that the top transformation professionals hail from former socialistic countries.

When we are talking and writing about transformation, we are usually not defining what we mean with transformation and change? Change management is a process, where we professionally lead a process or an organization to a new mode. In change management it is important to focus and support new methods and processes and give enough resources to key people. An even more crucial is to step by step fade out old processes and the resources empowering them. This is usually the most difficult leadership task. When old processes still work and normally make excellent profit, it is hard to shift our focus on something else.

Right now we have an excellent example of this kind of phenomenon here in Southwestern Finland. The old ship yards have made excellent profit and brilliant products in ship building for years. Last year we delivered the biggest cruise ship of the world and now many subcontractors are still waiting for the next big order to come. The point is the mindset. In visionary change management we are always ready for something else. While producing components to the last cruiser, we already plan and market our services to some other markets – however we still make profit in the old stage.

Transformation is something more than change management. While change management is focusing on a process or company, transformation is taking place at the scene of a branch, a nation or a market. Transformation is changing the whole ecosystem forever.

Where does the power of transformation come from? When we are talking about technology, we are talking about disruptive innovations. A disruptive innovation is a phenomenon that just "comes over of the wall" and the old ways are not able to compete with it. When a true disruptive technology arises, it normally just wins without extremely talented transformation leadership. This is what I call disruptive revolution. This has happened with microprocessors and mobile phones. This can also happen with processes: Classified advertisements moved from newspapers to the Internet within a few years, and we will see also public services moving fast to the web when we just understand that e-government is something more than just opening some websites for people.

While discussing transformation and leadership, it is always important to focus on perspectives. We have to understand our history and have a strong vision of the future we want to create. It is not enough to understand that the way we are doing business or politics right now is not the best way. We need a picture of the future.

In addition, we need a wide perspective of current market actors – organizations and ambitions of current leaders – to offer "something more" for them.

I have said that to start real transformation, we need a mass of people hungry for change. And in addition we need a clear vision and a change leader – brave enough to put the vision in words and wise enough to take "the red army choir" with him in processing the change. Transformation can start quickly – as it did in Ukraine's orange revolution a few years ago – but true transformation is a process for years and that's why transformational leadership focuses also on the possible opposition. A wise leader always takes his red army choir to the band. This is the only way to see some solid new establishment in 10–20 years.

The power of transformation comes from leadership.

Let's step from the past to this week and the future. I wrote about political transformation examples here, because we have a great global transformational window open right now in economy and business. The industrial age is behind. For over 100 years we have lived mainly by producing goods and making good profit out of it. We still have a short moment when we can deliver western luxury brands to east, but the manufacturing profits have already moved to developing markets.

What comes after industrial age? I believe that we have already moved to ubiquitous economy stage, where most of the people are living out of producing information and services – and where micro economies are transacting globally with other micro economies without massive enterprise layers in between. The key word is trust.

The other key of future success is how we can deeply understand that producing information and services is not a technology driven business. It is mainly a mindset of service and flexible networking. There will be a list of new professions and also a list of new terms defining bookkeeping balances when we move further. Of course the values of buildings will remain in balances, but it is a must to value also immaterial capital, because the main part of company turnovers come from producing services – not any more in material resources. Media content and IP delivery is just one example of this phenomenon. The bankers are not used to appreciating immaterial balances, but they have already started to learn it while valuating goodwill in corporate acquisition processes. Actually these goodwill valuations already exist strongly in the market valuation we see everyday in stock ratings. That's everyday life in macro level, but still hard to implement in SME's discussions with a bank.

Learning a new mindset is an extremely challenging thing. And learning a new mindset as a group or a nation is even more challenging. The more we have strong traditions and processes still making profit, the harder it is to take a crucial step towards our future.

When we are stepping out of industrial age, we have to forget "the good old industrial processes" and step in the presence of continuous transformation, networking and "neogrowth". To create our future is about leaving the past behind. On this stage, the Baltic Rim has a wide-opened window. Together we have already learned new ways to cooperate and network in multicultural and multi-language environment. After doing this in nearshoring, we can implement our skills in outsourcing new mindset. If we just want to take the leadership.

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Overview of current EU-Russia trade and investment relations

By Karel De Gucht

Will Russia finally join the World Trade Organisation (WTO) by the end of 2011? It would be a bold person who could answer this question with any certainty. Russia has been negotiating its accession to the WTO for nearly 18 years, longer than any other country, and remains the biggest and most important economy still outside the organisation. Predictions of Russia's imminent accession have been made in almost every year of the last decade, only for new complications and delays to occur.

But right now, I believe Russia really is closer to WTO accession than ever. The last quarter of 2010 saw the final conclusion of bilateral negotiations with the US and EU and we are approaching the end of the technical work on the revision of the Accession Working Party Report, which has been necessary to reflect changes in Russia's trade regime following the formation of the Customs Union with Kazakhstan and Belarus. There are of course a number of hurdles still to overcome. We need to find a solution for Russia's recently proposed investment scheme in the car sector, which is incompatible with WTO rules; we need more reassurances and action to be taken by Russia in the field of Sanitary and Phytosanitary (SPS) measures; and the differences between Russia and Georgia, a WTO member, will need to be resolved sufficiently to allow Georgia to support Russia's accession.

But all the above can be overcome, with political will and effort on all sides. And this would open the possibility of Russia's accession by the end of the year.

WTO accession is the primary and most immediate focus of the EU's trade and investment strategy towards Russia. One of the significant features of the current bilateral relationship is the instability and lack of transparency in the constantly changing legal and administrative framework within which trade and investment takes place. Russia is not only negotiating its WTO membership but the current Partnership and Cooperation Agreement (PCA) is also being revised and the negotiations on the New Agreement which will replace it still have quite some way to go. At the same time, at a regional level, Russia, Kazakhstan and Belarus have chosen closer economic integration in the form of a Customs Union and are developing more ambitious plans for a Single Economic Space. WTO accession would take our trade relationship a major step forward by bringing Russia into the same rules-based global trading system that underpins the EU's trade regime.

Even after the economic and financial crisis, Russia remains the EU's third largest trading partner (after the USA and China) and the EU is still Russia's largest trading partner and the foremost investor in Russia. So Russia and the EU are already strategic economic partners. But in today's rapidly changing global economic environment, both parties can benefit a great deal from deepening economic integration further. The EU's longer term strategic objectives are therefore to encourage the overall economic development of Russia in a direction which would open it up to the global economy and to the EU, and to seek eventual closer economic integration on the basis of a mutually agreed set of rules, thereby uncapping the trade potential, enhancing mutual benefits and preventing Russia from being inward-looking and protectionist.

The first step would be accession to the WTO. It is important to recall the benefits for both sides. The introduction of WTO disciplines in the Russian legislative system would help to make Russia's economy more transparent and predictable, improve the business environment for all economic operators and open up Russia's economy to global competition. It would also create a stronger incentive for foreign companies to boost their investments in the Russian economy, which is essential for Russia to realise its ambition to move from a resource-based to more diversified economy, built on a thoroughly modernised industrial base. Binding multilateral rules would also constrain the capacity of powerful domestic lobbies to seek and obtain protection through ad hoc tariff and non-tariff measures, which may reflect personal or

sectoral interests rather than Russia's wider economic goals of modernisation and diversification.

For the EU, WTO accession would lay the cornerstone for a massive step forward in our relationship. It would bring immediate benefits in terms of lower import duties as Russia has committed to removing on accession the "anti-crisis" duties that it introduced in 2008-2009. And further import and export tariff liberalisation would follow after accession in accordance with the schedules that Russia has agreed to. For Finland, this notably includes a reduction in the levels of export duties for various types of wood that are important for the Finnish economy.

Russia would also be obliged to harmonise its regulations and practices with WTO rules across the board, including in such areas as technical and sanitary-veterinary standards, customs procedures, non-tariff measures (e.g., licenses, permits) and other. This will significantly facilitate our agricultural and industrial exports provided that Russia will honour its WTO commitments.

For the first time Russia would be brought into the global trading system under the same rules and conditions as most of its trading partners. In this respect, the value of having Russia subject to the WTO dispute settlement mechanism should not be underestimated.

Of course, WTO accession will not solve all the trade irritants that exist between the EU and Russia. Some of them go beyond the remit of the WTO. The imbalance in our trade flows (to simplify, exports of energy and raw materials from Russia versus imports of manufactured goods to Russia) will persist, and the day-to-day problems that EU companies face in doing businesses in Russia will require more fundamental reform of the business environment. In the medium to longer term we need more extensive bilateral economic integration between the EU and Russia in order to tackle these issues.

This is one of the reasons why the EU established the Partnership for Modernisation with Russia in 2010. The aim is to support reform and enhance bilateral trade and investment possibilities, focussing on key sectors for innovation and growth, through dialogue at different levels and practical co-operation projects. Many EU Member States have established their own Partnerships for Modernisation with Russia in the same spirit.

So Russia's WTO accession should only be a first step in the development of our bilateral trade relationship. Building on this, and on the achievements of the Partnership for Modernisation, the second step should be a New Agreement which contains substantial trade and investment provisions that go beyond WTO rules. Our current negotiations are based on the understanding that Russia will be a WTO member by the time the New Agreement is signed and from the EU side, we want the Agreement to be as ambitious as it can, bearing in mind it will be a non-preferential agreement.

In the longer term we need to go further still. A Free Trade Area (FTA) agreement between Russia and the EU was already foreseen even in the current PCA, and it is still in the EU's economic interests to aim for such a preferential agreement in the future. The creation of the Russia-Kazakhstan-Belarus Customs Union makes the prospects for a bilateral FTA with Russia more difficult, but not impossible. In recent weeks Russia has revived talk of an EU-Russia FTA, and we shall be discussing details in the months to come.

But we should not get too far ahead of ourselves. Russia has shown that it is capable of springing surprises and our immediate task is to focus on WTO accession, and then the New Agreement. One step at a time...

Karel De Gucht

Trade Commissioner

European Commission

Challenges and solutions to the regional security

By Artis Pabriks

The Baltic Sea region is not only one of the most prosperous regions in the world, but it is also one of the most secure regions with relatively low possibility of military conflict or tension. However, it does not mean that Baltic Sea region in general and the Baltic countries in particular do not face security challenges affecting the Baltic security in the long run.

I define security as freedom from risk, danger or fear. It is a guarantee of confidence and ability to act autonomously, without external constraints. Security also means the absence of threat of war or conflict. Bearing this in mind, we have to remember that there is no absolute security, just like there is also no excessive security.

What are the major challenges to the regional security? In my opinion, security challenges can be divided in the same way as the Baltic Sea regional security guarantees in the late nineties, namely, the soft and hard security challenges.

Among the soft security challenges I would like to distinguish three main issues.

The first challenge is the climate change and environmental issues which, in case of hypothetical crisis, will equally affect all countries around the Baltic Sea. The latest developments in Fukushima nuclear plant, as well as the rising sea level and coastal erosion are just a few warning examples adding to the feeling of fear and increasing the danger caused by human error.

Energy security is another soft security challenge. The lack of diversified energy supply sources along with the lack of energy interconnection network with the "mainland EU" is an increasing challenge, first of all, to the three Baltic States and their prospects of successful economic and social development.

The third soft security challenge is the lack of connecting transport network which still, twenty years after re-gaining the independence of the three Baltic States, hinders the Baltic region to become an integral part of the Central Europe and Scandinavia. The lack of the transport network causes the region to stay in the EU periphery and prevents from turning the Baltic geographic disadvantage into a communicative advantage.

Among the hard, but, probably, less likely security challenges for the region, one should mention the possibility of political instability in the EU Eastern partnership countries or countries to the East and East South from the Baltic-Nordic region.

The region is characterized by the lack of, or very short, history of liberal democratic tradition, relative poverty, inequality of distribution of wealth and increasing military potential.

The recent developments of the "Arab Spring" make us speculate how stable the regimes in the CIS territory really are. What can be expected in the event of political or economic collapse of one or another country in the region? How will the growing military might of the countries impact the balance of power internally and internationally? What about the increasing threat of terrorism in the region? What are our possibilities to counter migrant or refugee spillover to the EU countries?

I want to briefly reflect on some of the developments in the region. First, a number of current initiatives taken by the Russian President Medvedev towards modernization of his country have been welcomed by the Baltic countries and the West in general. Being the neighbours, the Baltic States are particularly interested to see Russia developing according to the classical lines of democracy. The Baltic States should welcome it if after the 2012 Presidential elections the liberal democratic reforms would gain their momentum. At the same time, one would have to admit that the task is not easy to be accomplished in Russia, since several attempts of democratization have already failed. It is yet to see if Russian leadership and elite will have enough courage to continue the difficult way of reforms instead of maintaining the status quo and yielding to the temptation of the growing income from the oil and gas exports.

As regards Belarus, our goal should be to have Belarus as an independent state orientated towards the European values. Unfortunately, after the last election EU demonstrated relative lack of understanding in the regional affairs and went the easiest way which had already failed once a few years ago. In the long term, it will work against EU's own interests resulting in a decreased influence of the EU over the processes in Belarus and its increased orientation away from the EU.

What is the role and perspective of the Baltic-Nordic region taking into account the global and regional challenges? Traditionally, as rather small countries, Baltic and Nordic states have been looking for their security and prosperity via deeper regional cooperation and global engagement. Nordic cooperation, as well as institutional cooperation among the Baltic countries, is of a unique character, setting an example to other regions. However, I believe the cooperation on its own has its limitations. By using the existing mechanisms of Nordic, Baltic, or Nordic-Baltic cooperation, the region is unable to fully counter future challenges of either – soft or hard – nature. Also, to ensure the capability of global economic competitiveness or flexibility requires something more than the existing framework. Attraction of the regional investments, role in the global security architecture or the future defence capability development can be hindered without enhanced regional cooperation. Therefore, there is a need for a critical review of existing cooperation mechanisms and courageous vision on the future of the region. There is a need to change the philosophy of cooperation to philosophy of regional integration of Nordic and Baltic countries. The possible benefits of this plan of the decade are multifaceted and can guarantee sustainable development of the whole region as an integral part of strong NATO and EU.

Being aware of all possible limitations for instant implementation of the idea, I think we have to have a broader vision of the current global processes. We will put at risk our future welfare and ability to compete on the international scale if we ignore the growing changes in the other parts of the world. For example, due to the global economic and financial crisis, Latvia dramatically cut its defence budget and underwent defence reforms. Similarly, most European countries and even USA are currently facing reductions of defense spending. Unfortunately, it happens at the time when other regions are doubling or even tripling their defence spending. Similar challenges are to be expected in demography, economic competitiveness and many other areas.

I am convinced that regional integration is the only feasible solution for areas like defence sector where many so-called "pooling and sharing" opportunities exist, and sooner or later the same will have to be applied to other sectors as they will face the same challenges of the outside world. I do not think that the solutions are very complicated. But they do require the political will of the Baltic and Nordic politicians to look beyond the old nation-state paradigm and promote ways of closer and more inter-dependant cooperation among the countries contributing to an eventually integrated, and thus, more secure and successful region.

Artis Pabriks

Dr., Minister of Defence

Latvia

Completing the Circle – Russia and the European Union Strategy for the Baltic Sea Region

By Dirk Ahner

“Close cooperation between the EU and Russia is also necessary in order to tackle jointly many of the regional challenges.”

This sentence, in the Commission Communication concerning the European Union Strategy for the Baltic Sea Region (Communication from the Commission to the European Parliament, the Council, the European Economic And Social Committee and the Committee of the Regions, COM(2009) 248 final of 10.6.2009), both noted a fact and identified a challenge for the nascent strategy. While the eight Member States of the European Union that have coastlines on the Baltic Sea make the region a high priority for the Union, it is clearly not, and should not be seen as an ‘EU Lake’. On the contrary, Russia – an eighth of the population of the region and responsible for about a quarter of the intra-regional trade – is an indispensable partner for a successful strategy.

Why, then, was Russia not included in the planning and preparation of the Strategy from the start?

To answer this question, we have to remember the 2006-2008 situation in Europe. ‘Normal Relations’ had been resumed in the region only 15 years before and two enlargements had transformed the Baltic Sea from a region of peripheral interest (only two Member States with coastlines, each also looking to the North Sea and Atlantic) to a prime concern. Since the most dramatic difference from the earlier period was the influence of the European Union, with policies and funds covering many areas of activity but especially environment, transport, infrastructure and economic development it was natural for the region to discover its new identity. Meanwhile EU- Russian relations were dominated by other issues on other fronts and efforts to develop cross-border partnerships were hindered by administrative incompatibilities.

Nonetheless, Russia, like Norway and Belarus, presented a ‘non-Paper’ on the strategy during the consultation and preparation phase. This offered a cautious welcome to the Strategy, “based on the assumption that it [would] be an internal document” and highlighted the multilateral approaches such as the Northern Dimension and the Council of Baltic Sea States. The non-Paper concluded by confirming Russia’s readiness “to exchange views on specific aspects of such cooperation be the EU interested to do so while elaborating the Strategy”.

Fast forward to 2009. The Strategy was adopted by the Commission and endorsed by the European Parliament and Council. The political success was considerably greater than had been foreseen and implementation on the ground was gradually beginning. It was time to take stock of the position of Russia and find ways in which Russian and EU interests in a healthy and developing Baltic Sea Region could be harmonised.

As anticipated in the Strategy and in the Russian non-Paper, contacts started in the multi-national arenas. Thanks to good cooperation from the External Relations service of the Commission (now the European External Action Service) and support from the Member States concerned, the EUSBSR became a regular item on the agenda of the Northern Dimension. At the same time, the Helsinki Commission (HELCOM), in which Russia has from the start been an active member, was recognised as a leading partner in environmental

concerns – most of the proposed environmental actions and projects of the EUSBSR link directly to the Baltic Sea Action Plan prepared by HELCOM and adopted by its members. However, while these bodies provided a sound basis for agreement on principles and identification of common interests they were less well adapted for development of concrete projects.

The Commission therefore made contact directly with the Russian authorities through the Ministry of Foreign Affairs in Moscow. This led to a meeting between members of the EUSBSR team and the Ministries of Foreign Affairs and Regional Development in February 2010. Lists of possible projects and areas of cooperation followed from each side and the next stage is a working meeting in Moscow at which Commission officials from different departments will be able to discuss specific projects with their opposite numbers in Russian Ministries.

Meanwhile, other stakeholders started to use their own contacts across the borders of the EU to launch practical examples of cooperation in the context of the strategy. The most advanced example is the use of the long-standing association between St Petersburg and Turku, and also between St Petersburg and Hamburg, to create a ‘Round Table’ for cooperation on specific projects of interest to those cities and their regions. This exercise, in which the Commission has also participated, may be the most successful approach to launching effective cooperation, at least in the short term. However, even here there is the challenge of converting fine words into practical actions.

Stepping back to view the range of initiatives designed to improve practical cooperation with Russia, we could conclude as follows:

- While a successful ‘European Union Strategy for the Baltic Sea Region’ could be – was – created without active participation by Russia the overall impact will be much greater if we can work as partners to address the challenges and exploit the opportunities the Strategy opens up.
- This partnership must fully recognise the rights and responsibilities of each partner, and in particular must not appear to be a back door attempt to force Russia into an EU mould.
- We can, and should, use every possibility to optimise communication and increase the range of initiatives on which cooperation will bring tangible benefits to the region. The Strategy offers an incentive and a context in which more effective cooperation can take place.

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Cooperation in change in the Baltic Sea Region

By Björn Grönholm

Development and Cooperation in the Baltic Sea Region

In order to understand the development of the Baltic Sea Region we have to study the history. Beside the main development trend it is important to be aware of the changing patterns within this main trend, as development within all countries and sub-regions diverse.

The Baltic Sea Region has a long tradition of cooperation. Cooperation has, however, not been self-evident. Cooperation within respective country, region and city has taken different turns in time, so also in recent times.

The needs for cooperation and development have varied a lot. During the last twenty years the development of the Baltic Sea Region can be characterized as a success story. No other region in Europe has faced and carried out such a strong development during such a short period of time. This success has several reasons. These reasons can be found in the tradition to cooperate and the need to develop and build a common and stable future. Furthermore the existence of broad numbers of organisations, networks and institutions within the region is another reason for the successful development in the region.

While evaluating the last twenty years of development in the Baltic Sea Region one question arise; Can we assume that the situation somehow was more "easy" in the 1990 concerning the needs, interest and goals for development, compared to the situation in 2011? It is tempting to answer yes to the question, but this is not necessary the case. The circumstances are different so a comparison is difficult as both time periods are combined with different uncertainties and challenges.

Cooperation in the Baltic Sea Region

The regained independence in the Baltic States lead to a fast increase in cooperation on different levels of the society, both within the countries as well as between countries. Globalisation and existing new technologies also influence and change individual behaviour. This does, in turn, change the forms and reasons for cooperation.

After two decades of cooperation, the Baltic Sea Region is now in a new phase of development. Almost all countries around the Baltic Sea are EU members and the cooperation is also much more institutionalized than before. The basis for this new phase is the EU strategy for the Baltic Sea Region. The intention with this strategy is to further develop the Baltic Sea Region and improve the competitiveness of this European macro-region as well as the whole Europe.

The forms of cooperation and interaction in the Baltic Sea Region have changed remarkably since beginning of 1990s. Three main differences can be observed. First, cooperation has changed from bilateral cooperation into network cooperation. This is perhaps most clear when focusing on city cooperation. Another change concerns the types of cooperation. The cooperation has moved from a ceremonial cooperation to a more concrete, sector based and in particularly need based cooperation. A third change can be seen in the actors that are involved in this cooperation: A change from only political and administrative leadership involved with national and particularly international colleagues and stakeholders to

involvement of all levels and sectors in public administrations. Cooperation is in other words much more diversified today. The table below illustrates the levels and types of cooperation that can be found in the Baltic Sea Region.

Governance mode		
	<u>Within nation-states</u>	<u>Beyond nation-states</u>
Governmental	National governance (governmental actors only). SWEDISH ENVIRONMENTAL PROTECTION AGENCY	Intergovernmental cooperation, intergovernmental governance, international regimes/conventions, International governance, European governance (intergovernmental, supranational). EU, HELCOM, CBSS
Hybrid	Transformation of traditional forms of national governance. New forms of participation and access of non-governmental actors. Public-private partnerships. AGENDA 21	Transformation of traditional forms of international governance. Emerging new forms of governance. New forms of participation and access of non-governmental and transnational actors. Global public policy networks. BALTIC 21, HELCOM,
Nongovernmental	Influence of national nongovernmental organizations on national, regional and local governments (lobbying)	Influence of international nongovernmental organizations on international and intergovernmental institutions (lobbying) BSSSC, UBC,

Figure: Governmental, Hybrid and Non-governmental Governance; A Typology (Source: Joas, Kern and Sandberg, AMBIO Vol. 36, No. 2-3. April 2007)

Case UBC – 20 Years Experience of City Networking

Union of the Baltic Cities was founded in 1991 by 32 cities is a city network that has been involved in the development and integration of the Baltic Sea Region. The UBC consist today of altogether 106 member cities from all cities around the Baltic Sea.

The establishment of UBC was a result of the need to support policies and practices in cities in the Baltic countries and Poland after the cold war. A wise decision was to involve all countries in the network and activity from the beginning. This has lead to a good basis for a functional macro regional network. After twenty years of

cooperation we can see this development as a success story.

The activities within the UBC has developed from initial training projects to a broad scale of activities including top level conferences, benchmarking activities, investment projects and an increasing participation in EU policy development. Some issues of specific value can be mentioned. First, the cooperation has built up a productive partnership with Russian cities. Secondly the cooperation has initiated several new joint initiatives and has promoted regional sustainability and competitiveness. One example is the *Common Understanding of Sustainable Ports and Cities* - a policy statement that opened the way for more joint efforts between ports and cities in the Baltic Sea Region.

Results of UBC cooperation can be seen in economic investments, diffusion of best practices and good governance patterns, increased awareness of different regions as well as cultural and administrative differences.

Changing Circumstances

Changing circumstances change the need and forms of cooperation. Challenges like climate change, energy efficiency and the EU 2020 targets, global competition and economic trends are broad and complex. These challenges

will also form the scope for involvement and arenas for deciding and solving challenges. These challenges put pressure on finding solutions with a broad political commitment and acceptance and will in most cases also demand multilevel governance approach.

With this in mind, there is a need for all actors to be alert and follow the development, a need to adjust to changes and actual needs. This is a tough task for all organisations and in particularly the public authorities in the Baltic Sea Region. In a region with relatively small societies transnational cooperation is a natural way to work and use resources efficiently. Important is to have clear goals for decision-making. Decisions in "hard times" can be more innovative due to the demand and pressure to find new solutions!

Björn Grönholm

Head of Secretariat

*Union of the Baltic Cities –
Commission on
Environment*



About the underlying documents that have shaped Estonia's policy of internal security

By Marko Pomerants

Protecting survival and development is the key objective of every independent state. The achievement of this objective requires strategic underlying documents, which are among other things based on the history of the state, its relations with neighbours and the developments in the world. This article provides an overview of Estonia's path in its search for strategies in shaping its defence and internal security policies.

15 years ago, the Republic of Estonia saw the birth of its first strategic security policy document – on 7 May 1996 the *Riigikogu* approved the Main Guidelines of Estonia's Defence Policy¹⁶. At that time, the main objectives of Estonia's defence policy and national defence included the prevention of aggression against the Estonian state and thus the document did not address internal security in great detail.

On 6 March 2001, the *Riigikogu* approved the National Security Concept of the Republic of Estonia¹⁷, which for the first time formulated Estonia's broader national interests and security policy objectives:

- The preservation of Estonia's independence and territorial integrity;
- The protection of the survival and continued development of the Estonian state as a democratic state;
- The promotion of the welfare of people and the preservation of the Estonian nation, language, culture and the Estonian identity through times by developing international cooperation in the increasingly globalised world.

Above all, that document was focussed on joining the NATO and the European Union, but it also addressed the strengthening of internal security, which included a physical and a social component. Subsection 3.4 of the said document described in greater detail the tasks of law enforcement authorities in ensuring physical security. The social component placed an emphasis on the coordinated activities of individual institutions in order to ensure material welfare and social justice for the public.

On 16 June 2004, the *Riigikogu* adopted the National Security Concept of the Republic of Estonia (2004)¹⁸. Raul Mälik, the then Undersecretary of the Ministry of Foreign Affairs, described the reasons for the renewal of the security policy as follows: "In the three years since the adoption of the previous document, there have been various developments in the security policy situation both in Estonia and the entire world. 11 September 2001, military operations in Afghanistan and Iraq, problems in the development of NATO and the European Union and many other circumstances force us to take a serious approach to

ensuring Estonia's security."¹⁹ The 2004 document uses the term "internal security policy", which encompasses the tasks of the internal security structures of the country and the overall organisation of the system and includes participation in international activities to ensure security. Compared to earlier documents, more emphasis is placed on ensuring compliance with the security and safety requirements of Estonian ports, ships, airport and aircraft as well as on the IT security area.

On 12 May 2010, the *Riigikogu* approved the National Security Concept of Estonia²⁰, which focuses more than ever before on security policy and the functions vital to society. The concept covers the area of internal security, which is directly related to ensuring national security: protecting constitutional order, responding to emergency situations and mitigating the consequences thereof, guarding the external border, combating terrorism, international organised crime and corruption. Estonia's inclusion in the Schengen judicial area has given us greater responsibility in guarding the external border of the European Union.

In addition, the national security concept also focuses on ensuring the primary functions for the state and the public in every situation and on strengthening the cohesion of the society. This entails the continued functioning of critical services, electronic communication, cyber and energy security, transport infrastructure, the financial system and environmental safety, uniform regional development, integration, psychological defence and the protection of public health.

Compared to the earlier concepts, the currently valid document includes new topics, like energy security and the possibility of introducing nuclear energy as a means to improve security of supply. The use of nuclear energy is currently a highly debated topic in connection with the Fukushima nuclear power plant accident caused by the earthquake in Japan. Cyber security has in the concept been addressed both from the aspects of continued functioning and prevention of crime. Emphasis is also placed on the development of psychological defence mechanisms.

The internal security policy is also directed by the Main Guidelines of Estonia's Security Policy until 2015²¹, approved by the *Riigikogu* in 2008. These guidelines address the activities necessary for improving the safety of the living environment and increasing the sense of security of every person on a wider basis. The document includes an internal security policy vision, according to which Estonia will in 2015 be a secure society, manifested by a safer living environment and increased personal sense of security as well as a decrease in the number of fatalities and casualties. The security policy development directions include: increased sense of security, increased fire safety

¹⁶ Approval of the Main Guidelines of Estonia's Defence Policy. 16.05.1996. – RT I 1996, 33, 684.

¹⁷ Approval of the National Security Concept of the Republic of Estonia. 12.03.2001. – RT I 2001, 24, 134.

¹⁸ The National Security Concept of the Republic of Estonia (2004). 21.06.2004. – RT I 2004, 49, 344.

¹⁹ Mälik, R. A New Phase in Estonia's Security Policy. – *Diplomaatia*, 2004, 9.

²⁰ The National Security Concept of Estonia. 25.05.2010. – RT I 2010, 22, 110.

²¹ Security Policy 2010. Report on the implementation of the "Main Guidelines of Estonia's Security Policy until 2015". – Ministry of the Interior, 2010.

in the living environment, increased protection of property, smaller number of accidents, improved security of the state, increased speed of emergency assistance and more efficient security policy. The implementation of the uniform principles and the achievement of the objectives determined in the Main Guidelines of the Security Policy are supervised by the Ministry of the Interior, but in order to implement the objectives the ministries engage local governments, companies/private entities, social and other organisations and volunteers from the public to the maximum extent possible.

The Government of the Republic in the person of the Minister of the Interior presents a report on the maintenance of law and order on the bases of the implementation of the main guidelines of Estonia's security policy to the *Riigikogu* by 1 March every year. In addition to the report, the Ministry of the Interior has in the last two years also presented an annual compilation to the *Riigikogu*. In addition to the summary of the implementation of the main guidelines in the past year, the compilation also provides an overview of the main projects, events and future objectives in the area of internal security. The compilations^{22,23}, are available on the website of the Ministry of the Interior both in English and in Russian. Both the report and the articles illustrate the reporting year and should be of interest to people working in the internal security area as well as to students and ordinary interested citizens.

The development of Estonia, including the development of the internal security area, has been constant and provided an increased sense of security for our people, even despite the recent crisis years. According to surveys, the Estonian public has confidence in rescuers, the police and the border guards. We will always have the traditional tasks like rescuing human lives in traffic, but there will also doubtlessly be new challenges arising from the constantly changing security environment.

Marko Pomerants

Minister of the Interior of the Republic of Estonia 2009-2011

Member of the Riigikogu 2011-

Head of the Legal Affairs Committee

Pro Patria and Res Publica Union faction

Estonia



²² Security Policy 2010. Report on the implementation of the "Main Guidelines of Estonia's Security Policy until 2015". – Ministry of the Interior, 2010.

²³ Security Policy 2011. Report on the implementation of the "Main Guidelines of Estonia's Security Policy until 2015". – Ministry of the Interior, 2011.

Pori–Riga – cooperation in the future

By Aino-Maija Luukkonen

“A twinning is the meeting between two municipalities to act together within a European perspective, confronting problems and developing increasingly closer and friendlier ties between one another”. In these words, Jean Bareth, one of the founding fathers of the CEMR, defined twinning after the Second World War in 1951.

Bareth’s words fit the cooperation of Pori and Riga perfectly, even if according to the European framework of twinning, co-operation did not start until the 2000s due to historical and political reasons. The cooperation between Pori and Riga is an excellent example of a good relationship that has lasted through the revolutions of time, history and politics.

“Small Pori” and “Great Riga” have been carrying out both official and unofficial cooperation with each other for about half a century. Cooperation and friendly relations come in so many different forms that there are great difficulties finding things that have remained outside the cooperation. The word “cooperation” is not enough to describe the depth, versatility and relevance of the alliance between these cities. There is a genuine link with real bottom-up interaction, personal relations, friendship and deep partnership in this alliance. Pori and Riga have more things to unite them than to divide them: the sea, sand dunes, parks, hockey, music, culture and history to mention but a few.

Membership of the European Union has further deepened the close relationship. Pori had the honor for several years to share its experience, knowledge and expertise in EU affairs when Latvia became a member of the EU in early 2004. EU membership will open up new and promising windows of opportunity in the future too. The international and open global world will increasingly emphasize the local strengths and characteristics of both cities: their strong cultural and historical identity, survival in the face of structural changes, location near the sea and their desire to grow. The creative link between local and

global generates huge potential for the development and growth of both Pori and Riga, if and when the cities are able to take advantage of these opportunities offered by the borderless world in which we live.

The key factors for future cooperation are the deepening of good personal connections on all levels, the ability to use networks of both cities and continuous, open and future-oriented interaction.

The significance and importance of large cities will continue to grow in the near future. The cities of Riga and Pori are an unusual couple in terms of size, but therein lie also untapped opportunities. In the future the most successful cities will be those that are able to benefit from each other’s expertise, creativity and networks, in their own development. Riga is one of the largest metropolitan areas in Northern Europe. It is literally an exemplary source of inspiration for Pori as well as for any city, a real City of Inspiration. Pori, on the other hand, is one of the oldest and biggest cities in Finland and its significance for example in the development of events, experiences and new forms of energy, will belie its size.

In Europe today there are about 17 000 twinning relationships. The relationship between Pori and Riga is just one among thousands, but the depth, diversity, richness and quality of this cooperation serves as an example to any area, in the Baltic Sea Region and beyond.

Visu labu Pori! Kaikkea hyvää Riga!

Aino-Maija Luukkonen

Mayor

City of Pori

Finland



Finland in need of a strategy for promoting language skills

By Fred Karlsson, Henrik Lax and Henrik Meinander

In Finland a polarized black and white public debate on maintaining or abolishing the compulsory tuition of Swedish at secondary school level has distorted our perspective on language policy and fundamental national interests. In the first place the focus should be on how we desire to define our identity and position in a rapidly changing world. Which should the geographical orientations of our nation be, and how should they be put into practice?

Becoming a member state of the EU has a wide impact on how we perceive ourselves. Also Russia and Estonia have turned much closer and important to Finland. An additional relevant aspect is that Finnish business is integrating into the Swedish and other Scandinavian economies. The policies on language tuition constitute the core of a small nation's identity and cultural choices. The priorities reflecting our cultural and economic affiliation materialize into a concrete shape through the choices of languages we make and the legislation we pass on the use of them. These are cornerstones with bearing for many decades to come.

The linguistic landscape of Finland has changed a lot after the turn of the century having consequences for the use and development of all of our languages, Finnish included. In a changing environment new skills of behaviour are required. Several trends are involved in this changing picture.

English is getting a more dominant position as a mean of communication in international trade, arts and sciences, culture and other relations. Many big enterprises have already adopted English as their working language. At the same time the skills in the students' use of their mother tongue have deteriorated at the primary and secondary educational levels. The variety of languages spoken by immigrants rooted as new citizens in our country is growing. The debate on the position of the Swedish language as the second official domestic language is therefore bound to be a hot topic for decades to come.

The scope of the choices of languages by the students have turned more narrow, and the levels of their communication skills have declined.

The more animated and hot the debate turns, the more people tend to forget one thing, and this they do irrespective of their affiliation with the Finnish or the Swedish speaking population of the country. It is indeed the Finnish speaking majority and its political representatives who decide on which languages shall be subject to compulsory tuition in our schools. The decision, however, is in the first place not about the rights of the Swedish speaking Finns to use their language in dealing with the public authorities, which one could believe when following the debate. The decision is rather about preserving the dynamism of a well-performing integrated Finnish society as a whole.

Our present law on the use of the Finnish and Swedish languages does not address all the necessary requirements. The law is not as such an endorsement of the use of Swedish - in fact not of Finnish either - as a working language of the public administration, if the districts of the governmental authorities and the municipal structures are redrawn or revised without creating compensating organizational structures to support the use of the language. Lately the Swedish language has been the victim of several such reforms of the public administration eroding the use of the language.

These reforms have created difficulties for the Swedish-speaking population to use its language in delicate circumstances, e.g. when dealing with the police, judiciary or public health services. Consequently people are concerned and feel insecure.

In fact Finland is lacking a consistent national language policy, and this is causing confusion and embarrassment, and also divides the decision makers within both language groups. Wavering and inconsistent decision making on mergers of bilingual municipalities and the creating of new districts for cooperation in the social and health care sector bear evidence of the lack of a common vision.

In 2009 the Research Institute for the Languages of Finland presented an extensive analysis on the challenges of the Finnish language and launched a program for promoting the use and overall development of it. We very much regret that the political decision makers so far have not paid any attention to this report and initiative. We note with interest that upon a presentation of similar arguments in Sweden, a bill was passed with the explicit aim to care for high standards and the comprehensive use of Swedish - the main and dominant language of the country!

A good command of our native languages is the prerequisite for successful learning and command of other languages. We believe it is urgent to define a common vision on how the use and quality of our national languages shall be preserved in the future. This is a must if we want to provide sustainable conditions for the Finnish people to be successful in extending their language learning.

It is of equal importance to address the requirements posed by the constitutional federative provisions governing the relations between the Åland Islands (a Swedish speaking self-governing territory) and Mainland Finland.

Considering the contradictory trends depicted above, it is urgent to bring the present disorder to an end. The government of Finland to be formed upon the parliamentary elections on April 17th, 2011, should take a firm stand on this issue and appoint a broad political committee duly assisted by experts to define the foundations of a sustainable language policy and action plan for the country.

Much analysis and preparatory work has been carried out already. In March a working group headed by the former President of Finland, Mr. Martti Ahtisaari, and made up by members from most factions of the parliament, presented a report and a program for the preservation and promotion of the official national languages. The report published in 2009 by the Research Institute for the Languages of Finland, as well as a recent report on the national languages by the Finnish Board of National Education, provide relevant substance and guidelines for a proactive and progressive national language policy.

Visions, solidarity and farsighted statesmanship as well as a constructive public debate are now required to pave the way for an improvement of the national language assets. By the time of the publication of this article, the program of the new government of Finland is likely to have been approved. We believe it will address this challenge of improving the linguistic skills of our people.

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Big business in the BRICs

By Andrea Goldstein

Gaining greater knowledge of the characteristics of large firms that dominate the global economy is inherently an important endeavour. As the late Alfred Chandler, for four decades the influential professor of business history at Harvard Business School, made it clear, we still live in a world of large firms. From Google, Microsoft and Apple to Wal-Mart and Ikea, from Boeing and Airbus to the majors that dominate the global oil industries, and almost any manufacturing or service sector, large corporations make a myriad of business, economic, social and political decisions that influence the world we live in.

Unfortunately, modern economics does not treat these powerful firms as concrete actors: they are abstracted into general economic models or absorbed as single anonymous data-points into large statistical samples. Understanding the strategy, structure, ownership and performance of large business amounts to an ambitious programme of research. Analyzing responses to global change, particularly economic integration and the recent financial and economic crisis, requires identifying large firms clearly, so that both their aggregate and their individual behaviours can be easily traced. This kind of 'phenomenon-based' research, addressing significant empirical developments for the sake of their real-world importance, not just their disciplinary interest, can establish both general trends and individual anomalies. The promise of such research is more informed policy-making at government level and more accountability at the top of these large firms themselves.

At any latitude, this is a very ambitious project in the face of uneven access to data and information. When it comes to the analysis of large emerging economies, and the BRICs in particular, limitations are even greater. The starting point is that to the growing importance of Brazil, Russia, India and China in the global economy is reflected in the increasing weight of their companies in *Fortune Global 500* rankings. The overall trend was clear even before the crisis and by 2010 China alone had more entries than any other country except the United States and Japan. As far as headquarters are concerned, only Tokyo and Paris hosted more *Global 500* companies than Beijing.

The BRIC economies, however, are different from each other and this is also true when examining the heights of their respective business worlds. In Russia in 2007 (the last year for which data covering all Russian companies, regardless of ownership, is available) there were six oil companies (including state-owned Gazprom, Rosneft and Surgutneftegaz) and an equivalent number of mining and minerals ones born from the ashes of Soviet *kombinat* (controlled by famous oligarchs such as Mikhail Prokhorov, Alexei Mordachov and Roman Abramovitch) among the top 19 companies by turnover, together with seven services companies. It is only in the 20th position that one could find a manufacturing firm, TAIF, and in 32nd for a foreign-owned entity, Ford.

India is *prima facie* similar – among the top 10 for 2009 there were nine state-owned enterprises (seven in petroleum, one in electricity and a *trading company* for minerals) and, ranked 2nd, the Reliance energy and petrochemical private group. The largest manufacturing company was Tata Motors (15th) and the largest ICT giants

were TCS (18th) and Wipro (19th). Maruti Suzuki was the largest foreign-owned company and ranked 20th only. Nonetheless, it would be imprecise to consider many Indian firms as standing-alone corporate entities. In most cases, they belong to diversified family-controlled business groups and operate according to a different logic than traditional Western companies. The most famous case is Tata, which groups dozens of firms in almost every sector, each of them applying a series of group-wide principles established in more than a century of existence. Managers often rotates across different firms and other functions are performed centrally.

Brazil is yet another reality, more diversified. In 2009 the two largest firms were in the petroleum industry, Petrobras and BR Distribuidora, both controlled by the state albeit listed on the stock exchange and with sizeable stakes in the hands of private investors. Volkswagen in the 3rd place was the largest multinational and six more, all European (Ambev, Fiat, Carrefour, Shell, Telesp and Vivo), were in the top 10, together with a private, Brazilian mining giant, Vale. These seven multinationals, plus the four next largest (General Motors, Walmart, Arcelor Mittal and Ford), make more than 9% of their global sales in Brazil. There are four other local corporation ranked between 11th and 20th. While business groups exist, they are far less important and widespread than in India.

For China, unfortunately, there is no single ranking that includes both domestic companies and subsidiaries of foreign multinationals. In *Fortune 500*, at any rate, all Chinese entries correspond to state-owned enterprises. Petrochina and China Mobile alone have recorded aggregate 2009 profits that were higher than for the 500 largest private companies in China! In fact not a surprising result when considering that China Mobile and two other state-owned companies, China Unicom and China Telecom, carve out the huge and very lucrative telecom market (in India, which is comparable in size, there are more than a dozen national operators), or that Petrochina pays land €20 cents per square meter, almost a joking figure compared to the market value.

An earlier generation of researchers studied strategy and structure in Japan and produced a rich body of literature that has influenced thinking and practice in the West. Today it is time to extend the research into emerging economies, to go beyond the clichés and devise appropriate policies to compete in international markets and avoid the protectionism and even xenophobia that are often stirred by ignorance about the outer world.

Andrea Goldstein

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Russia's WTO accession might be a game-changer

By Kai Mykkänen

Back on track

Russia has been in WTO negotiations for 18 years now. The process was close to completion in 2006, when Russia suddenly lost interest as oil prices soared. Chastened by the 2008-2009 economic crisis and refocused by President Dmitry Medvedev's commitment to modernization and a policy reset with the US, the WTO process quickly returned, however, to the top of Russia's agenda. By 2010, pursuit of WTO membership had regained steam with to signing of major bilateral agreements about the accession with the US and the EU. At the moment, the WTO multilateral working group is finalizing its work. From the technical and substantive perspectives, at least, Russia might be officially ready to join the Club by the end of this year.

Risks: US-Russia relations and Georgian stubbornness

During the recent crisis, Prime Minister Vladimir Putin showed his fondness for domestically popular protectionist gimmicks. At the time, he was quite explicit about his reluctance to surrender his powers to impose unilateral ad hoc adjustments to rules of trade. Nevertheless, it would appear that Putin has now decided that, on balance, WTO membership is worth supporting. He campaigned in favour of it in Germany last November and confirmed his personal commitment in Brussels recently. Evidence of this political about-face could be seen last December when Russia agreed with the EU on large reductions on export duties for round wood. Just four years earlier, imposition of wood duties were seen as so strategically necessary to Russia's economic destiny that it was ready to break its 2004 deal with the EU on WTO membership.

There is clearly momentum in Russia for WTO accession these days, but that could change in the coming months. An unexpected event similar to the Russo-Georgian war in 2008 could easily change the attitudes of both Russians and the West, halting the process for years.

Indeed, WTO-member Georgia is at present the single biggest hurdle to the accession – even in the absence of resumed hostilities. Since the flaring of the South Ossetia conflict in 2008, Georgia has blocked all formal multilateral processes in Russia's WTO negotiations. In principle, it is possible to accept a new member with a qualified majority of the general meeting of ministers. However, the proposal for the general meeting has to be made by a working group which can only have a quorum with all member states in attendance. Thus, as long as Georgia boycotts working group meetings, it can effectively prevent a vote on Russia's WTO entrance. After two years of refusing all proposals to even meet Russians to discuss this topic, Georgia announced in March that it was finally ready to start direct negotiations on Russian accession. One can hope that it indicates Tbilisi's readiness to agree with Russia on realistic terms, but we are by no means there yet.

Direct effects: Nothing revolutionary

Despite the challenges, the current sentiment is that Russia will manage to join WTO in the near future. Hence, the real question Western industrialists should be asking is "What will change?"

Far from an end to all problems, we should expect a bumpy ride – at least in the short run. After all, the WTO is not per se about elimination of customs tariffs or free trade. Russia's WTO commitment would only be to cut import tariffs by about a third in average. Implementation of reforms against trade-related red tape would take many years to phase in. India, for example, was a founding member in 1947 of GATT, the precursor to the WTO, and yet today is still one of the most protectionist trade partners anywhere. Russia is unlikely to be much less capricious. On the contrary, the traditional WTO sanctions for members that violate WTO rules would be hard to use on Russia. Do we really expect, for example, that Europe would petition the WTO for permission to impose import tariffs against Russian oil and gas, effectively punishing consumers in Germany, Poland and other countries dependent on Russian hydrocarbons?

In general, the main problems of doing business in Russia are not issues directly targeted by WTO rules, but rather more mundane issues such as corruption, bureaucracy, outdated technical standards, fraud and theft. Moreover, WTO rules say nothing about non-discriminatory red tape, which will likely remain a serious challenge for Russian and foreign players alike.

Indirect effects: Optimists see emergence of economic renaissance

Expect a boom in foreign investment to Russia following WTO accession. This boom, driven by investor exuberance, will be made possible by diminished risk premia given by financial institutions for Russia that both lower financing costs and cut the rate-of-return demands on capital investment in Russia. Several large European industrialists have already said that they are merely waiting for membership to green-light big projects.

While foreign investors are doubtless engines for change in Russia in the long run, we might also want to consider how WTO membership could be a game-changer for Russian economic policy. Joining the Club would be an achievement for the liberal faction of the ruling elite, strengthening their position in setting priorities for domestic economic policy. Russia could use increased exposure to competition with imports and foreign investors to boost efficiency and the overall competitiveness of its economy (Russian labour productivity is currently only about half the eurozone average). Ultimately, we could see the establishment of a virtuous circle that leads to decreasing inflation through competition; a ceiling on real appreciation of the ruble; cheaper financing costs for domestic investors; a larger share economic activity generated by SMEs and companies in non-oil sectors; creation of a larger, more independent middle class; and stronger demands by Russians for democracy and the rule of law.

One way to facilitate further reforms could be forming a free-trade area with the EU. The stalled WTO process has largely kept this discussion on ice for the past five years.

In any case, the direct effects of WTO membership will remain limited if Russia is unable to implement tough reforms on itself (e.g. technical standards, privatization, competition policy and its public procurement processes). It is up to Russians in the end.

What happens if WTO talks collapse?

The less-discussed possibility of failure of the WTO process is worth noting as it, too, could serve as a political game-changer – just not in a good way. Failure of the accession process at this late stage would surely be interpreted by Russians as a sign of hostile Western policies to isolate Russia. Russian leadership would likely be absolved of responsibility for the failure, but would devastatingly undercut the position of the liberal camp, which has used the WTO argument extensively to push through reforms during the 2000s. Failure would strengthen the hand of the nationalistic-conservative faction, who could point to failure as proof that Russia needs to stop taking orders from the West and imitating Western ways. Worst of all, the failure could occur just ahead of the parliamentary and presidential elections next December and March and stoke nativist sentiments. While a less likely scenario, it appears that failure of the WTO accession process in the coming months could change Russia more than the accession itself.

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What is bringing the United States, Europe and Russia together

By Vladimir Baranovsky

Joint efforts of the United States, Europe, and Russia are a key element in protecting the Euro-Atlantic space from destabilizing threats. Furthermore, the impact of this endeavor, if it turns out successful, will most probably be significant well beyond the Euro-Atlantic borders. The idea of cooperative interaction on security issues could become the most important organizing principle of the modern international system.

Are the USA, Europe and Russia in a position to operate together? When considering this triangular configuration, it seems obvious that all its components have other priorities, and when there is a conflict with Euro-Atlantic values, it is far from always resolved in favor of the latter. Furthermore, there is a traditional dichotomy between two approaches to security issues. One treats them as a *common problem* affecting the basic interests of all, and, hence, requiring joint action. The other seeks to achieve a *balance of interests*, assuming the need for compromises, diplomatic “exchanges”, quid pro quo, etc. By and large, the Euro-Atlantic security cannot be built without compromises between parties, but it cannot be built *solely* on compromises in the absence of a sense of common challenges, common threats, and common problems.

What are these system-building parameters of the Euro-Atlantic area? All three parts of it feel the effects of the new global context. Its impact on their approach to security is rather contradictory and often leads in different directions. It is important that this new context does generate incentives encouraging the United States, Europe, and Russia towards cooperative interaction. Allowing for differences in interpretation, specific trends in global international political development carry significant security implications for all the three main actors.

Imbalances in the system of international relations resulting from the end of bipolarity have increased uncertainty on the world stage, concerns because of possible local and regional turmoil, unclear medium- and long term development prospects. ***The U.S., Europe, and Russia have an objective interest in stabilizing the international political system.*** Its increasing entropy creates for them more dangerous threats than attractive opportunities. Minimizing possible destabilizing consequences of international political development is essential for strengthening Euro-Atlantic security. This is the broadest framework for joint action by the United States, Europe, and Russia (for instance, in the area of conflict management and peace building).

The recent economic crisis introduced interesting new parameters into the question of Euro-Atlantic security. Its magnitude was recognized as comparable with the largest economic upheaval of the last century, which affected all the major countries of the world – the 1929-1933 crisis and Great Depression. That crisis shifted the trend of international political development towards a new world war. By contrast, the impact of the current crisis on world politics has had a stabilizing effect. ***In the conditions of the global crisis, the U.S., Europe, and Russia have proclaimed their interest in working together to overcome it, as well as in building a more sustainable and equitable global economic system.*** This approach not only meshes naturally with the logic of a “Euro-Atlantic

project,” but also objectively brings its members closer together.

Arms control has been one of the victims of the chaotic and contradictory processes that have occurred since the Cold War ended. Over the last decade efforts in this sphere have come to a virtual standstill in the Euro-Atlantic region. ***The United States, Europe, and Russia have an objective interest in overcoming degradation in the field of arms control and giving negotiated agreements a renewed impetus.*** The reasons are partly intrinsic, that is, to rationalize defense efforts in terms of cost-effectiveness and other parameters, while ensuring a stabilizing effect for both the participants and the broader international political system. Partly they are increasingly extrinsic, that is, to serve as a tool to influence the surrounding world by producing a demonstration effect, establishing standards and regulations, legitimizing sanctions in response to their non-observance, and so on.

In some specific areas of arms control, contemporary international political developments objectively stimulate the formation of a unified Euro-Atlantic approach, as in the case of nuclear non-proliferation. It should be noted, however, that in the field of arms control there is also a possibility of quite significant deviations from the logic of Euro-Atlantic cooperation in the direction of purely/predominantly national security interests and concerns.

The international arena witnesses a redistribution of relative weight characterizing various existing and emerging centers of influence. In the global balance of economic and political forces the strengthening positions of China and India are increasingly becoming an important factor, a trend likely to continue into the future. A number of other countries in Asia and Latin America are also developing intensively. The presence of the Islamic world is ever more visible on the international stage (albeit not as some integral whole, “pole” or “power center”). ***The U.S., Europe, and Russia have an objective interest in ensuring that the rise of new centers does not marginalize them, “old” actors, but occurs with their guidance.*** An important aspect of Euro-Atlantic security is minimizing the challenges from competing centers through cooperative interaction with them. The higher the level of consolidation of the “old” centers in such interaction, the less likely will be a prospect of confronting them against each other and playing on the contradictions between them.

There is a gradual shift in the center of gravity of the international system from Europe towards Asia. The main problematic themes of international political development are occurring in a broad band stretching from the wider Middle East and Caucasus through Central and South Asia and to the extended Far East. ***The United States, Europe, and Russia have an objective interest in the southern vicinities of Asia not becoming a zone of permanent armed violence and lawlessness, a source of chaos and terrorism, or an area for hegemonic pretensions and rampant geopolitical rivalry.*** As far as possible they should act as external stabilizers in this region. Without vigorous efforts to foster larger Asia's political stability, Euro-Atlantic security itself will remain precarious and fragile.

In the long term, the main intrigue within the emerging international political system will be managing the relationship between the developed and developing world. ***The U.S., Europe, and Russia have an objective interest in minimizing the explosive potential generated by the North-South dichotomy.*** Here precisely is where the main external threat to Euro-Atlantic security resides in the form of growing protest potential in that part of the global society that regards itself as not only disadvantaged but largely without future prospects.

The Euro-Atlantic region countries will be the main targets of dysfunctional behavior springing from this soil (violence, terrorism, uncontrolled migration, etc.). They will have to constantly look for opportunities to minimize the devastating pressures – by engaging in direct counter-action against them, seeking to cut off their sources, and attempting to influence the power elites of the countries where they originate. It is unlikely that a global “social contract” can be reached or a comprehensive set of formal rules created in this area, but concrete agreements on various issues of concern may be quite viable and useful. Essential would be to form a sense of community and responsibility in the face of this global challenge, which must be implanted in the public consciousness and on the political agendas of countries in the Euro-Atlantic space.

The modern international political landscape is further complicated by internal conflicts arising out of ethnic and religious differences, inter-clan fighting, separatist aspirations, the ineptitude of state entities and their collapse, and the emergence of new states when complicated by a tortured process of self-identification. ***The U.S., Europe, and Russia have an objective interest in domestic conflicts not becoming a source of international political complications.*** Their concerted or joint approaches to such situations, allowing them to minimize the possibility of rivalry and confrontation in this area and at the same time helping to resolve conflicts, could become an important part of maintaining Euro-Atlantic security.

Although the “Westphalian” tradition focuses on the absolute, or at least the most restrictive interpretation of the grounds for and the scale of external interference in the internal affairs of states, modern international trends conflict with this logic. ***The U.S., Europe, and Russia have an objective interest in the possibility of exerting external influence on those domestic political situations that could have a destabilizing effect internationally.*** It is in their interest to reach agreement regarding the terms of such an influence, its objectives, tools to be used, and limitations on their use.

This is also important because we deal here with an extremely sensitive topic that affects national sovereignty and needs to be approached with caution. Otherwise it will gravely threaten the existing world order by moving away from the rule of law and towards the unrestricted law of force. The challenge, the answer to which is vital in terms of Euro-Atlantic security, is to develop suitable methods and procedures governing external intervention, including the possible use of force, not through the arbitrary rejection of international law, but through its consolidation and development.

Bringing to a common denominator the imperatives of internal development and those of international behavior, insofar as they confront each other, represents one of the most difficult challenges. ***The United States, Europe, and Russia have an objective interest in developing collaborative approaches to the conflict-prone themes of existential character, both actual and potential—that is, where the sources of tension are less situational and more caused by problems of principle.*** They include, for instance, (i) the mutual responsibility of states in the use and transborder transfer of natural resources; (ii) efforts to ensure their own security and how other states perceive such efforts; (iii) the conflict between the right of peoples to self-determination, and the territorial integrity of states; and so on. At this stage, in most cases it makes no sense to talk about formal agreements, but simply keeping these subjects on the agenda can be an important element of Euro-Atlantic identity.

By and large, the United States, Europe, and Russia all have their own policy with regard to the outside world and security problems. However, common concerns, challenges, and opportunities seem becoming a new qualitative element of their interaction – which may bring about the most significant changes in international developments.

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China is ruling rare earth elements and oxide production

By Mikko Ruohonen and Lea Ahoniemi

1. The role of energy investments in China

One of the economic facts in global settings has been that Chinese economy is still growing 8-10% per year in the future despite the economic crisis of the world (BOFIT 2010). Now China's GDP has passed Japan and moved to be 2nd biggest economy after USA in the world. One of the key growth elements has been investments, China has invested over 40% of GDP for 6-7 years since 2004 (BOFIT 2010). This has happened especially in infrastructure field such as energy production, housing and road building sector. Energy consumption grows rapidly in China, therefore industries and Chinese megacities need more energy capacity. Lately hydro, wind, solar and other green energy solutions have been favoured in China due to growing environmental problems. State-owned companies are key players which coordinate energy business investments. That creates a major competitive arena for energy business in China. However, it also affects raw materials production and management.

In this article we examine the role of rare earth metals production in the energy business environment, especially in wind energy sector, which is a rapidly growing area in China. First we describe rare earth elements and their markets, then examine the role of China in protecting and restricting rare earth metals production and finally discuss the forthcoming situation in the world. We end with alternatives on possible solutions for future operations in securing rare earth metals availability in a global setting.

2. Rare earth elements and their oxides; background

The rare earth elements are a group of 17 elements with rare qualities and which can be processed into rare earth oxides (REOs) used in the manufacture of a variety of commercial products. These include e.g. mobile phones, GPS devices, missile systems, water treatment equipment, fibre optics, laser technology, batteries for hybrid cars, high power magnets, wind turbines and fluid catalytic crackers (FCC).

In many cases, these alloys are essential for the product to function and cannot be replaced with other materials. It is estimated that they constitute a market of around USD 1–5 billion depending on the market conditions and average prices. According to a rough estimate, in 2008 the average REO price (Baotou Steel) was around USD 60 per kilogram (USD 28/lb), up from the 2001–2007 level of USD 22/kilogram (USD 10.25/lb).

Table 1. Rare Earth Elements (REE)

Symbol	Name	Applications
Ce	cerium	NiMH batteries for hybrid and electric cars, water treatment
Dy	dysprosium	High power NdFeB magnets for hybrid cars
Er	erbium	Laser and fibre optics
Eu	europium	Compact fluorescent lamps
Gd	gadolinium	Contrast agents used in MRI
Ho	holmium	Laser and fibre optics, magnets
La	lanthanum	Fluid catalytic crackers (FCC), NiMH batteries
Lu	lutetium	Immersion lithography systems (circuit packaging)
Nd	neodymium	High power magnets for wind turbines and hybrid cars
Pr	praseodymium	High power magnets for hybrid cars
Pm	promethium	Nuclear batteries (e.g. space industry, science stations)

Sm	samarium	High power NdFeB magnets for hybrid cars
Sc	scandium	Aluminium-scandium alloys for space industry components
Tb	terbium	Compact fluorescent lamps
Tm	thulium	Laser technology for surgical procedures, portable X-ray equipment
Yb	ytterbium	Laser technology for the materials industry
Y	yttrium	Compact fluorescent lamps

3. Production and markets

Despite rare earth elements are found all over the world, oxide production has been concentrated in China. Export tariffs and other restrictive measures instigated by China have shaken the market. As a result, e.g. Japan has made an official complaint to China about the tariffs. According to Jefferies (2010) the largest producers include Baotou Steel (50,000 tonnes/year), Baotou Huamei, Jiangxi Copper (20,000 tonnes/year) and Sinosteel. China's share of global rare earth elements is only around 36%, estimated to run out in around 300 years at the current rate of production (120,000 tonnes/year).

Table 2. Global demand in 2008 by market and volume.

Catalysts	20%
Glass	10%
Polishing	12%
Metal alloys	18%
Magnets	21%
Phosphors	7%
Ceramics	6%
Other	6%

Demand is expected to increase by around 10+ per cent per year. The report predicts annual demand running at 124,000 tonnes, of which the Chinese market will account for 60%. Demand is expected to grow at an annual rate of 12%, which will slow due to high prices. It is anticipated that the following sectors will boost demand:

– **Wind turbines:** Wind turbines may require up to 220–450 kilograms (500–1,000 lbs) of rare earth oxides, mostly neodymium. The demand for rare earth oxides will increase once the wind power industry switches from electromagnetic induction to Direct Drive Permanent Magnet Generator (PMG) turbines; it is anticipated that the wind power industry will account for 5,000–10,000 tonnes of the annual demand for rare earth oxides by the middle of the decade. (Jefferies 2010)

– **Hybrid cars:** The batteries and technology used in a hybrid car contain around 12–24 kilograms of rare earth elements, mostly lanthanum, and around 1.5 kilograms of neodymium for magnets. The manufacture of one million hybrid cars requires 12,000–20,000 tonnes of rare earth elements, representing around 10–15% of demand. Some industry researchers have estimated that the demand for rare earth oxides used in magnets may rise to 40,000 tonnes a year by 2014. This figure does not include the wind power industry. (Jefferies 2010)

– **Manufacture of compact fluorescent lamps (CFLs):** The phosphors used in CFLs require yttrium, europium and terbium. The market is expected to grow by an average of 10–15% per year as various countries amend their legislation on track for greater energy efficiency. (Jefferies 2010)

Global production of rare earth oxides increased, roughly speaking, by an average of 6.9% per year from 1965–2000, decreased by 4% per year from 2000–2010, and production is currently down by approximately 9% from its peak (137,000 tonnes/year in 2006). In 2009, production was estimated at

124,000 tonnes, of which **China accounted for 97%**. The report predicted a production volume of 125,000 tonnes for 2010. For many years, the demand for rare earth elements has been restricted by production volume controls and export measures. China has decreased export quotas by 35 percent for the first half of 2011 which might mean that the export restrictions may force foreign business operations on rare earth elements to move to China. Other alternatives include India, which produces only 2,700 tonnes per year, and increasing production there would not exhaust reserves (3 Mtn) for centuries. Other reserves exist in e.g. the former Soviet republics in Eastern Europe (19 Mtn), the USA (13 Mtn) and Australia (5.4 Mtn). New rare earth element developments are being planned e.g. in Australia, and California, USA. **Changes in market prices** have been drastic, especially in 2009. The prices of samarium, cerium and lanthanum oxides in particular have soared. The table below shows some examples taken from the original report.

Table 3. Spot prices for selected rare earth oxides up to August 2010 (USD/KG) (Jefferies 2010)

Rare earth oxide	2007	2008	2009	Q1/2010	Q2/2010	August 2010
Lanthanum O	3.4	8.7	4.9	6.1	7.5	35.0
Cerium O	3.0	4.6	3.9	4.5	6.4	35.0
Neodymium O	30.2	31.9	19.1	27.6	33.2	63.0
Samarium O	3.6	5.2	3.4	3.4	3.4	30.4

Since summer 2010, the spot price of some oxides has increased by far more than 100 per cent, in some cases even eight-fold (see samarium oxide).

3. Prospects for increasing production and other means

Building a supply chain for rare earth elements will take years. After the initial investments, the various phases of acquiring processing expertise will take a long time. Environmental aspects need to be considered as well. Even the implementation of a pilot project may take 2–5 years, provided that rare earth oxides are obtained securely from elsewhere than China. Some industry experts have estimated that e.g. building a US supply chain would take until 2020–2025 to complete.

It is estimated that Australian production will commence during the third quarter of 2011. According to an estimate by Lynas Corporation Ltd, the company in question (Mt Weld) is capable of producing 10,500 tonnes per year as of the first year. The report states that the company can provide around 17% of global supply, and furthermore that, in particular, the demand for metal alloys and magnets will multiply in the years ahead. China is expected to increase its production by 5-10% per year, which would indicate a share of 80% of global production by 2017.

Production in the USA is expected to commence in 2012, courtesy of Molycorp Minerals LLC which owns, in California, the world's largest rare earth element deposit outside China. The company managed to raise investment capital of USD 394 million on the US stock markets this summer. Molycorp's mine had to be closed in 2002 due to Chinese competition.

One opportunity is recycling and more effective use of resources. For example, in European Union a strategy discussion has started on recycling and use of resources. Protecting supplies of scarce raw materials would a temporary solution to the problem. Therefore, recycling and increasing resource efficiency is needed. Also collaboration with China is regarded. (European Parliament 2011)

The latest crisis in Japan might accelerate the focus of energy production from nuclear power to green energy in which China has major plans for the future. For example, they are targeting 10 times more wind energy capacity up to 150 GW in 2020 (Exolus 2011). Rare earth metals are most important in wind turbines.

Finland's mining industry has also a role in rare earth metals. The potential to find new high-tech metal deposits in Finland is high, especially for platinum group metals, lithium, rare earth elements, titanium and cobalt. New mining operations related to high-tech metals are planned for lithium in the Kokkola region, and for phosphate, rare earth elements, niobium and tantalum in Savukoski (Tuusjärvi et al. 2010). Last year published Finnish mineral strategy (2010) describes a scenario where a new kind of globalisation will arise in the world, with the developing countries, led by China, taking control. Free trade will continue, but ownership of large mining companies and the technology industry operating in the field will gradually shift to the developing countries. Mining operations will be enhanced, but the environmental aspect will not gain public support and standards will not be set for it, especially in the developing countries. The experts who participated in drawing up the Finnish mineral strategy estimate that this is the most likely scenario for the next few decades. The same mineral strategy considers the rare earth element discoveries made in Finland promising. Then again, their processing requires funding and, above all, expertise.

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The Europe Foundation focuses its future action on the Baltic Sea Region – Baltic Sea strategy and protection is a priority area in Europe

By Anders Blom and Ossi Tuusvuori

Since the adoption of the Baltic Sea Strategy of the European Union in 2010 there has been an effort to get a more focused approach in implementing the ambitious goals of the strategy: clean and healthy Baltic Sea and strong and successful Baltic Sea region. The implementation of the Action Plan with its 15 priority areas and the important work done by several regional, national, local and private actors in all the Baltic Sea region states also means that there is a complex network of actors with many interests – hopefully aiming at the common goal benefiting the Baltic Sea and the people living in the region.

The EU Baltic Sea Strategy is a step into the direction of making Baltic Sea as a political region with its own identity, governance and institutions, agenda and common representation of the interests, as Esko Antola has described the challenges of the development of the Baltic Sea region cooperation in his report to the Konrad Adenauer Stiftung in 2009

(http://www.centrumbalticum.org/files/255/Baltic_Sea_Strategy_web_version.pdf). Antola has been the Director of the Centrum Balticum (<http://www.centrumbalticum.org/>) in Turku since its establishment 2006 as an independent think-tank on the Baltic Sea matters.

With an increasing level of financing and political attention to the Baltic Sea protection “issue” it is evident that there will be also an increasing number of actors involved. Transparency and coordinated action between various programs and actors at all levels is vital in order to ensure efficient use of resources and using best practices.

The Europe Foundation was created in 2000 on the basis of the Trust Fund of the former Institute of European Studies in Turku (1989 – 1998) was merged with the 60th anniversary donor fund of the editor-in-chief of the leading regional newspaper Turun Sanomat, professor Jarmo Virmavirta. The Institute and its Director, Dr. Esko Antola were pioneers in the Finnish European integration policy research and discussion, and Turun Sanomat offered an excellent forum for the debate and for presenting the results of the research.

The institute was established by private citizens and organizations where Turku JCC (Junior Chamber of Commerce) was the key mediator between different parties in Turku and initiator of major activities in the process 1988 - 89. The JCC European Academy education project 1989 – 90 gathered over 300 business leaders and resulted the major funding for the Institute. Since 1998 the activities of the institute were transferred under a new Pan-European Institute at the Turku School of Economics.

Respecting the long traditions of the research on European and Baltic Sea issues in Turku and enhancing its role in the challenging process of the protection of the Baltic Sea, the Supervising Board of the Europe Foundation agreed in May 2010 on the guidelines of its new Baltic Sea program for the years 2011 - 2017. The focus of the Foundation's activity will be in supporting various projects and actions related to the research of the Baltic Sea region and the protection of the Baltic Sea, particularly those in the South-Western part of Finland and Turku.

Since mid-1990s the Foundation has annually granted the Europe Award to a person who has been actively involved in the Europe research. The award is traditionally presented in

the margins of the Europe Day celebrations organized by the Regional Council of Southwest Finland. The award was granted for the first time as a Baltic Sea Award in 2010, when Director Ilppo Vuorinen of the Turku University Archipelago Research Institute (<http://www.seili.utu.fi/en/>) received the award. Archipelago Research Institute, which is located in the island of Seili, was established in 1964 as an all-year field research station for the University of Turku. Since then, the research station is focused the multidisciplinary environmental research of the Archipelago Sea, and the Baltic, as well. The main task of the research station is on the long term monitoring of the sea environment.

In May 2011 the award was granted to Project Manager Pekka Paasio of the Forum Marinum Museum Centre (www.forum-marinum.fi) in Turku for the work done by Paasio over years in saving and developing the maritime culture and promoting the inter-linkages of the Baltic Sea region. The Baltic Sea Award is a concrete way to support local actors and projects in their work relating to the Baltic Sea and the unique archipelago sea region of South-Western part of Finland.

The Foundation also has agreed to issue annual index reports on the status of the protection of the Baltic Sea in the South-Western part of Finland. The first index report will be issued in 2011 in collaboration with the Baltic Sea Action Group (www.bsag.fi). This report will describe the main actions taken for the protection of the Baltic Sea in the S-W part of Finland and will follow their development by using the criteria set by the environment authorities (e.g. on water quality, drainage, fish stock, public funding for the protection measures, general conditions for action).

In addition to these two regular annual activities the Europe Foundation will establish partnerships with local actors like the Regional Council of Southwest Finland (<http://www.varsinais-suomi.fi/>) and the local universities and high schools. The Foundation also endeavours to build up a co-operation network with business world and thus enhance social responsibility for the protection of the Baltic Sea.

With these measures the Europe Foundation hopes to be able to improve and develop collaboration and coordinated action of all various actors involved in the protection of the Baltic Sea, especially in the South-Western part of Finland.

For more information on Europe Foundation see www.eurooppasaatio.fi

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Forum for social dialogue in the Baltic Sea Region – a model for Europe

By Silke Lorenz and Katariina Röbbelen-Voigt

“Social partners are the foremost experts on issues concerning the labour market and working conditions; therefore, social dialogue plays a key role in achieving decent and productive working conditions.” (BSLN Steering Committee Statement November 2010)

The Baltic Sea Region is economically seen as an important region in the EU with high mobility of labour. The EU BSR States generate about 29 % of the EU GDP and in 2009 approximately 68 million people were employed there. The Baltic Sea Labour Network (BSLN) was introduced in the latter part of 2008 as a partially EU-financed project in order to tackle labour market policy issues. Mainly because of its tripartite structures, the network has had a successful launch. Trade unions and employer organisations as well as the Baltic Sea Parliamentary Conference (BSPC) and the Council of the Baltic Sea States (CBSS) have worked together through labour market issues and have formulated tripartite statements. The importance of this kind cooperation within the region has indeed become apparent during these last two and a half years.

During the project lifetime some main steps have been taken in regards to institutionalising social dialogue in the BSR. In order to strengthen the role of the social partners, a Forum for Social Dialogue in the Baltic Sea Region will be established in conjunction with the BSLN final conference in November 2011.

The labour markets and challenges in the BSR

Working together through labour market issues is extremely important since this dynamic region could be developed into one of the most competitive regions in Europe. The long-term existing trade relations have been considerably reinforced over the last few years which is also underlined by the increasing demand for skilled labour. At the same time the Baltic Sea States are facing some major challenges such as the current demographic development which is affecting the decrease in labour force. These changes also affect companies' working conditions and training concepts since the changing employee age structure requires new approaches. Besides this, the increasing labour mobility - especially commuters in the border regions - calls for new strategies and even more importantly, for detailed information about the respective labour and vocational training markets. Currently a cross border labour and vocational training market monitor is being tested in the German – Polish border region Mecklenburg Western Pomerania and the West Pomeranian Voivodeship. This monitor, which is a part of the German – Polish BSLN pilot project, will help to establish transparency and clarity of labour market development and will identify the labour force demands as well as short-time qualification needs within the companies.

Structure of social dialogue in the BSR

The social partners play a decisive role in developing new concepts around these issues since they are the experts in labour market policy. For this reason social dialogue is an integral part of the European social model as it is based on values such as responsibility, solidarity and participation.

The models of social dialogue at a national level differ within the Baltic Sea States and are therefore not directly

transferable from one country to another. The implementation of social dialogue at national levels is differing throughout the BSR, especially in the new member states which have a low trade union and employer organisation density and thus is followed by low representation of interest. However, working together on jointly identified problems and common challenges is not dependent upon the different models. Although, the diversity can be a challenge, working together is also supportive to the different States and new strategies can be more easily developed.

Forum for Social Dialogue in the Baltic Sea Region

If the BSR is expected to be competitive, the general culture of social dialogue needs to be strengthened in all member countries. The social partners should have the means to influence social policy on a European level as well as national one and this is why the tripartite forum of social dialogue is so necessary.

The forum aims to influence policy- and decision making in labour market relations, e.g. by issuing joint opinions and recommendations; in promoting transnational social dialogue based on the social partner's responsibility for the development of labour market policies in the BSR; and at networking and exchanging experiences amongst the social partners and political institutions within the BSR.

Its agenda will concentrate on proposal development in order to create sustainable labour markets, growth, competitiveness, high employment rates, and in addressing the labour mobility and service challenges in the BSR. The annual round table discussions will offer the opportunity to exchange views on different issues and to formulate common statements.

Even though Russian institutions were not part of the EU-financed network, their partnership in the tripartite forum is extremely important as we see the forum as a central institution tackling labour market challenges within the entire region and because Russia is an important advocate in the Baltic Sea region. Consequently BSLN is already augmenting a cooperative network with Russian institutions and learning how Russian authorities, employers and trade unions evaluate the labour market situation and social dialogue in North-West Russia and where their interests for future transnational cooperation in the Baltic Sea region on these issues will be.

The forum will be a platform for social dialogue, a knowledge pool for labour market policy issues in the region and a facilitating body for further activities needed within these areas.

Deepening and strengthening of social dialogue at national level

During BSLN's lifetime, the partners have already carried out studies and pilot projects which have been concerned with, for example, the challenges related to labour mobility and with the deepening of and training in social dialogue.

In Lithuania there is neither sufficient nor efficient training nor promotion of social dialogue. The labour market is characterised not only by a high unemployment rate but also by insufficient involvement amongst the social partners. Young people enter the labour markets without any prior knowledge of labour relations or social dialogue.

Since the situation is undesirable for both employers and employees, the Lithuanian Confederation of Industrialists together with three trade union confederations, have established a Social Dialogue Center to provide special educational seminars for young people. Seminars topics include: labour relations and social dialogue, job interviews, taxation, and negotiating between employer and employee. The seminars are for the practical preparation of future employees in order to integrate them into the active labour market as smoothly as possible. The participation rate has been high and the positive feedback proves the importance of the Centre.

Important changes in the Latvian labour markets and its current economic situation have influenced their labour relations; the percentage of grey economy and unemployment has risen and caused polarisation of their society. Distrust in the State and in State institutions has caused its civil society to become weak and passive. A Latvian pilot project, launched by the Free Trade Union Confederation of Latvia, aims to develop and strengthen their social dialogue by organising social dialogue forums in different regions where regional municipality, employers' organisations, trade unions and social and economic experts can all take part. This way both employers and employees are educated in employment rights and in labour and social protection. Collaboration among social partners in the region is stimulated, thus strengthening its civil society and creating more activity that in turn formulates and improves the frame for social and economic development in the regions.

The Estonian Trade Union Confederation is focussing on future leaders and aiming to include the new generation of trade unionists in its promotion of social partnership at workplace, sectoral and national levels. Objectives are to introduce the principles and functions of social partnership and the role of social dialogue in solving employment related and social problems. Knowledge and practical skills such as civil society knowledge, the role of social partners in the modern economy and social dialogue at a European level is provided as preparation for a new generation of social dialogue leaders and promoters. Negotiating skills and experience are the necessary preconditions for successfully managing bi- and tripartite negotiations and for resolving even the most complex issues related to work, the employment market, social security and the working environment within the Estonian society.

Conclusion

The Forum for Social Dialogue's recommendations aim to help solve labour market challenges in the BSR. The basis for the labour market strategy recommendations is the competence pool gathered during the BSLN lifetime, including all practical work and best practise examples carried out during the three year project. Only by working together can labour markets benefit all social partners. The Forum for Social Dialogue in the Baltic Sea Region combines national and transnational levels and brings relevant participants together to work at sustaining labour markets. It is a development forum for decision and policy makers to combine knowledge and ideas in order to create strategies, policies and practical solutions.

Therefore the slogan is:

Working together for sustainable labour markets

Silke Lorenz

Project Coordination

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Shale gas can shake up the European gas market

By Marko Lönnqvist

Russian daily *Kommersant* wrote in last November that Italian gas company Edison SpA has summonsed a lawsuit against Russian Gazprom's subsidiary Promgas at the Stockholm Court of arbitration. Edison's aim is to reduce the price that company is currently paying for Russian gas distributed to Italian company based on long term agreements with Gazprom.

Edison argues that the current gas price it is paying to Gazprom, is significantly higher than the gas price on European spot market and therefore the company is suffering losses. According to *Kommersant*, the dispute between Italian and Russian companies is approximately about 1 – 1,5 milliard USD.

This is the first case in EU of a lawsuit being summonsed against Russian gas monopoly over pricing issue. But there is a strong possibility that this not the last case. The crux of the matter is the rapidly changing market environment. Gazprom's gas business is based on long term agreements where the price level is agreed to a certain period – often for many years – beforehand. The gas flows from Russia to Europe on pipelines and this has guaranteed certain stability for European customers.

During the last few years the situation has changed rapidly. For European customer the Russian gas is not necessarily the most competitive alternative any more. There are nowadays lots of possibilities to buy gas on so called spot market where the price level is defined on daily basis. And the price level has been reducing a lot because the gas volumes on spot market have been rising. One of the most important reasons is the development on gas industry in USA. In USA several gas companies developed few years ago a new technology, which allows to produce gas from the shale. Since then the shale gas has become an increasingly important source of natural gas in United States; today Shale gas production makes up 20 percent of total U.S. Natural gas production. Globally this development had led to situation when U.S. is not anymore importing so much liquefied natural gas (LNG) from abroad. Naturally this gas not demanded any more in USA, has flown to European market and roiled the price level here.

Other significant factor is the fact that there are lots of shale deposits around Baltic Sea, especially in Poland and there are currently several dozens of foreign and Polish companies test drilling these unconventional deposits. Results seem to be promising and many experts estimate that soon there will be Polish shale gas on European market. Analysts estimate that this is the reason why the

long term gas price is probably staying on quite low level in Europe – despite the Libyan crisis.

For Russia, as the world's largest holder of natural gas, the impending lower gas prices and availability of alternatives for Russian produced - an so far more expensive - pipeline gas at European Market, provides many challenges. Especially now that the Nord Stream pipeline from Russia to Germany is to be built up along the Baltic Sea. The longest sub-sea pipeline in the world is also a huge investment for the international investors, but now the changing market environment may cause some doubts on yield expectation. For customers i.e. European countries, situation is improving because there will be more variety. The consumers will be better off.

In this market situation there is a possibility of a conflict. As former U.S. Undersecretary of Energy John Deutch writes in *Foreign Affairs*: As unconventional gas becomes more available in Europe, consuming countries will insist on an open market with competition from diverse suppliers to meet demand.

How Gazprom will answer to the challenge of cheaper gas is so far unclear. But the elements of conflict are there. Clear evidence is the dispute between Italian Edison and Gazprom described at the beginning of this article. On January Lithuania launched a formal complaint to European Commission accusing Gazprom of abusing its dominant position as the country's main gas supplier. Lithuania complains that it has to pay higher gas prices than neighboring countries.

Probably there will be Polish or European shale gas on market in future, but the changes will not occur rapidly, because of huge investments required. But situation on gas market in Europe is changing little by little and both the suppliers and consuming nations will have to adapt themselves in new market environment.

Marko Lönnqvist

Journalist

Finnish Broadcasting Company YLE

Finland

Russian gas price reform and its impact on exports to Europe

By Lars Petter Lunden

Domestic gas price reform has been considered necessary to secure Russian gas volumes to Europe. Currently, domestic gas prices in Russia are regulated at artificially low levels, causing over-consumption and underinvestment in new production capacity. The argument has been that increased domestic prices would curb demand through fuel switching, energy efficiency measures and decreased consumption due to lower real incomes. Moreover, increased prices would incentivize field developments thus compensating production decline or even increase production. Given that the reform succeeds accomplishing these goals the benefits for Russia should be obvious; increased export revenue *and* more efficient gas consumption. Moreover, European countries' fears of Russian exports falling short of European demand as Russia's core West-Siberian production assets decline could be allayed.

To achieve more efficient consumption and production development, Russian authorities in 2006 engineered a scheme to let domestic prices for industry consumers reach netback parity by 2011²⁴. However, since 2006 the development path of the price reform has repeatedly been revised and it is currently not clear when the gas price is supposed to reach netback parity. Moreover, low European prices have narrowed the gap with Russian prices and seem to have taken some of the steam out of the reform progress.

However, even if the gas price reform will be implemented successfully, the ability of increased domestic prices to increase Russian exports remains far from proven. Russian gas export dynamics are complex; they are influenced by supply and demand in foreign markets, conditions in the regulated domestic market and the interconnection between foreign and domestic markets. Moreover, price reform may be accompanied by an unexpected side effect in terms of reduced cost of using gas exports as a tool in foreign policy.

Four questions need to be addressed in order to analyze the effects of Russian gas price reform on European exports. Will demand be reduced as prices rise? Can domestic price hikes accelerate the pace and number of new field developments? If the answer to one or both of the first questions is yes, will Gazprom choose to allocate the available volumes to increased exports? And finally, will the changed domestic cash flows influence on export allocations?

The prospects of freeing up volumes for exports through domestic demand reduction seem limited. Evidence on gas price elasticity, i.e. to what degree gas consumption will respond to price changes, is scarce in Russia. In fact, gas consumption, fuelled by GDP growth, has actually increased along with gas prices. Nevertheless, according to the World Bank, energy efficiency measures represent a savings potential equal to 45 percent of total primary energy consumption. However, currently many investments that are expected to generate attractive returns are not made. Moreover, the slow and erratic pace of the gas price reform (real prices have not increased substantially) does not incentivize energy efficiency investments since it creates severe timing issues for the industries contemplating efficiency investments. Fuel switching could reduce demand for Russian gas. However, switching to alternative fuels is not necessarily a viable option. Investments in coal are relatively capital intensive and the deposits often located far from demand centers. Moreover, coal creates local pollution through both

lower air quality and ash disposal. Nuclear and hydropower are both alternatives, but long lead times, expensive developments and uncertain reform progress limit the impact of gas price reform on investment decisions. Finally, there is the inability of consumers to curb their own consumption. Currently most Russians pay a utility fee that is independent of the volume of gas consumed. In fact, in many households there is no possibility to adjust heating and thereby gas consumption. Supply is determined either for the building or even at village level and the only way to regulate indoor temperature is often to open the window.

Second, several factors influence the decisions on whether to develop new fields. For producers other than Gazprom the issue of pipeline access dwarfs most other concerns. If access to the pipelines is not granted, production from, and developments of, fields owned by both independent gas companies and oil companies producing associated gas will be limited. In fact, Gazprom's *de facto* pipeline monopoly is probably an important reason for the gas price reform to target a netback price rather than liberating the domestic market as this would inevitably give Gazprom true monopoly power. Moreover, the erratic fiscal framework, ambiguous history of foreign investments and cost inflation all dampen investments in the gas sector.

Third, Russian exports' most influential variable is foreign prices. The global gas glut is not expected to recede in the near future which implies a relatively low gas price. Gazprom has an impact on the prices it receives in the EU since it currently functions as a swing producer. Increased supply would most likely be directed to the spot market thus putting further pressure on the gas price. Lower spot prices would put increased strain on the already weakening link between oil and gas prices that Gazprom is interested in maintaining to avoid pressure on their oil indexed contracts. Furthermore, if the gas price reform would be implemented in its current form, lower European prices would inevitably transform into lower domestic prices too, thus creating a double revenue dip.

Lastly, Russian gas price increases could even curb exports. As domestic markets become equally profitable to foreign markets Gazprom's domestic profits would increase. This implies that Gazprom, and Russia, is less dependent on the foreign markets to generate needed revenue. There have already been accusations of Russia using its dominant position as a gas supplier to impose a political cost on its exports. For example, Russia has allegedly penalized disobedient countries with higher gas prices in times of turbulent bipartisan political relations. However, thus far this effect has been limited since most of Gazprom's profits have been generated abroad. As the share of profits generated in foreign markets diminishes, Russia would have an improved bargaining position vis-à-vis its foreign customers. Thus, domestic gas price increases may come with an unexpected, and with foreign eyes unwanted, side effect since the cost to Russia of using gas as a political weapon could decrease.

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²⁴ In this article, netback price implies export prices less transport costs, taxes and import duties. Other authors sometimes define netback prices more narrowly, i.e., price less transportation costs.

Energy superpower of business as usual?

By Markku Kivinen

Is Russia an energy superpower? In terms of fossil fuels Russia is one of the great players. It has the largest reserves of natural gas in the world, the second largest coal reserves, eight largest oil reserves. Russia is the largest exporter of natural gas in the world and many studies deal with the security issues linked with pipelines and energy infrastructure. Nowadays Russia is the second largest oil exporter, as well as one of the main nuclear powers and the world largest energy exporter.

There is no established paradigm in assessing Russian energy policy. In the Energy project of the Aleksanteri institute we have made an effort to establish one. So far most of the research in the field tends to be descriptive. One approach focuses on energy diplomacy explaining it on the basis of negotiations and conflict resolution. In theoretical terms this kind of approach can be called agent-centric. On the other extreme geopolitical explanations put energy issues in the context of permanently given national interests and conflicts. And finally energy economics deals mainly with economic mechanisms mediating supply and demand but without any systematic theory of political aspects of the development. We have developed a new, more comprehensive and conceptually more ambitious approach. Our starting point has been in Anthony Giddens' structuration theory which Alexander Wendt has developed further in conceptualising international relations. We have also brought in William Sewell's idea that individual events may play a crucial role in structuration process.

Following Anthony Giddens' structuration theory our argument is that we should combine structure and agency in explaining energy policy. By the concept of structuration, Giddens refers to how people-actors are enabled and constrained by the structural positions they occupy at a given time. Structure is conceptualized as *rules* and *resources*. We have conceptualized those policy environments in terms of four structural dimensions through which actors will have to manoeuvre – resource economic, financial, institutional and ecological. We argue that so far we seem to lack knowledge of how actors operate through the whole structural constellation. Structures signify the patterning of the conduct of actors, and processes that have preceded it. This makes it imperative to attend both to recognized and unacknowledged dimensions within which action takes place. Consequently action can have both intended and unintended consequences. The energy policy actors do not act in a vacuum nor are their interest given by mere geographical position.

The general logic of Russian framework can be seen as comprising three different schemata: Soviet time interdependency based no planned economy, business logic and energy superpower aspirations. The frames are not completely mutually exclusive. Rather the transition can be characterised in this respect as a gradual replacement of planned economy interdependency in non-market form by mere business logic. The idea of an energy superpower comes up with the rise of oil price.

Following Russian media and political discussion there is no doubt that the discourse on energy superpower is plainly present in Russian political discussion. One has

good reasons to suggest, however, that it is first of all an instrument for domestic political scene. It has a certain appeal to politicians who are hankering for the lost empire. From the business point of view the situation is far less clear. Would it not seem natural to expect that businessmen in energy sector are most of all interested in making profits for the company. And this pure business logic may be even jeopardised by frames which come from the political sphere. This would seem to raise the question to what extent energy superpower 'cultural schemata' is a real action frame. It might very well be a mere rhetorical horizon collecting diversifying actors in a same discourse without having a direction to clear interest articulation and real political coherence.

There is no doubt about a growing control of state in hydrocarbon production sector. But what does this really mean? What is the state control all about? What kinds of organisation or institutional agencies are Russian state owned firms, such as Gazprom or Rosneft or Transneft? Are they still predators as many Western observers are apt to argue or have they been tamed during the Putin era? I do not have an intention to give a final answer to these questions but based on our studies so far, I would provoke further studies to start with following six hypotheses:

Hypothesis 1: Gazprom is not a coherent unity. Rather it is a conglomerate of interests.

Hypothesis 2: Major state owned firms are lobbying within the state apparatus to define the rules of the game according to their own interests.

Hypothesis 3: Domestic pricing causes a major conflict of interests between the energy companies and the state.

Hypothesis 4: More effective private and foreign companies are trying to find some kind of equilibrium between high profits and high uncertainty concerning the political risk.

Hypothesis 5: Strategic frames of action are defined by a complex combination of formal and informal rules of the game.

Hypothesis 6: Foreign policy discourses are neither identical nor simply dominating the business interests.

My understanding is that based on our empirical data the business frame is going to be dominating Russian energy policy. There are no inevitable tendencies which would make highly political scenarios to realise. Technological constrains and business interests create also a window of opportunity for successful political choices.

Markku Kivinen

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Finland

I am a happy man

By Pentti-Oskari Kangas

I am bold enough to dare to say in public that I am happy. I am happy because I get to work as a servant. If you want to spread the word that I am happy, I will also be happy about that. I know that it will make people envious. The world is strange, in that there is no success without jealousy. I don't mind people being envious of me.

I am also a selfish person. I enjoy selfishness. You can tell that to people too. I am a selfish person in that I immensely enjoy the appreciation is addressed to me. As a servant, the greatest goal of a day's work is to receive thanks from my clients. When I succeed in this, I return home from work feeling almost guilty of how happy I am. What? Coming home from work in a good mood?

I am an entrepreneur in tourism and therefore a servant. When I teach classes for students about the joys of the service profession, the first thing I always ask is for those who think they are selfish to raise their hands. Usually, one or two hands will go up with hesitation. It is easy to shock listeners by stating that those who did not raise their hands should change professions. You cannot serve people if you don't enjoy appreciation. The service profession is that kind of profession.

Actually, I have not yet been able to think of a profession that is not a service. For a long time I believed that our President is not in a service profession, until I realized that she is a servant to the people.

Positive nature has not always been one of the fundamental characteristics of us Finns, living on the outskirts of the Baltic Sea; we do not smile and we are not friendly. Fortunately, times are changing. Our tourism business serves its customers in the pearl of the Baltic Sea, Finland's archipelago: crossings on the steamship s/s Ukkopekka and conference and recreation services at Herrankukkaro on the island of Rymättylä in Naantali.

Our business operations are mainly seasonal in nature. Most of our employees are students from universities and other schools. We train our employees ourselves. We just recently had a staff training session. We sat on the pier of the old fisherman's estate and I told stories about the archipelago and about our business. I shared a secret with the new young recruits: in the job interview, we only looked at their qualifications and recommendations as a mere formality. They had nothing to do with our choice. The only criterion for our choice was the kind of picture the applicant presented of him or herself. Smile, positive nature and attitude. That's all. Last season we made a summary of our customer feedback. On a scale of 0–5, we asked about the service attitude of our staff. We got 4.8. I would have been disappointed if it had been 5, because then there would have been nothing to strive for. The knowledge that there is room for improvement keeps a servant on his/her toes.

When I began as a private entrepreneur 50 years ago, a common denominator was and still is authenticity, old-fashioned quality, peace, originality, nature and nostalgia, and to top everything off, a friendship and partnership with our own Baltic Sea. Herrankukkaro is a conference and recreation center for companies in Naantali built around an

old, former fisherman's estate. Our clients can bathe in five different saunas. The largest sauna is a genuine in-ground smoke sauna for 120 people. We have an outdoor spa in the midst of nature, which situated near the old traditional saunas. We take the water for the spas from the Baltic Sea, filter it through sand and purify it. So, we are purifying the Baltic Sea. Even though they are only drops, it still has significance. If we each purify our own drops, we will save the Baltic Sea.

Our objective is to leave the customer feeling good and positive – whether it be by stories, food, traditional saunas, trips on the steamship, music or natural environment. Twenty-five years ago, we switched over almost entirely to renewable energy. We take all possible measures to avoid using plastics. Our food is local and our outdoor activities are harmonious with nature. We had never consciously considered sustainable development, environmental responsibility or carbon footprints in our business operations. We just did it that way, because it felt natural to us. Everything happened as if by accident. Then the fundamental values by which we had been operating for all of these decades suddenly became a trend. We were awarded as, Finland's best tourism business of 2010. We were ahead of our times – without even knowing it.

One economy guru recently wrote about corporate responsibility in a startling way: "The companies that figure out in 2015 that they have to become environmentally responsible will be hopelessly left behind, because by then it will not be a competitive edge." Well said.

You can also tell people that we are proud of our success. And we won't hide our secrets to success, since they are so unfathomably simple – within everyone's capability.

Here they are: Smile in positive service, and hold nature in high esteem.

Attitude matters. Always.

Pentti-Oskari Kangas

Steamship Captain

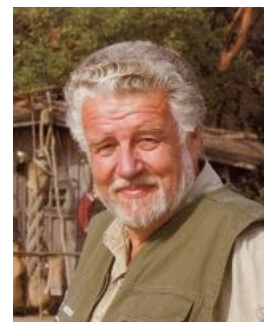
s/s Ukkopekka

*Old Master of the
archipelago estate
Herrankukkaro*

*Extra hand and part-time
pensioner (only 12
hours/day of work)*

THE HAPPY MAN

Finland



Can the Baltic Sea recover from eutrophication?

By Seppo Knuuttila

The Baltic Sea is the only inland sea wholly in Europe and is one of the largest brackish-water basins in the world. The combination of a large catchment area with associated human activities and a small body of water with limited exchange with the Skagerrak and the North Sea makes the Baltic Sea very sensitive to nutrient enrichment and eutrophication. The catchment area of the Baltic Sea is more than 1,700,000 km², with a population of approximately 85 million inhabitants.

In Europe, nearly all regional seas have faced increased loads and nutrient enrichment in the past decades and have witnessed the undesirable effects of eutrophication. A physical feature which markedly increases the vulnerability of the Baltic Sea is the vertical stratification of the water masses. The most important effect of stratification in terms of eutrophication is that it hinders or prevents ventilation and oxygenation of the bottom waters and sediments by vertical mixing of water, a situation that often leads to oxygen depletion.

In 2007 adopted HELCOM Baltic Sea Action Plan (BSAP) contains measures that are estimated to be sufficient to reduce eutrophication to a target level that would correspond to good ecological and environmental status of the Baltic Sea by the year 2021. Required reductions of annual loads addressed to the whole Baltic were estimated as 15,250 tons (42%) of phosphorus and 135,000 tons (18%) of nitrogen from average annual nutrient loads. Similarly, quantitative reduction requirements were addressed to each HELCOM country. In addition to the BSAP, European directives such as the Marine Strategy Framework Directive (MSFD) and the Water Framework Directive (WFD) require the Baltic coastal countries that are EU Member States to reduce eutrophication to an acceptable level corresponding to good ecological/environmental status, thus giving further impetus to the implementation of the BSAP.

The requirements of the EU Urban Waste Water Treatment Directive (UWWTD) aim at protecting the environment from the adverse effects of discharges of wastewater. The degree of treatment of discharges is based on an assessment of the sensitivity of the receiving waters. Member States shall identify areas that are 'sensitive' in terms of eutrophication. Those coastal states of the Baltic Sea which joined the EU in 2004 negotiated transition periods for the implementation of this directive which extend to 2015.

However, from the point of view of the alarming status of the Baltic Sea the requirements of the UWWTD are not stringent enough. If it can be shown that nitrogen and phosphorus is reduced with 75 % in a sensitive area as a whole, requirements for individual plants need not apply. In order to sufficiently prevent phosphorus discharges into the Baltic Sea implementation of more effective measures to improve the treatment of wastewater, including increasing phosphorus removal from 80% to 90%, are definitely needed in all coastal countries. It is estimated that implementing of measures to improve the treatment of wastewater according to the HELCOM recommendations will reduce phosphorus inputs into the Baltic by more than 7,000 tons, almost half of the total required reduction. Enhancing wastewater treatment to include chemical removal of phosphorus has been estimated as one of the most cost-efficient measures.

Excellent positive example of improvement in wastewater treatment sector is large project being carried out in the City of St. Petersburg in Russia since the year 2005. Within the Gulf of Finland and the entire Baltic Sea, St. Petersburg has been clearly the largest individual point-load source of phosphorus and nitrogen. Before the year 1978 the treatment status of wastewaters from the City was almost zero and practically all wastewaters were discharged directly to the Gulf of Finland or into the River Neva without treatment. Once the on-going projects will be completed in 2015, the total phosphorus load from the City into the Gulf of Finland will reduce ca. 75% within a decade.

But not even the full implementation of the above mentioned measures and HELCOM recommendations on waste water

treatment will be enough to meet the reduction targets on total loads in order to reach the good ecological status of the Baltic Sea. Increased economic development, and thereby also increased pressures from human activity in the Baltic Sea region, will possibly contribute to an increase in eutrophication. Supplementary measures may be required to mitigate these negative environmental effects. Especially important are the developments taking place in the agricultural sector.

During the last century, agricultural practices have changed dramatically. New technologies, crops, animal breeding and, particularly, the introduction of chemical fertilizers, have increased productivity enormously. At the same time, consumer preferences have changed dramatically towards a large proportion of meat in human consumption. These changes have been most pronounced in the western countries but similar changes are now occurring in the new EU member states, as well as in Russia and Belarus. Higher living standards and EU agricultural subsidies are driving this development.

The reduction of nutrients from agriculture can be achieved through a combination of different measures that have to be applied according to the specific characteristics of the region. The scenarios show a substantial reduction in nitrogen and phosphorus if balanced strategies optimising nutrient use and minimising nutrient fluxes from agricultural systems, such as animal feeding, handling of manure and crop cultivation are applied. The scenarios also show that if agricultural production is intensified throughout the Baltic Sea region – especially in the eastern part of the region owing to increased fertilizer use and increased livestock production – without application of strict measures the inputs will increase substantially. Therefore all countries need to implement measures to drastically reduce agricultural inputs, including changes in manure handling and fertilization.

The agreed, currently implemented measures to combat eutrophication should also be evaluated in the light of the projected environmental changes for the Baltic Sea region to be expected as a result of global climate change. An increase of the mean annual temperature by 3°C to 5°C has been projected for the Baltic Sea basin during this century. It is likely that the changing climate would also entail a general increase in annual precipitation, in particular, during the wintertime. Increased runoff, resulting from the increase in precipitation, would probably lead to increased nutrient loads from the drainage area to the Baltic Sea.

Further development and strengthening of nutrient management strategies by the countries in the Baltic Sea catchment will be a result of multiple drivers, inspired by the BSAP, and often also national legislative plans implementing European directives and other national action. Which one is the most prominent or wide ranging is not an issue - the key is that loads are progressively reduced. It should be clear that the eutrophication status will only improve if loads of both nitrogen and phosphorus are significantly further reduced. The most important factor for reaching good ecological/environmental status with regard to eutrophication is political will, and cost-effective solutions must be available in order to motivate such political determination.

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Eating bread to clean up the Archipelago Sea

By Juha Salonen

Salonen Bakery is a Finnish family company that dates back more than a hundred years. Our company has strong local roots in the city of Turku, in the heart of Southwest Finland. The maritime aspect of Turku holds major significance for the vitality of our area and the sea also forms an integral part of our daily living environment.

In October of 2009, Salonen Bakery launched a year-long campaign during which time we donated ten cents on every purchase of our 'Saaristolaisnappi' bread packs for the protection of the Archipelago Sea. The collection of funds was carried out in collaboration with the Centrum Balticum Foundation's Protection Fund for the Archipelago Sea, which works to stop the eutrophication of the sea. The operations of the Foundation are primarily funded by companies, various organisations and private individuals for whom the Archipelago Sea is important.

In one year, we accrued EUR 20,000 through our bread campaign, which is the biggest single corporate donation made since the fund's inception. Although it may not sound like a huge sum on its own, the donation will enable the funding of projects amounting to approximately EUR 150,000. These projects will strive to improve the situation in the Archipelago Sea. Most of the donated amount will be used for the KIRSTU project, which aims to renew the wastewater systems of 100 households in the communities surrounding the Archipelago Sea, thereby reducing the load on the sea. The funds will also be used in a project aimed at determining how waterworks that are to be discontinued can be turned into facilities that can filter nutrients from water, thereby reducing the phosphorus load on our water systems. The most important single target is the Halinen waterworks on the Aura River – the river that runs through our beautiful city.

The significance of corporate responsibility will continue to be highlighted. Caring for the environment is everyone's concern. Responsibility issues are also taking a firmer foothold in consumer decision-making – something we noticed during our campaign. Following the launch of the campaign, sales of Saaristolaisnappi bread doubled, and the growth in sales continued all year. The product had already been in the market, but the opportunity to do something good and have an influence through a purchasing choice appears to have drawn consumers to our product. We also received a lot of media attention and our product was featured in a number of different forums. The campaign was a success not only in terms of sales, but also for our corporate image.

A crucial part of our campaign was also the text on the package, encouraging consumers to send us tips or their thoughts on how to improve the state of our waters. We were surprised by the amount of feedback we received: people from across Finland responded, even from areas far away from the sea. People were clearly interested in and affected by the topic, and Finns expressed their readiness to chip in, both through their words and their actions. The suggestions were very concrete and illustrated that people are really thinking about their actions and the consequences of their behaviour. We compiled the ideas that we received nationwide in a small brochure, and we distributed it, for example, at fairs.

Companies can no longer turn a blind eye to how strongly environment-friendly values are guiding consumer decision-making. This is clearly visible in the food industry: when

consumers become enlightened, companies must follow suit. Salonen Bakery's core knowledge lies in breadmaking, and we strive to take changing consumer trends into consideration in our product development. In addition to caring for the environment, consumers nowadays are increasingly demanding products that are purer and manufactured more in line with traditional methods. A case in point is our additive-free bread products, sales of which increased by more than a third last year. Consumers want pure, natural bread that also keeps well. Bread that keeps well does not have to be thrown out and create a load on the environment. Responsibility has reached all aspects of life – for many it has become a way of life.

Salonen Bakery is a strongly local company that employs fewer than a hundred people. Our Saaristolaisnappi bread campaign is proof that even smaller companies can take action and participate in protecting the environment and, through their donation, put in motion a number of measures that can have a major impact. Just as important as funding concrete projects is grabbing the public's and the media's attention and inspiring them to write about these projects that bring nature protection work within everyone's reach. Our campaign additionally had a clear effect on the demand for and sales of our product – aspects that are vital for any company. It created a positive cycle that benefits all parties.

Salonen Bakery will continue to seek good causes and co-operation partners to work with. We have tightly incorporated responsibility into our business strategy: we have switched from oil to LPG as our main form of energy, made machine investments and, among other things, upgraded our refrigeration machines to make them more environmentally sound. The work is only just beginning, and it will become a firm part of our operations in the coming years, both in terms of our operating methods and our product development.

The Archipelago Sea and the maritime spirit are also important to me personally and close to my heart. My family and I are avid boaters and, like approximately half a million other Finns, we have a summer cottage. Our cottage is situated in the outer archipelago, where the waters are still relatively clear. But out on the boat we can clearly see how the sea is changing.

Heading towards the shore, the sea is much cloudier than it was, for example, ten years ago, and abundant blue-green algae growth can be seen in many areas. I really hope that in future my children, and later on their children, will be able to run from the steaming sauna directly to the shore and jump into algae-free sea water. And that from our boat we can admire a sea that is clearer than it is today.

Juha Salonen

Managing Director

Salonen Bakery (Leipomo Salonen Oy)

Finland



Sustainable development of Saint Petersburg – goals, problems, strategies

By Irina A. Shmeleva

St Petersburg is the second largest Russian city and the fourth largest city in Europe after Moscow, Paris and London. It is one of the few European cities, the whole central part of which is designated as the UNESCO World Heritage. It has a very high cultural and geopolitical importance in the context of wider Europe.

The development goals for St. Petersburg for the period of 2005–2025 were defined in the General Plan adopted in 2005 as follows: the stable improvement of the quality of life of all population groups of St Petersburg with the orientation on the securing the European standards of living; development of St Petersburg as a multifunctional city, integrated in the Russian and world economy; providing a high-quality business environment; strengthening St Petersburg as the main Russian contact centre of the Baltic Sea region and the North-West of Russia.

The goals for territorial planning in St Petersburg are: securing Sustainable Development of St Petersburg; improvement of the quality of the urban environment, preservation and regeneration of the historical and cultural heritage; development of engineering, transport and social infrastructure; securing taking into account the interests of the Russian Federation, the interests of the citizens of St Petersburg and their groups, the interests of the intra-city municipal units in St Petersburg. The Plan implies the design of the whole range of local St Petersburg laws, aimed at regulating the main fields of the city's development: a) On the cultural heritage sites (historical and cultural monuments) in SPb, including documents, regulating the preservation of the centre of St Petersburg as UNESCO World Heritage Site; b) On the natural healing resources, medical-recreational sites and resorts; c) On the specially protected natural territories; d) On the Earth's Interior; e) On Soils; f) On Waste Management; g) On Forests; h) On Fauna; i) On nature management and environmental protection; j) On the Preservation of the Air Quality; k) On the Protection from the Noise; l) On Radiological Safety; m) On Electromagnetic Safety and so on.

Despite the fact that Sustainable Development is proclaimed a priority goal it should be mentioned that in the list of the 'priorities of socio-economic development' listed under the heading 'The Goals of Territorial Planning' there are no environmental goals, the majority of the listed priorities relate to the development of the certain sectors of the industry, trade, science and commercial sector.

The General Development Plan of SPb was a cause of big debates and much resentment according to the press, and it is clear that the main dimensions of sustainable development are not linked in it; the key concepts on which the development of St Petersburg is based, according to the City Administration Board are stability, balance, reconstruction and organic growth. Whereas non-financial components of the quality of life, democratic governance in decision making, as well as reduction of the environmental impacts are not listed as key priorities. Given the current priorities one can expect further increase in the pressure on the environment from industry and transport. The speed, coordination and the degree of the planned innovation in the area of public transport and organization of ergonomic, safe and human-friendly living space seem to be insufficient.

At the same time, the monitoring of the quality of the environment is constantly carried out by the Nature Use, Environmental Protection and Ecological Safety Committee of the Administration of St Petersburg. The annual report on the quality of the Environment in St Petersburg is published regularly every two years. Several years ago an international project on the 'Information and Communication Technologies to Strengthen the Sustainable City Management' was started, which was focused on the creation of the interactive information system that could help decision makers to receive information on the concentrations of the pollutants, emissions, the quality of the green areas, generation of waste and other spatially distributed data. The Ecological Portal was launched on February 2010 (<http://www.infoeco.ru/>) where actual information on Environmental Policy of St. Petersburg, Environmental Control, Ecological safety and Ecological Culture could be found. The project enables the creation of a service directed for the citizens of St Petersburg for the increase of environmental awareness. The project partners are city of Turku, city of Kotka, Ecofellows Ltd, VALONIA, UBC Environment and Sustainable Development Secretariat <http://www.ubc-environment.net/index.php/main:awarenessstpetersburg>. Unfortunately indicators for Sustainable Development are not presented on the Ecological Portal of St. Petersburg.

As a positive trend it should be mentioned that St. Petersburg has a unique environmental management system, supplied by geo information system related to the structure of monitoring stations, covering a multitude of environments (geological, hydrological, atmosphere) that describes the status of the environment in terms of some 100 different pollutants. Control system allows to calculate the concentration of pollutants using dispersion models.

The Environmental Policy Statement for Saint Petersburg for the period of 2008-2012 was adopted. Sustainable Development as a goal is also mentioned in this document, indicating that economic, environmental and social goals of development are considered to play the equal role. But the indicators for SD are not even mentioned in the policy document. The present situation in St. Petersburg from the citizen's point of view could be characterized as follows: transport system cannot keep up with the development of the city, traffic jams became the inherent part of the urban life, construction of much needed new underground lines goes very slowly and is delayed for several decades, tramway routes are being demolished throughout the city to give priorities to private transport, public transport is not seen as a priority, there is no system for regulating parking on all major city streets, there are no cycling paths inside the modern districts. There are also lots of problems in waste management strategies. Satisfaction of the immediate economic interests of the developers companies and City administration leads to the destruction of green areas - parks, trees in the streets, the green spaces. There is a permanent conflict between the City Administration and Environmental NGOs and representatives of Civil Society on the problem of preservation of the Green Spaces in the city and also on the problem of the Historical Center of City preservation which is not considered by City Government and

developers as a factors that deteriorate the quality of life of the citizens, pose a threat to their health, destroy their self and place identity and deepen the psychological stress and discomfort. It is obvious that the solution to these problems requires their consideration of environment management also as the public goods management problem and the Sustainable Development as a strategy of interaction of the human being and the environment.

The comparative analysis for SD indicators of cities in Baltic region, Europe or other regions would be interesting to see the difference in economic and administrative instruments of environmental policy or difference in public transport strategies, recycling strategies or quality of life index. The comparison of some indicator for St. Petersburg and cities of Finland are presented in the UBC site <http://www.ubc-environment.net/index.php/main:awarenessstpetersburg>

St. Petersburg has a powerful potential for Sustainable Development but for its realization several conditions need to be fulfilled. We see them as:

- Democratic elections of City Governor (Mayor) for a fixed term with his(her) personal responsibility for the quality of environment and quality of life;
- New City administrative management structure for Sustainable Development that could link poorly connected Committees with it's goals, tasks and responsibilities;
- Systemic strategies for Sustainable Development for the city as a whole, city centre, its different districts, newly constructed districts; reconstructed brown field sited; municipalities and houses, industrial areas, including transport infrastructure,

green spaces, green architecture, public spaces and so on;

- Creation of Legislative acts for Sustainable Development strategies and indicators;
- Instruments of Democratic governance and Civic participation in decision making and control over SD strategies;
- Intensification of the Education for Sustainable Development, especially at the University level and Excellence level for business leaders and government officials;
- PR of Sustainable Development Strategies, including discussions in Media and Green Social Advertising;
- Efforts for paradigm shift in ecological consciousness for environmental values to be priority contrary to power values and momentary economic gains.

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Climate change in the Baltic Sea marine environment

By Ilppo Vuorinen

Several environmental changes are expected to intertwine in the Baltic Sea area into local and regional consequences of the Global change, these, in turn, are expected to cause extensive changes in fauna and flora of the Baltic Sea. The most socially relevant of foreseeable changes evidently are a decrease in marine fish stocks, and an increase of "green tides" i.e. extensive algal blooms affecting tourism and local recreation.

Global climatic models by the International Panel of Climate Change, and their regional extensions (Arctic Climate Impact Assessment, European Freshwater Dimension, and Baltic Assessment of Climate Change) produce generally similar predictions about expectable changes in key climate factors. The expectations include: increasing rainfall, and temperature, these changes will take place especially in winter, and in the northern areas. If we are to foresee changes at the ecosystems level, e.g. in the Baltic Sea marine ecosystem, it is necessary to take into account also local and regional environmental factors, which may, or may not, corroborate the general trends set by changing climate. There are a number of regional and local features because of which the Baltic Sea has often been presented as a relatively sensitive and vulnerable ecosystem, with possibly low resilience capacity.

Vulnerability and sensitivity, basic characteristics of the Baltic Sea

There is a relatively large human impact on the Baltic Sea, which is due to the population of 85 mi people in the watershed area of 2,13 mi km², these are some 17 % of the population of the European Union, and almost 20 % of the area of European Continent, respectively. The water volume, however, is relatively small, since the sea itself is very shallow (average depth of only 56 m, while average depth of the oceans globally is 4000 m, and that of another European inland Sea, the Mediterranean is 1500 m). The renovation and exchange of water are slow compared to other coastal areas. The retention time (the average time a water molecule is spending in the Baltic Sea) of water is up to 20 years, it is slowed down by trenches in the Danish Sounds (average depth there is only about 20m). There is no tide, which would enhance the water exchange.

Low salinity, biodiversity and resilience are one aspect of the vulnerability

Generally the biodiversity, species richness of fauna and flora, of the Baltic Sea is very low. This is mainly due to young age of the basin. Many species, otherwise able to live there, have not had enough time to colonize the area. Specifically to a brackish water area, the low salinity poses a further stress for both marine and freshwater species of plants and animals. Thus most of the marine species in the Baltic Sea are there found next to a lethally low salinity. Low salinity is another cause for low biodiversity, the number of marine species is much lower in the Baltic than in the neighboring sea areas in the North Sea. Low biodiversity is expected to increase the risk of low resilience capacity. This is hypothesized because the species pool available for building up a new ecosystem after a catastrophe is poor compared to other marine areas.

Expectations of changes in salinity and temperature due to climate change

Changes in the Baltic Sea salinity, (and the biodiversity) are intertwined with other environmental changes due to the last

glaciation. The Baltic Sea ecosystem has been during the last ten thousand years, and still is, subject to change. Factors responsible for changes in biota are, besides salinity, temperature (and changes in ice cover), land uplifting, and sea level changes. These changing large scale factors are directly related to changes in present day environmental factors, which can be seen in current environmental monitoring time series.

The salinity of the Baltic Sea is controlled by a balance of freshwater runoff from the watershed area, and inflows of saline North Sea water, that prior to 1980's were almost a yearly and seasonal phenomenon. In the observational time series started in late 1800, their greatest frequency is in January, and during the observational period of 125 years there is a record of about 110 major pulses (war years not included in the monitoring).

Due to expected increase in the rainfall, and subsequent runoff, the salinity of the Baltic Sea is expected to decrease which would mean a respective change in the distribution areas of many Baltic Sea marine species of plants and animals. Thus in the case of a 50 % decrease of salinity (the extreme result from some of the models), the Finnish coastal area extending furthest south to the Baltic Sea would have same kind of biodiversity of marine species and animals that is currently found at the level of Northern Bothnian Sea, and Southern Baltic coastal areas would experience the disappearance of the shore crab (*Carcinus moenas*) and sea star (*Asterias rubens*). For several marine fish species that are target of commercial fishing, such as cod, herring and plaice the decrease in salinity will cause a decline of stocks. On the other hand, fresh water fish species will replace them into some extent.

Increasing rainfall will also cause increased leaching of nutrients from the watershed area. That is expected to increase the eutrophication of coastal areas. Visible result of eutrophication will be an increase in algal blooms, both in cyanobacteria that are mostly found in the open sea, and also concerning green algae and affecting the recreation areas of the Baltic Sea coastline.

Discussing salinity changes that long does not imply that temperature changes were of no importance. A development towards milder winters will cause substantial changes in distribution of species that are directly related to the extent of wintertime ice formation. The distribution limits set by temperature concern e.g. seal species breeding on the ice (harbor seal, *Phoca hispida*), porpoise population (*Phocoena phocoena*) which is confined to open water, and several species of migrating birds, that are using the Baltic as wintering area, actually a larger number of birds is found in the Baltic Sea during winter than during the breeding season.

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Dynamic sustainability assessment – the case of Russia in the period of transition (1985-2007)

By Stanislav E. Shmelev

The assessment of progress towards sustainable development in Russia is a subject of extreme importance especially in the situation of economic crisis and increased attention to such issues as global environmental issues. There is still a gap in understanding of the ways to comprehensively assess the sustainability at the macro scale, interpretation of the links among the different social, economic and environmental processes and effects as well as strategic forward looking analysis from the point of view of multiple criteria. A single priority of facilitating economic growth by doubling GDP alone is definitely limiting the sustainability potential of the Russian economy.

Sustainable development is essentially a multidimensional problem, it involves simultaneous analysis of environmental, economic, social and institutional aspects of development of a state, a city or a region. The new tools based on the application of multicriteria methods are needed for the assessment of sustainability over time to understand if the country is evolving in a sustainable manner and what could be done to improve the situation.

Since the end of the 1980s Russia has undergone dramatic structural economic, social and institutional changes. These changes included freeing of prices, reviving the entrepreneurship tradition, seizure of the previously substantial state support for science, attraction of foreign direct investment, development of the resource extraction based economy, relaxing terms and condition for international trade, first – dramatic deterioration and then a slow recovery in the level of consumption and quality of life, an introduction of a flat tax rate in 1997, which accelerated the growing differentiation between the rich and the poor. A relative neglect of environmental and social aspects of the development of Russia has and continues to have long term sustainability consequences. Spatial aspect of the development of Russia presents another challenge, which hasn't been addressed adequately in the past.

Existing sustainability measures that have been available for Russia: Human Development Index (HDI) and Adjusted Net Savings (ANS) assume that component indicators are perfect substitutes and large progress in one of them can compensate negative tendencies in many others. Such a peculiarity is masking the existing multidimensional nature of the development process. For example, in HDI the full compensability between the GDP, life expectancy and education determined the change in the trend when the growing GDP and education outweighed declining life expectancy. The complexity of the development pattern in HDI, therefore, was hidden in the linear aggregation procedure. The estimation of the relevant components in ANS meets a series of methodological problems, including estimation of future prices, quantities of resource extraction as well as interest rates.

The most difficult task emerging when we are faced with multiple indicators of performance is "sense making", in other words, how to make sense of the complex pattern of indicators and steer the right course.

Taking the UN Sustainable Development Indicator Framework as a starting point, we applied a multicriteria assessment method to analyze the sustainability of the

multidimensional development path of the Russian economy.

The method was applied to two sets of 3 and 10 sustainability criteria over the same time period (1995-2006). The total list of criteria considered, based on the Indicators of Sustainable Development (UN, 2007) comprised *GDP per capita, annual energy consumption per capita, share of renewable in the energy mix, expenditure on R&D as a share of GDP, unemployment, life expectancy at birth, Gini index of income inequality, number of crimes, emissions of CO2 and water pollution.*

The recent trend in GDP growth has been seen by most observers as a positive tendency, although the fact that this growth was mostly oil and gas led has been the cause of concern for many observers. Spatially, the development of the Russian economy is characterized by extreme unevenness, if the regional distribution of GDP is considered. The most prosperous regions are Moscow city, Moscow region, the oil and gas producing regions in the Urals and Siberia, and St Petersburg. The difference between the gross regional product in the most prosperous Moscow city and less developed parts of Russia exceeds 100 times.

Atmospheric CO2 emissions in Russia started to shrink from 1990-1991 CO2, which was caused by the decline in the production levels and the structural change in the economy. As a whole, the existing tendency could be characterised a positive one, however having declared the goals to double Russia's GDP without the proactive modernisation, wide introduction of energy efficiency measures, and a gradual transition to the renewable energy sources, Russia could face strategic difficulties in meeting its post-Kyoto commitments.

Social issues are characterised by the fall in life expectancy from 1991 to 2003. A positive tendency for life expectancy to increase from 64.85 years in 2003 to 68.7 in 2009 could be seen as an early sign of a wider change in the direction of development.

Gini Index of income inequality (measured for earnings) in Russia increased from 0.26 in 1991 (the level of present day Austria, Luxembourg and Finland) to 0.409 in 1994 (the level of Moldova and Ukraine, approaching the level of China, Turkey and USA). After a brief decline to 0,375 in 1996 Gini Index went up to 0,4 in 2003, reaching the value of 0,406 in 2004 and 0.423 in 2008.

Unemployment rate in Russia climbed up from 5.2% in 1992 to 13.3% in 1998 and then went down again to 7.8 in 2004 and 6.3 in 2008. The financial crisis brought this figure up to 8.4. Inflation according to official data was always lower than that in Poland and approximately the same as in Ukraine.

The method was applied for two cases: that of *three* basic sustainability criteria and a detailed set of *ten* criteria. The case of three comprised: GDP per capita, CO2 emissions and life expectancy, representing economic, environmental and social dimensions respectively (1995-2006). In our model, the priorities, reflecting the current policy trend, were set: priority of GDP over CO2 emissions and life expectancy. In this case an overall positive tendency is observed. If, however, the different, more humanistic set of policy priorities is chosen as opposed to

the more technocratic, i.e. life expectancy is considered to be more important than GDP, and reduction in CO2 emissions is seen as more important than GDP, then the trend is changing, and the most sustainable year in this setting was 2006, followed by 1996 and 1995, then 2005, then 1997, then 2004, then 1998 and so on. The least sustainable years in this setting being 2001, 2000, 2002, 2003 and 1999.

In the more detailed analysis taking into account all *ten* criteria given the assumptions of the technocratic policy priorities, the “sustainability trend” appears to be positive up until 2006 (with minor exceptions), with more recent years dominating the previous years. If, however, a different pro-environmental and more humanistic set of policy priorities is assumed – an increase in life expectancy and reduction in CO2 emissions to combat climate change are more important than GDP growth, etc. the picture becomes quite different. In this setting the years 1997 and 1998 dominate the other years and since 1998 a decline in sustainable well-being is observed. The years 2005, 2006 and 1995 appear to be the least sustainable in this setting.

Treatment of many conflicting priorities simultaneously is a challenge that many national governments and international organisations are facing today.

Specific policy priorities can determine the result of the evaluation of “progress”, the interpretation of which rests heavily in social consensus and shared values. We have seen that placing more emphasis on social aspects of development, such as longer and healthier life and reduction of income inequalities, as well as the environmental aspects, such as cleaner air, climate change mitigation, increased deployment of renewable energy technologies, and contribution towards the global sustainability as opposed to the increase in the GDP, changes the interpretation of the progress that the society experienced in a particular time frame. Therefore, the hierarchy of policy priorities that are supported by the given society or international community can stimulate a pattern of more or less sustainable development.

The solution of the current critical situation in Russia seems to be the following – the growth in education expenditure, increase in the governmental and stimulation of the private investment in the national economy; the use of cleaner technologies (minimization of CO2 emissions), a transition to more extensive use of renewable energy (minimisation of natural capital depletion in the long run), as well as more efficient use of energy in different sectors, development of sustainable waste management systems, capable of returning valuable resources in the economic circulation and reducing thereby environmental impacts. Additional measures to reduce the gap between the rich and the poor should be undertaken, for example with the

help of progressive taxation system; active government investments in the science areas should support and develop the research potential, additional investment should be directed towards the development of the health care system, the development of the environmental management systems, including the preservation of forests, as well as creation of the environment, capable of securing the increase in life expectancy.

Thus, the proposed approach offers a comprehensive framework for the assessment of sustainability at the macro level and could provide necessary support for policy makers in establishing priorities for development as well as evaluation of progress in a multi-dimensional setting. In the context of the evolving economy of Russia, it seems that more emphasis is needed on the elicitation of social preferences and democratic articulation of different interests within a society, so that social and environmental issues would become equally as important as the speed of economic development and the true sustainability of development could be secured.

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More details on this study could be found in:

Shmelev S. E. (2010) *Dynamic Sustainability Assessment: The Case of Russia in the Period of Transition (1985-2007)*, Queen Elizabeth House Working Paper, http://www.qeh.ox.ac.uk/dissemination/wpDetail?jor_id=340

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Baltic Sea needs public involvement

By Martti Komulainen and Katariina Kiviluoto

The alarming state of the Baltic Sea requires actions at all levels, from individuals to NGOs, industries and countries. The discussion on the state of the Baltic Sea is institutionalized, and the voice of the wide public has been so far suppressed under summits and declarations presented at high levels. In order to amplify the process to heal the sea, also public involvement is needed. Modern communication methods such as social media, open new perspectives for public involvement.

A sailing boat ploughing through a sea looking like green porridge. Slimy fishing nets. Fishes with accumulated toxins. The Baltic Sea suffers from an overdose of nutrients, which in turn leads to massive algal blooms. The other side of the coin reveals world's second largest basin of brackish water, and economically and culturally invaluable area with a nature consisting of a unique mixture of marine and freshwater species.

The Baltic Sea has been claimed to be the most polluted sea in the world. True or not, the state of the sea is alarming, has been so for decades already. Eutrophication (increase in plant production caused by excessive availability of nutrients, mainly phosphorus and nitrogen) is the most prominent problem. But oil and chemical freighting as well as introduction of alien species present serious threats, too. Not to mention the climate change, which makes the puzzle even more complex to resolve.

There seems to be a general concern on the state of the Baltic Sea. The health status of the sea has been a continuous theme in the mass media. Moreover, several seminars, initiatives, programmes, conventions and action plans have been produced, and many development projects have been carried out. In February 2010, the state of the sea was raised to the highest political arena when Baltic Sea action summit (BSAS) was held in Helsinki. The Baltic Sea countries were represented at the highest level and numerous NGOs and business actors made commitments, either new or updated, to save the Baltic Sea. Whether or not, these lead to some concrete measures and new openings remains to be seen. Expectations are exceptionally high.

The results in saving the Baltic Sea are moderate, though there are many positive signals and much work has been done. More power and political will is needed to change the course towards a healthier sea. We desperately need a legally binding agreement for the protection of the Baltic Sea, involving all countries in the Baltic Sea catchment area.

What can and should be done to change the course? To put it simple: decrease nutrient load from all sources and minimize chemical and oil risks. Determined actions at all steps are of utmost importance. Also research on the most cost-efficient means and targeting actions with the largest impact, is required. Guidance, norm guiding and political actions are needed, too. Some political steps have been taken, of which the HELCOM Baltic Sea action plan is the most important.

Towards Baltic Sea citizenship

According to the recent BalticSurvey also a significant part of the people are worried about the Baltic Sea environment. The sea has an important role in the leisure time of the people living around the Baltic Sea. Surprisingly, majority of the people in most countries tended to disagree that they personally can affect the state of the sea, but instead viewed that efforts should be focused on waste waters, industry and farming.

But the people have an important role in the protection of the Baltic Sea. They can make a difference by choosing wisely

in their everyday lives as consumers, and by putting pressure towards decision makers to take concrete steps to protect the sea. Individuals can for example donate for the Baltic Sea, in order to finance protection investments. And they can also join WWF's voluntary oil troops, which are desperately needed should an oil accident occur. Moreover, people can generate fresh views and ideas to protect the Baltic Sea. There really are a myriad of ways people can participate!

In the light of the findings of the BalticSurvey, it seems that more work in the field of environmental awareness and public involvement is needed. This has been acknowledged in several policy programmes. On HELCOM Baltic Sea Action Plan adopted in 2007, the need for public engagement and stakeholder involvement is raised. The plan recommends that countries, regional and local government and organizations engage the public and stakeholders in activities promoting a healthy Baltic Sea and actively promote public participation in decision making.

On EU's Marine Strategy Framework Directive covering also the Baltic Sea, member states are also guided to have communication measures and measures raising the public awareness.

We believe that active civic society is a prerequisite for sustainable development. Also choices made at an individual level, and especially the entity of individual choices, make a difference. Furthermore, the public, by interacting with researchers and policy makers, can contribute developing fresh ideas to protect the sea, in the spirit of "think tanks". This parallels to open-source development met in IT-world.

In order to achieve active public participation, Baltic Sea awareness has to be raised. Many conceptual models in environmental education share similar steps of having environmental sensitization, awareness raising and empowerment (the feeling of the capacity to make changes to reach a certain outcome). In brief: an individual acts for a certain goal, if the individual finds the issue important, has "got tuned" into it, and has a feeling that he/she can make a difference.

At the moment, however, there aren't enough channels for the voice of the public and civic initiatives. The ongoing BalticSeaNow.info project, funded through Central Baltic Interreg IVA 2007-2013 Programme, tackles this problem by developing tools for public communication, discussion and participation. The project consists of a web portal (www.balticseanow.info) and events organized in partner countries. The goal is to promote public involvement and to strengthen a common "Baltic Sea identity".

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Nuclear problems of the North-West of Russia (from Fukushima perspective)

By Aleksandr Nikitin

In the year of the Chernobyl's 25th anniversary Fukushima gave us new lessons, and once again reminded of the need to revise security standards of reactors working today for various purposes. It has also pushed us to concentrate attention on condition of the numerous onshore and offshore storages for spent nuclear fuel and radioactive waste.

There are seven old nuclear reactors operating on the Kola and Leningrad nuclear power plants in the North-West of Russia, which do not meet current safety requirements, because they were designed and built at the time with other requirements. Besides that there are 13 transport reactors built in the 70-80s, which operate on the nuclear ice-breakers based in Murmansk. Russian Northern Navy owns about 30 nuclear submarines and surface ships, with about 50 reactors in total.

Each nuclear power plant has its storage facility for spent fuel and radioactive waste. In total, there are about 6,000 tons of spent nuclear fuel in the storages in the North-West Russia. The largest repository of spent nuclear fuel is located at the Leningrad nuclear power plant, and the most hazardous and problematic repository is located in Andreeva Bay in Murmansk Region.

All storage facilities for radioactive waste on the North-West of Russia are currently packed to their capacity, so Rosatom started to build new regional repository for radioactive waste in Sosnovy Bor, near the Leningrad nuclear power plant.

Nuclear crisis we are observing now in Japan makes the whole international community to look differently at the nuclear energy development strategy in the world, as well as at some safety questions of reactors and repositories of nuclear and radioactive waste. First of all, it must be a political decision to close the oldest reactors, which do not meet safety requirements, because "cosmetic" modernization is not able to bring these reactors in compliance with current requirements. It is also necessary to reject the delusion that the situation in Japan may not occur in areas which are not earthquake-prone. Of course, external influences on the Fukushima reactors were results of the earthquake and tsunami, but the main cause of the nuclear catastrophe was the fact that nuclear power stations and their infrastructure did not sustain long-term power cuts from external sources. Such situation may emerge not only after earthquakes, but also after hurricanes and heavy snowfalls. Russian nuclear power plants in the North-West region are able to "survive" complete blackout for no more than 6 hours, then processes similar to those on Fukushima will begin.

Chernobyl and Fukushima teach that experiments on nuclear reactors lead to sad consequences. Today the Kola nuclear power plant is preparing to conduct an experiment to increase power capacity of nuclear reactors in order to produce additional electricity. This is pure unreasonable gamble that must be stopped. Fukushima showed a low readiness of the staff for accidents at nuclear power plants.

On the 29th of April, opening a joint meeting of parliamentarians of the Russian Federation and the Nordic countries on nuclear energy development, Murmansk Governor Dmitry Dmitrienko said that the emergency response system, which was created in the Murmansk region, is recognized as the best in Russia. It is an easy and unjustified political statement. Emergency response system and staff trainings were checked only after such accidents as Chernobyl or Fukushima. Staff trainings and the quality of the emergency response system in nuclear industry should always be approached critically, guided by the rule - it is better to underestimate own capabilities than to overestimate them.

Fukushima showed that a bottle neck of the nuclear power plant is reactor's pools/repositories for spent fuel. The accident showed that the spent fuel storage facilities are even more dangerous than the reactors themselves, because they are poorly protected and cannot stand against external influence. Repositories contain far more radioactivity than the reactors.

And the last thing that appeared after Fukushima is a very weak supervision and safety system monitoring by regulatory authorities. In the Fukushima situation the IAEA failed to accomplish its task to monitor the safety of nuclear power plants operating in the earthquake-prone areas. The IAEA did not provide much support to Japanese specialists during the accident. The IAEA was fascinated by nuclear energy propaganda and spreading out nuclear energy to different countries, even those which are not yet prepared to apply such complex technologies as nuclear power. The IAEA did not manage to disseminate authoritative, timely and reliable information about the accident in Fukushima. Now the IAEA is not an international nuclear safety watchdog, they became an inert bureaucratic structure, which must be radically re-organized. Same features can be also seen in the Russian regulatory organization - the Federal Service for Ecological, Technological and Nuclear Supervision (atomnadzor).

Today, we can conclude that the North-West of Russia is a nuclear- and radiation-saturated area. Problems and defects which we saw at Chernobyl and Fukushima accidents exist on the nuclear facilities in the North-West of Russia. We must draw conclusions from these disasters, and finally learn the lessons of Chernobyl and Fukushima.

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Russia

Renewable future in the Russian Barents Region

By Anne Gry Rønningen and Ksenia Vakhrusheva

Today the Murmansk region in Northwest Russia is highly dependent on nuclear power to cover its energy consumption. Around 50 % of the energy production in the region comes from the Kola Nuclear Power Plant (KNPP). Together with energy produced by large-scale hydro and thermal power stations, the region is currently experiencing an energy surplus. This will radically change, however, when the KNPP reactors are decommissioned. Three of the four reactors which are operating at the power station today, have already passed their designated life span. The Russian authorities, however, keep postponing the shutdown of the reactors. This poses an environmental risk for Northwest Russia, as well as its Nordic neighbors and is one of the many concerns of The Bellona Foundation regarding environmental safety in the Barents region.

First of all, the concern regards the lack of modern security standards at KNPP, such as the security capsule covering the reactors. Due to the age and technology of the power plant, it will never be possible to upgrade the security level at the KNPP to satisfactory standards. If an accident should occur, the environmental and human consequences would be disastrous. Secondly, the nuclear waste produced by the power station continues to be a matter of great concern. No permanent safe storage solution exists for this highly dangerous radioactive waste which will continue to pose a major health threat for thousands of years. In addition to potential environmental and human costs, nuclear energy also represents a major economic cost. The newly published report "The Economics of the Russian Nuclear Industry" by Bellona, shows that contrary to claims that nuclear energy is an economically competitive energy source, nuclear energy is actually one of the most expensive sources of power. High subsidies from the state bring the prices down to an artificially low level. Bellona's report shows, however, that without these subsidies nuclear energy would never be able to compete on the regular energy market.

Based on these factors, Bellona has worked for more than two decades to convince Russian authorities that the KNPP needs to be shut down. Likewise Bellona has worked to promote the development of alternative clean sources of energy in the region. The Kola Peninsula possesses an enormous potential for development of renewable energy. To map this untapped potential, Bellona took the initiative to write the report "Prospect for Development of Non-conventional and Renewable Sources of Energy on the Kola Peninsula". The report was launched in 2007 and showed that the region in particular possesses one of the greatest wind energy resources in Europe, estimated at 360 billion kWh annually. In addition, the region possesses tidal, wave, small hydro, biomass, and solar resources. Using only a small percentage of all the renewable energy resources available in the region is more than sufficient to meet the current electrical power demands of the region, or match the power capabilities of the most outdated nuclear reactors, thus permitting their retirement.

However, both in Russia generally, and in the Murmansk region specifically there is a strong reluctance to make use of renewable energy. Unambitious renewable energy targets at the federal level (4.5% from renewable energy sources by 2020) is testimony to this, as is the absence of a specific renewable energy program at the regional level in Murmansk. Lack of political will and no economic subsidies nor other support mechanisms for investments in renewable energy, is placing Russia on the bottom of the charts concerning investments in clean energy. The aversion to such investments becomes evident through statements frequently heard from Russia's Prime Minister, Vladimir Putin. Last September, for instance, he said during the VII annual Valdai Discussion Club that nuclear energy was the only viable alternative to fossil fuels available today, while other alternatives were for now nothing but trifling business.

There are, however, some signs that Russia too is making steps towards more environmental friendly energy solutions. Throughout last year President Dmitry Medvedev repeatedly

stressed the importance of developing alternative energy sources, followed up by some juridical amendments. In October last year, the Russian government issued a directive stipulating a list of criteria for claiming federal compensation of costs for sites generating energy from renewable sources, provided their output capacity does not exceed 25 megawatts. This should help encourage construction of small power plants producing energy from renewable sources. Another step forward was a law, signed into force by President Medvedev last December, allowing companies to enter into long-term sale-and-purchase agreements to buy or sell power produced at renewable energy sites at special, wholesale-market, prices. In addition to the federal laws, all Russian regions were last year instructed to develop their own regional programs on energy saving and energy efficiency, including renewable energy, with an earmarked budget. Besides some additional funding from the federal budget, the financing of such energy saving initiatives have, however, to be covered from regional, municipal and private sources.

This means that even though such documents would help create some of the infrastructure needed to foster renewable energy prospects in Russia, there is still a long way to go, especially when it comes to support mechanisms and investment incentives. The Russian parliament, the State Duma, is yet to give its attention to a draft law on state support mechanisms for renewable energy sources in the Russian Federation – a bill prepared jointly by the Russian hydropower giant RusHydro and a number of experts in the field.

Another difficult challenge facing the development of renewable energy in Russia – besides the lack of an advantageous regulatory framework or any tangible support from government authorities – is the indifference on the part of most of Russia's energy consumers. Living in a country that has enormous reserves of fossil fuels at its disposal, the Russian population has grown accustomed to enjoying a steady and seemingly limitless supply of relatively cheap energy. Alternative energy, by contrast, is based on an entirely different approach altogether – one that puts the virtue of saving energy before producing it, with the emphasis on producing it in a sustainable manner that does not deplete nature's resources. Before Russia is even ready to make the leap to a greener energy economy, the very concept of energy efficiency has to take root in Russian minds – and workable energy saving solutions must be created in their homes.

That is why The Bellona Foundation considers information dissemination and capacity building, both within the government and civil society, as one of its most important tasks. Only by increasing awareness about locally available renewable energy alternatives among the inhabitants of the Kola Peninsula, can we create the foundation for making cleaner and safer energy decisions for the future.

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Russia

Security challenges in the Baltic Sea region – a Swedish perspective

By Ingmar Oldberg

Since the Warsaw Pact and the Soviet Union fell apart, the Baltic Sea region has moved from being divided and a front in the Cold War to being safely embedded in NATO and the European Union, while Russia has remained outside. The three Baltic states and to some extent Poland still fear their Russian neighbour, who remains militarily superior to all of them, and they are especially anxious about the cohesion of NATO and the transatlantic link between Europe and North America. They therefore worry that NATO and US military engagements in Afghanistan, Iraq and nowadays in Libya, will absorb too many resources and distract attention from the region and weaken NATO's solidarity clause. In order to win solidarity in case of threats against themselves the Baltic states and Poland have played active roles in these wars despite limited resources. Also non-allied Sweden and Finland, which benefited from NATO enlargement in the Baltic Sea region, support NATO operations in Afghanistan and Libya at the same time as they engage in EU military cooperation. Reunited Germany backed NATO in Afghanistan but not the wars in Iraq and Libya. Wars outside Europe thus also tend to split NATO, including the Baltic Sea states.

In order to reinforce their security the Baltic states and Poland have called for as much NATO and US presence in the region as possible. After joining NATO the Baltic states only got a NATO patrol of four aircraft based in Lithuania, and Tallinn became host to NATO's Cyber Defense Center, but no troops and installations, since Russia could see as a threat. However, after Russia's war in Georgia in 2008, NATO at least started to make contingency plans for the defence of the region. Concerning Poland, the United States in 2008 decided to deploy a missile base there against long-distance attacks from Iran in the future, but partly because Russia saw this as directed against itself, the plan was scrapped and a small base with Patriot air defence missiles was built instead.

Further, the melting of the ice in the Arctic Ocean and the rising demand for energy in the world has evoked a growing interest in West in access to the rich resources in the Arctic parts of Russia. Observers in the Baltic states therefore worry that this might lead to a reallocation of resources particularly in the Nordic states to the Far North and create a security vacuum in the Baltic Sea region, thus giving Russia more leeway politically and militarily. Western states could be tempted to make security concessions to Russia in the Baltic Sea in exchange for access to or deliveries of Russian energy from the Arctic. Furthermore, since most export of Russian oil and gas production in the Arctic region, notably the Yamal peninsula, goes through pipelines to the Baltic Sea and then by tankers or pipelines across the Sea to the West, this also increases Russia's wish to control the Baltic Sea. However, one can object that growing Russian engagement in the Arctic also could lessen its interest in the stable Baltic Sea region. Russia furthermore needs Western technology in exploiting its Arctic resources and modernizing the country, which may make it more cooperative in general. Russia also needs good relations with NATO and the EU.

The above words show that Russia, the biggest country in the region with great power ambitions, still poses several security challenges to its neighbours in the region, especially the small Baltic states. As the Russian economy recovered in the 2000s as a result of profitable energy exports, the military assignments have grown manifold. An ambitious naval construction programme has been announced, and several large-scale exercises been held in the region, mainly in the Kaliningrad district, often with offensive elements like amphibious landings. Violations of the Baltic airspace happen frequently, and Russian intelligence activities are intensive. The Baltic fears heightened when Russia in August 2008

invaded parts of Georgia and recognized the separatist regions of Abkhazia and South Ossetia as independent states. If Russia would deploy one of the huge Mistral assault ships, which it is buying from France, this would greatly increase the threat to the Baltic countries. On the other hand, the Russian naval forces in the Baltic Sea were much reduced in the 1990s. True, the number of ships is higher than in the other states but it is stable and the average age is over 20 years. Only one tactical submarine is operative. Further, the navy has no priority in the military system, and Russia has more serious security concerns and ambitions in the Black Sea region than in the quiet Baltic Sea.

More serious is the problem of the Russian minorities in Estonia and Latvia, which Russia has constantly used as a means of political pressure on the respective governments. Russia claims that they are discriminated against since they are not granted automatic citizenship, and its consulates distributes Russian passports to those who want them, which tends to undermine their loyalty to the resident countries. The defence of Russian citizens and compatriots abroad is inscribed in Russian official doctrines. In 2008 this pretext was used as a motive for the military intervention in Georgia. In 2007 Russia supported local Russian protests in Tallinn against moving a war monument through economic sanctions, and Estonian authorities were subjected to massive cyber attacks. However, this Russian policy induces the Baltic states to rely even more on NATO and the EU, and it undermines the positions of the Baltic Russians who do not want to move to Russia. Thus with time, Russia seems to have become more cautious in supporting the Baltic Russians and more prone to accept the governments. In 2007 it signed a border agreement with Latvia, which has the highest share of Russians, and in 2010 a Latvian president was for the first time officially invited to Moscow.

A still more serious security problem in the region is Russia's economic influence, especially in the energy sector. The Baltic states are totally dependent on Russian gas, and so are the other littoral states to varying extents. Russia has repeatedly stopped deliveries of oil and gas as a means to take over Baltic companies and/or exercise political pressure. The state-controlled Gazprom and other big Russian firms have also established themselves in certain fields. Russia has at the same time reduced its dependence on transit through the Baltic states, which was an important source of income, by building oil and cargo terminals in the Gulf of Finland. Concerning Lithuania, however, Russia remains dependent on it for land transports to the Kaliningrad exclave. The construction of a gas pipeline through the Baltic Sea directly to Germany, which has been used as a motive for more naval presence, has evoked protests from the Baltic states and Poland. However, the gravest security threat in the region is the growing number of oil tankers crossing the Baltic Sea, where one accident might have disastrous environmental effects.

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Northern Sea Route enters international shipping business

By Mikhail Belkin

The sailing distance from Murmansk to Shanghai when using NSR is approximately 6600 nautical miles while through the Suez Canal it will be 12000 miles. Less time and fuel spent for a voyage is not the only benefit of the "Europe-Asia sea highway". Such threats of traditional routes as piracy, political instability of neighboring regions and overloaded canals are totally avoided in the North. However the problem is that till 2010 the information of the Northern Sea Route potential was scarce and ship owners had more questions than answers. The NSR commercial navigation started to develop since 1920 but for decades the route was used for internal purposes of Soviet Union and then Russian Federation. Though officially the NSR was opened for foreign vessels in 1991, absence of definite shipping data and accident statistics hampered the efforts to evaluate the economical effect of transit voyages through the High North.

Atomic icebreakers operated by Rosatomflot provide safe navigation in the Arctic all year round, but the best time for commercial transit shipping through the NSR is from the end of June till the middle of October. This is a so-called "season window" when vessels with ice class of 1A or higher (1B is possible if ice conditions are mild) can navigate the NSR assisted by the powerful atomic icebreakers. The "season window" of 2010 set several milestones in the history of international shipping.

117 000 tons deadweight tanker SCF-Baltica left the port of Murmansk eastbound with the cargo of gas condensate for China. She was piloted by atomic icebreakers "Rossiya" and "Taimyr" while sailing along the NSR for less than 10 days. The voyage to China took the tanker 23 days against 42-44 days when sailing south. At the very same the two Russian hydrographic vessels were measuring depth above the North Siberian Islands to find the draught limitations. They have officially proved that the NSR can be used by the vessels with the draught up to 18 metres which means 150 000 tons deadweight vessels can navigate these waters safely. The High North areas are extremely rich in natural resources and their transportation to the world's major raw resources consumers like China can be done faster and easier through NSR eastbound. The companies that load oil tankers at the ports of Murmansk and Vitino (White Sea) already plan their future shipments to China via the NSR.

Bulker "Nordic Barents" with 41 000 tons of iron concentrate from Sydvaranger, Norway passed from Kirkenes to China via NSR in September. This was a truly international voyage for the Chinese-owned vessel operated by a Danish company was carrying Norwegian cargo bought by a Switzerland broker. The safety of the voyage was provided by the Russian atomic icebreaking fleet. The latter was doubted by the insurance company that, as was said before, had no definite statistics for the Arctic shipping. The desolate northern areas posed significant risk if the vessel had been damaged on the NSR. To remove this risk and bring the insurance premium to an acceptable level Rosatomflot introduced specific terms into the contract that guaranteed towage of a broken

vessel to the nearest port. This helped to resolve the matter.

The voyage of Tor Viking II was done in December 2010 - a month after the official completion of summer-to-autumn navigation on the NSR confirming that it is possible to increase the period of Arctic navigation in winter months if the piloted vessel is fit for it. Though at some point Tor Viking had to be towed by atomic icebreaker Rossiya because ice conditions at the time proved to be really hard. Tor Viking had to get from Alaska to the Baltic Sea as quickly as possible and the Arctic passage was the best choice.

While 2010 was a milestone in the history of international shipping, 2011 is to set a start for a full-scale Arctic transit navigation. Several ship and cargo owners have confirmed interest in the NSR transportation. Their plans are not limited by the existing fleet only which cannot satisfy completely the growing demand for ice-class vessels. New 1A vessels are being built and even more are planned to be ordered. In 2010 one 100 000 tons tanker and one 41 000 tons bulker made the pioneer voyages; today we talk about several panamax (75 000) and suezmax (150 000) type vessels. The transit bulk and liquid cargo traffic is going to increase correspondingly to 800 000 tons in 2011 and more than two million in 2012 and this is only eastbound cargo. The Asian market demands raw resources and container cargoes are dispatched to Europe. Should a return cargo line be established those numbers will rise by at least 50%. Today the Northern Sea Route is a safe and predictable alternative to the Suez Canal where the cost of passage is easily calculated due to recent revision of icebreaking support rates. Now a ship owner enjoys a considerable discount if a certain amount of transported cargo per year is reached or the same vessel sails in load via the NSR and returns in ballast.

As the NSR transit project develops and more parties are getting involved in it, the final integration of the Suez Canal #2 into the international shipping logistic scheme is a matter of few years. Atomic icebreaking fleet operated by Rosatomflot has accumulated immense experience of Arctic navigation which makes it the real shipping safety guarantor on the Northern Sea Route.

Mikhail Belkin

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ROSATOMFLOT

Russia



www.rosatomflot.ru

The North-East Passage is already a fact

By Yrjö Myllylä

The increasing interest of the great powers in the northern areas shows that the North is moving from the periphery to focal point. U.S.A., Russia, Canada, and Norway have updated their strategies in the Arctic region since 2008. Finland's strategy for the Arctic was ready in the summer of 2010, and the preparation of EU's strategy for Arctic is a topical issue. The increased importance of the North has wide ranging impacts. There is a need to understand the real factors affecting the development, and pay attention to what we can control.

The great powers updating their strategies, climate change is only one reason for the increasing interest in the Arctic Region and the North-East Passage, other factors are more important. First of all, the collapse of the Soviet Union can be mentioned, which has moved the interest of Russia being the world's by surface largest state and by far the largest arctic state more and more north as the southern oil-producing countries became independent. Russia needs the North and the North-East Passage.

Secondly, the growth of the global economic should be mentioned and its impact on the prices on the limited raw materials, such as oil and other mineral. The third important factor is technology, especially transportation technology development - the new cost-saving transport system and other solutions create key conditions for exploitation of Arctic's natural resources - items that we are able to control. With these changes for example Murmansk, being North-West Russia's only ocean port and central nodal point of the North-East Passage is becoming increasingly important in the long term as a centre of the energy industry and logistics, with a radiation also to Finland.

The price of crude oil cleaned from cyclic variations has risen since the 1950s in today's money terms. In addition to the increase of raw material, price innovations of transport technology are needed to mobilize oil and other natural resources. The Finnish planning companies, such as Aker Arctic, a subsidiary of STX Finland, have been in a key position:

For example, the world's first oil transportation system operating in icy waters was introduced in the summer of 2008 in Varandei, situated in Pechora Sea in the north-eastern part of Europe. Without the assistance of ice-breakers, vessels transport oil along the North-East Passage to the mouth of the Murmansk fjord being ice-free all year round, where oil further is reloaded into ocean going vessels. The oil is transported to China along traditional trade routes. In the vicinity of Varandei an oil rig will also be completed in the Prirazlomnoye oil field in the summer of 2011, when oil drilling the Arctic Ocean begins. The oil of the field will be transported from Murmansk along the North-East Passage using Finnish-designed and already manufactured vessels.

The regular use of North-East Passage without the assistance of an ice-breaker was a fact already in 2006, when the Helsinki shipyard completed the first ore carrier ship designed by Aker Arctic and which was able to traffic the North-East Passage independently.

The vessel-Norilsk Nickel-named after the purchasing company, was an innovation.

It passes through the ice in North-East Passage without any assistance of ice-breakers in regular traffic from Dudinka situated at Yenisey River arm in Siberia to Murmansk. The main ice obstacles are passed by going astern, where for example the Azipod® drive system innovated by ABB and Wärtsilä will provide essential help. Another innovation is also ore and container transportation on the same vessel. Capital goods and consumer goods are then transported as return cargo. Four sister ships were constructed in shipyards in Germany as Finnish Shipyards at that time were giving priority to the production of cruising ships. In the summer of 2010 eight cargo ships came through the North-East Passage from one end to the other. By the end of January 2011, orders had been placed for the summer for more than 20 vessels for oil, gas and steel cargo.

The Finns can be considered are the world's most Arctic people. According to some sources, approximately 60% of the world's population living north of Helsinki are Finns. Our nation is enriched by northern technological know-how of ice-breakers as well as trains, tram ways and other means of transportation operating in snowy and cold conditions. This fact was also realised by the Russians, when founding the new Arctech Helsinki Shipyard together with the Russian United Ship-building Corporation and STX Finland in December 2010. However, arctic technological demand is not only confined to Russia. China is also interested in the northern natural resources. Technology applied to cold weather is needed over the whole Northern Europe and even in South Africa. At the moment, a research vessel for Antarctic representing a new generation and ordered by the South African environmental administration is under construction.

North-East Passage is not expected to melt. For example, according to the latest satellite data from 2011 the maximum extent of the ice in the Arctic Ocean has been more or less in line with the long-term average. We need to develop the technological know-how for inclement weather conditions, and keep the advanced position of the Baltic Sea countries as a co-operation between the countries also in the future. The Baltic Sea region is a key energy transport corridor. The Baltic Sea freezes in winter, at least partially. It provides a development platform for the products needed also for the upper Arctic Ocean region. The Baltic Sea Region can be used as a product development platform for example for ice-breaking and oil protecting vessels as well as for other transport, energy and environmental technology products operating in ice. There will be a growing market for these products in, for example the Arctic Ocean, where the oil transport is increasing. The coastal countries around the Baltic Sea could place innovative orders as South Africa did and order oil protecting equipment in the name of environmental protection. These products have a growing market in for example in the Arctic Ocean, with its increasing oil transports. The Baltic Sea countries should be active trying also to incorporate the themes of arctic transport, energy and environmental technology in the EU's research Framework Programmes. For example the so called Aurora Borealis-research vessel project for the arctic region planned with the aid of EU and Russia and Framework Programme should be continued.

Finland could also in the future play an important role in the development of the arctic transport, energy and environmental technology. In Finland, the Parliamentary Committee for the Future has produced during the year 2010 a report entitled "Russia 2030 based on Contracts" (editors Osmo Kuusi & Hanna Smith & Paula Tiihonen). In the context the Committee for the future has formed a statement: "Finland must draft a Research and Development Programme for the Development in Finland of Arctic Transport, Energy and Environmental Technology.

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Evolution of geopolitical factors, determining innovative directions of the Arctic regions sustainable development

By Valery Mitko

Geopolitical factors evolution means their consideration not in a statics, but in dynamics, allowing to predict variants that is the scientific substantiation of accepted decisions making an essence of the innovative approach. The major geopolitical factors, their evolution request the innovative approach in all spheres of ability to live and, first of all in safety of society as the sustainable development can happen only in the conditions of safety.

Geopolicy studies processes and principles the states, regions and the world as a whole development with the account of system influence of geographical, political, social, ecological, economic, military and other factors.

The **geographical factor** is defined by spatial position and natural resources. It is basic for Russia and its evolution only for the last century had an essential change of Russia and new approaches of defining of external borders of continental shelf in Arctic regions instead of sectoral to the following from the Convention on the International marine law accepted not by all subarctic states. It defines innovativeness of the approach not only to formal delimitation, but also to a scientific substantiation of their change. Talking about claims of subarctic and other states to various possible activity in Arctic regions it is necessary to consider as correct and **innovative direction an** advancing of declared duties of region development in comparison with the shown rights in maintenance and a region sustainable development.

Political factor consists in type of statehood, organizational structure of management, division of authorities, social structure of a society, presence of a civil society, freedom of the Mass Media. The Arctic Public Academy of Sciences created on the basis of Geo-policy and safety section of the Russian Academy of Natural Sciences shows credo – assistance of harmonisation "Science-power-business" relations on the Civil society formation basis.

Economic factor is defined by people standard of living, capacities, agrarian capacities, a transport communication infrastructure, mobilization capacities. This factor is the major, defining the maintenance and forms the inter-regional and intraregional interaction. The comment can be only one as there are interesting slogans of type «Fights for Arctic regions» which are however not unreasonable, but evolution of this factor allows to assert that the one who will provide higher quality of life in region will win fight. Here one more important thesis is pertinent: if quality of life grows in region more slowly than manufacture growth there will be colonial character of interactions.

Military factor basically for Arctic regions can consider in its connection with global and regional safety. Evolution of the military factor is very considerable and it is possible to make comments on creation of ice airdromes in Arctic regions in the thirties, a concentration in Arctic regions sea strategic nuclear forces of Russia and other states, escalating the military presence in this region recently.

Ecological factor is defined by demographic pressure upon the limited resources of territory, an exhaustion of resources, life-support system of the person, vegetation and fauna poisoning and destruction. The ecological factor as well as its evolution, for Arctic regions as a whole and for region, in particular, are specific for the reasons of anthropogenous factors on environment increasing pressure. It is necessary to notice that in the foreseeable future in region placing few floating atomic electric power station are planned. It also will influence on the radiation safety organization in region besides the general for Arctic regions problems – its contamination for many years and without **innovative workings out** clearing of the Arctic territories is simply impracticable.

Demographic factor is defined by density and population structure, rates of development. Features of this factor evolution are defined by a general world tendency. The tendency of sharp

steady growth of the population in southern regions and slow – in northern. It inevitably leads to change of structure of the population in northern regions. The declared idea of "tolerance" if has not completely failed, at least appeared rather insolvent in Germany, France. Though the North, owing to a special environment always reckoned this point of view socially tolerant, it is possible to assume presence of problems already in the near future. The principle not tolerances, but harmonization of the indigenous and alien population on the basis of steady traditions acceptance in region should be an **innovative direction** here.

Cultural-religious factor is defined by confessional, national, cultural, labour traditions. Here it is necessary to consider, both traditions of indigenous population, and appeared in foreseeable historical term from other regions. The culture should shine road to economy, otherwise last wanders in darkness. This factor defines integrity of the Russian state as only creativity is penetrated by search of meaning of the life, and the person, aloof from culture, actually becomes the criminal.

Ethnic factor is defined by interests of indigenous nationalities in other states, level and a condition of their participation in social processes. Previous and specified factor there were a subject of active discussion on nowadays.

Intellectual factor is defined by development of a science, formation. This factor becomes the major in XX1 a century when science and education becomes a strategic resource of the state as a whole and region, in particular. In revival of geopolitical value of Russia exists, obviously, and objective requirement - without its stabilizing role boundless open spaces of the post-Soviet territory in long-term prospect are doomed to disorder interstate relations. The sustainable development concept is preferable already because it leads to change of competitive type of behaviour on conciliatory.

Russia has made enormous efforts in North development. Unique manufactures in the north, unique Northern sea route are created. Now all leading countries show heightened interest to Arctic regions as to a source of safe development in the XXI century. Actual are questions: What is mission of Russia in Arctic? Have Russia abilities to discharge such mission? Do other states agree and approve the Russian mission in Arctic?

Valery Mitko

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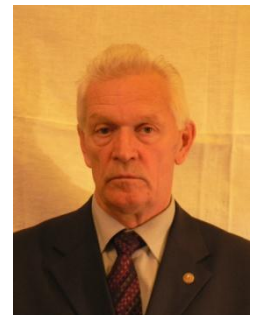
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Russia's human capital and the task of modernisation

By Julian Cooper

In assessing Russia's prospects for modernisation, an important issue is the state of the country's research potential and the implications of unfavourable demographic trends. It is often argued that one of the advantages of Russia when compared to other emerging economies, or 'growth markets' as they are now termed by Jim O'Neill, the originator of the BRIC acronym, is that it possesses strong human capital in terms of educational standards. This is usually seen as a favourable legacy from Soviet times. However, paradoxically, it could now be argued that human capital has become almost an Achilles heel of present-day Russia, threatening to become yet another obstacle to modernisation, rather than a central component of the solution.

There are several dimensions to this issue. Firstly, there is no question that Russia possesses considerable scientific talent. However, the average age of scientists has been rising steadily and the number of young people wishing to take up a career in research has been relatively modest. All too often, the most talented younger scientists prefer to work abroad. Pay is not usually the main issue. More important is a widespread and justified perception that the research culture in Russia is not conducive to productive research or rapid career advancement of the talented. For scientists in 'exile' it is rather galling to see Russian government measures designed to attract top foreign scientists to work in the country, notably in the Skolkovo enclave. It can only be hoped that the experience of foreign scientists spending time in Russia may help to promote much needed reforms making the lives of indigenous researchers more congenial.

There is another, related, problem. A legacy of the Soviet past is that in Russia much of the nation's high technology industry is found within the defence industry. As Medvedev and Putin now appear to recognise, economic modernisation must also include an upgrading of the capability of the defence sector, not only to permit the development of more advanced armaments, but also to boost civilian high technology. But here there are some difficult personnel issues. With a few exceptions, mainly enterprises successful in exporting their arms, pay levels are still relatively low compared with those of other sectors such as financial services, energy or metals. In addition, the very strict regime of secrecy, a legacy of Soviet times, is not attractive to young people used to the new freedoms of post-communist Russia. In addition, they find that research institutes and design organisations are staffed predominantly by much older personnel, many beyond retirement age.

The situation in the electronics industry is illustrative. According to the then head of the department of the radio-electronics industry of the Ministry of Industry and Trade, V Minaev, speaking in late 2009, the average age of all personnel in the industry was almost 47.5 years, with 16 per cent under 30, but 27 percent over retirement age. (According to another dependable source, in the late 1980s the average age was in the early about 33). Of scientists, only 18 per cent of candidates of science were under 50 and a mere 4 per cent of doctors of science, but 58 per cent of the former and an astonishing 83 per cent of the latter were working pensioners. And this is in an industry experiencing extremely rapid technological change.

To make matters worse, the labour force is steadily contracting. In the Russian radio-electronics complex, which also includes the communications equipment industry, the number of R&D personnel has fallen from 140,000 in 1997, to 110,000 in 2000 and is now some 80,000. It is perhaps not surprising that since 2004 the volume of output of some important electronic components, in particular integrated circuits, has been declining quite rapidly. The state of the electronics industry is giving rise to mounting concern as the production of military and space equipment is becoming increasingly dependent on imported components, notwithstanding a strong official commitment to self-

reliance. The available data indicates a similar situation of ageing R&D personnel, with very modest new recruitment, in other branches of the defence industry.

At a government level there is also a growing realisation that the quality of higher education at many universities and colleges is not of an adequate level. That this may be a more general issue is shown by Russia's relatively poor showing in the OECD's PISA surveys comparing levels of educational achievement at the school level. Even in maths and science, the relative standing now is not impressive. Furthermore, when efforts are made to secure training in new skills appropriate to the modernisation agenda, the results are not always satisfactory. Recent reports have indicated that some universities have quickly introduced new academic programmes in nanotechnology, but the first graduates are finding it difficult to find jobs, partly because their skills are being found not appropriate to the requirements of the business sector and because the quality of training is not of an adequate level.

Since 1991 the prestige and popularity of science and engineering as disciplines to be studied at universities have fallen sharply, many students preferring economics, business studies or law. The shortage of highly trained engineers is a matter of concern at the government level and the problems of engineering education formed the topic of the March 2011 meeting of Medvedev's Commission for the Modernisation and Technological Development of the Economy.

A major problem in improving the quality of higher education is the relatively weak development of scientific research within the university system. Only fifteen percent of higher educational establishments are engaged in R&D and the majority of lecturers are not personally involved in research activity. Overall, the share of Russian total R&D by spending undertaken in the higher educational sector is less than ten percent, in striking contrast to most OECD countries. Efforts are now underway to boost the R&D contribution of the university system, but this will inevitably be a gradual process. The experience of many developed countries is that interest in research is developed first at the undergraduate level, but in Russia the dominant perception appears to be that it is something that can be left to the stage of postgraduate training.

The skill problem is not only a matter of high level aptitude for research. In high technology sectors, not the least the defence industry, there is an increasingly acute problem of a shortage of highly skilled manual workers. Inadequate skills, coupled with aged production equipment, may explain at least in part an embarrassing series of failures in the military-space sector, e.g. the 'Bulava' submarine-launched strategic missile and the failure to launch satellites required by the GLONASS navigation system.

The problems Russia is now experiencing with human capital suggest that its development has to become a higher priority in developing policy for modernisation. The salience of this issue will mount as negative demographic trends make themselves felt, above all the fall in the cohort of young people which will be a feature of the coming decade.

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Estonian-Finnish cooperation in the fields of innovation, and R&D as a start-up company

By Valdar Liive

Estonia and Finland are neighbours with impeccable political and economic relations. More than 4000 companies with Finnish holdings have been registered in Estonia, Finland is the largest trading partner of Estonia, and more than 6 million trips take place between Tallinn and Helsinki annually.

Do the relations of these two countries have room for development, and do we need to work for it or will it happen by itself? Is there something Finland and Estonia could do together? It all depends on how you look at it. Helsinki was established to compete with Tallinn, but when looked at from a bit further away there is nothing more than a wide river separating Estonia from Finland.

I believe that we have preconditions and opportunities for wider cooperation on the global markets. Going back in history, trade between Northern Estonia and Southern Finland, the "seprakauppa", has existed for more than 700 years. Fish from Finland and grain from Estonia, this is how cooperation and building of trust took place for hundreds of years.

We have the same understanding of quality. Honesty, individual contribution and cultural similarity – these are all important. Finnish people take longer time to plan their actions; Estonians may be a bit more flexible and experienced in working in constantly changing conditions.

We are different enough to interest each other, but also similar enough to make cooperation possible. Estonia has one of the best-developed e-solutions packages in the world²⁵, Finland has priceless experience in developing industry and brands. Since the beginning of 2011 we have had the same currency, euro. We are both members of the EU and OECD, Estonia also belongs to NATO.

The Prime Ministers of Estonia and Finland have ordered two cooperation reports, by Jaak Jõeriüt and Esko Ollila in 2003 and Jaakko Blomberg and Gunnar Okk in 2008. In the latter report, opportunities for cooperation in the field of information and communications technology were emphasised.²⁶

The Euregio²⁷ network has been developed to promote co-operation and enhance regional integration between its members: Tallinn, Helsinki, Uusimaa and Harjuma.

In 2011, the European Capitals of Culture are Turku and Tallinn. Thanks to this project, numerous joint cultural events, tourism products and business solutions have been generated.

In 2010, the Estonian House (Eesti Maja – Viro-keskus) was opened in Helsinki, accommodating the Estonian Institute, the Tuglas Society, The Union of Finnish Estonian Society, Enterprise Estonia (tourism, export and foreign investments) and a representative office of the University of Tartu. This house has been established through citizen initiative, not by a decision of the governments. Cooperation between the cultural, business, tourism and citizen unions has become very fruitful. In addition, we have managed to significantly increase the visibility of Estonia in Finland. Finland is planning the concept of the House of Finland in the world. I believe we can help with our experience.

Here are some examples of the mutually interesting activities.

One good example is the Interreg project Smart Hotel, carried out through the cooperation of designers and industry, producing wonderful products in a short amount of time in intensive cooperation. It is hardly surprising that we chose the designers that participated in this project to furnish the Estonian House in Helsinki, and the Estonian Association of Designers as our cooperation partner. Cooperation is created between people, not organisations.

The Finnish publicly traded company Technopolis bought a majority share of the Ülemiste City technology park, located next to

the Tallinn Airport in 2010 and named it Technopolis Ülemiste. The synergy forming as a result of this can already be seen, and hopefully the result will be even more impressive in the next couple of years. Today, Technopolis can offer office space and business services in Finland, St. Petersburg and Tallinn also to global enterprises. This is a tempting opportunity.

The Mobile Monday²⁸ movement, established in Finland 10 years ago, is now globally active in more than a hundred locations. In September 2010, the jubilee of Mobile Monday was celebrated with a joint conference in Tallinn and Helsinki. More than 500 participants from 37 countries became acquainted with the best Estonian and Finnish skills, and their satisfaction was evident.

The Estonian start-up initiative Garage48 - from idea to service within 48 hours²⁹ - has also built a reputation outside Estonia. In January 2011, there was Garage 48 event in Helsinki at Aalto Venture Garage, bringing together young people from different countries and creating 16 new products in one weekend. However, cooperation and getting to know each other is even more important than the products. Currently, Garage 48 has projects in Africa with such cooperation partners as Google and Nokia.

The joint project of Outotec and Eesti Energia, Enefit³⁰, is a specific industrial example that makes it possible to create modern technology for producing energy and oil from oil shale. It is most likely that Estonia has the best professional knowledge in the use of oil shale, and Outotec is a globally known engineering firm and manufacturer of mining technology. The first Enefit-280 plant will start production in Estonia in 2012, with the aim of being the best technology in the world.

In my opinion, the basis of innovation is formed by curiosity, limitations and environment. The cooperation opportunities between Estonia and Finland can be compared to a start-up business: there is not much money, but there are plenty of people with ideas and will-power. We have to prove that we can be better together than separately, and this cooperation could be extended to the whole Baltic Sea Region.

All we need to remember is that everything takes time: the first public cooperation project of the software developers that created Skype in 2003 took place in 1995, and Angry Birds was the 52nd game of Rovio.

My aim is to find the best characteristics of Estonian and Finnish enterprises and to encourage them to succeed on the global market together. Will you join this exciting journey?

Valdar Liive

Director

Enterprise Estonia Helsinki



www.estonia.eu

²⁵ www.e-estonia.com

²⁶ www.valitsus.ee/en/government-office/cooperation-between-estonia-and-finland

²⁷ www.euregio-heltal.org

²⁸ www.mobilemonday.net

²⁹ www.garage48.org

³⁰ www.energia.ee/en/oil/international/enefitoutotec

Transferring innovation system knowledge to every-day best practices

By Jukka Viitanen and Martti Launonen

Governments all around the world are studying the new, emerging innovation activity trends and innovation creation mechanisms in search for up-to-date policy direction and tools to support their national economies. The focus is shifted from narrow science and technology (S&T) policy approach to building more comprehensive innovation policies, which can form a key policy framework and instruments for combining the academic research, technical R&D and market-driven solution provision.

Shift to innovation platforms

It has been widely recognized that the innovation ecosystems' national and regional development has been, so far, a relatively successful model for regional revitalization bringing together the key innovation actors to perform the relevant technology-driven development processes. The innovation ecosystems are organized primarily in various forms of regional clusters and combine public sector interests to private sector business-oriented actions. These activities have been located typically in modern science or a technology parks to create a physical, identifiable place for the shared actions, which in turn, can bring along additional branding and marketing benefits for the participants. However, all core organizations in every region are not uniformly successful, which leaves open a question: how to guide the under-performing regional systems closer to the global front-runner position? Why some score better than the others?

The global realities around the national and regional ecosystems are rapidly changing and so-called open value system development casts shadows to the present-day collaborative settings. The closed, local ecosystems lack the power and ability to attract key players, and are often doomed to remain "just that" - local. The global front-runners are moving towards an era of value network competition, where innovation and knowledge brokering take place in increasingly open, shared settings. The innovation activities become borderless, yet interconnected. It is argued, thus, that the future success of any and all innovation ecosystems is measured increasingly in innovation actors' abilities to connect and manage the talent, resources and partnerships - in combining the local knowledge base to the global innovation networks.

Best practices for share

Hubconcepts Inc. experts have been actively involved the last 15 years in developing practical tools and frameworks for innovation system management. They have visited in over 200 park sites, benchmarked dozens innovation and incubation centers, and conducted numerous studies all around the world. Now, the global best practice for managing the leading innovation ecosystems and hubs has been summarized in Hubconcepts™ book, which presents real-life case studies of seven (7) best practice sites from the USA, Europe and Asia. The book and in-depth analyses present a fully integrated framework and a systematic approach to developing the future innovation ecosystems and the related organizational processes, necessary to achieve the best possible innovation outcomes.

The authors see that it is of utmost relevance to realize that future innovation ecosystems will be embedded in a more globalized, interconnected and collaborative context, where information, resources, talent and solutions can flow freely and effectively between mutually complementing and/or competing locations. It is argued that these factors no longer endorse (strictly speaking) nation states, regions and/or organizations, but build instead on mutual trust and interest. Under these circumstances, the decision makers must prepare for continuous competition for the best factors and concentrate their efforts on building up attractive, functional and thoroughly interconnected platforms for effective knowledge and technology transfers, mutually beneficial innovation collaboration, and timely commercialization.

In the Hubconcepts™ book, each case study outlines the current state of the key characteristics of a particular ecosystem

setting. The stories present cross-sectorial relations, service structures and critical success factors in attracting, keeping and developing the necessary resources, talent and capacities for continuous innovation creation. The results are analyzed for the ecosystem's capacity and readiness for meeting the globalization challenge, resulting in a distinct Ecosystem Profile for future reference. It is generally argued that, if and when done properly, these analyses can reveal a formula for replication and speed up the development of the next generation environments - not necessarily directly copying and transferring the results as is, but more like imitating the proven functional behavior for quality results.

The book gives the reader a chance to familiarize him/herself with related concepts for ecosystem development, particular characteristics of global best-practice case sites and, then, to reflect the presented notions to his/her own practices in relation to the specific development and management challenge at hand. Moreover, it is argued that the introduced concepts and findings can also be used as practical references for charting, evaluating and positioning regional innovation ecosystems on national and global levels.

Future in infrastructure – service combinations

The authors believe that the future success lies in more comprehensive regional planning, combination of parallel complementing management processes and real customer-driven benefit analysis in a core of park/center/environment planning. Moreover, they see necessary a shift towards regional master planning where real estate development projects are seen as a key part of the wider community development providing required infrastructure for future changing living/business/innovation environments.

The Hubconcepts™ framework, toolbox and management approach provide a foundation for planning and developing globally attractive innovation ecosystems. Decision makers can identify core issues fast and create practical vision for the regional development in truly global setting. This approach saves time in planning stages and keeps everyone focused on practical implementation challenge. The common terminology, best practice tool-set and readily available reference material of world's leading innovation environments improves dramatically the orchestrated development times and processes. Now, it's time to take the innovation system development challenge to the next level.

Jukka Viitanen

Dr., CEO



Martti Launonen

Dr., Chairman



Hubconcepts Inc.

Finland

Estonia – ever more firmly in the nation-liberal course?

By Henri Vogt

Estonia joined the club of Euro-countries in January 2011, almost 20 years after it had regained its independence in August 1991 and among the first of the former Eastern European communist countries. That this could happen also confirmed the remarkable recovery of the country's economy after the severe post-Lehman Brothers problems of 2008 and 2009. The economy is once again booming – the annual GDP growth rate may exceed the five per cent threshold this year – even though the level of unemployment has remained high, at well over ten per cent. Indeed the country is now the only one in the Euro-zone that fulfils all the criteria of the Stability and Growth Pact.

Given these developments, the first parliamentary elections of the Euro-era, held in March 2011, did not bring about any major surprises – apart, perhaps, from the turnout, which was reasonably high by the standards of the former communist countries of Eastern Europe, 63.5 per cent. The two biggest parties, the Reform Party and the Union of Pro Patria and Res Publica, together gained a healthy majority in the parliament and they now share the responsibility in Estonia's government; *Reformerakond* renewed its mandate in the Office of the Prime Minister. It is also noteworthy that the fragmentation of *Riigikogu* decreased significantly and, unlike in most previous elections, there were no significant new groupings that would have appealed to the voters with a populist, against-the-establishment message.

What these results seem to tell, above all, is that the political and economic course that Estonia has followed over the past two decades is now widely accepted by the citizenry. Many commentators call these policies 'neoliberal', but I would probably rather use the attribute 'national neoliberal' (or perhaps 'nation-liberal'), with a strong emphasis on 'national'. In other words, the Estonian political system, its polity, continuously obtains its basic energy from a strong sense of being a national *Gemeinschaft*, a community of ethnic Estonians. All acts societal thus include a national dimension; people's daily work efforts are not only meant to advance the wellbeing of the individual but also that of the entire nation – in spite of the individualistic tendencies that one can also easily observe in the country. In Scandinavia, by comparison, such mechanisms are much weaker. There are research results about this from the 1990s, but I cannot think of any issue that would indicate a significant change of this state of affairs.

This also means that a large part, or perhaps the majority, of the country's citizens have deemed the sacrifices of the past 20 years necessary and above all justified. Many ordinary Estonians, far more than was expected as the new era of independence dawned, have suffered severely during the post-Soviet transformation processes. The cleavages between winners and losers, between the successful and the unfortunate, have often been deep and clear-cut; in the beginning of the 2000s there was even a debate about the existence of 'Two Estonias'. Any visitor to the country can, of course, still easily get a sense of these deep dividing lines: one only has to look at the shining new towers in the centre of Tallinn, and compare them to the grey countryside villages.

The deepest cleavage of all is, of course, that between the Russian speaking population and the native Estonians. With the country's EU membership the situation of Russians has not improved, the political system hardly gives Russians a voice – and the relationship between Estonia and Russia has remained tense. The wide support of nation-liberalism thus also means that the often controversial and conflict-laden Estonian policies towards the Russian minority and Russia itself elicit very little criticism among the native population. In fact, we could also interpret the election results as a protest against the seemingly Russia-friendly policies and attitudes of the Centre Party, the biggest opposition party. There is currently no indication about this Baltic Tiger assuming more constructive policies towards Russia.

Estonia has thus remained a country of great contrasts but what is important is that this contrast-based societal constellation is now accepted and perhaps even affirmed by the majority of the population. Or perhaps we could even go so far as to argue that the existence of deep cleavages in society and the animosities towards Russia have constructed and reconstructed the Estonian nation in the sense we know it today. Within the national *Gemeinschaft* the fact that some people have had to suffer (more than might have been necessary) confirms the fact that the nation is something sufficiently valuable to suffer for; through this suffering the nation is knit together. In other words, instead of the universalising social-democracy that prevails in the Nordic countries and that acts as the foundation of their societies, Estonia's primary mentality is based on the particularism that materialises in terms of cleavages and contrasts both within society and towards its neighbours, combined with a strong sense of economic freedom. This may appear as a ruthless type of society, but it is certainly in many respects a dynamic and exciting one.

The late Ralf Dahrendorf, a world-famous sociologist and politician, claimed right after the events of 1989 that new political institutions can be put in place within six months after the change of the regime; in the case of the economy the change requires perhaps six years; but the social and cultural transformation would possibly last as long as 60 years. Estonia, in my view, shows that even socio-economic changes can happen relatively quickly, a new system has become thoroughly – to the extent it is possible in human societies – consolidated in just two decades. But this definitely does not mean that this new society would be without any deep cleavages and contradictions.

These cleavages and contradictions, however, can emerge or suddenly sharpen also in societies that have long enjoyed the benefits of a stable democracy. The current political situation in Finland is a testimony to this.

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Materials technologies transform Estonian economy

By Laura Kauhanen and Pekka Koponen

Estonia, as an emerging economy, has set an ambitious goal to raise the total R&D expenditure from current level of approximately 1.5% to 3% of GDP by 2014. The goals cannot be met only by means of money and thus the country has defined three strategic key technologies in supporting research, development and innovation. In order to reach the goals, Estonia is, among other instruments, launching national technology programmes to support key technology development. One of the priority areas are materials technologies and advanced materials, which have a key role in increasing the value of many industrial products.

Estonian materials science has been found high class in international comparisons but the public sector has lacked information for assessing the level of competitiveness of the materials technology related industries and the relevance of current research and development to the market needs. This has hindered the public sector from gaining a better understanding of the obstacles, challenges and opportunities that both public and private sector face.

Now for the first time, materials technology research, development and industry in Estonia has been mapped thoroughly. In addition to extensive interviews, the mapping was supported by the country being a leading e-state and hosting, for instance, publicly available database of all university research results published in Estonia. The comprehensive study provides an interesting case example for other emerging economies.

Materials technology is by nature an enabling and interdisciplinary field of technology. It provides significant added value on different fields of industry enabling renewal and increased productivity of existing industrial sectors as well as development of new business areas based on higher added value products and services. Materials technology is also strongly interlinked with the development of the other strategic key technologies, information and communications technology and biotechnology, named in the Estonian innovation strategy. The focus of traditional materials science has long been different structural materials. During the last few decades a vast number of new advanced materials and applications with extensively tailored material properties have gained ground. In the future, it will become possible to manufacture a wide variety of intelligent materials that can, for instance, react to changes in the environment, be responsive and communicative.

The analysis of Estonian Materials technology community shows that the country has a vibrant start-up community starting to commercialise the research results but the economic impact is still low. Technologies recognized under market maturation, market entry and prototype are the ones where rapid commercialization can be possible. From Estonian point of view, this includes technologies such as:

- Market maturation
 - Rare-earth metals, Oil shale technology, Laser technology, and Atomic Force Microscopy
- Market entry
 - Non-woven filter media, Fuel cells, High temperature power semiconductors, Supercapacitors, Thin film solar cells, Electroactive polymers, Electro-optical coatings, Industrial biotechnology, E-paper. Materials technology and Biotechnology.

Interesting developments further from markets include advanced coatings for metals industry, photovoltaics materials in general; carbon based nanomaterials and other nanomaterials as well as materials for sensors, atomic layer deposition and various new composites for metals industry use. These should be the main target for technology transfer activities.

In Estonia the economically important manufacturing industries including metals and machinery, forest, chemicals, plastics, textiles and construction materials are mostly working with very low added

value products and have currently very limited capability in applying research results in practice. To ensure high economic impact, a good balance needs to be found between investment and support for fundamental research and industrial production. Increasing collaboration in applied research between university research groups and industry will play a key role.

On international level, Estonian researchers in universities as well as many companies through their customers have good international connections. The largest area for development needs is in international technology transfer and scouting. There is also surprisingly little governmental cooperation in e.g. materials technology programmes between the Baltics and the Nordics despite the study showing focus on similar technology areas. Moreover, the proximity of Russia means a huge potential for technology and knowledge transfer both from and to Estonia with Estonians having a natural advantage compared to other countries by the good knowledge of Russian. Very many of the high technologies now in market phase have origin in Russia or Russian times. This opportunity will materialize only if the two parties overcome the political tensions and understand the mutual value added.

The following conclusions are made:

- As a small country, a strong focus of public funding is needed
- There is a good set of materials technologies in Estonia in all phases of the commercialization pipeline. The different phases face very different challenges and thus need very different support actions
 - Technologies in mature markets need more educated workforce in companies and more risk taking attitude in starting R&D projects and increasing the added value of products
 - Technologies close to market entry need public or private funding for establishing production as well as business knowledge to enter the global market
 - Technologies in R&D phase should be developed in collaboration with industrial players to guarantee practical relevance and future commercialization capabilities
- In most cases, there is a large gap between industry needs and university research and education

To sum-up, we believe Estonian materials technology plays an interesting role in the renewal of the already very traditional industry and there are some very interesting high-tech companies emerging. The study recommends a governmentally funded R&D Programme with strong support actions on facilitation of university and company cooperation to prepare for future funding "Materials R&D to business".

For full review of Estonian Materials Technology field see: Feasibility study for an Estonian materials Technology Programme made by Spinverse Oy and ordered by the Ministry of Economic Affairs and Communication.

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Modernization and innovative development in Russia – what lacks?

By Irina Busygina and Mikhail Filippov

Russia is a rich country which lags behind in technological innovations. It has significantly more researchers per thousand inhabitants than China, Brazil, or India, but it fell far behind China, Brazil and India in registered patents.

By the end of 2010 the evidence was abound that Russian businesses were reluctant to invest in new technologies. The natural resource extraction remains the most active area of investment. Most disturbingly, there is a clear tendency towards putting new investments not into buying new technologies but in repairing and maintenance of the old obsolete equipment. The equipment in use became so old that it was now necessary to divert much of available investments to just keep it running.

In June 2010 president Medvedev instructed the government to set up a “special investment fund” in which government funds will be complemented with private capital. No results of such a new investment strategy have been reported so far. There are a lot of evidences illustrating that state owned corporations created to promote innovation prefer to hold the money in bank deposits instead of investing them in risky high-tech products. Despite these facts, the chief Kremlin ideologist Surkov continued to argue that finding more money was the key to the problem of economic modernization: “methodologically, modernization is a simple thing – one needs money to introduce new technologies”.

Government-proclaimed desire to promote technological innovations and boost economic growth in Russia implies the need for the state to take an active role in economy and to provide the right stimuli and guarantees for investors. Since the Russian state under the current political regime lacks trust and credibility, and since the actions of the state to promote innovative economic development as well as its likelihood to succeed would depend on its type and characteristics, the economic agenda would demand its democratization. For entrepreneurs and investors, the Russian state in its current form is inefficient, ridden by corruption, lacks accountability and is unpredictable. Most importantly, it cannot credibly commit to respect property rights and sustain the rules. The democratic reform, in ideal, could modernize the Russian state and make it simultaneously strong, limited, accountable, conducive to good governance, and, thus, an effective agent of economic modernization.

Yet the same Russian leadership that sees and proclaims the vital importance of economic and technological innovations is reluctant to engage in political modernization, attempting instead to improve the existing model of governance by administrative methods. We explain such reluctance with the heightened political risks from the democratic reform for the stability of the current

political regime. Thus, we are quite pessimistic about the short and medium term perspectives of the economic innovations program in Russia. On one hand, the current political regime cannot provide “good governance” and credible commitment to form and sustain incentives for domestic and international businesses to invest into technological innovations in Russia. The existing political regime is more suitable for the status-quo economy based on natural monopolies exporting raw materials, metals and energy. On the other hand, anticipation of high costs and risks of political reforms make the choice to pursue them rather unlikely, and even less so during the forthcoming electoral cycle of 2011-12. In any case, political reforms would not have their desirable positive effect on the economy for a number of years.

In order to succeed in democratization, Russia needs time and investment of considerable economic and political resources to maintain trajectory until the benefits of reforms begin to emerge. Moreover, transformation process will cause serious political risks. Political reforms require patience – from the population as well as from the key political actors. And they require the initial consensus with regard to the long-term commitment to stay the course.

We could expect the period of instability and inefficiency caused by the initiation of reforms in Russia to be long and painful. The winning coalitions are likely to form half-way into a reform in favor of reversing the direction of institutional change. This suggests that several back-and-forth reversals might be realistically possible in future.

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Russia's modernization program as opportunity for Baltic Rim economic cooperation

By Päivi Karhunen and Riitta Kosonen

The national innovation system in Russia has been in major transformation since Vladimir Putin's first presidential term. The speed of introducing reforms in the field of research, education and innovation infrastructure has been particularly rapid during the past five years. The program for modernization of the Russian economy, launched by President Dmitry Medvedev in 2009, has brought along new initiatives in this field, and significant budgetary resources have been allocated to some of them.

The challenges of the Russian innovation system are numerous. The strategy draft Innovative Russia 2025, prepared by the Russian Ministry for Economic Development, makes an excellent overview of the state of the art. First, in the international innovation comparison Russia's performance is modest. The share of research and development (R&D) expenditure in the Russian gross domestic product (GDP) is slightly over 1 per cent, and the country's technology trade balance has turned negative in the 2000s. Furthermore, the financing of R & D is strongly dominated by the state, the share of which in 2009 was 66.5%. The efficiency of use of R&D funding calls for improvement as well. The three-fold increase in R&D expenditure since 1995 has resulted only in a 30% increase in the production of innovative products.

Moreover, the demand for innovations by Russian large companies is low, and skewed towards updating of manufacturing equipment instead of research and product development activities. This is one of the key reasons for the low degree of commercialization of innovations made in research institutes, which is traditional for the Russian science community. This problem was inherited from the Soviet economy, where R&D activities were performed at state research institutions with no linkage to the enterprises.

The interest of foreign companies to invest in R&D activities and technology-intensive production in Russia has been low. This is in part due to the challenging business environment in the country with excessive red tape and rampant corruption. Moreover, the cumbersome customs regulation and procedures have eroded the competitiveness of Russia as offshore production location of high-tech goods targeted to the world market.

What makes the modernization program different from previous initiatives for reforming the innovation system? One key issue is that for the first time, foreign actors are openly invited to participate in the process, and the need for imported knowledge and technologies has been recognized as central part of modernization. The introduction of modernization partnerships with foreign countries, including the European Union, provides a framework for such participation. Concrete initiatives introduced in the framework of the EU-Russia partnership for modernization include the proposed joint funding program by EBRD and Vneshekonombank, which would provide financing for investment projects implemented in Russia.

Furthermore, the recent reforms in the innovation system have included programs for bridging the gap between science and enterprises. One of the aims of the science sector reforms is to strengthen the research done in universities, and to strengthen their role as hotbeds for new innovative enterprises. The entrepreneurial university concept is a key component of the National Research University program, launched in 2009. It aims at creating preconditions and support structures for innovation and commercialization of research results into businesses at universities. An important step supporting this

aim was the law approved in 2009, which gives universities the opportunity to establish small innovative enterprises.

Moreover, the modernization initiatives have been linked to the broader context of improving the business environment and investment climate in Russia. The problem in previous attempts to improve the innovation infrastructure, such as the establishment of Special Economic Zones in 2005, has been that the legislation regulating them has not been in line with the broader legislative framework. This problem has been addressed in, for example, in the planning of the Skolkovo Innovation City, for which own legislation was adopted. This includes streamlining of visa and immigration procedures, and facilitating dealing with different authorities for Skolkovo residents. All these issues have caused major difficulties for foreign firms in Russia.

To sum up, the modernization program has in principle opened a new era in the history of Russian reforms, being based on the principles of open economy and international cooperation. This may open a window for the increasing integration of Russia to the Baltic Rim economic region. The principles of the modernization program may boost the role of St. Petersburg in the Russian economy, as being the Northern Capital of Russia, St. Petersburg hosts four National Research Universities, and modernization projects in the field of pharmacy and medical technologies, to mention a few initiatives. Overall, there are grounds to argue that the current modernization program in Russia is somewhat different from the previous national attempts in the innovation sector. Also, it is more sensitive to the national context and attempts to improve factors that have proven to be problems for innovation in Russia. What, however, remains unchanged from the previous efforts to modernize the Russian innovation system is the top-down approach, where the role of state is emphasized. Time will show how the new plans will be applied.

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The boom and crash of modernisation zeal in EU–Russia relations*

By Sinikukka Saari

The EU–Russia modernisation partnership – looking good!

President Medvedev's plans to boost innovation and modernise Russian economy have been received with a fair amount of enthusiasm in the west. Many in Europe hope that after years of persistent distrust and moping about, a new era of mutually beneficial, constructive cooperation in the primary field of economy and technology is finally kicking off.

In an attempt to seize the positive momentum and demonstrate goodwill towards the Russian leadership, the EU proposed a special 'modernisation partnership' that was agreed between the parties last year.

Although some have criticised that the partnership by claiming it is essentially just re-packaging of cooperation that is already taking place in the framework of four common spaces between EU and Russia, the agreement has nevertheless brought a positive spin on the relationship.

For once, the EU seemed to be responding quickly to developments in Russia and successfully advancing its political agenda by quickly adopting Medvedev's modernisation discourse

Or not.

Yet, I believe that the congratulatory enthusiasm for partnership for modernisation is unfounded. In fact, I would even argue that potentially the partnership for modernisation will even add to the problems of EU–Russia cooperation.

First of all, the EU reacted to mere change of political vocabulary – not to real political developments already taken place. At least for the time being, Medvedev's modernisation zeal is just rhetoric. Time will tell if it is going to develop beyond that.

The danger with this kind of 'ad hoc' cooperation projects is that the EU might embark on something that is not ever going to develop from words to deeds. If that happens, political agility becomes a burden rather than asset. The cooperation agenda gets buried with various projects of different size and shape which at some point sounded like good ideas but never took off the ground. The agenda is likely stay dysfunctional as taking topics off the agenda is even harder than getting them there.

Second, even in the case that Medvedev's modernisation plan is going to take off, problems might emerge. What the Russian political elite – or at least part of it – is proposing is a vertical, carefully managed elite-led modernisation. Innovation and competition are 'invited' from the top when and if considered necessary. It goes without saying that the elite do not believe political competition is needed – at least not before the next round of election (and then the next, and the next?).

Is this kind of vertical modernisation really what the EU should be supporting? After all, such a modernisation is not likely to be successful. In a globalised, interconnected world of today, this kind of restricted and managed modernisation is extremely difficult to pursue.

Even more importantly, supporting Russia's fuzzy modernisation programme is doubtful because that could mean indirectly legitimising the elite's plan to restrict political competition until undefined future. Although, in principle, there may be nothing wrong with gradual democratisation, the sincerity of Medvedev's plea for democracy can be justifiable questioned. For the time being at least, there is no indication that he is serious with it. On the contrary, every time his claimed beliefs have been tested, he has backed off.

It seems that the EU–Russia partnership for modernisation is based on wishful thinking rather than pragmatic, clear-headed analysis on what is going on in Russia. The typical juxtapositioning of idealists and pragmatists distorts the reality:

indeed, often the most 'pragmatic' policies are based on the biggest amount of idealism.

How to get it right?

If the partnership for modernisation is unadvisable way to engage with Russia, what then is the advisable one? How should the EU engage with Russia?

First, (as already mentioned) its policies should be based on long term-strategic thinking rather than ad hocism.

Second, the policy should be open, transparent and geared towards a greater amount of Russians than just the very select group of political elite. Although it may be a good idea to engage with people to some degree in all foreign relations, it is particularly important in the case of non-democratic states such as Russia. By engaging exclusively with the leaders (or appearing to engage only with the leaders) the EU is also indirectly legitimising the way the Russian authorities treat their citizens. The approach should be a more balanced one.

The EU policy with many neighbouring non-democratic states suffers from what in the academic literature has been called a 'joint stability trap'. This means that in EU is 'trapped' between its desire to promote democratic change and to preserve order and stability in its neighbourhood (see e.g. Bilgic 2010). In practical policies, maintenance of order and supporting the Russian government's policies have been given a clear preference.

In principle, the EU is acknowledging the importance of engaging with non-state actors in its neighbourhood. Unfortunately, the practice lacks behind. Although the EU consults non-state actors before the human rights consultations with Russia, these consultations do not receive almost any media coverage. All that is visible to the public are closed doors of summits and human rights consultations.

The EU needs to communicate better and engage more actively with both Russian people and leadership alike. The EU should act publicly in an open and transparent manner. The EU–Russia human rights consultation should be developed into a more open, transparent and public dialogue.

Although currently Russia can be considered a 'stable authoritarian' state (Levitsky and Way 2010) a non-democratic state can hardly ever be considered stable in the long run. The strategy of backing authoritarian leaders in the name of stability will be decreasingly efficient in future.

The European documents reflect the awareness that human rights and security are intertwined. Now it is time to update the practices to reflect this awareness – also in the case of Russia.

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Innovation strategies of emerging Russian multinational companies

By Sergey Filippov

Introduction

After the turbulent 1990s, following the break-up of the Soviet Union, Russia is rebuilding its economy. Its economic growth propelled by the rising natural-resource commodity prices has placed it in the category of emerging economies, together with China, India and Brazil. An important characteristic of the current stage of Russia's economic development is an increasing number of domestic companies venturing abroad. This internationalisation, once started in the neighbouring markets of former Soviet republics, proceeds to the advanced markets such as Western Europe and Northern America. The emerging Russian multinationals employ business models that enable them to leverage their country-specific advantages, such as access to natural resources. At the same time, emerging Russian multinationals start realising the value of innovation as a competitive advantage.

Background

Science and technology (S&T) sector was regarded as of strategic national importance in the Soviet Union, however it was organised according to a different logic than S&T sectors in many western countries. Its specific feature was its institutional fragmentation represented by branches of the national Academy of Sciences, ministerial research institutes, design bureaux, universities. The command economy tightly administered these linkages and the results of scientific research were 'imposed' on state-owned enterprises. After the collapse of the command economy, this inherent fragmentation manifested itself in its strong form. Many enterprises lost connections with their traditional S&T partners. In combination with national economic downturn, when many enterprises were occupied with short-term operational issues to sustain their existence, innovation receded to the background and became regarded as an unimportant element or luxury at best.

Many emerging Russian multinational companies have successfully completed their initial reorganisation and began designing long-term strategic vision. In most cases, innovation is acknowledged as a critical element of these strategies. In terms of their innovation strategies, emerging Russian multinationals may benefit both from innovation capabilities at their home base in Russia and from access to strategic assets overseas.

Innovation Strategies in Russia

Three different approaches can be distinguished in terms of innovation strategies at home in Russia. Firstly, after the collapse of the command economy, large domestic companies started acquiring former state-owned research institutes. In many instances it implied recreation of lost linkages with the S&T sector. This approach dominates among (semi-)privatised former state-owned enterprises, particularly in oil and gas sector. Companies like Gazprom and Rosneft acquired former state-owned oil and gas research institutes and integrated them in their corporate structures.

Secondly, emerging Russian multinationals may form either joint ventures or strategic alliances with foreign (western) multinationals. This approach is in line with the idea of 'open innovation', whereby it is understood that modern organisations need to rely on each other's competences in order to boost their resource base. By forming partnerships with western companies, emerging Russian multinationals secure access to the latest technologies and know-how in new sectors, and, in turn, by partnering with Russian companies, western multinationals enter emerging Russian market. An oil joint venture between Russia's TNK and Britain's BP is a good example. Such partnerships increasingly manifest themselves in such high-tech sector as telecommunications, e.g. a five-year partnership deal between the mobile phone operator MTS and Nokia Siemens Networks.

Thirdly, some companies rely on their own, organic innovative development. They set up their internal R&D departments and employ talents to nurture innovation. An interesting case in point is start-up companies, specifically in IT sector. A well-known example is the computer security company Kaspersky Lab, originally established as a start-up, that has relied on the domestic expertise of Russian programmers. Currently, it is a global antivirus vendor operating in Europe, America and Asia.

It should be noted that this distinction is mostly analytical rather than a clear-cut separation. More so, for development of effective innovative capabilities, companies should combine these approaches in a synergetic manner. Success of modern companies in their innovation strategies depends on the ability to adapt technology and knowledge from various sources.

Strategies Abroad

Access to foreign technology and know-how by acquisition of foreign (technology-intensive) companies can be seen as one of the motives of Russian companies' internationalisation. The market motive can be considered as the prime driver; and technology and knowledge is regarded through the in-house competencies of the target asset. Through these acquisitions, Russian companies aim to foster their innovation and technology base and execute international expansion strategy. Several high-profile deals can be named. For instance, the Russian conglomerate Renova's acquisition of Swiss manufacturing companies Sulzer and Oerlikon; Evraz Group's acquisition of Oregon Steel Mills Inc. in the US. A crucial question here is whether emerging Russian multinationals possess sufficient absorptive capacities; this is an issue of effective integration, use and recombination of obtained knowledge and technology.

State policy

Russian government has recognised the acute need to modernise its national economy, overcome its chronic backwardness and diversify it away from excessive reliance on natural resources. The much publicised project 'Skolkovo', a Russian analogue of the Silicon Valley, serves as a showcase of these intentions. The Russian leadership has voiced its support to the international expansion of Russian companies and their access to foreign technology. Several state bodies are involved in formulation and execution of innovation governance, yet the innovation policy as a coherent and comprehensive policy is still lacking.

Conclusions

The key question remains whether Russian multinationals will compete on the global stage on the basis of access to natural resources or utilising innovation as a competitive advantage, and whether they will be able to enhance their innovation and knowledge base at home and globally. As the value of innovation is increasingly recognised by other emerging multinationals, Russian companies are facing stronger competitive pressure and preparing for the strategic challenge and imperative of innovation.

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Law in the information society – a platform for cooperation in the Baltic Sea Region

By Katja Weckström

The rapidly developing contemporary information society offers unforeseen opportunities, but also challenges the legal system in unforeseen ways. While 'old' real world solutions can solve some legal problems that arise in the virtual context perfectly well, others are arguably ill-fitting for electronic communications and commerce. Weeding the fitting from the ill-fitting solutions is the challenge that all countries face. However, as with the internet freeing information, a key feature in legal development lies in the culture of sharing and active cooperation. Adopting a culture of sharing -- knowledge, education and best practices -- in the Baltic Sea Region may allow for keeping pace with technological development and resulting pressure on e.g. E-commerce law, Privacy law, Intellectual Property Law and Criminal law in addressing cyber-commerce, cyber-trespass, cybersquatting or cybercrime. More often than not these areas of law produce true conflicts, i.e. freedom of commerce and openness clashes with property, privacy or other fundamental interests.

Freedom and openness are virtues to cherish, but how should the law address security concerns, unwanted publicity and public release of personal data, defamation or inciting hatred in public chat rooms? Who is responsible for the dark side of information society; increasing distribution of material depicting child pornography, trade in counterfeit goods and increasing benefit of technological development in coordinating and maintaining organized crime; terrorism, drug and weapons smuggling and human trafficking? National authorities that used to have complete control within their sovereign territory and borders are increasingly dependent on private actors to act on their behalf. Are internet service providers the solution or the problem; is there a universal yardstick that tells us when an activity needs to be shut down; and do we shut down the activity, the infringer or the intermediary or do we cherish freedom and openness to the extent that we are willing to suffer the societal harm? 'Old' solutions placing duties to act on non-state agents upon receipt of court order transfer easily in theory, but how does the legal system deal with activity as rapid and fast-spreading as we witness on the virtual landscape today. The list of 'less serious', but equally fundamental virtual challenges is endless, as well as intriguing; what constitutes virtual property, who owns the content uploaded to Facebook or You Tube, can libraries make digital copies of books, can the FBI close down internet poker and, of course, can I get my favorite movie or a fake Rolex online.

All these challenges are addressable and we have the legal tools and knowledge for addressing them. The Faculty of Law at the University of Turku has offered a broad curriculum in English for the last 15 years, harboring a cluster of competence in intellectual property law, constitutionalism and fundamental rights law research. Since 2009 the Faculty has offered a Diploma in Innovation and Communications Law for students completing 44 ECTS of graduate level studies in the field. This Autumn

the Faculty further strengthens its commitment to offering high-level education in English by the launch of the 2-year Master's Program, Law in the Information Society (LIS). Both Programs have attracted international students as well as our own, which allows for truly international interaction. We rely on our own staff and courses offered by our partners in Turku, as well as our contacts abroad, who give visiting lectures or seminars on current topics. For more information on the Master's Program visit <http://www.law.utu.fi/en/studying/lis/>

The Faculty of Law is continuing to develop its network and partnerships and a culture of sharing knowledge, particularly in the field of information society law, but also in all other areas of law. We seek to encourage visits by both junior and senior academics and to better utilize the available co-operation and grant programs, such as e.g. ERASMUS and COIMBRA Group scholarship programs for young researchers from Eastern European Universities http://www.utu.fi/en/studying/cooperation/partners/scholars_hips_to_UTU.html or the Finnish-Russian Student Exchange Program (FIRST) <http://www.utu.fi/opiskelu/kv/partnerit/FIRST.html>. Visitors may take part in weekly Research Seminars as well as present their work for peer review. The Faculty also publishes a referee-journal, Nordic Journal of Commercial Law, which accepts papers on timely issues relating to international trade and legal developments affecting cross-border trade.

As with more traditional, 'real world' concerns, the countries in the Baltic Sea Region can face the legal challenges of the information society together. Sharing knowledge, education and best practices should be fairly easy, since established networks and exchange opportunities are ripe for utilization by up-coming legal professionals. The rapid development of technology, however, challenges nation-state marathoners with an English mile. Nations alone are less likely to succeed in this overwhelming task. However, together we can build on common knowledge and not only stay on-pace, but recalibrate the legal system to offer tailored solutions in response to real concerns in the virtual world. That after all, is the name of the game today!

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Innovation and knowledge development in the knowledge intensive business service sector (cross-country comparison – Hungary versus Slovakia)

By Csaba Makó, Péter Csizmadia, Miklós Illéssy, Ichiro Iwaskai, Miklós Szanyi and Péter Csizmadia

The current global financial and economic crisis put into the night light the patterns of economics modernization in the post-socialist countries in the Central and Eastern European (CEE) region. In addition, there is an under-researched historical shift in the economic structure in the developed economies, including the post-socialist economies in the CEE. Since the last decades of the XXth Century, we have witnessed the particular growth of the service sector at the expense of manufacturing. Some scholars qualify this challenge as a historical shift in the structure of economic activities, and others refer to it as a “service sector revolution”. In a rather simplistic way, the wealth of nations can be attributed to agriculture two centuries ago, to manufacturing a century ago, and to the service sector now, producing 70 – 80 % of GDP in the developed countries. The share of service sector in the GDP in the CEE post-socialist countries ranges from 58.4 % to 62.9 %.

One of the most important impacts of this historical change on the global labour market is increased wage competition not only in the low-level blue-collar jobs in the manufacturing sector but also in the best- and worst-paid white collar jobs.

Governments in the emerging markets are designing new development (modernization) strategies – independently of the ideological color of the ruling government coalition – aimed at moving up on the Global Value Chain (GVC) and shifting from the “low-skill” to the “high-skill” equilibrium growth model in the CEE countries. In competing with the fast developing emerging economies of Asia, one of the key sources of the sustainable competitiveness is the developing innovative and learning firms, regions and economies. The knowledge intensive business service (KIBS) firms are playing key role in developing innovation and knowledge sources at the various level of national economies.

In this context, a cross – country company survey was initiated in 2008 and 2009 to compare the Hungarian and the Slovak KIBS sectors. Due to the crucial role of the firms’ innovative capabilities and the related learning capacities the authors focused their interest on the diffusion of organizational innovations. In our view innovation is not regarded as exceptional and isolated *event* but as a result of individual and collective learning *process* embedded in the social – cultural relations of the firm. It is worth to call attention the importance of organisational innovations in the KIBS, since this forms of innovation have a continuous and open character and are attached to organisational changes and distributed across network of firms. Unfortunately our systematically collected information about this type of innovations is rather weak in comparison to our knowledge on innovation in the manufacturing sector.

In this paper, the international team of authors representing various disciplines in social science tries to map main features of organizational innovations relying on original company surveys data collected in Hungary and Slovakia in 2008 and 2009. Key lessons of the empirical inquiries are the following: integration in the global value chain (GVC) and company membership (networking) are the important drivers of the diffusion of radical (structural) organizational innovations. In this regard, Slovak knowledge intensive business service (KIBS) firms have better performance than the Hungarians. For example, such forms of structural (or radical) organizational innovation as project-based work, lean organization, and inter-professional working groups are more widely used in Slovak than Hungarian KIBS firms. In the case of the diffusion of procedural (or incremental) organizational innovation (e.g. team work, benchmarking, job rotation, collecting suggestion of employees, etc.) the contrast rather weak between the two countries surveyed.

After identifying various forms of organizational innovation, the firms’ representatives were asked to assess the drivers (engines) of implementation of the new organizational concepts and

practices. In both countries, the most important driver is the improvement of the efficiency of daily operation. This factor is followed by the motives to renew the existing knowledge base, adapting to the environmental changes, strengthening cooperation within organization, improving quality etc. It is noteworthy that such drivers of organizational changes as renewal of product and services, the renewal of existing knowledge, the increasing size of the firms, and, especially the outsourcing of business functions play weaker role in Slovak company practices than in Hungarian ones.

In the literature dealing with technological and organizational changes, resistance of employees/mangers and skill shortage are frequently cited as constraints of these changes. It is noteworthy that, in the present study, such factors were reported by a tiny minority of respondents and in conjunction with a lack of financial resources.

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Are there any landowners in Russia?

By Leena Lehtinen

The Finnish media was very much interested in Russian land law when the President of the Russian Federation Dmitry Medvedev signed the law on ownership of land in the border territories on January 9, 2011. This legal act restricts land ownership by foreigners in certain regions. Most of the municipalities located close to Finland are included in the boundary region where foreigners are not allowed to own land.

Two main questions presented in Finland were whether those restrictions contradict the principle of reciprocity, and to which extent this law affects the property rights of Finnish citizens and companies that have personal or business relations in Russia.

The law signed in January 2011 is actually nothing new in terms of Russian regulations associated with ownership of land by foreigners. The Russian Land Code, which was adopted in 2001, forbids foreign citizens and companies from owning land in boundary districts. The new legal act filled in a gap in the norms defining the territory in which any piece of land can be owned only by Russians.

The concrete list of municipalities where foreign owners of property are not allowed is a welcome clarification in the situation e.g. in the Republic of Karelia. Ten years ago it was not clear whether a foreigner could buy and obtain land. There was a risk that the parcel of land purchased or inherited by a citizen of a foreign country would be included in the restricted region. Because border territories were not defined in land legislation, it was unclear which real estate deals were illegal.

This clarification is the only positive thing about this act of the Russian President. Land ownership is a very uncertain matter, not only for foreign but also for Russian companies and citizens. Even though the creation of a market economy in Russia began more than twenty years ago, private ownership of land is still only possible in very rare situations. Real estate is coming into the hands of private persons very slowly.

The most common situation in privatization of land involves a case in which a house or other building located on a parcel of land owned by the state or municipality has been privatized, or if somebody plans to build a new house. There must be existing real estate or concrete plans for the building in order to get the land from public into private hands.

If the piece of land is not used for the purpose for which it was purchased within three years, the buyer may lose it. This is why it is not possible to buy land to keep in reserve for future use. This applies to both Russian and foreign investors.

Russian companies created by foreigners are entitled to buy land for industrial or housing construction even in those territories included on the President's list since 9 January 2011. This means that the presence of foreign landowners is not totally forbidden even in boundary districts, and is allowed in most parts of Russia.

It is hard to understand why the decision on restrictions was made at all and what the actual target of such restrictions is. For purposes of state defense, it is quite irrelevant whether the land in frontier districts is owned by a foreign person or Russian legal entity owned by foreigners, or by any private person.

Strengthening of private ownership is taking place not only in urban regions but also in rural territories. However, agricultural land cannot be owned by foreign persons and joint ventures with a majority of foreign shareholders.

Forests are still totally excluded from privatization. Land covered by forest cannot be owned by any private person. Russian companies and citizens may utilize the forest but not have it in their possession. Russian and foreign enterprises using state-owned forests have long-term tenancy.

Tenancy of forest was becoming a more interesting option for industrial investments after adoption of the new Forest Code in 2006. It allows mortgaging of the leasing contract and its use as a contribution to a company. Subleasing is also possible. The new forest legislation is more liberal and favors long-term investments;

however, the implementation has not encouraged foreign and Russian private investments.

The main problem here is the lack of private property rights! According to Russian law, forest is categorically state property and federally owned. Utilization of forest is organized by the regional administration according to strict rules set by federal bodies. Private enterprises and state bodies have concluded leasing agreements that are not clearly civil law contracts by nature. The private tenant is the weaker party, because the contract conditions may be unilaterally changed by the state in several situations.

Frequently changing norms concerning cutting, cultivation, taxation etc. lead to an unstable framework for contract relations. The legislation does not clearly define the responsibilities and rights between state bodies - federal and regional - or between public and private entities. The tenant is at risk of losing its land if the fulfillment of obligations is unreasonable and the contract is cancelled.

The main reason for this stable instability is the inability of Russian leaders to decide how to organize management in the forest sector. During the last twenty years the system has changed radically from a centralized into a decentralized system and vice versa. There has been permanent turbulence in the state administration. Private business has been given more space in the forest economy, but at the same time the economic responsibilities of private companies have been increased.

The crucial question is how to attract large investors to the forest economy. Long-term tenure is not a solution, because investors cannot be sure whether their contributions to the forest infrastructure will pay for themselves. Not even a 50-year leasing agreement is strong enough to guarantee the loans needed for infrastructure improvement necessary for organizing cuttings. According to Russian law, state property cannot be mortgaged, which means that private property rights in industrial forests are the only solution.

During the industrialization in the Russian Empire in the 18th and 19th centuries, land was privatized and the tsars gave forest to companies that used wood as a raw material. About 30% of the forests in the European part of Russia were private at the beginning of the 20th century. This path should also be followed today in order to protect forests against fires and illegal cuttings and from misuse of natural resources and national riches.

Speaking about reciprocity as it refers to the equal rights of Finns to own land in Russia compared to the property rights of Russians in Finland, it is worth taking into account the restrictions in ownership of real estate by non-residents in Ahvenanmaa, Finland.

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Is a new glasnost era beginning?

By Jukka Pietiläinen

If we trust Western media and media-freedom rating organisations, the Russian media are not free, not even partly free, but subordinated to an authoritarian regime. The reality is different. Although the mainstream media, television in particular, follow guidelines set by the authorities, there is much more plurality and freedom in less popular or less political media like local and small-scale newspapers, magazines or the internet.

One key word for Russian media freedom is glasnost, an ordinary Russian word meaning openness, which became the label for Gorbachev's policy of (initially limited) media freedom. Gorbachev's glasnost was a policy of the Soviet period. This year we celebrate the 25th anniversary of it. Glasnost was introduced in 1986 at the 27th party congress and included in the party programme. At first the policy was slow to take root, the Chernobyl disaster in April 1986 was clear failure for the new policy, but a more liberal information policy did evolve. Later, this increasingly free discussion in the media and society contributed to the collapse of the Soviet system.

Glasnost ended with the end of the Soviet Union. In a market economy and plural society there was no place for a government-based policy of openness. Freedom of speech took the place of glasnost in social discourse. Whereas the Yeltsin era was a period of uncontrolled freedom and chaos, with an economic collapse and a political power battle, the Putin era offered Russians a more stable era of economic growth, improved standards of living but also more control.

Putin has lead Russia to a more controlled, state-dominated media system. It is not correct to say that the Putin system means a return to the Soviet era. On the contrary, a large degree of media freedom has been preserved and developed. With the increase of independent media like local newspapers owned by journalists or the editor, magazines often owned by foreign media companies, and blogs, the Russians possess more opportunities to receive and to express views and news than ever before.

The other side of the coin is that critical information, which would be harmful to the state or the key power holders, is kept out of the mainstream media, especially the national television channels. A lot of criticism at the local level, like, for example, the Khimki forest story, can be found in the media anyhow.

According to the Integrum database, the number of times glasnost is mentioned in Russian press has remained at the same level over the last five years. In 2010 there were about 2,200 mentions of glasnost in central newspapers and 3,500 in regional newspapers, while in 2005 there were 2,000 mentions in central newspapers and 2,900 in regional ones. This slight increase continues to this day: during the first four months of 2011 glasnost was mentioned 800 times in central newspapers and 1,200 times in regional ones.

Many of these mentions of glasnost are in relation to Gorbachev's policy of glasnost or the Glasnost Defence Foundation, a civic organisation to monitor and defend the freedom of speech, or the lack of glasnost. We should keep in mind that in the Russian language glasnost simply means openness, and is not necessarily a reference to a state policy. Therefore glasnost may appear even without necessarily involving a reference to current political changes.

On the other hand, many of the papers which keep the word glasnost alive are, indeed, radical newspapers, often founded in the early 1990s under the slogan of media freedom. One of the examples is *Arsenevskie vesti*, published in Vladivostok, an independent newspaper "for the defence of the rights and liberties of the citizen" as its slogan on the first page announces.

When linked with the word 'new' the word glasnost has appeared in the Russian media only a few times during the last year or two, and the concept itself has not spread widely in the Russian media or Russian society. Some mentions may, however, be interesting weak signals to possible future developments.

The so-called new era of glasnost was linked with the new law on public access to information which came into force at the beginning of 2010. According to this law, local and regional authorities are obliged to publish information about the work of the local administration, for example, in relation to privatisation. Although the existence of a law does not necessarily mean that it has been implemented, one can find a wide range of information about local administrations on their websites. Part of this is certainly a PR-exercise on the part of the local leadership, but sometimes there is also useful information.

Moreover, in June 2010 a new era of glasnost was mentioned in a juridical forum in St. Petersburg, and Gorbachev expressed the need for it in an interview with Reuters. In the same month glasnost appeared in connection with the setting out of new guidelines by the Supreme Court of the Russian Federation on how to apply the media law. The guidelines (published in *Rossiiskaya gazeta* 18 June 2010) emphasised the importance of access of journalists to information and the role of the media in providing information to the citizen. The media, for example, have the right to publish information on the private life of citizens if it has social importance. Moreover, the Supreme Court stated that online media outlets can only be shut down for extremist comments left on their forums if they fail to comply with official requests to delete them. Earlier, the authorities had closed media for comments on their forums.

One of the most prominent references to so-called new glasnost was made by media analyst Alexei Pankin in *The Moscow Times* in English and in *Izvestiya* in Russian (both on 21 December 2010) in his regular column. As signs of a new glasnost era Pankin pointed out that president Medvedev has criticised his predecessor with a key word 'stagnation' and that a well-known television journalist Leonid Parfyonov levelled a harsh criticism at the state of Russian television. Parfyonov's speech was not shown on television, naturally, but it can be seen on the Internet.

The new glasnost is very often linked to the internet and its possibilities. While the traditional media are declining – only half of Russians was reading newspapers regularly in 2010 – internet and new media, like magazines, are increasing.

However, it is unlikely that there will be a glasnost policy which will activate people and cause the collapse of the political system, as was the case in the Soviet era. As Pankin pointed out, the public puts very little faith in the media, and therefore journalists can be allowed more freedom "without inflicting any harm whatsoever on society for the simple reason that nobody believes or trusts them anyway". But certainly, a more independent and critical media may increase the people's trust in the media and be useful for society as a whole.

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Benefits and challenges in developing regional integration (the case of the Customs Union of Russia, Belarus and Kazakhstan)

By Galina Shmarlouskaya

Regional integration is a development trend and the objective need of the countries facing challenges related to their incorporation into the world economy.

The Customs Union of Russia, Belarus and Kazakhstan was established on November 27, 2009 in connection with the need for modernization, export diversification of the national economies, joining efforts to overcome economic crisis implications. During its formation the Customs Union in the European Union was used as a model.

The goal pursued is to create a common customs territory with the intention of liberalizing goods and services movement for national and international companies that operate in the three countries, as well as eliminating customs barriers between the member states, and shifting state control functions of all types (except for border control) to the Customs Union's border.

The Customs Union functioning principles: elimination of customs duties in mutual trade in goods, avoidance of economic restrictions in mutual trade, application of single-tariff regulatory measures, common customs territory, uniform customs regulation, application of the Uniform Customs Tariff.

The system of customs legislation of the customs union includes: the Customs Code, international treaties signed by member states of the Customs Union, the decision of the Customs Union Commission. The Customs Code developed to meet the standards of the Kyoto Convention on harmonization and simplification of customs procedures was adopted on November 27, 2009.

Customs tariff and non-tariff regulation is based on a number of **documents:** Uniform customs tariff of the Customs Union, Common Commodity Nomenclature for foreign economic activities of the customs union (common HS Customs Union), a common list of goods subject to import or export bans or restrictions in the trade with third countries.

The **Customs Union Commission** fulfills the functions of: amending the customs duties rates applied by the member states, introducing the Customs Codes of the Customs Union, establishing customs benefits and quotas, defining the system of customs tariff preferences, introducing non-tariff regulation measures, special protective anti-dumping and countervailing investigations.

The basic principles of organization of customs administration in the Customs Union are: the absence of customs control and customs clearance at the internal borders of member states of the Customs Union; avoidance of customs clearance of goods released for free circulation and transferred within Belarus, Russia and Kazakhstan; a unified system of customs transit of goods through the customs territory of the Customs Union; creation of uniform conditions of transit.

Russian import duties (92%) were taken as a basis for uniform custom duties. 65% of tariffs were unified, 95% of all customs duties between Belarus and Russia were unified, 62% of all customs and duties between Russia and Kazakhstan were unified.

The benefits for all of the member states derive from an emerging common market with the capacity of 180 million people. The market enlargement for Russian manufacturers makes 15 per cent, for Kazakh companies – 10.5 times, for Belarusian ones – 17 times. The overall industrial capacity is 600 billion U.S. dollars, oil reserves - 90 billion barrels, agricultural production volume - 112 billion U.S. dollars. The GDP of the three countries totals 2 trillion U.S. dollars, the overall commodities turnover being equal to 900 billion U.S. dollars.

The establishment of the Customs Union can improve the allocation of revenues from import customs duties. Before the establishment of the Customs Union the total customs revenue of the three countries was divided in proportion: Kazakhstan - 3,1%, Belarus - 4,6%, Russia - 92,3%. Now: Kazakhstan - 7,33%, Belarus - 4,7%, Russia - 87,97%.

Other **benefits** are the following:

- equal rates to be charged on exporters for railroad, automobile, pipeline transportation of the exported goods;
- additional incentives for investors eager to arrange new production facilities and to move a part of their current facilities within the Customs Union (Russia will gain from transfer of production to Belarus and Kazakhstan);
- boosting export sales, as manufacturers are oriented to the needs of the common market, and all goods are recognized as domestic goods (e.g. Belarus is a large milk exporter on the European scale. It produces over 6 million tons of milk, about 4 of which may be exported. Kazakhstan has 16 million customers and almost no modern dairy farming. In Russia, the level of dairy self-sufficiency is 83%. Kazakhstan plans to increase delivery of heavy machinery to Russia and Belarus by 15 to 20%);
- facilitation of access to export-related infrastructure of the member states;
- financial markets integration and proportional increase of payments in national currencies for transactions within the Customs Union;
- creation of a unified customs transit system to accelerate the EU-Asia-Pacific cargo transit and an increase in income (in 2007 cargo transit amounted 700 billion U.S. dollars, revenues from services - \$ 50 billion); etc.

Integration **challenges** include

- differences in prices of energy commodities and import customs duties in automobile and aircraft industries;
- different export customs duties rates for raw materials, mineral fertilizers and nonferrous metals;
- extending the duration of customs control (in Russia in early 2009 zero duties on copper and potash fertilizers were introduced in order to support domestic producers in the height of crisis, in Belarus, the export duty on potash fertilizer is 16% and the country is not ready to reduce it);
- necessity of harmonizing technical regulation norms since technical barriers remain in the mutual trade (phytosanitary and veterinary control, lack of uniform technical regulations and standards, etc.);
- for Russia, the problems is that Russian importing firms engaged in customs clearance services may move to Kazakhstan where taxes are lower;
- increasing flow of Chinese products, especially light industrial products through the territory of Kazakhstan, etc.

Further work within the Customs Union is carried out in these directions: the application of customs duties, tariff preferences, indirect taxation, the procedure of moving goods across the customs border under the Customs Union, interaction of customs transit systems in the Customs Union of the Republic of Belarus, the Republic of Kazakhstan, Russian Federation and the European Union, etc.

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The EU and Belarus after the 2010 presidential election

By Matthew Frear

On 19 December 2010 Alexander Lukashenko was re-elected president for a fourth term in a highly flawed election. A harsh crackdown by the authorities in the aftermath of the poll saw hundreds arrested, dozens facing trial accused of inciting riots (including many of the alternative presidential candidates), and a concerted campaign launched against independent media and NGOs. Hopes in the West of a continuation of the limited political liberalisation which had been seen in Belarus before the vote were dashed and any signs of a thaw between Brussels and Minsk were reversed. Both sides have referred to a "time out" in their relations, however neither side is interested in completely shutting the door on potential future engagement and they will endeavour to return to the *status quo ante* in the medium-term.

For a decade EU policy focused on trying to isolate the Belarusian government due to the non-democratic nature of Lukashenko's regime. This included not ratifying a Partnership and Cooperation Agreement (PCA) and not inviting Belarus to participate fully in the European Neighbourhood Policy. Targeted sanctions, including an assets freeze and travel restrictions, were imposed on a number of top officials linked to the disappearance of opponents of the regime and also electoral fraud. Relations between the EU and Belarus began to improve marginally in 2008, as the Belarusian authorities released the last of their political prisoners and made some tentative, limited steps towards liberalisation. Although improvements in the conduct of the 2008 parliamentary elections were less far-reaching than many in the West had hoped, the EU temporarily lifted the travel ban for most of the officials it affected and in 2009 Belarus was invited to participate in the launch of the Eastern Partnership (EaP).

The EU's engagement with Belarus remained restricted. Within the EaP, Belarus was unable to participate in the bilateral track, due to the lack of a PCA, and was limited to multilateral regional cooperation. Belarusian opposition groups were invited to the EaP Civil Society Forum, however plans for a parliamentary assembly (EURONEST) faltered over disagreements regarding who should represent Belarus. During the presidential election campaign, the German and Polish Foreign Ministers visited Minsk with proposals for €3 billion in aid if elections were held under more free and fair conditions. However, in spite of nine alternative candidates being registered to run against Lukashenko and improved access to state media during the campaign, albeit from a very low base, the results on polling day itself and the violent clashes between riot police and protesters were to undo any progress made.

The EU was swift to condemn the actions of the authorities after the crackdown. Travel restrictions were re-introduced and extended to around 150 officials at the end of January, along with an asset freeze. An announcement was made at a donor conference in February on the quadrupling of EU aid for Belarusian civil society to €16 million. Several member states, e.g. Estonia, Latvia and Poland, eased visa restrictions for groups opposing the regime. Belarus was suspended from EURONEST, which

was launched without Belarusian representation. Any renewed engagement by the EU is dependent on the release of all political prisoners. Nevertheless, the country was not excluded from the EaP as a whole and the Belarusian Foreign Minister is not amongst those officials banned from visiting the EU. Economic sanctions have not been imposed against enterprises which bring in revenue for the regime, despite calls from some in the Belarusian opposition. While the EU has not ruled out the option of economic sanctions, it is unlikely to resort to actions which it perceives could harm the wider Belarusian society or push Belarus irreversibly into the arms of Russia.

The authorities in Minsk have criticised outside meddling in internal matters, often in highly undiplomatic language, and accused forces in both the West and Russia of fermenting dissent and even an attempted coup. Belarus announced in March that was imposing its own travel restrictions on journalists, activists and politicians from the EU, although a full list of who these are has not been released. The regime has been forced to rely more heavily on Russia for economic and political support as Belarus faced its own mounting fiscal crisis in April. However, Lukashenko has no desire to see Belarus become completely beholden to Moscow, as Russian demands for a greater role in the Belarusian economy threaten the president's hold on power. Relations between Minsk and Moscow remain strained after prolonged and public disagreements during 2010. While the trial and sentencing of opponents of the regime will continue, it is likely that those same political prisoners will eventually be released early to facilitate a normalisation of relations with the EU and counterbalance the influence of Russia.

The EU is also likely to want to try and build on the progress made in 2008-2010, once all political prisoners have been released. Poland's presidency of the EU Council in the second half of 2011 may see Belarus rise up the agenda, having been sidelined by recent events in North Africa. Brussels will want to avoid succumbing to Lukashenko's tried and tested tactics of making minimal concessions for maximum gain, seeking to play off the EU against Russia, and trying to trade geopolitical orientation for financial support. However, nor do they wish to see a neighbouring country fall into economic chaos and risk political instability in the region. Minsk will be facing tough choices in the coming two years in its relations with the EU, and Brussels will need to be smart in its response.

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The Polish Presidency – priorities and challenges

By Radosław Sikorski

Poland will take over the rotating Presidency of the Council of the European Union in July. In the mere 1000 or so weeks since we held our first free elections after the fall of communism, we have joined the modern European family – and become able to shoulder the responsibility of modern European leadership.

These are interesting times to be taking over the EU Presidency. The European Union has to address the aftermath of the international economic crisis. Our Presidency also comes just as the pace of international events is accelerating. Decisions that will determine the shape of the EU for the next decade must be taken during the next two years.

In order for the European Union to successfully face the challenges ahead, it must look again at its economic and foreign policies. These are two areas the Polish Presidency plans to examine.

The EU was built on the idea that economic cooperation would bring peace to the nations of Europe. Today it is once again economic considerations that push us towards further European integration. Promoting growth in Europe will be the main goal of the Polish Presidency.

We must ensure the current economic crisis, the worst since the 1920s, is not repeated. For this, we need an effective exit strategy. Poland will continue to work on economic governance and fiscal consolidation, but we also need to stimulate community growth. If Europe is to overcome the economic crisis and remain competitive on a global scale, we need to develop growth strategies, not simply focus on repaying debts. Poland will therefore prioritise the single market, investment policies for the next multiannual financial framework, and intellectual capital.

Economic cooperation is essential for growth. It is at the heart of the new EU Strategy for the Baltic Sea region, which will be reviewed during the Polish Presidency. Poland intends to hold a robust debate on this subject – a stakeholder's forum on the EU Strategy of the Baltic Sea Region is planned in Gdansk for October 2011. As European Commissioner for Regional Development Johannes Hahn put it: "The prize for getting it right will be a clean Baltic Sea, a more prosperous region, and a new model for cooperation to inspire other regions".

We want growth to become the new incentive for further European integration. To this end, Europe's financial, internal, military, energy and food security must be safeguarded. The Polish Presidency will focus on:

- financial security: the European Stabilisation Mechanism and other issues related to economic governance, such as the European Semester, in order to prevent another economic crisis;
- internal security: Integrated Border Management, intelligent borders and Frontex, in solidarity with Member States that are experiencing mass migration following events in North Africa;
- military security: aspects of the Common Security and Defence Policy (despite the progress made in

the Lisbon Treaty), such as EU-NATO relations, the structures responsible for preparing and planning operations, and the promotion of freedom, security and justice;

- energy security: a thorough analysis of the EU's external energy policy and commencement of work on a new energy strategy for the next decade, in order to provide European companies with better access to resources;
- food security: discussions on a new post-2013 Common Agricultural Policy, with the purpose of ensuring the EU's needs are met at a time of soaring food prices.

Events like the Arab Spring or recent gas crises have repeatedly shown that the situation in Europe is heavily dependent on our relations with third countries. This should inform our external actions, including trade.

The Polish Presidency will strive to direct European resources and policies at sustained and responsible assistance for the people of the Middle East and North Africa. However, new challenges must not be allowed to eclipse important unfinished business. This is why we will not focus on the EU's southern neighbourhood to the detriment of the region we know best – Eastern Europe. The upcoming Eastern Partnership summit in Warsaw will provide an opportunity to improve the EU's offer to the East.

Another piece of unfinished business is the enlargement agenda. We would like to see Croatia's accession negotiations finalised and Turkey and Iceland's stepped up. Externally, Poland will support efforts to conclude the WTO Doha Round of negotiations. Negotiations with Russia will also take place during the Polish Presidency.

The goal of Poland's Presidency is a strong European Union. One that is ready to face the challenges ahead. One that releases the huge potential of its societies and enables their development through integration. One with economic and foreign policies that ensure its leading international position.

Poles are euro-enthusiasts – for us, the EU represents the aspirations that have guided us over the twenty-odd years we have been building the modern Polish state. It is with similar enthusiasm that we approach the task of our upcoming Presidency of the Council of the European Union.



Radosław Sikorski

Minister for Foreign Affairs of Poland

The Nordic-Baltic cooperation

By Eero Heinäluoma

2011 is a year of special significance for Nordic-Baltic cooperation. Estonia, Latvia and Lithuania celebrate the 20th anniversary of regained independence and the restoration of diplomatic relations between Nordic countries. Twenty years ago the path for new cooperation was opened.

The Nordic Countries were among the strongest supporters of the Baltic countries twenty years ago. They were the first to open their borders and re-establish diplomatic relations.

In the early years of regained independence the Nordic countries supported the integration of the Baltic countries into the European and transatlantic structures, particularly the European Union and NATO.

Consultation mechanisms between the countries were developed. The "Nordic –Baltic eight" (NB 8) cooperation found its form, and the gradual integration of the three Baltic states into the existing frameworks of Nordic cooperation began. The five Nordic countries have a history of cooperation which dates back several decades and reaches into all levels of society. The Baltic countries were welcomed to this family of nations.

The Nordic-Baltic cooperation (NB 8 format) is flexible. It also expands to include third countries when appropriate. Certain topics are discussed in a format including Germany and Poland, some others with the United Kingdom or the United States.

Economy and democracy

The NB countries are world leaders in regional cooperation, social and environmental sustainability, and in economic prosperity. Together they are also influential and highly regarded players in the global political and economic fora.

The Nordic economic model has proven to be functional. For decades it has combined high taxation rates with high competitiveness, and it has been very successful. The Baltic countries on the other hand have time and again overcome great economic difficulties and proven to be among the most dynamic economies in the world.

To combine those two aspects would be remarkable. The combined Nordic-Baltic economic model would create societies which are open, tolerant and equal; societies that keep everybody on board and spur economic activity, entrepreneurship and investment.

Economic integration offers great opportunities and benefits, but it also poses many challenges. One of the most important challenges is the transformation that already takes place in the labor market. Also in Finland there are numerous examples of underpaid and undervalued labor flowing in. These workers end up in questionable conditions with poor rights. This is a serious problem, which degrades the individuals, disregards the labor regulations and undermines the welfare state. Everyone's economic growth is hindered by this parallel

economy. Nevertheless, no-one wants to live in a society where the salary and working conditions are dependent of your country of origin. Therefore, the issue should be put on the agenda of the NB8 cooperation.

Environment and sustainability

Economic growth can be sustainable only when it is socially just and environmentally sound. The Baltic Sea is common to all NB countries and it is made unique by its low salt content and shallow waters. In this regard, any changes in the ecosystem will take long to have an effect.

Right now the Baltic Sea is burdened with decades of environmental degradation. The tide has to be turned and provided with decades of environmental rehabilitation. Agriculture and poor waste water management are major sources of the eutrophication of the Baltic Sea and this must be addressed.

The Nordic-Baltic countries all operate in several different forums around the globe. The countries have a common ground to rely on; they have shared values and common interests. In several multilateral organizations regular NB consultations take place. These include the European Union and the United Nations, but also the World Bank and the International Monetary Fund.

Simple mathematics prove that eight votes are better than one, and eight voices in unison carry further than eight voices separately. Nevertheless, there is one forum where NB coordination is lacking. I.e. within the European Parliament. The significance of the European Parliament is continuously growing; an increasing number of important decisions is passing through Brussels and Strasbourg. It would be fruitful to introduce Nordic-Baltic cooperation there as well.

The future of Nordic-Baltic cooperation is described in the so called "Wise Men Report". The report, compiled by Mr Birkavs from Latvia and Mr Gade from Denmark, contains 38 concrete recommendations on how to enhance the NB 8 cooperation. Finland is firmly committed to take forward the recommendations of the report.

The Nordic-Baltic cooperation has grown and expanded in the past twenty years. In the future, the cooperation will give excellent opportunities for strengthening openness, tolerance and equality in the societies of NB countries.



Eero Heinäluoma

Speaker of the Parliament

Finland

The importance of the Baltic Sea region for Germany – priorities of the German presidency of the Council of Baltic Sea States (CBSS) 2011/2012

By Guido Westerwelle

The Baltic Sea region has always occupied a special place within German and European history. It used to be at the core of the vast trading network established by the Hanseatic League; it has witnessed decades of political and ideological division during the Cold War. Today, it is rapidly regaining its status as a genuine trade hub within Europe.

In recent years, regional economic integration has been greatly facilitated by the fact that the majority of riparian parties have become members of the European Union. Due to these favourable circumstances, the region as a whole accounted for one third of the European Union's GDP in 2009. Given that trade relations within the region continue to expand at a dramatic pace, the region could become one of the most flourishing and competitive areas of the European Union. Germany too, has become densely intertwined with the other littoral states. In 2009, both German imports and exports from and to the region amounted to the substantial sums of about €70bn and €75 billion, respectively. Especially the northern federal states have established intense economic and human ties due to their geographical proximity. For example, the trade volume between Mecklenburg-Western Pomerania and the Baltic Sea region has more than doubled in the years between 2002 and 2009, while trade from the Free and Hanseatic City of Hamburg has grown at a rate of about 40%.

Still, it is important to notice that trade with the Baltic Sea region is not only flourishing in the north of Germany. All of the sixteen German federal states, including the most southern ones like Bavaria and Baden Württemberg, are able to record considerable trade flows from and to the region. Regarding the mere facts and figures, the Baltic Sea region certainly can be seen as one of Germany's key partner regions.

However, there is more to this partnership than purely economic considerations.

Founded 20 years ago in Copenhagen, the Council of the Baltic Sea States has become a pioneer of cooperation, a crucial player within the region linking today the concerns and interests of its members in central areas, such as sustainability, civil security and the fight against human trafficking, culture and the strengthening of regional identity, education and energy cooperation. All of them are long-term priorities of the CBSS.

In July 2011, Germany has taken over the rotating presidency of the CBSS for one year. Given the potential and significance of the region, the German presidency has drawn up an ambitious programme of work. Whilst the great efforts of the Norwegian predecessors shall be continued and the Council's long term priorities are the foundations upon which every presidency's agenda must be build, Germany has decided to pay particular attention to two additional topics.

Despite the fast regional integration of the Baltic Sea region described above, there is still room for improvement when it comes to the South Eastern Baltic Sea Area. Therefore, one of the important focal points of the German CBSS presidency will be its modernization, paying particular attention to improve and intensify links between Kaliningrad area and the surrounding regions. The process of economic, cultural and educational cooperation must be driven forward. One example would be the establishment of a common tourism concept, creating a thread of attractions and a network of tourism centres that highlight the common history and presence of the Baltic Sea Area. Given the consecutive German and Russian presidencies of the CBSS, we can lay a good foundation for a programme oriented to the medium term. A close cooperation with all CBSS-member states is crucial for advancing common goals on this sector.

The second main point of attention shall be a joint initiative to encourage public-private partnerships, in order to promote private investment and to create incentives for further economic development within the region. This kind of cooperation is meant to further the sense of the shared responsibility public and private agents hold to support sustainable economic growth.

In sum, The Baltic Sea region is a central partner for Germany in trade, transport and energy cooperation, and yet, the region's significance goes far beyond mutual commercial interests.

With the Council of the Baltic Sea States, the member states have created an institution the importance of which lies also in creating a forum for political dialogue: in the beginning of next year, Minister Westerwelle shall invite the Foreign Ministers of the CBSS; in the end of May, Federal Chancellor Merkel will invite for a Baltic Sea Summit.

Besides that, the CBSS is offering the foundation for a broad network of cooperation between regional and local authorities, universities, schools, NGO's and cultural actors. The CBSS has the capacity to bring together citizens of all the coastal countries. It is contributing to the forging and strengthening of the Baltic Sea Region's shared identity and is increasing the people's identification with its history and its culture.

Dr. Guido Westerwelle

Federal Minister of Foreign Affairs

Germany



Germany's future energy policy

By Ingrid Nestle

The summer of 2011 was a turning point for Germany's energy policy. After the tragic natural disasters in Japan which caused a meltdown in three reactors at the Fukushima Daiichi power plant, public pressure on the German government to phase out nuclear power mounted. Rapidly, eight of Germany's nuclear power plants were shut down. In addition, a law to phase out nuclear power once and for all by 2022 passed parliament with bipartisan support. Three decades of public protests and campaigns against nuclear energy have thus successfully influenced all parties of the German Bundestag and accomplished a historical change in energy policy.

Nevertheless, against the background of what is at stake, this historic decision is only one important step towards our long-term goal: energy supply based solely on renewable energy sources. More precisely, the German Greens are aiming at cutting Germany's green house gas emissions by at least 40 percent by 2020 and 90-95% by 2050 compared to 1990 and to more than double the amount of electricity from renewable energy sources within ten years to cover substantially more than 40 percent of our electricity needs. With a supportive political framework we strive to obtain all our electricity from renewable sources already by 2030. Until 2040 the traffic and heat sectors shall follow. While this will affect all aspects of Germany's future energy policy, let me briefly outline what I see to be the main challenges with regards to electricity.

Challenges ahead:

To set our electricity sector on the path of sustainable energy, we need no less than to radically change the way energy is produced, distributed and consumed.

Production:

In the medium-term, the central challenge is to rapidly increase the share of renewable energies and at the same time adapt the remaining conventional capacities so as to best complement the renewable production. Many decisive decisions were already taken a decade ago by the then governing coalition government of the Social Democrats (SPD) and the Green Party (Bündnis 90 / Die Grünen). The Renewable Energy Act from 2000, for example, gave priority to energy from renewable sources and granted a fixed feed-in tariff which spurred investments in renewable energy at an astonishing pace, the construction was a lot faster than all the political targets previously set. Consequently, the flexibility of energy production facilities will become increasingly important to balance the cyclical nature of renewable energy sources. In the transition period from conventional energy sources to renewable energy, flexible and highly efficient Combined Cycle Gas Turbine (CCGT) power plants will be needed to bridge gaps in demand and supply fluctuations. It is crucial to avoid a technical lock-in through the construction of new coal fired power plants that would need to be shut down long before the end of their technical life time. This would lead to very high costs for society.

Distribution:

As far as the distribution of electricity is concerned, the extensive use of renewable energy requires better infrastructure to maintain grid stability and to make use of new energy sources as efficiently as possible. The electricity grid needs to be reinforced to allow the different renewable plants to complement each other. Thus, it will be a lot easier to

assure renewable supply at every second, even if the wind is not blowing or the sun not shining. In the long run a strong pan-European electricity grid will be very helpful. This is not only a huge technical, logistical and financial challenge, but also a politically sensible task which can only be accomplished by allowing for public participation at an early stage of the planning process. People are much more willing to accept new infrastructure when the benefits for renewable energy sources are transparent and convincing.

Consumption:

On the consumption side, the central strategy is to increase energy efficiency. Every single kilowatt hour of energy savings is good for the environment and saves money. In Germany, we could save one fifth of electricity consumption through cost-efficient measures within a decade. Important efficiency gains could be made, for example, by setting the most energy efficient appliances as the national standard (in a so-called top runner programme). In addition, more easily available information and financial support are necessary. Furthermore, the use of smart meters could enable consumers through price incentives to respond to fluctuations in the energy supply and, thus, to contribute to grid stability in the renewable world.

Shortcomings of the current administration

The central challenges I have briefly described above will require the full commitment of all stakeholders involved. Indeed, when taking into account the potentially dramatic consequences of anthropogenic climate change, the urgency and significance of our task must not be underestimated. The majority of politicians and decision-makers have come to realize that Germany's future energy policy is inextricably interlinked with climate and environment policy. It is consensus among all parties that at least 80% of electricity production shall be switched to renewable energies within a few decades. So far, however, the Conservative-Liberal coalition government has not yet presented appropriate policies and measures to reach their own goals. The government's long-term planning is without courage and more ambitious initiatives from the European Commission for example with respect to energy efficiency are frequently watered down – in spite of the large potential benefits for the German economy that would arise out of a further expansion of sustainable energy markets. It has been shown in numerous studies, that Germany can switch to 100% renewable energies within a few decades – and not only remain a leading industrial nation, but actually profit from its head-start in the future, leading green technology markets and increasing our independence of rising fossil fuel prices.

Ingrid Nestle

Member of the German Bundestag

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Germany



Finnish business and the Baltic Sea region

By Mikko Pukkinen

The Baltic Sea region traditionally plays a significant role for Finnish business and it is often described as expanded home market. In recent years the main focus in international business news has been on emerging markets. However, this should not by any means undermine the importance of the Baltic Sea region.

Merely 15 years has passed since the business leaders of the eleven Baltic Sea countries signed "The Stockholm Declaration on Growth and Development in the Baltic Sea Region". The declaration states: "There are, in the Baltic Sea region, no alternatives to a well functioning market economic system. But a market economy can only flourish when participants feel confident that there will be peaceful relations between countries and people in the region and that there will not be any destructive changes or threats to life, liberty or property."

The preface sounds historical but later on the declaration identifies nine elements for growth and development, which are topical even today: "rule of law, less bureaucracy and better public administration, free trade, integrate Europe, stable monetary systems and prudent economic policies, greater flexibility – a necessity for the future, links in the Baltic Sea Region – improve infrastructure, development must be sustainable and human capital – a natural resource".

Priority market

Economic growth and prosperity in the Baltic Sea region are of crucial importance for Finnish companies, though they have tremendously increased their activities all over the world and especially in the emerging markets.

The Baltic Sea countries remain a priority export and import market as well as location for foreign direct investment. Internationalisation of Finnish companies has traditionally started from expanding activities to Sweden and other countries around the Baltic Sea. Today this is true especially for the SMEs.

In 2010 the total share of Sweden, Denmark, Germany, Poland, Lithuania, Latvia, Estonia, Russia, Norway and Iceland amounted to 41 percent of Finnish exports, 51 percent of Finnish imports and 53 percent of overnights by foreign citizens in all Finnish accommodation facilities.

January-June 2011 recorded further growth. The share of the eleven Baltic Sea countries reached 42 percent in exports, 53 percent in imports and 55 percent in tourism overnights.

Sustainable economic development

National economies of the Baltic Sea countries are in many respects complementary. Some are strong in production of energy and raw materials, others in manufacturing machinery and equipment, production of daily consumer goods and providing various services. This, together with geographical proximity and liberal market access policy, has significantly facilitated sustainable economic development and growth of prosperity in the Baltic Sea region. At the same it has fostered development of world-leading companies in many business areas.

The world is shrinking and businesses have during the last two decades become increasingly interlinked with development of third country economies. The Baltic Sea countries have been pioneers of cooperation and symbol of regional entity, like the title of the current German Presidency of the Council of the Baltic Sea States so right describes. The Baltic Sea region has in an excellent manner combined best performing European liberal economies and growth of emerging markets.

Blurred future

Business in the Baltic Sea region has become daily bread for internationalized Finnish companies but the role of the Baltic Sea regional cooperation is blurred.

The recent economic crisis was difficult, but with the help of stimulation packages it was possible to quickly return to a growth

path. Unfortunately this meant growing indebtedness, which is not easy to stop without cutting expenditure, which in turn has negative effect on economic growth. Thus the new lurking recession is a great challenge for the whole region.

All means should be used to keep business running. Strengthening regional cooperation is perhaps not the first priority but should not be forgotten either. The 2009 EU Strategy for the Baltic Sea Region and its Action Plan concentrate to a great extent on environmental cooperation. There are though many issues to be tackled in regional cooperation for the benefit of economic growth and prosperity.

In their input for the EU Strategy for the Baltic Sea Region, Nordic and Baltic Sea business organisations proposed several measures for development of business environment in the Baltic Sea region:

- Further harmonisation of laws, regulations, customs and other procedures and their uniform implementation;
- Cutting red tape and developing e-government to offer more public services in internet;
- Increasing productivity in public services and their opening for free competition whenever possible;
- Developing transport and communication infrastructure, promoting diversification of energy supplies and investment in transnational energy networks;
- Addressing environmental issues and maritime safety in close cooperation with the business community to avoid excessive financial burden to businesses (high cost of the reduction of ship fuel sulphur content to 0.1 %);
- Close cooperation with neighbouring countries and especially north-western Russia;
- Consolidation of resources by redefining regional institutions, their missions, tasks and priorities by merging organisations or their functions.

There has been positive development in several issues, but the progress should be faster to safeguard competitiveness and secure economic growth and prosperity of the Baltic Sea region economies.

Need for strong leadership

The 2010 Baltic Sea States Summit stated its conviction that the Baltic Sea Region, on the basis of respect for democratic principles, human rights and the rule of law, active civil societies, increasingly integrated and interdependent economies, developed social dialogue and social cohesion, has the potential to become one of the most prosperous, innovative and competitive regions in the world, using the strengths of the Council of the Baltic Sea States and other existing Baltic Sea regional cooperation frameworks.

The Baltic Sea regional cooperation seems to loom somewhere between international, EU and domestic affairs. The expectations from the 2009 EU Strategy and its Action Plan are meagre. Conferences come and go too often without notable results. Without active structures that constantly remind on need for action there is not much to expect either. The Baltic Sea cooperation is in need for strong leadership. The history of the Baltic Sea regional cooperation is impressive but keeping the Baltic Sea countries pioneers of cooperation and symbol of regional entity in the coming years should not be taken for granted.

Mikko Pukkinen

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Instead of three no's it is four aye's that apply to the EUSBSR

By Timo Rajakangas

The European Union decided in 2009 to adopt its first macroregional strategy for the Baltic Sea Region. The strategy was motivated by a generally held strong conviction that the challenges facing the Region were not only shared by all the Baltic Sea rim countries but also of such nature that they could not be successfully dealt with without joining the forces of all the stakeholders in the region. An added value could clearly be seen for increasing cooperation and intensifying coordination between all the relevant actors that have a role to play in activities aiming at securing the region a sustainable environmental, economic and social development.

To ensure a comprehensive, holistic and cross-cutting approach the Strategy was prepared in consultation with a multitude of stakeholders at various levels in the Region. The enthusiasm of all participants seemed to be unaffected even though the so-called principle of the three no's was applied when agreeing on the adoption of the Strategy: 1) There would not be any new institutions created, 2) no additional funds would be made available for the implementation process and 3) the adoption would take place without any new legislation. Even though the principle of three no's is strictly speaking true, it may have over time led to some misinterpretations. The Strategy's value and meaning can have been called to question if and when it has been perceived as just a new theoretical approach that has no significance in practice. It appears to lack everything normally expected from an efficient program: organisational framework, funds and legal basis.

It is true that no new institutions were established when the Strategy was endorsed and the implementation work was launched. As a matter of fact the Baltic Sea Region has already been enjoying a high degree of institutionalisation both at government, subregional, local as well as at the NGO level. Creating one more institution to govern the ongoing work in the various fields was therefore not felt to be necessary. Nevertheless, as the Strategy is all about coordination, collaboration and cooperation one of the first tasks in the implementation process has been to develop suitable frameworks and networks within which the relevant players from the BRS countries could come to interaction with each other in order to join their forces to tackle the issues at hand. Also at the national level new coordination bodies have been set up to ensure coherence of the involvement of all the parties involved in the implementation process. In other words, even if no new institutions were created EUSBSR has meant a clear YES to new coordination structures and bodies. In fact, the clear improvement in coordination and cooperation mechanisms within and across the BSR countries can be seen as one of the first concrete results that the Strategy has produced in the first two years of its implementation.

As the Strategy came into being in the middle of the ongoing financial period of the EU, there was of course no other realistic alternative to the "no new funds" principle. To what extent this may have dampened interest in getting involved with the participation is not clear. However, the truth is that there was not really such a compelling need to make new funds available as there already existed ample financing in place that could be used to implement the Strategy. For example, for the Cohesion Policy alone over 50 billion Euros have been allocated for the Baltic Sea Region in 2007-13.

Other EU policies and programs can likewise offer funding opportunities for EUSBSR implementation. Indeed one of the main added value features of the Strategy is that it is meant to bring more coherence and efficiency into the usage of the funds already available to the Region through various EU programs. In other words, the EUSBSR has certainly meant a YES to new funding by adopting a new approach in channelling funds from existing sources to projects supporting the Strategy.

It is certainly also a fact that the Strategy was adopted without any new Directives or Regulations being passed. It was not necessary as the existing EU legislation already provided the necessary legal framework for Commission and the Member States to intensify their efforts in addressing the challenges the Baltic Sea Region has been facing. This does, however, not mean that EUSBSR would in the end not bring about any legislative changes. To the contrary, when endorsing the Strategy the Council clearly expressed the wish that the integrated approach and the cross-sectoral coordination would eventually give input to new policy initiatives and not only in the Baltic Sea Region but at the EU level as well. Naturally, time needs to be allowed for the Strategy work to cultivate ideas through its new forms of horizontal and multi-level cooperation before they can be expected to become ripe for policy level conclusions and possibly lead to new legislation as well. However, first signs of the implementation process feeding into the legislative level have already been seen with respect to the need to introduce legal changes to limit the use of phosphates in detergents used by households. With time we will most certainly say more and more often YES to legislative changes brought about by the EUSBSR implementation.

Besides the apparent misconceptions concerning the three no's concept there seems to exist one more false perception related to the Strategy. As the EUSBSR is an internal EU strategy it was naturally developed in close consultation between the Commission and the Member States of the Region. The intention was, however, never to make the EUSBSR an exclusive, closed or discriminatory club of the Region. After all, the underlying principle of the Strategy is the conviction that only through coordination, cooperation and collaboration between all the relevant stakeholders the Region's almost 100 million inhabitants can be guaranteed a prosperous and sustainable future. In other words, EUSBSR is meant to signify a firm YES to welcoming the participation of all countries of the Region in this joint exercise that we all not only need but also stand to benefit from.

Timo Rajakangas

Ambassador for Baltic Sea Issues

Ministry for Foreign Affairs

Finland

Stockholm calls for greater commitment to the well-being of the Baltic Sea

By Sten Nordin

The marine environment in the Baltic Sea is a priority for the Swedish government. The Baltic Sea region has always been important for Sweden since about 90 percent of the Swedish population lives within 100 kilometers of the coast. The majority of the country's industrial centers are also located by or close to the coastline. Due to the critical situation of the marine environment, the regions' economy and well-being are critically at stake.

As Mayor of the nation's capital Stockholm, I can assure that the city is committed to the environmental challenges that we face in this important region. To invest in the protection of its ecosystem is an important investment for the future. Trade, tourism, the fishing industry and important shipping routes are all depended on the well-being of the Baltic Sea. The Baltic Sea Action Plan (BSAP), which Sweden is committed to, is currently the most comprehensive internationally agreed rescue plan for the Baltic Sea. We need to make a giant leap forward because there is a lot needed to secure a healthy and environmentally sound future for the region. The need for concrete effective action is growing ever more urgent. Hopefully the BSAP will prove to be the giant leap needed.

Stockholm has a long history of working for clean water. The city, which is built on several islands, is proud over the water which surrounds her. The city annually awards The Stockholm Water Prize. Its purpose is to promote, support and award outstanding achievements in water related activities. Clean tap water has always been a treasured commodity which is taken for granted by all our inhabitants. We are committed to do everything needed to make sure clean tap water remains a reality for coming generations.

The well-being of the Baltic Sea is also vital for the Stockholm archipelago and its thousands of islands. The archipelago is one of Sweden's grandest treasures and everything must be done to protect it. Stockholm therefore supports a wide range of co-operations dedicated to the environmental concerns and challenges that we face. In 2008, Stockholm signed on to the Baltic Sea Challenge. The initiative, which started in Finland, consists of several cities and municipalities as well as local groups and organizations dedicated for a healthier sea in the region. It is important that we in a wider shared effort work on all local levels to protect this important sea which is shared by so many interests.

The environmental concerns are reasons enough for these co-operations to exist. However, the economic benefits are also important to consider. It has always been easier to push legislation and initiatives through when financial benefits outweigh costs. Health costs and loss of income from tourism would devastate several areas throughout the region if we do nothing and simply let the sea's wellbeing deteriorate. The tourism industry is increasingly growing around the Baltic, especially tourism amongst those who travel by cruise ships. This is a welcomed development and yet another reminder the important benefits to work hard for a cleaner Baltic Sea.

One of the major challenges is how we can come to grips with hazardous substances. The source for these substances span from abandon shipwrecks to planned criminal activities such as illegal dumping of oil. The

Swedish Environmental Protection Agency continually works to detect the sources of hazardous substances. This work is important so we know where we need to devote our resources. Investments have therefore been made on equipment for aerial surveillance and tracking. Being able to track illegal oil dumping and pollution violations from ships or other industries over a wide area is crucial to enforce these important laws. In this area I fear that we still have a long way to go in order to successfully deter those committing these crimes by increasing the risk to suffer legal consequences. To live up to the commitments made in the BSAP we will need to improve the knowledge within industries and authorities to work with heavy metals and dioxins. Unfortunately banned particles continue being detected in the Baltic Sea. One example is TBT which is still being used as an undercoating on ships even though it was banned a long time ago.

In some areas, great progress has been made in regards to reducing emissions and hazardous substances. For decades we have been aware of environmentally dangerous waste and emissions. We have taken action and recovered from damages caused by DDT and PCB waste. Industrial plants in Sweden are operating with environmental technologies recommended and required in accordance with environmental agreements. Proper handling of waste is improving and hazardous leaks are also on the decline. This shows that we can achieve positive results when we act. With approximately 90 million people from well developed countries with a lot of expertise and financial resources live in the region. The challenges we face are dire but far from impossible.

Sweden currently holds the presidency of HELCOM (Helsinki Commission - Baltic Marine Environment Protection Commission). HELCOM is one of the oldest regional seas conventions and a global model for regional cooperation. Since 1974 it has been working to improve the environmental status of the Baltic Sea. The main priority during the presidency will be to follow up and make sure that countries take responsibilities and live up to its commitments. Due to the long coastline and large marine areas, Sweden bears great responsibility for the region. I was encouraged that the newly appointed Swedish Minister for Environment, Lena Ek, mentioned at her first press conference that this was one of her top priorities. Hopefully this bodes well for the Swedish presidency becoming a success as we continue to move from words to action in this very important and challenging task ahead of us.

Sten Nordin

Mayor

City of Stockholm

Sweden

Post crisis economic growth in Kaliningrad region

By Vladimir Kuzin

The main manifestations of world economic crisis in Kaliningrad region showed themselves in 2009. Especially strongly the crisis affected the industry. The anti-recessionary measures in the region were mostly of social character, particularly provided support for the labor market. The measures to reduce budget expenditures led to deterioration in demand, which negatively influenced the situation.

Since 2010 an economic growth started to be fixed in the region, and this tendency continued in 2011. According to the results of January-June 2011, the rate of some economic rates in the region exceeds an average Russian level. The index of industrial production in mining operation reached 250% (in Russia – 102.5%). In manufacturing activity the index was 154% (in Russia - 108%), in electricity production and distribution, gas and water distribution – 137.9% (100.2%). Also to compare with the average rate for the whole country the growth of the following indexes was fixed higher: freight in road transport – 143.5% (in Russia – 109.4%); the volume of construction – 132.4% (in Russia – 100.9%); retail trade - 132.4% (in Russia – 105.35).

The manufacturing sectors of economy demonstrated the significant growth rate. Since the beginning of 2011 their input to the growth of production volume manufactured in the region is estimated in 79.1%. In the first part of 2011 the highest growth rates were in high-tech sectors: production of autos (1.9 times); receiving television equipment (1.7 times), as well as production and design of reinforced concrete structures and prefabricated elements (1.7 times), sausages (1.6 times). In general for the first 6 month of 2011 the manufacturing production to compare with the pre-crisis period of January - June 2008 increased and amounted 171.5%.

The growth is determined by the recovering of domestic demand. In June 2011 in comparison with December 2010 has been fixed growth of index of prices industry goods producers (104.6%), that testifying of the increasing of demand on industrial production. However there was no increasing of demand on all types of goods, which producing in region.

In the mining production growth in the first half of 2011 to January-June 2008 amounted to 173%. During the same period in the production and distribution of electricity, gas and water grew 66.7%. It confirms the fact that the growth of industrial production is associated with an increase in working load of enterprises.

However, production volume for a number of economic activities decreased to compare with the same period of the last year, including: textiles and textile products (94.6%), production of machinery and equipment (99.1%), production of electrical and optical equipment (91.0%).

Positive changes in the economy stabilized the situation in the employment and labor market. As of the 1st of July 2011 the number of registered unemployed was 10.5 thousand people. Compared with the beginning of 2011 (16.9 thousand) the level of unemployment decreased 38%.

Average monthly nominal wages per one employee (for large and medium-sized enterprises) in the region in January-June 2011 compared with the corresponding period of 2010

increased 9.4%. The growth of wage fixed in almost all types of activities. In absolute value the average wage was 20.5 thousand rubles. (about 500 euros) per month. From the beginning of the year wage differentiation in different economic activities has not undergone major structural changes and remains high. Concerning the level of wage the mining operation and financial activity still remain the leading ones.

Real income of population in the region in the first part of the year was 94.6% as of the similar period of the last year, although growth of 4.9% was fixed a year ago. At the same time the expenses of population exceeded the income 4.6%.

From the beginning of the year the regional index of consumer prices reached the level of 4.9% (last year - 4.2%). At the same time prices of food products increased from 6,4% to 6,7% and of non-foods - from 1,6% to 3,7%. Besides in absolute terms prices on many goods of every day demand were higher in Kaliningrad region than in neighbor countries - Lithuania and Poland. Now the agreement on visa-free cross-border exchange is being worked out, due to its ratification the expenditure switching for goods from neighboring countries is possible to take place.

In 2011 the investing in the regional economy decreased. The capital investment in the first part of the year was only 60.4% as of the level of the first part of 2010. It happened due to several factors: reduced of budget investments, high level of uncertainty regarding investment decisions in terms of crisis and change of the Governor of the Kaliningrad region, which occurred in 2010.

By the results of the first half of 2011 the volume of construction (data for large and medium-sized enterprises) exceeded the same period of last year 1.4 times. Taking up of volume in construction in January – June 2008 as 100%, for the same period of 2011 this figure is estimated 78.1%.

The situation in investment sphere demonstrates, that economic growth have fickle disposition and in future will be determined by a number of different factors, among which the one unique factor is to emphasized only for the Kaliningrad region. Now most enterprises of the region use custom preferences of Special Economic Zone regime, which will terminate in 2016. According to various estimates, from 30 to 50% of companies are considering moving to other regions of Russia, which facilitated access to consumers after the cancellation of customs preferences.

Vladimir Kuzin,

PhD in Economics

Head of the Economic Development Department

Kaliningrad City Administration

Russia

Immanuel Kant Baltic Federal University as an example of EU-Russia cooperation

By Andrey Klemeshev

The university in Kaliningrad began its life as Kaliningrad State Pedagogical Institute in 1947. In 1966, it acquired university status. In 2005, the University was named after Immanuel Kant. In 2011, it attained federal status.

The I.Kant Baltic Federal University is one of relatively small universities of the Russian Federation. Due to its geographical location and firm links with both Russian and European universities, the University became one of the winners of the competition among Russian universities, implementing the national project "Education" in 2007-2008. The University presented its strategic development programme "The development of the University innovation and education infrastructure aimed at strengthening the competitiveness of the exclave region of Russia". The main aim of the programme was to provide specialists for the innovative development of the Kaliningrad region, the exclave region of Russia. The programme was financed from the federal budget, with the total funding of 9,7 million EUR. The University co-funding amounted to 2 million EUR. The implementation of this programme was a precondition for obtaining federal status and becoming one of 8 Russian federal universities. Only two other Russian universities, Moscow State University and St-Petersburg State University, have a higher status.

The federal status of the University means that the University will get additional state funding of 25 million EUR per Year during the period of 5 years (2011-2015). This money will be spent on purchasing teaching and research equipment, renovation and maintenance of the University buildings, the training of trainers and the elaboration and introduction of new bachelor and master programmes. This will allow the University, aiming to become one of the world leading universities, to raise the quality of education and training and give an additional boost to fundamental and applied research.

The programme for the development of the University identifies the following priority areas:

- energy saving, energy efficiency and energy security;
- nanosystems and material engineering;
- IT and telecommunication;
- transport, logistics and recreation technologies;
- medical biotechnologies;
- social changes and social-humanitarian technologies;
- rational environmental management;
- urban spatial planning.

The University of today is a higher education institution of regional and federal importance. It is the leading educational, research and cultural centre of the Kaliningrad region. The University trains specialists in 50 fields. More than 200 education programmes are implemented there. The University employs 1,500 staff. The number of students exceeds 14,000. The academia of the University carry out research in 36 fields of science. More than 100 monographs, 240 course books and 5,000 articles have been published during the past 5 years. The University runs a number of postgraduate programmes and has more than 600 doctoral students taking their PhD courses in 38 fields of study. There are 10 doctoral dissertation panels in 17 fields of science.

The majority of the University students are residents of the Kaliningrad region. However, the number of students from other regions of Russia, the CIS and neighbouring countries (Latvia, Lithuania, Kazakhstan and Belarus) is annually rising. The University has exchange students and PhD students from Poland and Germany. The number of master programmes taught in English is growing. It will allow the University to attract students from abroad.

The I. Kant Baltic Federal University represents the system of Russian higher education in Europe and acts as a bridge between Russian and European education spaces for the benefit of all Russian regions. It is a bridge that has been chosen as a logo of the University. The University continues time-honoured traditions of Russian higher education, and learns from European education experience.

The University strives to maintain and spread academic and research traditions of Königsberg University "Albertina". Albertina, one of the oldest Universities in Europe, has a 467 year history. Hamann, Herder, Bessel, Helmholtz, Hilbert, Jacobi, Linderman, Gurvits taught in Albertina University. Donelaitis, the father founder of Lithuanian literature read Theology there. Hoffman, the famous writer and composer, attended lectures in Philosophy in Albertina. The University's greatest alumnus is Immanuel Kant, the world-famous philosopher. The name of I. Kant forever linked the city of Königsberg and Albertina University with the spiritual heritage of humankind.

Regionally, the University sees its mission in integrating the system of education in the region and raising its competitiveness in the light of the Bologna process.

Nationally, the University aims to strengthen Russian stateness and promote Russian culture in the Russian exclave, given the EU enlargement.

Internationally, the University accomplishes the mission of holding an open dialogue between Russian and European higher education institutions and promoting students' academic mobility. Dynamically developing, the University has become a large education, research and cultural centre of the Kaliningrad region, a true representative of the Russian system of higher education in Europe. It has partnership agreements with more than 50 universities from 16 countries. The University is a member of the European University Association, the Eurasian Association, the Baltic Sea Region University Network. Internationalisation of higher education has always been a priority. The University aims to develop new forms of international cooperation, thus facilitating the harmonization of Russian and European systems of education.

Andrey Klemeshev

Dr of Political Science, Professor

Rector of the Immanuel Kant Baltic Federal University (Kaliningrad)

Russia

The University of Gdańsk – the largest institution of higher education in Northern Poland

By Bernard Lammek

The University of Gdańsk was founded on 20 March 1970. Currently is the largest educational institution in the Pomorze region. We have eleven faculties with almost thirty-three thousand students, doctoral students and post-graduates, who are taught by one thousand seven hundred academic staff. In such fields of study as Biology, Biotechnology, Chemistry, Oceanography, Quantum Physics, Pedagogy, Psychology, Law and Economic Sciences, the University of Gdańsk is one of the best institutions in Poland. One of the assets of the University of Gdańsk is its relationship with the sea. The reputation of the university in marine matters is built on its excellent research stations with their international reputations: the Hel Marine Station of the Institute of Oceanography and the Bird Migration Research Station. The marine image of the university is also enhanced by its fields of study, specialisations and scientific research connected with the sea and with the Baltic coast in particular. The University of Gdańsk implements its motto of *in mari via tua*, and serves the development of the Pomorze region, whose wealth is the very sea itself.

The University of Gdańsk cooperates with universities, tertiary colleges and scientific and research institutions in almost every country around the world. This allows us to broaden our range of courses and the knowledge of our academic staff, and to expand the University of Gdańsk. An important aspect of our mutual activities is the implementation of projects within the European Union's Framework Programmes. From 2002 to the end of 2010, the University of Gdańsk participated in over 170 European and international projects. The membership of Poland in the European Union has opened up new possibilities for Polish science and scholarship in the area of financing activities, including the exploitation of structural funds, such as the European Social Fund, the European Regional Development Fund and community initiatives. During the 2007-2013 programme period, the University is implementing a total of 37 projects within the framework of the following Operational Programmes. Scientists and scholars at the University of Gdańsk also obtain other European and international grants, for example within the framework of the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism, the European Territorial Cooperation and the Lifelong Learning Programme. Because of the development and the activities of its academic staff, the University of Gdańsk has become an incubator for entrepreneurship in such areas as Biotechnology, Biology and Chemistry.

As part of its commitment to the idea of creating the European Higher Education Space, the University of Gdańsk, as the first such higher education institution in Poland, introduced in 2005 the full range of the Bologna system of education (three-cycle higher education), enabling students to study and opening new perspectives for obtaining a degree. In accordance with the principles of the Bologna Declaration, the University of Gdańsk offers doctoral studies and has a functioning e-learning internet portal. The University also offers lifelong learning programmes with a wide range of post-graduate studies and courses, as well as the University of the Third Age.

The University of Gdańsk offers courses in over 40 fields of study, with over 180 specialisations. Every year, new fields of study are added and the range of courses is adapted to meet the needs of the employment market. Combining theoretical knowledge with practical skills broadens the possibilities of the students at the University of Gdańsk on the employment market, and is an integral part of the idea of the constant improvement of the quality of education.

The current development strategy of the University of Gdańsk is concentrated on the expansion of the university on three campuses: Oliwa (the Baltic Campus of the University of Gdańsk), Sopot, and Gdynia. Among the plans for the development of the University of Gdańsk in the years 2007-2013 is the extension of the university's campus in Gdańsk-Oliwa within the framework of the programme entitled "The Construction of the University of Gdańsk's Campus in the years 2007-2013". Plans call for the construction of a series of new buildings for the Faculties of Biology and Chemistry, a new Modern Languages building for the Faculty of Languages, the building of an Informatics for the Faculty of Mathematics, Physics and Informatics, a Biotechnology building for the Intercollegiate Faculty of Biotechnology of University of Gdańsk and Medical University of Gdańsk, and also a University Centre for Sport and Recreation, as well as a students' hostels. Part of the programme for the Baltic Campus of the University of Gdańsk, a project entitled "The Construction of Buildings for the Faculties of Chemistry and Biology of the University of Gdańsk", is on the List of Key Individual Projects for the Operational Programme "Infrastructure and Environment". The University of Gdańsk has received financing of 236 million PLN for this investment. This will permit new buildings to be constructed for the Faculty of Chemistry and for the Faculty of Biology. The University of Gdańsk's Faculties of Biology and Chemistry already train high-class specialists in pure sciences. The new modern study and work conditions for scientists will in the future influence the development of personnel in the administration and economy of the Pomorze region and of the whole Baltic Sea region.

The construction of the Baltic Campus of the University of Gdańsk is an opportunity to create in Pomorze one of the strongest academic and scientific centres in the Baltic Sea region. The Baltic Campus, located in Gdańsk-Oliwa, will play the role of the scientific, teaching and student centre of the Three Cities of Gdańsk, Sopot and Gdynia.

Bernard Lammek

Professor, Rector

University of Gdańsk

Poland

The importance of fishery

By Edgar Öhberg

About the Foundation

The Åland Foundation for the Future of the Baltic Sea, also known as The Baltic Sea Fund, was founded in 1989 through a private donation of FIM 3 million, corresponding to a half a million Euros. The initiator and donator was the businessman, nowadays appointed Councilor of Commerce, Anders Wiklöf.

The purpose of the foundation is to promote and support research and other activities regarding the protection of the environment of the Baltic Sea.

The Baltic Sea Fund awards prizes, scholarships, and subsidies within the fields of scientific research and technology, as well as for publishing activities, and measures, initiatives, and other actions promoting the protection of the environment of the Baltic Sea.

The Baltic Sea Fund, which is an independent organisation, works for the entire Baltic Sea region by drawing attention to actions for the benefit of our common and sensitive inland sea. An important part of the activities is to disseminate information and knowledge about the environment of the Baltic Sea to the 85 million inhabitants of the region. The activities are supervised by a delegation of seventeen members elected for a term of office of three years.

The following topic is of great importance for the future of the Baltic Sea.

Fishery

The lack of cod in the Baltic Sea is an environmental issue. It is indisputable that fish make up a large part of what is the Baltic Sea environment and that fishing has a great impact on the environment. Efforts to strengthen Baltic Sea cod stocks will aid stock recovery and limit massive algal blooms.

Fish is an integral part of the Baltic Sea ecosystem. From time immemorial, people have caught fish for food. In many countries, fishing and the fisheries industry is commercially significant and fish is a significant source of protein. Over thousands of years fishing has been small-scale and near the coastline, during which it did not influence fish populations other than marginally. Already at the turn of the century, but primarily since World War II, fishing methods have undergone a technical revolution. Larger boats and new tools for more effectively catching fish in larger quantities have been developed. In the Baltic Sea the development has been similar - in the 1920's the total catch in the Baltic Sea was 50 000 tonnes annually. Today it is 1 million tonnes annually.

Global problem

Overfishing is a global problem despite the fact that scientists have regularly warned against overfishing and its consequences. It has not been possible to implement sufficiently stringent restrictions which ensure sustainability. Management of fisheries has been characterized by short term interests, where economic gain has weighed heavier than ecological function and sustainability.

Cod in the Baltic Sea

The Baltic Sea is a productive sea. When the cod stock reached its historical peak, during the 1980s, roughly 22 percent of global cod catches were landed from this tiny sea! Cod is a bottom-dwelling, cold-water species, originating from waters, where salinity is far higher than in the Baltic Sea. The Baltic Sea cod is specially adapted – reproduction can only be successful if oxygen and salinity levels are sufficiently high. Human activities around the Baltic Sea also affect cod reproduction and survival. Eutrophication has contributed to increased oxygen consumption at larger depths, which decrease the potential for cod eggs to survive. However, eutrophication has also contributed to the growing production of cod. When eutrophication accelerated in the 1970s, there was a substantial increase of cod. 160 000 tonnes is the scientific recommendation marking the lowest acceptable level for the eastern stock. The stock has been below this lowest level during most of the 1990s and during the 2000s. With the disappearance of predatory fish, there is a risk of upsetting the balance in the ecosystem. In the Baltic Sea there is an intricate relationship in the food web, uniting cod (predator) and sprat and herring (forage fish).

Cod - decisive role in the ecosystem

Now it is time for everyone to put a strong focus on protecting the cod stock since it has a decisive role for the entire food chain in the Baltic Sea. In short, the relationship looks like this: the nutrients in the water promote growth of microscopic phytoplankton, phytoplankton are eaten by zooplankton which are barely visible, zooplankton is eaten by small fish such as herring and sprat and the small fish are eaten by larger fish such as salmon and cod. This is a self-regulating system where production varies from year to year but is generally stable. When cod stocks are low sprat stocks benefit, resulting in a sprat-dominated system, reducing the occurrence of zooplankton. Reducing zooplankton, in turn, creates favourable conditions for phytoplankton and algae blooms become more abundant. The toxic blue-green algae, which in recent years have been found floating in masses is a result of such excessive production. Algal blooms are an annual phenomenon, but when they become excessively abundant it is a sign that the system is out of balance.

Edgar Öhberg

Director

The Baltic Sea Fund



The Baltic Boutique and the future of air travel

By Mika Vehviläinen

Aviation is a tough business. Heavy operating expenses, poor bargaining power with suppliers, vulnerability to all kinds of external conditions outside of anyone's control: These are among the reasons that led Warren Buffett to once declare, "a durable competitive advantage has proven elusive ever since the days of the Wright Brothers." The legendary Pan Am executive Marty Shugrue once complained about his industry rather more colourfully: "If we got into the funeral business, people would stop dying."

And yet we're still here, alive and well – and growing. According to Airports Council International, global passenger throughput increased by 7.1 percent in 2010, despite continuing economic uncertainty and the ash cloud crisis that affected traffic worldwide. While Asia and Latin America account for much of this expansion, a fair portion also comes from Eastern Europe and Russia, which reported double-digit growth in air traffic. In the formerly Communist portions of the Baltic Region, especially, the lack of quality infrastructure for other modes of transport – it can take upwards of 30 hours to get from Warsaw to Tallinn by train – makes flying essential. Even after the high-speed Rail Baltica project comes online later this decade, and the region's roads and highways are eventually upgraded, there is no doubt that modern economies will require robust networks of flight connections more than ever before. The EU's European Commission on Mobility & Transport projects an overall doubling of air traffic in Europe by 2020 from 2000 levels.

At the same time, the Nordic and Baltic area – as the last region of Europe before heading on to East Asia on polar flight routes – is also poised to receive more international traffic generated by the rapidly growing economies of the Far East. In anticipation of the rising Asian tide, Finnair with its hub at Helsinki expressly designed for transfer traffic, is planning to double its flights to Asia to 140 per week by 2020 and has tailored its European schedules for onward long-haul connections. There is no question that opportunities for market share await those who are prepared.

A consolidating industry

In Europe, though, worldwide growth in air traffic does not shield companies from fierce competition, nor from the severe consolidation pressures acting on the industry. Economies of scale matter greatly in a business as expensive to operate in as aviation, which is why we're likely to see the emergence of a few strong regional players in the European space despite increased traffic. It is this logic that drove Finnair to recently acquire, together with UK-based carrier Flybe, Finnish Commuter Airlines and create Flybe Nordic, which specializes in short haul routes around the Nordic and Baltic region and feeds in directly to Finnair's larger international network. We own 40 percent of the new airline and routes appear in our schedules, effectively allowing us to provide a better, more extensive service while also reducing costs.

Keeping that cost base as lean as possible is essential to stay competitive and healthy. The airlines that survive and thrive will focus on core competencies – transporting passengers and cargo – and choose the right partners from other fields, such as ground handling or repair work, who can step in and lower costs with their own economies of scale. We'll also see more airlines maximizing the potential of their

fleets with codeshare partnerships and the strengthening of global alliances like oneworld, to which Finnair belongs.

In the short term, there is no denying that a shakeout is underway in Europe. Some cherished national flag carriers have either vanished already or are seriously at risk. But as quality, reasonably priced alternatives develop in a freer marketplace, in the long term I believe that governments and indeed passengers will agree that this is a good thing. The situation is analogous to the telecommunications industry, where nationally defined, state-owned companies eventually transformed into private, cross-border enterprises. Services are considerably better and less expensive as a result. Market forces prevailed then and they'll prevail now.

A value-added, designer approach

These market forces are pushing airlines in two different directions, however. Confronted by aggressive challenges from newer budget carriers, incumbents face a choice: Do they compete on price or on customer service? While Finnair's fares remain reasonable, I believe that the path to sustained profitability is with a designer approach focused on human experience rather than mere maximally efficient process. Especially in air travel, where that process often leads to a stressful, claustrophobic and altogether unpleasant flight experience, differentiating your brand by becoming a very desirable alternative is the only way to save yourself from the commodity price trap of low margins and undue exposure to economic cycles. But that difference has to be real – not just a slogan or a marketing campaign.

That is why Finnair has embraced its Finnish design heritage while investing considerably in a reassessment of the existing consumer aviation experience that maps precisely the customer encounters that matter most. A very collaborative and creative internal process of discovery and implementation, led by our Service Design Unit and called Peace of Mind, has seen negative customer feedback decrease by 16 percent since 2010. Unprompted positive feedback – always a rare thing in any business – has meanwhile quadrupled. We've also risen dramatically in *Travel + Leisure* magazine's annual rankings of the world's best airlines, from No. 28 to No. 12, and this year SkyTrax declared us the best airline in Northern Europe. Internally, there's a really positive buzz about a long-term, permanent shift in company culture that is really just getting started.

And so we're striving to be a desirable, boutique airline – from an area that, viewed from a global perspective, can be seen as something of a desirable, boutique region. Indeed, embracing our human potential and creativity to add value is surely the best way for all of us – not just those in the aviation business – to create a "durable competitive advantage" long into the future.

Mika Vehviläinen

President and CEO

Finnair



EU-Russia cooperation in promoting innovation

By Anneli Pauli

Research and innovation are at the top of the political and economic agendas in both Russia and the EU. In June last year, the EU's leaders endorsed the Europe 2020 strategy for the creation of a sustainable market economy. At its heart is the conviction that innovation is central to getting Europe out of the current economic crisis and to build long-term sustainable growth. In essence, it proposes to transform the European Union into an Innovation Union, and to build economic growth on the generation and exploitation of knowledge. There are strong parallels with the Modernisation Programme for the Russian Federation, launched by President Medvedev in late 2009. This Modernisation Programme aims to diversify and modernise Russia's economy and society, and to reduce the country's dependence on oil and gas by creating a smart economy, based on knowledge, innovation, new goods and technologies.

The similarity in thinking is also reflected in the priorities of the Europe 2020 'Innovation Union' Communication and the draft 'Innovative Russia – 2020' strategy drawn up by the Russian Ministry of Economic Development: both call strongly for increased international research cooperation. Collaboration in science, technology and innovation (STI), therefore, plays a prominent role in the EU-Russia Partnership for Modernisation, which was agreed at the EU-Russia Summit in June 2010 and sets out a shared agenda to help bring about economic and societal reform.

The EU and Russia have a strong history of successful and mutually beneficial cooperation in STI both at the level of the European Union and through bilateral actions between Russia and individual EU Member States. The EU funding programmes for research and technological development – the Framework Programmes – are fully open for EU researchers to work in collaboration with international partners. In the current Seventh (FP7) and all previous Framework Programmes, Russian researchers and research organisations have been involved in more successful projects than any other international partner country. In FP7, to date, over 400 Russian research organisations are involved in more than 270 projects receiving over 45 million euro of EU funding. In addition, more than 140 Russian nationals have been awarded Fellowships through the FP7 Marie Curie actions or hold one of the prestigious grants of the European Research Council, including Konstantin Novoselov, the recent Nobel Prize winner for Physics.

At the same time, Russian research programmes and foundations, such as the Russian Federal Targeted Programmes (FTP) for Research and Development, the Russian Foundation for Basic Research and the Foundation for Assistance to Small Innovative Enterprises have increasingly involved EU researchers in their activities. For example, since 2007 European research organisations have participated in over 150 projects funded under the FTP; indeed, there is a greater level of collaboration with EU researchers under the FTP than with any other international partner. It is clear that for collaboration in science and technology, the EU and Russia are natural partners of choice.

This collaboration is underpinned by a robust and structured dialogue, through a sectoral agreement between the EU and Russia for cooperation in scientific and technological research, which has existed since 1999. Several joint thematic working groups have been established for policy exchanges or to discuss research topics of potential mutual interest. These topics are then implemented through calls for proposals under FP7 or through the FTP, or increasingly through coordinated calls where the European Commission and the Russian Ministry of Education and Science issue parallel calls for proposals, with matching financial commitments, to fund projects working in close collaboration. Eight such coordinated calls have been funded to date, in topics including health research, nanotechnology and aerospace, with the EU and Russia each contributing over 30 million euro. Full information on the actions under the Cooperation Agreement is given in a jointly produced 'road-map' for cooperation.

Many EU Member States have concluded analogous bilateral inter-governmental or inter-institutional cooperation agreements with Russia. An overview of the financial support and opportunities that are available for researchers under these bilateral programmes and at EU level is set out in an easy to use guide – the Compendium on S&T Cooperation between the EU and the Russian Federation – drawn up by the EU Delegation in Moscow and the Russian Ministry of Education and Science.

The EU and Russia both wish to build on the strength of the current cooperation and to develop a strategic partnership in research and innovation, to contribute to tackling global and societal challenges of common interest, help with the modernisation of our economies and to strengthen the international dimension of both EU and Russian innovation policies. This will involve stepping up the scale and scope of our cooperation, with a focus on a smaller number of specific STI areas of strategic importance, for increased collaboration and investment. Identifying and agreeing on these areas will be the focus of discussions over the coming year under the S&T Cooperation Agreement, and through the Partnership for Modernisation.

One such strategic area could be support for the establishment and operation of global research infrastructures. EU Member States and Russia are partners in a growing number of international research infrastructures including: the International Thermonuclear Experimental Reactor (ITER); the International Space Station; the European Organisation for Nuclear Research (CERN); and, the Russian Joint Institute for Nuclear Research (JINR). Indeed, work is ongoing, involving both the EU and Russia at G8-level through the Carnegie Group of Science Advisors, to categorise research infrastructures and to identify national research infrastructures which could be opened at international level.

At the same time, we will increase our dialogue on embedding innovation in all aspects of research policy, in line with the Innovation Union and Innovative Russia strategies, to improve the conditions for delivering innovation and reducing the time to market. This could cover for example: industry-led research strategies through collaboration between the Technology Platforms which have been established in both Russia and the EU; the framework conditions for driving innovation, such as in transforming public procurement into a driver for more innovative products and services; collaboration in pre-normative research to establish common standards; or the development of indicators for innovation.

With similar and complementary thinking on the strategic development of STI policy, there is clearly a great potential for the EU and Russia to increase collaboration, develop a mutually beneficial strategic partnership, boost research and innovation in the EU and Russia, and to create smart, sustainable and socially-inclusive societies.

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Significance of international activities to the research system

By Riitta Mustonen

The international element of science and the research system is often highlighted in recommendations set forth in evaluations of research and innovation policy. This is by no means unfounded, as internationality – besides being an intrinsic value – is also a key tool for upgrading the quality of research, networking researchers, promoting researcher training, advancing research careers and developing cutting-edge and high-impact research environments.

Internationality is a fundamental element of all research for many different reasons. A research theme in itself can concretely cross national borders. Examples of cross-border research include a number of phenomena associated with nature and the environment, such as atmospheric research or marine research. On the other hand, for mathematicians, linguists or even economists, the best partner may be found just about anywhere in the world.

From a researcher's perspective, however, international research collaboration is definitively nothing unfamiliar – it is a built-in and integral part of all research. This may make it difficult for researchers to understand the internationalisation measures taken at the system level, aiming at greater advantages than at the level of individual researchers or research teams.

Besides excellent collaboration opportunities, the ever-increasing internationalisation of research also means that researchers can expect to face much fiercer competition: international competition for resources (money and top-level postdoctoral researchers) and competition to be the first to solve a complex problem, to present an important new theory or a novel application, and to publish or be granted a patent. It even involves competition to have access to the best networks or be granted an ample amount of personal funding

As a rule, international competition is much tougher than national competition, but the available resources – particularly compared to small economies – are also much more abundant. Success in securing international funding can therefore help researchers to substantially increase their funding. Over time, this translates into top researchers significantly increasing the resources of the national research system, although their primary aim is to promote their own research and research team.

Money is most often a limiting factor in publicly funded research, both nationally and internationally. A particular policy objective is to aim towards an international division of labour, when appropriate, and to avoid overlapping. In practice, however, such objectives have proved most challenging. It is difficult – impossible even – to dictate what researchers should research, so integral is the idea of the freedom of research. As such, however, this objective is important and every effort should be made to achieve it, because successful international collaboration and a successful international division of labour ensure a more efficient use of resources. Efficiency can be converted into savings but it may also enable faster problem-solving or provide the best possible human resources, for example. As a result, decision-makers (researchers, research teams, organisations, ministries, Parliament) can reallocate resources either to the research system or to some other purpose they consider important.

In the internationalisation of the research system, research infrastructures play a special role. The building, upgrading and maintenance of research infrastructures require long-term planning and strong economic commitment. Research infrastructures are often very expensive, and the investments they require are much too large-scale to be covered by individual countries. Research infrastructures should therefore be viewed as part of an entire system of international research infrastructures.

Researchers need up-to-date research infrastructures and all researchers should have access to or an opportunity to use research infrastructures at least on the basis of competition. At the research system level, state-of-the-art research infrastructures provide a good tool to raise the standard and improve the competitiveness of research, accelerate its capability for renewal and increase its interdisciplinarity. Top-level infrastructures attract researchers from all over the world and promote the international networking of researchers.

Networking offers a natural avenue for disseminating research results much faster than through conventional publishing. Networking also contributes to the establishment of joint research projects based on the different strengths of researchers and research teams.

Without internationally active researchers there would be no international research environments or research systems. Internationalisation does not happen automatically and it takes more than just a handful of researchers, even though, in the end, researchers are the actors within the research system with whom everything culminates. What we need are concrete actions from government actors.

International mobility is highly important at the early stages of the research career, particularly in terms of career advancement. It is at this early stage that the competencies and skills needed to become a member of the international scientific community are created. For young researchers, international mobility provides an opportunity to gain independence and improve their knowledge and skills, to learn new research methods, for instance. At the postdoctoral stage in particular, a new environment also offers a better opportunity and an easier way to change research topics. Also, we should not underestimate the benefit of learning about the cultures of different countries and nations. At that particular moment, the benefit may not be the researcher's primary aim, but it might be crucial at a later stage of his or her career.

Despite the obvious and well-known advantages of international mobility for research and research careers, there are still many obstacles to researcher mobility left to be removed. Money should follow researchers, but in many countries this principle still faces legislative obstacles. Other obstacles include complex immigration legislation, work permits and difficulties associated with accompanying family members (e.g. the position of the spouse and children, and healthcare, social security and pension benefits for family members). A further obstacle is the uncertainty associated with the return to one's home country: Do I have a place to return to? Cooperation between different administrative sectors to solve these problems is difficult even at the national level – and even harder at the transnational level. A key argument here is

that no privileges should be granted to representatives of one profession only, in this case researchers.

The Academy of Finland is the leading source of funding for scientific research in Finland, and the international element permeates all its research funding. The Academy actively encourages and supports the international mobility of Finnish researchers in many different ways and promotes the recruitment of foreign researchers with a view to further improving Finnish research environments.

The Academy also actively cooperates with other countries and international research funding agencies, for example by funding research projects in jointly agreed fields or themes. The aim is to promote the internationalisation of the Finnish research system with a view to raising the overall quality of Finnish research. This will also improve the chances of Finnish researchers of securing research funding from international sources and thereby increase national resources as well.

In the Nordic countries, research funding agencies have a decade-long tradition of cooperation. NordForsk, established in 1995 and operating under the Nordic Council of Ministers, is a prime driving force behind the Nordic Research and Innovation Area (NORIA). NordForsk is both a strategic expert organ and a research funding body. The Nordic research funding agencies also contribute to

research funding together with NordForsk. By facilitating and promoting research collaboration and mobility in the Nordic region, NordForsk aims at supporting research that is seen as having considerable potential to result in long-term knowledge-based progress.

The Academy of Finland is also intensely involved in the development of the European Research and Innovation Area (ERIA) and expects synergy benefits from European cooperation. The European Commission has recently launched the ERA Framework Public Consultation with a view to identifying areas and issues linked to under- or unexploited cross-border synergies in Europe. This process will hopefully reinforce the partnership between the EU and its Member/Associate States in order to fully exploit the common European Research Area in which researchers, scientific knowledge and technology circulate freely.

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German-Russian collaboration in research and innovation

By Michael Schlicht and Marion Mienert

Strengthening the Russian-German cooperation in the field of applied, industry-oriented research is a major concern of the existing strategic partnership between Russia and Germany in education, research and innovation established in 2005. Common strategic interests are one important cornerstone of this partnership. In fact, the German High-tech Strategy 2020 and the Russian Strategy for the Development of Science and Innovation in the Russian Federation 2015 share a common vision. Both intend to adjust their national innovation systems to the challenges of the global economy, e.g. by creating lead markets, providing favourable framework conditions for innovations and by improving the collaboration between science and industry. The Russian strategic priority areas for innovative development match to a certain extent the focus areas and key technologies defined in the German High-tech Strategy, such as nanotechnologies, information and communication technologies and biotechnologies.

Furthermore, both countries have a long tradition in research collaboration, reflected in the agreement on Scientific and Technological Collaboration (STC) of 1987 as well as in a number of ministerial agreements concluded for individual research areas. The German-Russian Year of Education, Science and Innovation launched in May 2011 by the Federal Ministry of Education and Research (BMBF) and the Russian Ministry of Education and Science (MON) celebrates the good scientific relation between the countries, highlights the rich variety of best practice examples in research and innovation and reaches out for a new quality of their long-standing cooperation.

A fairly new initiative in this relationship is the joint funding programme between the Russian Foundation for Assistance to Small Innovative Enterprises (FASIE) and the Federal Ministry of Education and Research (BMBF). According to the recent OECD-report on the Russian innovation system, the founding of FASIE is considered to be one of the most successful initiatives of Russian innovation policy in the past years. Established in 1994 as a non-commercial state organisation by the Russian government, its mission is to support small innovative Russian companies in their efforts to develop new high-tech products by providing financial and informational support and creating an infrastructure for Russian SMEs.

The common aim of FASIE and BMBF is to stimulate German-Russian cooperation in innovation by supporting collaborative projects in the field of applied and industry-oriented research. Since 2008 annual funding competitions for German-Russian projects in applied research have taken place. Applicants are SMEs and research organisations from Russia and Germany. So far, a total of 42 German-Russian innovative projects have received funding in the amount of up to 100 000 Euros (4 million Roubles) per project from the Russian and the German side each. These projects have led to promising technological developments on the Russian and German markets.

Due to good results, this German-Russian initiative has recently been raised to the European level. In February 2011, funding parties from six European countries and Russia have jointly launched a multilateral funding competition for innovative SMEs and research institutions within the ERA-Net RUS initiative under German lead. Participants besides Germany (BMBF) and Russia (FASIE) have been France, Turkey, Greece, Israel and Switzerland providing a funding budget of 3.6 million Euros. In September 2011, ten projects were selected for funding.

Coming back to the German-Russian Year of Science, one of its major objectives is to stimulate effective German-Russian

innovation partnerships and to bring together academia and industry of both countries. Some of the recent developments in the Russian innovation policy open up promising perspectives and show new collaborative potential to support this objective. The ambitious Skolkovo initiative – the creation of a Russian Silicon Valley outside Moscow – for instance, provides German industry and scientific institutions with multiple opportunities to start innovation partnerships with Russian organisations. And in fact, German companies such as Siemens are already involved, and several German research institutions have expressed their interest to commit themselves to this project.

The new Association of Innovative Regions in Russia established in 2010, is an interesting candidate for German-Russian innovation partnerships on the regional level. It unites eight Russian regions – Irkutsk, Kaluga, Novosibirsk, Tatarstan, Mordovia, Krasnoyarsk, Perm and Tomsk – with the common objective to foster the economic development of these regions by creating an innovative environment in the legal, economic and social creative spheres and promoting joint innovative, scientific and technological projects. The regions intend to involve international experience in the field of regional innovation strategies. A first step in this direction was taken with the Russian-German-French regional innovation conference in Novosibirsk in September 2011. Among the participants were representatives of German federal and regional authorities. A follow-up delegation of Russian regional representatives to German regions and clusters is being arranged for December 2011.

The establishment of innovation partnerships with Russia is also relevant on the European level. Cooperation in R&D and innovation is one of the objectives of the EU-Russia modernisation partnership agreed on in 2010. In view of the European growth strategy “Europe 2020” and the related flagship initiative “Innovation Union”, Germany plans to team up with Russian and other European partners to streamline current political initiatives in Russia towards dedicated innovation activities. This is especially relevant in order to strengthen Russia’s role in the upcoming European Research Framework Programme “Horizon 2020” which will bring closer together research and innovation, prioritise enabling technologies and address global challenges. Germany regards itself as one of Russia’s natural strategic partners in this venture.

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Economic development based on the economics for quality

By Vladimir V. Okrepilov

International experience suggests that maintaining stable economic growth and high competitiveness are possible only through the innovative development of economy, involving continuous quality improvement. Quality is the key to success, facilitating the reduced costs, production upgrade, promotion of the employees' initiatives, effective reproduction and industrial modernizing, improving the investment attractiveness of not only individual companies but also the entire regions.

Today economy can develop only through innovations. As the president of Russia Dmitry Medvedev highlighted in his article "Russia, go forward!"³¹: "Within the upcoming decades, Russia shall become a country which welfare is ensured not only by the raw material resources but more by the intellectual ones: "smart" economy, creating unique knowledge, and the export of innovative technologies and products."

Primarily, the above requires establishing conditions that would allow implementation of the scientific, technical and technological developments existing in Russia in order to create products and technologies with high competitiveness.

A strategy for developing science-and-innovation sector, meeting the economy needs, as well as the mechanisms for investing and stimulating innovation process shall be formed.

As an example of such activity at the federal level we should mention the establishment of the "Skolkovo" Innovation Center, initiated by the Russian President Mr. Medvedev.

Strategic objectives of "Skolkovo" are as follows: high-tech industries development and overcoming dependence on natural resources as a driver for economic growth; improving the international competitiveness of Russia through innovation; giving new impetus to entrepreneurship development; changing legislative and investment environment of Russia in order to attract long term investments.

Achievement of these objectives is ensured by the specific legal regime of the "Skolkovo" Innovation Center, which provides tax and customs privileges, as well as simplification of procedures for urban construction, sanitary and fire safety rules, rules of technical regulating and terms of interaction with public authorities.

Total financing of the project is estimated at 120-180 billion rubles. In December 2010 the first 16 projects with the "participant" status were identified, 11 of which have received grants for implementation with a total amount of three billion two hundred million rubles.

Companies of the North-West region are already involved in the "Skolkovo" projects. In particular, in the project on establishing a Research Center on thin-film technology in the energy sector at the Physical-and-technical Institute n.a. Ioffe. The second project, to be implemented with the participation of St. Petersburg scientists is the development of original drugs to treat viral etiology infections and methods of viral diseases diagnostics.

Since innovations are aimed at improving quality, when evaluating the economic effects of their implementation, one can simultaneously assess the economic impact of quality improvement. As for the goals of innovative development, particularly of a region, they can be identified based on the objective of improving quality of products, services and activities.

Moreover, using modern methods of the quality science any problem at any level can be solved, regardless of the type of social system, ownership forms, production type, size and number of personnel of a company. Long-term experience of the author in the field of quality within different socio-economic systems (planned economy, transition economy, market economy), convincingly proves the validity of the above thesis.

In particular, using methods and approaches of such scientific field as the economics for quality, topical economic and

organizational tasks related with the development of the "Skolkovo" Innovation Center can be achieved.

Economics for quality is a part of economics, which studies the interrelation between the qualitative characteristics of objects or phenomena and the economic indicators, covers all areas of economic science and extensively involves the natural, social and technical disciplines (mathematics, physics, chemistry, sociology, psychology, jurisprudence).

Economics for quality is a unique phenomenon: being one of the branches of the economic science, it is an integral part of all other areas, which focuses on the need on incorporating quality characteristics, studied in various aspects. This also applies to labor economics, economic statistics, regional and sector economy.

The ultimate goal of economics for quality as a science is the formation of models, adequately reflecting the role of quality in the natural, technical, social and legal mechanisms of the economic systems functioning.

Current results of research in the field of economics for quality form the basis for assigning the status of a scientific school to a team of specialists involved in research of the economics for quality problems in relation to key areas of socio-economic development of society.

Implementation of economics for quality methods and approaches, including those developed on the basis of quality management methods, will allow to:

- Ensure optimal use of enormous financial resources, allocated and being invested into the "Skolkovo" Innovation Center, preventing their inefficient spending;
- Efficiently organize the entire process of developing and manufacturing high-tech products of the Innovation Center.

Thus, given the current economy, innovations shall be evaluated not only in terms of scientific and technical level of the project, but also in terms of quality, thereby evaluating the possibilities of implementing a project and the expected effectiveness from its application. This approach is based on the principles of total quality management, which were developed by scientists of many countries within the International Organization for Standardization (ISO). The first step towards implementing the above approach is the introduction of quality management system. Such system allows controlling and effectively organizing the process of innovative products development, the financial resources consumption and, therefore, ensuring a high quality of the results.

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³¹ "Russia, go forward!", published on 10 September, 2009, on the official website of the Russian Federation President: www.kremlin.ru

Russia-EU partnership for modernisation – words and reality

By Frank Schauff

The modernisation of society and the economy has become a hot topic on the Russian political agenda. As a result the attitude towards overseas companies has changed. Unlike in the past, European investors are seen not only as profit takers, but also the drivers of much needed technological innovation. Nowadays, it is easier for European companies to operate in the country. However, the Russian government must provide further support to foreign investors to make their words a reality.

What Russia desperately needs is modernization. Despite this, some foreign investors think Russians seem to be less interested in technological progress when oil prices go up. Membership in the WTO, which could stimulate competition and economic growth, is just one of the proposals for modernisation. Hopefully the WTO accession process will be completed sooner or later. However, many sectors, such as the automotive industry, are already competitive thanks to a number of state programmes supporting foreign investors and joint Russia – EU ventures.

Power of ideas: modernising Russia's government

The term “modernisation” was introduced to the Russian political discourse in 2009, after the global recession cut prices for Russia's major exports, such as oil and gas. Since 2005 Russia has been in talks with Germany over a “modernisation alliance,” which could go beyond a few state supported infrastructure projects, such as the Nord Stream gas pipeline. However, it was the global crisis that gave Russia a final push towards a closer cooperation with the EU.

The concept of a modernisation partnership has definitely helped European companies to facilitate a dialogue with Russian authorities. Because of this western industries have already benefited from the idea of technological innovation as such. It has given them an opportunity to develop more co-operative relationships with local governments. In some regions, such as Kaluga, the changes were dramatic and they resulted in the rapid development of several different industries. Beginning in 2006, this new policy has attracted over \$4 bn of foreign investments.

According to the State Statistics Service, in 2010 Kaluga saw industrial growth of more than 43 percent (the national average in Russia is around 4 percent). Volkswagen, Samsung, General Electric and many other companies came to Kaluga to implement their projects. Furthermore, European business is still expanding in the area. In September 2011 Volvo Construction Equipment said it would invest approximately \$52 mln to build a new 20,660-square-meter excavator plant in Kaluga on the 15 hectares of land the company acquired in 2007. Volvo plans to begin production in the first quarter of 2012.

Can innovation thrive in isolation?

No doubt, Russia cannot be modernised without European companies, even though a few years ago the Russians had ambitions to develop the necessary technologies on their own. However, later they realised it is more expensive and time-consuming than to purchase them abroad. According to the Russian nanotechnology corporation Rosnano, the share of enterprises introducing new technologies in Russia is only 9.6 percent compared to 40-50 percent in most countries in Europe.

There are a number of obstacles for modernisation within the country, and most of them are obvious. Firstly, there is a brain drain: starting in the end of 90s, qualified people began leaving the country. Secondly, the system of education cannot meet the expectations of modern business. Unlike in the west, Russian universities are only educational institutions, not research institutions which are linked to industries to fulfill their needs. Thirdly, the state budget for research is rather low in comparison with most European states. Only 1 percent of new technologies are sponsored by the government. Russian state spends 0.5 percent of GDP on science compared to 3.5 percent of GDP in neighbouring Finland.

However, there is another problem. In Germany, for example, the idea would be that the universities should work closely with the best foreign institutions to generate innovation. Russia, however, is not included in the international dialogue. Why? The Cold War and the isolation of the Soviet past, as well as a language problem might be some of the reasons. Also, for quite a while the Russian government has been focusing on the major state projects, such as Skolkovo and Rosnano, ignoring small and medium size business ventures.

Gradual change in not progress

At the last Forum of Russian and European businesses in St Petersburg, organised by our Association, most investors were quite sceptical of this policy. SME are the drivers of economic modernisation in the EU, generating 70% of GDP in comparison with 17% in Russia. The chief representatives of E.On Ruhrgas, Enel, Fortum, Roca Rus, Specta, who spoke at our Forum, represent a variety of industries. However most of them expressed similar concerns regarding the need for the right environment for economic modernisation, including reliable institutions, high quality infrastructure and respect for individual initiatives.

The Russian government may have already realised that top-down modernisation is not the best approach. Speaking at the Russia Calling investment forum in October 2011, Vladimir Putin said the state's direct presence in the economy will continue diminishing on a step-by-step basis. He promised the government will gradually withdraw from state-run corporations and privatise its controlling stake. Also, major projects will be supported by an array of developmental institutions, such as Vnesheconombank (the Bank of Foreign Economic Activity) and the Russian Fund of Direct Investments. But only time will show if this “gradual change” Mr. Putin promised can actually help Russia's oil and gas export based economy. Is “slow modernisation” within the current political system enough for an emerging economy still far behind the developed markets? Only time will tell.

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Russian Technology Transfer Network – gate to Russia's innovations

By Oleg Luksha

One particular challenge to Russia's ability to translate intellectual capital into economic opportunity – a challenge that is not only surmountable but also has the potential to alleviate other innovation barriers – is the lack of networking skills among Russian technology and R&D organizations. A culture of innovation based on open networking and information sharing, attributes that characterize innovation hubs like Silicon Valley, has yet to fully develop in Russia. Such a culture is crucial for successfully seeking and collaborating on international projects and bringing innovation to the market. The current dynamics of Russia's innovation culture are by and large the legacy of the Soviet system, which kept information centralized and closely guarded. Many post-Communist researchers, professionals and policymakers – regardless of their talents and the sincerity of their efforts to build an innovation economy in Russia – grew up under this system and do not have the necessary networking skills to leverage relationships both within Russia and, most importantly, beyond its borders. Support is needed to nurture new ways of networking, sharing information, and creating an innovation infrastructure across Russia.

Understanding these challenges and taking steps to proactively address them were the driving forces behind the creation of the Russian Technology Transfer Network (RTTN). Since its founding in 2002, RTTN has worked with the global business and research community to tap into the scientific and technological advances made in R&D centers and universities across Russia. RTTN, with its coordinating team based in Obninsk, Kaluga Region, is an association of over 90 Russian innovation centers from more than 40 regions of Russia and the CIS that aggregates information on R&D offerings and requests in Russia and neighboring states and serves as an entry point for potential technology partners. Given Russia's vast territory, its potential language barriers and information gaps between Russian regional and foreign entities, RTTN's work is a critical element to developing the country's national innovation infrastructure.

RTTN has two main objectives:

- To facilitate technology transfer between Russia's science and technology sector and various industry players through information dissemination. This is achieved through the organization's online database of technology offers and requests, which includes information coming from the local databases of RTTN members across Russia and the CIS.
- To help its members, which are mostly Russian SMEs and R&D organizations based outside of Moscow, build the capacity needed to identify and pursue international partners and cooperation opportunities. This is done through various networking opportunities and capacity-building initiatives, including conferences, brokerage events and workshops for RTTN members, partners and clients.

Rather than being created by government initiative, RTTN was developed from the ground up, and its growth has been reinforced by the will of its members. The network was initiated by the Obninsk Center for Science and Technology, a leading Russian R&D center located in Obninsk, in partnership with the Koltsovo Innovation Center, which is located in the Novosibirsk Region. To build the network's capacity, the centers sought cross-border collaboration opportunities through various EU entrepreneurship programs, including the Technical Assistance to the Commonwealth of Independent States (TACIS) program, which is currently integrated with EuropeAid. Since 2008, RTTN together with other two networking organisations in consortium – Russian Union of Innovation Technology Centers and Russian Agency for SMEs support, became a member of the Enterprise Europe

Network (EEN), a group of more than 580 regional business support organizations from 47 countries (EU member states, associated countries and third countries), including chambers of commerce, technology centers and research institutes that provide integrated business and innovation support services for SMEs. Through the national project Gate2RuBIN (Gate to Russian Business and Innovation Networks) EEN Russia consortium attracted the best business and innovation support organisations from Russia to EEN activities being one of the most active third countries partners in EEN.

To specifically address the lack of networking savvy, RTTN developed and published a networking guide entitled, "How to Effectively Network/Communicate in International R&D projects." The guide, available in both English and Russian, was created under the framework of FP7 ISTOK -SOYUZ project, which is an EU project designed to promote R&D cooperation and knowledge transfer between the EU and Eastern Europe and Central Asia. Inno Group, a Europe based consulting company that designs and implements innovation strategies, was also instrumental in helping RTTN establish itself and launch such initiatives as the guide.

As a result of RTTN's initiatives, RTTN centers have become the backbone of the innovation infrastructure in many of Russia's regions, especially driving forward international cooperation initiatives. The Novosibirsk-based company Dia-Vesta, which has produced sugar-free, vitamin-fortified muesli bars and other health foods since 1999, serves as an excellent example of the importance of building an international networking capacity.

A few years ago, Dia-Vesta turned to RTTN's Novosibirsk affiliate, Innovation Center Koltsovo (ICK), to find a partner to jointly manufacture muesli bars with prebiotics and probiotics and market them in Europe. Under the guidance ICK and with the active support from other Gate2RuBIN consortium members, Dia-Vesta participated in the 4th Taste-Nutrition-Health International Congress, which was organized by the EEEN in Dijon, France in March 2009. ICK provided a package of marketing and business services to equip Dia-Vesta for the event, including developing the company's technology profile, creating presentations, commercial proposals, hand-outs and advertising materials, assisting with obtaining visas, and finding Russian-French interpreters. As a result, Dia-Vesta successfully established contact at the event with the Slovenian company Fructal, which sells fruit juices and fruit-based snacks throughout Europe. Following additional negotiations in Slovenia, Dia-Vesta and Fructal agreed to partner.

Such success stories are proof that innovation and intellectual capital are quickly becoming key factors for regional competitiveness in Russia, replacing more traditional factors like natural resources endowment, location and physical labor capacity. Through the work of RTTN and similar initiatives, Russia is creating an innovation infrastructure and re-defining its R&D culture from the ground up.

Oleg Luksha

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Finnish-Russian Innovation Centre – main results of activities

By Igor Kuprienko

The Finnish-Russian Innovation Centre (FinRusInno) was established in beginning of 2008 as the joint initiative of Finnish Innovation Centre «Finnnode Russia» and municipalities of Lappeenranta and Imatra. The main goal was defined as: to promote international cooperation in the field of innovations by attracting partners and public funds in Russia and Finland. The Centre activities are focusing on innovations in ICT field, nanotechnologies, forestry, energy efficiency in construction and real estate management, transport, logistics, enterprises, researches, education etc.

In fact, FinRusInno has become the cooperation platform between Finnish and Russian local authorities, companies and organisations, universities and R&D institutions. Around 6000 persons were visited the Centre during this time. About 1000 Russian and Finnish companies have learnt how to work together. Nearly 100 of St.Petersburg based companies have made the decision to explore the European market by establishing the business in Finland.

FinRusInno is intensively supporting the commercialization of innovations activities. Number of competitions, training sessions, consulting activities was done. Lappeenranta Innovation together with Finnnode Russia and group of partners has initiated the remarkable project, which is focusing on Commercialization of Russian innovative companies. Already in the middle of project lifetime, 3 companies have started its operation on European market. More that 300 companies has applied to take part in the project, and accessed to the commercialization process.

Above mentioned digits are demonstrating the quantity results. Beside the digits, the Centre has made a huge influence on integration of Finnish and Russian Innovative systems. This experience has moved to EU-Russian level. One of Important event is European-Russian Innovation Forum, which is yearly organized in Lappeenranta. First Forum is famous by remarkable visit of the Prime Ministers of Finland and Russia. During visit of Mr. Putin, number of bi-literal agreements was signed. Second Forum was mainly focused on business cooperation. The Third Forum will be organized in June 2012 in cooperation with European Business and Innovation Centres Network (EBN). Organizers are expecting nearly 1000 participants from all around Europe and Russia.

Moreover the European-Russian Innovation Forum is organized in close cooperation with City of St.Petersburg and logically connected to St.Petersburg International Innovation Forum, which is traditionally organized in a last week of September in St.Petersburg. FinRusInno team in cooperation with European-Russian InnoPartnership are actively supporting the St.Petersburg Forum by bringing the European speakers and organizing the Forum events focusing on EU-Russian cooperation in innovation field.

FinRusInno is an initiator of development the cooperation between Finnish and Russian Universities. The alliance of Finnish and Russian Universities were formed in 2009 with a name of Finnish-Russian Innovation University (FRIU). For a moment 3 Finnish and 6 Russian universities are developing the joint programmes in education and R&D. Universities – members of FRIU – have several Double Degree education courses, which provide the

possibilities for students on having two diplomas from Russian and Finnish University.

Although, FinRusInno is providing the services to all Finnish and Russian companies and organisations, the special focus is on cooperation between St.Petersburg and Lappeenranta can be illuminated. Two Lappeenranta municipal companies and two founders from Russia have launched the common company – European-Russian InnoPartnership (ERIP), which is essential part of the development the cooperation on cross-border environment. ERIP, FRIU and FinRusInno are forming the Regional Open Innovation Platform. The Platform is providing similar services for innovative companies from both sides of the border, assisting on internationalization of the business and easy access to cross-border markets.

Activities of FinRusInno has clearly demonstrated that innovation system of Finland and Russia has strong differences but provide added value to each other. Russian innovations are lacking the demand on local market and exploring the worldwide opportunities. As the newcomers, they meet the challenges, which are not in common practice in Russia. The Finnish innovators have those experiences, which are lacking from Russian side. Another important advantage is a strong support of innovations by Finnish government. Both of these opportunities are motivating the Russian innovators (primary St.Petersburg based) on choosing Finland as the first step to internationalization processes. The activities of Finnish-Russian Innovation Centre is the important daily process supporting economies of both countries by initiating and assisting to new innovative companies and organisations on start-up and growing stage.

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Innovation and journalism – convergence

By Turo Uskali

Innovation journalism, a phrase coined in 2003 by Dr. David Nordfors while working at Vinnova, the Swedish National Agency for Innovation Systems, refers to a type of journalism covering innovation, innovation processes, and innovation (eco)systems.

Nordfors noticed that news organizations are vertical institutions that organized news production in silos of special focus area such as politics, business, culture, and science. Since news organizations did not have a silo for innovations they could not report properly on the topic. Nordfors also realized that to conduct good journalism about innovations, all the special focus areas of journalism should be combined.

Furthermore, any new 'thing' always needs a name, as well as metaphors and narratives in order for it to be discussed. Journalists play an important role in both innovation discussions and innovation communication. Journalists invent, test and spread the new words and narratives so that new things can be discussed and introduced.

Nordfors put his observations into practice, in 2004 by founding the innovation journalism fellowship program for mid-career Swedish journalists in Sweden.

Silicon Valley in Northern California is globally the leading innovation hub and is the location of the world's leading innovation ecosystem involving academic centers of research excellence, innovative hi-tech enterprises (Hewlett Packard, Intel, Oracle, Cisco, Google and Facebook), a skillful workforce and venture capital. Furthermore, Silicon Valley is home to a variety of traditional new organizations (the San Francisco Chronicle) and digital start-ups (Venture Beat).

A natural progression of Nordfors' innovation journalism project was a move from Sweden to Stanford University in Silicon Valley in 2004. The innovation journalism (INJO) program combined practical news-room work (Silicon Valley, New York, Boston and Washington D.C.) that the participants both greatly appreciated and highly valued, and lectures on innovation theory. In 2006, Helsingin Sanomat Foundation and Sitra began co-funding Finnish journalists to participate in the INJO program at Stanford University. During the seven years that Stanford University hosted INJO (the program closed abruptly in June 2011), Swedish journalists (40) and Finnish journalists (15) formed the core of the journalists who completed the program and shared their experiences of best practices at the annual INJO conference at Stanford University.

Fortunately for INJO style programs, innovations in the digital era disseminate at high speed, and by the time Stanford University ended the INJO program in 2011, several Finnish initiatives had matured or were in the process of maturing. In 2004, the first Finnish innovation journalism course for mid-career journalists was launched at the University of Tampere. In 2005, for the first time anywhere, an INJO style course for undergraduate journalism students was provided at the Department of Communication, University of Jyväskylä. In 2007, an association for innovation journalists was founded, in Finland; in 2009, the University of Helsinki organized the first Scandinavian conference on innovation journalism, and in 2011 the first text-book about innovations and journalism was published in Finland.

Innovative concepts leading to concrete innovations are globally accepted as being necessary for societal welfare and development. Yet, Finland being the sole global provider of tertiary level INJO courses reflects the low-level priority both media institutions and enterprises place on innovation journalism.

Due to the global use of high-speed Internet and mobile telephony communications, we have entered a period of open innovation ecosystems, which offer new opportunities and challenges for communication professionals. A key prediction is that the next era will be a ubiquitous networking society based on real-time mobile social media communications, data streams and The Internet of Things (which refers to the fact that more machines and things are already connected to the Internet than there are human beings living on earth). All these new technologies and their implications should be constantly analyzed and discussed by innovation journalists.

In this context any European journalists who participated in Stanford University's INJO program, or have the opportunity to participate in INJO style courses in the EU are valuable assets for the future of European journalism and European innovation ecosystems.

Therefore, I propose that a special center or institute for studying the interplay between innovation and journalism should be created in the Baltic region. The main aim of the center would be to build networks and activities for researching and educating future communication professionals about innovations.

While Swedish and Finnish journalists and researchers who have completed the INJO program in either Sweden or Silicon Valley could be considered as potential leaders of an initiative to create an INJO center, the location requires, perhaps, an innovatory approach. Around the Baltic Rim are nations whose media developed their use of ICTs in parallel with the development of computer hardware and software since the 1980s (Scandinavia and Germany). There are also those countries that have since 1991 either had to play ICT catch-up with their neighbors in the Baltic region (Latvia, Lithuania and Poland) or planned and executed an outrageous tiger's leap (Tiigrehüpe) into the future, which ensured that Estonia within fifteen years became the most Internet-ready nation in the Baltic and perhaps the EU. Where better than to locate a center of innovation journalism, but Tallinn?

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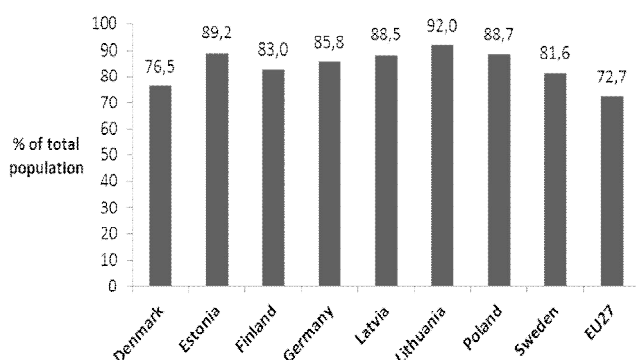
Innovations – a key to the future competitiveness of the Baltic Sea region

By Hanna Mäkinen

The economic, political and strategic significance of the Baltic Sea region (BSR) has been constantly growing. While the region has grown more prosperous, both the merchant shipping and passenger traffic on the Baltic Sea have increased. Despite of its small size, the Baltic Sea is currently among the world's busiest sea areas, accounting for up to 15% of the world's cargo transportation. The Baltic Sea countries have intense import and export relations with each other and the trade within the region is of great significance for the BSR countries. The Baltic Sea region is also an important centre of economic power in Europe – for instance, the EU member states in the region account for some 30% of the EU's GDP. The significance of the BSR has been acknowledged also in the EU that has adopted a Strategy for the Baltic Sea Region – the first EU strategy for a macro-region – aiming to facilitate the development of the region.

However, to maintain its global competitiveness in the future, the Baltic Sea region needs to preserve and improve its technological capability and innovativeness. Nowadays innovation is regarded as a central component of the knowledge economy and essential in meeting the challenges of the global economy. Innovations emerge from research and expertise. These, on the other hand, require educated people and investments in research and development (R&D) activities. As shown in Figure 1, the BSR countries have strong potential in well educated people – in all countries (excluding Russia on which the data is not available) the share of population that has completed at least upper secondary education is above the EU27 average.

Figure 1 Population between 25–64 having completed at least upper secondary education in the BSR countries*, 2010



* Data for Russia not available
Source: Eurostat.

The proportion of GDP spent on research and development, however, varies in the BSR countries (Table 1). In Denmark, Finland and Sweden it is more than 3% which is one of the five headline targets of the EU's growth strategy "Europe 2020". On the other hand, in Latvia, Lithuania and Poland the share is well below 1%. Indeed, a disparity between eastern-western / northern-southern parts of the region is still visible here. A similar difference can be seen in the proportion of employment in high technology sectors compared to total employment. However, the proximity of knowledge intensive economies of the BSR, such as Finland and Sweden, can benefit the three Baltic States, Russia and Poland. The transfer of knowledge and information within the BSR can help the countries to reinforce their R&D capacities in the future.

Table 1 R&D expenditure as a percentage of GDP in the BSR countries, 2005–2009

	2005	2006	2007	2008	2009
Denmark	2,46	2,48	2,58	2,87	3,02
Estonia	0,93	1,13	1,10	1,29	1,42
Finland	3,48	3,48	3,47	3,72	3,96
Germany	2,49	2,53	2,53	2,68	2,82
Latvia	0,56	0,70	0,59	0,61	0,46
Lithuania	0,75	0,79	0,81	0,80	0,84
Poland	0,57	0,56	0,57	0,60	0,68
Russia	1,07	1,07	1,12	1,03	1,24
Sweden	3,56	3,68	3,40	3,70	3,62

Sources: OECD, Federal State Statistics Service of Russian Federation, Statistics Lithuania, Central Statistical Bureau of Latvia.

Still, qualified labour force and investments in R&D are not the only preconditions for innovation activity. A climate that encourages innovation, creativity and a certain level of risk-taking is an important part of a successful innovation system. The Knowledge Economy Index (KEI) takes into account whether the environment is conducive for knowledge to be used effectively for economic development (Table 2).

Table 2 Knowledge Economy Index (KEI) of the BSR countries, 2009

Country	KEI	Economic Incentive Regime	Innovation	Education	ICT	World ranking in 2009	Change in rank from 2000
Denmark	9,52	9,61	9,49	9,78	9,21	1	2
Sweden	9,51	9,33	9,76	9,29	9,66	2	-1
Finland	9,37	9,31	9,67	9,77	8,73	3	-1
Germany	8,96	9,06	8,94	8,36	9,47	12	3
Estonia	8,42	8,76	7,56	8,32	9,05	21	7
Lithuania	7,77	7,98	6,70	8,40	7,99	31	3
Latvia	7,65	8,03	6,63	8,35	7,58	32	4
Poland	7,41	7,48	7,03	8,02	7,09	37	-2
Russian Federation	5,55	1,76	6,88	7,19	6,38	60	4

Source: World Bank.

Moreover, for an innovation to succeed, it is important that it will respond to the needs of customers – simply to make an invention is not enough. Thus, instead of only relying on a research-centred approach, market oriented innovation development and commercialisation of innovations is needed, which requires cooperation between public and private sectors. In the BSR countries, the innovation systems differ: Whereas in Denmark, Finland, Germany and Sweden the business sector actively participates in innovation process, in Latvia, Lithuania, Poland and Russia – and to a lesser extent in Estonia – the role of the private sector still remains limited.

Some sectors in the Baltic Sea region hold particular potential for innovation development. The region in general appears to be specialised in some technological fields, particularly ICT and biotechnology. Medicon Valley, a life science cluster that spans the Greater Copenhagen area in Denmark and the Skåne region of southern Sweden, is one example of a successful high-technological inter-regional cooperation in the BSR, which is not limited within national borders. The creative industries sector (particularly software consulting), on the other hand, has experienced significant growth in Baltic States. In the future, energy and

environment could arise as a special focus area as there is great innovation potential in renewable energies. Moreover, climate change and energy are priorities of both Europe 2020 and the EU Strategy for the Baltic Sea Region. The environmental issues are particularly important for the Baltic Sea region countries, as the Baltic Sea is one of the world's most polluted seas whose main challenges derive from the conditions of the maritime environment. Thus it would seem that a clear demand for innovations related to sustainable development exists in the BSR. Furthermore, common specialisations could create synergy advances for the whole region.

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Financial constraints on the modernization of the Russian economy

By Richard Connolly

Not for the first time in history has the modernization of the Russian economy been a subject of intense public discussion, both inside and outside Russia. The most recent iteration of this discussion can be traced back to the period immediately before the onset of the Great Recession in 2008. Even as the prices of Russian exports soared in 2007-08, government officials were preparing a blueprint for the future diversification and modernization of the Russian economy, eventually articulated in the 'Concept of Long-term Socioeconomic Development of the Russian Federation to 2020'. However, before the Strategy was even signed into law, the ruptures associated with what was at first primarily a global financial crisis sent Russia into a sharp and deep recession. Of all the G-20 economies, the recession suffered by Russia during 2008-9 was the most severe; not only did the economy contract by 7.9 per cent in 2009, but because its pre-crisis growth rate of 8.1 per cent (in 2007) was so high, the 'swing' in performance over 2007-09 (minus 16 per cent) was among the worst in the world.

The Russian experience of the Great Recession prompted the leadership to address the issue of economic modernization and diversification with increased urgency. This occurred as the factors that had contributed to the rapid pace of expansion before the crisis showed signs of exhaustion: industrial capacity utilization was reaching its limits, signalling an end to the investment-light years of growth; the average productivity level in the economy remained low by international standards, notwithstanding wide regional and sectoral differences; the role of the state in the economy had increased gradually since 2002; the dependency ratio was projected to begin its inexorable rise in 2010, heralding an era of fiscal weakness; and the shortage of modern infrastructure was reaching chronic levels. Added to Russia's well documented institutional weaknesses, the list of challenges facing the Russian economy looks extremely daunting.

There is, however, a common solution to these problems: a sustained increase in the level of private investment. Higher private investment should, all things being equal, facilitate the diversification and modernization of the economy, relieve the pressure on the level of industrial capacity utilization, raise productivity levels, and enable a smaller and older population to generate higher levels of output. Unfortunately, the rate of investment in Russia has been comparatively low. Investment as a proportion of GDP declined over the 1990s, reaching a post-socialist low of 14.4 per cent in 1999, before rebounding to 22 per cent in 2008 after a mini investment boom between 2005-08. Amongst major low- and middle-income countries, only Brazil had a lower rate of investment. If Russia is to modernize, this will have to change.

But what is holding back private investment in Russia? There are a number of apparently plausible explanations, including the poor business environment, declining levels of human capital, and archaic infrastructure. All these explanations, however, are constants in Russia's post-socialist history; as such, it is difficult to sustain the view that they explain the variable rate of private investment in Russia, especially that observed in the years before the crisis. Put simply, if the business environment in Russia

has always been poor, if human capital has been on a downward trend since the 1990s, and if infrastructure that was bad to begin with has only got worse, how can they explain the resurgence in private investment that occurred after 2004? (Incidentally, the year after the Yukos episode.) It is likely that while these obstacles are surely undesirable, and do play an important part in deterring investment decisions in some cases, they are not decisive. A better explanation of what is holding private investment back in Russia needs to explain why investment increased between 2005-08. In short, one needs to identify an explanatory variable that moves in line with investment. The only explanation that satisfies this requirement lies in the poor state of Russia's financial sector, suggesting that restricted access (not necessarily cost) to finance is the binding constraint on private investment in Russia.

An examination of survey data from a variety of sources reveals that firms consistently report that access to finance is one of the most problematic factors for doing business in Russia. Furthermore, the reporters in these surveys are existing firms, with the sample excluding firms that would have *existed had the binding constraint been removed*. As such, reporting firms may have been politically well connected, part of larger financial-industrial groups, or large enough not to have required finance from banks. This suggests that while access to finance is acknowledged to be a problem in existing firms, it may be an even bigger problem for unobserved cases that failed to get started in the first place or, if successful in starting, perished soon after. Moreover, according to data from the World Economic Forum, Russia's financial system is extremely poor by international standards, with Russia ranking 125 out of 139 countries in 2010, with Russia's ranking worsening over time. Evidently the quality of financial intermediation in Russia is extremely poor. Why is this so?

There are four main factors underpinning the weakness of the financial sector in Russia. First, the state plays too large a role in the allocation of surplus savings due to its overbearing presence in the Russian banking sector. Second, the Russian banking system is composed of many small and ineffective banks, and a few large, state-controlled banks, that favour lending primarily to large enterprises, or those from selected regions of the country; in both cases, the recipient firms are often politically well connected. Third, the financial system is bank-centric, with few sources of non-bank finance. Finally, there is a low level of market penetration by foreign banks. Because real interest rates are negative, and because of these structural flaws within the financial system, demand for credit exceeds supply in Russia, leading to credit rationing that favours larger, more established organizations, and discriminates against newer, smaller entrants. As a result, the size of the Russian banking system is extremely small when compared to other emerging economies (see Figure 1).

In the years before the crisis, significant institutional reform and reorganization within the banking system resulted in the constraints on access to finance being relaxed, resulting in an episode of rapid credit expansion that caused investment to rise and drove Russia's pre-crisis economy, more so than even rising prices for Russia's natural resource exports. What is important to

note is that as Russia's banking system began to do what banks are supposed to do – channel savings into profitable investment opportunities – so private investment grew at a healthy rate, an episode that needs to be repeated and sustained if healthy rates of economic growth are to return to Russia in the near future. This also suggests that further reform of the financial sector should be placed at the centre of any strategy for economic modernization, ahead of the expensive and potentially ineffective state-led initiatives to foster knowledge-based industries.

Dr. Richard Connolly

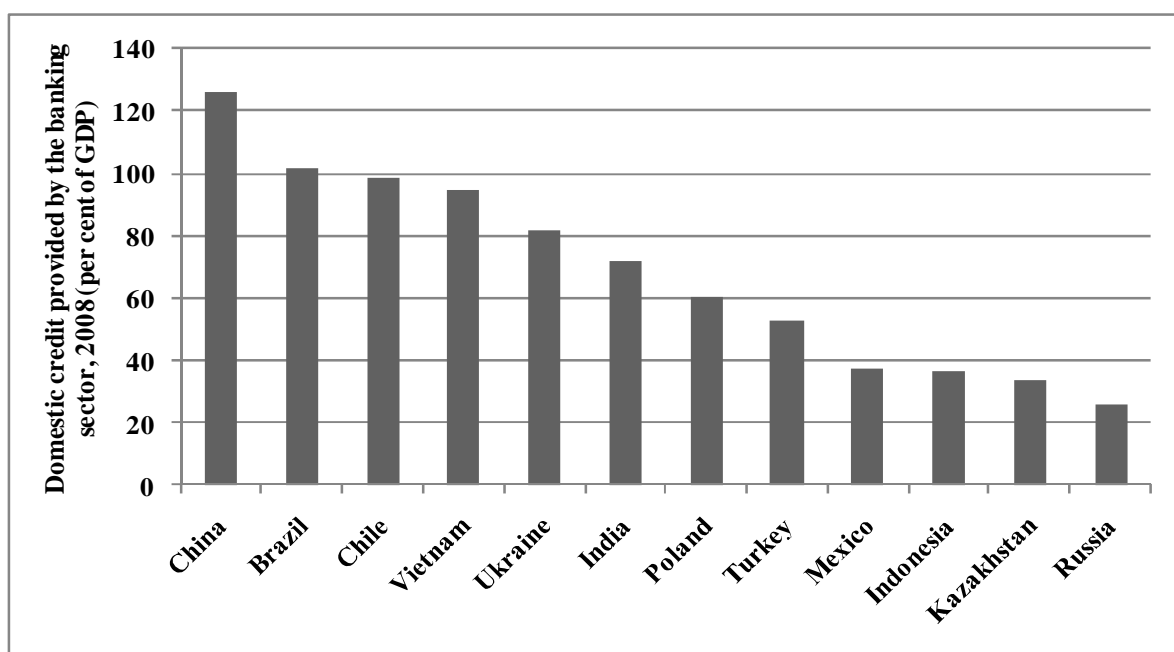
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Figure 1. The Relative Size of the Russian Banking Sector, 2008 (domestic credit provided by the banking sector to the private sector as a percentage of GDP)



Source: World Bank (2010)

Using Foresight as an instrument for constructing future vision for key sectors of Russian economy – results and lessons

By Alexander Chulok

Forecasting of long-term economic development is becoming more and more popular in Russian's innovation and industrial policy agenda. Practical implementation of more than thirty forecasting projects was launched recent years¹. Main objectives for such projects were: identifying key drivers and trend for Russian economy, identifying most critical technologies, elaborating scenarios for key sectors and science directions, policy recommendations, science priorities, regional plans, building expert networks based on federal institutes, technology roadmaps for science directions and key sectors. In the fairway of such initiatives most big Russian companies² activated development of long term innovation strategies, scenarios and plans.

As a basic instrument for meeting such goals Foresight conception can be used. Developed and developing countries have been using Foresight for about fifty years for constructing common vision at corporate, industrial and national level between key stakeholders³.

Within one of the key Foresight projects in Russia "Forecast of S&T development of Russian economy by the period of 2030"⁴ main object was the determination of necessary technologies and technologic solution, in accordance with scenarios of key Russian economy sectors.

The results for sectors were highly diverse due to different sectoral structures and a number of sectors⁵. What we can do in brief is to show some examples of some results for several sectors.

We constructed the expert pull to provide sectoral information on the interested questions which combined for each sector:

"Synthetics experts" – high level experts, industry strategies designers, consultants;

"Industry experts" – top- and production managers of the main private and public companies;

"Science experts" – leading academic institutes representatives.

As a result for each key sector we got four to eight prospective scenarios. We used in-depth interviews, focus groups, and surveys to provide communication with the expert pool. To discuss preliminary version of the visions and present final results we used round tables and conferences.

As an example of sector scenario demonstration we can provide description of two basic models for pharmaceutical and medical industries. We defined common and specific key characteristics of each model. Then we divided main perspective technologies according to these models and defined those which are invariant to the models and those which are specific.

Some interesting lessons and conclusion are:

Russian sectors are multistructural, they are characterized by obviously many different beneficiaries and actors, different technological and economic structure – as a result the Government should switch from the policy of unique instruments, towards the personalized innovation policy, taking into account the specification of each sector (sub sector);

For some sectors (ferrous and non ferrous metallurgy, ICT) it's not possible to get to the desired future directly: one should get a "bridgehead" fist, and then through the "switching models" archive the final vision;

Difficulties with codification" of obtained results: one should construct a "meta language" of the project which could translate expert materials at list from two languages: technical and economic;

Insufficient level of contribution from federal and regional authorities in formation of visions and scenarios: quality of the project depends essentially on experts involvement in application of technologic modernization policy buildup at a level of interested ministries;

Lack of "success stories" and good demonstration examples restricts potential demand from business society for participation in foresight and forecast projects.

¹ Starting from the year 2006 forecast and foresight projects were launched by the key Russian Ministries (Ministry for Science and Education, Ministry for Communications and Informatization of the Russian Federation, Ministry of Industry and Trade), state-owned corporations (Rosatom, Rosnano) and some Russian regions (Tomsk, Saint-Petersburg).

² At least those who had state capital were obliged to develop the "Innovation development plan" by the Government prescription.

³ Most recent definition of Foresight considers it as "an open and collective process of purposeful, future-oriented exploration, involving deliberation between heterogeneous actors in science and technology arenas, with a view to formulating shared visions and strategies that take better account of future opportunities and threats" (Keenan, M. and Popper, R. (2007), Research Infrastructures Foresight (RIF), ForeIntegra, Brussels: European Commission).

⁴ Supported by the Ministry for Science and Education of Russian Federation.

⁵ We investigated ten key sectors: energy, iron and nonferrous-metals industry, agriculture, chemical industry and pharmaceuticals, aircraft industry, commercial shipbuilding and information sector.

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Figure 1. General logic of scenario generation within the project “Forecast of S&T development of Russian economy by the period of 2030”

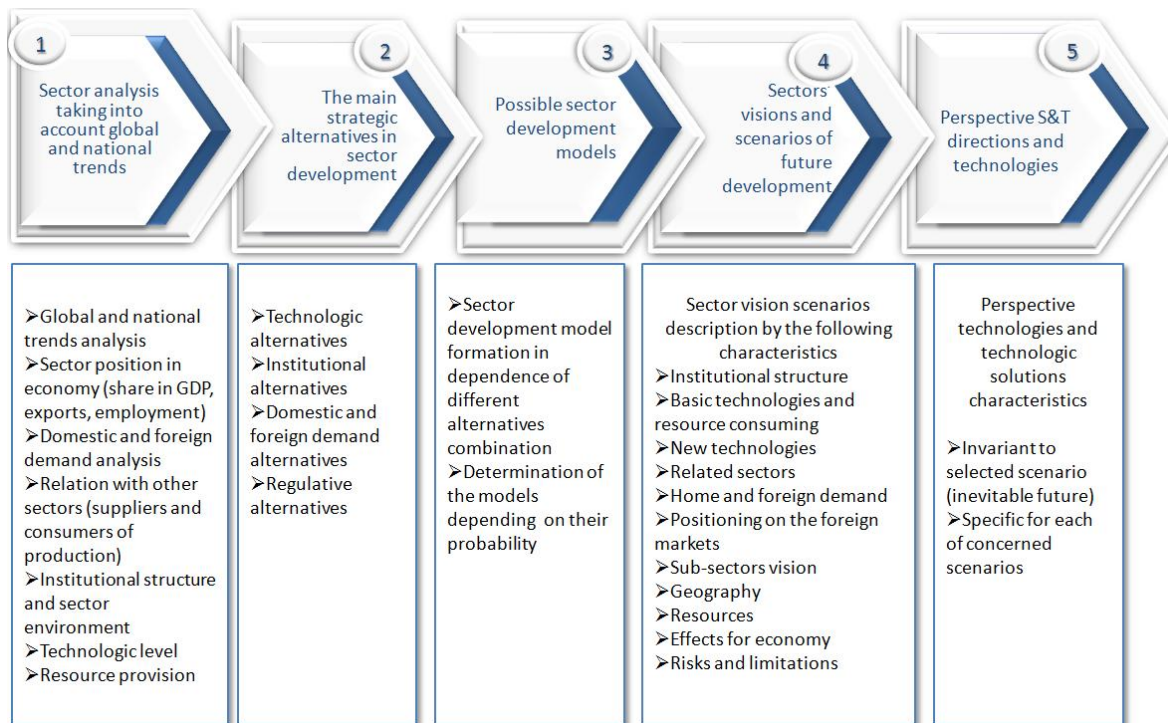
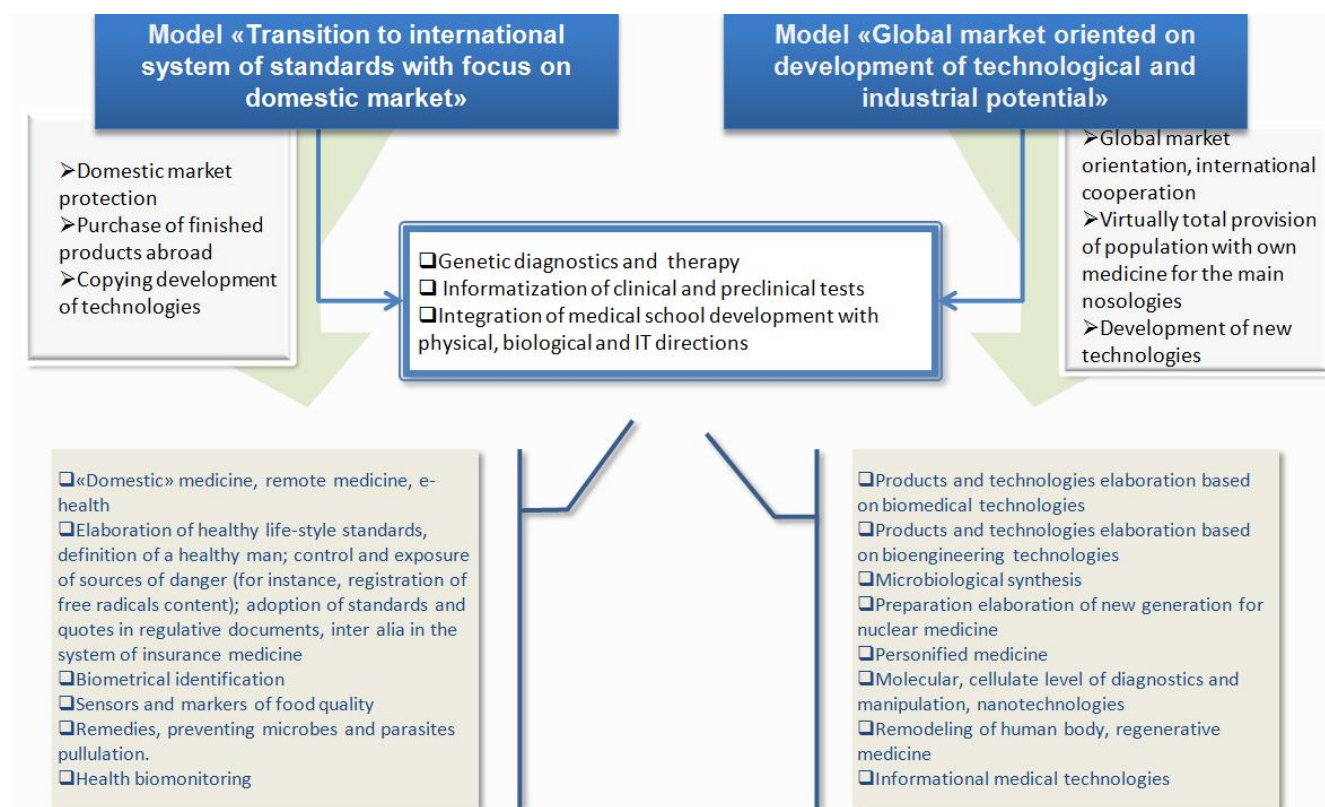


Figure 2. Summary characteristics of long-term perspectives for key investigated sectors*

	Ferrous metallurgy	Nonferrous metallurgy	Agriculture	Chemical industry	Medicine and pharmaceuticals	Aircraft industry	Commercial shipbuilding	Information sector
Interactions with other sectors								
Demand for products and services from other sectors	Metallurgy Energy sector Machine building Transport	Cargo shipping operations Electric energy in all industry Fuels in all industry	Chemicals, fuels and lubricants Electricity and gas	Oil-producing and oil-refining industries Gas extractive industry Ore mining and processing enterprises S&T complex	Agriculture Special metallurgy Electronics Chemical industry ICT S&T complex	Almost all industries S&T complex	Ferrous and nonferrous metallurgy Machine building Chemical industry	Electronics Educational system S&T complex
Main consumers	Metallurgy Machine building Construction Transport Energy sector	Machine building Ferrous metallurgy Construction	Food industry Pharmacy Energy sector Householders	Machine building Construction Residential consumption Householders	Health-care system Householders	Air transport	Sea and river transport	IT- electro energy, IT- finance, ICT, Oil and gas industry Householders
Perspectives for development of domestic market and new market niches								
Perspectives for development of domestic markets	Medium growth for mass production Rapid growth for ultimate consumpt.	Medium growth for mass production Rapid growth for ultimate consumption	Medium growth Rapid growth for crops	Rapid growth for most segments, especially in ultimate consumption	Rapid growth	Medium growth	Slow growth	Rapid growth
Possibilities of new significant niches	Low probability	Low probability	Medium probability (organics, bio fuels)	Medium probability (low tonnage and fine chemical products, packaging)	High probability (cure schemes, drugs with delivering)	Low probability	Medium probability (medium tonnage cargo boats, oil platforms)	High probability (electronic services, 5G, GRID systems)
Specificity and technological characteristics								
Level of technologies (quality/ efficiency)	High / Low	High / Low	Medium / very heterogeneous	Medium / heterogeneous	Heterogeneous/Low	Medium / Heterogeneous	Low / Low	Medium / heterogeneous
Investment projects	Long- term projects (30-50 years)	Long- term projects	Medium-term projects (3-6 years)	Long- term projects (10-15 years)	Long- term projects (15-20 years)	Long- term projects	Long- term projects	Medium and short-term projects
Organizational structure of the sector								
Current structure in Russia	Mass demand – big vertically integrated comp. and horizontal integ. comp.	Mass demand big and huge companies, vertical integration	Big agro holdings and enterprises as well as house farms and small companies	Large-tonnage chemical- big companies	Small and medium enterprises	Big companies, vertical integration	Big companies, vertical integration	IT – SME Telecommunication sector- big companies
Main trends in Russia and other world	Mass demand- mergers; global market cartels, optimization, new global players	Combining of productions, located in different world countries	Development of farmers	New players from Asia. Increasing comp. role of small (low-tonnage chemicals)	Increasing of M&As; creation of integrated comp.; new players from China and India	New world players from Brazil and China	New players	Increasing of new small firms; Big comp. go to services markets

* Estimations made for 2009-2010 years

Figure 3. Basic models for pharmaceutical and medical industries



Science as an engine of integration – academic environments as common public spheres

By Anders Björnsson

The integration of the Baltic Sea region after the Cold War is truly a success story. The system shifts within the former Soviet empire were relatively peaceful. To be sure, economic growth was interrupted in some quarters with the global crisis of 2008–2009, but there are countries in Europe that were hit far harder than the states along the Baltic shores. Just as industry tends to consolidate through merger as well as competition, one can speak of a *political* convergence. Various types of problems involving minorities remain (on this matter, the Scandinavian countries have no reason to boast), but, generally, relations around the inland sea that is the Baltic are more relaxed than they have been for many generations.

Collaborative projects have also been legion, to the point that it would be difficult even simply to summarize them. An entirely new NGO culture, with missions whose scope matches that of a state, has grown up in all the coastal countries, while the traditional party system seems to be in crisis almost everywhere. Who is doing what where is not always easy to see. Faced with real or imagined threats to the democratic social order (which in some places is quite fragile), state or supranational control of citizens has been reinforced. Fragmentation and political contraction seem capable of going hand in hand. This is not very healthy for the long-term legitimacy of power in our societies.

If the Baltic has once again become a sea that is common and available to all, this wider region, viewed from the inside, is still a community of elites. It is by no means under any popular supervision. Attempts to create an all-encompassing Baltic identity have not been particularly successful. “Balticness” has remained a fashionable term in a touring conference circus, where commercial branding has been the linchpin. The reason is probably quite simple: there has been no sounding board. That such a sounding board doesn't exist is a result of the absence of a vigorous and engaged public. Special interests have been playing their cards, but in the back room.

There are of course numerous obstacles, among them linguistic, to establishing a public sphere of “Balticness”. But they are not insurmountable. Allow me to give an example.

In early 2011 there was a debate in my home country, Sweden, about the need for a new opera house in the Swedish capital. The existing building, the Royal Opera House, is barely a hundred years old. At the same time, modern opera houses have been erected relatively recently in the other Nordic capitals: Copenhagen, Helsinki, Oslo. This could speak just as well against as for yet another one in Stockholm. It's not just that there are excellent stages for operatic art in Swedish provincial cities such as Gothenburg, Malmö, Karlstad, and Örebro; they can also be found in Riga, in St. Petersburg, cities that, for geographical reasons, are just as easy to reach for many Swedes as any of the aforementioned. The venues of culture are essentially international. The real distances are shrinking constantly.

Culture and its diverse creations are the basis for serious discussion. Those who have seen the same exhibition have a number of common points of reference. Science must be numbered as an element of culture in the broadest sense, and the roll of science in modern societies is constantly expanding. It is no longer an elite project, it works as a force of production. Its mission is to produce material and intellectual utility. Think! More and more professions are being “academized”, thus enhancing their professional status. Nearly half of any given age cohort today will

engage in some form of academic study. Research produces innovations that transfigure our existence, and it has become part of the economic base of society. It is in all respects a phenomenon that transcends borders. It is not in any need of branding.

The journal *Baltic Worlds*, which in the fall of 2011 completes its fourth year of publication, seeks to broaden knowledge of the Baltic Sea area and its immediate surroundings – on the basis of scholarly and intellectual debate. The task does not compete with, but rather complements the tasks of others. It has no exclusive expert character: the journal seeks to be an instrument of communication across multiple areas of expertise. In the age of mass education and mass universities, the total number of experts can actually constitute a majority of a given population. When the degree of complication in decision-making and implementation increases, democratic societies will not survive without such “elite majorities”. There is also an opportunity here for large-scale rapprochement between countries with different traditions and experiences.

My suggestion is that, in our part of the world, we take seriously academic environments and scientific production of knowledge as a truly unifying factor – and as a way to strengthen communication skills in general. There is room for both competition and collaboration. Exchanges of students and researchers already exist; they are based on trans-border structural similarities in the academic systems, and this traffic must be intensified. Today, research and higher education is evaluated and ranked at the national level in many countries – is there not reason to believe that such results would be more interesting and reliable if they were compared with neighboring countries? University ranking in the larger region would be an obvious concern for research councils and independent research foundations in the individual countries. New possibilities for contact would arise.

Without making the practitioners of science into icons, one would still like to highlight certain scientific achievements as particularly interesting (and not only in the Nobel Prize disciplines). In the Nordic countries, a common annual literary prize is given out to a fiction author. This broadens the sphere of recognition for quality literature. A prestigious annual scientific prize could very well have all the Baltic countries as a “catchment area”. That would automatically raise awareness of ongoing cutting-edge research. It would make public education and identity formation one and the same thing. Scientific academies would be the obvious funding source for such an effort. It would put the spotlight on science as an engine of integration for societies that want to come closer to each other.

Note. – The writer is editor-in-chief of the international quarterly journal *Baltic Worlds*, published by the Centre for Baltic and East European Studies, Södertörn University (Sweden), and holds an honorary doctorate from the University of Gothenburg.

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Baltic Worlds

International science and technology cooperation in Eastern European countries

By Klaus Schuch, George Bonas and Jörn Sonnenburg

National Policies and National Programmes Addressing International S&T Cooperation

In all Eastern European Neighbourhood Policy (EN) countries the national Science, Technology and Innovation (STI) policy acknowledges the **importance of strengthening International Cooperation in Research and Development (R&D)**. Provisions for this (articles, paragraphs etc.) can be found in the respective national legislations (e.g. Armenia: *Law on Scientific and Technological Activity, the Strategy on Development of Science and Action Plan 2011-2015*; Georgia: *Law on Science and Technologies and their Development*; Moldova: *Code "On Science and Innovation"*; „Moldova Knowledge Excellence Initiative” Action Plan 2008; Ukraine: *National Indicative Programme 2011-2013*). International Science and Technology (S&T) cooperation for example has a special allocation in the state budget of Belarus and receives 3-4% of budget spending for R&D annually. However, there is no distinct single policy document referring to the issue of International Cooperation in any country.

EN countries have a number of **national programmes** that are in operation. In some countries these programmes are open for foreign researchers (Belarus). In other countries R&D programmes are basically open for international collaboration but funds are provided only to domestic researchers (e.g. Georgia and Moldova: *The State Grants for Fundamental and Applied Studies*), while there are also cases where programmes are more restricted (like in Armenia).

Also in the Russian Federation enhancing internationalisation of the R&D sector has been identified as one important aspect for improving the quality and results of Russian R&D in the last years. Internationalisation beyond the geographic limits of the former Soviet Union, however, starts – like in most Eastern European Countries - from a low level. In Russia still many R&D organisations are isolated from each other and from the outside world. Data on Russian co-publications show that the USA and the EU countries Germany, France, UK and Italy are **the top collaborating partners**. Co-operation with China and South Korea is quickly increasing.

To counteract **brain drain**, Russia also recently implemented within the frame of its “Scientific and *Scientific-Pedagogical Personnel of Innovative Russia for 2009-2013*” an initiative to attract emigrants back to Russia or to develop various kinds of linkages. Moreover, in June 2010 another targeted programme¹ aimed to attract foreign scientists was launched. A few Russian R&D programmes are also open for participation of EU researchers². The main access obstacles for international researchers, however, are a lack of information about Russian RTD programmes, linguistic barriers and financial and legal issues.

Bilateral Agreements and Programmes

Eastern European Neighbourhood Policy (EN) countries have a number of **bilateral agreements** mainly with other Commonwealth of Independent States (CIS) countries and countries of the EU. Some countries have also signed agreements with other non-EU countries such as USA (Armenia), Argentina (Armenia), China (Armenia, Belarus, Moldova), India (Armenia, Belarus) and Venezuela (Belarus).

¹ The name of the programme in English is “*Attracting leading scientists to Russian universities*”.

² See <http://www.access4.eu/index.php> for more information

Moreover, bilateral agreements have also been signed by research institutions (mainly the National Academies of Sciences) with similar counter parts abroad.

Also Russia has bilateral agreements and programmes with many states all over the globe in place. The EU is an important partner for Russia’s R&D internationalisation attempts. Russia has concluded bilateral S&T agreements with a broad range of EU Member States and countries associated to the European Framework Programme for Research and Technological Development (FP). Agreements have also been established at the level of research funds. At the level of research organisations, especially the Russian Academy of Sciences has a dense network of cooperation agreements in place.

Findings of a survey conducted under the ERA.NET RUS project proved that bilateral cooperation is focussed on basic research. The most frequently used instrument is mobility support. Thus, not surprisingly, the budgets of bilateral agreements are mostly small scale and annual investment is usually below €1 million. Most recent trends show a shift from mobility towards more substantial R&D projects, a higher propensity for supporting applied research and innovation and an evolution of bilateral towards multilateral schemes.

(Sub-)Regional Cooperation

Regional cooperation is based on the numerous **bilateral agreements** that exist between the countries as well as between specific research institutions (academies, universities, research centres) in the Eastern European region. Historically, collaboration with Russia is characterized by the highest indices (e.g. in Belarus 55% of the National Academy’s international projects are carried out with Russia). Russia has concluded bilateral S&T agreements with all Eastern European and Central Asian countries except Turkmenistan³. In 2011 an intergovernmental programme for cooperation in the sphere of innovation within the Commonwealth of Independent States (CIS) was adopted. R&D cooperation within CIS is facilitated by the fact that Russian is considered as *lingua franca* among the scientific communities. In addition to the strong traditions and ties within the CIS, R&D cooperation with other Asian countries rapidly increases. RFBR for instance regularly runs joint calls with the Japanese Society for the Promotion of Science, the State Fund for Natural Sciences of China and with the Indian Department of Science⁴.

Furthermore, some bilateral programmes between the EN countries serve to enhance the cooperation in the sub region (e.g. Call for joint bi-lateral basic research projects 2011 between BRFFR (Belarus) and the State Committee of Science of Armenia). Overall, regional cooperation is mainly driven by past personal or institutional links often inherited from Soviet times and current political initiatives and programmes (BSEC, GUAM, CIS, ENP/ENPI, etc.).

Regional cooperation also benefits from **cross border programmes** under ENPI (especially the Black Sea cross border cooperation programme 2007-2013, the Black Sea Basin Joint Operational Programme 2007-2013). Other international programmes/projects with EU countries mainly under FP7 provide opportunities for regional cooperation in

³ Taken from <http://mon.gov.ru/work/mez/dok/1075/>

⁴ Information taken from Spiesberger, M. (2008): *Country Report Russia An Analysis of EU-Russian Cooperation in S&T*. Prepared on behalf of the CREST OMC Working Group

science, technology and innovation. Also important for fostering regional cooperation in STI is the participation of almost all ENP countries in regional organisations such as BSEC and/or GUAM which provide fora for political dialogue in various sectors including STI (see above).

Agreements and Implementing Programmes between the EU and the Eastern European Region

All EN countries - except Belarus - have **Partnership and Cooperation Agreements (PCAs)** with the EU. These form the legal basis for EU relations with each country. The PCAs establish the institutional framework for bilateral relations, set the principal common objectives and call for activities and dialogue in a number of policy areas including S&T. In specific cases (e.g. in Armenia, Moldova, Ukraine) the PCA has led to the approval of concrete Action Plans listing precise commitments of the targeted country in order to meet EU standards.

All EN countries participate in **7th EU Framework Programme for RTD (7FP)** as International Cooperation Partner Countries (ICPC). It is expected that Moldova will attain the status of an associated country by January 2012. Up until the end of 2010 the majority of countries had a quite limited number of successful proposals and the EC funding for EN participants under FP7 ranges between €1-3m per country. The only exceptions are Ukraine and Russia. Ukraine had 103 successful proposals with a EC contribution reaching approximately €12 million. Until the beginning of FP7, Russia has had consistently the highest project participation among the group of "third countries". Now its leading status is contested by the USA. Under the framework of FP7, Russia, which has concluded an S&T agreement with the European Commission for the first time in 1999, implements several "co-ordinated calls" with the EU, which are jointly defined and funded. Since 2001 S&T agreements between the EU and Russia are also in place for EURATOM covering fission as well as fusion oriented research.

All EN countries are covered by the **European Neighbourhood Policy Instrument (ENPI)**. For each country tailor made ENP Action Plans have been drafted taking on board differing national needs. With regards to STI a common goal for all countries is closer integration to the European Research Area through more active participation of local research organisations in the EU Framework Programmes. In general, however, **funding through the ENPI** focuses on strengthening democratic structures and good governance, supporting regulatory reform and administrative capacity building and on poverty reduction. The European Commission offered more than €900m for financing the activities in the EN countries for the period 2007-2010. Indeed STI is not seen as a priority area for funding as such but can benefit through for example regulatory reform and capacity. Few activities within ENPI are related to different scientific topics directly.

According to European **Competitiveness and Innovation Framework Programme (CIP)** regulations the programme is open to third countries as well. From the EN countries Armenia and Ukraine⁵ participate in the Enterprise Europe Network of CIP (a network of regional consortia providing integrated business and innovation support services for SMEs) without however receiving financial support from the programme. In addition, Moldova and Ukraine participate in the Intelligent Energy Agencies initiative of CIP again without financial support from the programme. All other EN countries have not been involved yet with CIP.

All EN countries are engaged in the **Lifelong Learning programmes (LLL)** and in particular in TEMPUS which is the older one and in which the EN countries have a higher success rate, and in ERASMUS MUNDUS which is becoming more

popular but is still relatively new, with limited participation (e.g. 48 Master Courses Students and 23 projects for institutional cooperation and staff exchange in the six EN countries in 2011).

In general, international mobility especially for young researchers remains low, with the exception of programmes in ICT area where a positive trend is recorded (Belarus). Visa remains an issue for the scientists in some countries (Ukraine), but in some others (Georgia) recently implemented visa procedures will make it easier, shorter and cheaper for scientists to travel to the EU.

Another framework for intensifying cooperation between Russia and the EU in particular had been agreed in 2003 with the "**four common spaces**", which comprise a common space of research and education, including cultural aspects. Hereunder a series of measures to facilitate Russia's integration into the European Research Area are implemented.

Eastern European, especially Russian scientists participate also in projects of the **European initiatives COST and EUREKA**. Among all non-COST member countries, Russia has the highest participation in COST actions. Russian participation in EUREKA, however, is comparatively low, which confirms the limited innovation capacities of the country.

Through the **International Science and Technology Centre (ISTC)**, founded in 1992 as an international organisation by USA, Japan, Russia and the EU, substantial support to the Russian R&D sector is provided with the aim of conversion of military to civilian research.

The latest joint **EU-Russia initiative** is a "*modernisation partnership*", agreed in spring 2010. It includes cooperation in R&D and innovation. Regarding the latter, certain emphasis is on aligning technical regulations and standards and on enforcing IPR.

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⁵ EEN Members: <http://www.enterprise-europe-network.ec.europa.eu/about/branches>

War and conflict in the Baltic Sea region – a historical perspective

By Vejas Gabriel Liulevicius

A key fact in historical analysis of the Baltic region is this: the way in which this area has been of great strategic significance in the past is proved by the record of how often war and conflict has touched this area, even when the seismic causes of those disruptions have been remarkably far afield, their causes seemingly remote and peripheral. This fact, tragic and unfortunate in human terms, means that Baltic history is a valuable ground for research into the interactions of war and society, how conflict has shaped politics, economics, and social organization, and which attempts to resolve conflict and achieve stability and independent life have been most successful and promise most for the future.

An exhaustive list of wars that have raged in the Baltic region over the past thousand years would fill page after page, so here we might mention just a few paradigmatic cases of large conflicts touching the lands around the Baltic region.

The age of the Crusades, launched by Europeans into the Middle East from 1096, involved a mobilization of warriors for religious war. As Eric Christiansen's *The Northern Crusades* makes clear, from 1147 and for centuries after, the Baltic region turned into an additional theater for this religiously motivated conflict, as campaigns against pagan peoples (Slavic, Prussian, Lithuanian, Latvian, and Estonian) in the Baltic were fought by German and Scandinavian princes and religious orders like the Teutonic Knights.

In the nineteenth century, this pattern again recurred, as the Baltic region once more was affected by a conflict actually centered on the Middle East. The Crimean War (1853-56) pitted the Russian Empire against the Ottoman Empire and its British and French allies. At the core of this conflict was the so-called "Eastern Question", of who would dominate the Middle East and southern Europe. Yet this war also had a Baltic dimension, as British and French warships plied the Baltic waves and bombarded the Russian-held fortress of Sveaborg (Soumenlina) outside Helsinki in 1855.

When the First World War broke out in 1914, ignited by a terrorist act in southeastern Europe, this modern "total war" eventually redrew political boundaries in the Baltic region, in particular leading to independent nations around the Baltic Sea: Finland, Estonia, Latvia, Lithuania, and Poland. In the troubled aftermath of the world war, as a civil war raged in the former lands of the Russian empire, the Baltic theater was a crucial site in this many-sided conflict. As the work of Karsten Brüggenmann (*Die Gründung der Republik Estland und das Ende des "Einen und unteilbaren Russland"*) shows, the fate of the White Russian forces hoping to capture Petrograd from the Bolsheviks from 1918 to 1920, and thus reverse Lenin's rule, was tied to and finally frustrated by the rise of a new Estonian republic.

For a final and especially significant example, the Second World War in the Baltic region also had a distinctive trajectory. It was the pact between Hitler and Stalin in 1939 over the division of Poland and the Baltic States which led to the outbreak of the war, with devastating results for the communities there. In the Baltic,

this war continued long after the defeat of Nazi Germany. It continued without pause into the desperate guerrilla conflict of the Baltic Forest War, until the 1950s. Men and women took to the wilderness areas of Estonia, Latvia, and Lithuania as partisan fighters for independence, numbering perhaps 170,000 over the years, and supported by ties with the local populations. These resistance fighters hoped in vain for assistance from the West, and appealed to the democratic ideas of the Atlantic Charter. Although their long struggle was not successful, it testified to the determination of these communities to regain independence. In the context of the global Cold War, stretching over decades, here was an important area of operations, unfortunately not as well known today as it deserves to be.

At the same time as the historical record shows this constantly recurring phenomenon of often far away conflicts making an appearance on the Baltic stage, there is another intriguing and opposite phenomenon to be observed as well. These are attempts at peace-making or resolution of conflicts that likewise make repeated appearances, and perhaps hold promise for the future. These include ideas of regional federation, Scandinavianism, and those ideas of Baltic federation explored by the historian Marko Lehti in his study, *A Baltic League as a Construct of the New Europe: Envisioning a Baltic Region and Small State Sovereignty in the Aftermath of the First World War*. In the period between the world wars, a special capacity for conflict resolution was also shown by the international arbitration concerning claims to the Åland Islands in the Baltic Sea. Finally, in the Baltic "Singing Revolution" from the late 1980s to 1991, Estonia, Latvia, and Lithuania regained their independence by tactics of nonviolent protest and social mobilization.

Historians of the Baltic region, focusing on war and conflict, as well as on strategies for establishing peace and independence, have unique contributions to make. Gathered into international learned societies like the Association for the Advancement of Baltic Studies (an organization which I have the honor to serve as current president), scholars of the Baltic can make a significant impact, given the richness of the historical material before them.

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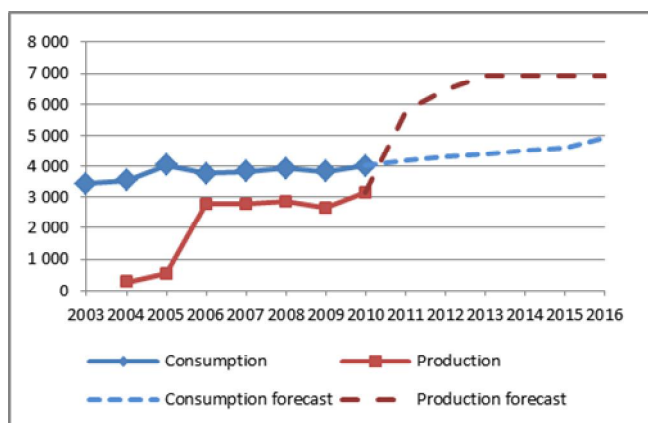
Kaliningrad Nuclear Power Plant – economics and geopolitics

By Artur Usanov

Russia is a strong proponent of nuclear power and actively expanding its nuclear capacity. In September 2011 it had 11 nuclear reactors under construction – only China had more.¹ None of these projects, however, has caused so much international controversy as the Baltic (or Kaliningrad) Nuclear Power Plant (NPP), which is being built in Kaliningrad Oblast, an exclave Russian territory on the Baltic Sea coast bordering Lithuania and Poland.

Until 2005 Kaliningrad Oblast produced less than 10% of electricity it consumed with the balance supplied through the Lithuanian grid. The situation started to change after unit 1 of Kaliningrad's CHPP-2 plant² with capacity of 450 MWe³ was brought online in October 2005. When plant's second unit came online in December 2010 it finally made Kaliningrad⁴ self-sufficient in terms of electricity generation (see chart). The total installed capacity in Kaliningrad now significantly exceeds demand. Even if one assumes that electricity demand in the oblast will grow by 3.5% annually – at the same rate as in 2000-2008, which was the period of exceptionally rapid economic growth and would be difficult to repeat, existing capacity in Kaliningrad would meet its electricity demand until at least 2025.

Figure 1. Electricity Production and Consumption in Kaliningrad, million kWh



Source: Rosstat, forecast for 2011-2016 from Kaliningrad Regional Government

This why the announcement in April 2008 that Rosatom, Russian state nuclear corporation, is going to build a nuclear power plant with two 1200 MWe reactors in Kaliningrad came as a surprise. The size of the plant – even one reactor is far too large for Kaliningrad's electricity demand – clearly indicated that export of electricity was its

main priority. The Government of the Russian Federation approved the project in September 2009 and preparation works on the site, which is located next to the Lithuanian border, started in February 2010. The first unit is planned to come online in 2016 and the second one – in 2018.

The motivation behind the project is quite obvious. Under pressure from the European Union Lithuania had to finally close down its Ignalina Nuclear Power Plant in December 2009. The shutdown turned Lithuania from a significant electricity exporter into a net importer. Other countries in the Baltic Sea region might also become potential markets for electricity generated by the Kaliningrad NPP. Poland, which is heavily dependent on coal-fired power plants, is likely to retire some of them to comply with the European greenhouse gas emission targets. Germany was also expected to be a net electricity importer even before its post-Fukushima's decision to retire all nuclear power plants by 2022. To increase chances that electricity generated by the Baltic NPP will find its customers Rosatom offered foreign investors up to 49% equity in the project, which is a novelty in the Russian nuclear generation sector. The participation of a well-known western company in the project would also significantly enhance its respectability.

However, none of Kaliningrad's neighbors has so far shown any intention to buy electricity from the Baltic NPP. Furthermore, back in 2006 Lithuania and two other Baltic countries – Estonia and Latvia⁵ – signed a memorandum of understanding on construction of a new nuclear power plant in Lithuania. The new plant is to be called Visaginas after the nearby city of that name. Negotiations between parties have not proceeded smoothly and there is no final agreement yet. After the tender for the construction of the plant failed in 2010 the Lithuanian government decided to conduct negotiations with potential investors directly and selected Hitachi GE as strategic investor in May 2011.⁶

This does not guarantee that the Visaginas NPP is going to be built. Financing of a nuclear power plant in a liberalized electricity market is a very difficult task. Nuclear power projects are very capital intensive, and a limited experience with new nuclear construction in Western countries in the last two decades makes the risk of cost overrun quite high. Recent cases show that new nuclear power plants are typically built by large utilities that have some monopoly power, strong balance sheet and are often backed by the state. One exception is the Olkiluoto-3 project in Finland (under construction now) which has unusual capital structure where large consumers of electricity are also shareholders in the project and take their shares of electricity at cost.⁷

For a potential investor in the Visaginas project there are additional complicating factors. If the Baltic NPP is

¹ PRIS Database of the International Atomic Energy Agency: <http://www.iaea.org/programmes/a2/> (accessed September 25, 2011)

² CHPP means combined heat and power plant – it supplies electricity and heat at the same time. CHPP-2 is built based on the natural gas combined cycle technology.

³ MWe - megawatt electrical

⁴ I will use the Kaliningrad Oblast and Kaliningrad interchangeably.

⁵ They were later joined by Poland, see World Nuclear Association, Nuclear Power in Lithuania (updated July 2011). At www.world-nuclear.org/info/inf109html (assessed September 25, 2011).

⁶ Op. cit.

⁷ World Nuclear Association, Nuclear Power in Finland (updated June 2011). At www.world-nuclear.org/info/inf109html (assessed September 27, 2011).

finished significantly earlier than the Visaginas plant⁸ then the former would be able to lure customers by offering long-term contracts thereby undermining the market for the Visaginas. The Baltic NPP could sell electricity at low prices since construction cost becomes sunk cost once a power plant is built – it makes commercial sense for the plant to produce as much electricity as possible if the electricity price is high enough to cover plant's variable cost (which is relatively low). Rosatom is 100% state owned and do not face capital market pressures unlike any commercial investor in Visaginas. In addition neighboring Poland and Belarus also intend to build nuclear power plants on their own thereby increasing competition even more.

This, however, does not make the situation for the Baltic NPP risk-free. Betting 5 billion euro or so on the project that does not have customers is probably too much of a gamble even for Rosatom. Despite numerous press reports on negotiations with such companies as Italian Enel, Spanish Iberdrola and German EnBW none of them has confirmed its intention to become a shareholder in the Baltic NPP. Plans to pour the first concrete seem to be postponed and the project is still listed as "planned" not as "under construction" both in IAEA's and WNA's databases. In addition, Lithuania is trying to contest construction of the Baltic NPP on the ground that it represents safety and environmental risk.⁹

The current situation reminds the classical "game of chicken" extensively studied in game theory.¹⁰ Two players in this game are on a collision course and prefer not to yield to each other but if they keep their course it will result in the worst possible outcome for both of them. Cooperation in such a game would lead to a much better outcome for both players.

One compromise solution that could probably resolve the problem and help both sides to avoid unnecessary economic losses would be for Lithuania to buy Russian nuclear technology and build a new power plant using Russian-designed reactors. Russia would in turn indefinitely postpone the construction of the Baltic NPP. Finland, for example, has been using much older Soviet VVER-440 reactors (outfitted with Western control systems) at the Loviisa plant for more than 30 years with a remarkable success. However, political feasibility of such an alternative seems to be not very high.

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⁸ Even if everything goes very smoothly the Visaginas plant will start operation at earliest in 2018 – two years after the planned date for the Baltic NPP.

⁹ This in itself is unlikely to derail the project but might delay it. Russia has not ratified the Espoo Convention on environmental impact assessment in a transboundary context and a new Russian reactor design has significant safety improvements (e.g. core catcher) compared with the previous generation of reactors.

¹⁰ The name of the game comes from its original interpretation in which two drivers drive towards each other on a narrow road. If they do not swerve they might die in the crash; but the one who swerve would be called "chicken" and lose the game. See [http://en.wikipedia.org/wiki/Chicken_\(game\)](http://en.wikipedia.org/wiki/Chicken_(game))

The electricity market around the Baltic Sea – still political

By Pekka Salomaa

Around the Baltic Rim, the Nordic countries, Germany and Estonia are already part of the common electricity market, with Poland, Lithuania and Latvia probably joining it in the near future. A vast leap has been taken from the electricity supply of the past.

Traditionally, the electricity systems have been separate for each country. Although the national systems have already been connected to one another to a varying degree, the need to safeguard electricity for each nation and national industry with domestic production plants has been high. Therefore, state regulation, and in many countries also state ownership, have been common.

The great project for the European internal market in the 1980s did not apply to electricity. The deregulation and integration of the electricity market was not launched until in 1996 with the first internal market directive for electricity. However, the development has been fairly slow up to recent years.

In the Nordic countries, the transmission network has been built between various countries. However, the inter-connectors are often congested on many borders, and the internal network is rather weak, especially in Norway.

The Nordic countries have long traditions in many forms of pragmatic co-operation, such as the exemption from the requirement of passports since 1954. Therefore, the electricity market place, the power exchange, which was already operating in Norway, expanded first to Sweden in 1996, to Finland in 1998 and to Denmark in 1999. This created the first international power exchange in the world. The exchange also takes care of congestion management in transmission lines, i.e. how electricity is generated, consumed and transmitted efficiently in terms of national economies.

The connections between the Nordic countries and Central Europe are modest in view of the size of both systems. In the past few years, cross-border trade and the management of transmission connections have developed in the same way as previously between the Nordic countries, i.e. now also within Central Western Europe and between this area and the Nordic countries. The changes are partly due to legislative pressure, partly to the needs of the markets. In many cases, the interests of various parties differ from one another, and it is not easy to find common solutions among the power exchanges, transmission system operators and national regulatory authorities.

Decision-making has become easier in the past couple of years with the common view between the European Commission, European regulators, grid companies, power companies, etc. on a target model for a European wholesale market for electricity. The first area to implement this target model is the co-operation between the Nordic countries and Central Europe.

Although price formation and congestion management will become more effective, the physical reality will not change: the transmission connections have their limitations. The price of electricity will vary in different areas also in the future. For example, while writing this in late September 2011, the price of electricity is considerably low in Southern Norway due to the high supply of water, and although electricity is transmitted elsewhere as much as possible, it is more expensive already in Sweden, let alone in Denmark.

On the other hand, at the beginning of their EU membership, the Baltic countries were totally detached from the rest of the EU. The first and so far the only transmission connection is the Estlink cable between Finland and Estonia, commissioned at the end of 2006. For example, there are no inter-connectors between Lithuania and Poland.

As a legacy from the Soviet era, the Baltic countries are strongly connected to the Russian grid. Often all electricity used in the Baltic countries could be supplied from Russia. The main connection in the North is to Estonia from the so-called Leningrad nuclear power plants (Sosnovy Bor) and the Southern one from Smolensk to Lithuania via Belarus. The connections form a circle starting and ending in Russia, with a branch to the Kaliningrad enclave belonging to Russia. Also Finland is connected to the Russian system, but the capacity is only about 1/10 of the peak demand.

The distance of the Baltic region from the rest of the EU and its dependence on Russia were emphasised when Lithuania had to close also the second reactor in the Ignalina nuclear power plant in late 2009 in accordance with its EU accession treaty. Electricity is constantly imported to the Baltic region. The situation has turned difficult even from the political point of view.

Each Baltic country has its own special characteristics in its electricity procurement: Estonia has a lot of production based on oil shale, which is burdened by the emissions trading scheme; Latvia is hydro-dominated but significantly in deficit; and finally Lithuania has been strongly dependent on natural gas and electricity imported from Russia since the winding down of its nuclear power operations. Each country still has a dominant traditional integrated electricity company, and the reality of market deregulation has been debatable.

The European Commission and the EU countries in the Baltic Rim have taken on this challenge with the so-called Baltic Energy Market Interconnection Plan (BEMIP). The plan aims to, e.g. integrate the electricity market and connect the Baltic countries better to the power system of the rest of the EU.

In BEMIP, deregulation of the market and especially integration were set as the condition for receiving EU funding for new transmission connections. This way, there has been some progress. Since 2010, Estonia has been a price area among others on the Nordic power exchange. Latvia and Lithuania are expected to join during 2012, although the process has been arduous especially in Latvia. Of the transmission connections, at least the Estlink 2 project between Estonia and Finland is expected to be implemented in 2014, and a cable is due to be laid between Lithuania and Sweden in 2015. The Lithuania-Poland link has been under preparation for some time.

Furthermore, the Prime Ministers of the Baltic countries have requested an investigation on detaching the countries from the synchronous electricity system of the so-called CIS countries (e.g. Russia and Belarus) and joining the continental European system (UCTE). As mentioned above, there is no transmission connection whatsoever between Lithuania and Poland, i.e. the Baltic countries and Central Europe. This is an idea for the very long term, reflecting the concern over 'central control from Moscow.'

Lithuania is currently investigating the possibility of building a new nuclear power plant next to Ignalina. In addition to the dominant electricity companies in the Baltic countries, Poland has also been involved in the discussions. Other nuclear power plant projects have also been considered in the region, e.g. in Estonia and Poland.

The design for a plant in Kaliningrad in Russia is more advanced, a project of two 1,150 MW reactors. The foundation for the first reactor is already being built in the area, with promises of commissioning the reactors at a rapid pace, in 2016 and 2018. It seems strange that the plant would have much bigger capacity than the Kaliningrad area would need, and the neighbours have not been keen to purchase electricity from there, either.

Major future challenges for the Baltic Sea electricity market include the way the interface between the EU and

Russia will be organised. Another great challenge is how the network and market will adapt to an increasing amount of renewable, often intermittent energy.

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Master of the house – Putin, the presidency and political myth in Russia

By Bo Petersson

In March 2012 Russia will be facing the first round of the presidential elections which will decide who will be the incumbent of the highest political office in Russia for the next six years. As most observers expected him to, the current Prime Minister Vladimir Putin, who was President between the years of 2000 and 2008, has now accepted the invitation by the current President, Dmitry Medvedev, to run as the presidential candidate for the political party of United Russia. Given Putin's persistently high poll ratings, little seems to be able to stop him from winning the elections already in the first round. If re-elected, and if his health, power and popularity do not fail him, he is legally entitled to stay on in office for two consecutive terms, which would take him into the year of 2024. This article attempts to offer an explanation of why Putin is enjoying such popularity, and why it seems to be a foregone conclusion that he will again become the President of the Russian Federation.

In contemporary Russia there is an intimate link between the widespread idea that Russia is always bound to be a great power with a definite say in world politics, on the one hand, and the fundamental tenets of Russian national identity, on the other. Putin once said that either Russia will be great, or it will not be at all. In saying this, he deftly captured a deeply entrenched popular sentiment. Not even in the years of economic and political downfall during the Yeltsin presidencies of the 1990s did this preconception sway. Among voters and elites alike, Russia was still a great power at the rhetorical level. As Putin, lucky with timing and greatly assisted by the almost unprecedented price hikes in oil and gas during the mid-years of his presidencies, managed to project an image of a Russia that was externally and internally strong, his popularity figures soared to a high level and stayed there.

My contention is that these developments should be seen in relation with the concept of political myth, which denotes a societal belief that regardless of whether it is true or false *is believed* to be true and is acted upon as if it were true by a large number of people. Such political myths bind people together, provide them with something to believe in jointly, and give them yardsticks for individual and collective action. Political elites who act in accordance with the myths have their legitimacy enhanced, and those who oppose them run the risk of being penalized by the public opinion. I would say that the idea that Russia is predestined always to be a great power is precisely such a political myth.

However, it is not the only one that has an impact on political discourse in contemporary Russia. There is another influential myth which offers an explanation of why Russia has so often throughout its history fallen short of realizing its great power potential and not always been able to occupy her supposedly rightful place in the world. This is the myth about the cyclically recurring Times of Troubles (*smuta*) in Russian politics. According to this myth, periods of deep unrest come and go in Russian political history, and, depending on political perspective, these can be exemplified by the Civil War, the entire Soviet period, the Great Patriotic War, the Gorbachev years, and the Yeltsin presidencies. Otherwise, the Time of Troubles that gave rise to the name started in 1598 and was characterized by political disorder, social chaos, and foreign occupation. The collapse of the Russian state seemed imminent, and internally a number of false pretenders tried to use the political vacuum to make it to the throne of the Tsars. In 1612 a popular uprising in Moscow under the dual

leadership of a nobleman and a commoner finally achieved the ousting of the foreign powers. The coronation of the young Mikhail Romanov in 1613 marked the end of the original Time of Troubles. Mikhail became the founder of the Romanov dynasty which later would see Peter the Great as its most renowned descendant. More than anyone else Peter came to symbolize the attainability of the Russian quest for great power status. During his reign Russia became feared due to its successful power projection in Europe, and was respected because of its progress and gains in the internal economic development.

There is indeed an intricate interplay between the two myths, as the one hinders the full realization of the other, and vice versa. The *smuta* myth thus explains why Russia despite its inherent greatness has often not been given due recognition by the outside world. On the other hand, the overcoming of the Times of Troubles testifies to the superb qualities and moral stamina of the Russian people, which are in turn major foundations of Russia's great power claims. Given these qualities, all that it takes for Russia to rise again from the Times of Troubles is the appearance, in the nick of time, of a bold and resourceful leader, who manages to gather the people around him and lead the country out of the crisis, put an end to undue foreign influence and restore Russia to greatness.

My conclusion from all this is that Vladimir Putin has successfully managed to tap into both myths, as well as the interplay between them. The latest instance of *smuta* was the Yeltsin years of the 1990s, marked by their dependence on loans and subsidies of the Western powers, by internal unrest and centrifugal tendencies. Separatist Chechnya dealt a humiliating blow to Moscow, in practice defeated the Russian army, and gained for a brief spell in the late 1990s *de facto* independence. At this stage Putin made his entrance. When taking up his office he promptly declared that 'the state has to be strong, but it has become weak', and started to act accordingly. Concepts like 'dictatorship of the law' and the need for 'sovereign democracy' were coined by him, manifesting his wish to strengthen order inside the Russian house and show to the world that Russia was the master of its own destiny. The new and hard line was most clearly demonstrated in relation to Chechnya which was forcibly brought back into the fold through a renewed and bloody war effort. Overall, Putin's program appealed to the voters, and earned him the reputation of being the strongman who ended the contemporary *smuta* and restored Russia to greatness. These achievements seem to engender his lingering popularity and legitimacy, and will, I argue, help him along to the presidency in 2012 and beyond.

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Is Russia still a bric country – exports to Russia during the global crisis from German perspective

By Konrad Popławski

The crisis is changing the German perception of trade with Russia. German enterprises still treat Russia as a prospective market, but they are disillusioned with the slow liberalization of trade, stagnation of modernization initiatives and excessive concentration of the economy on the exports of natural resources, what makes it very vulnerable to the next crises. The planned return of Wladimir Putin to the position of president of Russia eliminate any chances for improvement of the situation. Therefore, rising risks of trading and investing in Russia can make them more oriented on other BRICS countries. Especially the small and medium enterprises which constitute the essence of German economy can be less interested in exporting to Russia, what can result in weakening of political ties between two countries.

Development of German exports to Russian market

The development of German exports to Russia was very promising for the enterprises as during the period 2000-2008 the annual growth rate amounted to 24%, achieving its peak in 2009. For Germany the trade with Russia was attractive, because as a meaningful importer of natural resources the German economy often recorded a negative trade balances with Russia. Moreover, there are in Germany many experts in favor of close relations with Russia lobbying among the government members for intensification of trade. Such initiatives are often undertaken by the influential the Eastern Commission. The proofs for close political proximity constitute also the annual meetings of government representatives of both countries under the framework of Petersburg Dialog.

German exports to Russia are dominated by traditional goods. In 2010 53% of German goods exported to Russia were generated from the machinery, chemical and automotive industries. The German companies belonging to this sector are big enough to cope with institutional deficiencies of the Russian market. Although the Russian economy has rebounded quite dynamic, German exporters are still very careful and the value of goods exported to Russia is lower than before the crisis.

The crisis shown new risks for German exporters concerning Russian market, as duties on some goods such as cars were raised. German companies have been awaiting the Russian entrance to the World Trade Organization for many years, therefore the constant delaying of this process by Russia makes them impatient, as the trade with this country tends to be very unpredictable due to often introduced embargoes and duty levels variability. The German state tries to ease those risks for the firms exporting to Russia which granted the highest share of the state trade guarantees. In 2010 the transaction for over 3 billion euro were guaranteed in such way, what accounted for 10% of all the guarantees sum distributed in 2010.

The crisis changes German exports paradigm towards Russia

The German companies treated Russia as an increasingly attractive market hoping for the progressive liberalization of the Russian internal market to foreign investors. Germany's intention was to transform institutional foundations of Russia by soft power and through meetings of politicians and representatives of business. However, the crisis destroyed those illusions. First of all, Russian economy turned out to be very vulnerable to the consequences of the global crisis slumping by 7,9% in 2009, whereas the other BRIC countries so Brazil, India and especially China went through the period of the global recession barely experiencing some slowdown in production growth. That meant for German companies that in case of second wave of the crisis the trade with Russia would probably not account for a source of diversification for its exports, which are the main motor of the

German economy. That conclusion is even more important as the trade within the eurozone due to the sovereign debt crisis is expected to stagnate.

The second disappointment concerned the attitude of the Russian leadership to the foreign investors and the process of liberalization. Although the program of "partnership for modernization" was introduced already after the outburst of the crisis, today it seems clear that it rather constituted more a rhetoric exercise of Russian leaders than a real eagerness to reforms. The Russian politicians preferred to use it as a good PR tactic raising the foreign investors interest and the main project accounted for the pompously advertised over the world the building of the technological city Skolkovo, which does not make big difference from German perspective. That is a big setback for Germany, which counted for better chances for German small and medium enterprises (SME) to enter the Russian market. SME companies, which account an essence of the German economy generating about 40% of German turnovers and employing about 60% of labor force, are unsatisfied with present principles ruling the Russian market. Such deficiencies of Russian market as corruption, unclear and very variable legal framework and excessive influence of the state and politics are a burden especially for smaller companies as big German multinationals can cope with that using their political connections.

Is Russian market still prospective for German exporters?

The image of unproblematic trade relations between two countries becomes less prospective, when the holistic view of German trade partners is taken into account. Russia actually has been constituting an attractive market for several years, nevertheless Russia is still outside the first 10 German exports markets. Moreover German exports to Russia is continuously lower than too much smaller Poland. Poland is good example of a country, which greatly benefited from the good conditions for German investors as SME of both countries cooperate very intensively. In case of Russia the financial crisis recalled an obvious fact that its model of growth bases only on resources and when the prices go down, the economy slumps as in 2009. Therefore Germany cannot count on exports to such a country in case of the long-term stagnation, whereas the other BRIC countries are not so vulnerable. Since 2006 the German exports to China rose by 95%, to India by 45% and to Brazil by 76%, whereas in the same period exports to Russia increased by 6%. Russian is still more meaningful market for Germany than India or Brazil, but if the stagnation of Western Europe keep the prices of resources low for the next few years, Russia will cease to be a BRIC country for Germany. In such case the relationship between two countries will evolve in the direction of resources partnership. Germany will be still interested in keeping close relations, but will pay much bigger attention to the other BRIC countries, intensifying political ties with them. Such way of reasoning of Germans can be proved by the political agenda of this year. The officials of China and Germany met several times and the first bilateral consultation of the countries took place in July, when many topics were concerned. In case of Russia the this year consolation was rather not very prospective and oriented mostly on energetic cooperation.

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The challenges of forecasting Arctic energy projects

By Urban Wråkberg

In the Arctic energy scenario, analysts attempt to identify and enter the relevant social, economic and technological factors into interdisciplinary predictions on their future sum effect. The increased melting of Arctic sea ice facilitates northern maritime transport and saves time, money and energy. A more efficient use of energy in human settlements in cold regions also reduces energy consumption, but the foremost energy interest in the north is that these regions contain much of the world's remaining untapped sources of hydrocarbons.

The US Geological Survey stated in 2008 that the Arctic appears to harbour approximately 13% of the world's undiscovered oil resources and 30% of its undiscovered natural gas. The Norwegian Petroleum Directorate estimates that after 2030, domestic oil and gas production will mainly be based on sources that have not yet found, and 37% of these finds are believed to be located in the continental shelf of the Barents Sea.

Estimating the overall reserves of hydrocarbons in the Arctic is important, but to be able to evaluate the potential of a specific promising reservoir formation, with good quality source rock, one needs to consider its geological history. This is relevant for understanding the continental shelf of the Barents Sea, where the effects of the latest ice age are profound in certain regions. Moving glaciers have scraped away sedimentary rock close to the shore. The land and coastal seabeds were depressed under the weight of the ice cap on the Scandinavian and Kola peninsulas during the latest ice-age, but they have been slowly rising in a post-glacial rebound since the inland ice melted away approximately ten thousand years ago. This process has produced several faults in the rock under the seafloor and has caused pressure changes in the hydrocarbon-bearing strata. This so-called Champagne effect means that promising structures, which normally form traps for oil and gas, may be dry close to land, where the costs associated with exploiting these resources are the smallest.

The economic impact of peak oil and the future diminishing supply of hydrocarbons on the global market depend on how efficiently market forces and strategic decisions bring new energy sources on-line within a proper timeframe in various contexts. Further socio-economic research on the issues involved would be useful to inform policy-makers and public debate. Pressing problems have resulted from the current malfunctioning global financial system. If these issues persist, fewer investors will face larger costs when raising capital for Arctic energy projects.

The reliability of alarmism in producing a media sensation seems to be part of the appeal of scenarios that are indicative of a polar meltdown, not only of ice but also metaphorically of the hitherto stable number and positions of the northern geopolitical players; unleashing as it were a global scramble for Arctic natural resources. This line of thinking underestimates the confluence of the geo-economic interests of the Arctic coastal states. It was serendipitous that the UN had begun work on its Convention on the Law of the Sea so that it and the UN's Commission on the Limits of the Continental Shelf became operational already in the 1990s. Thanks to this suitable tools were available, before polar melting became a major concern, to establish, for example, the Exclusive Economic Zones of the Arctic coastal states. The maritime zones with disputed national jurisdiction that exist in the Arctic have been co-managed with remarkable success so far.

The recent declarations by Sweden for assuming the chairmanship of the Arctic Council may further improve the political climate of the high north. Sweden's ambitions include improving the council's public outreach and opening it to new observer states with more clearly defined roles. Nevertheless, due to difficulties in reaching a consensus on admitting new observers among the full members, major states will have to wait at least two more years for

the next round of discussions regarding their admittance. The European Union needs to pursue its interests by stepping up activities in its own northern instruments, specifically the Northern Dimension partnerships with Russia, and by increasing funding for its new northern research coordinator of socioeconomic sciences at the Northern Dimension Institute.

The greatest challenge in the Arctic energy scenario is predicting the effects of technological change and of the path dependency of technoscience. Innovation or the transfer of technology to new applications may strongly impact hydrocarbon prices and the feasibility of Arctic energy projects, as will socioeconomic and technological lock-in effects. These effects will be most obvious in the infrastructure, where the absence or existence of technological systems, such as pipelines, harbours and railway lines with different gauges, may determine the probability of different scenarios. Redirecting or expanding such systems will require large investments over long periods of time.

Horizontal drilling and hydraulic fracturing of shale deposits of natural gas is a new important technological innovation in hydrocarbon extraction that strongly influence energy scenarios on the Arctic, despite that it is not likely to be used there at all. It has so far mostly been practiced close to customers in densely populated regions of traditional fuel importing economies. The environmental effects of this new technology include ground water contamination and methane leakage into the atmosphere, but it will substantially reduce the US's need to import liquefied natural gas (LNG) and it will turn, for example, Poland into a new energy exporter.

However, shale gas will mainly affect the timetables and the setting of capacities for the extraction of other conventional deposits. The declining production of mature oil fields in, for example, the North Sea and the mega gas deposits that feed Gazprom's on-land distribution systems at Urengoy and Yamburg will drive the industry towards the Arctic offshore scene. Opening the Yamal Peninsula is needed in the meantime to increase the up-stream capacity of the new Nord Stream gas pipeline between Russia and Germany. Norwegian Statoil's Snøhvit gas deposit and its new Melkøya LNG production plant at Hammerfest on the northernmost coast of Norway are already producing. Statoil's recent gas find at Skrugard and French Total's production tests of the Norvarg find in the Barents Sea this summer have been deemed promising. The main Barents Sea operators Statoil, Total and ENI need to develop new routines for working at high latitudes. In the case of Russia, the whole package of arctic offshore technology and know-how must be acquired. Environmental protection, new difficulties, such as icebergs, and a rescue organisation that can cope with Arctic conditions are all best handled jointly across national borders. These issues are already driving the multilateral partnership across the Circum-Arctic.

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The work of German environmental organization in the Baltic Sea region

By Mai-Brith Schartau

The Baltic Sea has a very sensitive ecological system; it is also one of the world's most polluted waterways. Waste substances flow in the form of municipal and industrial effluents and from farming and forestry as well as from ships. The management of these problems requires close cooperation between all countries in the region. New forms of governance that reach beyond the nation state are needed if results are to be achieved. Participatory governance is often identified as a remedy for dealing with environmental problems at the regional level. Since the early 1990s, social science literature emphasizes the importance of civil society for democracy and sustainable development. Environmental organizations are often seen as the politically most active part of civil society.

Environmental organizations are normally divided into two groups; traditional groups whose aim is to secure improvements in legislation and those ecologically oriented groups who want a more fundamental restructuring of the society. This distinction is important since the last group will be less likely to participate in policy networking, as this necessitates ideological compromises.

A large number of Germans regard the environment as the most important issue on the public agenda today. This is reflected not only in the Federation of Citizens' Groups for Environmental Protection, founded 1972, but also in the huge number of local, national and trans-national environmental organizations.

One characteristic, which typifies the German environmental organization, is its effort to conduct research. To invest in expertise is of great importance. In the larger organizations a growing number of specialists have been appointed. Therefore, environmental organizations serve as a source of expertise for different decision-makers.

Traditionally, there have been few opportunities for groups to participate in the policy-making process. The corporatist style of policy-making in Germany has decreased the possibility for "outsiders" such as environmental NGOs to participate in and influence decision-making. This has changed since the 1980s. Ministers of the environment are now turning to different organizations in order to claim the support of public opinion so as to strengthen their position in their negotiations with other colleagues in government. This is, however, not a radical change towards more power to NGOs, participants from environmental groups have complained about being marginalized in meetings whenever business organizations are present.

With limited opportunities to influence policy decisions on the national level and taking the huge environmental problems connected to the Baltic Sea into consideration, it seems natural for some organizations to try their luck in the international arena of the Baltic Sea Region. This regional engagement is, however, restricted by the fact that the German interest in the Baltic Sea Region in general is limited and that people in the German county that borders the Baltic Sea, Mecklenburg-Vorpommern, face many other problems typical in the post-Soviet era. Their GDR background also means that they have experiences from civil society activity different from those in the former West Germany.

Here I will give a few examples of German environmental organizations working in the Baltic Sea Region. The first is the Baltic Environmental Forum whose principal aim is to strengthen the cooperation between the Baltic regional,

national and trans-national environmental authorities. This is done via different kinds of seminars, training programmes and publications. In order to strengthen and develop the Baltic Sea Region environmental networks, new NGOs have been established in five of the surrounding countries, in Germany under the name Baltic Environmental Forum Deutschland. Together, these NGOs develop projects mainly in the Baltic Sea Region but also, to a minor extent, in their own countries. The members of the NGOs do not regard themselves as belonging to environmental pressure groups but rather as facilitators and supporters of dialogue, policy implementation and awareness raising. Beside training and workshop programs, they carry out expert analyses on behalf of different authorities and monitor legislation and its implementation. Like the Forum each covers a wide field of expertise.

My second example, BUND (Bund für Umwelt und Naturschutz Deutschland) is one of the most influential environmental organizations in Germany. A special subdivision, BUND Arbeitsgruppe Ostsee, covers the Baltic Sea Region. Its members are a mixture of volunteers and professionals working in the field. The work of this organization varies depending on immediate needs. Current topics of concern are fishery, offshore wind power plants, the controversial gas pipeline and protected marine areas. The organization is a member of Coalition Clean Baltic.

WWF-Projektbüro Ostsee works together with WWFs in other Baltic Sea Region states, as well as a great number of other organizations, both NGO and public. The Project Bureau is involved in several projects aimed at protecting Baltic Sea Region nature. It put pressure on governments to establish nature reserves and to maintain sustainable development.

The purpose of Naturschutzbund Deutschland, my final example, is dedicated to promote the conservation of nature, of landscape maintenance and of species protection. This is done by research, information campaigns, public events and by participating in planning processes and trying to influence legislation and administration within the field. The Naturschutzbund networks with a variety of organizations with the same goals.

These examples show three things. First, the German organizations do not work alone. They are all embedded in networks consisting of other environmental organizations as well as public authorities. Second, they use several different methods in order to influence policy makers and to provide public inform on environmental matters. Third, their expert role in relation to their nation, government and public is evident in all four cases. This last point confirms the scholarly premise that civil society organizations always reflect their nation state origins, adhering to the traditions from the home country even as they operate on an international arena.

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Joint Biotechnology Laboratory, twenty-two years Finnish-Russian successful collaboration in biotechnology

By Timo Korpela

Background of JBL

My scientific background is in biochemistry at the University of Turku (Ph.D, 1979). I participated in an enzyme conference 1983 and was offered to organize the next conference in Finland. Academician A. Braunstein (Moscow) was one of the authorities in the field. I wished to go to invite him personally and to introduce myself. He, in turn, introduced me to the key scientists in Moscow. We also started student exchange already 1986. Since that time, I have had unique position to view Russian biosciences from insides.

The conference in Turku realized 1987, at the time of very tight "iron gate" around USSR. During the conference, the Soviet delegation suggested to establish a bilateral "Joint Biotechnology Laboratory", "JBL". Clearly, the initiative was not politically organized. A group of scientists, headed by the present Academician, K. Skryabin, came to Turku 1989 with a draft of Collaboration Agreement. The final Agreement was signed 26.10.1989 between University of Turku and the Soviet Academy of Sciences.

The problem of the new organization, "JBL", appeared to be in its novelty: similar collaboration model was not tried anywhere else, especially, over such a political wall. The real collaboration had to be established experimentally – the iron had to be still forged. But, JBL was even bigger challenge to officials who, still after many years, feverishly tried to understand how to position JBL. Creative scientists did not care about it, but the uncertainty had negative impact to the funding and official status. The positive side was that the operation had to be based on the very financial realities.

The same scientists who were establishing JBL, were on 90's the initiators of the European-Russian plan for "Laboratory-Without-Walls" (LWW). It was supported by our former scientific colleague, Prof. P. Fasella, who was Science Director of EU at that time. JBL was aimed at to be the pioneer example. LWW, however, vanished rather soon, apparently because it was too innovative, cold war was not yet enough far, and because it was based on only on governmental funding. Today, the model of LWW is evident to all; well-doing science centers are not just buildings but international networks of scientists.

JBL organization

JBL is based on two economically independent units, one at the University of Turku and the second in Moscow. However, the Moscow unit never fully realized. Only now there are hopes to establish the Moscow unit. The first article of the Agreement states: "Laboratory fulfills the collaboration according to the rules decided by the Board of Directors". The Board consists of 4-5 members (on very high level) from both sides. Russian Academy of Sciences ratified the Agreement 1993 and it was renewed 2002. Since that, the world has again drastically changed and we are renewing the Agreement against the background that globalization is big challenge for Russia and Finland. New cards of the success for the future will be dealt during next few years. We are willing to share our long experience with third parties including EU countries.

Prerequisites for collaboration

The basic principle of mutual collaboration is that all parties must benefit - and enjoy – one or another way, short or long-term. Too many have a secret attitude to benefit only one-sidedly. It may be possible by exploiting the weak situation of the other party or to use dishonest methods. This is "short business" and the benefits are usually marginal or often negative in the longer run. Occasionally, there are individuals who act beyond the common rules and, then many non-guilty will suffer from that. After the collapse of USSR there were people who wanted to make quick money. The Soviet doctrine that private business is immoral seemed to realize itself on 90's. This situation is clearly improved till now, however.

The collaboration partners must trust to each others and be motivated to work. If only one in a group does not work properly, it will destroy the whole work moral. If so, group leaders must immediately stop the game. Trust must be earned. It can be earned only so that all agreed things are done promptly with agreed manner. Scientific merits or financial outcomes must be shared justly. It may be difficult to be objective. Scientific merit cannot be counted like coins. It is easy to recall that "actually I invented that" even the idea was generated in a common meeting when many thoughts were crossing in air. Or even, "actually I did the work". Marriage is not bad comparison for collaboration.

The benefit of collaboration is that when our attitudes to our colleagues and things are correct, the situation itself releases extra energy - and all will benefit; $1+1 > 2$. Unfortunately this psychology is not easy to internalize because we have been used, or systematically taught, to individual and group egoism, which is opposite to good collaboration principles. Asian cultures are less egoistic. An individual or even a group may have "mind blocks" which prevent seeing solutions to a problem. Fresh outside view can trigger the release. Unselfishness can be rather unstable stage of mind and may turn to opposite. If the harmony is breaking in the working society, the results can be drastic. A wise leader should see the signs beforehand.

Potentially, the multicultural interphase generates even more synergy. It is the extra bonus for the international collaboration. Multicultural nations and societies seem to manage in creative tasks better than monocultures. Monocultures should invest more to international collaboration.

When people from different cultures work together, there is always a danger of misunderstandings leading to exacerbated relations. This may origin simply from language problems or cultural differences. This should be taken into over-careful attention. Written documents are recommendable even for simple things, but, in addition, one must ensure that all parties understand exactly the details. Mere signature is not any guarantee of avoiding heavy quarrels. Not directing thoughts to wrong rails by my above comments, my experience is that Finnish and Russian people, after all, do not differ so much and good collaboration is easy.

JBL's outcomes

I will briefly summarize the main results from JBL during the last 22 years. This will give also some image for operative strategies.

Projects. > 35, length 2-6 years, with practically all Finnish biotech companies and/or public funding, in many fields of biotechnology, applied and fundamental. Little Russian funding until now.

Patents. > 50, protected into different degrees and widths.

Scientific publications. About 200 Peer-reviewed papers, mostly in English language. Among them, there are about 20 reviews and one book.

International conferences. > 35. Conferences have often been international. Finland is small country which can respond to Russian proposals only in specific areas. We could increase the attraction of Finland by proving joint way to third countries.

International collaboration networks. JBL has very wide and valuable collaboration networks in Russia and lesser in other countries. This is result from systematic work. Illustratively, there are statistics for 22 years stating for 90-140 short-term (1-7 days) foreign visits to JBL annually.

Commercial companies. 8 companies established. Many (unknown number) other companies established by previous scientists of JBL (in Finland and in Russia).

Conclusions

JBL has been useful for many Russian scientists visiting JBL because it has been the first experience for foreign countries and language and the international skills have improved. Visitors have normally returned back to Russia and managed there well and created good scientific or business careers. In the long run, the "difficult-to-measure" social and educational role of JBL may appear more important than expected. Some of the Russian scientists have decided to stay permanently in Finland. They have got good positions up to from company directors to professors. Their contacts to Russia continue benefiting both countries. So far as I know, any of the visitors to JBL who stay in Finland are not unemployed. JBL shows that it is possible to create well-working collaboration which can produce high-tech scientific and commercial outcomes which make benefit to both countries - even monetarily - distinctly more than what has been invested.

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Some ecological and political challenges for the Baltic Sea

By Erik Bonsdorff

Why should one worry about the state of the sea? Water is abundant everywhere and 71% of the surface of the earth is covered by oceans (and oceans stand for about 97% of all water on earth). With an average depth of 3800 m, there is actually about 300 times more space for life in the seas than on land! Over 50% of global primary production and $\frac{3}{4}$ of global consumer production is found in the oceans, so regardless how we look at the seas, their importance for us all is very large. Biodiversity is also very high in the oceans, and new phyla, taxa and species are recorded continuously! Just like in the rainforests on land, we are currently threatening the wellbeing of the entire global marine environment, while we do not even know what we are destroying. Hence, there is a strong need for coupling the ecological challenges with political and economic demands.

In the Baltic Sea, we are faced with a complicated environmental picture: we have a land-locked water body that is surrounded by a watershed roughly four times the area of the sea surface, draining water from no less than 14 independent countries, 9 of which have coasts on the Baltic Sea. Different political systems, languages, cultures and currencies, problems and relations to the environment all contribute to the vast problems of joint management that would consider the basic rules of sustainable use of natural resources. Different opinions as to what the sea really is in terms of an ecosystem of its own right and in terms of producing ecosystem goods and services, such as fisheries, transport routes, recreational areas etc further complicate the picture. We know that the current environmental state of the Baltic Sea is a product of an unfortunate cocktail of multiple stressors (natural and anthropogenic), with additive and unforeseeable effects that have been dramatically escalating since the mid 20th century.

The Baltic Sea drainage area is inhabited by almost 90 million people producing many stressors to the marine. The Baltic Sea suffers from large-scale hypoxia/anoxia (annually an area roughly of the size of Denmark, or anything from 40-60.000 km² is devoid of higher life due to oxygen concentrations below 2 ml/l), the system has been a dumping ground for toxic wastes for well over a century, and for the last 50-60 years, gross nutrient over-enrichment (eutrophication) has become a major problem. Harmful algal and bacterial blooms have become annual phenomena affecting the livelihood of millions of people, filamentous algal mats suffocate shallow water coastal and archipelago areas, and the nutrient pool is now so large, that even if effluents from land have been greatly reduced, positive effects still remain to be seen in the marine ecosystem; this 'internal loading' will maintain a very high level of primary production and pronounced cyanobacterial blooms for decades to come. Added to all of this, overfishing is a serious threat, not just to the individual fish stocks (cod and salmon being the prime examples), but indeed to the entire ecosystem through a phenomenon known as 'trophic cascades' where effects in one end of the spectrum (in this case both reducing the presence of top predators – the so called top-down effect; seals and large fish - and increasing the amounts and availability of the limiting nutrients, namely phosphorus and nitrogen, i.e. bottom-up effects) will influence throughout the entire trophic network ('food chain') of the ecosystem. These regime shifts in the marine ecosystem have opened the floodgates for invasive non-native species into the Baltic Sea, and currently some 120 species of non-Baltic origin have viable populations in this low-diversity system. Thus the marine ecosystem of the Baltic Sea

today is very far from what it once was, and in our efforts for a better Baltic Sea we must bear this fact in mind when we set the targets we want to achieve! To complicate matters even further, there is the issue of climate change to consider: warmer water, less sea ice in winter, and reduced salinity due to higher runoff from land in combination with ocean acidification may alter the entire ecosystem structure in that many species will have to adjust their ranges of distribution. Simultaneously, the expected physical changes of the water mass may enhance the effects of eutrophication by strengthening stratification of the water column, increasing hypoxia and anoxia even further, giving rise to even higher leakage of phosphorus from the sediments. In other words, the ecological, political and ethical challenges for maintaining a balanced and diverse marine ecosystem in the Baltic Sea are enormous. It is vital to keep the management of all components of the ecosystem within the same toolkit, as previous experience shows that when for example fisheries have been dealt with independently, the cascading effects have largely been neglected.

Thus, for the Baltic Sea, it is generally agreed that eutrophication, effects of overfishing, harmful substances, traffic, loss of habitats and general threats to biodiversity are some of the main problems, and that these problems are further enhanced by ongoing climate change, likely to dramatically affect the Baltic Sea within the next 100 years. Alterations in the structure of the entire ecosystem have already caused major functional changes (often referred to as regime shifts). Such drastic change puts limits on what to save and protect, and raises important questions about how we define and agree upon what might be acceptable change. It also raises questions about how to define the aims and goals of what the Baltic Sea might be like 100 years from today, and how to achieve this goal. Decision makers in the countries bordering on the Baltic Sea agree that strong measures are needed in order to counteract the negative trends. Hence, irrespective of the strategies currently proposed and implemented, we need to combine knowledge and expertise from several disciplines, and tackle the problems from multiple perspectives simultaneously in order to achieve truly integrated management options for sustainable solutions both for the entire Baltic Sea and its specific regional problems. We must ask ourselves if the concept of sustainable use of the marine resources is possible at all with a growing demand, and we must identify the gaps in our knowledge where science can provide some answers: Science can only show the potential outcome of different environmental scenarios; the final responsibility lies with society at large: the informed citizen, the areas with specific local or regional interests, and the decision-makers, politicians and managers.

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Baltic Sea region rides on the green economic wave

By Mia Crawford

The biggest economic opportunity in a generation is heading our way! The next economic wave is that of the green economy. We already see great new creative innovation and development in our region in the field of renewable energy, sustainable food, transportation, forestry and low carbon building, clean technologies and so much more. The financial and economic crises that hit the region hard in 2008 have paved the way forward for new green thinking about economy, one in which material wealth is not delivered at the expense of growing environmental risks, ecological scarcities and social disparities. Many governments are in these times of financial and economic crises looking into ways and means of levelling the play field for greener products and services such as reforming policies and providing new incentives, redirecting public investments and greening public procurement.

Green economy focuses primarily on the intersection between the environment and the economy. The United Nations Environment Programme defines a green economy as one that results in "improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities"¹. In a green economy, growth in income and employment are driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services.

Despite great progress on sustainable development, it is apparent that a global economy based on the current patterns of consumption and production is placing heavy stress on many ecosystems, not only in our own region, but also throughout the world. Sustainability challenges in the Baltic Sea Region are linked to climate change, demographic change and a growing gap between urban centres and rural communities, and the lack of integrated natural resource management, to mention just a few pressing areas of concern². In order to tackle these challenges, we need to foster solutions that consider all three pillars of sustainability, namely economy, environment and society. Strengthening energy efficiency is one such example. Investing in energy efficiency not only benefits the environment and climate, it is increasingly paying off economically as well. In addition, energy efficiency, such as that in the building sector, can create jobs for a great many people with a wide range of qualifications and it also improves the living conditions for people. Good examples of how to do this are now readily available and should be scaled up and disseminated throughout the region³. Moreover, the Baltic Sea Region

has a great potential for sustainable production and use of bioenergy⁴. There are vast biomass resources at hand in our region and only a fraction of these are utilized. However, it is important that the production of bioenergy has to be sustainable, and in balance with production of food and fiber, and other products and services that the forests and agriculture land offers. Sustainable bioenergy production can stimulate positive developments both in terms of economy and socially in rural areas in our region and at the same time ensure healthy ecosystems.

Growing prosperity has made it possible for us in the Baltic Sea Region to invest in solutions to many environmental problems. In fact, no other region in the world has such a strong track-record when it comes to sustainable development, in both principle and practice. But despite the Baltic Sea Region's clear commitment to sustainability, we still have a long way to walk towards ensuring prosperous economies, healthy societies and dynamic ecosystems in a balanced and integrated manner. This is the overarching objective for the CBSS Expert Group on Sustainable Development – Baltic 21 and during the German Presidency in 2011-2012, Green Economy will be one of its priorities. During the upcoming year, we will focus on five areas of critical importance to fostering green economy, namely green public procurement, corporate social responsibility, public private partnerships, integrated natural resource management and sustainable production through eco-innovations.

We want to promote green public procurement. Local public authorities are often large economic actors in local markets with many employees and a great demand for energy, goods and services. By using the criteria of sustainability in their purchasing practices, public authorities trigger a growing supply of sustainably produced goods and services. A Green Public Procurement network has been set up in the Baltic Sea Region and a project has been developed to increase the level and uptake of green public procurement in the Baltic Sea Region by increasing the knowledge and expertise amongst procurement professionals.

We want to strengthen Corporate Social Responsibility (CSR) among SMEs. Business impact on society and environment can be improved through CSR. Fostering CSR activities among SMEs can contribute to more competitive enterprises and the development of more sustainable business models, as well as numerous advantages in terms of staff retention and motivation, in addition to reduced energy costs. In this area we are currently in the process of developing a new project.

¹ Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. Published by UNEP in 2011 and available on-line: www.unep.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_en.pdf

² Council of the Baltic Sea States Strategy on Sustainable Development 2010-2015. Published by CBSS in 2011 and available on-line: www.cbss.org/Environment/baltic-21

³ City of Tallinn has improving energy efficiency in apartment buildings. A description of the good practice used is available on-line in the EcoRegion good practice database: [www.baltic-](http://www.baltic-ecoregion.eu/index.php/Reconstruction-of-an-apartment-building-in-Ta;110.52/1)

[ecoregion.eu/index.php/Reconstruction-of-an-apartment-building-in-Ta;110.52/1](http://www.baltic-ecoregion.eu/index.php/Reconstruction-of-an-apartment-building-in-Ta;110.52/1)

⁴ Baltic 21 Lighthouse project Baltic Sea Bioenergy Promotion serves as a platform for cross-sectoral and transnational networking to facilitate information and knowledge exchange, policy development and application of bioenergy promotion instruments. More information on the project is available on-line: www.bioenergypromotion.net/

We want to enhance Public Private Partnerships for sustainability⁵. Public Private Partnerships are often referred to as cooperative ventures between public and private sectors. We see a potential in fostering Public Private Partnerships to support, amongst others, modernization in Russia and the South East Baltic Area.

We want to move towards a more resource efficient region. The aim is to use all types of resources in a more efficient way. In particular, we will stress integrated natural resources in the agriculture and forestry sector. We have to gather climate smart solutions in these sectors, as well as to explore the full potential of renewable energy, such as bioenergy. The Baltic Landscape project seeks to work with these integrated solutions at the landscape level in a handful of model areas in many countries in our region.

Finally, we want to support sustainable production through eco-innovations. Eco-innovations can create competitive advantages and new business opportunities, which at the same time reduce negative environmental impacts. Through the SPIN project, we will test appropriate incentives for SMEs to apply eco-innovations and to increase the exploitation of the innovation potential of SMEs. Best practices or eco-innovation highlights have been collected and are being disseminated throughout the region⁶.

Next year, the international community will come together in Rio de Janeiro in Brazil to reinforce our global commitment to sustainable development. Green economy will be one of the main themes of the conference. One possible outcome of this high-level meeting is a UN Green Economy Roadmap. The tools and good practices on green economy that have been devised and tested in the Baltic Sea Region may constructively contribute to this Roadmap.

Green economy presents an opportunity for the Baltic Sea Region to create thousands of new green jobs. It is an opportunity for us to leverage our knowledge and experience in clean technologies to a world desperate to seek new solutions to climate change and ways to cut carbon emissions. I say let's ride on the green economic wave!

Mia Crawford

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Council of the Baltic Sea States Secretariat

⁵ 8th Baltic Sea State Summit in Vilnius, Lithuania, 2010. Vision for the Baltic Sea Region 2020. The declaration is available on-line: www.cbss.org/Summits-and-Council-Ministerials

⁶ The eco-innovation highlights are available in a database on the SPIN website: www.spin-project.eu/

From voluntary to legally binding measures in the Baltic Sea

By Eero Yrjö-Koskinen

The Baltic Sea has been a source of environmental concern for decades. During this time, the public debate has been dominated by discussions on eutrophication, hazardous waste, maritime safety and the decline of biodiversity.

While some positive results have been achieved, the wider picture remains unchanged: the state of the Baltic Sea is still fragile and its ecological balance continues to be threatened from all sides.

During the past decade, several initiatives have been made to tackle the problem. In 2005, the Helsinki Commission (Helcom) launched the preparation of the Baltic Sea Action Plan (BSAP), which set a number of ecological objectives to achieve "a healthy marine environment, with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable human activities".

Since its approval in 2007, the BSAP has been supported by a number of politicians representing all countries in the Baltic Sea coastal region. So far, decisive action remains to be taken.

In order to reach its "clear water" objectives, the BSAP aims to cut 42 per cent of the phosphorous and 18 per cent of the nitrogen inputs to the Baltic Sea by 2020. However, achieving these goals will be difficult if the actual costs involved vary dramatically between the different countries.

A Swedish professor of environmental and resource economics, Ms Ing-Marie Gren, compared in 2008 the costs per capita of implementing the BSAP in the Baltic Sea region. Based on purchasing power parity, professor Gren came up with a puzzling result: the BSAP costs varied between 104 euros in Lithuania and 4 euros in Finland. The rest of the countries received the following results: Poland 96, Latvia 52, Denmark 19, Russia 17, Estonia 14, Germany 12 and Sweden 9 euros, respectively.

This may explain why Helcom participants have been reluctant to take decisive action in order to meet these targets. At a time of financial constraints, few politicians consider the state of the Baltic Sea as a priority. This applies to all countries, regardless of their initial input per capita to implement the BSAP.

Another problem relates to the fact that the BSAP remains a set of voluntary recommendations without any legal clout. Experience has shown that environmental concerns seldom bypass economic interests, unless the two are interlinked. The Baltic Sea is not an exception. Major improvements are unlikely as long as Helcom signatory states do not have to worry about the legal consequences of inaction.

The third problem concerns the legacy of the Soviet era, which paid little or no attention to district and industrial wastewater treatment. Consequently, nearly half of the households in Poland are still outside of the wastewater infrastructure, and all of the wastewater in Kaliningrad is drawn directly into the Baltic Sea without any treatment.

Fortunately, this problem can be solved relatively quickly through international campaigns, such as the one implemented by the John Nurminen Foundation, which had a key role in building the new sewage plant in St. Petersburg.

The same cannot be said about the Common Agriculture Policy (CAP). As from 2014, Central and Eastern European countries will receive the same benefits as the old member states (EU15). If the current CAP practices were implemented in full in Poland, nutrient emissions to the Baltic Sea could increase by 100 per cent. Needless to say, this would have a dramatic impact on eutrophication: an additional 5,600 tons of phosphorus and 113,000 tons of nitrogen per year from Poland alone. It would invalidate any gains achieved from district and industrial sewage water instalments in eastern Europe.

Hence, new practices are needed if we ever intend to reach the BSAP objectives. Markku Ollikainen, professor of environmental and resource economics at the University of Helsinki, suggests the introduction of market-based instruments, including international nutrient taxes or a specific emission trading scheme for nutrients, such as the one that is currently implemented in water protection in the United States.

In short, environmental protection needs to move from voluntary to legally binding measures in the same way as in the EU water framework directive or the marine strategy framework directive.

Similarly, the costs and benefits of environmental protection need to be balanced between the Baltic Sea states before we can expect the approval of a legally binding maritime treaty.

This would require either the revision of the current status of Helcom or new intergovernmental structures in the Baltic Sea region. Neither one seems likely in the immediate future.

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Fisheries governance, equity, and externalities in post-crisis Iceland

By Niels Einarsson

Fishing accounts for much of the backbone of the Icelandic economy and politics are shaped by this fact. The economic and social crisis of 2008 sharpened public awareness of the importance of the fisheries and fuelled the debates on future arrangements in governance, including issues of property rights, privatization and enclosure of commons, as well as human rights and social justice. These debates have made it clear that Iceland needs to widen the choice of questions raised and assumptions made regarding good governance beyond narrow economic assumptions and establish a fisheries-governance system which meets criteria of effectiveness, fairness and sustainable human development.

The Icelandic fisheries-management system has developed into an economic system organized in the form of *de facto* private, transferable property rights, with mortgages based on present and future catch shares or fish-stock quotas. The privatization of common property resources in the fisheries proved to be instrumental in exposing Icelandic domestic economics to the vagaries of international monetary markets and financial globalization.

The period in the 2000s, when private Icelandic financial institutions grew at an extreme rate and expanded outside Iceland to tap into international markets and countries abroad, was called *Útrás* ("outward attack") in Iceland. During this period the size of the Icelandic financial firms became nine times that of the entire annual national budget of Iceland. Unfortunately, the Icelandic state was the guarantor. The *Útrás* was a development characterized by insufficiently regulated and undisciplined financial expansion guided by an ideology of *laissez-faire* policy with the support of many Icelandic authorities. It was also based on overconfidence in the Icelandic "Business Vikings" who, supposedly with superior and aggressive economic behaviour and tactics, outwitted the traditional and, by comparison, more conservative bankers abroad. The *Útrás* came to an abrupt end in the autumn of 2008 with economic disaster for the Icelandic nation and with long-term societal consequences in terms of quality of life for present and future generations.

The privatization of the fish stocks in Icelandic waters, embodied in the Individual Transferable Quota (ITQ) system, was a major precondition for the *Útrás* and therefore contributed directly to the bubble that burst and caused the downfall of the national economy. How did this happen? The contribution of the ITQ system to the overexpansion of the Icelandic banks and financial companies had to do with the fact that companies and individuals with property rights in fishing licenses were allowed to use them as monetary collateral, as "paper fish" so to speak, and thus could greatly expand the asset value of their companies on the stock market, and, more importantly, also use the collateral to borrow large sums of money for whatever purposes they saw fit. Before the introduction of the ITQ system in 1984, and especially the controversial 1997 act that, in effect, allowed the use of fishing rights as collateral, the only value in fishing firms consisted of boats, fishing gear, and facilities on land. With the possibility of using fishing rights as collateral, the value of firms' assets multiplied, and the price of stocks and markets in the 1990s and 2000s appreciated substantially. The use of "paper fish" was also important to the private banks, because they needed to show that they had substantial assets and solid equity to be trustworthy and to provide high credibility in the eyes of foreign investors.

The collateral the banks acquired in the fishing rights was thus crucial in creating a source of capital in a tangible asset. Iceland had few other assets and resources that were of the kind that could be manipulated into capital assets of collateral equity. But the danger facing financial institutions lending to the fishing industry using fishing rights as mortgages had, however, been

known for some time. In its newsletter, the Central Bank of Iceland already by the year 2000 had warned against the inherent dangers of lending to the fishing industry, and quota holders; with collateral in quotas, the market price of fishing rights was already deemed unrealistically high or inflated, not reflecting the inherent value of quotas. Lending based on an inflated value of quotas was judged to be very risky; it was likely to lead to high risks for collateral and the likelihood of lost loan payments, unless, of course, people were willing to take the risk that quotas would keep rising or at least maintain their value. At that time in 2000, the price of so-called "cod equivalents" was just over 800 Icelandic kronur per kilo, an unsustainably high and unrealistic value according to the Central Bank. The price went up to an incredible 4400 kronur per kilo before the collapse in 2008, a far higher price than any existing fishing operator, or especially a new entrant, could pay for investment in catch rights or to start or sustain a viable business. The total value of fishing rights or quotas in the Icelandic fisheries reached, in 2007 and 2008, what one economist called a "ridiculous" level of approximately 2000 billion Icelandic kronur or 50 times the annual profit of the fishing industry, thus reflecting the willingness of the banks to offer loans to quota acquisitions in the industry, rather than the real value of the fishing rights. At the time of the economic meltdown, when the flow of money dried up, the price of permanent quotas was halved. The "paper fish" asset "bubble" had burst.

The fact that so many of the assets of the newly refinanced banks in the post-economic meltdown of the Icelandic economy are also tied to quota collaterals, and the ability of the fishing industry to claim, nearly free of charge, property rights and to pay back their loans to banks, makes it more understandable why the banks are so particularly concerned about changes in fisheries governance. There seems to be a real fear of another financial collapse in the banks and, by default, among political decision makers who have been given the hard task of restoring the nation's economy. The rebuilding and strengthening of the financial system has been a central issue in the adjustment programme Iceland underwent with the International Monetary Fund.

Given the current predicament, the present government is finding it hard to change the fisheries governance law in accordance with election promises, popular demand, and the UN Human Rights Committee ruling in the case of 1306/2004, which called for recapture and equitable and fair reallocation of the nation's fish stocks, now, in practice, private property of powerful quota holders. The Icelandic lesson with externalities of privatizing common property rights in fish stocks is relevant not only to Iceland but also to the wider international community, not least in times of crises in fisheries, when ITQs in some form are seen by important players such as the European Union as a promising solution to problems of ecological and economic inefficiency.

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After two years of implementation – The EU Strategy for the Baltic Sea region at a crossroads?

By Wolf Born

The adoption of the communication on the EU Strategy for the Baltic Sea Region (EUSBSR) by the European Commission on 10 June 2009 marked the preliminary end of a comprehensive public consultation process. From spring 2008 till the 2nd Stakeholder Conference in Rostock in February 2009, member states, regions, inter- and non-governmental organisations gave their opinions on priorities and activities to be considered in the elaboration process of the strategy. One of the major drivers in this process was the will of the stakeholders to develop an integrated cross-sectoral policy framework within a region whose cooperation structures comprise a multitude of organisations and institutions, networks and projects, partly ignorant of each other, partly cooperating and in some cases even competing with each other.

In analyzing the situation in the Baltic Sea Region, Dr. Rikard Bengtsson in September 2009 saw the EUSBSR confronted with an efficiency challenge and a governance challenge.¹ The first one referred to the lack of a “functional division of labor” among the actors in the region. With the adoption of the EUSBSR, a certain commitment of the actors that actively participated to the elaboration process of the strategy - in total more than 100 contributions were received by the European Commission – was to be expected to improve this situation.

The key question in this regard is if these actors are willing and able to agree on more efficient patterns of cooperation within their setting of competencies. According to Rikard Bengtsson, one of the reasons why this process did not take place before the EUSBSR came into existence was the lack of political will. With the elaboration of the EUSBSR, a momentum towards more and better cooperation was created. But has this been enough to change the attitude of the actors in the region who could have strived for the same objectives also without the EUSBSR?

The second challenge to the EUSBSR is to be seen in its basic governance principles. One of its major features is the lack of a specific budget allocation for the strategy. Instead, existing funding instruments were requested to be aligned to the objectives of the strategy and its action plan. In the practice of implementation, this demand is first of all addressed to the transnational EU Baltic Sea Region Programme where it was well received. After the fourth and presumably last call, 36 out of the 80 projects are related to flagship projects of the EUSBSR. Of course, not only the Baltic Sea Region Programme but all the managing authorities of ERDF co-financed programmes in the region were asked by the Directorate-General for Regional Policy (DG Regio) to support the implementation process and to label the projects and grants that correspond to the objectives of the EUSBSR.

From the point of view of the coordinator for Priority Area Tourism in the EUSBSR, these two challenges described by Rikard Bengtsson still persist. In the case of the efficiency challenge, the first cooperative action for priority area tourism might be a useful example to illustrate the current situation. It states the objective to “highlight and optimize the tourism potential of the Baltic Sea Region” by establishing a common tourism strategy that should include a joint marketing of the region. Indeed, from a rational BSR point of view, it might be beneficial to the whole region to promote itself as a tourism destination, especially in source markets outside the EU. Nonetheless, it has to be acknowledged that Denmark, Norway, and Sweden successfully market themselves under the brand “Scandinavia” while the readiness to develop a common brand seems to be higher in the southeastern part of the Baltic Sea Region. In this case, there

might not even be a common baseline among the tourism stakeholders on how an efficient division of labor could look like. Accordingly, objectives stated in the action plan should not be considered to be confirmed by the relevant stakeholders but should be verified in close contact with those who have the genuine operational and budgetary responsibility in the EU Baltic Sea Region member states for the areas in question.

The above-mentioned cooperative action also refers to the cooperation on projects and the development of similar projects in different parts of the Baltic Sea Region. An analysis shows that within the programmes of the European Territorial Cooperation objective, better known as INTERREG, there are currently more than 90 tourism related projects in the Baltic Sea Region for which the financial support of the ERDF amounts to a 100 mio. Euro. But the scope of these projects is mostly limited to the smaller areas of the cross-border cooperation programmes and the involvement of the projects into the EUSBSR implementation is not part of the underlying grant agreements.

Accordingly, there is no financial incentive for these projects to share their results with others from outside of their programme area. In operational terms, it would be useful to create an instrument to cluster projects that receive funding from different programmes on a voluntary basis. In principle, the approach is already pursued for projects within the Baltic Sea Region Programme. It should be further developed and opened. By doing so, the benefit of resources invested in these projects could be potentially multiplied and thus used more efficiently. A lot will depend on whether or not the actors in charge are ready to walk new ways and to think in terms of the whole Baltic Sea Region. At this point, the challenges of efficiency and governance meet: How can a new division of labor look like and how do we use available resources to promote jointly the Baltic Sea Region? Those who dispose of the resources should be concerned with the EUSBSR and through a common effort make it relevant. The labeling of projects is reduced to a window-dressing exercise unless it becomes tangible in the implementation process. Objectives without resources are likely to become irrelevant. This is especially true in the coming years of transition between the programming periods. Ongoing projects may help to bridge the expected funding gap in the coming years and those who are involved in setting the priorities for funding after 2013 should bear in mind that the success of the EUSBSR does not come as a free lunch. In fact, it should be considered to anchor the EUSBSR as a common interface in the different objectives and strands of the ERDF funding in the future.

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¹ Rikard Bengtsson, An EU Strategy for the Baltic Sea Region: Good intentions meet complex challenges, Swedish Institute for European Policy Studies, European Policy Analysis, September Issue 9-2009, 10 p.; http://www.cespi.it/Nuovo%20Site%20CESPI/GOVMED/Swedish_institute_rapport_baltique.pdf

Turku Airport

By Juha Aaltonen

Turku is a pioneer city in Finnish civil aviation: the country's first civil aviation airport was inaugurated in Artukainen, a district of Turku, on 8 September 1935.

Since that day, aviation as a means of transport began to expand rapidly. While the size of aircraft also started to grow, this gradually began to place increasing demands on airport equipment, facilities and location. Consequently, a new Turku Airport was built and opened in its present location in northern Turku in 1955.

The steady growth of air traffic continued and new routes were opened. This trend was further boosted by the local business community's interest in developing the Airport and air traffic in general.

A new passenger terminal was opened in 1978. As passenger volumes continued to grow steadily, the Airport had to further upgrade its infrastructure in order to meet increasing customer needs, as well as keep abreast with the general development.

Meanwhile, air cargo traffic also saw solid growth. Turku Airport commissioned an air cargo terminal and apron to safeguard efficient operation and transport of air cargo from Turku to the rest of the world.

All of the airside areas and aprons were re-asphalted in 1995. The passenger terminal was extended in 1999 and continues to operate efficiently with respect to present passenger volumes.

Simultaneously, air cargo operations boomed as Turku Airport proved a competitive player in its field due to its excellent location and the other means of transport available nearby to complement it. Consequently, another air cargo terminal was built. Furthermore, a new Airport Maintenance Centre was constructed to meet the Airport's present operating model and safety needs.

Meanwhile, the City of Turku launched logistics projects that involved new players and provided new opportunities for the future development of Turku Airport.

A number of budget airlines have entered the market in the last few decades. Therefore, Turku Airport needed to establish an operating model that enables the operation of all airlines while also benefiting the Airport. After analysing its opportunities to welcome budget airlines, Turku Airport decided to renovate the old Maintenance Centre building for the needs of these new players. In 2008, the first budget airline started to operate from Turku Airport.

Today, Turku Airport is a modern, unique and versatile airport that continues to develop its operations based on customer needs. Its modern equipment and systems enable operation in all seasons on a 24/7 basis. Although other modes of transport compete with air travel, it is difficult to find one that could really compete with air transport.

The various players operating from Turku Airport include traditional commercial airlines, budget airlines,

general aviation companies, skydivers, the Finnish Air Force, the Finnish Border Guard's Air Patrol Squadron, rescue services, and cargo, charter and taxi services.

Our extensive route network enables rapid and smooth transport of passengers and goods from Turku to all around the world. In 2010, passenger volumes at Turku Airport increased by 28% year-on-year. The first half of 2011 showed an 8% growth over the previous year. Moreover, a 2% year-on-year increase in the number of operations proves that aircraft occupancy rates have improved. We are proud of our performance since profitable growth provides new opportunities to further benefit from our route network and other services that we provide to airlines, passengers and other companies operating at the Airport.

Due to this profitable growth performance, a comprehensive land use plan has been created for the Airport area. This enables efficient operations of both existing and new players while providing opportunities for future expansion. In this way, especially companies already operating at the Airport can continue to operate profitably and even expand operations according to their needs.

Today, Turku Airport provides a highly competitive operating environment for all players.

Turku Airport focuses on excellent service and smooth travel to the rest of the world, and back.

For its customers, Turku Airport continues to be a reliable partner that implements Finavia's strategy and operating plan enabling growth.

Thanks to its excellent location, Turku Airport provides an efficient and profitable operating environment in the field of air traffic for the whole economic region of Turku.

Turku Airport continues to develop its operations from the customer's perspective in collaboration with the City of Turku, the surrounding subregions and the whole economic region.

Smoothly to the rest of the world

Juha Aaltonen

Airport Manager

Turku Airport

Finland



Russian tourists in Finland – national success story of Finland

By Arto Asikainen

The history of free Russian tourism abroad is relatively short. In May 1991 the Supreme Soviet of the USSR approved the law which guaranteed free exit for the Soviet citizens from the country. Two years later, in January 1993, the new Russian passport law enabled everybody to freely apply for passport and make individual trips abroad without ultimately having a so-called exit-visa. Since this liberalization, the development of the Russian foreign tourism has been very rapid and Russia has become one of the main outbound tourism markets in the world. In 2010 Russians made nearly 40 million trips abroad. Finland is the number one destination for Russians. In 2010 Russians made 3,3 million trips to Finland. Russia is the leading source country of travellers to Finland as more than 40% of all foreign visitors come to Finland from the eastern neighbor Russia.

For the Baltic region as a whole and especially for tourism industry in Finland, the opening of the eastern frontier has meant the beginning of a whole new era which has brought prosperity and money in many areas, but required also great change in the attitudes towards Russian tourists and Russian people as such. When the first Russian individual tourist groups appeared in Finland in the early 1990s, the confrontation between the non-experienced Russian tourists and the local people was apparent. Russians, who were hungry to see the world beyond the iron curtain, often had only a small travel budget and hence made all possible effort to earn some extra money by selling alcohol, tobacco or other Russian products openly at the market places in the Finnish cities. In the eyes of the local Finnish people these so-called Red Squares hardly supported the development of any positive image of Russian tourists. Low budget travellers were not considered as attractive clients for retail shops either and some of them even made limitation to the number of Russian customers visiting their shops. In addition, the language barrier was obvious. There was hardly any service available in Russian. The official Finland did not make the first steps for the development of tourism from Russia to Finland any easier. Finnish diplomatic missions – due to insufficient number of visa officers – made artificial daily quotas for the number of visa applications which one tour operator could leave to the consulates per day. But no restriction could stop this development which turned out to be a success story for Finland.

The first Russian tourists raised a kind of shock effect at all levels of society in Finland. Very rapidly, however, the retail trade and the Finnish tourism industry realized that a great number of Russian tourists coming to Finland are not poor and do not need to make extra money by selling items to the local people at the Finnish market places. Many of these “New Russians” had a thick wallet and a great will to exchange its content into good products or services. Russians came to Finland to buy products which in their own country were either still unavailable or the price level was much higher at home than in neighboring Finland. Tourist resorts in Finland also realized that Russian customers spend money much more generously than European tourists which had traditionally been the main client groups in Finland. Suddenly, the stereotypic image of a Russian tourist had changed drastically: Russians were seen as extremely rich and a very large number of Finnish

tourist resorts started considering this group as welcome, however, still preferably during the low seasons when the other nationalities don't come to Finland. Also the official Finland started promoting the country as a tourist destination in Russia. In 1995 the first representative office of the Finnish Tourist Board was opened in Saint Petersburg and a year after the second one in Moscow. Together with Austria, Finland was the first pioneer to start promoting tourism in Russia at national level.

At the end of the 1990s and in the beginning of the 2000s, the new stereotypic image of the rich Russian tourist led to some unhealthy spark-overs in the pricing policy of tourist services in Finland for Russians. Despite the short period of economical crises in Russia in 1998, the number of tourists to Finland continued growing and Russians were expected to come to Finland at any price. During the top season, the Russian New Year period, the price level, however, was raised many years consecutively without any changes in the travel package as such. After three “crazy” consecutive years of the Millennium, the roof was reached leading to the decrease of Russian tourists and strengthening the image of Finland as being an expensive travel destination during the New year season. In the name of honesty one must, of course, remember that a number of Russian tour operators also raised the prices of the tour packages to Finland on their own account in the hope of bigger profits. With better marketing efforts, wiser pricing policy and a mutual learning process of the behavior of Russian customers, however, the situation improved and Finland succeeded in turning the development to a new growth again.

In the year 2000, according to the Finnish Boarder Interview Russians already became the biggest nationality visiting Finland. Furthermore, in 2006, the Statistics of the registered overnights showed that Russians had occupied the first position. Two years later in 2008, Russian registered overnights surpassed 1 million limit for the first time. In 2011, the number of Russian overnights alone is practically the same as the two second largest tourist groups, Swedes and Germans, together. Moreover, in 2010 Russian travellers left 653 million euros in Finland covering more than 30% of all foreign travel incomes to Finland. As a result, the growing number of Russian tourists means prosperity, work and new opportunities for the Finnish travel industry and other travel-related industries in the country.

Finland has a very positive country image in the eyes of Russian tourists. The older generation still remembers the Soviet times when the Finnish products were considered of a very high quality and good relationships between the neighboring countries also guaranteed a peaceful co-existence of the two economical systems. The brand work of Finland which was done during that period still bears great fruit in Russia. Also, the geographical and mental closeness of the two countries and nations enables favorable development of tourism, because the common border makes it very easy for Russians to visit Finland. Especially for inhabitants of Saint Petersburg and the Leningrad region Finland has become a one day- or short break destination within easy reach. With the introduction of the new high speed Allegro train even the Finnish capital is only three and a half hours away from the center of Saint

Petersburg. Russians consider Finns to be much closer to their own mentality than Swedes or Norwegians for instance, perhaps due to the common history when Finland was part of the Russian Empire. Moreover, the Finnish climate is similar to the northern part of Russia and hence the vacation in Finland does not need any acclimatization. All these factors together make the border to the neighboring "old autonomy" for Russian tourists very low.

But not only the old reputation, geography nor mental closeness alone bear fruit for Finland. The Finnish travel industry has also made great efforts in the field of product development and marketing. Finnish travel product is suitable for all tourist categories: individuals, families with children, couples or corporate clients. Also budgetwise Finland offers travel products for each wallet. Finland is a "universal destination", as very often quoted by Russian tour operators.

There are two travel products, though, that raise above all in popularity among Russians: cottage holiday and the New Year season products. Dachas - the little allotments with a modest cottage outside of the cities in Russia, have always been kind of a refuge for the Russians, although weekend in dachas very often means more work than relaxation. Cottage holidays in Finland satisfy the basic needs for the most Russian tourists who want to be in nature and enjoy forest, lake, peace and safety in a high quality cottage with all the comfort and total relaxation. Fishing, being one of the favorite hobbies in Russia, is an additional plus during the cottage holiday. Finnish cottages have only few competitors abroad and Finland is undoubtedly the leading destination in this segment in Russia.

The second big success story for the Finnish travel product in Russia is the New Year season. As the Russian winter holiday period starts from the New Year, the Finnish holiday resorts have been able to extend their Christmas season until the second half of January. Thanks to the Russians the first month of the year has become high season. The Finnish New Year travel product offers good and variable winter activities and experiences for families with children which is the main target group of this season. Thanks to the common border with Russia, Finland can also be reached by a numerous charter trains departing

from Moscow during the New Year season. For many Russians train is a more preferable mean of transport than airplane and Russians are used to long train trips in their own country.

During the past twenty years Finland has been able to enjoy the favorable development in the field of Russian tourism. New records are to be made and new success stories to be written in the future. The Russian economy develops positively and most likely the number of Russians who can afford holiday trip abroad is expected to grow. In 2011, only some 12 million Russians had a valid passport. 79% of all Russians had never been abroad in their life. Only in Saint Petersburg and Leningrad area there are some 5 million people who have never been able to travel abroad. When their economical situation improves and a vacation abroad becomes reality the nearest foreign country to visit is Finland. In Finland we must, however, make constant efforts to guarantee the growth and make sure that our travel product suits Russians and remains requested in the future. We must learn from the errors done earlier with the pricing policy, invest sufficiently on marketing and ensure the quality of travel services. Quality also means service in Russian language. But the best promotion and marketing action which Finland, the Baltic area and Europe as a whole could do in Russia, is changing the visa policy by raising the requirement for the entry visa. This would mean real freedom for Russians to travel abroad and would increase considerably the number of Russian tourists in Finland. When visa free travelling from Russia to Europe finally comes true, it will be the final step in the developments which started in May 1991.

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EU information services in the Baltic Sea region

By Juhana Tuomola

Low level of knowledge and interest of the European general public in EU issues has been a popular topic for public discussion. They have been a cause for worry especially at the time of elections for the European Parliament or EU referendums when the voter turnouts have been low. Information and communication are seen as primary tools to attract the interest of the people in the EU. The Baltic Sea Region has an extensive network of EU information services but they face many challenges at the moment.

“EU? - couldn't really care less!”

The European Commission has carried out Eurobarometer surveys on various topics since the 1970s. Attitudes of Europeans towards the EU are measured yearly and therefore Eurobarometers give a fairly reliable picture what the general public feels and knows about the EU also in the countries surrounding the Baltic Sea.

The latest Eurobarometer 74 from February 2011 clearly states that most Europeans (66%) feel ill-informed about European matters. Almost half of Europeans (46%) feel that they do not understand how the European Union works. There is, naturally, some variation between countries, age groups and professional backgrounds. The unemployed and the very young tend to feel less-informed than people in higher socio-professional categories.

When asked where people look for information on the European Union, the television comes out as the primary source for more than half of Europeans (56%). It is the only media that is followed daily by the majority. Daily newspapers and the Internet have more or less the same importance (about 30%). Thereafter come radio, “off-line” social networks such as discussions with relatives and friends and various publications plus other sources. Surprisingly only a very low percentage of Europeans actively look for EU information by attending training courses, seminars or other events or by taking contact with specific EU information services.

EU information services in the Baltic Sea region

The Commission has Representations in the capitals of the member states. The European Parliament has also its own information offices in the EU member countries. Both carry out active information activities and also offer traditional “question-answer” type EU information service. The European Agencies located in the Baltic Sea Region EU countries are also becoming more active in information and communication.

The Commission supports Europe Direct network with almost 500 regional EU information centers in the member states in order to better reach people not only in the capitals but also in remote areas. The Europe Direct Information Centers serve the general public and approximately one hundred Europe Direct Information Centers are located in the Baltic Sea Region. Europe Direct Information Centers have various host organisations such as municipalities, regional public bodies or NGOs. The EDICs are for the time being the only extensive EU information network that is present in all the Baltic Sea Region EU member states. But the EU also supports other EU information networks such as the EURES European Employment Services, Enterprise Europe Network for SMEs and specific EU libraries attached to many university libraries around the Baltic Sea region. A good number of public libraries also offer EU information as an integrated part of their information services. Thus, one can say that in almost all of the regions around the Baltic Sea there is EU information service available in some form.

National authorities in the Baltic Sea Region have different arrangements on how to inform their citizens about the EU. Many focus on not only informing about general EU issues but also communicating and explaining the EU policy of the country.

For example in Sweden EU information is offered by *EU-upplysningen* which is an EU information service of the Swedish Parliament, *Riksdagen*. In Denmark there is a resembling service with *EU-Oplysning* in the *Folketinget*. In the Baltic States there are similar services. In Estonia EU information on the national level is offered by the Government Office *Riigikantselei*. Finland has a somewhat different arrangement with a network of regional EU information offices called *Eurooppatiedotus*, Europe Information, of the Ministry for Foreign Affairs.

The changing EU information services landscape

Due to the present economical situation affecting many public bodies around the Baltic Sea Region, there is a growing pressure to cut costs and optimize the use of resources. This affects also publicly funded EU information services. In Finland, for example, the national Europe Information network is being reformed with regional information offices gradually closing and services being coordinated largely from the capital. Also, there seems to be currently less interest on the part of the municipal or regional authorities to host Europe Direct Information Centers around the Baltic Sea.

There is also another, yet a more serious challenge. The latest Eurobarometers clearly reveal how the way we look for information is profoundly changing. This not only affects EU information services but all manners how we communicate and look for information in present day society. Reliance on the traditional media as the preferred source of information on the EU is slowly declining. Television seems to retain its strong position as the primary EU information source but the use of daily press has clearly declined. The winner is and without doubt will be the Internet.

Generally in Northern Europe the use of the Internet when searching for EU information is greater than elsewhere in Europe. Internet penetration has a very high level throughout most of the Baltic Sea Region when compared with many other parts of Europe. Also, the differences in Internet consumption between age groups is smaller than elsewhere in Europe.

But the Internet is changing rapidly too. Various online social networks like Facebook and Twitter are becoming more popular also as “serious” sources for information. So far online social networks are used by less than of half of Europeans but the numbers among young people are very high.

It can be argued that to reach especially the young with EU information one should focus more on the social media in the Web. People also debate and discuss EU issues all the more in online social networks. Many European institutions and national authorities are already participating and offering EU information in the social media. Interestingly enough a great number of Europeans (37%) still feel that information on political affairs from online social networks cannot really be trusted. Thus remains the challenge: how to be a credible yet interesting EU information service in the ever more complex virtual world of the Internet.

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Multidisciplinary university and societal interaction

By Petteri Siika-aho

The increased emphasis on the universities' societal interaction (aka *the third mission of the universities*) and the demand to ensure high levels of student employability has forced the universities to change their attitudes and to increase their understanding of, and relationship with, interest groups. Relationships take place both at organisational level through central initiatives and at the individual level. The universities benefit from the collaboration at least in the following ways: opportunity to spread the research results and know-how to society; feedback and perception about the trends and the needs of business life and other interest groups; financial resources through commissioned research.

International competitiveness, which is a concept well known in political and economic life, is one of the main background motives for increasing the universities' societal interaction. In this light, one would think that societal interaction highly interests the academic world. The new Finnish Universities Act from 2009 aims to enhance university autonomy by encouraging universities to supplement their basic funding with donations and business activities. As a result, Finnish universities were detached from the state budget although the Ministry of Education and Culture continues to grant core funding to the universities for their statutory public duties. Most universities, including the University of Turku, were granted an independent legal status as corporations under public law. Two of the Finnish universities became foundation universities under private law.

The legislative responsibility to participate in societal interaction was first included in the previous Universities Act in 2004. Societal interaction has always been integrated into research and education, but it is fairly new as an administrative task. On one hand, societal interaction is axiomatic and it has always been an integral part of those fields that educate to a certain profession. On the other hand, it is so manifold that it seems unclear and hard to get a grip on. In any case, today one of the most measurable and important dimensions of societal interaction is *innovation activity*, which is defined as the utilisation of scientific or scholarly knowledge in creating better products, processes, technologies or ideas.

Knowledge transfer between universities and interest groups is essential in increasing innovativeness. Knowledge is transferred via degrees and adult education, but also in project research. When a company orders a research project from the university and can thus utilise the knowledge that researchers have accumulated, we talk about *commissioned research*. The results of the research, including the intellectual property rights (IPR), are transferred to the orderer in the way defined in the contracts. In most cases, this kind of commissioned research is started because the researchers in the enterprises and the university's researchers know each other, that is, they network in congresses and so on.

Jointly funded research projects, where enterprises take part as so-called industrial partners, are more research-oriented than commissioned research. According to the contracts, the companies receive a priority to negotiate on the commercial right to use the IPR emerged in the project and the know-how of the enterprises increases through participation. The majority of the external research financing the University of Turku annually receives is directed towards jointly funded activities.

Selling and licensing IPR has been challenging from the university's point of view. A more workable model for the university is to create start-up enterprises in so far as it is

possible to form an adequately strong substance base for an enterprise of the IPR and the knowledge, and the challenges of financing can be solved. The university has defined its policy concerning these matters in its Financial and Business Strategy 2010–2012. The Act on University Inventions (2006) provides universities with the possibility to assume the rights of inventions based on specific criteria. The rights of inventions made in joint research projects can be acquired by the universities, while the results of open research activities, i.e. research with no involvement of external partners, can be kept by the researchers themselves.

There have been some difficulties in promoting societal interaction, for example, accountability on the time spent on non-education related activities, or cultural barriers such as the mind-set of the teaching staff, very strong theoretical focus and lack of a business minded attitude in some cases. There is not yet a comprehensive reward system for societal interaction, but as regards inventions, the University of Turku uses a compensation system to reward those who make an *invention notification*. The most remarkable initiative is that the inventors are to be paid a minimum of 50% of the financial net benefit, for example, in the context of license selling. In addition, to further improve the productisation of the university units' activities, the University of Turku takes part in the new TEKES programme *Prerequisites for innovation prowess*.

The significance of research as a source for innovations varies between businesses. Consequently, the faculties are also in different positions. This, of course, means that societal interaction should not be seen only in the light of innovation activity though it is important in many senses. For a long time after the WWII, science and technology policy was dominated by the *linear* innovation model, where basic research and universities were seen to generate new ideas, which were then converted into inventions and innovations that produce financial benefit elsewhere. Later on, the importance of doing and learning together as well as interaction have been emphasised in the emergence and development of innovations. This idea can also be applied to other areas of societal interaction. According to the *Policy principles of the OECD innovation strategy*, the policy makers should ensure that education and training systems are adaptable and can evolve to accommodate the changing nature of innovation and the demands of the future. This will require curricula and pedagogies that enable students to develop the capacity to learn new skills throughout their lives. In other words, universities should encourage their staff and students to solve problems in the surrounding society although this will not always lead to commercial innovations.

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Industrial business parks – SMSE employment platform in Russia

By Timo Koivumäki

In their hopes of Russia joining European society and economic system, too few western opinion leaders seem to pay attention to the elementary cultural difference between nations around the Baltic's. The lack of understanding the differences in mentality has led to continuous disappointments both in political and economical questions. The same goes on a practical level of everyday business.

Western democracies' attempts to monopolize determining global ethics and human rights should be critically discussed. I am not saying democracy is a bad system; it just has one general flaw in it, human nature. It is the same nature that drives the leaders to hope for unrealistic integration of Russia in to Western economy. When we should seriously be thinking of the future of western economy, maybe our future is in the east.

Russia is consciously floating between democracy and dictatorship. Western leaders may criticize elections there to be unjust, but most of the people in Russia don't. Majority of the citizens agree that this regime is what Russia needs. Partly it is a matter of choice, but also subconsciously steered by cultural history. One has to remember that mentally Russia is more Asian than European, religious history is in Byzantine Empire, trading history on Silkroad and administrative tradition to a great deal in clan culture. Recognizing this foundation the people may be right.

Now with western economies lagging again many companies are turning their heads to Russia. What makes it more promising is that Russia's business climate has been relatively stable over three last electoral terms and it apparently is continuing. Although at this point it is needed to stress that most of ordinary business men in the country say that bureaucracy and authority arbitrariness has gradually increased over entire Putin's regime.

The cultural shock across Finnish - Russian border is tremendous. In Transparency International's Corruption Perception Index of 2010 Finland and Sweden scored 9,2 and Russia 2,1 on ten point scale, placing Finland and Sweden on shared 4th place with second highest grades, whilst Russia is number 154 among 178 reviewed nations. This is of course only one attribute and might not be the main issue when considering establishing in Russia.

Especially SMSE's find Russia a difficult business environment. But all this does not mean that one cannot run a successful business in Russia. And there is business for taking. It only takes enough will and humbleness to seek help in doing it. There is a lot to learn from Russian entrepreneurs. One thing is the personal networking. Secondly it is required to come in to terms with your own ethics and values. Some sectors in Russia just don't work without sharing the benefit, or call it bribery if you will. But there are also many other sectors, where running an all legal business is possible and profitable, and some where it is even a must. This is something that, no matter what, we most probably will not be able to change from outside.

Regardless of all above Russia remains an interesting market with an evident growth potential.

Also Nordic governments have promoted business cooperation across the border. Now that other export and domestic markets are slow it is even more important direction to grow. Already in 2006 Finnish – Russian cross government SMSE's supporting program EuroRussia set a target to establish industrial business parks adjacent to the border. None of them seem to have really succeeded yet. Nevertheless these business parks could be an important foundation for SMSE's, specially the ones located at the border zone. These can provide much easier control and border crossing for operators with limited resources.

Their strength is in offering a safe environment where business security can be maintained by providing relevant services and public support. The business logic of current parks has to be rethought. It has to be based on solving operational questions and the services thereof rather than being property driven as most of them today are. For the western entrepreneurs as users here's the place where they can and have to learn from their Russian colleagues about networking. Sharing resources and knowledge enables labor intensive industries to expand across the border and take significant share of the growth potential in Russia. There are only limited Russian government determined strategic sectors where it nearly impossible for an SMES to operate. Serving these sectors then might be lucrative if the business. Also automotive industry is in focus of many interest groups. Automotive has been a forerunner in practically all markets when it comes to SMSE production and subcontracting networks. It is a rising sector in Russia too and it will set new standards and business models for many payers around. It can in near future provide subsistence to over 100.000 people.

Public sector must take a more active role in financing the parks and SMSE's operating there in, because these are off corporate world and thus not interesting for private banking sector today. In Russia it also must be understood that innovation activity is not necessary multibillion nano-space technology. In most cases it is a small improvement in an ordinary volume business enabling significant cost saving. SMSE industrial business parks would create welfare and security on the border zones and entire Baltic Rim.

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Writer is a Finnish business consultant and entrepreneur with close to 25 years of experience in running business in Russia. He is also active in an industrial business park development in North-West Russia.

Efficiency gains through combination of oil spill recovery, icebreaking and cross-border cooperation

By Tero Vauraste

By converting Finnish icebreakers to perform new tasks, tens of millions of euros can be saved. There is potential for closer cooperation in the Gulf of Finland region.

In recent years, the risk of oil spills in Finnish territorial waters has multiplied, as oil transports in the Gulf of Finland have steadily increased in volume. This trend is likely to accelerate in the coming years, as construction of the Ust-Luga oil terminal, located on the coast west of St. Petersburg in Russia, is completed.

This risk has been widely recognised. Authorities and non-profit organisations alike are doing valuable work to ward off the threat.

However, as reported by the Finnish Ministry of the Environment, insufficient capacity is currently reserved for oil spill recovery. According to the Finnish Environment Institute, the authority coordinating oil spill response preparedness in Finland, a capacity of 30,000 cubic metres per day is currently required in the Gulf of Finland; one of 20,000 cubic metres in the Finnish Archipelago; and 5,000 cubic metres in the northern reaches of the Gulf of Bothnia. Naturally, prevention is the best form of risk management. In this respect, progress is being made as new maritime traffic management and reporting systems are introduced. However, this does not change the fact that the authorities need to be prepared for catastrophes.

Along Finnish coastlines, seventeen larger vessels, suitable for oil spill recovery, are available. The Finnish Environment Institute estimates the combined capacity of these ships to be approximately 6,500 cubic metres. In July 2010, this capacity was increased by 2,000 cubic metres overnight when Kontio, an icebreaker in Arctia Shipping's fleet, was converted for oil spill recovery capability.

According to the Finnish Ministry of the Environment, there is a need for an additional six vessels, each with a capacity of

1,000 cubic metres. The cost of such a vessel is 50 to 60 million euros, raising the total cost of six new ships to approximately 300 to 360 million euros. An annual operating cost must be added to this sum.

The previous winters have provided a harsh reminder of how extreme conditions in the Baltic can be. Sea ice grew thick during the long cold spells; the wind piled up the ice to form large expanses of pack ice, which were especially treacherous in the narrowest section of the Gulf of Bothnia. Icebreakers operating in the area could help merchant vessels to force a way through the ice only one ship at a time. Easterly winds, which normally ease such conditions, were not in evidence for an astonishing nine weeks.

Arctia's icebreaking service sets itself the goal of assisting 90 per cent of merchant vessels in need of assistance without a waiting time. Should delays occur, the average waiting time per ship should be less than four hours. Last winter, Arctia's icebreakers came close to achieving their 90 per cent goal, but the average waiting time remained at over 12 hours; in other words, three times higher than the set goal. With an average age of approximately 27 years, Arctia Shipping's entire icebreaker fleet will reach the end of its lifespan in the early 2020s. One of the icebreakers, Voima, which was commissioned in 1954, must be replaced earlier.

According to long-term scenarios provided by the Finnish Meteorological Institute, ice breakers will remain necessary in Finnish waters for decades to come. For instance, in the region around the northern Gulf of Bothnia, industrial plants will remain in operation, while the expanding mining business will create more demand for sea transport. Since the cost of a new icebreaker is

around 100 to 20 million euros, Arctia faces a sizable investment programme.

However, it is possible to combine oil spill preparedness with an ice breaking role in a way that is efficient from the point of view of the national economy. Instead of ordering new oil-recovery vessels, current icebreakers can be converted for oil spill recovery duty, as evidenced by the already converted Kontio icebreaker. Indeed, what ship is better suited to oil recovery operations in winter than an icebreaker? This would mean a need for four to six new icebreakers rather than eight.

In the first phase, two to four ships in the current icebreaker fleet can be converted. If existing ships are converted for oil recovery tasks, instead of building new ones from scratch, expenditure can be limited to 5 million euros per ship instead of 50 to 60 million. Because the current icebreakers are fairly large in tonnage, the capacity requirement of 1,000 cubic metres per vessel, as set by the Ministry of the Environment, can be easily achieved and probably exceeded.

Under commission by the European Maritime Safety Agency, most crew members on Arctia's icebreakers have now been trained for oil spill recovery tasks. Consequently, no additional personnel need to be recruited or trained in order to maintain the level of preparedness and capability of operating the ships. Furthermore, ship maintenance costs are minimal compared to new investments.

The major investment programme for building a new oil recovery icebreaker fleet must also be spread over a long period. This programme should be launched well ahead of time, before the life span of the current ice breakers expires. To ensure maximum gains from large investments, new vessels must be suitable for year-round operation.

To ensure continuity, the investment programme should span several consecutive governments and budget periods. The ensuing cost savings will ease political endorsement of the programme.

Last winter, the Urho icebreaker remained berthed in Helsinki for almost two weeks, awaiting operational tasks, while north-westerly winds kept pushing the sea ice into Russian territorial waters. At the same time, over one hundred ships lay ice-bound off St. Petersburg. Several Russian icebreakers were operating in the area. In addition, Russian authorities ordered the Vaigach icebreaker, stationed at the time in Russian Arctic waters, to enter the Gulf of Finland and assist traffic there. To avoid such situations in the future, companies providing ice breaking services in the Baltic should agree on joint use of capacity in the region. Russian authorities have taken an active and positive stance towards this initiative. Both the Finnish and Russian parties are striving to get these ideas off the drawing board as soon as possible.

In sum, enhancements in capacity utilisation can be gained through converting existing vessels for new tasks, adopting new cooperative models and introducing new, innovative technology. All of these elements are needed in order to safeguard a clean Baltic and unobstructed fairways for competitive sea transports.

Tero Vauraste

President and CEO

Arctia Shipping Ltd.



Towards environmental friendly and productive agriculture – Yara’s solutions for a cleaner Baltic Sea

By Tero Hemmilä

One of the main challenges of agriculture today is to cost-effectively and efficiently produce a sufficient amount of food for the rapidly growing world population in an environmentally friendly way.

With a fast growing population the arable land per person decreases markedly in the near future. Mineral fertilizers play a fundamental role in the world food production. Producing more food per hectare of arable land in Europe with good agricultural practices in a sustainable way will reduce the need for food and feed imports into Europe and therefore help preserve the environment without turning more forests or virgin lands into agricultural land.

At the same time the Baltic Sea region faces major environmental challenges of which nutrient enrichment in the Baltic Sea is one. Too high concentrations of phosphorus and nitrogen in water promote excessive growth of algae and approximately 50 percent of the phosphorus and nitrate load of the Baltic Sea is caused by agriculture.

One of the environmental targets set in the EU strategy for the Baltic Sea region¹ is to reduce nutrient leakage to the sea to acceptable levels without losing the competitiveness of EU agriculture. The two paramount goals set by the EU can be reached through good agricultural practices and innovation.

As a leading provider of mineral fertilizers Yara supports the importance of promoting a healthy and competitive EU agricultural sector based on environmental responsibility. Yara is committed to providing solutions to these challenges through research and development as well as agricultural services and advice.

Yara has developed several new innovations as solutions to reduce eutrophication in the Baltic Sea. The solutions include new technology to improve fertilizer use efficiency as well as crop knowledge. Yara’s latest innovation is a solution that markedly reduces phosphorus leakage from fields into waterways.

Phosphorus is an essential nutrient, plants need it to grow. The problem is that rainfall and runoff detach soil particles and transports phosphorus containing soil to waters - thereby causing eutrophication. So farmers need specific tools to control phosphorus leakage to be able to keep the phosphorus in the field for the plants to use.

The solution lies in spreading gypsum on the field. Gypsum is calcium sulphate, which infiltrates into soil with water, improving particle aggregation and dissolved phosphorus retention. Better soil structure means that the earth better resists rain and melting snow and therefore prevents erosion and phosphorus leakage. Another important advantage is that gypsum improves the plants’ ability to utilize soil phosphorus reserves.

The solution is in line with the EU’s strategy for the Baltic Sea region. Yara’s solution gives farmers the possibility to continue farming according to best practices also on vulnerable soils.

The solution is based on Yara’s TraP research project, which tested the use of gypsum to trap phosphorus in fields. The tests were done in laboratories and as full-scale field tests, in cooperation with farmers around Finland. The project was co-funded by Yara and Tekes. The project has been carried out together with among others SYKE Finnish Environment Institute, MTT Agrifood Research Finland.

¹ Pillar 1, point 1: To reduce nutrient inputs to the sea to acceptable levels

The studies demonstrate the efficacy and applicability of gypsum. According to field results, gypsum has the potential to decrease particle-bound phosphorus discharge by 60 percent.

Yara is dedicated to help farmers use the optimal quantity of fertilizer products that provide a balanced nutrition of all required plant nutrients. Yara has therefore further developed the concept of precision farming, which helps farmers optimize yield and reduce negative environmental impact. This is achieved by combining crop knowledge through the Yara Crop Nutrition concept with advanced sensor technology.

Yara offers a device called the N-Sensor – a technology, that mounted on the tractor cabin detects areas of different nitrogen supply and adjusts nitrogen fertilizer rates accordingly on-the-go. This way the nitrogen rates are adapted to crop demand on every spot of the field and both over- and under-fertilization can be avoided. This way farmers are able to conduct precision farming, i.e. applying the correct nutrients, the correct amount at the correct time for optimal yield and minimal environmental impact. As a result the farmers get improved nitrogen use efficiency through yield increase and or fertilizer savings. The crop quality gets more homogeneous (e.g. protein content of grains) and the risk of nitrogen losses to the environment is reduced.

In addition to the solutions mentioned above to reduce the nutrient leakage into the Baltic Sea, Yara guarantees that the carbon footprint for fertilizers produced by Yara sold in Finland, Sweden, Denmark and Norway is below 4 kg CO₂-equivalents per kg nitrogen applied.

Another environmental target set in the EU strategy for the Baltic Sea region² is to mitigate and adapt to climate change. From the total nitrogen load to the Baltic Sea 25 percent is airborne. Yara’s offers solutions to reduce nitrogen oxides emissions from powerplants and trucks. Yara’s AdBlue high quality urea transforms NO_x into harmless nitrogen and water, reducing emissions by over 90 percent.

Only an increasingly resource efficient agricultural sector, answering to the environmental concerns of society, can be sustainable in the long run. Agriculture plays a key role in mitigating climate change, and must be seen as a part of the solution.

Tero Hemmilä

CEO

Yara Suomi Oy



² Pillar 1, point 5: To mitigate and adapt to climate change

Enough food to feed the world?

By Pasi Lähdetie

A constant hot topic in the media during the last few years, since 2007 food crisis has been "is there enough food"? Numerous summits and all kinds of seminars have been held around this important theme in Finland and elsewhere in the world. It is necessary to have this discussion, as the humankind is facing a huge challenge in attempting to guarantee the daily food and fresh drinking water for everyone.

World population is growing with increasing speed. Every three weeks there are as many more mouths to feed as is the entire population of Finland, i.e. 5 million. Simultaneously in the developing countries the standard of living is rising with accelerating speed and more and more people are changing to a western style diet. Of the current seven billion people only one billion earns more than 10 000 dollars a year. This income level is also considered to be the limit when a person's diet is starting to consist, for a great part, of protein from meat and dairy products. Beneath this income level the diet is mainly carbohydrate based and the proteins come from vegetable sources. It has been estimated that the world population in year 2050 will be nine billion and accordingly the number of people enjoying the western diet will have grown from one to two billions. This is a very challenging equation. A question of calculation: how much should the production of food and especially the production of grains and oil- and protein plants grow in order to suffice? Answer: it should be doubled. It is beginning to seem, if not impossible, at least one of the greatest challenges for mankind.

The green revolution was based on fossil energy forms

A so called green revolution began in the sixties. As a result of it the world's production of field products, especially cereals and protein and oil crops became threefold within 25 years. The growth rate of productivity has since slowed down. The green revolution was not as green as it sounds. It was based on fossil fuels, especially on unlimited supply of oil and natural gas and their cheap price. The most important plant nutrient, i.e. nitrogen, is even today produced using the over 100 years old Haber-Bosch technology, whereby with the help of natural gas the nitrogen from atmosphere is transformed to inorganic nitrogen fertilizer. Phosphorus and potassium fertilizers are quarried from the ground and are returned only to a minute amount from food chain back to field fertilizers. The world's phosphorus reserves that can be utilized with current technology will be exhausted within the next few decades.

Only one per cent of world's water resources are fresh water. Of this fresh water 70 % is used in agriculture. In many parts of the world, especially where the population growth and the rise of the standard of living are the speediest, there is shortage of clean drinking water and use of water for irrigation within agriculture has to be limited. This, in its turn, lowers yields. The other key factor in the green revolution was the increase of irrigation in agriculture. In extreme cases the direction of flow of rivers was changed in order to get water for irrigation.

The third key factor was the development of technology. The mechanization (use and development of farming machinery) really began in the 1960's. From the use of horses, powered by "biofuels" there was a transition to tractors using fossil fuels. Plant protection grew: herbicides could be used to fight against weeds, insects and plant diseases. The production of plant protection substances is chemical industry based on fossil fuels.

The evolution of production, stocking and logistics within the food chain has been enormous. More and more warehouses are being built, the cold chain ensures that the food stays fresh and furthermore the preservation methods are becoming better all the time. However, wastage of all food produced in the world is nearly 40 % before it's even on the plate. Proportionally, the wastage of food biggest is in the developing countries. In these countries most is lost already on the fields, but some also during bad storing.

The green revolution was thus based on fossil fuels and use of fresh water in irrigation. The green revolution ensured food for the fast growing world population and it has been a valuable phase in securing peoples' food supply. In the future, however, new doctrines are needed.

Fields, water, plant nutrition and the sun

The world food supply is based on simple factors. What you need is arable land, plant nutrients (nitrogen, phosphorus, potassium, sulphur, ...), fresh water, solar radiation for photosynthesis and technology, with which to enable the crop to grow and finally be processed into different food products on the plate.

The world food production is facing major changes. From the old ways and philosophies one has to turn to more natural ways of production. This does not mean going back to self-sufficiency in farming or what is nowadays defined by law as organic production, but one has to seek for ways of future food production through improved energy and material use efficiency. In field production we will be going towards a closed circulation. In the food chain recycling the nutrients back to the field and intensifying the efficiency of the nutrients are essential from the point of the environment. The leaching of nutrients into the water ways and the emissions of greenhouse gases into the atmosphere will be reduced. Raisio has developed the concept of Closed Circuit Cultivation CCC® for measuring the environmental effects of farming.

Even more critical is the sufficiency of clean fresh water. When the temperatures rise with the greenhouse effect, there just won't be enough water for irrigation in the important farming areas, such as California, where farming is based on irrigation. The use of water for farming is these days already being severely restricted in those areas. The situation is much the same in France, where during last summer's dry spell irrigation was forbidden in large areas.

More farm land is being cleared but a corresponding field area is lost to desertification and urbanization. The biggest reserve for clearing new farming land is in Brazil. Taking rain forests to farming use presents huge risks globally, but also for Brazil's own farming.

As the Amazon rain forest border moves North East while new farm land is being cleared there, the South Eastern part (Sao Paulo area) is starting to suffer from draught, since the rains from the rain forest no longer reach that far.

Finland is a super power of water

The answer to the original question, will there be enough food for everyone even though food production will have to be doubled by the year 2050, is fairly easy to give; yes, there will be. Within the agriculture there will be a real Green Revolution and in peoples' diets there will be a shift towards a more plant based diet. The relative share of animal based proteins in the diet will diminish.

Finland is a super power of water. Precipitation is bigger than evaporation. We have clean fresh water in abundance. Whereas, in f. ex. the Mediterranean countries water will become an even more critical factor. In livestock production lots of water is needed. In the global distribution of food chain work Finland will be a naturally good area for dairy as well as meat production. In Finland we have enough arable land, water, and food chain know-how to rise to the challenge of future food production. The future is what we make of it.

Pasi Lähdetie

Vice President, Green Economy

Raisio Group

Affect peoples energy consumption by design?

By Elisabeth Lind

Is it possible to affect people to consume less energy by design, and at what extent? With an innovative and curious approach, and in the same time well aware of our customers demand that technique should be easy to use, Bostaden now try to find out by developing individual measuring. One thing is to develop the technique, but the question of design is a much bigger challenge for a holding company to handle, as it also involves emotional interpretations.

How it all started

Bostaden as a real estate concern have worked for several years with saving energy and succeeded well by reclaiming and finely adjusting heating, saving water in different ways, changing illumination, changing to energy-saving washing machines and lowering the safety plugs for engine warmer. Using collective measuring of energy, which is quite simple, gives good results with a reduction of 35 percent.

In 2008, we began to work more intensively with this by implementing an ecological program. With one of the goals to lower the energy consumption with 20 percent until 2016, Bostaden have to find out which strategy's gives the best effects both on the climate, for the individual (i.e. the tenant) and in the same time is economic on a company level. We want to develop the tools for this, and by joining the project Green Citizens of Europe, financed by EU Life+, we have the opportunity to do that.

Bostaden a big actor on the local housing rental market

AB Bostaden in Umeå is the biggest actor on the Umeå housing rental market, with a market share of approximately 45 percent. The company is owned by the public and has also a large stock of student housing. The town Umeå in the north of Sweden, with a population of 113,000 people and an average age of 38 years, is a town with 35,000 students and 11,000 companies in the municipality. Umeå has also been appointed as European Capital of Culture 2014. Preparations are in full swing. One of Umeå's objectives as The European Capital of Culture is to strengthen the role of culture as a driving force for sustainable development of society. It is in this context Bostadens aim to affect people's behavior by design, in order to act more responsible with energy consumption, should be seen.

Terminals for individual measuring in apartments

Bostaden have, together with the company Abelko, developed a display terminal for apartments called Echolog, which shall be installed in 500 of our new apartments at the end of 2014. Only 10 of them are in renovated apartments, as the solutions we have today are too expensive to motivate installation in renovated apartments. The reason is that the buildings are too fragile so it is necessary to install new pipe systems. Until a more cost-effective solution is found out, Bostaden intend only to install terminals in new buildings. So far 221 apartments have the Echolog, and the result already clearly shows that individual measuring makes people consume considerably less energy: 32 percent lower energy consumption than in a reference area.

The Echolog



There is a statistics view, where the user can compare the current consumption to earlier data. In Echolog equipped apartments, the tenants pay individually for their consumption of electricity and hot and cold water - in Sweden only electricity is normally charged individually.

What we aim to do

An evaluation of the interface of the displays is expected to give leads on how design can affect and improve a change of behaviour. And prove how it is possible in the future to design both for usability and encouragement. For this we have engaged students from Umeå Institute of Design who have produced alternative design. We also have consumption data for the apartments that have had the Echolog installed since 2009 to proceed with.

Benchmarks

We have chosen to use a so called Open Source-solution to get the best opportunities to develop the terminal, and to find the most visible design for our users, the tenants.

Important for us is that the display should be simple and easy to understand for the tenants, since they will be encouraged to save energy. It is important that all the energy and media figures are presented in real time. All information in the Echolog, such as room temperature, hot and cold water, electricity and communication, and more, is therefore saved in real-time from Bostaden's database. The Echolog also display the current forecast and the outside temperature. It is also suitable for example to install additional service like timetables for buses and start the engine warmer.

The terminal is placed inside each apartment, usually in the hallway so that tenants quickly and directly can see their consumption in everyday life. The consumption of each apartment is unique in the system. The Echolog is constantly building a statistical average for this particular tenant's apartment. The statistics is displayed in real-time. Each apartment will be charged for the consumption through a separate specification on the rent. This is done by automatic transfers of figures each month.

Challenges

A new standpoint about installing the terminals in older buildings can be taken if an ongoing development project is successful. Together with the company Ostnor AB, Bostaden is trying to find out how a so called datum oint could be installed directly on the taps not clear. If that is possible the costs for an installation can be heavily reduced. This is experiences that can be very interesting for example among other housing corporations.

Tests and studies for an answer

We are now preparing for a comparative survey to get a result that is a substratum for the deeper qualitative survey that is going to take place in the next two years. We are going to prove four alternate interfaces on the Echolog, to find out if one of them has more impact on individuals than the others.

So by the end of 2014 we should be more capable of answering the question if design can affect people to save energy, and in what extent. And that also gives us a ground to evaluate if the strategy for the future should be to invest in terminals for individual measuring in our apartments.

Elisabeth Lind

Communication and
Marketing Manager

AB Bostaden in Umeå



A better solution for waste management

By Katri Savijärvi

Growing waste volume is one of the many factors increasing the burden on our environment and on the world's climate. Molok's Deep Collection System is doing its bit to manage waste collection more effectively, thus reducing the impact on the environment and climate – with Molok's innovative products being used by millions of people in numerous countries today.

Like many innovations, Molok's Deep Collection System is based on a very simple idea. In this case, the waste collection capacity of traditional surface containers is increased many times over by utilizing a vertical design that allows for waste to be stored underground and out of sight.

Gravity compresses waste towards the bottom of the deep containers used in the Molok approach. As well as saving space, the natural coolness of the ground helps reduce the spread of unpleasant odours.

Less need for collection

Thanks to their vertical design and large capacity, Molok Deep Collection containers need to be emptied much less frequently than conventional surface containers, thus reducing truck usage and fuel consumption, which makes for more pleasant surroundings for residents as well.

For example; the reduction in environmental impact offered by a typical Molok installation at a residential location can translate into hundreds of fewer kilometres driven by waste collection trucks. Repair and maintenance costs are reduced while fuel savings can amount to hundreds of litres of diesel annually, which translates into a reduction in a system's carbon footprint.

Encouraging people to sort and recycle

A clean, efficient, easy-to-use Molok system encourages people to sort and recycle their waste more effectively, promoting a greater recycling awareness by allowing each individual to be an ambassador for a cleaner planet.

A typical Molok collection point includes separate containers for paper, glass, biodegradable waste, as well as mixed waste – all designed for decades of heavy use in various or extreme weather conditions.

The small footprint of the Molok Deep Collection System also benefits residents by enabling them to utilize the space saving for other uses, such as; playgrounds, gardens, or natural areas.

Solutions for numerous locations

Thanks to a continuous programme of product development, Molok can offer a range of solutions for various needs, including a product designed for collecting glass bottles intact. Containers are complemented by a specially designed collection truck and crane.

The wide range of Molok capabilities, coupled with its narrow environmental footprint, makes Molok the perfect system for parks, parking and picnic areas, scenic spots, and resorts.

Maardu – the town where Molok containers thrive

Maardu is a small town close to Tallinn in Estonia, which a decade ago was known for its derelict factory buildings and poorly maintained high-rise apartments commonly served by rusty metal waste bins.

Waste management, together with the whole urban appearance has improved considerably as Maardu rapidly becomes the first Estonian town where wastes are collected almost entirely in Molok deep collection containers.

Currently, the city has installed and operates a total of 124 Molok containers. The result is that almost 70% of the apartment house areas of the city make use of deep collection waste management.

Deep Collection paves the way in Estonia

Maardu is also significant for the reason that Molok representative Adelan Prygiveod Ltd installed Estonia's first container there in 2006.

Maardu City Council has always been a strong supporter of the Molok program. Additionally, Mayor Georgi Bystrov has personally highlighted Molok benefits and encouraged residents to adopt the deep collection system.

Molok containers have now been a familiar sight in Maardu's streets for five years. The satisfaction with Molok was confirmed last summer with the installation of ten additional Molok CityScape waste containers in the city parks and pet exercise areas.

"The town's appearance has improved"

"Our city is considerably cleaner since the introduction of Molok containers. The containers and the high-rise surroundings now stay in really good shape, while the improved cleanliness has a positive contribution to waste disposal discipline," assesses Maardu's municipal finance officer **Guido Liisma**.

"Maardu residents are quite satisfied that neat Molok containers have replaced the ugly metal bins. Additional benefits have included more parking spaces, fewer trash truck visits as well as faster and quieter emptying," adds Liisma.

"In fact, the only problem in Maardu emerged during installation when finding that water and electric utilities were not marked on the excavation maps."

Reputation as a Molok-town

Municipal finance officer Liisma, considers that in the light of present experience, further expansion of deep collection in the town is natural.

"Hopefully Maardu will soon be the first town in Estonia widely known for its investment in deep collection and Molok containers," envisages Guido Liisma.

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Tourism in the Arctic region and the Kola Peninsula

By Martti Ruokokoski

A helicopter is flying over the small village of Varzuga, carrying American or European tourists to fish Atlantic salmon. The tourist pays for the trip about USD 3 500 per day. The sum covers the helicopter flight from Murmansk to the wilderness, the fishing permit and maintenance at a luxury camp. Helicopters ferry people over the village several times a day. The village and the river Varzuga are located in the Kola Peninsula on the White Sea in Russia. Varzuga is a village of 500 people, one of the many places in the Kola Peninsula where tourists travel to fish. Other rivers in the area are, for example, the Ponoy, the Uмба and the Kolvitsa.

Nature Unlimited is a company founded by some of my friends in Finland. When it started to organise fishing tours to the river Kolvitsa in 1989, it was the first foreign business to organise trips to the Kola Peninsula. The contract was concluded with the Soviet Hunting and Fishing Association in Moscow in 1988.

In July 1989 I had the chance to be the tour leader on one trip, which took 12 Finnish fishing enthusiasts to the Nature Unlimited camp. The company had renovated the old hunting and fishing base and boats and wooden toilets had been brought there from Finland. The week was exotic and successful. We managed to catch as many as 143 pink salmon, which swam in abundance in the river that year.

The idea to continue the trips the following year was thwarted by insurmountable difficulties. For example, the sauna at the camp burnt down and the start of the demise of the Soviet Union caused uncertainty. However, Nature Unlimited continued to develop the fishing tourism and, beginning in the summer 1988, fishermen travelled to the unique river Ponoy on the eastern end of the Kola Peninsula on a trial basis. Regular group tours to the Ponoy were started in the summer 1990, the main target group being rich Americans with an interest in fishing. These tours are still organised by Russians, but it is only the rich that have a chance to fish salmon on the Kola Peninsula. Ordinary people with an interest in fishing cannot afford the trip as was possible in the summer 1989 in Kolvitsa.

Nowadays Finnish companies are rare in Murmansk, but something is happening in the building and construction sector. Fertilizer giant PhosAgro ordered a luxury cottage from Finland's leading supplier of timber and building materials, Puukeskus in Rovaniemi. Finns have built a cottage complex for fishing and entertainment purposes on the Uмба this year at EUR four million. This is an example of how the building and travel businesses can join forces.

Today tourism to Murmansk is mainly travel on business. Energy companies and industrial enterprises from other countries organise seminars and meetings. There is not any such phenomenon as mass tourism. Tourism provides employment to just a few small enterprises. People earn their living in the mining industry and fishing. Plans have been made concerning the opening of gas and oil wells in Shtokman and elsewhere in the Barents Sea.

There is huge potential for tourism in the Kola Peninsula, and projects and programmes are in the making. The northern location and mountains open up excellent opportunities for tourism. Plans are under way concerning developing the Lovozero Sami and reindeer region into a centre for tourism; the reindeer will figure in the logo under the title Russian Lapland. This is an excellent way of supporting the activities and existence of the indigenous people in the region.

The Khibiny Mountains, the highest point of which is over one kilometer, have been harnessed to the service of Alpine skiing. Apatit, a mining company, owns the Bolshoi Vudjavr skiing centre at Kirovsk, which was awarded the best snowpark title in Russia last year. The Kola Nuclear Power Plant (KNPP) in Polyarnye Zori owns a skiing centre, which is located next to the power plant. This is an example of cooperation between the mining, energy and tourism businesses.

The Khibiny area is being improved and it is popular among Russian tourists, but it does not pose a threat to the skiing resorts in the Finnish Lapland. Services including holiday homes, cabins and chalets, restaurants and ski lifts in Khibiny are still below the international standards that are met in Levi, Saariselkä, Ruka and other skiing resorts in the Finnish Lapland.

Businesses in the Kola Peninsula look for examples in Finland. The municipality of Salla and the Salla skiing resort are cooperating with Khibiny and bordering cities on the Russian side in a project relating to tourism and recreational activities. The project gets funding from the European Union.

Prime Minister, the president-to-be, **Vladimir Putin** addressed the Second International Arctic Forum in Archangelsk in September 2011 and discussed the development of Arctic expeditions. It is a good idea. Poseidon Arctic Voyages, is already offering two-week nuclear-powered ice-breaker cruises to the North Pole every summer. The cruises are always fully booked. The price for a cruise ranges between USD 22 500 and 33 250. Last summer, there were Chinese tourists who had come to see Polar bears, walrus and icy views.

The Norwegian Hurtigruten cruise could expand its northern route from Kirkenes to Murmansk, if a visa was not required. As a whole, the visa requirement hinders the development of tourism. A holiday to a visa-free country is much easier than travelling to Russia.

The Arctic region, location at the edge of the world, and certain peculiar characteristics attract tourists' attention. But how to bring the northern cruises and fishing trips within the ordinary tourist's reach? Expensive trips prevent the development of tourism into mass tourism. Thus the business does not bring as much money and employment as it could. It is to be hoped that the upmarket tourism will be followed by mass tourism.

Provided that mass tourism will one day start, it is important to remember the fragility of the Arctic nature. It has to be protected. Climate change and melting Arctic waters open up opportunities for expanding the cruise business. However, increasing traffic involves adverse effects such as emissions. Pollution has to be prevented and there has to be a change in attitudes towards nature. The change has to be comprehensive and involve not only refraining from littering and attitudinal culture changes but also amendment of international navigation provisions. How to combine mining, which is both the life blood of the region and a polluter, and nature tourism?

In the former Soviet era, Murmansk and the Kola Peninsula were known as secret places, where nuclear submarines and military bases were located. On the one hand this is a bad thing; on the other it is good from the point of view of tourism. History with its cold and hot wars and its exotic elements linked with secrecy attract tourists. Closed military areas and border areas also form a barrier to the development of tourism. If a city or village is closed, there is no point in hankering after tourists. When the tourist makes a choice about a holiday, a destination that is easy to go to at a reasonable price often beats what is exclusive, distant and extravagant.

Martti Ruokokoski

Consul

*Murmansk Office of the
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The United Kingdom and the Arctic

By Clive Archer

The United Kingdom has had traditional connections with the Arctic region, not least through some of the early British explorers of the region who helped to open it up for Europeans. During the Second World War and the Cold War, British interests in the Arctic were mostly of a military nature, mainly in keeping others from dominating the seas directly to the north of the British Isles. British researchers were often leaders in Arctic research. More recent UK interests in the Arctic have continued in security and research, with environmental and resource considerations and shipping added. An overview of these factors will show that, while not an Arctic country, the UK should concern itself with Arctic matters. However, recent British governments have shown marginal engagement.

Security issues in the Arctic have long been of concern to British governments: indeed only recently, the UK gave medals to those who had risked their lives on the Arctic convoys from the British Isles to the northern Soviet ports during the Second World War. The Cold War saw the war-time allies of the UK and Soviet Union become adversaries, not least in those very Arctic regions of the Barents and Norwegian seas with Soviet forces coming out from the Kola Peninsula through these waters and into the Atlantic Ocean. A task of the Royal Navy and Royal Air Force was to track these forces and, as part of NATO forces in the region, to shadow them. The UK made its own strategic use of the North Polar region with its nuclear-weaponed submarines being stationed under Arctic ice. Furthermore, UK forces used north Norway for Arctic manoeuvres and provided some of the forces that would re-enforce Norway in times of crisis.

Since the end of the Cold War, the size of the Russian military presence in its Arctic regions declined, at least in the 1990s. Mr Putin revived some of these forces, especially the strategic ones. Recently, Russian military aircraft and vessels have again been exercising west from the Barents Sea, a matter of concern for NATO countries such as Norway and Iceland, and also for the UK which had the traditional task of tracking these forces. Furthermore, the current UK Conservative-Liberal discussed security issues intensively with the Baltic and Nordic states and has continued close military relations with Norway, not least in the 'High North'.

British Polar research is well established, especially in institutions like the Scott Polar Research Institute at Cambridge. Research in Antarctica has traditionally overshadowed that in the Arctic, not least because of British claims to Antarctic territory and the importance of the Falkland Islands and its dependencies in the South Atlantic. There has been a revival of Arctic research with the UK's Natural Environment Research Council devoting £15 million in 2010 to a new Arctic research programme on climate change. In particular, British scientists have established a research presence in Svalbard. This continuing Arctic work has allowed the UK to earn observer status on the Arctic Council, co-operation within which is seen as a key British interest.

A major increase in British interest in the Arctic has come partly as a result of the research being undertaken on the Arctic's involvement with climate change, not least by British scientists. This has started to weave itself into wider British policy on the environment. The UK is particularly concerned with the consequences of the shrinking Arctic ice-cover, not least because of any effect on the sea currents in the North Atlantic just north of the British Isles. Indeed the Foreign Office web-site mentions as two key British interests in the Arctic, the

protection of the Arctic environment and ecosystem and 'the effects of climate change on the Arctic and the Arctic as a barometer of climate change' (<http://www.fco.gov.uk/en/travel-and-living-abroad/your-trip/antarctica/uk-engagement-arctic/>).

One possibly positive consequences of the ice melt is the opening up of the Northern Sea Route (NSR) offering improved opportunities for a global trading state such as the UK. Until recently, this was accessible only with considerable assistance from ice-breakers and the 'route' tended to be a number of separate connections along the Russian northern coast. A more unified and commercial use of the NSR could considerably shorten the distance for commercial traffic between the UK and the Far East. The UK Foreign Office mentions as a British interest 'the opening up of the Arctic to increased shipping and the issues related to that, including the new Polar Shipping Code', this being the concern of the International Maritime Organization with its headquarters in London.

A further British Arctic interest seen by the Foreign Office is 'the potential of the Arctic to strengthen energy security and the sustainable use and safe extraction of resources'. Despite the emphasis on sustainable use, some environmental groups such as WWF, have complained about the plans of British firms, such as BP, to explore for hydrocarbons in the Arctic. Others have seen BP's involvement in the Russian market as part of a wider geo-strategic competition for the presumed oil and gas reserves in Russian fields.

A final British interest in the Arctic, as outlined by the Foreign Office, is the management of new fishing grounds there, though, given the poor state of the UK fishing fleet, this is more as a fish-consuming country.

Has the UK a strategy for the Arctic? No. Although ministers refer to a Ministry of Defence and Foreign Office strategy, there is little evidence of its nature. The outline of British interests on the Foreign Office web-site is hidden away (under 'travel and living abroad': Antarctica!) and is fairly bland with little indication as to how conflicting aims (use of resources, environmental issues) might be managed. Nor is there any view on the development of Arctic resources in Russia or the consequences of emerging Far Eastern interests in the region. When parliamentarians had the opportunity to question a minister about the EU's statements on the Arctic, emphasis was on the powers of the EU rather than on the content of policy.

The present government has an opportunity to bring together the strands of an Arctic policy so that a country with historic and current interests in the Arctic may have a properly-debated and coherent policy on this increasingly important area. This should not be missed.

Clive Archer

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Russia as the partner in the Arctic

By Lev Voronkov

During the "Cold War" the Arctic has acquired the key strategic significance for the military balance between two "superpowers". Problems of Arctic sustainable development, protection of its environment, active utilization of the North East passage for international navigation have not been discussed even in theoretical terms. The test of Soviet thermonuclear bomb on Novaya Zemlya clearly demonstrates how far the realities of military-political confrontation have been from concerns about protection of environment and sustainable development of the Arctic. Any possibilities of international cooperation in resolution of common problems for the Arctic states have been frozen by the military confrontation for many years to come. The logic of this confrontation predetermined the Soviet adherence to the conception of "Arctic sectors" as the only possible.

The experiences gained during the "Cold War" clearly illustrate that any attempts to resolve problems of the Arctic by military means can result only in impasse and in aggravation of existing problems.

The radical change in the geopolitical significance of the Arctic has occurred after discovery of its oil and gas wealth. This discovery is accompanied by intensive melting of Arctic ice, providing access to practical utilization of this wealth. Impact of the climate change in the Arctic may result in opening new global trade lanes as well. In these circumstances the legal status of the Arctic spaces has acquired very important geopolitical dimensions. The Arctic is rapidly transforming from former peripheral region into the one in the forefront of world politics, attracting attention of many influential states by its economic and transport potentials.

A non-flexible adherence of Russia to the conception of "Arctic sector" also in the new geopolitical conditions could put her in opposition to these states, deprive Russian positions of undisputable legal grounds, give cause for military tensions and institutional presence of NATO and limit possibilities for international cooperation in the Arctic in general and for foreign investments to its Russian segment, in particular.

Russian participation in establishment of the Barents Euro-Arctic Council and Barents Regional Council in 1993 and of the Arctic Council in 1996 demonstrated that the regions of Russian Arctic zone, closed for international cooperation in the past, started to get involved into broad international interactions. Since ratification of the UN Convention on the Law of the Sea by Russia in 1997 its provisions determine Russian approaches to practical resolution of international problems in the Arctic. The Russian – Norwegian delimitation of continental shelf in the Barents Sea is one of the consequences of on-going changes in the Russian Arctic strategy.

Rich deposits of resources in the Russian Arctic zone do by far exceed domestic needs and demands. Deliveries of these resources to national and world markets contemplate deeper economic integration of the Russian Arctic zone in national economy and in the system of world economic ties and creation of proper transport and service infrastructure in the High North as well. Practical implementation of these intentions demands enormous financial resources, which Russia alone is hardly able to ensure. Inflow of foreign investments depends on the legal status of the Russian segment of the Arctic as well.

Russian policy in the Arctic does not have any global ambitions. The resource potential of the Russian Arctic zone

has to play an important role in contemporary and future socio-economic development of the country and in improvement of quality of life for its population. Russian foreign and security policy is aimed at creating favorable external conditions for resolution of these tasks.

Russia needs to have a permanent and reliable means of transportation, littoral infrastructure, logistics, new industrial and service centers, search and rescue facilities and harbors in order to support industrial activity on the shelf and to facilitate export and import operations in the Russian Arctic. The role and significance of the North-East Passage for the Russian economy and for its external economic ties will inevitably increase.

Taking into account the existing problems with supply of labor force in these thinly populated areas, Russia needs to ensure comfortable conditions for life and work in its High North areas in order to stimulate inflow of labor power to them.

Contemporary Russia does not connect its military presence in the Arctic with any global military-political missions, with projection of its military power to other regions of the world or with military confrontation with adversaries. Concrete measures in this field should not create obstacles for deepening international cooperation in the Arctic in general and for regional cooperation between Arctic states, in particular.

Problems of "soft" security in the contemporary Arctic are acquiring the key international importance. They could be most efficiently addressed only in cooperation with neighboring Arctic states, domestic and foreign companies, intergovernmental and nongovernmental international organizations. No one problem of "soft" security in the Arctic can be resolved without full scale Russian participation and partnership. Such a cooperation with Russia can be fruitful and effective only when its partners do recognize the justified rights of Russia and its jurisdiction in the Arctic, based on the norms of international law and other corresponding treaties and agreements.

In the Ilulissat Declaration, adopted by all coastal Arctic states, pointed out common interests and fields of cooperation between them. Russia undertakes practical measures for their realization, proceeding from the assumption that all problems of the Arctic can be successfully resolved on the existing legal basis.

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Russia's Arctic – a call for the new Arctic thinking

By Gleb Yarovoy

The basic factors that define the importance of the Arctic and determine Russia's Arctic geopolitics remain unchanged for centuries. Initially, the Arctic served as one of the main **trade roots** of the Russian North. The search for the North East Passage in the Middle Ages led to the nowadays use of the Northern Sea Route. Today, it is the main root of vital deliveries to the northernmost regions of Russia all way long of the Arctic Ocean coastline. Arctic **economic resources** were recognized during the Russian Empire's time, were broadly used by the Soviet government and are currently the foundation of the Russian economy having no alternative. The **military potential** of the Arctic was first time appreciated after the defeat in the Russo-Japanese War of 1904-05, when the need to navigate from Arctic Ocean to Vladivostok became evident; Arctic region's role in terms of national security grew up during the strategic arm race of the Cold War.

All these potentials were and are still limited **by the complexity of access and reclamation** in the High North. For this reason, Russia abandoned Alaska in the 1860s, and currently the **Shtokman project** is postponed.

The Russia's Arctic is inseparably connected with the general developments of Russian economy and politics. Regardless the general (i.e. both internal and international) sceptis about the "modernization" intentions of the Russian ruling tandem, and especially Dmitry Medvedev, it has to be stated that **a real modernization** is the only way that can keep Russia playing an important role in world politics and global economics. A real modernization primarily means a need of the **institutional breakthrough** in all realms of life: political, economic, societal etc. Russian political system is suffering from corruption, Russian economy is totally dependent on the export of the energy raw materials, and Russian civil society is undeveloped and passive. A further postponement of the institutional reforms will lead to the "institutional trap" meaning the threat of the irreversible processes that lead to the full-scale weakening of the country.

The Arctic policy of Russia should be a part, or one of the core elements, of modernization process considering its strategic importance for the country. For the Arctic, this means internationalization, not nationalization. The focal point of the internationalization is international cooperation in the Arctic in a broad sense, involving not only Arctic states ("A8+" instead of "A5" model), but also trans-national actors, such as international organizations, both inter- and

non-governmental, international business and subnational actors, first of all, the indigenous people, who should have their voice in the Arctic decision-making. For Russia, this would bring not only international investments and technology for both economic development (exploration and exploitation of the Arctic resources requires tremendous funds which Russia cannot afford alone) and "general cleaning" of the High North (that Prime-Minister Putin is permanently speaking about). Internationalization of the Arctic can be an important impetus for institutional developments and changes in a specific, to begin with, Arctic region.

Currently, two important documents are under preparation at the commission of the Ministry of regional development of Russia. First, is the Strategy of the Arctic zone development till 2020; second is the Federal law "On the Arctic zone of Russia". It is very important that those documents provide the possibility and lay the foundation for the internationalization of the Arctic even in the prejudice of the geo(political) ambitions of the Russian authorities.

This is very well-timed at the moment, when some high-ranking political and military officials and even representatives of the academic circles of the Arctic states speak about the threats and the possibilities of confrontation in the Arctic. We already witnessed the birth of the "New Thinking" policy in the High North once; now it is a good time to recall for the New Arctic Thinking in favor of Russia, of the Arctic region, and even the globe.

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Russia's narrative on the Arctic – from patriotic rhetoric to the Arctic 'brand'

By Marlène Laruelle

As with other international issues, Putin's Russia has been sending mixed messages on the Arctic to the international community. Moscow played an undeniable role (with Canada) in the escalation of self-assertive rhetoric when the Russian flag was planted in the Arctic seabed in 2007—even though the Russian state itself had not made any illegal claims on the continental shelf and is a very cooperative member of the Arctic Council, the Barents Euro-Arctic Council (BEAC), and the United Nations Convention on the Law of the Sea (UNCLOS). However, since 2008-2009, Moscow has been noticeably focused on creating a new "Arctic brand" and positioning itself as co-leader of international consensus on the region.

The Arctic functions as a *tabula rasa* for the projections of various ideological visions in all Arctic countries. While Vladimir Putin likes to be photographed as a sportsman and a military man, rather unsubtly associating patriotism with virility and masculinity, Dmitry Medvedev, for his part, fosters a narrative on economic "modernization", underscoring the importance of information technologies, innovation, nanotechnologies, etc. The two competing paradigms—that of triumphant military industries and that of new technologies—both accord very well with the Arctic theme. New activities in the Arctic mean that atomic icebreakers, submarines, and strategic bombers, as well as new technologies (satellites in polar exploration) can be promoted, as can the idea that science is not opposed to nature, but can be put in its service. Both the Putin and Medvedev narratives each get their share in terms of symbols.

Transforming the Arctic into a flagship for nationhood crystallized as a Kremlin strategy in the second half of the 2000s, in harmony with the growing international debates surrounding this issue. The choice at the time was made to favor a bellicose discourse in which the Arctic was presented as the future site of a new cold war. This strategy was embodied in the president's special representative for cooperation in the Arctic and Antarctic, the famous polar explorer, Arthur Shilingarov, a member of United Russia and close associate of Putin. Presenting the Arctic as a new race among great powers makes it possible to portray Russia as a besieged fortress, caught in a vise-like grip by the advance of NATO, which therefore facilitates the revival of clichés dating from the Cold War.

Since 2008-2009, the Russian official narrative on the Arctic, once rather bellicose, has evolved toward a celebration of the region as a space of international cooperation. Vladimir Putin, Dmitri Medvedev, Sergei Shoigu, and the Minister of Foreign Affairs, Sergei Lavrov, have continuously strived to cultivate a discourse pointing up a "dialogue of cultures" in the Arctic. This can be explained by the evolution of the international context (reset policy from the Obama administration, peaceful resolution of the border issue with Norway in the Barents Sea, and so on), but also because the Kremlin has understood the potential of the Arctic topic as a strategic communication tool.

The international forum "The Arctic: Territory of Dialogue," held in Moscow in September 2010, was an

occasion to play this card with success, in particular thanks to the esteemed international presence. During the Forum, Putin affirmed, in a very Western-style speech, that "while we are taking care of a steady and balanced development of the Russian North, we are working to strengthen our ties with our neighbors in our common Arctic home. And we think that preserving the Arctic as a zone of peace and cooperation is of the utmost importance. It is our conviction that the Arctic area should serve as a platform for uniting forces for genuine partnership in the economy, security, science, education and the preservation of the North's cultural heritage."

This media operation is henceforth repeated every year (in 2011 in Arkhangelsk) in the hope of promoting not an *Arctic Race* between great powers, but a *Polar Saga* of humanity placed, among others, under Russian leadership. The will to turn the Arctic into a brand destined to the international community was reinforced in 2009 by the decision to revive the Russian Society of Geography, itself born in 1845 as part of the imperial drive for geographical expansion and exploration of the country's natural resources, and to turn it into one of the Kremlin's flagships. The Society's mission is not so much to engage in basic research as it is to perform applied research on projects that have been decided upon by the political authorities. It also has become a media platform aimed at Russian and international public opinion to promote knowledge of nature, a kind of Russian version of the U.S. National Geographic Society.

Russia is particularly active on questions of sea and rescue systems. It played a key role in the signing, in May 2011, of the first legally-binding instrument negotiated under the auspices of the Arctic Council on the establishment of a collective sea and rescue system. After several years of upholding a bellicose narrative about the competition between great powers in the Arctic, Russia has preferred to implement solid rationales of international cooperation, including for example around questions of satellite coverage and the usage of space for navigation purposes. This 'Arctic branding' has enabled Moscow to position itself at last as a key actor in the Arctic's future and to raise its international image.

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Globalization and Arctic Strategies indicators of a new significant geopolitical change in the Arctic region

By Lassi Heininen

By the early-21st century, the main themes or trends of the post-Cold War circumpolar geopolitics and international relations were first, an increasing circumpolar cooperation by indigenous peoples' organizations and sub-national governments; second, a region-building with unified states as major actors; and third, a new kind of relationship between the circumpolar North and the outside world. In addition to these trends there are two well-defined discourses, which have oriented the nature of most of the geopolitical discussion at the early-21st century: The mainstream discourse reflects the degree of stability and peacefulness gained by the region. This is a result of the achievement of institutionalized international Arctic cooperation in the post-Cold War era, and the fact that the region is legally and politically divided by the national borders of the Arctic states. On the other hand, there is a second discourse which has challenged this by arguing that there is a 'race' for natural resources, and therefore emerging regional conflicts, based upon the importance of state sovereignty and national interests.

In spite of the latter discourse the reality is, however, that at the moment there is neither a real 'race' on natural resources, nor a series of emerging conflicts, nor any reason for them, in the Arctic region. Instead of 'conflict' in the region we find a few disputes on maritime borders, some asymmetric environmental conflicts and a few outstanding land claims by indigenous peoples. We also find, of course, major challenges for the region, such as combating the impacts of long-range (air and water) pollution, climate change and globalization. Equally important and relevant, however, is recognition of the fact that along with the aforementioned challenges, another significant environmental, geoeconomic and geopolitical change has occurred to the region. There are indication of the large-scale utilization of natural (much energy) resources, the growing importance of energy security, climate change accompanied by physical impacts on the region as well as an interrelated uncertainty, flows of peoples, goods, ideas and capital generated by globalization, and growing global interests toward the region and its resources.

This latest change can be taken as an evidence of continuity, i.e. the spectrum of changing positions of Northern geopolitics in the recent centuries, particularly continuity of the above-mentioned third trend, a new kind of relationship between the Arctic and the outside world. It is, however, important to recognize a couple of new features of this new geopolitical position, the first being that the change is both rapid, global and multi-functional, i.e. geopolitical, environmental, geoeconomic one. This should be taken into consideration and needs a more comprehensive and human approach to security like for example, that although the Arctic region is not the first real victim of climate change – it has already hit with severe impacts to many developing countries in Asia and Africa – it has a serious security dimension there.

Mostly followed from this significant change in the geopolitics and status of the region, and partly due to more economic and domestic reasons, all the eight Arctic states have recently become more interested in their northern

parts and aware of the importance of the entire Arctic. Consequently, they have each adopted an Arctic strategy or state policy, and each of them has identified and (re)defined itself as an Arctic or Northern country or state. Indeed, the strategies / state policies of Canada, Finland, Iceland, the Kingdom of Denmark, Sweden and the USA can be seen as reflections of the recent changing conditions in the Arctic region and understood to be responses to the latest significant change in the Arctic environment and geopolitics. Moreover, unlike the other cases, there are other important reasons: The 2006 Norwegian High North Strategy is rather independent and reflects Norway's new position in the High North and new kind of relations with Russia in the North; and the Russian State Policy, is first of all, a pragmatic means for promoting domestic policy.

Furthermore, state sovereignty and national interests are highly reflected in the Arctic strategies and policies of the five littoral states of the Arctic Ocean: Canada, the Kingdom of Denmark, Norway, Russia and the USA emphasize state sovereignty and national security with an aim to strengthen their military defence and border patrolling. These priorities very much reinforce the nationalistic approach to the North now, and here they differ significantly from an approach oriented towards stability and peace based on international cooperation which have been adopted by the rest three Arctic states: Finland, Iceland and Sweden emphasize comprehensive security and international cooperation per se and as means to increase security.

A bit ambivalent, if not controversial, is the fact that all the strategies, except that of Russia, prioritize both economic development, including regional development and infrastructure, and the environment and environmental protection. Finally, in the strategies and policies of each of these states, there is the common feature that a world-wide, global perspective is little discussed and not much acknowledged: only the strategy by the Kingdom of Denmark and that of Finland include this broader perspective.

All in all, the recent significant and multifunctional change in the Arctic is a reason enough for the Arctic states to adopt a national arctic strategy or policy, and it might explain, at least partly, the emphasis on state sovereignty and national security. But somewhat surprising is how little a world-wide, global perspective has recently been incorporated into strategic discourses, particularly since the global perspective or globalization is nothing new in the Arctic. It is a well-known fact that the Arctic states are fully authorized members of the global community and are actively involved in world politics as independent states and as members of the United Nations and its sub-bodies, other intergovernmental organizations as well as economic, political and military organizations. They are also members of several international - both world-wide and regional - organizations and agreements, and one of those is the Antarctic Treaty System, where most of the Arctic states are consultative members, even though they are located at some geographical distance from this Southern continent.

Finally, the Arctic states are actively involved in international trade and the (globalized) world economy.

If the Arctic states really do neither recognize the world-wide, global perspective, nor want to acknowledge its value, they are not capable of evaluating the real situation in the region, and differentiating between challenges and threats. This might create obstacles to maintaining the regional stability they have already achieved, and to deepening peace within the region, or even prevent them from going further and deeper in their successful Arctic cooperation. This would be a pity, since the degree of institutionalized international cooperation already built in the Arctic is a real achievement, and has a value, *per se*, in a current world fraught by political tension, regional armed conflicts, and constant global warfare, as well as experiencing (almost) constant financial, economic and political crises.

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Inside out – the emerging geopolitics of a changing Arctic

By Charles Emmerson

Arctic politics has long been a game of insiders and outsiders – and everything in between. As with frequent flyer clubs, the gradations between different tiers of membership for Arctic insiders can be subtle. Yet the tiers are stoutly defended, and the differences of status they imply are keenly felt. Everyone wants to move up, but those with acquired privileges fear their dilution. Sometimes, the rules seem to change in mid-flight.

In the Arctic Council, the insiders are the Arctic states – Canada, Denmark (Greenland), Finland, Iceland, Norway, Russia, Sweden and the United States – and the so-called permanent participants, the representatives of indigenous populations for whom the Arctic is a homeland, and for whom the Arctic's prospective economic development is a source of potentially acute disruption, but also political influence and wealth.

Even within this core, there are differences. Denmark initiated an ad hoc group of five, the Arctic coastal states, with a separate, more exclusive Arctic meeting in Ilulissat in 2008. There are legitimate issues to discuss within this group, say the Danes, a point re-iterated in Denmark's recent Arctic strategy. Those left out, understandably, are more skeptical.

Beyond this hard core are a few states with long status as observers at the Arctic Council: Britain and Germany amongst them. Their engagement is sometimes uneven, and their interests are often ill-defined, or secondary to broader thematic foreign policy objectives. Yet they are keen to emphasize their good neighbourliness, and to establish their position.

Earlier this year, in Berlin, while German foreign minister Guido Westerwelle accepted the "natural leadership role" of the Arctic states on Arctic issues, he went on to explain that Germany stood ready to help "wherever we can". Britain, with a hint of diplomatic sophistry, has presented itself as the "Arctic's closest neighbour". Both countries have considerable and much-advertised polar science programmes. More quietly, they have economic and political interests on which the Arctic touches, directly and indirectly.

None of this is nefarious; much is obvious. Germany is a major shipping nation. There is a significant British oil and gas sector. Both Britain and Germany import gas from countries with increasingly important Arctic hinterlands: Russia and Norway.

Beyond the long-standing observers are the ambitious newcomers, and the true outsiders: the European Union, China, Japan, South Korea, even India. Increasingly, the outsiders are looking in. And with that, the Arctic states themselves face a dilemma: should they find a way to let the outsiders into the first circle of membership, thus earning political credit from large states with substantial global economic interests, locking in their support for the Arctic Council and recognizing their legitimate interest in the way the Arctic develops? Or should they close ranks, maintaining current ad hoc observers in permanent suspension?

In Nuuk earlier this year, the Arctic states opted to delay. Instead of directly acceding to more requests for permanent observer status – in which the EU, China, Japan and South Korea had all expressed an interest at different times – the Council established criteria by which to assess their candidacies. This assessment may take two years. A decision was, in effect, put off until 2013.

The European Union, which might have expected to have been nodded through given Sweden and Finland's EU

membership and Iceland's EU candidacy, failed. (Denmark is a member of the EU, but not Greenland). Rightly or wrongly, Russia and Canada were viewed as being the most resistant, along with indigenous peoples – highly influential in Canada – who view Europe's attitude towards seal products as a reflection of a paternalistic, quasi-colonial European idea of the Arctic.

Since Nuuk, some countries have been keen to emphasise their own support for different candidacies. Denmark's foreign minister and the Danish ambassador to Beijing have stated their support for China. The beginning of November found a Greenlandic trade mission doing the rounds of potential Chinese investors.

Perhaps this is a storm in a teacup. As Swedish Foreign Minister Carl Bildt put it, "at the end of the day, members are members and observers are observers". The candidates did not stalk off in a huff. Establishing criteria may be a delay tactic, but it may also be a sensible way of giving the Arctic Council balance between the rights of the sovereign Arctic states, and the interests of potential users.

But, strategically, it risks becoming a sideshow. Whatever the Arctic Council decides, the Arctic is globalising. Chinese and Indian companies have been touted as major potential investors in Arctic hydrocarbons, including in Russia's giant onshore Yamal gas development. Japan has a long-standing interest in Arctic shipping. Kogas, the Korean gas company, characterises last year's investment in a Canadian Arctic gas field – small in itself – as a "foundation to push forward in this promising frontier".

Meanwhile, think-tanks and academics in India and China are beginning to shape a different view of the Arctic. As a recent editorial in the Beijing Review put it: "It is unimaginable that non-Arctic states will remain users of Arctic shipping routes... without playing a role in the decision-making process...an end to the Arctic states' monopoly of Arctic affairs is now imperative".

Of course, the views of a single researcher hardly constitute state policy. No one is suggesting that China is about to storm the Arctic. But, over the longer-term, the challenges are real. The Arctic will have to find a way of accommodating the interests of others. If there isn't a common venue of discussion, the Arctic Council will be by-passed and engagement will be bi-lateral. The Arctic Council, newly endowed with a permanent secretariat, is well-placed to be the hub for managing some of the challenges the Arctic's increasing geopolitical and geo-economic salience will throw up. To do so, however, it will need to be outward looking much more than inward looking. One way or another, the outsiders won't be staying out very long.

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Why does the Arctic matter for the Baltic (and the Baltic States)?

By Alyson JK Bailes

Finland, Sweden and the three Baltic states have some obvious geopolitical features in common. On the one hand, Russia's behaviour and a dependable West/Russia balance are crucial for their security. On the other hand, the Baltic Sea is their only maritime outlet to the world: since Finland lost Petsamo at the end of World War Two, none of them has possessed an Arctic coastline. For Russia itself, by contrast, the frozen North provides its longest sea frontier and arguably the one of greatest long-term strategic importance. The Russians themselves see the Arctic region as the key to their long-term, sustainable and profitable energy production.

Should it be left to the European states that do stretch to the Arctic – Denmark through Greenland, Norway, and Iceland – to handle this aspect of Russian affairs and to steer the emerging Arctic agenda in general? Finland and Sweden apparently disagree. Both have raised their profile in the Arctic Council (AC), the regional organization where they participate with the other Nordics, Russia, Canada and the USA. In 2010 Finland produced its first national 'Arctic strategy', arguing for the EU to take a stronger role in that region i.e. to represent smaller states' interests. Sweden marked its takeover of the AC's two-year Presidency in May 2011 by issuing its own strategy, which supports efforts to strengthen the AC and tackle Arctic pollution, among others.

For these two countries, however, activism in the Arctic is a step-change rather than a new policy. Both have land territories above the Arctic Circle, and have belonged since 1993 to the Barents Euro-Arctic Council which promotes cooperation with Russia in the High North. Their growing focus on Arctic developments does not necessarily tell us whether they see a link with Baltic security as such. So, what might such a link consist of?

To start with 'soft' security factors: the speed of further melting in the Arctic ice will strongly affect the tempo and trend of climate change in all Europe – possibly making Northern parts colder, not warmer, if it weakens the flow of the Gulf Stream. It will open the way for oil, gas and mineral extraction from newly accessible seabeds, for new fisheries and expanded tourism – all of which might draw in other European states as investors, partners and customers. As the flow of oil and gas from the North increases, it could offer chances to diversify for EU members who currently (over-)rely on supplies from the Arab world. But as it will reach Europe from Norwegian and Russian fields, it seems unlikely to change the calculus of energy dependence for Baltic nations who already deal with those suppliers.

Europeans arguably have a more general, ethical responsibility to care for the Arctic's future, considering the Union's ambitions for leadership in climate change policy and its championship of 'effective multilateralism'. It is after all a close neighbour region, and the EU's policy statements so far insist that it should be well governed and protected, with special attention to the natural environment and the rights of indigenous peoples.

Much recent discussion on the Arctic, however, has focused on more lurid scenarios of inter-state competition and conflict. The nations bordering the Arctic have several unresolved demarcation issues, and have made overlapping claims to extend their jurisdiction by sea towards or beyond the North Pole. All, except Iceland, plan to acquire more military assets suited to icy conditions. If the worst should happen and Russia became involved in hostilities – or a bitter political or economic confrontation – over Arctic sovereignty and resources, this would be bad news for Russia's other close

neighbours. Moscow has not hesitated to exploit the nearness and exposure of the Baltic States, and also Finland and Poland, when seeking to pressurize these states and/or send signals to Europe and/or NATO as a whole.

In fact, the five Arctic claimants as well as Iceland, Finland and Sweden have pledged themselves openly and often to proceed peacefully. They are committed to respect the UN Law of the Sea Convention (although Washington has yet to ratify it) for settling maritime claims, and to cooperate for 'sustainable' resource development. In the last few years the Arctic Council has also tackled non-military security challenges of common concern, such as shipping safety, emergency response and pollution control. In May 2011 the AC's first legally binding agreement was signed, on cooperation on search and rescue.

Such friendly 'mood music' has not lulled all observers' concerns, partly because the nations concerned are not sending consistent signals. Even Canada can sound fierce over its maritime sovereignty, and has seen fit to block a common NATO policy for connected reasons. However, even if amity does prevail among the leaders of Arctic development, the European family may still face a more subtle challenge. Some Northward shift of strategic attention among all larger powers seems inevitable – France and Germany already take the issue seriously – while at the same time, continued upheavals in the Arab world will demand more activism in the South. Is there a risk that intermediate areas, like the Baltic and perhaps Black Sea, will attract less policy interest and solidarity than their unresolved issues still demand? In the worst case, could Western powers become more reluctant to stand up to Russia over these areas' concerns, for fear of upsetting a fragile but profitable entente over the Arctic bonanza?

Like most dire forecasts for the Arctic, this is surely overstated. But together with the other angles listed above, it does give reason for the Baltic nations to watch developments closely. The EU is a natural forum for them to express their interests and views, and the Union's impact will surely grow as more 'normal' economic activity spreads to Northern waters. If present efforts to coordinate the BEAC's work more closely with the Council of Baltic Sea States succeed, the Baltic States and Poland as members of the latter should gain more insight into the High Northern interface with Russia.

Baltic/Nordic meetings are another obvious channel for discussion, and those between the Nordic/Baltic eight and the USA might be most suitable of all for keeping Arctic policies under review. The USA, an Arctic power itself through Alaska, has adopted a rather moderate Arctic strategy resembling the EU's on governance and environmental issues. But the same document underlines Washington's determination to defend its legitimate security interests and principles where necessary: and hopefully that would extend to preserving stability in the Baltic sphere as well.

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International cooperation in the Arctic – 20 year anniversary

By Alf Håkon Hoel

The end of the cold war brought increased possibilities for international cooperation in the Arctic. The eight Arctic countries - Canada, Denmark (for the Faroes and Greenland) Finland, Iceland, Norway, the Russian Federation, Sweden and USA - adopted the Arctic Environmental Protection Strategy (AEPS) in 1991. The purpose of the AEPS was to strengthen the circumpolar cooperation on protection of the Arctic environment, among other things through the establishment of programs to monitor the status of the environment.

On the basis of the AEPS, the Arctic Council was established by the same eight countries in 1996.

The Arctic Council

With the establishment of the Arctic Council, more structure was imposed on the cooperation. A working group on sustainable use was added, changing the profile of the cooperation from environmental protection to also include sustainable use of the Arctic environment and the resources there.

The substance of the work in the Arctic Council is carried out in its six working groups. In addition to sustainable use, there are working groups on monitoring and assessment of the Arctic environment, on conservation of flora and fauna, protection of the marine environment, and on emergency preparedness and prevention.

Assessments

The working groups have performed a number of major assessments of various aspects of the Arctic environment and its use. The Arctic Climate Impact Assessment was a major effort to understand the impacts of climate change in the region. An oil and gas assessment has studied the situation in the region with regard to petroleum development and consequences of that. And a recent Arctic Marine Shipping Assessment has given us an overview of current shipping activities and likely future developments. Also the status of various forms of pollution has been subject to assessments.

The performance of these assessments has been important to improve our knowledge about the status of various aspects of the Arctic environment and their use for various purposes. This has perhaps been the most important outcome of the work under the Arctic Council thus far: we now know much more about the Arctic than we used to do.

Another important dimension of the cooperation is that it contributes to the development of mutual understanding of challenges relating to for example climate change and marine shipping in the Arctic. Such common understanding is a precondition for actual action to respond to such challenges. At the 2011 ministerial meeting in Nuuk, the ministers signed a treaty relating to search and rescue operation in Arctic waters. The initiative and understanding of the need for such a treaty was established through the Arctic Marine Shipping Assessment, which involved researchers and stakeholders from all Arctic countries. In the same vein, the 2011 ministerial initiated work on an Arctic oil spill agreement, which will draw on findings from the Oil and Gas Assessment.

The Arctic has become larger

Traditionally, the Arctic has been conceived of as a region with perennial permafrost and ice-covered waters. In the work of the Arctic Council, a wider understanding of what the Arctic region is has been employed, including areas well south of 60 degrees North (the latitude of Stockholm and Helsinki) in the North Pacific and the Faroe Islands in the North Atlantic. Iceland, for example, has almost its entire land territory to the south of the Arctic Circle. This larger Arctic area is about 30 million km², or almost three times the size of Europe.

The consequence of using such a wide definition is that the Arctic becomes much more interesting in economic terms: the ice-

free waters of the North Pacific and the North Atlantic are rich in natural resources. While most of the Central Arctic Ocean is ice-covered most of the year, the adjacent seas such as the Bering Sea, the waters around Iceland, the Northwest Atlantic and the Barents Sea are rich in living marine resources. Some of these seas are also important regions for petroleum development, now as well as in the future.

An international agenda

The international attention to and interest in the Arctic has increased substantially over the last few years. The spectacular reductions in sea ice cover and mass, the loss of ice from the Greenland ice-cap and the consequences for marine life and people are major drivers behind this development. Just as important are the prospects of petroleum resources in particular - the region is assumed to harbor some 30 per cent of the world's undiscovered gas reserves and about 13 per cent of the undiscovered oil. High petroleum prices over time serves to boost the interest in the Arctic as a petroleum province.

Therefore, not only the Arctic countries are looking northwards. The increasing interest in the Arctic is a global phenomenon, with China, India, South Korea and others increasing their activities in the high north.

On this backdrop, the Arctic Council has become a much more important international arena than a few years ago. An important question is whether the current format of the cooperation is well adapted to a changing Arctic where more countries are stating an interest in participating in cooperation in science, economic activities, and cultural exchange. The 2011 ministerial took several important steps to respond to the changing circumstances. A new set of guidelines for observers was adopted, opening up for the admission of additional observer countries and other entities at the next ministerial meeting in 2013. Also, it was decided to establish a permanent secretariat in Tromsø from 2013, onwards, when Canada assumes the chairmanship from the current chair, Sweden. Also, the adoption of the search and rescue agreement as well as the initiation of negotiations of a new agreement on oil spill prevention can be seen as a response by the Arctic countries to a changing situation in the high north. Also, a new, comprehensive assessment - "the Arctic Change Assessment - addressing the changes in the region in a comprehensive manner, is in the works.

The significance of the Arctic Environmental Protection Strategy

In the course of the twenty years since the adoption of the AEPS, we have seen significant leaps in our knowledge about a number of aspects of the region. Also, the knowledge is developed and communicated in an Arctic perspective, which can yield other insights than for example a national one. The second major development is the comprehensive framework for cooperation in the Arctic through the Arctic Council and its working groups. This framework has evolved over time and appears to be rising to the occasions.

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What future for Barents cooperation?

By Regis Rouge-Oikarinen

The history of cross-border cooperation (CBC) in the contemporary Barents Region (BR) covers a time span of at least 400 years and might be roughly included into three distinct stages. The time before the First World War was predominately characterized by informal bartering like the so called Pomor trade between Northwest Russia and Northern Norway or wares peddling run by roving traders between the White Sea and the Gulf of Bothnia. During this period borders were almost porous and easy to cross particularly from the technical and bureaucratic point of view. Socioeconomic and cultural interaction occurred mainly among local communities of the BR and was founded on their basic needs and common problems.

The period of the “three wars”, First and Second World War and Cold War, hampered substantially mobility and interplay among and within individuals of the entire Arctic Area. Moreover, the BR was first of all for geopolitical reasons converted into a heavily militarized zone and eventually became a place of confrontation between two competing ideologies, where the binary division between the East and the West was palpable. In this wartime stage the opportunities for CBC both at formal and informal level were virtually non-existent and only a formal trade between Finland and the Soviet Union was allowed. The BR was more than ever before divided by clearly defined, symbolised and sanctioned national boundaries and ultimately evolved into a peripheral and marginal area of Europe.

Mikhail Gorbachev's speech, held in autumn 1987 in Murmansk, marked the beginning of the current peaceful governmental and state-sponsored Arctic cooperation. Since then, the BR, in particular due to its richness in natural resources, has been increasingly incorporated into the flows and networks of the global economy. At the outset, this interstate cooperation between the eight Arctic countries was chiefly focused on environmental issues and soft security problems. However during the last three decades, it has been deepened and widened through several transnational, i.e. involving at least two countries, initiatives and actions (see table) to encompass a large range of socioeconomic sectors and activities and finally to foster sustainable development in the Region. Notwithstanding the current peaceful and prosperous period full of opportunities and new scopes for action, the BR has neither been denationalized or better regionalized nor considerably demilitarized yet. Informal cooperation is still negligible and the formal cooperation is basically ruled, decided and negotiated at national level between the nation-states, which are therefore still to be considered as the basic organizer for cross-border activities also in the circumpolar area.

Table: Transnational cross-border initiatives in the Barents Euro-Arctic Region.

Purpose	Level			
	Supranational	Between nation-states	Between regional bodies	Between local communities
Financial support	EBRD; IMF;	Bilateral CBC N-RUS & FIN-RUS; NEFCO; NIB;	EU's ENPI & Interreg;	Euro-Russia/ EU's ENPI & Interreg;
Advisory support		BEAC;	Euregio-Karelia;	
Roundtable		AC; NORDE N;CBSS; BEAC;	Euregio-Karelia; BRC;	
Policy instrument	EU & ND;	BEAR;	BRC;	Visa-free regime (Sør Varanger-Pechenga)

The table above shows the formal and transnational CBC promoting initiatives, instruments and actions, which are also or exclusively implemented over the territory covered by the Barents Euro-Arctic Region (BEAR). These initiatives are presented according to their primary purpose and operational level.

At the supranational level the money lent to Russia by the International Monetary Fund (IMF), especially during the 90's, helped to improve, albeit indirectly, the overall prerequisites for CBC. The European Bank for Reconstruction and Development (EBRD) is still investing in projects whose aim to modernize and diversify the real economy in the Russian part of the BR. The Northern Dimension (ND) of the European Union (EU) is still a potential, rather than effective, common supranational policy tool for bringing different initiatives together.

Nowadays a more concrete cooperation is promoted at the national level and between the Nordic countries. Finland and Norway have their own bilateral cooperation with Russia, while the Nordic Investment Bank (NIB) and the Nordic Environment Finance Cooperation (NEFCO) are supporting environmental and energy proposals. Nation-states are also very active in deliberating about the challenges of the North and advising the CBC through different cooperation forums like the Barents Euro-Arctic Council (BEAC) with its several working groups, the Arctic Council (AC), the Nordic Council of Ministers (NORDEN), and the Council of the Baltic Sea States (CBSS). In turn, the BEAR has proved so far to be more an intergovernmental than an interregional cooperation platform.

The CBC promoted by the EU with the ENPI and Interreg programs is unquestionably the major funding mechanism in the BR. Most of the above-mentioned policy tools and cooperation forums rely on those EU's funds and

project activities. Even though these CBC programs are at the moment still administrated and promoted by regional or cross-border regional (EuregioKarelia) bodies; their content is generally decided by national joint task forces and planned in accordance with national and international priorities. The Barents Regional Council (BRC) is taking its first steps as a regional cross-border forum. So far BRC has been suffering from a lack of credibility and for instance Russian regional governors didn't show up during the last meeting held in Kiruna on October 11th.

The "Euro-Russia" initiative is a local project of EU's ND that aims to cluster cross-border business activities into six industrial parks, most of them still under construction, located along the Finnish-Russian border. This year another remarkable political action to activate the interplay among local communities has been the establishment of a visa-free zone between the municipalities of Sør-Varanger and Pechenga.

These local and regional initiatives are as such important but altogether perhaps too little in comparison with the amount of unexploited and yet underdeveloped opportunities for CBC that the BR has to offer to its population. For instance, there are concrete and advantageous possibilities in developing synergetic relationships and liaisons within the companies of the mining, tourism, transport & logistical industries operating in the BR. Also the promotion and encouragement of the so called creative industries could provide a chance for wide-ranging and versatile CBC at grass roots level. In order to do that, much more dialogue, e.g. through roundtable discussions and seminars, between the regional and local authorities, entrepreneurs and institutions of higher education of the BR is needed.

Despite their ambitious and good intentions these transnational and formal initiatives have hitherto been unsuccessful precisely, in my opinion and maybe except for the Euregio Karelia, in stimulating transnational action and spurring interaction among internal cross-border actors of the BR. Furthermore and at the present moment between regional and local partners of the Barents euro-arctic

cooperation, there haven't been serious efforts to build a common strategy, like nation-states have for instance for the Arctic region, for enhancing, business and social networking, competitiveness and, ultimately, employment and welfare in the BR. Every region of the BEAC is, in general, following its respective national development policy. All this is most likely due to the top-down national nature, like described here, of the CBC initiatives operating in the region and secondly for geographical reasons. The wide territory of the BEAR is in fact impairing the capability to operate regionally in a functional and sensible way. Finally, there is also a political reason. Nobody seems really prepared and eager to shift power and competencies in favor of the Barents regional level. On the contrary, nation-states are again reinforcing their own position in the Arctic area.

Therefore nowadays, I see at least two scenarios facing the future of the Barents cooperation. In the first more likely one, the transnational cross-border initiatives in the BR will remain a technical tool for the practical implementation of the interstate cooperation, and if so, the BEAR will rather remain a political than develop itself into an economic or social entity. In the second more favourable one, through a strong regionalized CBC partners and local communities of the BR will be able to rediscover a common space for exchange, like in the "pre-war" time, and if so, to develop genuine relationships and spark a modern informal and diversified trade.

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New optimism in the Barents Sea

By Kristine Offerdal

On 15 September 2010, Norway and Russia signed the Treaty concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean. With the ratification process completed in the spring of 2011 and the Treaty's entering into force on 7 July, new opportunities arise for the further utilisation of the vast sea areas off the coast of Northern Norway and North-eastern Russia. The two areas most directly concerned are fisheries and the petroleum industry. In the field of fishery management, the agreement presents less of a dramatic departure, since the two countries will continue the close and highly successful cooperation that took its beginning in the midst of the Cold War. As regards petroleum resources, the situation is different. The agreement allows both Norway and Russia to open new and promising areas of for exploration and possible future exploitation. This short article will look into some of the new perspectives opened by the Norwegian-Russian agreement.

Up until now, most of the oil and gas production on the Norwegian continental shelf has taken place in the North Sea. However, despite the recent finding of the large oil field Avaldsnes/Aldous by Statoil, the region is mature, and production has been declining since the mid-2000s. Production from the Norwegian Sea has grown during the past decade and contributed to uphold Norway's position as a significant supplier of oil and gas to international markets. However, for Norway to retain this position in the longer term, significant production most likely has to come on-stream from new areas even further north, in the Barents Sea.

Until the early 1980s Norwegian authorities were reluctant to develop the Barents Sea region due to the proximity to Russia and the strategic military importance of the area during the Cold War. In the early 1980s, some licenses were awarded, but exploration results were poor, and international companies lost interest. The Barents Sea as a new petroleum province has since moved in and out of the Norwegian political debate. The region is poorly explored compared to the North Sea. Accordingly, it is in the Barents Sea that the potential to make huge findings is greatest. However, conditions such as the international oil market and large findings further south in the more established regions of the Norwegian continental shelf, in combination with poor exploration results and environmental concerns, have time and again put large scale development in the Barents Sea on hold.⁶¹ Recent events seem to have changed this impression into a revived optimism for the region.

The Norwegian-Russian Treaty was crucial for the optimism to return. The reason is that the previously disputed areas in the Barents Sea are believed to hold vast amounts of petroleum resources, particularly gas. With the disappointing exploration results in the western parts of the Barents Sea, Norwegian authorities and the industry are eager to move into the previously disputed area. In fact, Norway started seismic surveys in the area the day after

⁶¹ So far it is only the gas field Snow White, discovered in 1984 by Statoil, that has been developed. Up until this year only one other discovery in the Norwegian part of the Barents Sea was found to be commercially viable, the Goliat oil field, discovered by Agip in 2000.

the ratification of the Treaty. Surveys are expected to be concluded in fall 2013, which means that exploration drilling can start in 2014. Russia is also looking to move into the previously disputed area and has announced that seismic surveys will start in 2012. In order to develop its offshore fields, the country depends on foreign investments and technology. Russia is also expected to present a tax break package for companies developing the shelf by the end of the year.

The impression of concrete developments after many years of limited activity is supported by the expectation, by the end of the year, of an investment decision on the giant Shtokman gas field in the Russian part of the Barents Sea. Statoil representatives have earlier pointed to the need for tax benefits. When these now are in the pipeline, an investment decision finally seems likely. Whether it will be positive or negative of course remains to be seen.

In addition to all the above, optimism about the region has also been fuelled by new discoveries further west in the Barents Sea. In 2011 two promising gas fields were discovered, Skrugard and Norvarg. Statoil has described the Skrugard finding as a breakthrough in the Barents Sea and one of the most important events on the Norwegian continental shelf during the past decade.⁶²

Accordingly, political developments and new findings have moved the Barents Sea region one step further on the road to becoming Europe's new energy basin. The future of the region now seems to depend on how oil and gas companies assess factors like political framework conditions, international markets, the likelihood of making large findings and how challenging it will be to bring the resources from the far north to the markets given the lack of infrastructure. With regard to the latter, the Norwegian foreign minister Jonas Gahr Støre earlier this fall pointed to the idea of extending the existing pipeline network in the south along the Norwegian coast to connect to new fields in the north.

The question is what should come first – infrastructure or discoveries of fields. Exploration drilling or development of fields will not take place if there is no way of getting the resources to the markets (whether as LNG or by pipelines). On the other hand, it is traditionally the companies that have invested in infrastructure on the Norwegian shelf. It would break with established policy if Norwegian authorities would finance big infrastructure projects based on the expectation that large findings will be made in the region. Infrastructure development has followed a specific pattern over the decades of production on the Norwegian shelf, and it will take heavy political investments if the authorities are to change this practice.

Hence, with new political framework conditions in place it now seems to be up to the companies to move developments further. The situation may be slightly different with regard to the Russian side, where political framework conditions may be less predictable. However, the announced tax benefits for offshore development has increased the optimism also with regard to developments on the Russia side. In sum, there are still uncertainties linked to the future of the Barents Sea as a petroleum

⁶² (Barentsobserver.com 2011)

province, but optimism and the prospects for development seem greater today than ever before.

The Arctic has been awarded substantial attention in latter years, notably in terms of often-exaggerated coverage of the potential for conflict over rich resources in disputed areas. By almost any standard, the most complicated issue was the likely petroleum (and fish) rich disputed area between Russia and Norway in the Barents Sea. Its resolution, and the benefits this clearly brings both parts, not only serves as the best example of how cooperation rather than conflict characterizes Arctic affairs today, but also serves as an example for the remaining, similar unresolved question – that between the US and Canada in the Beaufort Sea.

Barentsobserver.com (2011) “Finally large Barents oil discovery”, URL: <http://barentsobserver.custompublish.com/finally-large-barents-oil-discovery.4905101-16149.html> (accessed 11 November 2011).

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Complex estimation of socio-economic development of municipalities of Murmansk Region

By Tatiana Petrovna Skufina and Sergey Vladimirovich Baranov

Abstract

The paper considers some aspects related to forming the complex estimations of socio-economic development levels of municipalities of Murmansk Region. It is provided with some appropriate methods and obtained complex estimations. Discussion of the results is heavily emphasized. It is concluded an inadmissibility of deducing problems of Murmansk Region municipalities placed above the Polar Circle to the problems of municipalities which are in Arctic zone only.

Introduction

The problems of development the Arctic territories became a very discussable issue in recent years. It is discussed by public authorities, mass media and in many scientific studies in Russia. This is an actual issue because the population rate in these territories is very low. It is impossible to examine these problems without taking an account the development of polar municipal formations of the whole region, in our case is Murmansk region. This is defined by two factors. First, the problems of Arctic settlements arise not just because of "Arctic" specification but mostly because of the results of modern governance related to Russian North. Second, governing only the Arctic territories is impossible. Administration and regional politics suppose the inevitability of examination of any object from the point of view of its internal differences as well as external special relations. In this paper we present some results of complex estimations of the development of Murmansk region obtained by means of principal component analysis (PCA) main Gini coefficient.

Indicators of the research

Complex estimation of municipalities of Murmansk region includes social, economic, ecological, and infrastructural components of development. The indicators are: 1) the total housing area per person; 2) natality and natural loss of population per 1000 people; 3) population loss due to immigration per 1000 people; 4) official number of unemployed who are capable to work; 5) average monthly nominal wage without subjects of small enterprise; 6) investments to the fixed assets per capita; 7) quantity of doctors of all professions by the end of the year per 10000 people; 8) the number of beds in the 24 hours hospitals by the end of the year per 10000 people; 9) the number of registered crimes per 10000 people; 10) emission of contaminant to the atmosphere in thousands of ton; 11) dumping of polluted wastewater without cleaning, in millions of cubic meters; 12) turnover of retail trade, 1000 rubles per person; 13) volume of payable services for citizens, 1000 rubles per person. The weights of the indicators were taken equally.

Estimation based on the PCA (table 1)

This method is giving out the opportunity to characterize the measure of differences between the subjects by the set of indicators [1].

The best positions: Murmansk (administrative center), Apatity (scientific and art center of Murmansk region),

Kirovsk (the place of extraction and remaking apatite and nepheline minerals).

Table 1. Complex estimation of socio-economic development of Murmansk region municipalities by PCA

Municipality	Year				
	2005	2006	2007	2008	2009
Murmansk	5,07	5,27	5,28	5,34	5,38
Apatity	3,32	3,13	3,12	3,48	3,49
Kirovsk	3,94	3,68	3,50	2,79	2,74
Monchegorsk	1,54	1,18	-1,40	1,30	1,69
Olenegorsk	-2,18	-1,66	-2,19	-1,54	-1,77
Polar Zori	2,62	2,61	2,54	2,61	2,91
Kovdor	-1,89	-1,70	-2,13	-2,75	-2,31
Kandalaksha	-1,57	-1,29	-2,06	-2,84	-2,28
Kolskiy	-2,02	-2,43	-2,18	-2,63	-2,26
Lovozero	-3,15	-3,02	-2,59	-2,62	-2,71
Pechenga	-3,30	-3,31	-3,69	-3,50	-3,41
Terskiy	-5,26	-5,65	-5,25	-4,80	-4,91

The worst positions demonstrate: Terskiy (the place of tourism development, national park of the North, the keeper of antiquity – countryside Varzuga), Pechenga (the place of extraction and remaking of cupronickel mineral, facing stone – pyroxenite, there are working 5 hydroelectric power plants), Lovozero (the main place of aboriginal population-Sami in Russia, the most biggest raw materials base of rare and rare-earth elements in Murmansk region, prospective place for the developing of truism).

Gini coefficient of the municipalities development indicators. Gini coefficient is varying between 0 (0%) (absolute equality) and 1 (100%) (absolute inequality).

Table 2. Gini coefficient by the indicators of complex estimations of Murmansk region.

Indicators	2005	2006	2007	2008	2009
Emission of contaminant to the atmosphere in thousands of ton	0.60	0.62	0.61	0.61	0.62
The number of registered crimes per 10000 people	0.21	0.20	0.20	0.18	0.13
Quantity of doctors of all professions by the end of the year per 10000 people	0.23	0.23	0.22	0.20	0.21
The number of beds in the 24 hours hospitals by the end of the year per 10000 people	0.12	0.12	0.11	0.13	0.13
The total housing per capita	0.05	0.05	0.06	0.06	0.06
Investments to the fixed assets per capita	0.52	0.43	0.38	0.34	0.48
Population loss due to immigration per 1000 people	0.27	0.21	0.21	0.21	0.35
Natality and natural loss of population per 1000 people	0.19	0.19	0.32	0.23	0.31
Average monthly nominal wage without subjects of small enterprise	0.11	0.12	0.13	0.12	0.12
Volume of payable services for citizens, 1,000 rubles per person.	0.22	0.21	0.20	0.20	0.20
Turnover of retail trade, 1000 rubles per person	0.14	0.14	0.13	0.14	0.20
The official number of unemployed who are capable to work	0.03	0.02	0.02	0.02	0.02
Dumping of polluted wastewater without cleaning, in millions of cubic meters	0.60	0.56	0.60	0.59	0.59

The results (table 2) show that ecological indicators and investment into the fixed assets per capita demonstrate the highest differentiation. The positive feature is that there is no significant differentiation of the average wages and the

number of officially unemployed who are capable to work. This fact proves the effectiveness of regional authorities which is working toward reduction of unemployment in problem municipalities.

Variation of turnover of retail trade per capita – 14-20%, the volume of charged services per capita – 20-22%. This is a standard rate for any region of Russia.

The social characteristic, the total housing area capita, demonstrates the minimal differentiation which can be explained by USSR inheritance. Loss of USSR inheritance is characterized by the variations of the medical care standards.

Variation of registered crimes per capita is 13-21%. Leaders of the criminal statistics are Apatity, Murmansk, and Monchegorsk.

Differentiation in the changes of population due to migration per 1000 people is significant. Especially active people loss due to population shift is in Kovdor, Terskiy, Lovozero, and Pechenga municipalities. The population drift away from the municipalities is typical not only for Murmansk region but also for the others Northern areas of Russia

The clearest indicator of problem of a region is differentiation by natality and natural loss. Dramatic diminishing of population in every 1000 people is in Terskiy and Kandalaksha municipalities.

Conclusion

It is inadmissible to diminish the problems of municipal formations of Murmansk region, located above the polar circle, to the problems of municipalities which are located in the Arctic zone. Polar Circle is an everyday reality for the population of this region, which defines people health, life interval, and peculiarity of economics. It is impossible to give up this reality. It is inevitable to solve arising problems of socio-economic development of municipal formations of Murmansk region. The solution is to return to the principles of protectionism and compensations. On regional level is to activate program methods of regulation of the most problem territories that most needed the improvement. The attitude toward the solutions of the problems of population in the Arctic zone is a typical example of an effort to diminish the problems of the North regions and polar territories.

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Climate change and the emergence of a new Arctic region

By Frank Sejersen

The Arctic takes up a critical position in discussions about climate change and it is used as the physical manifestation of rapid transformations that have global impact. Accelerating temperatures in the North not only melt sea ice and the Greenlandic ice cap with rising sea levels as a result but contribute to even higher global temperatures through the absorption of heat in the ice free sea and the melting of permafrost which releases the dangerous greenhouse gas methane. For Arctic peoples and inhabitants, the challenges are enormous and many societies are struggling with shifts in ecological zones, changes in species diversity and distribution, thawing permafrost undermining infrastructure, and coastal erosion leading to relocation of communities to mention but a few examples. The cultural and economic impacts are expected to be far-reaching and large scale. In fact, northern societies face a situation where the concept of *adaptation* may be far too vague to use as a political guiding tool for action; rather climate change will imply a total *transformation* of society. While most of the literature on climate change in the Arctic either focus on the devastating impacts of melting ice or the incredible opportunities for oil, gas and mining emerging in a setting with less ice little attention has been put on the recent political developments in the North; developments that may not only inspire but also influence other regions of the world. The complex political landscape are often hidden in the cartographical representations of the Circumpolar North, where future claims for the North pole are mapped out in a way that makes states stand out as the primary political agents. Such a representation stimulates a traditional geopolitical understanding of state confrontation and sovereignty struggles over land/sea with potential losers and winners. This view has especially been expressed by the media as the 'scramble' for the seabed or the 'great game' of international power politics as nations 'race' and 'rush' to extract an abundance of newly available resources. However, such a perspective deforms an understanding of contemporary political processes and potentials in the North. As formulated by Oran Young, renowned specialist in governance and environmental institutions: "The overall picture of transnational cooperation in the Arctic is complex; it features a mosaic of issue-specific arrangements rather than a single comprehensive and integrated regime covering an array of issues that constitute the region's policy agenda". While the five Arctic Ocean littoral states – Russia, Canada, Denmark, Norway, and the US - clearly are endowed with enormous power and responsibilities as stipulated in international law we can observe a political hybrid scene characterized by cooperation, dialogue, devolution and transnational integration. Furthermore, scientific research has taken up a significant position in the political discourse. This constant evolving political landscape in the Arctic may – despite conflicts and problems - be the decisive key to deal successfully with the challenges of climate change. In fact, the institutional and political level is too often overlooked when discussing 'adaptation to climate change'. Political changes may be as important as technological, cultural and social changes.

In the Arctic, a new *region of cooperation* is emerging where a number of new agents and interrelationships appear on the political scene and take responsibility at different scales. Indigenous peoples have increasingly been successful in having their political and land rights strengthen and as late as in 2009, Greenland achieved self-rule and the rights to the non-renewable resources. In 2011, the relationship between

Denmark, Greenland and the Faroe Islands entered a new period of cooperation where they - as *one Kingdom* - co-formulated a common Arctic Strategy (2011). According to the International Law of the Sea, claims made by Arctic states in the Arctic Ocean have to be scientifically based. This work is actually pursued in cooperation where Canada and Denmark, for example, coordinate data collection, and where the Danish scientific expedition to investigate the Lomonosov Ridge off Greenland was reliant upon the help of a Russian icebreaker. More and more coordination of Search and Rescue operations are being developed between countries and in this light increased presence of military personnel cannot be seen as an act of traditional rearmament echoing the cold war militarization in the Arctic. Indigenous peoples, having gained more political rights, establish relations to new large scale industries and through elaborate agreements secure that their communities benefit from the development activities. In the Arctic Council, an intergovernmental forum established in 1996, which could be termed the pivot point of Arctic cooperation, NGOs and non-Arctic states are granted the possibility to participate as observers. This inclusive political strategy allows other stakeholders to play a role in the development of activities in and visions for the Circumpolar North. One could argue that this region of cooperation was evoked by Gorbachov in his 1987 Murmansk speech where he attached special importance to the cooperation of the northern countries in environmental protection and demilitarization in order to create "a pole of peace", as he termed it, based on multilateral and bilateral agreements and corporation. He also suggested to "...extend joint measures for protecting the marine environment of the Baltic...to the entire oceanic and sea surface of the globe's North". A few years later, in 1991, an ambitious, yet non-legally binding, environmental protection strategy for the Arctic was established – an initiative which paved the road to the creation of the formalized political cooperation in the Arctic Council, five years later.

The North is not necessarily to be imagined as a 'region of climate disaster', 'a region of national confrontation' or a 'region of resource extraction' as often framed by the media. It can also be seen as a 'region of cooperation' where the handling of future climate related challenges and opportunities depends on an evolving and active development of political cooperation which is to constitute the framework within which ideas, priorities and visions for future societal transformations are to be negotiated and put into action.

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Arctic strategies – from an indigenous perspective

By Erik Gant

So I will put down a few words about the social impacts of industrial development in the Arctic, try to connect with local, regional, and global perspectives, do a bit of story-telling, concerning mainly my own background and context, which is to say the Kingdom of Denmark, the Arctic part of which is Greenland, and the Arctic Council. Also, the below will concern the most important driver of social impacts and industrial development in the Arctic, namely the extraction of non-renewable resources, first and foremost oil and gas.

On a press conference held on Wednesday 11 May this year, the Inuit Circumpolar Conference (ICC) issued a Declaration on Resource development. The event took place in the Katuaq Cultural Center in Nuuk, Greenland, where negotiations among the 8 state members of the Arctic Council (US, Canada, Russia, Denmark, Iceland, Norway, Sweden, and Finland) had just been completed, and where on the following day the 8 Ministers would meet to sign the Nuuk Declaration.

As for the Inuit declaration, leaders from all over the traditional lands of the Inuit took part in the presentation and signing of it. The message of the declaration is to basically support resource extraction as long as it follows ethical standards, respects sustainability principles, and benefits Inuit communities and culture.

The declaration is the pure product of a time when the search for hydrocarbons is being intensified in the waters off practically every piece of Arctic territory – Greenland, Canada, Alaska, Chukotka, Siberia, as well as the sea off northern Norway and northwest Russia. According to the US Geological Survey, 400 oil and gas deposits have been identified on Arctic territories, representing about 10 percent of the world's known hydrocarbon reserves. Yet, experts estimate that more than double that amount of oil and gas still lies undetected in the Arctic, most of it in the ocean.

It sounds like a lot, and it *is* a lot, yet, at the same time, we are speaking only of a limited amount of reserves. The world's growing demand for oil and gas means that the Arctic known and estimated oil reserves represent only about four years of global consumption whereas gas reserves will last a little longer.

Shifting back to the local perspectives: in Greenland, what the Inuit organization is supporting is not only the local Government that looks to oil and gas revenues as a means to develop and secure the welfare of Greenlandic society in the future. Its position is also very much in line with the national policy of Denmark as outlined in the new Danish Arctic Strategy for the 2011-2020 period that was released in August this year.

Denmark, the strategic document informs, has already submitted the needed documentation for laying claim on two extended continental shelf areas by the Faroe Islands, whereas, the strategy document announces, three areas – one of which covers the North Pole - off the coast of Greenland will be claimed by 2014.

At the same time, the Strategy document emphasizes that all claims will be made in full compliance with international law, and that the Kingdom will work for peaceful cooperation and resolution of conflicts over extended continental shelves.

The Danish Strategy goes over the issues of exploitation of non-renewable as well as renewable resources in similarly balanced way. On the one hand, the text is adamantly defending the rights of Arctic residents to economic development based on extraction or harvest of natural resources. On the other, it stresses that all developments must

be environmentally sustainable and live up to the highest international security standards.

Of course, industrial resource development contrasts with the issue of natural resource harvest based on traditional subsistence use and the whole question of indigenous peoples' stewardship of their ancestral lands. Traditional hunting of sea mammals is exempted from international regulations, but it has nonetheless been heavily impacted by pressure from outside interests groups. In this respect, in the perspective of the Inuit, the European Union with its ban on sealskin products has come to represent the main obstacle to maintaining traditional Inuit livelihoods.

Denmark, sovereign defender of the rights of its Inuit citizens and their culture, and at the same time a member of the EU, is walking a fine line here. According to the Danish strategy, it is vitally important that EU's involvement in the Arctic takes place on the Arctic populations' own terms: "We must seek to avoid further cases where the laws, traditions, cultures and needs of the Arctic societies are neglected, as for example in the EU's ban on the import of seal products." That's on the one hand.

On the other, the text strongly urges cooperative relations between the EU and each part of the Danish realm. It is also emphatic about EU being a legitimate Arctic stakeholder that deserves to be granted Observer status in the Arctic Council. And the same goes for the other powerful applicants for Observer status such as China. The position of Denmark is that, in order for the Arctic Council to pursue its role as *the* most important forum for Arctic issues, it must accommodate all applications and let everyone take part in its deliberations.

Let me return to the August event of the presentation of the new Danish strategy for the Arctic. On that occasion, the then Danish Foreign Minister Ms. Lene Espersen (member of the center-right cabinet that has in the meantime been replaced by a center-left one) was presented with a question from someone in the audience about enhancing the role of indigenous peoples within the Arctic Council by granting them the right, not only to full consultation as they have now in capacity of their being Permanent Participants, but also to vote in the Council. Ms. Jespersen responded that all Arctic peoples live and get to vote in democracies and get to influence decisions in that way.

Significantly, you will not hear the Permanent Participants themselves demand voting rights alongside countries within the Arctic Council. They have engaged themselves deeply in the ongoing efforts to strengthen the Arctic Council and have it, in a manner of speaking, step up into the real world. The Arctic indigenous peoples have always been part of the real world and well aware of its challenges and opportunities. They are well aware, that is, that they need to deal with those challenges and opportunities using the whole range of means available, from the environmentalist approach associated with their traditional role as land and water stewards to the right-based approaches of the marginalized and dispossessed.

Erik Gant

Executive Secretary

Arctic Council Indigenous Peoples Secretariat (IPS)



Arctic indigenous peoples and innovations

By Liisa Holmberg

Living in the Arctic area gives many opportunities to make unique art and design. Arctic indigenous peoples cross-border cooperation is essential when the creativity and innovation wanted to be increased. Such cooperation focuses on how to create new innovations, products and services by combining the traditional knowledge, skills, livelihoods, craft and culture of indigenous peoples with modern technology, design and media.

In the field of Sámi craft, an example of this would be our Arctic Design concept under which we combine traditional handicraft with modern design. At the Sámi Education Institute, we teach traditional Sámi craft in many forms. We provide training both in hard materials – that is, in making knives, wooden cups and horn and silver jewellery – and in soft materials – for example traditional sewing, weaving (with the reed-like loom of the Sámi), knotting the scarf fringe, and sewing reindeer fur boots and reindeer leather products. In addition to this, we also want to motivate our students to mix traditional pieces of craft and craft materials in a fresh and innovative way with new materials, so that we get new design products. Believing in themselves, some of our students have participated in design competitions and done well in them. For example, a collection of pendants and earrings in which traditional Sámi design was mixed with silver and birch root won recently a national design competition in Finland.

Another example is our intention to develop reindeer skin processing so that it would be more profitable for craftspeople to make products from reindeer leather. With modern technology, it is possible to dress reindeer skins and turn them into leather quickly and in an ecologically sustainable way. This enables us to prepare, for example, larger numbers of reindeer leather products, such as bags, clothes and garments, which will combine traditional craft with today's design. In recent years, our school has greatly invested in the planning of products made from reindeer leather. We have had several international workshops together with handcrafters from Kola peninsula, Nenets, Taimyr and Saha-Yakutia. In this way, we have wanted to find fresh ideas about how to use Arctic raw materials, such as reindeer skins, bones and antlers, in a new way.

The cinema and media products are another art form in which the indigenous peoples of the Arctic can pull together both in the sphere of film education and film distribution and marketing. At the Sámi Education Institute, we have provided training for Sámi professionals in media as long as from 1998 on. For young Sámi, training in media gives an opportunity to be active and live in their home villages but still work internationally. Films and the media industry provide them with work and income. In addition to this, media art can easily be combined with traditional sources of livelihood, such as reindeer herding. In the Sámi area, there are already a few extremely talented photographers who are also reindeer herders. Young women, too, have

become interested in the possibilities provided by the cinema and music.

Skábmagovat, an indigenous film festival that is held annually in Inari, provides Sámi and indigenous filmmakers with an international forum for showing, distributing and promoting their films. Every year, representatives of the international press, TV professionals and festival leaders from all around the world are invited to visit the festival. This has made it possible to spread Sámi and other indigenous films and information around the world.

In our film and media training, we have emphasized that it is important to give the voice and the picture to indigenous young people, so that they can make films and music from their own starting point.

Indigenous cooperation is facilitated by the active use of distant learning and virtual teaching. Modern technology makes it possible to provide teaching for a student who lives on the other side of the world. In the Sámi area, we have made use of this technology in teaching the Sámi language. A majority of the Sámi young live outside the Sámi area, which means that they are not provided teaching in their native language at school. At present, our virtual courses are attended by students from all around the world.

In Arctic cooperation, virtual education gives us a good opportunity for teaching for example screenwriting in the field of media centrally, from one place. This means that we could create a unique circle of indigenous screenwriters, which could become the initial impetus for common indigenous film productions in the Arctic. Such films are films that international film festivals and TV companies are interested in. This would make it possible to spread information on indigenous issues throughout the world, and it would also bring new opportunities for indigenous young people to work in their home regions.

We, the indigenous peoples of the Arctic, are united by our unique people, cultures and nature. To us, working together comes naturally. Modern technology gives us an excellent opportunity to intensify and strengthen our cooperation in the entire indigenous region from Sápmi via Yakutia and Chukotka to Alaska, Canada and Greenland.

Liisa Holmberg

Rector

Sámi Education Institute

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What future awaits indigenous peoples in Russia?

By Tamara Semenova

The last century witnessed social movements that have challenged the existing world order. Primarily, they emerged as movements of peace building and liberation, then as environmental consciousness and finally, as anti-global economic resistance. Most of these movements and their organizational parts represent indigenous peoples on both the social group level and collectively. Indigenous peoples' organizations were able to build solidarity with each other on the basis of recognition of universal human rights, environmental concerns and the detrimental inequality of the global economic system. Through a large variety of their organizations and new ways of communication, indigenous peoples struggle for the survival of their ethnic identities, cultural, social and economic traditions and through alliances they participate in an anti-globalization movement. Russian indigenous peoples and their organizations have only recently become engaged in these processes, but since the 1990s they are becoming more and more active and professional due to capacity building projects and assistance from their sister organizations around the world.

Though the term "indigenous" should be accepted as inherently troublesome and fluid in the political sense, in the USSR it was introduced in 1927 in combination with another term – "numerically small people" to distinguish these groups from the many ethnic minorities living among the dominant Russian population. The aspirations of the Soviet state to "elevate" indigenous peoples along with other nations "from primitive social structure and feudalism directly to communism" ended only with the perestroika and collapse of the USSR. Nonetheless, when summarizing the final effect of these efforts by a socialist state, it is important to stress that in general, primordial identity and traditional way of life including economic organizations of indigenous peoples and minorities have been well preserved in contrast to the extensive cultural assimilation and significant loss of native language communication skills. This was the main reason why the Russian indigenous peoples witnessing the rapid assault of the capitalist economy into their lives became very quickly and effectively mobilized to resist the post-Soviet economic transformations. However, their social and cultural resistance has been delayed and only now starts to be institutionalized. It should also be noted that the indigenous leaders in Russia very skillfully used the rather narrow "window of opportunity" of the political situation in 1990s for introduction of the essential legal instruments via adopting three fundamental laws: on guarantees of the indigenous peoples' rights, establishment of indigenous communities and protection of the traditional land use areas. Unfortunately, the enforcement of these laws was not only trapped by the executive governmental bodies, but at a later stage, completely intercepted by the new system of state law. This is no surprise, as the capitalist system tends to be more restrictive for both cultural and political forms of autonomy over different societies, and not least over indigenous peoples.

These phenomena confirm an essential understanding that indigenous peoples by their way of life (collective labour and distribution, collective land ownership and tenure) represent an alternative to capitalist accumulation which, though economically effective in the short-run, is

destructive in the long-run. The most fundamental challenge to capitalism comes from communal ownership of resources, because it disavows the legitimacy of private property rights. Indigenous economy is based on the collective ownership of land and natural resources; this is in dramatic contradiction with the re-introduced market economy operating with privately owned commodities. In Russia nowadays there is even a return to the old tsarist-time economy with commuting traders and private and state-owned resource extracting companies in the remote and isolated regions where indigenous peoples tend to reside. This is in striking contrast to the proclaimed economic modernization of the state and efforts to raise interest in nation-building processes. These processes evoke much stronger attempts at assimilation of incorporated groups which in turn spurs their enhanced resistance to overwhelming economic and social changes.

Any indigenous community that continues to exist today in Russia is changing, and the very concept and especially the practice of indigenousness is under constant transformation. A most vivid example of this process is that while the initial number of indigenous groups recognized by the state was 26, since 1990 the number of indigenous peoples and their formal organizations increased to 40 and continues to grow. Naturally, the question arises how they are able not only to survive but to increase in number? First, indigenous peoples do not challenge the existing system in an attempt to replace or fight it, rather they seek to find a conventional niche within it. Second, they are relatively small—demographically, politically, economically. Third, their survival depends on their degree of autonomy or sovereignty, and this is now diminishing in Russia, though the situation with the anti-globalist movement in general and of the world indigenous movement in particular forces new political relationships more advantageous to indigenous peoples.

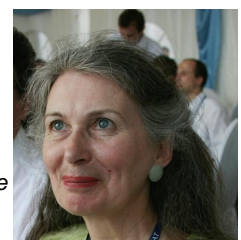
Indigenous peoples have long recognized and adopted what the environmental movement is striving to force world society to accept: natural and cultural resources are public goods that are to be used in a sustainable way and with the appropriate ethical considerations. Through various forms of organization they have withstood natural and cultural changes in the world and subsequent ignorance, violence or hostility of the neighbouring states already for several millennia at least. Hence, this fact would suggest not only the survival of indigenous peoples, but also their further resistance and better adaptation to the globalized world. Instead of intra-systemic adaptations, indigenous peoples could present the widest range of alternatives, thus launching a search for a more congruent trajectory of development.

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Resource management in the North

By Stefan Walter

It can be somewhat difficult to write about the future from the point of view of system theory. This is because the future has not happened yet and cannot actually be predicted with any accuracy either. The future is contingent and options are exchangeable. Any scientific model, which attempts to provide a forecast does not anticipate the future but is only a reflection of the present. In system theory everything that exists, exists in present time and from there models of the past and the future are constructed.

The political system, for example, which may be considered responsible for planning and governance, is only possible because nobody knows what the future holds. Hence, politics enables exchangeable policy programmes. These programmes are as diverse as their possible consequences. This may be seen by some as representing a pessimistic outlook. On the other hand, changes leave room for surprise and interpretation, which is indispensable for the indeterminacy and contingency of the future. Having said that, an open future is also the basis for the relative freedom of humans.

However, fortunately, reference to evolutionary theory can give us a hint of a developing society. The idea of evolution having a direction has been compared to a rock falling down a mountain. We cannot foretell the details of how the exact path of the rock is evolving. There could be any kind of obstacles, which change the path horizontally. But it seems sure that the path of the rock continues vertically downward.

Resource management from a systems perspective follows such a path, which I call the trinity-model of complexity, control and evolution. The essence of a continuing, a sustainable development is to make use of social systems, which provide different functions or resources, such as power (politics), truth (science), legality (law), and the dispositive capacity over time (economy), using exchange media like money. Using those resources the complexity of any given social setting can be somewhat controlled. Remarkably, the changes that occur in and around social systems in time increase complexity, making the sustainability of the resource management path imperative. Thus, the resource management path forms a recurring cycle.

To understand the resource management model better it can be applied to a more practical setting where its elements can be translated, for example, into economic activities of market observation (observing the complex setting), investment (to steer) and innovation (to evolve). The northern economy has traditionally been characterised by large scale raw material exploitation, such as forestry, mining, oil and gas developments, also fisheries. More recently tourism has, at least in some parts of the North, gained an important momentum. Forestry, for example, is an industry that has particularly in Finland managed to sustain the mentioned resource management path very well. The industry has done so by observing the market and continuously investing and innovating, becoming a world leader in the research and development of forestry products.

If the industry wants to continue its success, it is likely to sustain those activities of observing, investing and

innovating. Some factors may affect the industry's resource management path, such as scientific (e.g. climate change) or political inputs (e.g. nature conservation issues). Geopolitical developments may also shift the attention to other industries, recently in particular on the exploitation for oil and gas in the Arctic, prompting increasing investments there. Nature conservation probably leads to a growth in tourism.

Overall, the competitive advantage of the Finnish forestry industry is diminishing, for instance vis-à-vis the Russian forestry industry. This makes it seemingly inevitable to react to the changes in the demand for forestry products in order to sustain the prescribed management path. Responses to these challenges include the reduction of overcapacities; we already have witnessed the shutdown of several production facilities that were regarded as unnecessary by the industry in Finland. This particular concerned sectors, which face greater competition, including sawmills and pulp and paper production. These are either shut down or move away through investments abroad. New focus sectors emerge in the forestry industry, which are, for example, information and biotechnology based.

It is important to note that the growing complexity in society appears to demand ever shorter cycles of fresh investments and innovation. At the same time the resource management path has gone side by side with increases in energy efficiency. So far this had led to growing energy consumption, also in the North. From a physical point of view this indicates nothing else but an acceleration of energy conversion, i.e. an accelerated physical change. Energy should be understood here in a more abstract, physical sense, where energy and matter are exchangeable, i.e. not only, for example, sources of electricity or fuel. Consequently, while we may be able to control concrete raw materials, such as forests or mined ores, by introducing rules how they ought to be used, taken care, conserved or exploited etc., we are unable to control the use of energy per se.

The accelerating changes, which we are observing, are mere regional adaptations, the Northern peculiarities so to speak, to wider changes. That said, societal evolution, also in the North, is coinciding with global change. Therefore, if the resource management path is sustained, it can be expected that energy efficiency continues to increase in the North, allowing a growth of energy consumption. This is after all the foundation for growing wealth.

Stefan Walter

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Arctic shipping – the ships will come, but not for transit

By Frédéric Lasserre

The Arctic sea ice is melting fast, as climatologists have ascertained. The phenomenon, gradually opening navigable channels in the summer, revived scenarios of Arctic maritime highways between the Atlantic and the Pacific oceans. Using these seaways, ships would save time and money. However, the potential development of shipping activities underlines the need for regulation: the risks, according to Russia and Canada, justify the implementation of a strict monitoring, which the United States and the European Union do not seem to favor. In September 2010, the grounding of an oil tanker in the Canadian Arctic and of another one in Siberia, underlined the environmental risks stemming from expanding shipping in the region.

Most declarations about Arctic shipping rests on a hypothesis: the shorter route will necessarily attract shipowners' interest. However, there is motive to question this assertion.

Lower transit costs?

Several studies (the author counted 8 between 2006 and 2011) have been carried out to determine the cost advantage of Arctic routes. These scenarios do hint at a possible advantage, but, contrary to a commonplace idea, they also underline that this small advantage remains very uncertain given the high investment cost, the special equipment needed for Arctic shipping, the variability of the ice and insurance costs. Besides, these cost analyses, by definition, do not integrate marketing and service structure issues.

Getting to know the shipping companies' position

A survey carried by the author with 142 shipping firms shows a far different picture from the cliché of the coming shipping highway. The market positioning, the operational constraints and the very nature of the service are also determining factors in the choice of an itinerary. Firms were invited to answer the following questions: "Are you considering developing operations in the Arctic? Why?" A total of 98 answers were compiled.

Table 1. Overview of responses according to company's home region and main sector of activity

	Sector of Activity						Total
	Container	RoRo	Container and Bulk	Bulk	General Cargo	Special Project	
Yes			2	9	5	1	17
No	35	2	5	25	4		71
Maybe	3		1	6			10
Total	38	2	8	40	9	1	98

	Home Region			Total
	Europe	Asia	North America	
Yes	10		7	17
No	32	25	14	71
Maybe	5	3	2	10
Total	47	28	23	98

Source : author's own survey, 2008-2010.

In the bulk sector, responses were generally negative, although six companies were undecided and nine said they were interested. In the mixed container and bulk sector, responses were also negative: five "no" responses against two "yes". In the roll-on roll-off and container segments, however, there was no ambiguity: the response was a resounding no.

No enthusiasm for Arctic transit

The business reasoning developed by shipping firms revolved around three points.

The first is financial. The argument of a cost-competitive transit potential through Arctic routes does not seem to convince shipping firms, contrary to images widely broadcast by the media. Arctic shipping is known to be costly: expensive investment in ice-strengthened hull; special equipment to cope with the cold; high insurance premiums given the risk associated with these waters. The scarcity of port facilities and navigation aids, especially on the Canadian side; the inaccuracy of nautical charts, isolation, and the drifting growlers and small icebergs, which are very difficult to detect, force ships to greatly reduce their speed as the possibility of encountering such blocks of ice increase.

As ice-strengthened ships are more costly to operate (they are heavier and less hydrodynamic), using them in warmer waters is financially inefficient. For the cost of a major investment to be fully written off, such as a more expensive to build and operate ice strengthened ship, the ship must be used in Arctic waters, otherwise there would be little or no hope of a return on the investment. However, the bulk market operates on spot contracts (tramp) rather than regular liner shipping, and regular services (shuttle tankers) are the exception; besides, the ship owner is not the only actor in defining the itinerary. Before getting involved in the Arctic niche market, several ship owners would like to have a bit of a financial guarantee - in other words, that they would be able to find shuttle contracts or enough cargo to ship in Arctic waters for a number of years, which is not easy to achieve due to the way this market operates. This kind of long-term relationship can be seen between Fednav and Baffinland Iron Mines in the iron mining Mary River Project.

The second is logistics. The container shipping industry—like the car shipping industry, which uses roll-on/roll off ships—operates in a just-in-time mode, and this operational constraint is being reinforced as shipping operations are more and more integrated in a broader logistics chain. This industry is therefore not driven by the transport cost per TEU alone, but by other factors such as transit time, marketing advantages of faster delivery, but also the reliability of delivery schedules and the value of markets along the way. Container shipping firms do not merely sell the shipping of goods, but also guarantee on-time delivery according to a fixed schedule. Drifting ice, an increasing number of icebergs and thick fog banks, however, make it difficult to meet these tight schedules. Drifting ice can temporarily block some straits, making them very tricky to navigate, which could cause delays in delivery or perhaps even force the ship to turn around and transit by the Panama Canal, resulting in disastrous delays both in terms of financial penalties and reduced credibility.

The ice will reform every winter under polar conditions, which include severe cold, total darkness (the polar night) and complete isolation. Therefore, potential transit routes will not operate during winter, which means that ship owners will have to change their schedules twice a year, a situation that not only is costly but also increases the risk of errors, and hence of delays as well. Accurately predicting freeze-up and breakup is

still very difficult. Since schedules are fixed several weeks in advance, there is a risk of launching summer routes before some straits are ice-free or, inversely, of missing a number of days when navigation is possible.

The third point is about markets. Along Arctic routes, there are no intermediate markets (stopovers) for containers and no port adequately equipped to receive the containers to be unloaded/offloaded at potential rotations, which reduces the commercial interest of these routes for transit, compared with the multiple loading/unloading opportunities along traditional routes such as Suez or Panama. However, local, destination shipping services, whether involving the delivery of goods to local communities or the servicing of local resource exploitation operations, prompted a significantly higher number of businesses to express a real interest in Arctic shipping. Natural resource exploration and exploitation is experiencing a boom cycle, both with the prospect of declining ice cover and increasing world market prices. Although the size of the reserves should not be overestimated, nor the technical difficulties to exploit them be minimized, the interest of mining and oil firms for the area is certain. Their production will need to be shipped to final markets and their mines serviced. There seems to be a real potential for destination short sea shipping in the Arctic. The local shipping services market, particularly the servicing of mining and oil and gas operations, seems promising and it is clearly this market niche that is attracting shipowners who have made up their mind about the Arctic market. This can already be witnessed along the Northeast Passage, where traffic is increasing with tankers or bulk ships transporting oil, gas or ore from Murmansk, Varandey, Kirkenes or Dikson to final markets.

Current sea shipping traffic confirms the analysis

The picture obtained from shipowners also appears to be confirmed by the recent increase in marine traffic in the Northwest Passage. In the Northeast Passage (Northern Sea Route), traffic is expanding significantly, especially on the western stretch between Murmansk and Dikson, where it consists mainly of ore carriers and tankers serving the European Arctic and Siberian mines and the Varandey oil terminal. Traffic is also recovering on the eastern part of the Northeast Passage, with ice-strengthened ships beginning to carry crude oil or iron ore to Asia from Kirkenes, Murmansk or the Kara Sea. However, it is difficult to obtain access to Russian statistics on this subject. The Canadian Coast Guard collects traffic statistics on the Northwest Passage.

Table 2. Total traffic in the Canadian Arctic: number of voyages

	2005	2006	2007	2008	2009	2010	%, 2010	2011 (15 sept.)	Variation 2005-2010
Ships in the Canadian Arctic (number of voyages)	194	196	320	379	311	493		511	+ 154%
Fishing ships	30	33	76	113	83	221	44,8	275	+ 817 %
General cargo	31	31	57	53	46	71	14,4	42	+ 35%
Bulk (liquid or solid)	88	74	127	147	136	148	30	131	+ 49%
Cruise ships	21	27	33	33	25	26	5,3	13	+ 23 %

Source : adapted from Nordreg Canada (Iqaluit)

Table 3. Transit traffic across the Northwest Passage

Vessel type	2005	2006	2007	2008	2009	2010	2011 (15 sept.)
Icebreaker	2	2	2	1	2	2	2
Cruise ship or tourist icebreaker	2	2	3	2	3	4	2
<i>Cruise ship or tourist icebreaker, partial transit</i>						2	2
Pleasure craft			2	7	10	12	13
Tug		1			2	1	
Commercial ship				1			
<i>Commercial ship, partial transit (local service)</i>				2	1	4	7
Research vessel	3	1		1			1 (partial)
Total complete transit	7	6	7	12	17	19	17
Total partial transit				2	1	6	10

Source : adapted from Nordreg Canada (Iqaluit)

The following conclusions can be drawn from these figures:

- Navigation in the Canadian Arctic has increased, but remains essentially destination rather than transit traffic.
- Especially since 2006, there has been a general upsurge in total traffic in the Canadian Arctic, which reflects an increase not only in fishing activities and tourism, but also in commercial shipping, consisting of service to local communities and natural resource exploitation operations.
- Although there has been a real increase in transit traffic through the Northwest Passage, such traffic is still at a very low level: 19 complete transits in 2010, none of which were commercial. In contrast, Panama sees 13 000 transits in 2008, Malacca, 70 700 transits in 2007 and the Suez Canal, 21 000 in 2008.

Although marine traffic in the Russian or Canadian Arctic seems to be definitely on the rise, this is far from being an explosion and most of these voyages are destination, resource-driven. Arctic passages will not become the new Panama of the 21st century.

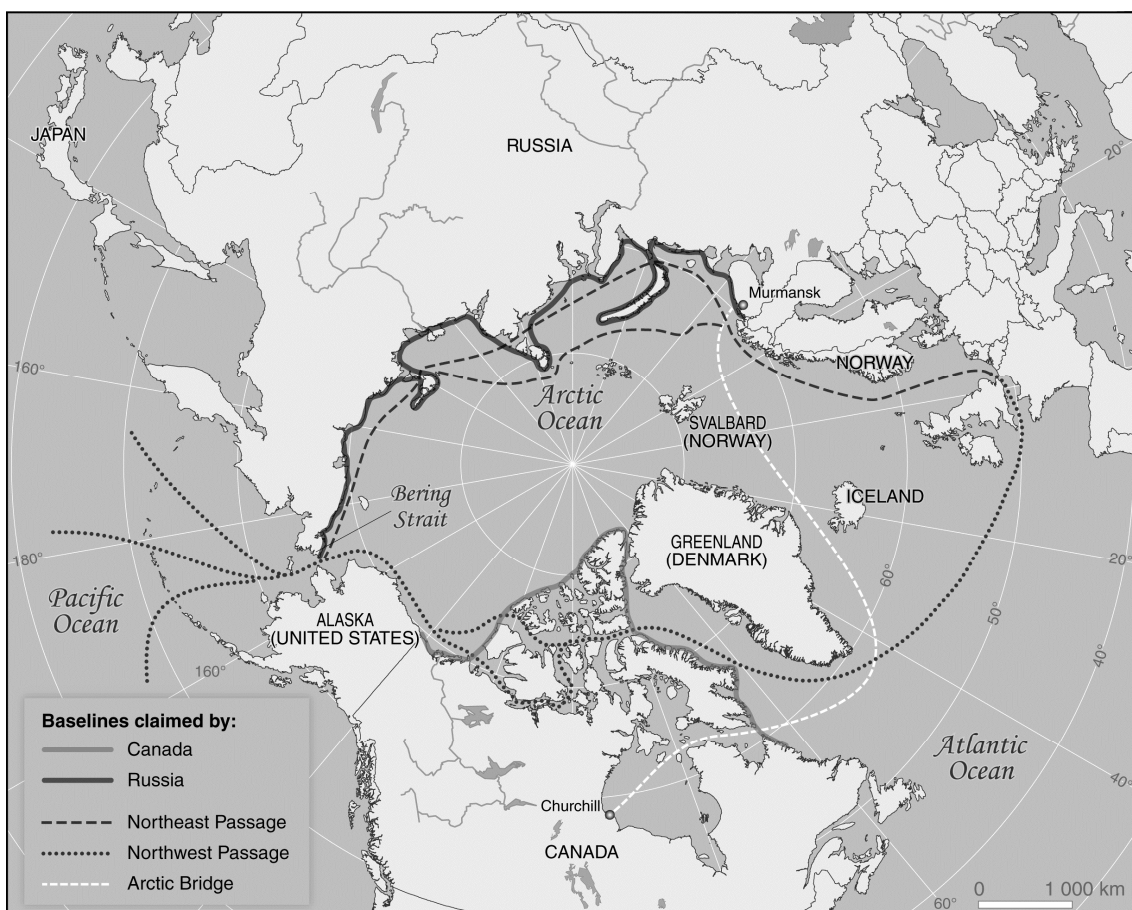
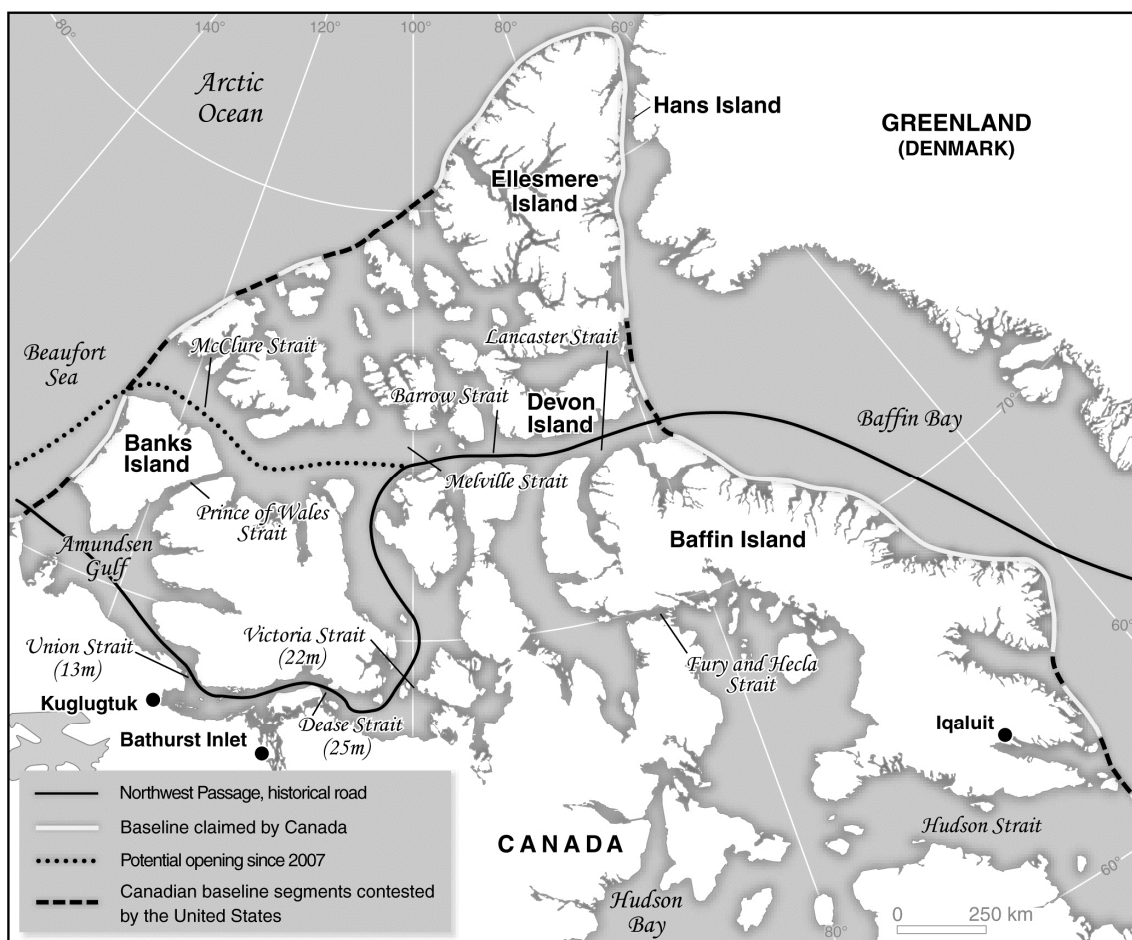
Frédéric Lasserre

Project Director

ArcticNet

Laval University

Canada



Strong Arctic marine expertise from Finland

By Tero Vauraste

The combination of shipbuilding, vessel design and operations in ice areas is unique.

The future of the Arctic region is impacted by complex mechanisms and various, to some extent conflicting, interests¹. This article examines the topic from the perspective of ships and traffic, as well as oil and ice.

A significant part of world's untapped fossil energy reserves are located in the Arctic region. In recent years, the average coverage area of Arctic sea ice has shrunk by several dozen per cent. At the same time, the proportion of the toughest perennial ice has dramatically declined. From this follows a pattern where global warming, mostly resulting from fossil fuel emissions, opens up the race for commercial utilisation of natural resources and sea routes in the Arctic areas.

In response to challenges identified regarding safe operation in the region, the Arctic Council has established Task Forces on Search and Rescue and Oil Spill Preparedness and Response. In the coming years, a consortium of international oil companies will invest substantial sums of money in the development of safe operating methods in the Arctic region through joint projects.

Finland's strategy for the Arctic region defines one of its objectives as "to make better use of Finnish experience of winter shipping and Arctic technology in Arctic sea transport and shipbuilding."

As the means to achieve this objective, Finland boasts the world's leading package of expertise in ship design and building, operating vessels in icy conditions, icebreaking and ice management, oil spill response expertise and a strong offshore cluster, from planning to execution. In addition, Finland has top-class meteorological expertise.

Arctic marine operations can be roughly divided into research activities, marine construction, transport and their supporting functions. Safe operation requires a reliable and well-functioning operational messaging and management system. Due to the harsh conditions and long distances, population in the region is scarce and there is no industrial infrastructure. As there are hardly any management systems for marine operations, they need to be separately created for each function or project. The Vessel Traffic Service system for the Baltic Sea region, as well as other proactive notification systems with ice forecasting, can also be applied to the Arctic region, as their functionality has been tested in the Baltic Sea winter conditions. With the help of the system, vessels can be directed along safe routes in terms of weather and ice conditions. Furthermore, the progress of a voyage or a project can be monitored in real time.

Finnish companies are able to provide a full service package for the planning, construction and production required in the utilisation of Arctic natural resources.

¹ In his book "After the Ice: Life, Death and Geopolitics in the New Arctic", Alun Anderson examines the Arctic from the perspective of people, ice, borders, oil and ships. Finland's strategy for the Arctic region was completed in the summer of 2010, with a focus on the fragile Arctic nature, economic activities and know-how, transport and infrastructure, indigenous peoples, Arctic policy tools and the EU and the Arctic region.

Situated in Helsinki, the top-class test laboratory for ice conditions complements the strong Finnish offshore cluster.

With a history of one hundred years, Finnish expertise in the field of icebreaking and operation has grown strong over time. There are around one hundred vessels in the world used for icebreaking, with approximately sixty of them having been built in Finland. Finland was a natural ground for building solid operational expertise, as over 80 per cent of Finland's foreign trade is conducted by sea, and the Baltic Sea freezes every winter. The first Finnish icebreaker on the Baltic Sea started operating some 110 years ago. Currently, Finnish icebreakers are operated by Arctia Shipping Oy, which owns eight icebreakers. These vessels are managed, operated and monitored by Finns and they were designed and built in Finland. In addition to the Baltic Sea, they have operated in the Arctic areas, for instance in the waters of Alaska, Greenland and Spitsbergen. Some of them are also equipped with a large-capacity oil spill response system.

In the Baltic Sea region, icebreaking capacity is required only for a period of time ranging from a few weeks to a couple of months each year during the winter season in the Northern hemisphere. Operations in the Arctic region become active during the summer months, when icebreaking capacity is not needed in the Baltic Sea. Already in their current form, icebreakers can be used in versatile ice management tasks. In addition, multi-purpose vessels are suitable for several other tasks supporting marine operations.

Nature in the Arctic region is particularly vulnerable. Every possible measure must be taken to prevent oil or other disasters from occurring. Such measures include especially good advance planning and timely operational management, but an action plan in case of a disaster is also a part of professional risk management. It is possible to equip icebreakers with oil spill response readiness at an affordable cost. They are thus immediately ready to operate in case of spills, if they are already in the area.

As described above, Finland provides a unique service package for the utilisation of natural resources in the Arctic Sea region and the promotion of safe marine traffic and sustainable development.

Tero Vauraste

CEO

Arctia Shipping

Finland



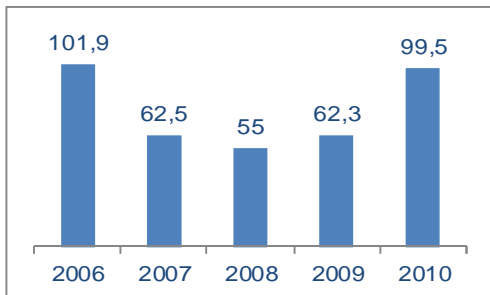
Identifying challenges of Finnish companies in entering the Murmansk region

By Eini Laaksonen

Largely due to the climate change and the melting of Arctic permafrost, the natural resources and sea routes in the High North are becoming increasingly accessible. As a result, the economic activity to exploit these resources is increasing, and the short-term investment plans for the Barents Sea region, for instance, exceed EUR 100 billion. In addition to Russia, Norway, Sweden, and Finland, for example the USA, Canada and China have expressed interests towards this area. In the Russian North this development creates opportunities not only for Russian but also for foreign businesses. For instance, the development of hydrocarbon resources, marine industry and the surrounding general infrastructure attracts and requires foreign investments into the Murmansk region.

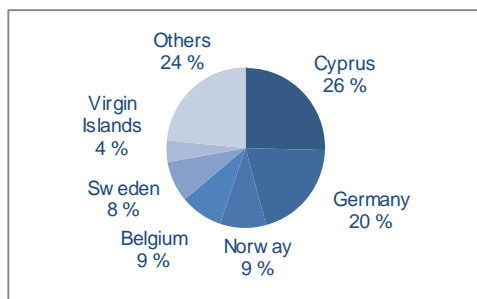
As can be seen in Figure 1, the inflow of foreign direct investments (FDI) to the Murmansk region is, after the crisis of 2008, again reaching a billion USD per year (MurmanskStat 2011). When it comes to the division of FDI to the Murmansk region by the country of origin, Figure 2 shows that one quarter of the total accumulated FDI in 2006–2010 came from Cyprus, and the second largest share, 20%, from Germany. Those countries are followed by Norway (9%), Belgium (9%), Sweden (8%), and the Virgin Islands (4%). (Murmansk Stat 2011, author's calculations) Consequently, Norway, Belgium and Sweden are actively participating in the region's development, whereas investments from the neighbouring Finland have been rather modest. In 2004, the share of Finnish investments reached approximately 10 % of the total foreign investments, but since then, the share of Finland has not exceeded 1 % (Didyk et al. 2009, MurmanskStat 2011).

Figure 1. FDI inflow to Murmansk region (million USD)



Source: MurmanskStat 2011

Figure 2. Total FDI by countries in 2006–2010

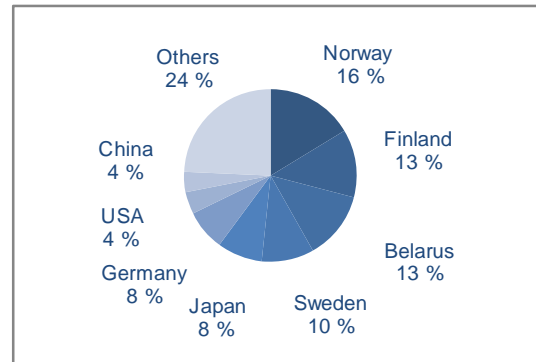


Source: MurmanskStat 2011

However, in terms of international trade, Finland has a noticeable position in the Murmansk region's market. Figures 3 and 4 show the development of the share of Finnish imports –

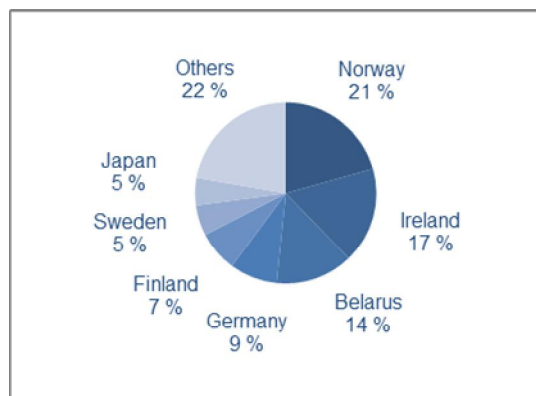
in 2006, Finland was the second largest importer of goods to the Murmansk region with the share of 13%, but in 2010, Finland had fallen to the fifth place with the share half of the level of 2006.

Figure 3. Imports of goods to Murmansk in 2006



Source: MurmanskStat 2011

Figure 4. Imports of goods to Murmansk in 2010



Source: MurmanskStat 2011

At the same time, however, the absolute value of total imports to Murmansk has grown from USD 166 million in 2006 to USD 239 million in 2010, and consequently, the Finnish imports to the Murmansk region have not necessarily decreased, but other countries, such as Norway, Ireland, Belarus and Germany, have increased their trade with Murmansk in relation to Finland.

It has been widely recognised (e.g. Didyk et al. 2009, BSFE 2009, Siuruainen 2010) that Finnish companies have participated rather modestly in the current development of the Murmansk region, despite the geographic location and the project opportunities in which Finnish companies, also small ones, might have expertise to offer. It seems that contacts at the state, municipal and NGO level and joint projects in education, science and culture have developed well, but business cooperation with Finnish companies has been minimal. This is due to the economic crises of 1990 and 2008, and also because St. Petersburg, the Leningrad region and Karelia are often seen to be more attractive for FDI than Murmansk (Didyk et al. 2009).

At the moment, several large-scale projects are indeed taking place in the Murmansk region. For instance, Gazprom, French Total and Norwegian Statoil are together developing

the giant Shtokman gas field. Developing Murmansk into the transportation hub is a part of Russia's transport strategy, and will require huge investments, particularly to the development of the port of Murmansk and to the related services. The renovation of the electricity transmission network, construction of the road network, and house building are also among the most investment intensive sectors of the economy in the near future. Finnish companies are not likely to have significant possibilities to participate in the core operations of these megaprojects, but the related subcontracting would provide lots of business opportunities for Finnish SMEs. Based on the statements in the Barents strategy for the advancement of Finnish enterprise in the Russian Barents region (2009), Finland's Strategy for the Arctic Region (2010), the report by Siuruainen (2010), and on the diversity of the on-going research projects in the Murmansk region, such potential fields of economy include the following:

- Mining industry
- Forest industry
- Metal refinement industry
- Energy industry, heat and electricity production
- Shipbuilding, port development, navigation infrastructure
- Environmental technology, waste treatment
- General infrastructure, transportation logistics and public services
- House building
- Information and communications technology
- Tourism services

Fortunately, there are some Finnish companies that have recognized these opportunities and managed to engage in the economic development of the Murmansk region. Examples of Finnish companies operating in the Murmansk region include **Aker Arctic Technology Inc** (engaged in design and testing of icebreakers and other ice-going vessels as well as structures for arctic oil and gas field operations), **Oy SteelDone Group Ltd** (provides steel structures for oil rigs in the Shtokman gas field), and **Lemcon Networks Ltd** (involved in road construction projects, member of Lemminkäinen Group). However, the number of Finnish success stories is, unfortunately, rather modest in relation to the potential and proximity of the Murmansk region.

During the past five years, most of the empirical studies concerning business experiences of western companies in the Russian North have been conducted from the perspective of Norwegian companies (see e.g. Shevtsova 2006, Nilsen 2007, Grinblat and Volkova 2007, Flatøy and Johansen 2007, Laaksonen 2010, Alteren 2011, Svishchev 2011). Based on the activity of Norwegian companies in the Murmansk region, they have the demanded products and services, they recognize the emerging business opportunities, they have trustworthy contacts to get into the business negotiations, and they have suitable business strategies as well as knowledge of the Russian culture and language to succeed in these negotiations. Despite experienced problems, several Norwegian companies have managed to meet the needs of Russian buyers.

Consequently, even though Norwegian newspapers often discuss the problems and failures of Norwegian companies in the Murmansk business environment, it must be noted that the situation is better in Norway than in Finland as in Finland media does not have much to report on even concerning unsuccessful business experiences in Murmansk. Risk-taking, long-term presence and patience are required when planning to enter the Russian market. Based on the existing literature, it can be stated that the lack of business interest and/or success of Finnish companies in the Murmansk region is mainly due to the following issues:

- Lack of information about investment opportunities in the Murmansk region
- Lack of needed networks and contacts in Russia
- Absence of strong and competitive clusters to support market entry
- Bureaucracy, corruption, customs, logistical problems
- Language and culture barriers

Finnish companies, researchers and policy-makers should discuss these challenges in cooperation and apply concrete actions in order to overcome the main problems. In addition, stronger practical as well as financial support should be available for the companies in need. However, to gain a thorough understanding on the underlying attitudes and perceived challenges of Finnish companies towards entering Murmansk and to recognise their practical needs, further studies including empirical surveys and interview data are required. After identifying the challenges and problem areas of Murmansk project exports comprehensively, it will be possible to find solutions to such issues.

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What is China doing in the Arctic?

By Jingchao Peng

China's Arctic developments

Unquestionably, China's attention on its Arctic interests, specifically in geopolitical and commercial sphere is rising as Arctic ice melts. The prospect of the Arctic being regularly navigable during summer seasons, leading to both shorter shipping routes and access to untapped energy resources, has impelled the Chinese government to allocate more resources to Arctic research. Although China has not yet formulated any official Arctic policy, Chinese officials and scholars are aware of the need and imperative to protect China's high north interests in an ice-free Arctic environment.

A new roadmap of polar exploration is formulated for the period between 2011 and 2015, namely the 12th Five-Year plan for China's Polar Research. In general, China's research and exploration in the High North can be concluded as to move forward into three main domains. First, frequency of China's polar research expeditions will increase. Government organs of polar affairs received a more generous budget from central government for the work during the 12th Five-Year period. With the increased budget from Ministry of Finance, 5 Antarctic expeditions and 3 Arctic expeditions will be carried out between 2011-2015. In addition, a new polar research icebreaker is expected to be in use by the year of 2013.

Second, bilateral cooperation with littoral states have made notable headways. During the past two years, China has signed joint contracts with Norway and Iceland to collaborate in Arctic scientific studies. In the realm of business, a number of Nordic shipping companies successfully experimented transporting commodities through Northern Sea Routes to Chinese destinations.

Third, studies on geopolitical and commercial perspectives on the Arctic were strengthened as part of China's overall Arctic research buildup. China's concern about Arctic in the past is mostly about climate change in the Arctic region and the possible environmental impacts it will bring to China. As a result, scientific studies were the main focus. However, China has in recent years gradually come to realize the great potentials Arctic water breeds in terms of shorter shipping routes and untapped resources. So in the next five years, China will allocate more resources to study Arctic from geopolitical point of view as well commercial prospects.

In parallel to these moves, China has further developed its strategic thinking on the politics of Arctic Circle. China is pushing forward with its exploration work while at the same time it has sought to stay out of the continued disputes amongst the Arctic littoral states. Scholars continue to argue that China needs to develop capacity to defend its interests in the region. But as yet, the government has not changed its low-key non-confrontational approach. The reason, according to Guo Peiqing, quoted from Stockholm International Peace Research Institute's report 'China prepares for an ice-free Arctic' is because China is afraid active overtures would cause alarm in other countries due to China's size and status as a rising global power. However, China's official silence should not be seen as indicating that it does not take a view on the division of Arctic resources. Chinese officials have in several occasions expressed that China always supports the rights of Arctic states over the resource within each country's exclusive economic zones (EEZ). However, China sees Arctic's international water area as 'treasure of mankind', thus it consistently holds the view that China has a legitimate right to play a part in Arctic's resource explorations.

Power politics among Arctic states

Aside from settlement between Russia and Norway on their Arctic border at Barents Sea, there has been no other major

resolution of long standing disputes among Arctic states, on controversial issues, such as continental shelf extension and control of seabed. In addition, the role of Arctic council, a primary international inter-government organization dedicated to promoting cooperations between Arctic states, risks being undermined as Arctic states scramble to maximize their interests in the Arctic resources. Seen by some as the world's 'last treasure house', the Arctic's bountiful untapped natural resources and relatively poorly institutionalized regulatory regime means that power politics is never far from the surface.

In March 2010 three Scandinavian countries were excluded from a meeting of Arctic countries hosted by Canada to discuss issues such as oil exploration, shipping regulations as well as climate change. The exclusion of Finland, Sweden and Iceland caused a wave of criticism, including amongst some of those states invited to the meeting. This meeting demonstrated the risks of new divisions between Arctic states, which could in turn have an impact on the decision-making power of the Arctic Council. China made no official statement on this meeting. Chinese media did not show the same restraint, however. Nearly all in their reports described this meeting as a closed meeting between 5 countries trying to divide up Arctic resource. Again in May 2011, Chinese media expressed similar distress after the permanent observer status application for Arctic Council by a few non-Arctic states, including China, was declined at this year's ministerial meeting in Nuuk of Canada. Zhang Xia from Polar Research Institute of China regard the decision as virtually closing the door for China and a few other non-Arctic states to become a permanent member in the Arctic Council.¹

Looking ahead

China has an increasingly clear-sighted view of its interests in the Arctic. But it also has a realistic view of its limited scientific and technological capacity to exploit the Arctic resources. China is well aware of the alarms it'll cause by acting assertive in the Arctic politics so Chinese government is being very careful not to step into affairs of Arctic states. China will continue to strength its scientific, environmental and geopolitical research capability in the Arctic. It is also likely to strengthen its position in multi-lateral Arctic institutions in order to defend its perceived rights to the Arctic resources that fall outside each littoral country's EEZs. Bilateral cooperation will also be welcomed by China. Collaborations with Norway and Iceland will undoubtedly give a boost to China's polar scientific buildup and more importantly, pave the road for a positive coordination in the future for greater plans in the Arctic, especially regarding commercial use of the Arctic shipping lanes.

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¹ Qian, Y., '中国离北极有多远' [How far is China away from Arctic?], *Liaowang Dongfang Zhoukan*, 18 July 2011. <<http://www.lwdw.cn/wwwroot/dfzk/Focuseast/252093.shtml>>.

The rise of China and international politics on climate change

By Sanna Kopra

As People's Republic of China continues to emerge as a superpower, it is under increasing international pressure to shoulder more responsibility in contemporary global issues such as climate change. Amongst the political leaders of China, there is no dispute about climate change and the Chinese government acknowledges that climate change poses a significant threat to China. Presently, China plays an important, though contradictory, role in international climate change politics. On one hand, it is a developing country in which millions of people still live in poverty; on the other hand, due to poor energy efficiency and the intensive use of coal, it has been the world's biggest emitter of carbon dioxide (CO₂) since 2006. Looking forward, China's role in international climate politics will be crucial in the future; it is estimated that the continuation of "business as usual" in China would result in a 2.7°C rise in global temperatures by 2050 – even if all other world countries achieved an 80% reduction in their greenhouse gas (GHG) emissions (Watts 2009). There are no expectations of a reduction in China's overall emissions in the near future although various Chinese scholars, think tanks, and research groups predict China's emissions will peak between 2020 and 2050. However, even though overall energy consumption in China is still higher than in the most industrial countries, GHG emissions per citizen are significantly lower in China than in developed countries. In 2008, CO₂ emissions per capita were, respectively, 4.91 tons in China, 8.32 tons in the United Kingdom, and 18.38 tons in the U.S. (International Energy Agency 2010).

As China's rising power challenges the status of other major international actors, it is often regarded to as a negative phenomenon; the "China threat". When it comes to international climate politics, many developed countries often condemn China as a "climate criminal" that behaves irresponsibly. Developed countries also complain that the priorities of China's environmental diplomacy are to, "...protect its sovereignty, acquire foreign aid and technical assistance, and promote its economic development" (Harris 2005). Naturally, the Chinese government does not want to be perceived as a threat and since the mid-1990s, Chinese foreign policy has focused on improving the state's international status. Regardless of its bad reputation, the Chinese government has taken important steps towards moderating the future growth of the country's greenhouse gas emissions in order to save energy, protect nature, and reduce pollution and waste production. In the twelfth Five-Year Program (2011-2015), the government has pledged to cut energy consumption per unit of gross domestic product by 16% by 2015, and CO₂ emissions by 17%, respectively.

The Chinese government admits that due to its fast industrialisation, China's GHG emissions are going to grow in the future. However, the government emphasises that there is a great difference between the nature of emissions in developed and developing countries; developed countries' "transferred emissions" and "luxury emissions" are produced in China only because of the consumption needs of developed countries, whereas China's, and other developing countries', "subsistence emissions" or "development emissions" are justified because they are caused by poverty alleviation and a rising living standard of the Chinese poor. Indeed, recent studies have shown that about a third of Chinese emissions are actually "offshore

emissions" caused by the manufacturing of products for foreign markets. Today, 23% of China's CO₂ emissions are actually caused by the manufacturing of goods exported to Western consumers (Wang and Watson 2007).

The Chinese government strictly denies being responsible for causing climate change and highlights developed countries' historic responsibility for causing climate change and its adverse effects. As the government tends to represent itself as a leader in the developing world, it often speaks on behalf of developing countries' interests and reminds the world that climate change mitigation and adaptation should pay attention to poverty eradication. Because the Chinese government defines climate change mainly as a development issue, it claims that technological solutions are "the key" in climate change mitigation. Although China has increasingly participated in multilateral cooperation, it still highlights the importance of having national sovereignty and the principle of non-interference. Their strong emphasis on national sovereignty is regarded as one of the reasons why China rejects any binding emission commitments for developing countries under international treaties dealing with climate change.

As a result of climate change, the Arctic ice caps are melting at an increasingly rapid rate and the geopolitical position of the Arctic, today, has increased dramatically. In the future, the Arctic will provide business opportunities in energy, mining, fishing, and tourism sectors, and Arctic shipping routes will offer faster and cheaper passages compared to traditional routes, such as the Suez Canal or Panama Canal. Not surprisingly, many global actors are already staking their claims in the Arctic. China has not publicly unveiled its Arctic strategy yet, but it has increased its cooperation with Arctic states and started to participate in multilateral organisations administrating international Arctic policies. For instance, China has applied for a permanent observer status in the Arctic Council – even though it does not possess a single meter of Arctic coastline. Certainly, unexploited oil, gas, and mining reservoirs under the Arctic ice shelves and the forthcoming Arctic shipping routes are of interest to China as they would be important to the continuation of China's economic growth. However, the Chinese government emphasises that Chinese Arctic interests are scientific in nature and that the government pursues cautious Arctic policies in order to lessen the international fear of China's rising status (Jakobson 2010).

According to Raine (2009), Western countries have to tell the Chinese government if there are problems over respect for democracy, good governance, or the rule of law, for instance, in the cooperation because, "...if they do so consistently and fairly, this is likely to impact on China's thinking". However, she reminds that, "...while China will listen to what others say, it will balance this listening with watching what others do". Similarly, I think that Western countries have to remind the Chinese government about its responsibility and important role in climate change mitigation because if China wants to be regarded to as "a responsible actor", the Chinese will listen to the views of the others and not restrain from international political cooperation. However, the Chinese also watch what others do and, thus, Western countries really have to shoulder their own climate change responsibility before demanding

China do its part. Developed countries should also advance their genuine understanding of Chinese way of thinking and acting. They should not continuously focus on blaming China for its irresponsibility, but should respect the efforts of the Chinese government because placing blame does not usually consolidate mutual trust needed in international cooperation. It seems to me that the Chinese are quite frustrated because developed countries do not recognise the hard efforts and progress they have made in the field of climate change mitigation. By recognising China's progress in several policy areas, including environmental issues, and by allowing China to play a more important role in international politics, developed countries could encourage the Chinese government to shoulder more responsibility in contemporary global issues.

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Canadian and American perspectives on the Arctic

By Mia Bennett

Both Canada and the United States have Arctic coastlines, yet while Canada is a Northern nation at heart, the U.S. is not. The vast majority of Canada's territory lies in the north, whereas Alaska is America's only footprint in the Arctic. Until recently, the U.S. displayed an attitude that Oran Young called "benign neglect" towards the Arctic. Not until 2009, with National Security Presidential Directive 66 (NSPD-66), did the U.S. put an Arctic policy to paper. That same year, Prime Minister Stephen Harper's Conservative government released the Northern Strategy, a largely inward-oriented vision for developing the Arctic. Canada conceives of a territorialized Arctic and prioritizes sovereignty and defense, while the U.S. seeks a more inclusive Arctic and emphasizes collaboration with other states, regimes, and organizations.

Perhaps nowhere is the disparity between American and Canadian conceptions of the Arctic clearer than in the two countries' views of the Northwest Passage. In 1970, the Canadian Parliament passed the Arctic Waters Pollution Prevention Act (AWPPA), mandating strict environmental regulations for all shipping within 100 miles of Canada's coastline. Though at the time it contravened international law, AWPPA became valid with the ratification of the United Nations Convention on the Law of the Sea (UNCLOS) by Canada and scores of other countries. The U.S., which has not ratified UNCLOS, and the E.U. still maintain that the Northwest Passage constitutes an international strait. According to this designation, ships passing through have the right to transit and do not need to notify Canada. In May 1985, to test this right, the U.S. Coast Guard Cutter Polar Sea, an icebreaker, sailed through the Northwest Passage without asking for permission. This event sparked a public furor in Canada. One month later, Foreign Minister Joe Clark announced that the country would henceforth use straight baselines to demarcate the boundaries of the country's internal waters. While this cartographic practice is not in itself controversial, Canada's timing made it seem like it was doing so defensively, to enhance its Arctic sovereignty. To this day, the U.S. and Canada have essentially agreed to disagree on the Northwest Passage. Their failure to resolve their dispute speaks volumes about the two countries' northern policies. Canada is concerned with sovereignty, while the U.S., with the world's largest navy, strives to secure freedom of the seas and the ability to project sea power. Ironically, Canada may soon be able to operate more effectively in the Arctic than the U.S., thanks to the new icebreaker and Arctic/offshore patrol ships slated for delivery.

Canada's desire to exercise its authority in the Arctic manifests itself in the Northern Strategy. Sovereignty, one of the policy's four pillars, is inseparable from the other three: the environment, economic and social development, and devolution. The AWPPA was not the last time that Canada tied environmental protection to sovereignty. In December 2010, the government proposed to set aside 40,000 square kilometers to create the Lancaster Sound National Marine Conservation Area at the eastern entrance to the Northwest Passage. Conserving the area will permit the government to ban resource extraction and manage the fisheries, thereby enhancing its authority while benefiting the environment. It is less clear whether some of the government's investments in northern defenses will provide any benefits to people or the environment. Nunavut's capital, Iqaluit, with over 6,000 residents, badly needs better port facilities. However, the Canadian government decided to pass over fast-growing Iqaluit to build a new deep-water port and naval facility in Nanisivik, population zero, in part due to its more strategic

position along the Northwest Passage. Though the Canadian government has made strides in spurring social development, such as by providing job training and housing for indigenous peoples, it still comes second to sovereignty.

Canada's neighbor to the south is more open to multilateralism in the Arctic. NSPD-66 broadly promotes cooperation with international actors, suggesting collaborating with Russia on scientific research, involving indigenous organizations in decision-making, and working with the International Maritime Organization. One of the reasons it is often easier for the U.S. to rely on others to do much of the legwork in Arctic policymaking is the disorganized state of affairs at home. While Canada's Department of Aboriginal Affairs and Northern Development crafts policy for the Arctic, in the U.S., the Departments of State, Defense, the Interior, and a number of other bureaus all have influence, and there is no coordinating agency. Alaska's Lieutenant Governor Mead Treadwell remarked that the lack of investment in the Arctic "is not an "addition" issue, it is an allocation issue." Whereas the Arctic is essentially Canada's backyard, it is on the backburner for most American policymakers, so it does not receive adequate funding. With more pressing national security concerns in places like the Middle East, the U.S. is content to have organizations like the Arctic Council and IMO manage the Arctic while still trying to play a role in negotiations. When Canadian Foreign Minister Lawrence Cannon invited only the five Arctic coastal states to meet in March 2011, U.S. Secretary of State Hilary Clinton criticized him for his exclusivity, stating, "Significant international discussions on Arctic issues should include those who have legitimate interests in the region." By itself, the U.S. is not a great power in the Arctic due to its lack of capabilities and its small size of the territorial pie. But in a multilateral forum, with the exception of UNCLOS, the U.S. can exercise its international clout more easily.

Canada's focus on sovereignty has not prevented it from collaborating in the Arctic. For instance, it has performed polar research with the United Kingdom and has carried out joint military exercises with Denmark, despite their territorial dispute over Hans Island. Likewise, the U.S. has occasionally demonstrated a more insular approach to the circumpolar north and still maintains air force bases there, including one in Thule, Greenland. Both Canada and the U.S. appreciate the need for strong defense and multilateral collaboration in the Arctic. Yet their two views of the Arctic are shaped by their geographies. Canada has always been a Northern nation, concerned with exercising sovereignty over the thousands of islands and waterways in the Canadian Archipelago. The U.S. acquired Alaska by purchasing it from Russia, and despite all of its natural resources, it still often remains an afterthought in Americans' minds. While Canada promotes an inward-facing Arctic policy to secure its sovereignty, the U.S. looks to multilateral organizations to provide solutions to problems in the Arctic.

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Bringing EU-Russian relations to a new level

By Jose Manuel Barroso

Relations between Russia and the European Union have been growing in importance and their dialogue has been improving in quality. Indeed, in this new rapidly changing and globalised world, the EU and Russia are increasingly interdependent. We have a common cultural heritage forged throughout the long course of Europe's history. European and Russian culture from music, to arts and literature have been influencing each other to the point of being one and the same. Europe and Russia also share the same continent and have a strong interest in stability and harmonious development from the European peninsula to Asia. Economically, our industries are set to benefit significantly from a greater integration of trade, investment and technology exchange. In the field of energy, we also have a lot to gain from an increased security of supply and transit, a diversified set of suppliers and clients and improved efficiency.

In the past two decades this relationship has been considerably strengthened, as illustrated by increased dialogue on strategic issues, growing cooperation on security and defence e.g., within the EUFOR Chad FCA and greater bilateral trade flows. Russia was the EU's third-largest supplier and fourth-largest client in 2010. The EU is Russia's most important trading partner by far, accounting for 50% of its overall trade in 2010. It is also the biggest investor in Russia and 75% of Russian FDI stocks come from EU Member States. The key question, therefore, is not whether the EU and Russia are interdependent on a wide range of political and economic issues, but rather how that interdependence will be managed.

There will certainly be a great many difficulties to overcome, as the 2008 crisis in Georgia and the erection of trade barriers after the first phase of the economic crisis have shown. However, both Russia and the EU have important "assets" which will help keep efforts on track. I would like to mention three of them.

Firstly, we share a strategic goal: a strong and results-oriented bilateral relationship is in the long term interest of European and Russian citizens and is necessary in order to address global macro-economic issues and societal challenges of mutual concern.

Secondly, our relationship is rooted in both official and informal contacts between our administrations and societies. The EU and Russia have succeeded in working on a common agenda and in defining joint projects. This pragmatic approach is based on a solid legal background and an intense network of formal or informal working groups, joint councils and summits.

Finally, our relationship is having a transformative impact. The support provided by the EU's strengthening of trade and technological cooperation is also improving the rule of law in Russia and facilitating contact between civil society on both sides; both are essential for making the modernisation effort sustainable in the long term.

Combining a strategic view of our future with a pragmatic and transformational agenda is certainly the most efficient way to improve EU-Russian relations. This was precisely our main goal when I agreed with President Medvedev the idea of a "modernisation partnership".

This partnership was formally launched at the Rostov summit in June 2010 and draws heavily on the achievement of

the EU-Russia "common spaces": Economy, Freedom, Security and Justice, External Security, Research and Education. It is a broad platform which also encompasses the strengthening of the rule of law and citizens' rights. In this respect, the EU is working together with Russian authorities on a Russian-wide judicial appeal system, and we have welcomed the creation in March 2011 of an independent EU-Russian civil society forum.

This is also a joint effort on the EU side and complements the partnerships being developed by Member States at national level. More importantly, the partnership has already started to deliver practical results -cooperation in the space sector was demonstrated by the successful launch of a Soyuz from an EU space port, as part of the Galileo programme last October; technical regulations are being aligned in several sectors; and discussions on a visa-free short-term travel regime are in progress - all of which reflect a common vision of the future.

The fact that the EBRD and the EIB are also associated to the finance of modernisation initiatives means that concrete financial support will be given to projects in both the private and public sector. This is a significant achievement.

Russia's accession to the WTO which the EU and in particular the Commission, has been very actively supporting is another building block of the modernization agenda that both the EU and Russian authorities are working on. It is clearly in the interest of the EU, Russia and the rest of the world to see this last major world player joining the multilateral trading system. Following the agreement between Georgia and Russia, the EU looks forward to seeing Russia's accession finalised at the WTO ministerial meeting mid-December. Russian accession would strengthen world trade and hopefully contribute towards consolidating EU-Russian relations and closer bilateral economic ties.

The years to come will also be crucial for proving Russian commitment to the consistency, predictability and values necessary for the country's development, notably after the Duma and Presidential elections. A new impetus regarding domestic reforms is needed as well as in the negotiation of our future Partnership and Cooperation Agreement. Dialogue on energy policy should also be increased, and an attempt should be made to find common ground on the Energy Charter and how to implement it.

Involving the business sector and our civil societies will also be crucial. European companies have played an important role in rebuilding the Russian economy and meeting consumer needs there. Contacts between our universities, artists, entrepreneurs also need to be fostered. We can provide the platform to facilitate the emergence of these trends, but it will be businesses and their leaders, our students and researchers and civil society at large that will have the main role in the next chapter of European and Russian relations.

Jose Manuel Barroso

President of the European Commission

The great potential of the Baltic Sea cooperation

By Jyrki Katainen

The Baltic Sea has always offered an open route for trade to many countries. To this day, we continue to depend on seafaring. The Baltic Sea region is our home field. The players around it range from the small and dynamic Estonia to the leading EU Member State Germany and to the vast Russian Federation. However different we are, geographic proximity is a natural reason for close cooperation.

It is important to keep the EU Baltic Sea Strategy high on the EU agenda. It is crucial for the future of the Strategy that its objectives are clear and specific. Concrete objectives motivate the Member States and local partners to implement the strategy effectively.

The Baltic Sea Region has a tradition of cooperation in the sector of competitiveness and the single market. This cooperation needs to be strengthened. In the EU Strategy for the Baltic Sea Region we have existing mechanisms to prevent and remove obstacles of implementing the EU internal market. We have structures to share best practices regarding the implementation of the Services Directive and implementation of the Commission's important recommendation on improving the functioning of the single market, among other things.

The Baltic Sea area should be made an area that fully utilises the Single Market framework. This will mean: 1) Identifying and removing remaining Single Market barriers, 2) A high level of commitment for the work to boost implementation; and 3) Intensified problem-solving.

All this will require resources. I am convinced that it is worth it. If we manage to develop the Baltic Sea area into a true Single Market, it will benefit the EU as a whole. It will serve as a pilot area for a well-functioning Single Market, creating a model of best practices.

A well-functioning single market relies on good implementation. The method for enhancing the single market in the Baltic area should be built on tight cooperation between the EU countries around the Baltic Sea. I call for the relevant ministries in the different countries to establish an expert network – a high level single market task force – that would work on the implementation of single market legislation and other policies important to business. The aim should be a uniform regulatory environment that would make cross-border business as easy as possible.

In order to make the Baltic Sea area really connected, transport infrastructure is of major importance. One target of the EU Baltic Sea Strategy is to make transport connections faster and travel times shorter. The next Financial Framework will hopefully place stronger emphasis on transport corridors such as the Bothnian Corridor and Rail Baltica. These corridors will improve the integration of Baltic Sea States into the single market.

Inexpensive energy is another basic requirement for competitiveness. Finland has highlighted the importance of developing the EU's internal energy markets. Well functioning energy markets give the best signals for investment and improve energy security.

Finland is willing to support efforts to find positive solutions for electricity imports from third countries, and especially from Russia, to EU Member States. However, from the Finnish point of view, it is necessary that the rules for trading electricity with third countries are agreed simultaneously with the desynchronisation plan for the Baltic States' electricity grid.

The health of the Baltic Sea's ecosystem remains of great concern. Recently, however, some positive developments have been reported: the number of protected areas has increased, currently covering over 10 per cent of the Baltic Sea marine area.

Nutrient input remains one of the key threats to the Baltic Sea ecosystem. It is quite clear that agriculture, airborne nitrogen input from both land and sea-based activities, and untreated municipal wastewater are the main sources of excessive nutrient input into the sea. In this regard, progress has been made in reducing point source discharges. For diffuse sources, the situation is far less satisfactory.

Illegal oil spills have decreased. However, the remarkable growth of maritime traffic in the Baltic increases the risk of potential major pollution accidents. Safe navigation is the basis for protection against oil and chemical pollution. Additional measures to further improve maritime safety are needed.

The Baltic Sea is not a sea within the EU. Any meaningful cooperation in the area will require cooperation with Russia.

The value of Russia's accession to the WTO cannot be overstated. Both Russia and its trading partners like us benefit hugely from Russia's integration into the global, rules-based system of trade relations. We expect that Russia's membership in the WTO will give a new boost to the overall investment and business climate in Russia. This will certainly help all of us in the region.

Practical, small-scale cooperation with Russia is needed as well. I have learned with great interest about the initiative of the City of Turku and the Regional Council of Southwest Finland, namely the Turku process. The goal is to develop concrete projects and hands-on cooperation with regional partners in Russia, such as the City of St. Petersburg, Region of Leningrad, Kaliningrad, as well as their companies, chambers of commerce and universities. This is a good example of cooperation that deserves our support.

The fact that this is done in close cooperation with key partners such as the City of Hamburg and the European Commission/DG REGIO, further enhances its potential. The Turku process, in which also the Centrum Balticum think tank actively participates, is a concrete example of what cities and regions can do to promote regional cooperation.

The Northern Dimension is a concrete tool for cooperation between the EU, Russia, Norway and Iceland. It has not appeared on the front pages lately, but it has actually been a success story, with new cooperation and new partnerships. It also gives us a good structure for equal cooperation with all our partners.

I see great potential in the Baltic Sea cooperation with the three E's – Europe, the economy and the environment. Especially I want to underline the potential that lies in removing the remaining Single Market barriers.

This article is based on the speech by PM Katainen at a seminar concerning the future of Europe in Turku on 12 December 2011

Jyrki Katainen

Prime Minister

Finland



The new threats to Northern-Europe

By Mart Laar

It is largely known, that security in the Baltic Sea region has been concern to nearly all countries around the Baltic See. This has not been “the Sea of Peace”. For centuries the Baltic Seas has actually been “the See of wars”. Wars on the Baltic See were nearly permanent, devastating all countries around. Even on the times, when the confrontation was not “hot” as during the times of the Cold War, was all the area extremely militarized. Peace arrived to the Baltic See after the collapse of the Soviet Union. By now nearly all countries around the Baltic See had joined either European Union or NATO or both. For some time it looked so as history had ended for the Baltic Sea countries.

This was a very naïve hope. By now history has returned to the Baltic Sea. Russia’s strong military buildup and rearmament program have made this clear to everybody. During next year Russia’s military budget will grow more as 20%. Kreml is demonstrating its muscles on every occasion, taking more and more confronting line towards NATO. Huge part of this military buildup is concentrating to Baltic Sea region, where Russia’s military strength is significantly increased. This does not include only aggressive exercises, but also development of newest weapon systems here, including new missiles and radars. It is hard to say, why all this is done, but Russia is Russia. For the Baltic See countries this nevertheless means need for more cooperation.

A month ago the Defense Ministers of Baltic and Nordic countries gathered to meeting in Örebrö in Sweden. In discussions participated also Defense Minister of Great Britain and high level representatives from United States, Germany, Netherlands and Poland. Soon this fact demonstrates clearly how far the cooperation among countries around the Baltic See and Northern-Europe has gone. Northern-Europe’s understanding of defense is not always similar to other EU countries. Several countries are actually swimming here against common European tide. Sweden is not anymore neutral country, but participating in international missions as in Libya. When in most countries defense budgets are going down, then in Estonia it will reach 2% from GDP. When many countries in Europe have given away their conscript army, then Finland and Estonia not.

At the same time, countries gathered in Örebrö had very similar understandings in all main areas and questions, cooperation between them is strong and real. They also raised Europe’s attention to several new threats to our security in modern World. One of them is cyber threat.

Only some years ago these threats looked mostly theoretical. By now they have become real. First this was realized by Estonia. Cyber attacks against Estonia (a country where we vote online in national elections and conduct 98% of our banking over the internet) in 2007 nearly undermined the functioning of our society. Cyber attacks embody the fundamental trait of new security threats – they target our societies’ dependence on

technology, trade and openness. They are a cheap and effective tool that advantage the attacker and can be used by states, criminals, terrorists, organized crime, and empowered individuals. Effective cyber security is not cheap and requires unprecedented cooperation between civil and military authorities, the public and private sector.

Europe’s comprehensive approach to security fits the threats we face from cyberspace, but the EU has been slow to react to changing circumstances. Member states policies could be far better coordinated. The EU has in the last year been victim to several embarrassing attacks in which gigabytes of sensitive data were lifted from Commission, Council and Parliament computers.

At the same time cyber security issues are enormously important namely for Northern Europe. It is largely known that largely thanks to their fast development in e-area these countries are specially vulnerable to all possible cyber attacks. Recent cyber attacks against Finland with significant political context are sad example of these new threats. Strong e-development is at the same time strong asset to fight these attacks. When we can share our knowledge and experience Northern countries can do lot of good not only for themselves but for all Europe.

That was the reason, why in Örebrö was decided to start to work on Nordic cyber defense detachment, what we can offer when it is needed to European Common Defense and Security policy. At the beginning of the next year experts from the Nordic countries will arrive to Tallinn to NATO’s Cyber Defence Center of Excellence to prepare concrete steps toward common activities in the field of cyber security.

Other fields of cooperation are also discussed among so called NB8. Both European Union and NATO are talking about the need to cooperate more. In NATO it is called “smart defense”, in EU “sharing and pooling”. NB 8 had done soon before they were called to do this. Common procurement – by example Estonian-Finnish radar procurement or cooperation in Baltic Defense College are only some examples how useful such common projects can be. In Örebro several other possibilities for enhanced cooperation were discussed, by example common exercises. This all can strengthen security around the Baltic Sea and giving more possibilities to raise the share of NB 8 in Europe. There has been lot of talk on economic or environment cooperation in the Baltic Sea area, now has arrived time to step up with the defense cooperation also.

Mart Laar

Defence Minister

Estonian Ministry of Defence

Estonia

The stalemate in Spitsbergen could be used to Norway's advantage

By Diana Wallis

Since I was first elected to the European Parliament in 1999, I have been involved in Arctic issues, including attempting to more adequately reflect views from within the region by promoting an alternative approach (through a labelling regime) to the recent EU ban on the trade in seal products.

As part of my involvement in Arctic matters I made my first visit to Svalbard in April 2001 from which time I have been fascinated by the set of rules which determine this Arctic archipelago's governance: the Spitsbergen Treaty of 1920.

What aroused my curiosity in the treaty, as a lawyer was how this rather elderly agreement, signed in Paris just over 90 years ago, seemingly contained very modern concepts such as environmental protection, non-discriminatory treatment of signatory state nationals and non-military use. For a treaty that was first mooted at the very beginning of the last century (even before the outbreak of the First World War) it seemed quite unique in the way consideration was given, initially, to a system of rotating and finally shared international governance aimed at both environmental protection and equitable exploitation. The final Spitsbergen Treaty of 9th February 1920 granted 'absolute sovereignty' to Norway over the Svalbard archipelago, with the freedom to regulate the area in accordance with and for the benefit of the state partners to the treaty.

It is clear to me on my various visits that the Norwegians have been admirable custodians of the archipelago on behalf of the signatories - no-one could dispute that they have done a excellent job, almost certainly going beyond what was originally foreseen. The growth of the international research community there is also much to be applauded.

Despite this there remain tantalising questions, not least that, if this has worked so well for the governance of Spitsbergen under international agreement, might it not then be a model that should be extended further into the fragile Arctic, at least to the 200 mile continental shelf zone? However, it is then that the tensions begin to surface. Norway argues that it is its own 200 mile zone, not Spitsbergen's, which should apply to resource exploitation

and governance. This is not the way other nation states in the region see it. This makes a huge difference to the future of fisheries and any possible oil and gas development within the zone.

So far such nascent tensions have been dealt with by relatively polite diplomacy and legal process between the signatories of the Spitsbergen Treaty but in effect there is a stalemate which could and, indeed should, perhaps be used as an opportunity. Indeed the final clarification could be to Norway's advantage.

The current notes of discordance over the provisions of the Treaty could provide all Arctic nations and institutions with an opportunity for reflection, perhaps in the context of an amendment to the Treaty by protocol. This would provide an occasion for a valid EU contribution and involvement, which has otherwise proved so illusive in relation to the Arctic Council.

I therefore published a small research pamphlet which I hoped would stimulate thought and debate. Indeed this has happened, not least in Norway. This pamphlet was never intended as a criticism of the Norwegian position but rather a search for more modern international structures and solutions based on what we might learn from an old but nonetheless innovative Treaty written all those years ago.

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Challenges for the EU from the perspective of external audit and accountability

By Olavi Ala-Nissilä

The European Court of Auditors (ECA) - or simply the Court - is the independent audit institution of the European Union. The Lisbon Treaty, which entered into force two years ago, confirmed ECA's position as one of the seven Institutions of the European Union. The Court is based in Luxembourg and has a staff around 900 professionals from all EU nationalities. Since its creation in 1977, the Court has focused its attention on the importance of EU financial management. The Court's mission is to act as an independent guardian of the financial interests of the citizens of the Union. It is a mighty challenge and requires constant alertness especially in these economically difficult times.

The Court's principal tasks are to carry out financial and compliance audits, principally in the form of the statement of assurance (or DAS); and performance audits of topics selected to maximise the impact of its work. In addition, ECA produces opinions on proposed regulations related to budgetary management and other issues of importance. During the past three years the Court has – on its own initiative – tackled also some other important issues, like EU budget reform and economic and financial crisis, in the form of position papers, reflections and contributions.

The annual report on the implementation of the EU budget is ECA's main product. The report mainly comprises the DAS opinion on the EU budget as a whole and specific assessments of various policy groups, and is published each year in November. The latest annual report – 34th overall – was published on 10 November 2011 covering the financial year 2010. The payments made from the EU budget in 2010 were EUR 122,2 billion.

The ECA's statement of assurance – déclaration d'assurance (DAS) – is based on objective evidence obtained in particular from audit testing in accordance with international audit standards. The statement includes two parts: reliability of the accounts and regularity of transactions (there are three types of transactions: revenue, commitments and payments).

In its latest annual report, concerning the financial year 2010, the Court found that the accounts present fairly the financial position of the European Union and the results of its operations and its cash flows for the year. However, the payments underlying these accounts were affected by material error, with an estimated error rate of 3,7 % for the EU budget as a whole.

The Court's estimated error rate for spending in Cohesion, energy and transport policy group (the most error prone EU spending area) was higher than for 2009, with an estimated error rate of 7,7 %. For the other areas of EU spending the estimated error rate remained relatively stable. This applies also to the biggest area of EU budget expenditure, agriculture and natural resources, where the estimated error rate was 2,3 %. However, the estimated error rate for the main part of that policy area, i.e. direct payments covered by the Integrated Administrative Control System (IACS), was below materiality level of 2 %.

In relation to performance audits, the Court's objective is to produce annually 12-15 special reports on the various themes. When selecting topics the Court considers i.a. the risks to performance for the particular area of expenditure, the level of spending involved, the time elapsed since any previous audits and political/public interest. In the performance audits the Court assesses the economy, efficiency and effectiveness of the selected areas. If there were one common theme on the various performance audits carried out by the Court in previous year, it would have to do with the importance of the planning phase. In particular, the Court concluded that when planning

and implementing EU spending programmes, the Commission and the Member States should pay greater attention to defining objectives that are specific, measurable, achievable, relevant and timed - as well as to identifying and mitigating the risks to implementation.

On the basis of the Court's audit findings and despite many years of incremental improvements in systems, there remain significant risks to the regularity of payments that can only be fully addressed by reforming legislative frameworks and re-designing control systems. The proposals for sectoral legislation governing spending after 2014 and for new financial regulation provide an opportunity to do that. The Commission, the European Parliament and the Member States have now real golden opportunity to improve the financial management of the Union.

In past few years there have been a number of significant developments in EU economic governance which raise important issues of transparency and increase the risk of gaps in accountability and public audit developing. Those developments in mind, the Court published in May 2011 a position paper on consequences for public accountability and public audit in the EU and the role of ECA in the light of current financial and economic crisis. The Court identified cases where public audit arrangements are not adequate. More specifically, the Court considered that the Treaty establishing the European Stability Mechanism should include provisions for public external audit. The general message of the position paper was that where public funds are at stake there should be adequate arrangements for transparency, public accountability and public audit. Similar concerns for adequate public accountability and public audit were highlighted in the statement and resolutions of the Contact Committee of the Heads of the EU Supreme Audit Institutions in October 2011.

Promoting transparency and accountability is a responsibility all institutions share in democratic societies. It is even more crucial in the current context where the pressure on public finances is high, the importance of the EU meeting its objectives is great, and the need to build the confidence and trust of citizens in the European Union and its institutions is acute.

Many prominent economists have called this crisis the worst since the Great Depression of 1930s. We are definitively now in a global crisis. In Europe, the impact has been felt, not only around Mediterranean Sea, but also around Baltic Sea. Drastic savings measures have been taken to regain the confidence. The results have been more positive around the Baltic Sea. However, the decisive factor at the end of the day will be the competitiveness and ability to grow and perform in sustainable way in ever tougher global competition. The crisis provides always opportunities. This crisis is too expensive to be wasted.

I invite all the readers to look for more information on the Court's our role and work in our website www.eca.europa.eu

Olavi Ala-Nissilä

*Member of the European Court
of Auditors, Dean*

European Court of Auditors



Our common bond – ties that bind us

By Petteri Orpo

Especially during summer, Southwest Finland and its archipelago blooms and prospers as the start of holiday seasons takes many families and groups somewhere to Baltic Sea. I remember gazing the clear water along the shores of my hometown, The City of Turku – 2011 European cultural capital with Tallinn- during the 1970's and 1980's. Four things were certain then and even more so today: world and the times we lived in were different, water was clearer, Finland was and still is an export-oriented country and finally, the only remaining constant is the increasing speed of change in human societies and environment. Simply put, the importance of the Baltic Sea for our national economy can't be stressed enough.

As the Cold War ended and the development of the larger European project – union and internal market – became evident, the disintegration of Soviet Union also paved way for the independence of Baltic and East-European satellite states as they gradually entered into the European Union, transatlantic cooperation and to an open-market economy. As a result a dialogue between EU and Russia has also deepened, which will hopefully be fostered even more as the latter confirmed its full membership in World Trade Organization last month.

Within a couple of decades it has also become evident how the actions of man affect not just ecosystems, but also the daily living of human societies and businesses in so many ways, that it is difficult to fully understand the scope of all underlying processes taking place and affecting the Baltic Sea region. Politicians and citizens in all 9 countries that have shoreline in Baltic Sea must ask themselves how to preserve it without affecting too much to ecosystems stability, business, transports and energy security. As Sten Nordin, the Mayor of Stockholm, has concluded, it is less problematic to introduce new legislation or any binding agreements when financial benefits outweigh the costs.

Currently Baltic Sea suffers from large environmental deterioration: dumping of oil and hazardous toxins, poor waste water and emissions management caused by industry and agriculture and sunken shipwrecks to name a few. In future it will be hard to sell package travels for tourists if genuine progress is stalled. If we are to reach our full potential and allow people, goods and energy to circulate quickly and effortlessly around the Baltic Sea, both public and private sector must tighten their cooperation, efforts and establish partnerships for the

betterment our home sea. The Baltic Sea Action Summit (BSAS) of 2010 is but one example of successful cooperation between many actors behind a common purpose.

The responsibility of politicians is to support these types of initiatives. Even though the number of different platforms for regional, economical, social and educational cooperation are many – Helcom, Nordic-Baltic eight, Nordic Council, Council of The Baltic Sea States, EU and many others – truly grand results remain to be achieved. The upgrading of St. Petersburg's waste water plant shows for one, that Russia has taken its responsibilities seriously.

Nearly 90 million people live within the drainage basin of our "home sea" which in 2008 covered approximately 15 % of all global cargo transports and over 12 % of global gdp output. It is therefore safe to state, that in relation to population density and economical productivity the well-being of Baltic Sea is vital to societies living along its shores. The world has become complex as societal, economic, environmental and cultural integration have progressed. These processes have linked our fates and the challenges Baltic Rim economies now face.

In order to safeguard Baltic Sea for generations to come all parties concerned – international and regional organizations, states, cities, universities, think tanks and private sector actors – should broker a binding agreement on policies, funding, measures and actions which would guarantee regions competitiveness, but also preserve Baltic Sea's ecosystem in the long run. Otherwise the status of Baltic Sea area as one of the world's leading regions in economic prosperity, social and environmental sustainability is endangered.

Petteri Orpo

Parliamentary representative

National Coalition Party

Finland



A shared vision for promoting sustainable growth

By Matthew Lodge

The Baltic Sea is a true inner sea of the EU – its shores are populated by EU Members States with the exception of Russia. The successive Polish and Danish EU Presidencies provide an additional Baltic dimension to current discussions, notwithstanding the economic crisis across Europe, and the particular challenges facing the countries of southern Europe.

If there is one lesson – and area of unanimous agreement – from the current crisis, it is that, as European economies, we need to take concrete steps to help promote growth and restart Europe's engine if we are to avoid a backward slide into recession and a further weakening of Europe's competitiveness. Whether we are in the Eurozone or outside it, we must work together to reform the European economy. Given the extent to which the countries of northern Europe and the Baltic Sea region share common ideas on free trade, open economies, support for the Single Market and budgetary discipline, we have an opportunity together to play an important role in the response to the crisis.

One aspect where we should start is work between the Baltic Sea states and wider Europe in order to ensure that the European Union continues to develop and implement a strategy for growth and competitiveness and which strengthens the Single Market and fights protectionist tendencies.

Growth must be our number one priority. We face a harsh realisation that many of our long-held assumptions, the result of decades of progress, are under threat: our belief that the world will always demand Europe's products; our belief that Europe has jobs for its people to do and that standards of living will always rise and our confidence that European nations will always be global economic leaders. One by one, these assumptions are being called into question. Studies suggest that if current trends continue, by the middle of this century, leading EU nations could fall out of the world's top-10 most powerful economies.

In a recent speech to the European Parliament, the UK Deputy Prime Minister Nick Clegg highlighted the need for a fresh approach. Policies which actively inhibit growth and diminish the flexibility of our economies need to adapt.

In March the UK published a European Growth plan backed by eight countries, including Sweden, Finland, Denmark, Estonia, Latvia, Lithuania and Poland, which focused on boosting internal and external trade, pushing innovation and reducing the costs of doing business.

One key pillar of this Growth Plan is the completion of the Single Market – both in services and the digital economy. This alone could add 800bn Euros to the EU's economy. That's around 4,200 Euros extra for the average household every year. The Services Directive should be implemented fully, with no exceptions – for too long have we dragged our feet on liberalising services. And a Digital Single Market – championed particularly by Finland and Estonia – offers the potential to expand and develop the flying start in digital innovations made by the Nordic and Baltic States. From Spotify in Sweden to Angry Birds in Finland, we need both to foster innovation by making both the establishment of new enterprises easier and facilitating the expansion of small digital companies by opening up the vast potential of the European markets to digital services.

Our determined pursuit of economic growth, however, must also take into account ecological and social sustainability. The Baltic Sea economies, with their concerted efforts to tackle the environmental problems of the Baltic Sea, clearly understand this. The first effects of climate change may be less obvious here than elsewhere, but it is none the less an immensely important issue we need to tackle together.

These two challenges, boosting our economies and tackling climate change, are directly linked. There are many who argue that growth and being "green" are somehow at odds. That's not how we see it. By placing the emphasis on a low carbon economy and

innovating in cleantech and sustainable businesses – areas where the Baltic Sea states have sought to excel in recent years – must be at the core of our policy efforts to address the twin challenges of climate change and economic growth.

The UK Government is aiming to lead by example. We want to be able to say "follow us", rather than "after you", when it comes to green growth and climate policy. To get the ball rolling in the green economy, the UK has produced an innovative new mechanism for investing in green technology. The Green Investment Bank, the world's first national development bank dedicated to the green economy, will build on 3 billion pounds (3,5 bn Euro) of initial funding. Innovative new businesses can help green the economy and create more green-collar jobs. Finding the links between innovation, growth and environmental issues can also provide real solutions for future. The Baltic Sea economies could – with a determined collective effort – form a hotbed for new sustainable growth in Europe.

When considering the third important aspect of sustainable growth – social well being – many of the Baltic Sea countries are already providing the lead. This should be exploited and used as a strength. The balance of increased competitiveness and growth alongside the development of the Nordic and northern European welfare model offers a challenge and potential example to the rest of Europe. As the UK and Nordic and Baltic Prime Ministers agreed when they gathered in London in January, the challenge is to combine an increase in GDP with an increase in GWB (general well being). The Swedish Government will take up the baton when it hosts the Northern Future Forum in Stockholm on 8/9 February 2012.

And the history of the Baltic Sea region should remind us of another important dimension – we must embrace the outside world. The importance of Russia as a trading partner not just to the Baltic Sea states but the wider EU should not be underestimated. In addition to pushing forward the global free trade agenda through the WTO, of which Russia will now finally become a member, we need to work on the EU's strategic trade relations. The bottom line is that we need to support open societies in our immediate neighbourhood through strategic partnerships which encourage democracy, and the free movement of goods, capital and services.

With progress in these areas, Europe and the Baltic Sea region can enjoy a bright and prosperous economic future. But there are dangerous voices out there. We forget at our peril the risks of increased protectionism: beggar-thy-neighbour approaches are the surest way to inhibit Europe's economic recovery. And, in the long-term, our success and prosperity depend on removing the remaining barriers between us, not putting more in place.

In the words of Deputy Prime Minister Clegg: "It is time to finish what others started – reviving the ambition and spirit of the late 1980s and early 90s to bring down the barriers once and for all, modernising and completing the Single Market by 2015, demonstrating a commitment that encourages business across Europe and overseas to invest now – when we need them to."

Matthew Lodge

Ambassador

British Embassy

Finland

The Turku process – promoting concrete cooperation with Russian partners

By Aleksí Randell

Commissioner for Regional Policy Mr Johannes Hahn, addressing the Baltic Sea Annual Forum in Gdansk 25 October 2011, noted “the very constructive cooperation with Russia” in relation to the EU Strategy for the Baltic Sea Region (EUSBSR). He referred to the active participation of many stakeholders with Russian partners in areas like environmental protection, water quality or innovation, in all our interest.

The City of Turku, in cooperation with the Regional Council of Southwest Finland, is active in this co-operation. I may even say that in many ways we are pioneers on this path, which we believe is in the interest of everyone.

In 2010, we launched a new cooperation drive, today known as the Turku process. According to a joint statement by its partners, it has a clear and concrete goal: It aims at bringing together partners “across the border” in the Baltic Sea Region, with special emphasis on cooperation with regional Russian partners. It is informal and action-oriented process of doing things together. The tripartite coordination group consists of representatives of the Cities of St. Petersburg, Hamburg and Turku/Region of Southwest Finland as the coordinator and secretariat. The European Commission/DG REGIO supports the initiative and participates to facilitate the process and resulting actions as requested by the coordinator.

The first Round Table (Turku, 23 – 24 September 2010) brought together a number of invited representatives from the Russian Federation, the European Commission, EUSBSR programme coordinators and the host country, with the aim of getting introduced to each others work and to discuss possibilities for concrete joint projects. Themes discussed included environment, innovation and university cooperation, safety and tourism.

Participants from St. Petersburg included prominent representatives of the City administration (Foreign Affairs Committee, Committee for Environment), Vodokanal, Chamber of Commerce and Industry as well as universities, i.e. key partners. Delegation of the European Commission was led by Mr Dirk Ahner, Director-General, DG REGIO.

Excellent informal atmosphere, common goals, will to work in the spirit of equality and recognition that only together we can solve our common challenges and exploit the full potential of our region led to the conclusion that a goal-oriented process should be developed and deepened. The spirit of the first Round Table of Turku was to “translate good intentions into concrete action”.

The second Round Table of the Turku process was organised as part of the traditional Turku Days in St. Petersburg 25 and 26 May, 2011. Participation of Vice-Governor Mikhail Oseevski and Member of City Government, Chairman of External Affairs Committee Alexander Prokhorenko testified about the commitment of the City of St. Petersburg to this cooperation.

The themes of St. Petersburg Round Table included the Baltic Sea innovation space, employment and professional training as well as environment – both land-based threats from agriculture (Leningrad region) and water cycle issues (Vodokanal of St. Petersburg). Expert presentations were followed by intensive discussion about priorities of action.

Trustful bilateral city relations can serve broader regional interests

Importantly, the second Round Table broadened the scope of cooperation, bringing the Region of Len-ingrad and the City of Hamburg – as a member of the coordination group – into the process. This further enhances the potential of the Turku process.

The planned third Round Table, to be hosted by the City of Hamburg during Spring 2012, will concentrate on implementation of practical projects in key areas.

We believe that the Turku process – and its goal, deepened and action-oriented, mutually beneficial cooperation with Russian partners – has great potential and is of great importance. Naturally, cooperation with Russia must be pursued on several levels in parallel: international (Northern Dimension, CBSS, Helcom), national/bilateral and sub-national. From our experience, we can say that the municipal and regional partners are maybe best placed without delay to identify and implement practical examples of successful cooperation.

Cooperation requires mutual trust and shared interests. The Turku process is born out of a long and fruitful cooperation between the cities of Turku and St. Petersburg. Actually, Turku was the first city in the world to establish sister city relations with St. Petersburg. It is no coincidence that also Hamburg was also one of the first pioneers to establish twinning relations with St. Petersburg. In this way, sister city relations are serving also broader regional interests.

Turku and St. Petersburg are currently preparing to celebrate the 60th anniversary of sister city relations in 2013 with high-level events such as economic forums, business meetings, exhibitions etc. These celebrations are included in the new Agreement of Cooperation between Turku and St. Petersburg for the years 2012 – 2016, which is in process of being finalised. The new permanent Turku Center – our “city embassy” in St. Petersburg – which is run in cooperation with the Regional Council of Southwest Finland and the Turku universities, as well as our close cooperation in multilateral organisations – notably the Union of Baltic Cities UBC – create further boost to our links.

Further, the presence of the General Consulate of the Russian Federation in Turku has also proven to be a significant positive factor in developing city-to-city relations.

The Centrum Balticum Foundation – a think tank specialising in the Baltic Sea issues – has an increasingly important role as an essential partner in our drive to deepen cooperation with Russia and to enhance the role of Turku/Southwest Finland as an active resource centre and crossroads in the Baltic Sea Region. In this way, we are implementing in practice the proposal by the City of St. Petersburg in the first Turku Round Table, namely to become a Baltic Sea centre “for collecting information, for evaluating problems by experts and defining levels of their solution.”

The active endorsement and participation of the European Commission/DG REGIO and its Director-General Mr Dirk Ahner personally in the Turku process and the two Round Tables has been of great significance. We appreciate Mr Ahner’s view (BRE 2/2011) when he, referring to cooperation with Russia, stated that “the most

advanced example is the use of the long-standing association between St. Petersburg and Turku, and also between St. Petersburg and Hamburg, to create a 'Round Table' for cooperation on specific projects... This exercise, in which the Commission has also participated, may be the most successful approach to launching effective cooperation, at least in the short term". However, he reminds that even here there is the challenge of converting words into concrete action. We fully share this view and are working to do just that.

Momentum of cooperation must be continued

During Turku's tenure as the European Capital of Culture in 2011, many successful activities have been organised with partners from St. Petersburg. In the coming years, this cooperation will continue. An important example of fruitful cooperation with the state level is the forthcoming meeting of Finnish-Russian intergovernmental Economic Commission in Turku (February, 2012) and the related meetings organised by the City of Turku and the Ministry for Foreign Affairs on modernisation, maritime cluster and the Russian Pharma 2010 –strategy.

The EU Strategy for the Baltic Sea Region is an experiment, the first of its kind in Europe. Other regions are keenly watching to see how this macroregional approach

works and whether it can bring new impetus into regional cooperation. It is important to show concrete results and thus keep up the momentum. This calls for initiatives and contribution from all potential stakeholders.

The City of Turku, with its partners, believes in the benefits of cooperation. By promoting the Turku process, as well as through our bilateral and multilateral relations at national and international levels, we want to give our contribution to the shaping of a prosperous, sustainable Baltic Sea Region.

www.turkuprocess.fi

Aleksi Randell

Mayor, City of Turku

*Chairman, Centrum
Balticum Foundation*

Finland



The City of Kotka looks to the East

By Henry Lindelöf

The City of Kotka is first and foremost a city of the sea, port, industry and culture. The logistics location of Kotka between East and West has been a determining factor in its efforts, appearance and focal areas.

The forest industry, the port, and the community that was created around the port continue to characterise the Kotka of today. Our city features a unique atmosphere, which the occasional visitor can sense for example in a football or basketball game. The emotions arising from ships and seamen longing for faraway places are aptly reflected in the production of Juha Vainio, one of the most beloved singer-songwriters in Finland, who was born and bred in Kotka.

The logistics position of Kotka in container and transit transport and in tourism is increasingly evident as a hub in trade taking place from the EU to Russia. People living in South-Eastern Finland have become accustomed to the long truck queues on the border between Finland and Russia. In many cases these queues were tens of kilometres long.

The Port of HaminaKotka Ltd, which launched operations in May this year, is the foremost Finnish port for Russian trade. More than 15 million tonnes of goods are carried annually through this twin port, primarily to St Petersburg, Moscow and other parts of Russia. The port is naturally one of the main ports for the exports of the Finnish forest industry.

The location, port and industries of Kotka render it highly international. One out ten new businesses established in Kotka is owned by a Russian; several hundred new businesses are formed each year. More than 70 nationalities live in Kotka. The growing influx of Russian tourists is seen for example at Shopping Centre Pasaati, which is visited by more than 4 million people a year. Kotka has a population of 54,000, of whom 2,000 to 3,000 are Russians.

The Maritime Museum of Finland is located in Kotka. The magnificent Maritime Centre Vellamo also houses the Museum of Kymenlaakso. Designed by the architect Ilmari

Lahdelma and completed a few years ago, Vellamo has attained great acclaim in Kotka. The Maritime Centre enjoys some 100,000 visitors annually. Alongside Maritime Centre Vellamo, Kotka Maretarium, which presents Finnish fish species, represents the foremost attractions in Kotka.

There is active co-operation between Kotka and St Petersburg. Currently, we are developing the area of the old port adjacent to Maritime Centre Vellamo. A master plan has been drawn up of this area. The area will host Rubicon, a hotel centre and Russian business centre, each in a new building. Rubicon is planned to accommodate dozens of businesses and hundreds of jobs. Our business development company Cursor Oy is largely responsible for co-operation with Russia. We have received an appropriation of over a million euros from the EU for the design of this area and Rubicon, among other things.

Kotka is also a cultural city. Creative industries ranging from artists to the media and architecture are well represented here. We are also creating a centre for creative industries in the area of our old port. Artists and other parties in different sectors could concentrate their operations in a single point also housing a restaurant and shops. This old port area encompasses 20 hectares and constitutes one of the priorities in urban planning in the next decade.

All things considered, Kotka is facing a brilliant future between two metropolises, St Petersburg and Helsinki.

Henry Lindelöf

Mayor

City of Kotka

Finland



Maritime situational awareness across borders

By Veli-Jukka Pennala

The EU strategy for the Baltic Sea Region was adopted in October 2009. The strategy focuses on questions related to environmental and economic cooperation but nevertheless, the security perspective is also clearly present. Security, alongside with environment, economics and accessibility, is one of the four cornerstones of the implementation plan. To quote the strategy: "other forms of development will be insufficient or even totally impossible without a sense of security and confidence in maintaining the general order".

The concept of maritime security can be divided into naval safety and other forms of security. Under the concept of security you will find measures for fighting criminality across borders as well as actions taken to prevent piracy. Military actions to prevent territorial violations and to repel naval attacks are the extreme manifestations of the concept of security. According to this kind of classifications the responsibilities for different aspects of security can easily be divided to various authorities. However, the dynamics of different events do not necessarily respect the boundaries of the security concept or the responsibilities between authorities. Therefore we need well-functioning co-operation across the administrations both nationally and internationally.

Feeling secure starts with situational awareness.

Maritime surveillance is the fundamental cornerstone of maritime situational awareness. This statement also appears in the integrated maritime policy of the European Union. One of its objectives is to create a European maritime surveillance network to secure safe use of the seas and to protect the maritime borders of Europe. Practical solutions, in addition to technical arrangements, are the efforts in favour of more efficient civil-military cooperation as well as the removal of juridical obstacles that limit the exchange of information.

In Finland we have a good tradition of cooperating between the maritime authorities. Since 1994 Finnish Navy, Frontier Guard and Maritime Administration have worked closely together within so called METO-cooperation (Maritime Environment Triauthority Operations). Few years ago, due to reorganization of the traffic administration, the Maritime Administration was replaced in the METO context by Finnish Transport Agency and Finnish Transport Safety Agency, thus increasing the number of key actors from three to four. These "main performers" also have connections of their own to other maritime actors, such as harbours, the Police, Customs and Environmental Administration just to mention few. Due to small resources and the small size of our country, the Finnish maritime actors have always strived to cooperate, but thanks to METO this cooperation has achieved a formal structure and position within the organisations.

The most essential METO-product, its flagship, is the nation-wide recognized maritime picture, maintained by the Navy. It contains data produced by the sensors of all three authorities (AIS, radar, camera, senses). The technical realization includes hundreds of logical connections between offices and sensors. However, the concept of maritime situational awareness means more than mere sensor information. The excellence of the METO cooperation lies in its entirety. It is not just a row of technical solutions, but a way of working together. The advantages of METO-cooperation have also been noticed by others both nationally and internationally. The METO-cooperation has become a model example of how you get the administrative branches of three different ministries to strive towards the same goal instead of competing for the resources. The efforts have been successful. The cooperation has improved the maritime situational awareness and at the

same time provided direct financial savings for more than 50 million euros.

Having such good experiences it was only logical to continue the national cooperation by looking across our borders, at first concentrating on the Baltic region. We started cooperating with the Swedish Navy in 2001 under the name SUCFIS (SURveillance Cooperation Finland Sweden). Thanks to good experiences gained through this cooperation, we felt encouraged to take the next step together with the Swedish Navy and invited all the Baltic countries, essential maritime authorities and organisations to a seminar in September 2008, where the SUCBAS initiative, i.e. maritime surveillance cooperation covering the entire Baltic sea, (SURveillance Cooperation Baltic Sea) was introduced. In its present state SUCBAS consists of an intensive cooperation group, including eight nations. The group has been operational since 2009. On the initiative of Finland the SUCBAS model was developed further to serve as a base for the MARSUR-project (MARitime SURveillance) led by the European Defence Agency (EDA). The target of this project is to enable the exchange of information between European navies. The brilliantly working, technical solution was presented in Brussels on 30 June 2011.

International cooperation has taught us that it is easier to achieve a technical solution than to reach other agreements. In addition to good will, national political processes including preparations for agreements are needed. The target is cooperation on a multi-authority basis, also internationally. Today, at EU-level "cross sector" thinking involves more challenges than "cross boarder" thinking. The central maritime agencies (EDA, FRONTEX and EMSA) each have their own maritime surveillance projects that naturally spring from the individual needs of each agency. One objective (and strategic instrument) of the EU-integrated maritime policy led by DG MARE is to combine the information produced by different agencies into "a European situational awareness picture". This objective has good chances of succeeding, especially thanks to the Lisbon Agreement, which helped eliminate, at least in the agreement texts, the pillars separating the civilian and military structures in the EU. In Finland this problem has been solved already on a national level, which is not the case even in all Baltic countries.

"Need to know, need to share" is the slogan of the SUCBAS cooperation. On a national level, we have been aware of this already for a long time. The keyword in every respect is "trust". Especially when international cooperation is concerned, trust does not develop immediately, but only as a result of deeds and actions. The global era is unfortunately more difficult to foresee, it is more chaotic and presents new and different threats. Good situational awareness is increasingly important and if you stand alone as a state, this awareness is no longer achievable. As a Navy we stand at the leading edge when it comes to developing maritime situational awareness across borders.

Veli-Jukka Pennala

Rear Admiral, Commander

Finnish Navy

Finland



“Friction generates heat” – tourism, cooperation and the Baltic Sea identification factor

By Detlef Müller

Upon looking at a map of the Baltic Sea region and letting the eyes wander from South to North and from East to West, one catches sight of 11 countries which directly border the waters of the Baltic Sea. Each country and region along this coastal line has its own cultural and leisure highlights to offer potential visitors.

But perhaps *BusinessWeek* had a point when stating that the Baltic Sea region “incorporates 11 countries, dazzling cities, major shipping ports and peaceful island gateways. The only problem is no one really knows about it”¹. Although bluntly put and in a sense standing in contrast to the continuously rising visitor figures of the region, there is evidence to suggest that there remains great potential for tourism development and marketing of the Baltic Sea region as an entity.

There absolutely is a large tourism potential all across the Baltic Sea. From the chalk cliffs of Rügen in Mecklenburg-Vorpommern in the Southwest all the way to St. Petersburg’s winter palace in the Northeast, this potential is right in front of our doorstep, but it takes effort and cooperation to exploit it to the maximum and to the benefit of the entire region.

At present, the cooperation in the tourism sector among the various regions is limited and a question to ask is if greater cross-Baltic Sea cooperation would yield better results for all. The Baltic Sea region certainly has high potential in attracting international travelers and visitors. However, a joint and coherent image is lacking, as are cross-Baltic promotional activities. If one supports the hypothesis that greater cooperation leads to an increase in tourism within the entire region or, put in terms of thermodynamic, if ‘friction generates heat’, long-term actions are required to convert the hesitation of regional actors into energy for the whole region.

The EU Strategy for the Baltic Sea Region (EUSBSR) must be named in this context, as it aims to strengthen the cooperation between the numerous different actors in the region, also in the field of tourism, a priority area of the strategy and for which Mecklenburg-Vorpommern is priority area coordinator. The EUSBSR provides a long-term perspective, and this is very important. Being the nature of projects, they often cease to exist after they have run out, but there generally is a need to continue efforts with a long-term view if lasting benefits are to be reaped.

From a regional perspective, the EUSBSR has moreover been a signpost pointing towards future ways of involvement of regional stakeholders during the consultation process. The strategy very much follows a bottom-up approach, being based on consultation of national, regional and other stakeholders of the region. As both - a member of a regional parliament and of the EU-Committee of the Regions - I vehemently support this approach. The knowledge that is gained from this type of consultation process is valuable in formulating strategies which truly tackle the right challenges and strive to seize the needed opportunities. It is the regions which have the possibility to share their knowledge on local challenges and opportunities and when combining the input of the various regions, a coherent picture of challenges and opportunities can be generated. Every region is unique and this is a major advantage for the Baltic Sea area if an overall marketing of itself as a tourist destination is envisaged, and I would be surprised if the regions bordering the Baltic Sea could not also

identify similarities. As discussed during the 2nd Annual Forum of the EUSBSR in Gdansk in October 2011, one similarity between the regions and countries around the Baltic Sea could already be the common culture of cooperation.

The discussion on identification or branding of the Baltic Sea region for the benefit of tourism is ongoing. Identification with the Baltic Sea region by the citizens living in the area is seen as an engine for developing tourism as is the branding of the region to the international market. The Baltic Sea Tourism Forum states that the term “Baltic Sea tourism” can more strongly and globally be positioned as a brand. Possibly, there is the need to engage in stronger joint marketing efforts.

With regard to marketing of the destination ‘Baltic Sea Region’ and tourism as the overall field, Mecklenburg-Vorpommern has, as mentioned previously, taken on the role of priority area coordinator within the EUSBSR. One of the steps taken in the context of better coordinating the various actors in the tourism field was the organization of the first Baltic Sea Tourism Forum by Mecklenburg-Vorpommern in Rostock-Warnemünde in 2008. Since then, three further forums have taken place. Clearly, there is a willingness to cooperate among the actors. The upcoming Baltic Sea Tourism Forum is envisaged to be held in Germany and Denmark 14-16 November 2012. Moreover, in 2012 - on 3-4 May - Mecklenburg-Vorpommern will host the Priority Area 12 Tourism Conference of the EUSBSR in Rostock-Warnemünde.

During the first half of 2012, it will also be interesting to follow the development of the EUSBSR during the Danish presidency of the Council of the European Union and to see to what extent Denmark will carry on with the promotion of the EUSBSR and greater cross-Baltic Sea cooperation efforts. The hope is that it will do so strongly. The economic and financial crisis which today requires much attention will certainly continue to play a major role also during the upcoming Danish presidency. Nevertheless, sight should not be lost of the need to further promote the Baltic Sea region in general and cooperation in the field of tourism in particular.

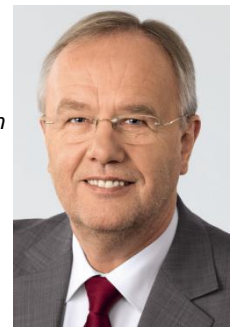
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¹ Collier, M., (2008) ‘The Challenge of Branding the Baltics’, *BusinessWeek*, 15 July 2008, available at www.businessweek.com/globalbiz/content/jul2008/gb20080715_150523.htm?campaign_id=rss_daily.

The Baltic Sea and the Arctic will increase their importance in the energy security for the European Union

By Jorma Korhonen

Energy issues continue to dominate world headlines. The oil market, the future of nuclear power, the rapidly changing gas market, major increase in renewable energy production and environmental concerns are shaping energy and climate policies. In the Baltic Sea Region, at issue are how best to maintain and develop reliable as well as economically and environmentally sustainable energy systems.

With the Nord Stream gas pipeline, about one third (55 billion m³) of gas imports to EU come through the Baltic Sea. The fast growing oil deliveries through Russian ports is estimated to increase Russian oil transport through the Baltic Sea to approximately 230 million tons by 2015. That corresponds to almost half of current Russian oil production. As maritime transport and petroleum shipping in particular, continue their dramatic increase in the Baltic Sea, we must confront the ensuing huge environmental risks.

Russia is the EU's most important energy supplier, and companies in the EU are Russia's key foreign investors, the Finnish company Fortum being a major example. Some have expressed concern regarding how energy security might be affected by dependence on energy from Russia. Russia's share is 36% of the EU's gas imports, as well as 31% of oil imports and 30% of coal imports. According to the latest World Energy Outlook by the International Energy Agency, the EU accounted for 61% of Russia's fossil fuel exports in 2010. However, the IEA predicts that in a longer term an increasing share of Russian energy exports go eastward to Asia.

Instead of dependence, we should recognize our mutually beneficial interdependence, which will grow as the EU's own oil and gas production diminishes. The EU and Russia are closely interconnected through a dense energy network, notably concerning oil and gas. Although both sides will continue their diversification policy, this requires close cooperation on existing and new infrastructure. This should be done through a strong legal framework for cross-border investments in joint projects. The EU and Russia need to agree on a legally binding framework for energy trade and investments. The WTO membership of Russia is welcome news for over-all economic relations with the country. Substantial energy-related provisions to be negotiated under a new basic agreement between the EU and Russia would give further predictability in the energy sector.

As anti-nuclear concern spreads in Europe after the Fukushima disaster, the gradual shutdown of all nuclear power plants in Germany will have important effects on Europe's climate change ambitions as well as on the supply and price of energy. This being said, the countries around the Baltic Sea have ambitious plans to increase nuclear energy capacity. Russia is building four reactors in the Leningrad region and planning two reactors for Kaliningrad. Finland should have one new reactor ready in 2013/2014 and two others by around 2020. Sweden has made a decision in principle to grant permission to replace their 10 reactors with new, and probably higher capacity reactors. Lithuania is planning to replace the recently closed Ignalina NPP with a new one to be built in Visaginas. Poland has plans for at least two NPP's.

Shale gas is a game-changer in the United States, and may well prove to be the same in regions of north-west Europe. Recent explorations of shale gas in Poland could result in production by 2014, with estimated reserves lasting

Poland for 300 years. Poland, now a gas importer, would become a gas exporter. With increased exports of liquefied natural gas (LNG), the world is no longer dominated by pipeline gas only.

Recent oil and gas explorations in the Arctic, especially in Norway, are very promising. The agreement of the delimitation of the Barents Sea between Norway and Russia opens a vast territory for further exploration. In addition, the known large reserves in north-west Russia will increase the importance of north-west Europe in the energy supply for the EU. Some Arctic oil and gas resources might eventually be exported through the Baltic Sea. According to the IEA report, Russia will push gas output in the Barents Sea and Yamal Peninsula, at least in the longer term, to help to compensate for expected declines elsewhere in Western Siberia. Oil resources in the same areas also look very promising.

The EU regional initiative Baltic Energy Market Interconnection Plan (BEMIP) has already produced concrete plans and projects to connect the electricity networks of the three Baltic States to neighbouring EU countries. These interconnections have been partially financed through the European Energy Programmed for Recovery and new financing methods are under active consideration. BEMIP is also considering the merits of a joint LNG gas terminal in one of the Baltic countries, as well as plans for the new NPP in Visaginas in Lithuania, possibly as a joint project of the Estonia, Latvia, Lithuania and Poland.

The establishment of these interconnections will consolidate the infrastructure for the internal energy market of the European Union in the Baltic Sea region. This is an important step for further development of EU's external energy relations, enhancing the ability of the EU to "speak with one voice" with external energy partners.

The EU and its member states have ambitious plans to increase renewable energy. This means increased domestic energy production, be it hydro, wind, wood, biogas or other biofuels. Here as well, north-western Europe is well placed due to its natural resources.

The production, transport and use of energy in north-west Europe will increase considerably. In view of the EU's growing need for energy coupled with the decrease of indigenous energy production elsewhere in the EU, the importance of energy issues in the Baltic Sea Region are assured to remain in tomorrow's headlines.

Jorma Korhonen

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Positioning Turku on the world map – the city's year as the European Capital of Culture

By Suvi Innilä

The year 2011 was Turku's moment to shine in the world's spotlight as the city celebrated its European Capital of Culture status alongside the Estonian city of Tallinn. Now, as the year is at its end, one can already say that Turku has taken full advantage of this unique moment, not only in terms of developing the cultural life of the city and the wellbeing of its residents, but also in relation to its global visibility and attractiveness.

The Turku 2011 preparations began as early as 2003 and aimed, throughout the process, at increasing wellbeing, developing creative industries as well as strengthening Turku's international presence – the legacy of which will last long into the future.

The Capital of Culture programme included 163 individual projects consisting of 5,000 various events and activities. These were organised by thousands of artists and other actors from as many as 63 different countries, resulting in wide-ranging cooperation. The overall attendance to the events was nearly 2 million. The programme introduced a variety of magnificent and unique large-scale events for bigger audiences. These included the Grand Opening event in mid January, the world's first heavy musical 1827 Infernal Musical, the youth orientated Eurocultured street festival in May, the awe-inspiring Cirque Dracu-la variety performances during the summer and opera performances in the courtyard of the Turku Castle during August. The Culture 2011 Tall Ships Regatta on the last weekend in August was specially arranged and brought in excess of 350 000 visitors to the Turku port and marina. The world premiere of a new Finnish opera Eerik XIV was hosted in November, whilst the six exhibitions of the Logomo centre for culture were open for the public every day during 2011.

The Turku 2011 programme was not, however, only about spectacles and grand events. It also included a wide range of community-based projects as well as research and development projects. These are providing long-term operational models of great importance to their target groups. The new art-based learning methods for pupils with learning difficulties and the individual cultural plans for the elderly people living in elderly people's homes are just a couple of examples.

'Culture does good' was Turku's main message to Europe as the European Capital of Culture. The Turku 2011 programme included tens of projects which in different ways supported and strengthened people's wellbeing and health through culture and arts. These projects were monitored and studied by a multidis-ciplinary research programme on cultural wellbeing at Turku University. This combination of practical wellbeing projects and research forms a legacy that has raised interest from all across Europe.

The Turku 2011 process was heavily focused on people. Communal, wide participation and openness were the key-principles when realizing the goals for the year. The programme was based on a wide un-derstanding of culture, aimed at luring new target groups as well as helping as many people as possible to embrace the Capital of Culture Year. The success of these objectives is already being realised. The increase in interest towards culture is strongly evident throughout Southwest Finland: over 40% of Turku residents and over 20% of other residents of Southwest Finland report increases in consumption of cul-ture. As many as 96% of the Finnish population knew about Turku's position as the European Capital of Culture, and the figure was even higher in the Turku region.

These results were partly achieved through the strong emphasis on accessibility as well as the easy ap-proach to the programme's activities. Although the year introduced the audience to bold and artistically ambitious productions, it also brought culture and arts to the streets of Turku. There were several open-air events and exhibitions of environmental art, such as the Flux Aura project, alongside many community-based cultural events taking place in the suburbs of Turku, including the Suburban Weeks project.

As mentioned, Turku's year as the European Capital of Culture was not only about developing the city and the wellbeing of its residents, it was also very much about placing Turku on the world map. The value attributed to the visibility in the domestic media was €33 million. Altogether 500 international journalists visited Turku during 2010 and 2011. They obviously liked what they saw and heard as the value of the visibility of Turku 2011 in the international media was at least €20 million. It should be noted that coverage of the cultural year was global, not only European, beginning with a two page article in the New York Times in the autumn of 2010 and continuing to reach media outlets in countries as far afield as Mexico, Thailand, Japan and Australia. Another notable achievement was Turku's nomination as the 4th most interesting travel destination in 2011, in USA Today's Top Travel destinations.

So what was it that made the international media interested in Turku as the European Capital of Culture? The answer is quite clear – everything which made Turku's year unique and special. In the globalized world, local idiosyncrasies and the qualities that distinguish one city from another are what make a place most attractive. Concerts and art exhibitions located in the archipelago, projects such as Saunalab that introduce special saunas designed by artists in the city centre, or the 876 Shades of Darkness project reflecting the Finnish relationship with darkness. All of this as well as the city's atmosphere, the restau-rants and the local food, were of great interest to the global media.

The international media was also very attracted to Turku's wellbeing approach to culture, including the 5,000 cultural prescriptions – tickets to Turku 2011 events and exhibitions – the doctors of the health cen-tres in Turku distributed to their patients in 2011.

As Turku demonstrates, receiving the European Capital of Culture title can serve as a once-in-a-life-time opportunity for a city, especially for a middle-sized European city such as Turku. However, although the year itself was a success, the challenge of maintaining the Capital of Culture spirit after 2011 is what the citizens of Turku are now embracing.

Suvi Innilä

Programme director

Turku 2011 Foundation

Finland



M.A. Suvi Innilä has been working with the Turku 2011 project since its begin-ning. She led Turku's bidding phase for becoming the European Capital of Culture 2011 during the years 2004 – 2007, and became the Programme Director of the Turku 2011 Foundation in May, 2008.

Role and achievements of the Nordic Council of Ministers (NCM) on environment and energy in North-West (NW) Russia, as a part of the Baltic Sea Region

By Arne Grove

The official Nordic cooperation involves five Nordic countries and is implemented in the framework of the Nordic Council of Ministers, an equivalent cooperation between the Nordic governments. Historically, relations with Russia and the Baltic countries have been directly decisive for stability and development in the Nordic region. Willing to further extend these relations NCM earmarked a substantial part of its budget for this cooperation and opened its offices in the three Baltic countries in 1991 and in St. Petersburg in 1995. Then in 2006 the office in Kaliningrad was established.

This article will be with focus from Kaliningrad since the office was opened even other activities has been undertaken by the offices in the Baltic States and St. Petersburg and by other Nordic institutions like NEFCO and Nordregio.

Environment

The NCM Information office in Kaliningrad has been playing an active role in the promotion of the implementation of HELCOM Baltic Sea Action Plan (BSAP) since 2008 by arranging Stakeholder workshops in NW Russia aimed at facilitating involvement of local actors into the process of implementation of BSAP for NW Russia. As the result recommendations on the implementation of BSAP in NW Russia developed together and approved by the Governments of NW Russia regions were included in the National Action Plan for BSAP implementation, which was presented at the Ministerial meeting in Moscow in May 2010.

Currently, the cooperation with HELCOM on promoting the implementation of HELCOM BSAP for NW Russia is continued. To this end NCM granted EUR 200 000 to carry out activities in the Russia complementary to the activities within the EU-financed project "Sub-regional risk of spill of oil and hazardous substances in the Baltic Sea" (BRISK, 2010-2012). The NCM project called BRISK-RU ensures participation of the Russian experts in the joint implementation of the HELCOM BSAP. BRISK and BRISK-RU are flagship projects of the EU Baltic Sea Strategy and are carried out under the auspices of HELCOM. Both projects are aimed at increasing preparedness of all Baltic Sea countries to respond to major spills of oil and hazardous substances in the Baltic Sea. The work included overall risk assessment of pollution caused by shipping accidents (incl. the impact of oil, environmental vulnerability, effect of different investigated scenarios for each sub-region, effect of existing response measures for each sub-region) covering the whole Baltic Sea area; identifying gaps in existing emergency and response resources and preparing a list of needed additional resources and elaborating corresponding investment plans for sub-regions; facilitating the development and conclusion of sub-regional agreements between neighboring countries to ensure efficient joint response operations. Facilitation of participation of Russia in these activities is deemed of vital

importance in reaching the goals of the HELCOM BSAP and the EU Baltic Sea Strategy.

Energy efficiency and energy planning

Since 2008 NCM has been active in cooperation with NW Russia and the Baltic states on energy planning, energy saving, energy efficiency and promotion of use of renewable energy.

NCM established a dialogue on energy cooperation with the authorities on national, regional and local levels as well as with such international actors as BASREC, Baltic Development Forum and Union of Baltic Cities. This cooperation provided a good possibility for these organizations to work with actors responsible for energy planning and implementing the Russian Federal Law on energy efficiency adopted in November 2009. The NCM Information office in Kaliningrad made a great contribution to this cooperation by organizing a number of activities for example, energy workshops and conferences, study visits, Energy Planning Academy BALREPA and trainings on energy management according to international standards ISO 50001. One of the outcomes of this work is the established network of energy managers from 11 regions of NW Russia and municipalities of the Kaliningrad Region, as well as energy experts within involved regions.

The energy activities facilitated better understanding, motivation and contributed to the increasing of energy efficiency in NW Russia and paved the way to more projects financed by NCM, EU, local and federal funds and NEFCO (3 projects developed by some of involved municipalities are approved and 10 more projects are in a pipeline).

The energy activities financed by NCM initiated changes in the vision of involved stakeholders on sustainable development of the BSR with regard to energy policy, energy scenarios and better energy planning.

During this year's annual summit of Baltic Development Forum in Gdansk the Nordic Council of Ministers had a session on Bioenergy. Sustainable production and use of bioenergy will be a new direction of the activities of the Nordic Council of Ministers, where the role of the offices in close cooperation with the secretariat in Copenhagen can be to facilitate cooperation among relevant stakeholders and support sustainable economic growth in the Baltic Sea Region.

Arne Grove

Director

Nordic Council of Ministers Information office

Kaliningrad

Russia

Piracy is a menace to international sea traffic

By Bo Österlund

The world slumbered for a long time in the belief that piracy was a matter of history. The first hints of the emergence of this menace and retarder of peaceful sea traffic reappeared, however, in the 1980s. News of merchant ships en route assaulted by pirates trickled from Asia, the Strait of Malacca and the waters of Indonesia. In the years 2003 – 2008 these observations were concretized revealing a global activity off the coast of western Africa, South America, India, and Bangladesh. Actually there is nothing new in piracy, i.e. in an assault upon a vessel at sea by outsiders. What is new is the intensity of the action, and the manner of operation as well as the considerable and rather far-reaching economic impacts of these hijackings.

One assault every day

Within the five-year period given above, 622 verified hijacking attacks were registered; 387 i.e. more than 50 per cent in the waters of Indonesia. This equals, on an average, to at least one assault or attempt of piracy per day. When it comes to the frequency of the cases, the situation had remained on the same level ever since the latter half of the 1990s.

On the initiative of the United Nations, the countries in southeastern Asia on the coast of the Strait of Malacca, i.e. Indonesia, Malaysia, and Singapore were called to the same assembly hall to solve their common problem. One of the arguments in calling this convention was the announcement of the United States concerning the curtailment of its own marine presence, and, thus, its diminishing protective activity in the area. The gaze of the United States was already turning in the direction of the China Sea to acquire a foothold for its marine forces. The cooperation and joint efforts of the three countries to put an end to piracy have given successful results. In 2003 there were more than 120 registered assaults in the Indonesian territory, which was the highest frequency of such events in the world. In 2008, no more than 21 piracies were verified in the area, i.e. a fall of almost 80 per cent. This was partly due to the fact that 80 patrol ships were stationed in this archipelago of 17 000 islands to prevent piracy.

In the statistical year 2007 almost 50 per cent of the pirate attacks in the world occurred off the coasts of Somalia and Nigeria. In 2008, pirates made as many as 293 assaults upon merchant vessels, and in October 2009 the total number of the whole previous year had already been surpassed. According to the piracy report on last year (2010) published by IMB (International Maritime Bureau), piracy seems to be growing again on all the seas of the world, both when it comes to the number of cases and to their geographical extent. Last year the pirates succeeded in hijacking 53 vessels and kidnapping 1 180 sailors.

The European Union joined the defensive manoeuvres with its own operation called *Atalanta*. The NAVFOR (Naval Force) *Atalanta*, launched in December 2008, is the first marine operation aiming at crisis management carried out by the European Union. This operation is a part of the large-scale measures to stabilize the situation of Somalia. A sustainable solution demands a progress of stability and development of constitutionalism in Somalia. The present mandate of the manoeuvre will be valid until December 12, 2012.

The assignment of *Atalanta* is, in the first place, to protect the vessels of the WFP (World Food Program) transporting food aid to Somalia. Its second obligation is to protect other vessels sailing in the coastal waters of Somalia, and to prevent piracy and armed hijackings. In addition, the vessels participating in the operation are to shelter the AMISOM (African Union Mission in Somalia) transportations when requested by the General Secretary of the United Nations. So far, the operation *Atalanta* has been successful in its principal task, viz. protecting humanitarian transportations. The operation has, where possible, protected and convoyed also other sea traffic. Capturing pirates is not the principal obligation of the operation.

Last year as many as 35 of the attempted hijacking assaults were registered as being performed by Somali pirates. The activity

has, however, diminished in comparison with the 102 cases of the preceding year. This might be due to the presence of the marine forces of the international community. During the first quarter of last year pirates made armed boardings on 26 vessels, 18 vessels were objects of gunfire, 12 suffered damage on account of attempted boardings, and 11 fell victims to successful pirate hijackings.

The hijacking of a Danish sailing-boat and its prolonged "cat-and-mouse"-game is bound to corroborate this trend of change, and the introduction of more severe methods of violence. The Danish family is now free after several months of being captives

Piracy makes you rich

Profiting lies, of course, as stated above, in the background of piracy, and plain money is the decisive factor in their undertakings. The pirates insist on gaining ransom money of up to one million US dollars for the crew, the vessel, and the cargo. In comparison with other ways of earning money it may be mentioned that the turnover of fishing off the Somali coast is under 2 million US dollars annually. Piracy might thus be regarded as extraordinarily profitable "business".

As a consequence of piracy the prices of brides have risen considerably at the pirate bases. Today, the bride must be dressed in gold and diamonds, their shoes must be made in Italy, and the wedding dress must be bought in Dubai. Japanese cars, mobile telephones, plasma televisions, and DVD players change owners in the form of dowry. In the days prior to the rise of piracy the bridal dowry consisted of a few goats and some twenty hens. According to the estimates made by the Foundation "One Earth Future" piracy causes annually an extra cost of 4 – 8 thousand million €. This figure comprises the ransom money, insurance premiums, military protection operations, the extra expenses caused by compulsory route alterations, and the costs caused by anti-piracy operations of various organizations.

The operational area off the Somali coast and in the Gulf of Aden embraces slightly less than three million square kilometres. In comparison with our own lifeblood artery the Baltic Sea whose total area comprises slightly more than 400 000 square kilometres, the operational area of the Gulf of Aden is thus approximately seven times larger.

More than 22 000 vessels sail through the Suez Canal every year. These vessels transport more than eight per cent of the total world trade volume. Additionally, more than 10 000 merchant ships, fishing vessels, and fishing boats traffic in the Gulf of Aden. There are considerable oil deposits in the area, and about 20 per cent of the world's gas deposits have been discovered in this region. More than 40 per cent of the oil transportations of the world trade travel through the Strait of Hormuz, and 11 per cent through the Suez Canal. Energy transportation means "big money" to pirates, and such transportations are thus very profitable targets in the form of enormous ransom sums. Pirates have been capable of increasing their capacity of open-sea operations by adopting a new method of manoeuvres in the form of so-called mother ships; some vessels have been already captured by the pirates who have transformed them into mother ships. Sophisticated intelligence and leadership systems and a developed and enlarged land and base network create the basis of making rapidly reacting choices of procedure.

The Commander of the Naval Forces of the United States established in his speech in May 2009 that the resources of the coalition were rather limited. About 30 warships are operating in anti-piracy activities off the coasts of Somalia. In theory a war ship is supposed to be capable of intervening within no more than ten minutes when needed anywhere in its operational area but this would actually require more than 1 200 war vessels off the Somali coast. Consequently, the rational procedure is to focus on the most actively trafficked waterways. In that way it will be possible to reach the above-mentioned necessary temporal preparedness when it comes to intervention, but even then in restricted areas

only. To create a similar density of vessels say in the Baltic Sea would mean concentrating more than 250 war ships in this area (depending on the velocity of such vessels). The large regional archipelago areas will complicate such theoretical calculations because of their own specific traits and particular needs; the shortest way to reach the victim vessel is not always feasible for navigational reasons. The marine forces of the countries around the Baltic Sea have actually no resources to exercise such activity, and to bring together a necessary fleet.

Unarmed Merchant Vessel – Easy Booty

The most vulnerable object in all anti-piracy operations is the merchant vessel itself and its crew. The 400 000 crew members on the 20 000 vessels sailing in the Gulf of Aden annually jeopardize their lives to protect the freedom of the seas and to maintain international sea traffic.

For decades, unarmed merchant ships have been easy booties in wars and conflicts. Although the situation off Aden does not yet meet the description of open war, violence already holds the reins. The area has obtained the status of a war zone in the classification of international insurance business. The amount of insurance for a merchant vessel sailing through the Gulf of Aden was in 2008 only 0,15 per cent of the value of the ship; today the charge is 0,15 per cent, i.e. the expense is now tenfold. In the Strait of Malacca in the Far East the amount may rise up to 0,8 per cent, which is 50 times higher than in 2008. The freight charges have risen correspondingly, and the consumer is obliged to pay these soaring charges in the form of higher prices of commodities.

On the initiative of the marine authorities of the United States the security system of the IMO (the International Maritime Organization), the ISPS (the International Ship and Port Facility Security Code) involving vessels and ports with foreign trade activities has been universally adopted from the beginning of 2008. This arrangement binds every port and merchant vessel to design an up-to-date security plan, and to carry out pertinent and regular practices in this matter. Finnish foreign-trade ports are today fenced accordingly, and the access to the port area is controlled and prohibited without permission.

How then can the vessels protect themselves against pirates? The events off the Somali coast reveal that the attacks are mostly directed on vessels with low dry boards (the height of the main deck from the sea surface), sailing at low speed, with little preparedness against pirate attacks, and with slow response in repelling assaults. There is actually no chance to accelerate the low (below 15 knots) speeds or to elevate too low (below eight metres) dry boards but structural reforms might raise the threshold of being hijacked: obstacles of barbed wire on the gunwales, pressurized fire hoses on the decks etc.

In addition to the safety measures taken by the vessels themselves, war ships offer, within their resources, shelter on predetermined and hazardous route legs in the Gulf of Aden. According to the statistics pirate attacks occur mostly in broad daylight, and sailing on the risky legs should therefore be done preferably in the dark.

A pirate attack may be divided into three phases: in the first phase an unidentified object approaches the merchant vessel in a suspicious manner, in the second phase the approacher attacks, and in the third the pirates board the vessel and hijack it. If the defense measures work well, the attackers will at some point give up their intentions and disappear. If the pirates succeed in boarding their target vessel, the game is in most cases over. According to the instructions of the IMO the crew should, in such a case, stay calm, give up all resistance, and appear to be willing of cooperation with the attackers.

The various organizations within sea trafficking recommend that the defender, i.e. the merchant vessel should not resort to weapons in order to prevent further escalation and to save the lives of the crew. During this autumn the British have begun to use armed guards on their merchant vessels.

Consumers pay for Criminal Actions

Still, the criminal acts of pirates are a deep-going factor in global economy. Ransom money must be paid, and the vessels with their valuable cargo may be damaged. If this, in its turn, restricts the supply of the commodities concerned, the prices will go up, and, again, the consumer is the payer. Goods deliveries will be delayed or may not reach their destination at all.

In world trade operations the ship owners have to increase the structural safety measures of their vessels; these, in turn, will incur expenses of maintenance, and the impacts will be recurred in freight charges and in consumer prices. One notable and appreciable solution might be to transfer the sea transportations to more secure routes, but this will lengthen the sea passages resulting in rising expenses to be paid lastly by the consumers. Sailing round the Cape of Good Hope in order to avoid the Gulf of Aden will lengthen the sea passage from the Persian Gulf to Rotterdam more than 3 500 sea miles; at the rate of 15 knots this would mean about ten extra days at sea. The extra cost of fuel would be paid again in higher consumer prices.

The Core of the Problem Lies in the Soil of Somalia

Preventing piracy and taking precautions against it is the obligation of the entire civilized world. The situation in the Strait of Malacca was stabilized through mutual understanding of the conference called by the United Nations, and the number of pirate attacks was reduced as a result of the tripartite treaty of the states in that area. The situation off the Somali coast is entirely different: even though the resources might be sufficient at sea, the core of the problem lies on the land.

The support area of the pirates, i.e. the coastal regions in Somalia is void of the jurisdictional authority of a constitutional state. The bases of the pirates seem to function well as a part of their activity. The population seems to give them their silent approval close to the large-scale unemployment in the area. To them, piracy appears to be lucrative and relatively secure business.

Apprehending persons suspected of piracy, and arrangements agreed in advance to surrender them into the hands of justice would be a step in enhancing the preliminary threshold of deterrence. Releasing pirates gives them, instead, an opportunity of renewing their attempts to attack appropriate targets; the effect of protection and its results come thus to nothing, they will flow into the sands of Somalia.

We all will benefit by a successful solution which will eradicate piracy for good from this world. The result of such a solution will be seen, if not in our wallets but at least in the prices of commodities universally needed, in the price of fuel, and, in the end, in our own well-being.

Bo Österlund

Commodore (retired)

Finland

Russia and the European Union – a multilayered relationship

By Nina Vaskunlahti

“The EU has spent the last four years wishfully thinking that Putin’s successor as president, Dmitry Medvedev, would slowly transform Russia into a modern country and therefore a better partner”, write Ben Judah, Jana Kobzova and Nicu Popescu in a recently published paper on Russia (European Council on Foreign Relations, November 2011). During the last four years the European Union and its Member States have pursued active policies with Russia – the EU has just not spent time idly wishing for something to happen. Or better partners to appear.

It is in the interest of the European Union that the relationship with Russia develops on all levels. Since 2008 the European Union has been negotiating a New Agreement with Russia to replace the Partnership and Cooperation Agreement. The New Agreement would create a legally binding framework for the cooperation and bring the contractual relationship to the 21st century. The negotiations have not been easy. It takes time for the 27 Member States to tune their voices, and Russia for its part has chosen to be choosy in its approach proposing e.g. a series of sectoral agreements. The chapters on energy, trade and investment have been difficult to negotiate, and there has practically been a standstill situation. We have had long debates on human rights, common values and interests and how to find the best ways to respond together on global challenges. The views do not always meet but that does not mean that we would leave the negotiating table.

Russia has now successfully concluded its long WTO accession negotiations. The EU was a tough partner in these talks. The Russian chief negotiator was through out the whole 18 year period the same official, Maxim Medvedkov but on the EU side, many faces came and went. Our line, however, did not slip. Both Russia and the EU have a lot to gain as Russia finally – hopefully by autumn 2012 – becomes a member of the World Trade Organization. The EU is the most important trading partner for Russia: in 2010 alone the total volume of trade between the EU and Russia was nearly 250 bln €, and c. 80 % of the foreign investment in Russia is of European origin. The WTO accession should also pave the way for concluding the open chapters in the New Agreement.

Mobility is an important issue in the EU Russia relationship. The ultimate goal is visa freedom but there is still a way to go. It took Russia almost seven years to agree on “common steps on visa free short term travel” with the EU. These common steps define criteria and preconditions - such as border controls, document safety, biometric passports, registration requirements etc. - to be fulfilled and implemented before the EU can even think of the next

steps: a mandate for actual negotiations on visa waiver agreement.

The EU and Russia do not always see the world in the same way. We often have different objectives and perceptions regarding foreign policy or global issues. Russia’s foreign policy is often directed by fairly dogmatic principles, and Russia prefers status quo. The EU, for its part, is more prepared for change and has a vast tool kit to deal with transition. The weight of “soft power” is still a relatively unknown in Russian thinking.

Differences should not, however, prevent us from seeking ways to cooperate and addressing issues of joint concern. Both have the right to own internal decision making procedures but the ever more globalising world is putting new demands which can only be responded together. Russia is not an isolated island safeguarded by endless energy reserves. It can only claim to be a global player by acceding to global rules and respecting its neighbours, individually and together.

Partnership for Modernization with Russia is a concept that was launched two years ago. It is a tool for the European Union to advance wide ranging reforms in Russia – and together with Russia. Modernization is not something that can be built in an overnight but it requires systemic approach and profound changes in the society. There will be no lasting modernization without rule of law and civil society or tackling the corruption from the top to the bottom. This is something most Russian partners also know even though acknowledging it can be more difficult.

The EU and Russia have already gone a long way together. The relationship is still challenging even though it has matured quite a lot. A mature relationship should also mean that difficult issues can be openly tackled and discussed – be it the essentials for a modern open society, human rights, cooperation with the neighbours or energy routes. The European Union has no interest to compete with Russia but to work together. But, as always, it takes two to the tango.

Nina Vaskunlahti

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Finland

Russian finance system on the waves of global finance crisis

By Sergey Dubinin

European sovereign debt crisis dramatically enlarged the business risks of financial markets and paralyzed the European recovery. Local problem of the overleveraged Greek government has transformed into global financial burden and undermined the business community confidence. The 2011 rate of the European countries GDP growth slowed down and the Russian economy development was not an exception. 2011 year forecast diminished from 4.5% to 3.5%. The 2012 – 2014 economic growth would doubtfully overcome 4.0% annual rate. Such rates are very close to the other Eastern European countries and significantly lower the average BRICS country level.

The global financial turmoil shocked the Russian Finance System as well. The Russian stock market volatility is a result of the foreign short-term investors sell off of the Russian liquid assets and capital withdrawal. Thus the Russian ruble (RUR) exchange rate devaluated in 2011 August – October by 12% in spite of the stable surplus of the current balance of payment.

The officially declared strategic task of Russian Government is the acceleration of GDP growth and institutional and technical modernization. It's the economic policy goal – to diversify the structure of national economy and to improve the Russian business climate. Today there exists overestimation of the Russian economy risks (S&P rating is only BBB). It blocked the investments process and hinged the post-crisis recovery.

But the main danger for Russian economic growth nowadays is the potential new wave of EU and USA highly probable recession. It should decrease this economies demand for Chinese manufactured goods, Indian services and Russian commodities. The level of oil and gas prices has a key vital importance for Russian fiscal and monetary stability.

Russian Federal Budget is balanced in 2011. But in 2012 – 2014 budget expenditures forecast would be slightly larger than revenues. Budget deficit would be about 1.3 - 1.7% of GDP. The government predicts that the deficit-free budget should be achieved by 2015. Russian sovereign debt to GDP does not exceed 10%. Russian Government Reserve Fund was grown up to over RUR 1.5 trln. And the National Wealth Fund should reach RUR 2.6 trln. The Central Bank of Russia (CBR) gold and foreign currency reserves reached more than \$550 bn., which quantity is bigger than the hole amount of all Russian public and private foreign obligations.

Minister of Economic Development Elvira Nabiullina said on the "Russia Calls" Forum in October 2011: "Unlike in 2008 a financial sector is in good condition. Since then banks have significantly improved their foreign currency positions and quality of their assets." If commodity prices do not collapse the Russian economy, told Minister, will continue to growth and the Ruble will remain more or less stable. By her estimate in a worst case scenario i.e. the price of oil per barrel falls to around \$60, the Federal Budget deficit could soar to 4.5% of GDP in 2012.

Russian bank sector has a dual nature: 73 largest banks concentrate more 85 per cent of sector assets. About 1000 banks have less 15 per cent of assets. At the crisis period Ministry of Finance and Central Bank of Russia succeeded to prevent mass corporate bankruptcies,

stabilized the financial system. Monetary powers extended subordinated loans to the banks, allowed to include its in the formation of up to 15 per cent of Tier 1 capital. Ministry of Finance issued OFZ bonds that banks could count as Tier 1 capital. Those efforts were combined with strengthening the bank sector supervision and control.

In the 2008-2009 crisis period the CBR sanctions were rather limited, only 80 bank licenses were withdrawn. After crisis market capitalization value of the bank sector declined to the dates 30% below pre-crisis level. In 2010 – 2011 the new lending cycle began. One year volume of the bank credit to corporate sector increased by 12 – 15% vs. 30 – 40% before crisis. Russian banks are very close to the Basel-3 requirements. Tier 1 capital / assets quota is more 11%. The quota of the "toxic assets", estimated by CBR, is about only 9%.

In October 2011 CBR and Ministry of Finance declared the new wave anti-crisis protection program – to apply bind over lending leverage to support the Bank Sector liquidity. Corporate lending is growing more fast in second half of 2011 – by 1.4-1.5% every month.

In the same time the CBR monetary policy needs the very complicated balance between the ruble exchange rate stability, the banking credit multiplication, money supply control. In 2011 the inflation rate (CPI index) is about 6.0 - 6.5%. The CBE anti-inflation policy is more successful, the price increase is lower 2.0% annually. But the price stability makes the sovereign debt burden harder. The only realistic monetary policy nowadays should be grate-scale money supply to stimulate the economic growth. In the same time the only way to reduce the burden of the debts is high inflation about 5% in 5 – 6 nearest years.

The main challenges of the economic growth in Russia are concentrated in structural and institutional spheres. Total budget recourses are not enough to meet all the public investments, military and social goals simultaneously. The priority choice should be to fulfil all the social commitments and human and households obligations. Both the Pension Fund and Social Fund will have the deficits. The task to make them self-sufficient is extremely hard. Today and tomorrow these deficits must be covered by the National Wealth Fund resources.

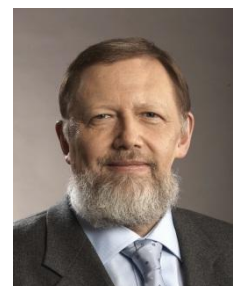
Martin Wolf, Financial Times analyst, wrote: "The fundamental challenge is not financing, but adjustment..." This approach is adequate not only for nowadays eurozone problems, but for Russian economy developments factors also.

Sergey Dubinin

Chairman of the Supervisory Council

JSC VTB Bank

Russia



Finland needs a strategy for immigration

By Mika Kaukonen

We Finns still live according to the stern belief that doing things ourselves yields the best outcome. We hardly even dare to rely on the help of our neighbors. We value hard work, diligence and perseverance. We persistently strive to reach our goals, even if it means exhausting ourselves to the bitter end.

Nevertheless, it is an irrefutable fact that the number of Finns on the labor market will decrease dramatically in the upcoming years. According to the Eurostat statistics concerning population scenarios, the dependency ratio in Finland will be the weakest among the EU countries by 2030, and the proportion of the working age population as compared to the entire population will drop from 67 percent to 58 percent. For example, it is estimated that the field of social welfare and healthcare will lose a total of 185,000 professionals by the year 2025, while at the same time there will be an additional need for 125,000 new professionals. The total need for professionals in the social welfare and healthcare field alone will rise to 310,000.

Immigration arouses many intense feelings within us Finns. The phenomenon also involves prejudices and populism. Indeed, an article in the Helsingin Sanomat newspaper by the Taloustutkimus market research company revealed to the public in November 2011 just how biased we are towards foreigners. Many of us fear that they have come to here to just "lay around" and not work at all.

On the other hand, we do not seem to be the workaholics we imagine ourselves to be. As the numbers of the employed decrease, more and more Finns would sooner be prepared to shorten their workday than to lengthen it. The majority of us would still like to retire at the age of 63. However, the government is still looking for a solution to the future problems of lengthening the workday and raising the retirement age.

It is high time to admit that Finland's greatest problem in the future is not related to today's employees and work ethics; rather, it is the ominously approaching, uncontrollable lack of labor. Instead of engaging in futile discussion about the issue, we should be thinking about who will organize the employment of foreign labor in Finland and how it will be organized. Furthermore, it is important to consider the game rules for this type of activity in our society and how those rules are to be enforced.

Indeed, Finland needs a clear strategy drawn up by the government to lure foreign labor into the country. The competition is tough, e.g. Germany is worried about losing its competitive edge because, more and more, immigrants are choosing Great Britain or France. The deliberations of the Finland Promotion Board should, without a doubt, be utilized to lure foreign employees as well, not just for the purposes of tourism.

We here at VMP have already taken concrete actions to recruit foreign staff to meet the needs of the working world in Finland. However, this area of recruitment has a weak

reputation because there are many black economy entrepreneurs on the market at this very moment. Recruiting foreign staff is indeed business for us as well, but not only do we benefit from responsible recruitment but the society, client companies, employees and trade unions also benefit from it. When foreign employees arrive in Finland through a certified recruitment agency, they pay their taxes to Finland and they have a Finnish employment relationship with a Finnish employer. Foreigners coming to Finland to work at temporary posts pay their taxes to their own country.

The benefit to our society lies in the fact that the employees coming into Finland are treated just as well as our own nationals. Coming to work through certified channels also means longer trial periods. They have from a few months to more than one year to observe the Finnish society and decide whether or not they want to bring their family here. The trade unions also receive new members. Even now, nearly 20,000 of the employees with a foreign background belong to a trade union. Foreign employees who belong to a trade union are guaranteed all of the same benefits as Finnish employees.

Pioneers and those who disrupt official consensus in our society have always been labeled as the "village idiots". Responsibility does, however, call for the perfecting and refining of practices and operations models. Bringing foreign workers into Finland only when the need is greatest is not possible in practice, at least it does not yield the best possible outcome. The days of drudging along alone are over. Foreign workers should not be seen as a threat in our eyes, but as resources in Finland's labor market of the future. Without them, we Finns should prepare for significantly longer workdays and careers.

Mika Kaukonen

CEO

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The author works as CEO of one of Finland's largest, privately owned providers of staffing services, VMP Group. He has several years of experience in the management of international business, for example in the Middle East, the Far East, Western and Eastern Europe, which has provided him with knowledge of other cultures.

Current trends of internationalisation within the University of Turku

By Irinja Paakkanen

As one of the leading universities in Finland the University of Turku is an ambitious, research-led university with seven faculties and internationally acknowledged expertise from humanities to medicine and natural sciences.

The University of Turku is a significant multidisciplinary research cluster. Out of more than 3,000 academic publications per year 76 % is international. The main focus areas of the University are internationally competitive research and education, extensive business competence and effective commercialisation of innovations. The University of Turku offers an excellent research environment where multidisciplinary collaboration is enabled, among others, by six Academy of Finland Centres of Excellence, one Nordic Centre of Excellence, the Turku Centre for Biotechnology and the Turku PET Centre. The University of Turku hosts two multidisciplinary research collegia to promote research careers of young scholars: Turku Institute for Advanced Studies (TIAS) and Turku Collegium for Science and Medicine (TCSM).

Strengthening Doctoral Training

The University has almost 2000 doctoral students, over 10 % of which is international. Each year 140 doctoral degrees are awarded. In order to strengthen the doctoral training both on national and international level the University of Turku Graduate School was established last August. The Graduate School consists of local, national and international Doctoral Programmes which cover all disciplines and PhD students of the University. The Graduate School provides systematic and high quality doctoral training on academic topics as well as on transferable skills and career planning.

Campus of International Studies and Students

The University is recognised for the quality of teaching, research and excellent student support services. In 2011 the University of Turku was ranked 224th in the international QS World University Rankings, making it the second-highest ranked Finnish university. Turku School of Economics is ranked excellent by Eduniversal. School of Economics at the University of Turku offers also one of the Top 200 Best Masters Worldwide in Information Systems Management.

The International Student Barometer survey (Entry Wave 2010) shows that international students are very satisfied with studying conditions like libraries, computer classes, laboratories and IT-services. Foreign students in Turku give also positive feedback about international services, especially about the housing, admission procedure and orientation. Moreover, Finland's security and political stability in general is much appreciated.

Current student enrolment is over 20 000. This includes over 1,800 international students. Last year international students were mainly from Germany, Russia, China and France; altogether from 94 different countries. Most of them participate in different research projects or in one of the 16 international Master's Degree programmes. Among them, the multidisciplinary Master's Degree Programme in Baltic Sea Region Studies (BSRS) is a partner of newly selected Erasmus Mundus International Masters in Russian, Central and East European Studies (IMRCEES) programme.

Mobility within Strategic Partnerships

Almost 1000 students studied abroad for shorter or longer periods in 2010. During 2012 the University will review all its international student and teacher exchange agreements in order to integrate exchanges and the international aspect of studies even more closely to the curriculum.

The number of incoming exchange students have grown rapidly up to 600 during the last years mainly thanks to the University's active involvement in EU programmes such as Erasmus and Erasmus Mundus. The University of Turku is currently coordinating two large Erasmus Mundus – partnerships between EU and with Russia and with Belarussia, Moldova and Ukraine. These projects are closely linked to University's international cooperation within the Baltic Sea Region University Network and Coimbra Group. The University is also a partner of several other Mundus partnerships encouraging mobility in various levels between EU and third countries.

Furthermore, the University is member of other partnerships such as Nordic Centre at Fudan University in China and Southern African-Nordic Centre (SANORD). The new EU programme Erasmus for All 2014-2020 to be launched will surely benefit the University's international commitment in education and life long learning.

Recruiting talent

The University of Turku has recently introduced the tenure track system for teaching and research personnel. The purpose is to increase the predictability, competitiveness and attractiveness of the academic career as well as to advance the University's internationalisation. The aim is to find the most talented, suitable and motivated individuals for the tenure track positions in the increasingly competitive situation.

A new service concept *International Welcome Services* for incoming post-docs, researches, doctoral students and teachers will be launched in the beginning of 2012. The service includes e.g. advice on permissions regarding visa / residence permit, and information on arriving and settling in Turku. Moreover, the university has also recently adapted a Language Policy covering all the functions of the University, among them administration.

The action line that the University of Turku adopted a few years ago is coherent with the Finnish Ministry of Education and Culture's aim for high-quality, profiled and effective international university sector. The recent proposal for an upcoming reform of university financing model also introduces new indicators focusing more on internationalisation. This will surely encourage all actors involved to continue strengthening internationality as a natural part of the University community.

Irinja Paakkanen

Head of International Affairs

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Finland

Not why?, not when? – but how! – innovative solutions for the Baltic Sea

By Mathias Bergman

10–15 years ago we were all concerned by the mighty slogan: Globalization.

Today, we are living in the effects of that globalization; it has become reality. And we have come to realize what that word means. It means very fast movements of ideas, capital, goods, diseases and people – and a sense of being close to each other on our planet.

The closeness and the fact that we can observe effects of actions far away in our close surroundings have also brought about a new awareness that all humans are living on the same planet under the same rules of life.

This, in turn, is now turning into the realization that we are all part of our environment – in fact, we are a product of the global environment and ecological web. Thus, the environment is not an external “object” that we should take care of in order to fulfill regulations or follow guide lines or codes of conduct. Our environment is the space where we are, and it is a prerequisite for our being there.

All human (and other) activity takes place in that environment. From this follows that whatever we do is dependent on the environment, and vice versa, all our activities have effects on our environment.

This is a biological fact.

Thus, from now on we have to act consciously, carefully and in a sustainable* manner, in whatever we do.

This line of thinking must not be suffocating nor create unbearable pressure to Save the World. On the contrary, it contains the seed of hope for the future and provides new ideas and enormous motivation and inspiration for any type of activity.

Into this dawning world Baltic Sea Action Group (BSAG)** has introduced a novel mode of cooperation. We are not trying to save the whole planet but we concentrate on a well defined and well analyzed area, the Baltic Sea area.

BSAG was founded in 2008. The foundation is a Finnish legal entity but acts as a neutral part on behalf of the whole sea, not on behalf of any state or organisation

As stated over and over again, the Baltic Sea faces an ecological disaster. In some areas thresholds have been passed already: fishery, oxygen levels, eutrophication locally. If all hazardous substances of bottom sediments were released into the sea, we would face serious risks to human health for centuries to come. This means that the marine environment close to us is already in a state that cannot be accepted if we wish to stay a part of the global web of life.

This provides a concrete background to new actions. There is no point in blaming those who might have caused the present situation – we all have, in one way or the other. BSAG has therefore set out to engage all capable actors and to speed up the processes needed to save the sea.

The cornerstones of the novel private – public partnership are:

1. Everyone can do something
2. All humans perform the best when they are motivated
3. Any kind of incentive is a strong motivator to achieve goals
4. Nobody can save the Baltic Sea alone

5. Everybody performs optimally when allowed to do what they master best

6. Visible and strong role models have huge impact

7. Without pull and push from those in power, most initiatives will fail

BSAG has created a new way of cross-border cooperation (pt 4 above) based on voluntary actions by the participants. Everybody performs tasks of their own expertise (1, 2, 5) and with their own resources. In this way the actors perform at their best, doing what they know the best (5), without creation of any new managing structures.

A main driving force behind the process is the engagement of business enterprises and companies into the field of true and realistic actions for the environment (3). Companies are part of the process because by performing their Baltic Sea-focused tasks they can develop their contact network, their markets, products and concepts (2, 3).

Thus, a large group of experts and organizations have brought their expertise to the benefit of the sea, and this concept has proven very efficient.

The role of BSAG is to keep the Baltic Sea issues on top of the political and social agendas in the countries surrounding the Baltic Sea and to coordinate and focus the different actions (7).

To achieve this, BSAG asks for public statements, **Commitments**, from all involved parties. These Commitments describe - in a standard format – what the actor will do and in what time. In this way the public can learn which actions are under way.

Another tool to keep the Baltic Sea on the agenda is the **Baltic Sea Action Summit (BSAS)**. The first Summit was arranged in Helsinki in February 2010. To this event all Heads of State were asked to make a Commitment and were invited by a trio consisting of the President of Finland, Tarja Halonen, the Prime Minister of Finland Matti Vanhanen and the Chairman of the BSAG Foundation Mr. Ilkka Herlin (4, 6, 7).

BSAS 2010 in Helsinki was a success, presenting some 150 Commitments from all Baltic Sea countries, including those of the Heads of State. One of the most concrete and valuable Commitments was that of the Prime Minister of the Russian Federation Vladimir Putin, announcing the building of a new efficient waste water treatment plant in Kaliningrad. The Summit was widely followed by international media, and fulfilled its main purposes: To link all levels of society and actions, to gain attention to the ecological state of the Baltic Sea and to speed up processes to rescue it (4, 7).

The main tasks of BSAG are to keep up the momentum gained at the Summit, to manage the Commitments given, and to collect new Commitments. For new Commitments, BSAG is constantly in contact with companies, governmental bodies and other organizations to find matches between expertise and resources and actions for the benefit of the Baltic Sea.

The Summit is a one-day bi-annual event to be arranged in cities around the Baltic Sea. The Summit functions as an international platform for this new way of concrete cooperation, and focuses the main issues

efficiently. It also represents the development of this movable rescue process.

In February 2010 BSAG arranged a Follow-up event of the Summit in Helsinki, in the presence of President Halonen and ambassadors from all Baltic Sea states. The ambassadors reported on the progress of their respective Commitments. Good progress was stated and President Halonen announced greetings from Prime Minister Putin that the Russian Federation wishes to host the next Baltic Sea Action Summit.

BSAG is also introducing its activities into Sweden, and as part of that process the "Baltic Sea Living Room" event was arranged in Turku/Åbo 1 September 2011. In the living room a selected group of new Commitments were presented to HRH Crown Princess Victoria of Sweden and Prince Daniel.

BSAG is now gearing up for the coming Baltic Sea Action Summit and is preparing to leave the shores of Finland to sail on the open waters of the Baltic Sea.

Only by entering ports of all Baltic Sea countries can we all together save our sea for future generations.

* **Sustainable** = Capacity to endure. For humans, sustainability is the long-term maintenance of well being, which has environmental, economic, and social

dimensions, and encompasses the concept of union, an interdependent relationship and mutual responsible position with all living and non living things on earth.

Sustainable development = The Brundtland Commission of the United Nations stated on March 20, 1987: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

** The Foundation for a Living Baltic Sea operates under the name Baltic Sea Action Group (BSAG)

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Foresight for EU-Russia S&T and innovation cooperation

By Vicente Carabias, Karel Haegeman, Alexander Sokolov, Manfred Spiesberger, Klaus Schuch, and Irina R. Kuklina

Science and Technology (S&T) and Innovation cooperation between the EU, its Member States (MS), Countries Associated (AC) to the EU's 7th Framework Programme for RTD (FP7), and Russia is developing dynamically at the multilateral as well as bilateral levels. In this context and in the frame of the EU-FP7 funded ERA.Net RUS project, a foresight exercise is being implemented. Structural and thematic scenarios for a sustainable S&T and Innovation (STI) cooperation between the countries involved are currently being developed with the time perspective 2020. Foresight results shall provide a basis for a joint STI funding programme and will be fed into the policy making process on STI cooperation between EU MS/AC and Russia.

EU-Russia S&T and innovation cooperation

Support for innovation has come high on the policy agenda both in the European Union (e.g. Europe 2020 Flagship Initiative Innovation Union), as well as within Russia (e.g. Skolkovo Innovation Center near Moscow). While the EU strives to further strengthen its innovative capacities, Russia needs to catch up on innovation and acquire related know-how. At the same time cooperation in STI has been developing dynamically over the past years between Russia, the EU, its Member States, and Associated Countries to the FP7. Cooperation is ongoing on a broad scale both multilaterally and bilaterally.

At the multilateral EU level, the EU's Framework Programme encompassing research as well as innovation and the EURATOM Framework Programme (FPs) are the main cooperation forums. Russia has consistently been one of the most active non-EU and non-AC participants in the FPs. Through joint calls for research and innovation projects launched by the EU and Russia within the FPs ("coordinated calls") in various scientific fields (e.g. aeronautics, biotechnology, energy, health, nanotechnology, nuclear fission), cooperation has been intensified. Russia has funded in these projects its participating teams from own national resources.

The further development of the cooperation process is fraught with uncertainty. While there are positive signals indicating a dynamic development of cooperation, such as new funding schemes within the ERA.Net RUS project, the strengthening of bilateral cooperation and the trend of Russia opening up to international STI cooperation, we also observe some signs of stagnation. This concerns, for example, the decision of the EU to not open negotiations on the possible association of Russia to the FP7; instead a new strategic partnership in S&T shall be built, which is still vague. Moreover, uncertainties of politics within the EU and Russia, as well as international politics always have the potential for disrupting a further rapprochement.

Foresight exploring future EU-Russia relationships

In this context of developing EU-Russia STI relationships, a foresight exercise running from 2010-2012 is being implemented in the frame of the ERA.Net RUS project. The foresight activities will provide an analytical basis for a future sustainable cooperation policy in STI between EU MS/AC and Russia. At the core of the foresight process is

the preparation of structural and thematic scenarios for STI cooperation with a time perspective up to 2020. The development of this cooperation will be directed towards addressing societal and economic challenges that both the EU and Russia are most likely to face in the future.

In the first phase of the ERA.Net RUS project from 2009-2010, substantial analytical work was performed by the project consortium, including reports on the Russian S&T system and its funding, on experience of Russian participation in ERA.Nets and on an analysis of bilateral cooperation. The analytical work was supported through a focus group meeting with scientists, which tested for strengths and weaknesses of the Russian S&T funding system. In addition a comprehensive survey was conducted among the most relevant European and Russian funding organisations to take stock of the substance of bilateral STI funding instruments that are already in place. The mentioned ERA.Net RUS analytical reports can be accessed through www.eranet-rus.eu.

This preparatory work provided a solid basis and valuable input for starting up the ERA.Net RUS foresight exercise: In the framework of the structural scenario development, a "Creativity Workshop" gave room to discussing the critical variables and defining the underlying dimensions allowing to differentiate scenarios. The ERA.Net RUS foresight partners selected four scenarios for EU-Russia STI cooperation in 2020 and elaborated them in more detail: They outlined one optimistic ("*R&D policy paradise*"), one pessimistic ("*Lost in diverging priorities*") and two intermediate ("*Isolated R&D excellence*", "*Empty cooperation programming shell*") scenarios through storytelling, collection of main arguments, assessment of impact variables and drafting of roadmaps necessary to make the scenarios happen. The resulting scenarios were then validated and further developed through expert workshops with policy makers, representatives of funding organisations and researchers. Additional feedback will be gathered from the participants of the initial creativity workshop.

In an online survey European and Russian scientists will be addressed to validate thematic priorities, which have been identified as relevant for future EU-Russia STI cooperation. In addition, this expert assessment will help to single out more specific topics under the broader priorities. By cross-checking the EU and Russian thematic S&T priorities, one can confirm that priorities are evolving in the same direction, especially with regard to S&T programmes in the fields of *energy, health, nanotechnology, transport*. It is worth mentioning that the comparison of priorities revealed a strong focus on *technological implementation* (incl. *biotechnology*). While the EU emphasizes *thematic fields supporting a sustainable development*, i.e. food, water and energy security, climate change, the Russian Federation highlights apart from the similar topics environment, life sciences and nature management also *information and telecommunication systems*.

Furthermore, in a broad Delphi survey the resulting structural and thematic scenarios will be assessed on probability and desirability as well as on their relevance for

value creation, for policy development and for advancement in STI.

Foresight results will be fed into the policy making process on STI cooperation between EU MS/AC and Russia. The foresight results will provide a basis for developing a joint STI funding programme and for coordinating STI efforts for better facing joint future societal and economic challenges.

DISCLAIMER: "Please note that the European Commission is not affiliated with this publication and the opinions expressed in this article do not necessarily reflect its position or opinion".

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Some observations on today's European and Russian innovation process

By Marina Bouianov

Towards a European Innovation Ecosystem

With its noticeable strengthening of efficiency, quality of life, and productive growth of any modern society, innovation in today's European community is a key element of its economical and social policy. The sustainable development of a European Innovation Ecosystem is now at the top agenda of the Europe 2020 Strategy adopted by the leaders of the EU 27 Member States in 2010. A number of various innovation policy-making and operational tools recently initiated by the European Commission (EC) and deployed to start on aim at radically improving the performance of the innovation system. Among them are the Innovation Union Initiative of 2010 driven by the EC, annual European Innovation Summits, the European Cohesion Policy, the European Research Area and the European Innovation Partnership, the next generation of the *Structural Funds post-2013*, and the new *Horizon 2020* Framework Programme for Research and Innovation (from 2014). All these inventions will focus on the actions to take to build adequate coherence across the European research and innovation system, while maintaining local flexibility to allow developing strategies to be tailored to national and regional contexts. This is predominantly important in times of the fiscal austerity and various social challenges, which now European countries are extremely facing with, e.g. the lack of generation replacement with the low fertility, unemployment and poverty issues, social protest movements, migration, multiculturalism etc. The first edition of the Innovation Convention will be opened in early December one year after the adoption of the Innovation Union flagship initiative, the EU's roadmap to turn Europe into a more innovation-friendly and competitive continent.

"Go Russia!" Go Skolkovo!¹

Russia is not an exception in this regard. Russia's innovation programme was proclaimed by the President of the Russian Federation Dmitry Medvedev in 2009 as the Modernisation Programme. It shall enable long-term and stable economic growth in the country based on high technology, knowledge, human capital and innovation. According to this Programme and by the next initiative of Dm. Medvedev the Foundation of the Development of the Centre of Research and Commercialising of New Technologies *Skolkovo* was established as a non-profit organisation in 2010. Skolkovo' financial investments have been steadily growing up from year to year. In 2010, the project funding allocated was 3.991 billion rubles. According to the Ministry of Finance of the Russian Federation, in 2011 this amount will be 15 billion rubles, in 2012 – 22 billion rubles, and in 2013 – 17.1 billion rubles. The goals of the Foundation are to mobilise national resources for advanced applied researches, and to create friendly science environment in five priority directions: energy sector and energy efficiency, space, biomedicine, nuclear science and ICT. The project includes forming the Skolkovo Institute of Science and Technology (SIST), which now actively acts, a number of research and development centres and institutes, business incubators,

¹ D. Medvedev' article *Go Russia!* (10.09.2009). Source: <http://eng.kremlin.ru/news/298>, the official site of the President of Russia.

and centres of technologies transfer and commercialisation. Additionally, world leading companies are welcome to join Skolkovo with opening their representative offices. Specific legislative and investment conditions and highly developed social infrastructure will be ensured for their winning business. According to the Press service of the Skolkovo Foundation², by mid-November 2011 the Skolkovo Foundation resident list has reached 200 participants. Among outstanding international residents are *Nokia Siemens Networks* (Finland), *Siemens* (Germany), *TECHNOPARK® Zurich* of Switzerland, a number of American leading companies (*Microsoft, Boeing, Intel, Cisco, Dow Chemical, IBM*), the Swedish *Ericsson*, *Alstom* from France, the Netherland' EADS. Skolkovo is starting at precisely the time when Russia vigorously expands its collaboration with the EU community in science, technology and innovation through mutual beneficial strategic partnership and active involving in the EU funding programmes. Representatives of the Skolkovo Foundation boost up negotiations with key government bodies and innovative companies in Europe and over the world as a part of its aggressive policy in broadening international contacts and attracting foreign investments. Skolkovo hastens to be a magnet for many leading scientists and qualified professionals from abroad to demonstrate the charisma of the Russian innovation idea and the prestige of this unique innovation paradise.

Skolkovo: an Oasis in the Desert?

Despite all these facts listed above, it seems that against the background of Russia's economic and social landscape Skolkovo' infrastructure represents a type of a closed self-sustaining system. As noticed by Viktor Galenko, Member of the Flight Safety Foundation, in his expert assessment of the Skolkovo project, "Most likely, in fact this inno-city will very quickly degenerate into the expanded representation of Western industrial and scientific giants, where young scientists work for Western' corporations"³. "Will it be a scientific ghetto or an oasis under the patronage of Western' companies, which no one can access in – it is unlikely to be an intellectual centre, whose decisions could be later adopted across the country", he continues. Here, I completely share Viktor Galenko' opinion.

Nowadays, the concept of innovation is exceptionally complex and heterogeneous. It extends very far beyond the boundaries of the standard definition and operates with such societal processes as generating human capital, enabling knowledge transfer, development of innovation culture and networking private and public sectors. In the broader view, the modern innovation system suggests the inclusion of various political, economic and social aspects of the society to be modernised. The innovation strategy shall directly reflect society' challenges and fit for purposes to meet them. The most important consideration that the innovation strategy shall be actually driven by bottom-top society demands for innovation. Of course, this requires

² Source: <http://www.i-gorod.com/en/newslist/>, the official site of the Skolkovo Foundation.

³ Source: <http://finam.info/currency/news2315400001/default.asp>, the official site of the Information and Analytical Expert Agency FINAM.

more crucial government efforts to bring together the right mix of innovation policy and instruments at the global as well as national and regional levels. But this does not mean the creation of a separate state in the state in a special greenhouse climate that specialises on production of benefits unclaimed by the society. My brief figure review of today' Russian media below clearly proves these concerns.

Snapshot of the Russian "Innovation" Landscape

- The capital flight from Russia in 2011, according to the forecast of the Central Bank of Russia (CB) is likely to exceed \$ 70 billion. According to the Head of the Central Bank Sergei Ignatyev, it is directly related to the heavy investment climate in the country. According to CB, the net outflow in 10 months of 2011 amounted to about \$ 64 billion⁴. To compare: in the crisis year 2009, \$ 57 billion of hot speculative capital went from Russia.
- The influential global civil society organisation *Transparency International* (TI) considers Russia to be the most corrupt of all the major countries in the world, G20. According to TI, Russia in 2010 managed to rank 154th out of 178 countries⁵.
- The annual turnover of corruption in Russia is now estimated at \$300 billion, which is comparable in size to Russia's budget as a whole and represents 25% of the country's GDP⁶. The *Association of Russian Attorneys for Human Rights* has recently reported in its *Corruption 2010* study that Russian corruption generates an amount equivalent to 50% of GDP⁷.
- According to the social survey of the Russian analytical centre, *Levada-centre* conducted in October 2011⁸, the average monthly income per person in Russia is now 9.4 thousand rubles (about 235 EUR), and per family – 23 thousand rubles (about 575 EUR). 50% Russians believe that they have lost from the recent changes in the country. 52% of respondents consider that the level of theft and corruption in the country has increased (in 2007, the figure was only 16%). According to the next survey of the *Levada-centre*⁹, a group of brain drain risk is about 30% of respondents. 3-4 million people have already taken some measures. The most active group includes people with high education and incomes, living in large cities. According to sociologists, in the next 12 years, they see no prospects for themselves in Russia. Their interests are now focused mostly on Germany, USA and the UK.

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DISCLAIMER: The opinions expressed in this article are the author's alone and do not necessarily represent those of the home organisation.

⁴ Source: http://www.ng.ru/economics/2011-11-21/1_kapital.html, *Nezavisimaya Gazeta / The Independent Newspaper*, 20.11.2011.

⁵ Source: http://www.transparency.org.ru/CENTER/cpi_10.asp, the official site of the *Transparency International*.

⁶ Source: <http://www.indem.ru/en/index.shtml>, the INDEM (Information Science for Democracy) Foundation. Study: *Diagnostics of Corruption in Russia: 2001-2005*.

⁷ Source: <http://rusadvocat.com/>, the official site of the *Association of Russian Attorneys for Human Rights*.

⁸ Source: <http://www.levada.ru/14-11-2011/terpet-ne-vredno-rossiyane-ne-zamechayut-uluchsheniya-zhizni-v-strane-bdubin>, the official site of the analytical centre *Levada-centre*.

⁹ Source: <http://www.levada.ru/17-11-2011/ottok-chelovecheskogo-kapitala-bdubin-video>, *Ibid*.

R&D procurement and the role of the SBIR program

By Charles Wessner

Although a great deal of policy attention is focused on innovation and entrepreneurship, the critical role of the initial seed funding is often left out of these discussions. Despite having one of the world's largest venture capital markets, the United States has for many years deployed a highly effective program of competitively awarded public grants and research contracts to develop proof of principle and prototypes to bring research out of the university laboratory and into the market. This program, the Small Business Innovation Research (SBIR) program, is organized in three phases.

- Phase I grants—\$150, 000 is the standard size—essentially fund a feasibility study in which award winners undertake a limited amount of research aimed at establishing an idea's scientific and commercial promise. Approximately 15 percent of all small businesses that apply receive a Phase I award.
- Phase II grants are larger—the standard amount is \$1 million—and fund more extensive R&D to develop the scientific and technical merit and the feasibility of research ideas. Approximately 40 percent of Phase I award winners go on to this next step.
- Phase III is the period during which Phase II innovation moves from the laboratory into the marketplace. During this phase, companies normally do not receive additional funding from the SBIR program, although there is a growing trend to provide additional funds on the condition that they are matched by equal amounts from the private sector.

Key Program Characteristics

The program has a number of outstanding characteristics.

- **SBIR is highly competitive:** SBIR is a double-gated program with a limited number of successful applicants. In this regard, it may be compared aptly to leading scholarship programs for outstanding students, not only in terms of the success rate but more profoundly in terms of the social investment in private individuals based on the rationale of long-term public gain.
- **SBIR Is Significant In Scale:** The program provides innovative small businesses about \$2.5 billion a year in awards and contracts. This compares with about \$1.7 billion a year that the private venture capital markets in the United States have provided in seed stage funding in recent years.
- **Awards are Limited in Time and Amount:** SBIR is open to new entrants and stays competitive for each round of funding. While companies can and do re-apply for additional work, there are no "politically favored firms" that draw regularly on government support.
- **Preserves Ownership:** While helping to mitigate some risk, SBIR awards do not dilute equity and preserve the benefits of ownership. SBIR recipients retain rights to intellectual property developed using the SBIR award, with no royalties owed to the government, though the government retains royalty-free use for a period.
- **A Signal of Quality:** SBIR awards provide a positive certification, a signal to private investors of the technical and commercial promise of the technology held by the small business.
- **No Direct Recoupment:** The government recoups the cost of the program by taxing the salaries and earnings of eventually successful firms.

SBIR and Public Procurement

A principal goal of the SBIR program is for small businesses to commercialize their innovative product or service successfully. This commercialization can include sales to the government through public procurement. Indeed, a variety of SBIR features make the program attractive to the government:

- **Open source Innovation:** Drawing on SBIR, the government can leverage private sector ingenuity to address public needs.

In the process, it helps to convert ideas into potential products, creating new sources of innovation.

- **A Low-cost Technical Probe:** A significant virtue of SBIR is that it enables the government to explore at low cost ideas that may hold promise.
- **Diversifying the Supplier Base:** By providing a bridge between small companies and the federal agencies, SBIR can serve as a catalyst for the development of new ideas and new technologies to meet federal missions in health, transport, the environment, and defense.

SBIR's open source innovation model provides the technical solutions needed to further mission goals of government agencies. In the United States, challenges successfully addressed through SBIR solicitations range from rapidly deployable high-performance drones for the Department of Defense to needle-free injectors sought by the National Institutes of Health to facilitate mass immunizations to repairs of the Hubble Space Telescope sought by NASA, to the leading U.S. battery technology and new nano-based drilling technologies.

"Sound in Concept and Effective in Practice"

In a recent comprehensive assessment of the program, the U.S. National Academies found that "the SBIR program is sound in concept and effective in practice." The assessment documented the program's contributions in stimulating innovation and meeting government R&D and procurement needs by engaging small business entrepreneurs. It found that SBIR encourages the entrepreneurship needed to address government missions and introduce new products to the market by providing scarce venture capital funding on a competitive basis.¹

Recognizing the advantages of the SBIR concept, governments around the world are adopting similar programs to encourage entrepreneurship and innovation. In Europe, Finland, Sweden and Russia have adopted SBIR-type programs. The United Kingdom's SIRI program is similar in concept. Following a successful pilot, the Netherlands has expanded the program across its government ministries. As European Member States initiate new SBIR-type programs, the European Commission is seeking to develop a European SBIR scheme that could financially support cross border cooperation for innovation procurement and public procurement of R&D.

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¹ National Research Council, *an Assessment of the SBIR Program*. Charles W. Wessner, ed., Washington DC: National Academies Press, 2008.

Innovative entrepreneurships in Russia

By Ivan Bortnik

How innovative is Russia? What problems should it overcome to become more innovative?

There are several myths about Russia, how true they are?

Myth 1 – Russia has enormous scientific knowledge and therefore a great potential for innovation. It is true up to some degree. Soviet scientific knowledge was really great. However even then it was not equivalent to great achievements in innovation. It was a base for some fantastic results in space exploration, good results in defense industry. However when it was up to civil products the volume of their export - the criteria for innovative products - was really modest. However such a modest export in most of the cases was not because of low technical parameters but because of inherent inability of soviet system and mentality of soviet people to design, to produce, to promote, to sell and to organize service for product on purely competitive base. And russian scientific potential was not supported during almost 15 years. It does not disappear but became much older and therefore is now much less interesting for innovative products and services.

Myth 2 - russians are genetically are not innovative people. It is true but also only up to certain degree. Russians do not pay too much attention to details of everyday's life. If our surrounding is not quite comfortable we may live with it. We like to work enthusiastically for great ideas. But it is not exiting us to work systematically (step by step and may be for years) on improving quality and making competitive ordinary product. However it has nothing to do with our genes and is conditioned mostly by Russian history and climat when we have too many examples that a really hard and systematic work is not always a prerequisite for success story. And when competitiveness in our society is growing we see noout hat more and more examples (like Yandex and Kaspersky Laboratory) appears of competitive products on international markets. May be it is a little bit strange to hear for western specialists but here in Russia is one of the urgent needs is to promote success stories for customer oriented products, companies and even more important - persons.

Myth 3 - Russia will not become innovative country until it has plenty of gas and oil resources. Yes it is true when it comes to Government's motivation to change rather rapidly from paternalistic soviet economy to much more market oriented one. However we may see from some recent examples that pure market economy is not a perfect one. But also Russia's participation in WTO will foster transition to market oriented economy. It is necessary not because of exhaustion of resources but because of that potential fact that energy efficiency and new sources of energy policies in many countries could give some good results and demand for oil and gas could go down.

What is a real situation with innovative companies in Russia and how it relates to these myths?

It is better to consider separately two groups of companies - large companies and small and medium enterprises. The reason for separate analyze is clear if we recall how these two groups of companies appear in Russia. Most of large companies and their management are from soviet period and are used to planned system of economy. And many of them are controlled by Government until now. Small enterprises on the contrary are organized by enthusiastic and risky persons and they never worked within soviet system as they were not allowed to exist under it. Middle sized enterprises have two origins - either they grew up from small or they are active pieces of previously large soviet companies after their collapse and breakdown. In both cases they are enterprises of new type like the small ones which rely upon only themselves and market forces.

If we analyze situation with large companies we see that most of them (nice exceptions are companies from space and ITC sectors) are not completely uninnovative, but their innovations are mostly organizational and marketing ones and average level of innovativeness measured according Oslo Manual is somewhere about 6% if we take a part of sales of their innovative products as

percentage of their full turnover. As it was said before most of them are controlled by Government and now Government obliged them to develop plans for their future development based on innovative products and technologies. Another purpose of Government activity along this directions is to stimulate R&D financing by enterprises as until now it is less than 0.3 GDP. It is also important because during last few years Government poured a good investments into universities to improve conditions within them for R&D and poor demand for R&D from enterprises makes these investments not quite effective.

With small and middle enterprises situation is different. If we measure their innovative sales (products and services) as a part of their turnover it is somewhere about 25-30% and most of their innovations are technological. It does not mean that most of their products are exported but the first task for most of them is to replace their western analogues on Russian market. And also one should keep in mind that to come on international market and to be competitive over there it is not an easy task for small company. However some of them (like "Tranzas", NT-MDT, "Diakont", "Vladmiva") are already well presented on international markets. Main fields of activity of small and medium enterprises where they are competitive are ICT, especially software, devices and instruments for medicine, science, ecology, energy saving, new materials for electronics, construction industry.

Main obstacles for innovative SME to grow are limited size of internal market with very high level of competition by foreign companies and many problems to overcome to be well presented on international markets - competitors, language, custom, small financial resources and expensive credit, etc.

Keeping in mind what was said about nature of innovative SME the Government is trying now to assist their creation and development. A special federal law was issued to facilitate the creation of innovative small enterprises by research organizations and universities. Preseed and seed funds and programs on federal and regional level are established both of public and public-private nature. R&D of SME is supported through program similar to SBIR program. Public venture funds exist with capital about two billions of US\$. Infrastructure like business incubators, technoparcs, innovative technological and engineering centers are supported by State through regions of Russia.

And finally, what about myths?

Myth 1 – it will take not less than 10-15 years of consistent policy by Government to restore Russian scientific knowledge and innovation potential up to position of soviet science. Scientific and educational schools are still here.

Myths 2 – genes of Russians are also entrepreneurial ones. When their oppression ceases they awake. Process is going on. A wise policy may speed it up.

Myths 3 – it is only up to Russians to prove that this myth is a wrong one.

Ivan Bortnik

Professor

Chairman

FASIE

Russia

Does the Russian economic system support technological entrepreneurship?

By Nikolai Puntikov and Stanislav Tkachenko

In September 2011 one of us moderated a round table discussion at the IV Innovation Forum in St. Petersburg. The panel has been titled "Entrepreneur as Key Player in Innovation Economics" and brought together prominent Russian investors, entrepreneurs, leaders of governmental institutions and foreign experts. The panelists have discussed dynamics of the Russian economic system from the perspective of its compliance with main features and indicators of the innovation economics, as well as issues related to education of entrepreneurs and creation of social environment that supports entrepreneurial initiative. This article has been written as an aftermath of analysis, which we performed over diversity of opinions uttered by speakers at the round table.

Today's problems of Russian national economy are well-known: corruption, low level of economic freedom, oil and gas dependency, lack of strategic vision for development of Russia's political and economic system. In an attempt to address many of them, the government declared innovation as its key priority. In the next 30 years the Russian government plans to invest over a trillion dollars in support of innovations. It is expected that the modernization will be powered by large-scale investment projects which government will support not only financially, but also by offering special tax and custom rules, liberal visa and regulation regimes, and other favorable treatment.

Government support of external economic factors (such as foreign investments) is an important measure aimed at diversification of national economy. However, domestic dimension of the economy badly needs attention of all stakeholders. Reforms of national legal and law-enforcement systems are long due. Russia has to tackle and overcome serious institutional and political barriers that prevent cooperation with foreign partners in Europe and elsewhere. Political institutions for an effective market economy are largely missing in Russia, and corruption is on rise.

Most of the speakers at the Innovation Forum in St. Petersburg provided positive assessment of the progress in establishment of innovative ecosystem in Russia in the past five years. Investment funds and business angels became visible and active; there are governmental institutes that really work, including Russian Venture Company (RVC) and Skolkovo; a lot of business incubators help startups to launch operations and raise capital. Besides, booming Russian consumption and production markets offer entrepreneurs opportunities that would be difficult to find in other countries. RVC's CEO Dr. Igor Agamirzian referred to "strong spirit of entrepreneurship" that should help Russians to overcome "technical" problems.

However, in spite of optimism, the speakers casted a good share of criticism in each case when a specific indicator of innovations economics has been considered closely. We scrutinized just a few of them with an objective to find Yes/No answer to a simple question "Does it support technological entrepreneurship?"

- **Current legislation: NO**

Lack of basic corporate, venture capital and IP legislation; unreliable judicial system; weak and non-transparent law enforcement; heavy bureaucracy at the Custom Service; corruption.

- **Taxation policy: NO**

Except for a few enclaves (like Skolkovo), there are no mechanisms of tax endorsement for innovation.

- **Human capital: YES, BUT...**

...But business is not anymore local; Russian human capital should be globally competitive. When there are no attractive opportunities due to institutional loopholes, entrepreneurs would leave Russia to work elsewhere: from Finland and Estonia to Silicon Valley and Road 128.

- **Share of innovation production in GDP: NO**

Still energy resources and primary products dominate Russian GDP.

- **Innovation economics' infrastructure: YES**

This segment enjoys fast growth explained by enthusiasm of individuals and government money. However, if long awaited reforms in other areas do not happen soon, those infrastructure institutions may well become source for innovation in other national economies, but not in Russia.

- **Capital replacement and government support: YES, BUT...**

...By providing direct financial support to individual companies the government undermines free competition and paves road for another source of corruption. It might be more efficient to invest in innovations infrastructure (incubators) and/or pay decent salary to academic scholars and university professors.

Contemporary Russian economy lacks basic institutions, needed for making innovations possible. We believe that the "holistic solution" of the puzzle could only be found if the "project" of reforming Russia's energy-dependent industrial economy into a full-pledged member of the global innovation economics was explicitly defined and consistently implemented based on the following priorities:

1. **Development of national system of effective liberal institutions of market economy.** Until now there are only imitative copies of such institutions as independent courts, self-regulating business organizations, private-public partnerships, etc.
2. **Establishment of a think-tank's type Center for reforms of national economy.** It should involve representatives of business, legislature and government and should be empowered with authority to implement practical measures in economic, judicial and social spheres.
3. **Reform of institutions of political power,** which includes increasing role of civil society in the system of governance.
4. **New regional policy for Russia** based on post-modern federation, in which regions will compete between themselves for better business climate and invest into innovation ecosystem at regional and local levels of governance.

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Russian intelligence services can help domestic nanotechnology – by keeping at arm's length

By Fredrik Westerlund

Since 2007, Russia has been committed to a major effort to develop its domestic nanotechnology and industry as a means to modernize the Russian economy and society. There are many ways to boost national science and technology (S&T) and industry, and each state tends to combine a number of options. Increased spending on domestic research and development (R&D) is one way. Intensifying and deepening international cooperation is another. A third way is to create a domestic environment conducive to innovation and research.

Furthermore, national intelligence and security services can supply foreign know-how and technology through espionage as well as providing protection from foreign industrial espionage. This is particularly tempting for countries wanting to leap ahead without making the necessary fundamental institutional changes in order to become more innovation-friendly.

Russian nanotechnology initiatives: little and late

The Russian Government entered the nanotechnology race late, but has devoted substantial sums to developing domestic science and industry. Over 100 bn RUR has been allocated up to 2015 and it was the leading government investor in 2009. However, since private and foreign investments are only modest and the infrastructure is underdeveloped, Russia has been losing ground in both nanotechnology research and patenting. Russia also lags behind in international evaluations of the innovation and business climate. Its main advantage in nanotechnology is its relatively strong position in international research and patenting collaboration.

Intelligence service support: a promising short cut ...

Official Russian documents and reports from foreign intelligence services as well as assessments by scholars and former Russian intelligence officers suggest that the Russian intelligence services are collecting S&T intelligence abroad. In the Soviet era, a clandestine organization was created to collect intelligence for the biological weapons programme. It is reported to have survived and could be used to support R&D in the area of nano-biotechnology. The Soviet nuclear weapons programme was accelerated by intelligence-gathering abroad. The nuclear weapon research organization's successor, the Kurchatov Institute, enjoys a central position in the Russian nanotechnology effort.

The Russian security services can also support Russian nanotechnology by providing protection from foreign intelligence services and corporations. Safeguarding Russian science and industry has been one of the tasks of the Federal Security Service (FSB) since its creation in 1995. As late as December 2008, the head of the FSB directorate for the Saratov region singled out Russian nanotechnology projects as being of particular interest to foreign special services.

... or a dead end for Russian nanotechnology?

Intelligence service support could be a tempting short cut when other avenues to developing Russian nanotechnology science and industry are uncertain. It could, however, prove to be a dead end. First, the Russian intelligence services are not as efficient as their predecessors. They cannot rely on assistance from allied intelligence services or on ideologically motivated spies as they could in Soviet times. Furthermore, corruption within the services takes its toll on their efficiency.

Second, extensive collection of S&T intelligence abroad does not automatically imply dividends for domestic science

and industry. A successful transfer of foreign technology is dependent on the capacity of the recipients to make use of the information they receive. Russian nanoscience lags behind in several areas and the domestic nano-industry faces severe challenges in converting scientific advances into competitive mass-produced products.

There are also several risks connected with intelligence service support. Reliance on intelligence may dull the edge of science by making it reactive and dependent on foreign findings. Furthermore, the security mindset of intelligence services, with its emphasis on risk reduction, is in many ways the opposite of a climate conducive to research and innovation.

The most important aspect of intelligence support to Russian nanotechnology is its potentially negative impact on cross-border cooperation. If the security services in other countries suspect that Russia is spying, the flow of knowledge into Russia could suffer. Foreign companies and research institutions will be alerted to the risk of espionage, and access to state-of-the-art science abroad could become restricted for Russian researchers and engineers. Moreover, over-zealous security service officers could harm Russian nanotechnology. In 2007, several charges of espionage were brought against Russian academics. In January 2010, a Russian Academy of Sciences institute director complained over the close attention the security services were paying to Russian scientists and over trumped-up charges of espionage. Such activities could result in scientists refusing to take part in international research projects or declining funding from abroad.

In an era of technological globalization, international cooperation is of the utmost importance for scientific and technological progress. As mentioned above, Russia's primary strength in nanotechnology research and patenting is its comparatively good position concerning international collaboration. Intelligence support efforts could undermine Russia's main advantage in the field of nanotechnology. Indeed, the Russian intelligence services would perhaps serve domestic nanotechnology best by keeping a distance.

Note: The views expressed in this article are the personal opinions of Fredrik Westerlund. They may not reflect the views of the Swedish Defence Research Agency nor Swedish Government policy.

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Ioffe Institute and its contribution in the development of nanotechnology in Russia

By Andrei G. Zabrodskii

The history of the Physical-Technical Institute originates from September 23, 1918. The first director of the Institute, Abram .F. Ioffe — an outstanding scientist and science organizer — laid principles of its effective operation, which rapidly promoted the Institute to among world's leading research centers. These principles are the following: combination of basic research and the ensuing applied studies; determination to tackle with most important problems in the development of science, economy, and defense potential of the country; and training of skilled personnel at the base Faculty for physics and mechanics, created by A.F. Ioffe at Leningrad Polytechnic Institute.

The Ioffe Institute is the cradle of domestic physics, in which the future Nobel Prize laureates, N.N. Semenov, L.D. Landau, P.L. Kapitsa, I.E. Tamm, and Zh.I. Alferov, commenced their scientific careers and worked. About 20 country's educational and research institutions have originated with active participation of the Institute staff members. The world's fame was brought to the Institute by works in solid-state physics, semiconductor physics, quantum electronics, power semiconductor electronics, astrophysics, physical gas dynamics, nuclear physics and controlled fusion, plasma physics, and semiconductor heterostructures. At present, studies of Institute's scientists cover nearly all areas of modern physics.

Now the Institute comprises 64 scientific laboratories grouped into 5 research divisions. Its staff counts 1058 researchers, including 260 Doctors and 560 Candidates of science.

The Institute initiated and coordinated the State program in the field of carbon nanostructures: fullerenes, nanotubes, nanodiamonds, etc., in 1994--2004. At present, the Institute develops techniques for production of nanoporous carbon, detonation nanodiamonds, and graphene for electronics and medicine.

In 1995, the concept of three-dimensional (3D) photonic crystals based on a periodic matrix of synthetic opals was put forward and then implemented at the Ioffe Institute. Ultrafast (~100 fs) photoinduced switching of the photonic energy gap has been achieved in 3D photonic crystals based on opal-semiconductor nanocomposites. A new class of optical materials, photonic-phononic crystals for ultrafast control over light fluxes, has been created.

Studies in the field of molecular-beam epitaxy of modulation-doped nanoheterostructures in the systems AlGaAs/InGaAs/GaAs and AlInAs/InGaAs/InP, commenced at the Ioffe Institute more than 20 years ago, laid foundations of the domestic industry of microwave heterostructure field-effect transistors and made it possible to create Russia's electronic components for radar, telecommunication, and satellite navigation systems. The development of techniques for fabrication of short-period semiconductor superlattices with high structural perfection has resulted in that electronic components for terahertz devices were created.

The Ioffe Institute conducts research in the field of epitaxial growth of heterostructures based on wide-bandgap materials (GaN). Methods for fabrication of effectively emitting quantum dots in the InGaN system have been developed, and LEDs for the spectral range from ultraviolet to red have been created. A technique for fabrication of monolithic white LEDs has been developed. End-face and surface-emitting laser structures have been fabricated. Vertical lasing in Bragg-cavity structures under optical excitation at room temperature has been obtained for the first time in the world.

During about half a century, the Institute has been occupying world's leading positions in research and development activities related to semiconductor heterostructure lasers: the first patent was obtained in 1962, continuous-wave lasing was achieved in 1969, record-breaking current density (40 A/cm²) was reached in 1988, an injection laser on quantum-dot structures was created in 1994, and world's record in the efficiency of a semiconductor laser (74%) was set in 2004. At present, Institute's developments serve as a basis for setting production of semiconductor heterolasers for various purposes in the country.

Ioffe Institute's scientists have made a major contribution to the development of high-efficiency solar cells based on nanoheterostructures. Here, heterostructure solar cells were created for the first time in 1969. Industrial manufacture of space solar cells with increased efficiency and improved radiation hardness was organized in Russia on the basis of these studies. Terrestrial solar photoelectric power installations based on cascaded photovoltaic converters and solar light concentrators, which make it possible to diminish by up to a factor of 1000 the area of the converters, have been developed at the Ioffe Institute. Because of their high efficiency (more than 37%) and precise tracking of the Sun, installations of this kind provide a 2--3-fold increase in the per-unit-area electric power, compared with silicon and thin-film cells.

The Ioffe Institute was one of world's research centers at which studies in the physics and technology of amorphous and glassy semiconductors were commenced. Here, an industrial technology for plasmochemical deposition of films of these materials for thin-film field-effect transistors, liquid-crystal displays, and solar cells was developed or the first time in Russia. Studies in the theory, technology, and experiments on photo- and electroluminescence in Si:Er at a wavelength of 1.55 μm, aimed to develop electronic elements for silicon optoelectronics and LEDs working at room temperature, have been carried out at the Ioffe Institute. A technique has been developed for obtaining silicon nanoclusters in a dielectric matrix for light-emitting structures. In 2011, the Research center "Thin-Film Technologies in Power Engineering" was organized at the Ioffe Institute in order to develop technologies for manufacture of thin-film micromorph units.

A technique for fabrication of an effective nanocomposite catalyst based on functionalized carbon nanotubes has been developed at the Ioffe Institute. The utilization efficiency of platinum in air-hydrogen fuel cells has been raised by up to a factor of 5, and their specific power has been doubled. A specific power of up to 600 mW/cm² has been reached for fuel cells with a platinum content of about 300 μg/cm². Promising designs of compact power sources in the configuration with a free-breathing cathode and electrochemically stable materials have been developed.

In recent years, the Ioffe Institute has become one of the most prominent partners of Open Joint-Stock Company "RUSNANO" created in order to develop high-tech nanotechnology-based industries in Russia.

Andrei G. Zabrodskii

Corresponding member of the Russian Academy of Sciences

Director of the Ioffe Institute

Russia

On innovation activity in Russia

By Ruslan Shafiev

The current state of the Russian economy shows that the development of innovation policy is a priority for the country's development. In spite of the high scientific and educational potential, the export of raw materials dominates in the economy, and the rate of research intensity of major part of the Russian industry is much lower than in the USA and the EU. Russia is also underrepresented in the world of science. Thus, according to the database of the Web of Science, total amount of Russian researches in the scientific magazines worldwide in 2008 was equal only to 2.48% (while in France - 5.53%, in Germany - 7.5%, in China - 9.69%). Russian indicator in this sphere is at the level of Brazil (2.59%) and the Netherlands (2.46%). Russian science is characterized by the low intensity of the scientific researches (6 publications in the scientific magazines indexed in the Web of Science to 100 researchers in 2008, while in the UK - 33, in Germany - 29, in the USA - 23) and on average, by much lower quality of work (total amount of the Russian researches in the global number of publications in the scientific magazines is 2.48%, its share in the global number of citations in the scientific magazines in 2004-2009 is equal only to 0.93 has complicated the implementation of the existed goals, has led to the reduction of the expenditures on innovation by the private sector and has complicated the structural weaknesses of the Russian innovation system.

I would also like to mention that main efforts for the development of applied science is realized in the framework of federal programs aimed at developing of innovative projects in all priority sectors of the economy.

At the same time, high-tech sector programs aimed at technology development in priority sectors of the economy (aviation, shipbuilding, aerospace, nuclear complex, new transport technologies, telecommunications, information security, etc.), in comparison with the interdisciplinary scientific and technological federal programs has received its accelerated development in the recent years.

Our activity in 2011-2013 will be focused not only on main directions of state support for the development of corporate research centers, but also on respective tax measures for the promotion of innovative researches and on the appropriate legislative measures for the clarification of legal status of the foundations for the support of scientific, technical and innovative activity. The Foundation for promotion of small enterprises in scientific and technical sphere as well as the appropriate program of state support of small and medium-sized businesses, as before, will be

our main mechanisms aimed to support innovative business and entrepreneurship.

The Foundation's programs for 2010-2013 will be based on funding of the initial stages of the innovation process (if the commercialization of new research results begins in the form of small enterprises) as well as on the participation in pilot programs to promote innovation center Skolkovo, on the promotion of small innovative enterprises engaged in the implementation of priority programs nominated by the Commission on the Modernization and Technological Development of the Russian economy under the President of the Russian Federation.

The development of innovation activity in public corporations and large companies with state participation will be ensured through the implementation of the innovation development programs. In addition to the above mentioned, one of the effective measures should be an effective interaction between companies and leading universities, research institutions, small and medium innovative enterprises in order to use results of their intellectual activity.

For the support of such cooperation between private companies and Russian higher educational institutions and organizations the Government of the Russian Federation will allocate grants amounting to \$ 19 billion. There will also be adopted a package of amendments to tax legislation, establishing preferential conditions for the companies working in information technology sector, for the period of 2011-2019.

Infrastructural development of national innovation system, according to our opinion, is strictly related with the effectiveness of commercialization of intellectual property - the main task of major infrastructure organizations making support to the innovative activities, such as the Foundation for promotion of small enterprises in scientific and technical sphere, the Russian Venture Company, the Russian Nanotechnology Corporation, and the Vnesheconombank (lending of small innovative enterprises).

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Internationalization of high-tech industries – lessons for the Russian government

By Kalman Kalotay

The Russian Federation is a laggard country in terms of the internationalization of its high-technology (high-tech) industries. This is quite paradoxical, as the country has in principle all the ingredients required for a more vigorous insertion into the global network of high-tech activities: a strong science, technology and innovation based inherited from Soviet times (slightly eroded since then), a vast and well trained labour pool (with skills again a bit eroded but still important), and recently large foreign direct investment (FDI) inflows and outflows. Indeed, by 2010, the country had become the 8th largest recipient of the world in terms of FDI inflows (\$41 billion) and also the 8th largest source of the world in terms of FDI outflows (\$52 billion).

The laggardness of the internationalization of high-tech industries may seem to be evident for most observers; however it is not easy to quantify it. The main methodological difficulty arises from the fact that practically all FDI statistics lump high-tech industries (their common list includes pharmaceuticals, aircraft & spacecraft, medical, precision & optical instruments, radio, television & communication equipment, and office, accounting & computing machinery) with medium-high-tech industries (electrical machinery & apparatus, motor vehicles, trailers & semi-trailers, railroad & transport equipment, chemicals & chemical products, and machinery & equipment). If we accept the merging of these two groups as still a good proxy of the propensity to engage in high-tech FDI, latest available statistics reveal a striking difference between the world average (11.3% in inflows and 9.5% in outflows) and Russian data (4.1% and 4.3%, respectively, see table 1). Note that inward and outward industry classifications do not necessarily match, because the former reflect the industries of the investor, while the latter the industry of the host firm, and the two often differ.

Another proof of the laggard status of the Russian Federation is in the universe of the largest transnational corporations (TNCs) of the country: in 2008, none of them were from high-tech industries although some of them undertook important research and development (R&D) activities. These large firms accounted for more than half of the country's outward FDI stock, with Lukoil and Gazprom together representing almost one-quarter, other natural-resource-based firms about one-fifth, and non-resource-based firms of the top 25 for about one-tenth. As a result, high-tech firms, although they exist, and sometimes internationalize, are invisible on the overall radar screen of Russian FDI.

Studies examining the Russian high-tech internationalization paradox usually conclude that the country's laggardness almost fully policy made. The 2009 Knowledge Economy Index of the World Bank for example shows that the country fares well in terms of its education system (despite all the well-founded criticism of its distance from real life), innovation, and information and communication technologies, but sorely lags behind almost all countries of the world in terms of "economic incentive regime". The score of the Russian Federation is even lower than the average of the low-income countries of the world. China's and India's indices are twice as high, and

that of Brazil almost three times. The distance from developed economies is even larger: almost five times.

The policy lessons from countries that succeeded with the internationalization of high-tech industries are usually straightforward. The secretariat of the United Nations Conference on Trade and Development has analysed the cases of Canada and Singapore in detail. One of the common lessons of these successful cases is the need for a holistic approach towards general national development policies, science, technology and innovation policies, and inward and outward FDI promotion. In the Russian Federation, this interconnectedness is missing, largely due to the fact that inward and outward FDI policies are at a nascent stage, and whenever they exist, they do not seem to coordinate with other policies. Another problem is in the country's approach to science, technology and innovation, inherited from Soviet times, when business applications were seen as unnecessary, and sometimes even suspicious. Soviet science attained very high levels but cruelly failed on practical application. Finally, international benchmark countries such as Canada and Singapore have overcome the stage where concerns about the strategic nature of high-tech industries (if they are high-tech, by nature they should have some strategic value, at least) prevented their internationalization. Instead, they introduced policies such as strong intellectual property measures, which minimize eventual strategic leakages of very sensitive technology. They also adopted a flexible approach to the internationalization of high-tech industries, combining equity (traditional FDI type) investment in some segments with non-equity forms (e.g. licensing, franchising, non-equity based R&D joint ventures) in more sensitive activities. In contrast, a more rigid approach to strategic issues prevails in the Russian Federation. It goes beyond the formal restrictions of the Strategic Investment Law (Law on the procedure of foreign investment in companies having strategic significance for the preservation of national defence and State security) of 2008, which singled out aircraft and airspace as strategic industry, leaving other high-tech activities in theory outside the realm of the law. Moreover, the law intended to apply relatively simple procedures for approval. However, reality has proved to be more complex, the procedures in practice has been more burdensome than foreseen, and the other high-tech industries remained mostly in a grey zone, where officially they are not strategic but de facto are treated similarly.

Beside policy issues, the case of the Russian Federation is very different from the "best practice" countries in terms of institutions supporting inward and outward FDI. In Canada and Singapore, they have existed for a long time, and have received clear mandates in promoting their respective countries' technological upgrading in the international scene. They also have mandates to follow these goals with important financial means. In contrast, the Russian Federation lacks such well-structured agencies. Instead, inward and outward FDI promotion is done more on an informal basis, on an ad-hoc basis and at the high political level. This arrangement fits the current structure on inward and outward FDI, in which large resource-based firms with mega-projects dominate.

This way the country can well control the development of natural resources and main manufacturing facilities at home and strategic expansion of flagship national firm abroad. However, it has the disadvantage that high-level politicians by default can not devote the same (100%) attention to investment promotion matters as investment promotion agencies specialized in the field, as the formers' main aim oversight over the general development of a vast and complex country. Moreover, firms in high-tech industries tend to be smaller than natural-resource-based firms, and change more rapidly. Only specialized agencies can keep track of those developments and prepare a quick strategic response.

Given the fact that most of the problems of the Russian Federation are policy made, or are due to a weakness of institutions, change is more easily possible and desirable than in the case of countries that lack the basic science, technology, innovation and skills base of the internationalization of their high-tech industries. It requires mostly a strong political will to change, consensus building about such changes, and institutional development (including the generation of sufficient resources for the proper functioning of institutions. The case of Canada also proves that the complexity and the federalism of the country do not necessarily hinder coordinated policy action at the national level, only the process of consultations is longer, as it involves federal entities. The Russian Federation in principle has all the ingredients require for a rapid improvement of the situation.

The views expressed in this article are those of the author, and do not necessarily reflect the opinion of the United Nations.

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Table 1. Share of selected industries in the FDI inflows and outflows of the world and of the Russian Federation, latest period available (Per cent)

	World inflows 2007–2009	Russian inflows 2010–March 2011	World outflows 2007–2009	Russian outflows 2010–March 2011
Mining, quarrying and petroleum	0.4	6.8	9.5	6.1
Metal and metal products	2.6	4.3	2.8	2.2
High- and medium-high-technology industries ^a	11.3	4.1	9.5	4.3

Source: Author's calculations, based on data from the UNCTAD FDI/TNC database (world flows) and from the Bank Russia (Russian flows).

^a The list of high- and medium-high technology industries includes chemicals and chemical products, machinery and equipment, electrical and electronic equipment, precision instruments, motor vehicles and other transport equipment.

Internationalization of R&D – implications for Russia

By Adujna Lemi

Although scholarly work has focused on the issue of cross-border spread of R&D activities only since the late 1980s, the internationalization of R&D is not a recent phenomenon. The expansion of communication networks to perform new R&D has made it relatively less difficult to tap into foreign innovations, and to exploit home grown innovations as well as other potential sources of innovation. As the world becomes even more integrated and as other driving factors become more favorable, the focus may have shifted from one form to the other, but the momentum has kept pace with the spread of the components of globalization.

Russia is not an exception and it has joined the web of the spread especially since 1992. Although geopolitical events, especially the end of the cold war and the collapse of the Soviet Union had significant effects on Russia's R&D intensity, recent years' R&D performance of Russia reveals that Russia has growing interest for innovation in par with other advanced countries. In response to this growing interest for innovation, Russia has started attracting not only emigrated Russian Scientists but also foreign scientists. Between 1998 and 2003, R&D spending doubled and its R&D intensity (R&D/GDP) ratio rose from 1% to 1.3%, although it slowed down to 1.1% in 2005. Even in recent years, despite the slow global recovery from the 2008/9 crisis, which resulted in a large net capital outflow from Russia resulting in the deterioration of the balance of payments, Russia demonstrated determination to attract R&D activities through special programs and incentives to put its economy on the firm footing for sound and speedy recovery. Through an initiative launched at the level of the President's Office, the program establishes innovation zone with special privileges for research and high-tech businesses. However, there are significant variations in terms of sectoral focus and government funding priorities.

Data on the R&D spending per sale of Multinational Corporations (MNCs) in Russia between 1989-2003 shows that R&D spending per sale in Russia was less than the average for all countries by a factor of five. Whereas the ratio of corporate profit tax to net income of a corporation was the highest in Russia by about three times more than the average for all other countries. Given the low level of R&D spending per sale and high corporate profit tax rate on MNCs, Russia had earned only modest amount of receipts from royalty and fees by exporting already created innovations. However, the government of Russia's Information and Communication Technology (ICT) expenditure was only slightly lower than that of the average for other countries. The later, coupled with more than average government sponsored R&D activities, was an encouraging sign for the country to attract more R&D activities by MNCs in the country during the same period.

What is more revealing of Russia's bold measures to attract R&D into the country and to become the major international destination of R&D activities was that mostly high-tech industries were spending more on R&D in Russia more than medium- and low-tech industries. In fact, only high-tech and low-tech industries spent on R&D in Russia and employed more labor during the 1990s and early 2000s. However, medium-tech industries had the largest asset holdings in Russia among the industry sub-groups.

Breaking the data by industry, only three industries dominate the R&D spending in Russia, namely: Chemicals, information, and wholesale trade, in this order in terms of their R&D spending. It is somewhat unexpected that the mining and

petrol industries spent very little in Russia where this industry group has been the major contributor to the economy, at least, in terms of export earnings. In fact, the mining and petrol industry had the highest asset holdings of all industries in the country even more than those industries that spent more on R&D activities. It is tempting to speculate from the foreign profit tax numbers that the low R&D spending of the mining and petrol industry may be a result of the high corporate profit tax that the industry faced in the country compared to other industries. It is, therefore, no wonder that the high corporate profit tax had discouraged the largest contributor to the economy, the mining and petrol industry, to undertake major R&D activities. Russia may need to structure its tax and incentive codes to favor more spending on R&D activities.

Russia also stands out as an exception in several aspects in relation to R&D performance compared to other OECD countries. For instance, although the academic sector R&D (research at universities) was only second to industrial sector in terms of national R&D performance in most OECD countries, the share of academic sector R&D was the lowest in Russia (6%), whereas in Canada academic sector R&D accounts for the highest share (38%) in recent years. Similarly, in most OECD countries, industrial financing was primarily by the business sector; the exception here is again Russia, where government was the largest source of industrial R&D funding, as recent as, in 2005. Russia's focus on basic research at the expense of applied research also made the country an exception among the OECD countries. Applied research is an area where Russia invests only a small proportion of its GDP. Recently, however, Russia started to note that applied research is better able to meet immediate social and economic needs to refocus its priorities in partnership with the European Union.

The recently launched new research program in Russia, which runs until next year (2007-2012), is expected to lead the country in applied research direction in line with the EU partnership, with priorities on energy, the environment, biotechnologies, information and communication technologies, nanotechnologies and transport. As such Russia can build on not only its recent interest in expanding the R&D initiatives but also its potentials as a destination for R&D activities. With more than two million workers in over 4,500 R&D centers throughout Russia, among which one million researchers and scientists, Russia tops most OECD countries in the world as the leading R&D destination country and potential source of innovations.

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Some policy proposals based on the Finnish-Russian innovation collaboration

By Kari Liuhto

12 recommendations based on Finnish-Russian innovation cooperation can be summarized as follows.

1) *Establish a Joint EU-Russia Innovation Center both in Russia and in the EU.* These two units would bring together the innovation-intensive firms of Russia and the EU. It would be wise to found such a unit in St. Petersburg due to its proximity to the EU, and in a similar manner, another unit in Helsinki, which is connected to St. Petersburg by high speed trains. The EU and Russia should share the costs of establishing these units on an equal footing.

2) *Support the internationalization of innovations.* The adaptation of western innovations into the Russian market and the internationalization of the Russian goods towards the EU market is more rational than investing into insecure and expensive innovation activity, and therefore, cooperation with foreign firms most probably will lead to the fastest results.

3) *Turn the innovations conducted in the military sector into civilian use.* Closed innovation systems are expensive and inefficient, and usually, they fuel corruption. Therefore, it would be important to modernize the innovation system linked with the Russian military, as the army uses 35-40 per cent of the Russian R&D expenditure, and probably this share is to increase, if Russia is to allocate USD 650 billion into the modernization of its army in this decade. Russia might benefit from the experiences of the USA and Israel, which have turned several valuable military-related innovations into civilian use, and vice versa.

4) *Improve intellectual property rights (IPR) and the investment climate.* Inviting the world's leading IPR specialists to Russia to review the Russian IPR legislation and institutions would be the fastest way to improve property rights in the country. One of the main weaknesses of the Russian investment climate is over-bureaucracy and corruption linked to it. The only way to win the battle is to minimize the number of bureaucrats and regulations, since fighting bureaucracy with bureaucrats is doomed to fail.

5) *Institutional innovations are needed.* For instance, it is highly recommended to transform the Academy of Russian Sciences (RAS) from a research unit into a research funding organization. Such a transformation would lift the RAS above the operative research units and turn it into a strategic research policy actor. Moreover, this change would make the use of national R&D funding more effective and enhance competition between the universities, which should be the core of the research activities in Russia. In addition, closer cooperation between the Russian Ministry of Education and the Ministry of Economic Development would facilitate bringing scientific ideas into commercialized products and services.

6) *Design a service innovation policy.* The USSR neglected services, while emphasizing industrial production. The ghost of the Soviet mentality still moves in the current innovation policy of Russia, as many of the policy measures are targeted towards technological innovations. In this context, one should not forget that more than half of the Russian GDP is formed by services, and an improvement in services would definitely bring the advancements of Russian innovation policy into the hands of every Russians. Upgrading the competitiveness of services would add to the growth of the Russian GDP.

7) *Enhance management innovations.* Around a quarter of the Russian GDP is created by state-owned enterprises (SOEs) and the 100 largest SOEs cover a majority of this stake. Taking this into account, it would be rational to create a team, consisting of a dozen top international management consultants, to review the manage practices of these SOEs. Such a team would bring much needed transparency to the

operations of these SOEs and would increase the efficiency of these firms, adding positively to the overall economic growth of Russia.

8) *Create innovation competition.* One should publish a list of the most innovative regions in Russia. As the innovations are on the top of the politicians' agenda, publishing a list of the most innovative regions would encourage the regional administration to develop own innovation policies. Besides, one could establish both national and regional innovation competitions among firms and citizens, which would aid in mobilizing the SMEs and ordinary people.

9) *Establish innovation journalism to share best practices.* It is essential to communicate success stories to encourage SMEs and ordinary Russians to innovate, but simultaneously, it is wise to communicate openly about failures, since mistakes are the best teachers.

10) *Do not concentrate on radical innovations.* We very seldom experience radical innovations, and therefore, it would be rational to focus the innovation policy on improving existing products and services. Though top scientists and politicians favor radical innovations due to their publicity, continuous product and service improvement is usually the most rewarding for society as a whole. Russia does not need periodical innovation programs but it needs a sustainable innovation culture.

11) *Teach creativity and entrepreneurship in universities.* Creativity and entrepreneurship are the two main friends of successful modernization, whereas bureaucracy and conservatism are its worst foes. The federal e-learning courses dedicated to innovation and entrepreneurship would make it possible for all the Russian universities to take advantage of the latest achievements of modernization, provided that the regional universities possess a sufficient ICT environment, and dissemination is organized adequately.

12) *Avoid political stagnation.* Should Russia be unable to develop free and fair political competition, there is a real risk that a one party-dominant system will lead to the similar administrative and socio-economic stagnation that was experienced during the Brezhnev era.

This column is based on the article published by Taylor & Francis Group in the USA in a special issue of the Journal of East-West Business. The special issue is called "Innovation Policy in Russia in the Twenty-First Century: A Future Role of Foreign Firms in Modernization".

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Learning economy in the Baltic Sea region – an experience of the Finnish-Russian cooperation

By Irina Sarno

The Baltic Institute of Finland (BIF) promotes cooperation between countries in the Baltic Sea Region. It is an independent organization established in 1994. BIF has an extensive expertise in international project management at all stages: from the idea creation, to implementation and finalizing of the project. BIF's mission is to enhance the cooperation within the framework of the mega-Baltic Sea region, to create and develop networks of international partnership. The following themes are in BIF portfolio:

- innovation cooperation
- information society development and ICT
- environmental management and technology
- business development and export promotion
- International partnership in training managers of companies operating in foreign companies; cultural cooperation.

During last years BIF had organized a significant number of forums, conferences, seminars and workshops. For example, Finnish-Russian Innovation Forum was held in 2006 in Tampere. Given the principle of Triple Helix, stakeholders from Finland and St. Petersburg, representatives of leading companies and technology parks, universities have taken part in the Forum. As a result of the forum discussions, a three-years project on the development of the regional innovation system of St Petersburg through transnational cooperation was launched. The project partners have stressed out that an exchange of experiences, mutual learning between subjects of innovation networks is a significant component of innovation networks. In this respect, innovation systems initiate and implement the principle of learning in modern economy based on ever-rising competence of its constituent entities. Accordingly, the formation of innovative networks of cooperation in Finland and Northwest Russia means creating a system of learning among significant actors of these large regions.

One of the projects required by a system of mutual learning is St Petersburg Business Campus (StPBC).

StPBC started in 2009, it comprised an interaction of the following elements:

1. a benchlearning network of Finnish companies operating in St. Petersburg
2. a network of Russian and Finnish higher education institutions that provide educational services for the companies personnel, managers
3. representatives of the authorities of Russian and Finnish regions, which support the development of Finnish and Russian companies.

The main objective of StPBC is to improve the adaptation of member-companies to the conditions of the region, to strengthen the dialogue between these companies and local stakeholders (local and regional authorities, vocational training institutions) in the region, to improve the interaction between Russian and Finnish business. In particular, this project aims at enhancing training programs for businesses in the region. The project is mainly supported by the Ministry of Employment and the Economy of Finland. The Baltic Institute of Finland is a coordinator of StPBC, and the local coordination in St Petersburg is provided by the Committee for Economic Development, Industrial Policy and Trade, City of St. Petersburg.

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The "Triple Helix" of the Polymer Cluster

By Sergey Tsybukov

A working model of "Triple Helix" is started in St. Petersburg. It is a modern mechanism of partnership between government, business, scientific and educational community to organize innovative development of the cluster. For the first time several innovative financing mechanisms, training, shared responsibility and risk minimization are incorporated in a single project. This model is unique and have no analogues. It was brilliantly realized on the basis of one of the St. Petersburg Polymer Cluster projects - the newly opened the Prototyping Center of items from composite materials and coatings application. Our interlocutor is Sergey Tsybukov, General Manager of the LLC "SPA on plastic processing named after "Komsomolskaya Pravda":

- Sergey, what a prototyping center is and how the "Triple Helix" model works here?

- The Prototyping Center is a transition from a prototype model to the mass production. Our Prototyping Center of items from composite materials and coatings application, opened on March 15, 2011, was established to support small and medium enterprises engaged in innovation activities. This is a joint project of The Ministry of Economic Development, Government of St. Petersburg, Polymer Cluster and the St. Petersburg State University of Information Technologies, Mechanics and Optics (ITMO). The Prototyping Center establishment was invested by the polymer cluster, the St. Petersburg budget and The Ministry of Economic Development. SPbSU ITMO provided the part of the equipment to the Center through ITMO basic chair, which is opened at the LLC Plant "KP".

The equipment is a significant component of the successful Prototyping Center work. However, people who work there are the most important component. In this matter we were lucky enough to engage cooperation with ITMO and the Higher School of Economics at SPbSUEF. These departments prepare for us a team of specialists, including post-graduates (science), engineers (production) and managers (economy) with a basic technical education. These guys have studied at ITMO and have participated in research-and-development activities for the Prototyping Center. Now they earn money using their R&D at the Prototyping Center, write research theses and teach students the practical work in our Base Department.

In the future, some of them will teach at the university, somebody will be invited to work at the public office. Thus, we can see a coherent string of logic: education at the university - practical study (in part due to the city budget) - work in the Center - knowledge and skills transfer to young people - economy management. This is how the "Triple Helix" works: when a company is able to order R&D to the university, a university is ready to do this research, to train personnel and to educate leaders who will implement this research. The state co-finance the process, as its support is indispensable at some steps. But all the invested money is given back by raising taxes.

- Is it possible to find out more about results of your work?

- We will report about it at the roundtable discussion "Triple Helix" model benefits for Russia innovative development" in the business program of the Forum "Russian Industrialist - 2011". At this forum we will tell

about the basic department of ITMO established under the Polymer Cluster, about our work experience, we will also show samples, etc.

- What do you think about weak spots of the classical technical education?

- We must eliminate the huge gap between the classical technical university and the real research institute or the real production. The weak spot of the classical technical education is the situation when people come to work and don't understand how to make money on their knowledge. Unfortunately, our project is one of the few in the city. And they must be dozens.

- What is the current Prototyping Center load ratio and what are its prospects?

- We already have more orders now than we can execute. At the moment there aren't companies in the city with enough competencies to bring a project from concept to realization in a limited edition. That's why we think about staff increase and new equipment purchase.

Now we have a large R & D with "Vodokanal of St. Petersburg", where we implement new coatings, and a project with CSRI named after A.N. Krylova on the use of modern shipbuilding de-icing materials. We will continue to work with Russian Railways, RUSNANO and other public and private institutions. What about our city, we can offer the latest technologies in anti-corrosion and other protective treatment of the buildings elements (roofs, attics, basements), resolve the problem of energy conservation. Unfortunately, the Housing Committee continues to consider our proposals. I hope that the gubernatorial election will cardinaly change the situation and the attitude to Russian know-how.

I'd like to emphasize another near term prospect for the Prototyping Centre development. An international company TomasGroup, business consultant of leading companies in the world, will conduct training on business processes for our specialists. The experts of this company believe that our Center (in case of specialization in nanotechnology for structural materials and coatings creation) should become the leader among 145 world's leading prototyping centers. As a result, our project should become self-developing: we begin to engage more and more resources and complete the increasing number of tasks.

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The interview was written by Aleksander Kibalnik and it was earlier published at "St.Petersburg in the Mirror".

Integrating national innovation strategies to leverage the potential of the Baltic Sea region

By Alasdair Reid

The Baltic Sea Region (BSR) is a sub-set of the diversity of innovation potential that can be found in the EU as a whole. The BSR has regions with widely varying levels of economic development and innovation potential. This diversity exists not only between countries (the three Baltic States and the northern Polish regions versus the Nordic countries) but also nationally. The two German BSR regions, for instance, are comparatively weak performers from a national perspective. Equally, not all regions in the innovation leaders are equal, for instance, while the Finnish capital region is a European 'powerhouse', Eastern Finland lags well down the European regional innovation scoreboard. Moreover, the Nordic countries have been able to develop and pursue jointly the concept of the Nordic research and innovation area (NORDIA). Hence, the development of a Baltic Sea research and innovation area will be a considerable challenge given the lower sophistication of policy an transnational 'governance in the Baltic States and Polish regions.

During the 2007-13 period, the Structural Funds are investing €5.5 billion in research, technological development and innovation (RTDI) in the 25 BSR regions: 40% of this total is allocated to Estonia, Latvia and Lithuania and 28% in the three Polish BSR regions. Some 60% of the total investment is for research centres and for developing human potential for research and innovation are allocated to the three Baltic States. Close to 50% of ERDF investment in favour of research infrastructure is concentrated in three out of 25 BSR regions (Mecklenburg-Vorpommern, Estonia and Lithuania). This is a massive boost to the 'catching-up' innovation systems of these regions.

In both budgetary and strategic terms the Structural Funds are extremely significant in Estonia, Latvia, Lithuania and the Polish regions. They represent the vast-majority of public RTDI funding in these countries and are a key element for future competitiveness. However, the implementation rate is slow with limited results to date. Moreover, while in absolute terms the funding is considerable, in relative (per capita) terms the Structural Fund contribution barely influences the 'innovation investment' gap between the Nordic relative to the less-developed BSR regions. At best the funding will help the Polish regions and Baltic States to balance the playing field in a few selected niche' in terms of quality and excellence of R&D and innovation activities enabling them to co-operate as 'equals' with Nordic partners.

In the Nordic countries, the Structural Funds account for a marginal share of innovation policy funding, but are seen as a way of supporting 'ground-breaking' new ideas and as 'fundamental in the early phase of new developments'. Moreover, they often leverage other public-private funds into innovative platforms. The lessons of Structural Fund programming from the more advanced BSR regions, e.g. in Mecklenburg-Vorpommern, suggest that ERDF support on research infrastructure is not effective if there is not a parallel effort to develop competitive research teams.

The study suggests five options for further integration of innovation policies in the BSR and confirmed the orientation of the flagship projects of the EUSBSR. However, some additional options and some issues requiring further attention are also raised. The most developed EUSBSR flagship projects under priority 7 (innovation) is the BSR Stars project. The study confirms the rationale for a more strategic programming driven approach to 'cluster' co-operation in the Baltic Sea region. However, there is a need to take into account the differing levels of development and the different competitive advantages of the clusters around the Baltic Sea if not there is a risk that the initiative simply reinforces existing disparities pulling resources towards the strongest

clusters. The need for supporting a strong long-term structured co-operation between business-academia R&D consortia could be investigated. Most nations round the BSR now have such 'competence centres' and as many operate in complementary fields, greater integration of market-led R&D would be beneficial in specific key technologies.

Nordic studies on current early-stage and seed-funds for young innovative enterprises have are sub-critical even in Denmark, Finland and Sweden. Whilst the German regions can draw on a larger national financial sector, their weaker innovation profile does not necessarily make them first priority for national funds. The Polish regions and Baltic States are experimenting with various forms of funding for early stage firms, however, the deal flow is insufficient for viable early-stage funds. Future EU support for early-stage funding should be conditional on regional/national funds not being restricted to investing in 'local companies' and through a BSR Fund-of-Funds.

The current research infrastructures (RI) investments are made in a piecemeal manner without fully considering ESFRI priorities or BSR level synergies. The level of sophistication varies from the Nordic countries national plans and Nordic wide coordination to more 'rudimentary' planning in other regions. The experience of ERDF RI investments in the Baltic States is that decisions are driven first and foremost by universities' own priorities. Open access plans aimed at ensuring optimal use of RI are seen as administrative requirements rather than as means of ensuring revenue generation or cost-sharing.

There is need for a stronger 'oversight' by the European Commission and the EIB to avoid dispersion of funding and duplication of RI. Pre-conditions for future ERDF co-financing of RI should be a) international peer-reviews of national research infrastructure plans to ensure a synergy with ESFRI and value added compared to existing infrastructure in the BSR b) 'open access plans' to allow national but also other BSR researchers/businesses to buy time or share facilities.

Joint programming through ERANETS and BSR networks form a basis for a new programmatic approach. Available funds (national, ERDF/ESF, EU, Nordic) could be structured into three to four strategic BSR research and innovation funding programmes. A model could be the Nordic Top-Level Research Initiative. This could include BSR doctoral schools linked to the research infrastructure and programmes.

A fifth area where synergies can be exploited is access to expertise in advanced technologies and innovation management. In the BSR there is a significant range of expertise in various technology fields and in terms of innovation advisory services. However, most of the regions or smaller member states around the BSR cannot mobilise 'locally' all expertise required by innovative businesses. One option would be to pool expertise in S&T parks, centres and incubators, etc. though a BSR Innovation Advisory network linked to an innovation vouchers scheme.

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Biocenter Finland – a novel way to restructure national research infrastructures

By Eero Vuorio

Biocenter Finland (BF) was established in 2006 as a joint effort of six biocenters operated by six Finnish Universities (Helsinki, Kuopio, Oulu, Tampere and Turku, and the Abo Akademi University) to restructure and develop research infrastructures and technology services for the entire scientific community of the country, but particularly for the more than 2000 life scientists working in the partner biocenters. The aim was to combine local expertise into a nation-wide knowledge base to advance biosciences and biomedicine in a coordinated fashion through investments into newest equipment, technologies and services. Four years later also the Institute for Molecular Medicine Finland (FIMM), previously an associated member, became a full member of BF. A real boost for BF came in 2009 when the Ministry of Education and Culture provided 45 million € for to be distributed over a three year period (2010-2012) to research infrastructures and their technology services in nine areas: bioinformatics; biological imaging; genome-wide methods; model organisms; proteomics and metabolomics; stem cells and biomaterials; structural biology and biophysics; translational research technologies; and viral gene transfer and cell therapy.

The basic principles of BF are to create networks of infrastructure service providers, and to support purchase of equipment and hiring of technical staff to operate the top-of-the-line equipment in one location providing services to everyone. The infrastructure networks were invited to make proposals for provision of nationwide services, which were subsequently evaluated by a high-level panel of international experts. A small fraction of the funds were allocated to support emerging technologies, and to promote international researcher training, research career development and recruitment of international expertise for key technology areas. Within EU such a concept is unique for restructuring and developing research infrastructures and technology services at national level.

Two generations of restructuring of life science infrastructures in Finland

The BF concept outlined above represents the second generation of restructuring of life science infrastructures and technology services in Finland. During the 1990s Universities with strong research communities in biological and medical sciences established biocenters. Financial support from the Ministry of Education, local Universities and other sources made it possible to erect new buildings to house research groups representing different areas of life science research in academia and industry. Joint purchase of equipment and establishment of core facilities marked the first generation of restructuring of research infrastructures and services. This provided researchers in biocenters with an unforeseen access to modern research technologies. The biocenter concept rapidly demonstrated its strengths also by facilitating joint seminars, training courses and collaborative research projects, and by establishing doctoral training programs.

By the time we entered the 21st century, unprecedented technological development had not only improved the performance of high-throughput analysis platforms but also made top-of-the-line equipment so

expensive and powerful that it became both unreasonable and impractical for individual biocenters to make such investments alone. Time was ripe for the second generation restructuring of Finnish biocenters, i.e. the establishment of BF in 2006. The biocenters organized their infrastructures and services into national networks with an aim to better support high-level research in participating institutions by integrating the services available and by agreeing on division of tasks according to available expertise and resources. This has led to gradual development of specific expertise profiles for Finnish biocenters. No two biocenters are alike in terms of size, scientific orientation, organization or mode of operation.

After nearly two years of operation it is fair to say that all signs indicate that the BF concept has been a success. This message comes directly from the international Scientific Advisory Board and from the host universities of the biocenters. User statistics demonstrate that all biocenters now offer services using updated equipment not only for their own researchers but for those working in other biocenters and elsewhere in academia and industry.

BF networks are in place to form a bridge to European research infrastructures

Development of the BF concept coincided with the coordination of European research infrastructures through the ESFRI (European Strategy Forum for Research Infrastructures) process, one of the most exciting concrete science policy initiatives in Europe during the past ten years. ESFRI was established in April 2002 to produce a "European Roadmap on Research Infrastructures" reflecting a common mid- to long-term strategy for the European Union. The first roadmap was published in 2006, and updates in 2008 and 2010. A typical feature of most BMS research infrastructures is their distribution into different operational sites (National Nodes) through several Member States. The BF infrastructure networks and technology platforms provide ready-made national structures for Finnish scientists to participate in and benefit from the ESFRI initiatives. Active participation in the pan-European infrastructures has made it possible for Finnish scientists, often together with their Nordic/Baltic colleagues, to influence the European planning process and bring forward the expertise and needs of the Nordic research community. Some of the BF technology platforms are now getting ready to serve also international ESFRI customers and thereby bring Finland an increasingly important partner in the European Research Area (ERA).

Eero Vuorio

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Culminatum works to develop an attractive innovation environment for biotechnology in the BSR

By Pekka Ihalmu

Culminatum Innovation Ltd was established in 1995 to serve as a joint regional development instrument for its owners and to implement the national Centre of Expertise programme in the Helsinki region. Due to its triple-helix ownership structure, Culminatum represents a unique, independent platform able, on the one hand, to respond rapidly to the demands of local business clusters and cities and, on the other hand, to address future challenges facing society, e.g. in the healthcare sector. Since Culminatum's founding, biotechnology and life sciences have been one key focus area in developing the Helsinki area towards sustainable economy.

The Helsinki Region serves as an attractive environment for high-level academic research combined with a rapidly growing industry. In fact, the Helsinki region is Finland's largest hub of biotech companies, generating the majority of revenues (75 %) in the entire industry. The region's business ecosystems have a solid foundation in drug development and diagnostics, with bioinformatics and neurotechnology recognized as emerging new strong points.

In order to support economic growth and sustainable development in biotechnology and life sciences, Culminatum 1) builds internationalization programmes for groups of high tech services companies having value added from customers' perspective; 2) provides business acceleration support and builds bridges between innovative SMEs and healthcare organizations; and 3) encourages the utilization of the wide-ranging expertise of PhDs for reinforcing enterprises R&D&I activities. All of these initiatives are expected to support the funding, growth and entry into global markets of SMEs.

Strong and reliable networks are the basis for successful development work

The key to success in all development activities is well-developed networks on regional and inter-regional level. The networks introduced below have provided excellent platforms for developing, launching and disseminating projects that build the competitiveness of biotechnology in BSR.

HealthBIO Biotech Cluster is a well-established Competence Cluster for health-related biotechnology within the Centre of Expertise Programme **OSKE**. Helsinki and the other four participating regions represent the five major bio-clusters in Finland. HealthBIO lays the ground for diverse innovation activities which, among other things, support the internationalization of biotech companies and tackle their funding bottlenecks.

Culminatum is an active member of the **ScanBalt BioRegion** promoting the development of the ScanBalt BioRegion as a globally competitive macro-region and innovation market within Health and Life Sciences. ScanBalt is a bottom-up association driven by its members (e.g. cluster development agencies, science parks and universities) and their needs, based on a shared vision for the ScanBalt BioRegion.

As a primary contact point for biotech companies in the Helsinki region, Culminatum is a Full member of **the Council of European BioRegions - CEBR**. CEBR aims to build a competitive European biotechnology sector on the world stage through networking, collaboration, recommendations for policy and sharing best practice. The main tools of CEBR are Special Interest Groups, such as Clinical Innovation and Innovative Finance for Biotechnology.

From objectives and networks to concrete results

Boost Biosystems (2006–2008) was an FP6 project initiated by ScanBalt with the objective of boosting collaboration between SMEs and academia by initiating RTD consortia in the cross-disciplinary field of 'biosystems technologies', including diagnostics, *in vitro* tests, and pharmacogenomics applications. Improvements in these areas can, for instance, solve unanswered questions in diagnosing major diseases and can provide inexpensive diagnostics for poverty-related diseases. These objectives were approached, e.g. through informing on the potentials of biosystems technologies and partner matching for joint EU projects.

Baltic Sea Innovation Network Centres – BaSIC (2009–2012) aims to create a seamless working environment for fast-growing, innovative SMEs all over BSR, embedded in a reliable network of leading business innovation centres, science parks clusters. The BaSIC network has set up Market access services, organized cluster cooperation events and produced, e.g. cluster reports on the life sciences, which provide information for key players in research and industry.

BSHR HealthPort (2011–2013) addresses pivotal bottlenecks in healthcare innovation, such as insufficient commercial exploitation of solutions proposed by healthcare. Within this project, Culminatum organized a HealthPort Innovation Competition that boosted the commercial utilization of ideas arising from the clinical environment and healthcare research conducted in the BSR and in Northern Netherlands. The winners of the competition included *Ergofinger*, a unique disposable suction device attached to the dental worker's finger, and *Dr. Modz*, a user-friendly diabetes management system for juvenile diabetics.

Networking Power (2011–2013) aims at helping high-tech service companies in the biotechnology and pharmaceutical industries reach international markets. The project and the internationalization programmes are targeted at groups of companies having value added from customers' perspective. The internationalization measures can include, e.g. fact-finding trips to events and road shows to interesting markets and potential customer companies in Germany, Scandinavia and the rest of Europe.

PhDs to Business Life (2011–2013) is a project that creates and pilots study modules and models for doctoral programmes. The project strives in the way to improve the correspondence between doctoral studies and working life and to increase cooperation between doctoral programmes and enterprises. The project ensures the availability of expert personnel for life science enterprises and gives graduate students the readiness for a variety of working careers.

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Modernization of public health care system in Russia

By Sergey Shishkin

Russia significantly lags behind industrialized countries by key health indicators. Although over the past several years mortality rate has notably dropped from 16.1 deaths per 1,000 population in 2005 to 14.2 deaths per 1,000 population in 2010, this level is still very high compared to European countries (9.6 in EU, 2009). Probability of dying aged 15-60 years is almost twice as high in Russia as Europe's median: 269 deaths vs 146 deaths per 1,000 population (2009). Morbidity rate in the country keeps growing.

Funding of health care in Russia is several times lower, while the rights of citizens to health care are comparable to those enjoyed by people in the industrialized countries. The overall health care expenditure as a share of GDP is almost 1.7 times lower than in the EU countries (5.2% vs 9% in 2008), while government health care spending as a share of GDP is twice as low (3.4% vs 6.9%). In absolute terms the Russian state spends 3.9 times less on health care needs of one person than the EU median (\$ 567 US vs \$ 2,203 US by purchasing power parity, 2008).

The importance of health problems and the need to modernize the health system to assure social and economic progress of the country have been clearly realized by the Russian government. In recent years the government has indeed done quite a lot to improve the health care system. Health care has become a priority in budget policy. Public funding of health care increased in 2010 in 1.4 times in real terms in comparison with 2005.

The decline of mortality since 2006 may be partly attributed to large-scale health programs undertaken by the government such as the Priority National Project "Health" started in 2006 and the Program of supplementary free drugs supply for selected categories of population, including the disabled and veterans initiated in 2005, as well as rising public funding of health care.

The funding of the Project "Health" has added another 10 percent to public health funds. The Project includes investments in primary and tertiary care, increase of primary care workers' salary, vaccination, subprograms for cardio-vascular and oncology diseases, urgent care for victims of car accidents, etc. The implementation of the Project has provided for substantial upgrading of medical equipment in local clinics, and has increased the amount of free tertiary care services, regular medical screening services, disease prevention services, etc.

The new stages of reform began in 2010 with the adoption of the new law on compulsory health insurance. The main change in its design is centralization of funds and administration. That was inspired by the willingness to ensure sustainability of CHI funds collection and equity in its distribution among regions.

Government increased payroll tax for health insurance from 3.1% to 5.1% in 2011. This surplus of funds has been used for financing two years programs of health care modernization elaborated in each Russian region.

The law on the foundation of health protection of citizens in the Russian Federation was adopted last November. This law envisages centralization of health care administration in the subjects of the Russian Federation: a regional authority and regional compulsory health insurance fund concentrate administrative and financial resources for all regional health care system. Municipalities have yet very low responsibility for health development. This reform will facilitate modernization of medical facilities network in the regions. However it creates risks of disengagement of municipalities from any health policy.

Both new laws have created some preconditions for development competition among insurers and among health care providers. The citizens have got the right of free selection of health insurance company and outpatient clinic for primary care. They will have also the opportunity to choose physician and facility for specialized outpatient and inpatient care from the set of providers

that should be proposed for patient by physician who makes the referral for medical services that he isn't able to provide themselves.

However, despite obvious positive dynamic in health care system modernization current measures are not enough to resolve its long standing problems.

The continuum of health care is still heavily dominated by curative services provided by health care institutions. At the same time, attention given to measures designed to promote healthy life style, sports and wellness, healthier environment is not adequate to the role such measures can play in reducing morbidity and mortality compared to health care per se.

The urgent problems are inadequate and sharply differentiated actual accessibility to quality health care, inadequate protection of patients' rights, risks of unaffordable out-of-pocket payments forced on patients for treatment, which is formally free of charge (29% of patients have to pay out-of-pocket to get needed medical services, and 56% of hospitalized patients do this under-the-table).

Existing health financing mechanisms provide insufficiently strong incentives for health care providers and insurance companies to make them truly motivated and committed to sustaining the health of the citizens.

Health care continues to be characterized by deep structural disproportions. In particular, inpatient care institutions are strained due to excessive workload, while outpatient services remain underdeveloped. The efforts of different physicians and health care providers that work with a patient are not sufficiently coordinated.

It is noteworthy that approximately half of the Russian population (53%) believes that health care as the branch of economy is in poor condition.

There is a need to shift the focus of public policy towards restructuring health care system. Better health outcomes for the population will be achieved through establishing an integrated, transparent and effective health care system. This is a system that provides for intersectoral approach to health care, coordination of activities among organizations that deliver different types of care, involvement of patients as active partners of health care providers in prevention, diagnostics and treatment of illnesses. This is a system that provides for implementation of clear and feasible guarantees of free health services, ensuring legal, clear and fair conditions for receiving health services for a fee. This is a system in which all stakeholders are motivated to achieve maximum social and health outcomes per the unit of cost.

Modernization of the Russian health care system requires an increase of public funding by 1% of the GDP to 2020 as a minimum, and by 3% of the GDP as a desirable maximum. However, the crucial factor for the success of modernization of the health care system is not mere money but persistency of the government in the implementation of rational system of health care financing and delivery.

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Future perspectives of Finnish-Russian cooperation in neighbouring areas in the field of social affairs and health

By Simo Mannila

Finland's cooperation with neighbouring areas in the Russian Federation in the field of social affairs and health started in the early 1990s. The recent evaluation report (2011) points out a range of problems but tells that the results have been remarkable both from Finnish and Russian point of view. Much has been achieved and, in general, the stakeholders are very happy with the results. Now, there is a recent piece of information from the Finnish Ministry for Foreign Affairs, telling that the cooperation will not be funded after 2012. This information concerns all cooperation, not only social affairs and health, and this is also in compliance with the international trend: the EU funding as well as bilateral funding from several countries for the cooperation with the Russian Federation has been stopped or going down. The main reason is that Russia is a stable and wealthy country – a country with a marginal sovereign debt and one of those countries we should like to help the European Union out of the present financial crisis. There does not seem to be a specific reason to support Russian cooperation as it has been going on since the 1990s.

The recent evaluation shows “soft security” and coping with some national threats as Finnish motives to the cooperation. These threats include, for instance, communicable diseases: Russian HIV/AIDS epidemic and spread of tuberculosis are manifold as compared to what is happening in Finland, and the better the situation is under control there, the safer we shall be here. A similar pursuit of mutual gains is behind the cooperation in the fight against drugs. The threats have also been seen in a more abstract light: social instability and, for instance, migration trends have been understood as risks for Finland, which has led into projects in the field of health promotion focusing children and youth.

An obvious but rather implicit motive for the cooperation with the neighbouring areas has also been assistance to the poor. It is not obvious that the Finnish interest in national risk management or charity has been in very good compliance with the self-understanding of our Russian partners.

The cooperation in the field of social affairs and health has been one of the priority areas, and its funding for 2004-09 was altogether 17 M€ which is 15% of all funding for Finland's cooperation with the neighbouring areas. Most cooperation has taken place on bilateral basis, but there has been a trend towards multilateral programmes such as the Northern Dimension Partnership on Health and Social Well-being and the Barents Cooperation Programme on Health and Related Social Issues. The Russian partners' comments for the evaluation are in favour of bilateral cooperation, which is also administratively much less complex.

Among the public and in press there is a common misunderstanding that Finland has been shovelling funds to the Russian Federation; in reality an overwhelming part of the funds have returned to Finland in the form of consultant fees and other forms of paid work. Due to it we have acquired a bulk of information concerning Russian society and governance. A high number of Finnish experts and civil

servants have been involved in Finland's cooperation with the neighbouring areas, very many of them have otherwise had scarce relations across the Eastern border of Finland and little knowledge of what is happening there. In contemporary societies of transition up-to-date knowledge is of paramount importance. Professor Pekka Sutela has often pointed out that it is not the Russian Federation that is an anomaly of global development, the – very positive - anomalies are Finland and other Nordic countries, while Russia is a rather standard country. An insight into some key global trends is behind the corner for us, if we are willing to take a look.

Finland's cooperation with the neighbouring areas has given an opportunity for capacity building in the field of Russian and Eastern European affairs, which now is at some risk of going down. This is a time of priority setting, and the Finnish civil service has more than enough to do with the national development and corresponding EU duties. In this situation there is a risk that the interest in Russian affairs looks unnecessary and not-so-urgent, the capacity already built is devaluated, and the networks will wither away.

The evaluation done states that there has been no significant thematic development in the cooperation since the 1990s. Phasing out of Finland's present cooperation with the neighbouring areas may produce new thinking concerning the themes and forms of cooperation. Finnish-Russian exchange of information between experts and civil servants in the field of social affairs and health should also in the future be promoted. A key element of the present cooperation has been profiling of Finland as a country of high level social protection and health care. The link with Finnish export has, however, until now been more or less lacking, although private initiative in social affairs and health is now supported at the national level. Improved cooperation with e.g. the fields of economy, business and environment would have mutual benefits in the future.

It is not probable that we can do without any national instruments supporting cooperation with the Russian Federation. Russian Federation is a country with a great deal of problems in the field of social affairs and health: societal infrastructure is weak, adult health poor and the sustainability of many reforms questionable. Nevertheless, it is also a country with ten time zones, GDP growth far over the EU average and world famous culture. Combining scientific and practical approaches, supporting the interests of both public and private players in the field, there is a good perspective of new efficient forms of cooperation.

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Technologically-mediated communication in working life – a rich area for both basic and applied research

By Maarit Valo

The status and importance of basic scientific research and applied, innovation-focused research are prominent issues in today's public discussion about science policy in Finland. Research activities that seek to generate applications and innovations are now favoured because of the economic climate in which we currently live. The Innovation Union, the flagship initiative of the European Commission, strongly emphasises the need to reinforce the European Research Area. The idea is increasingly to turn research into groundbreaking products and services. According to the Innovation Union this will be accomplished by improving financing for innovative companies, developing research infrastructures and strengthening business-academia collaboration, for example.

Critical voices have risen to challenge the current keen interest in innovation-focused research. How can we secure the proper conditions for basic scientific research in Finland? Indeed, the great majority of inventions throughout time have arisen out of basic, long-term scientific research (i.e. fundamental, academic, blue sky research), motivated solely by the drive to create new knowledge. The goal of basic research is to know more and understand better, not create commercial value. Nevertheless, in the future such knowledge may prove to be invaluable for innovators.

It has been claimed that in economically turbulent times it would be most sensible and long-sighted to invest in basic scientific research because that is what can be regarded as the foundation for innovations. However, basic and applied research are by no means opposites. Rather they form a continuum with a wide range of intermediate points between the two extremes. Besides, all kinds of research are needed in order to strengthen Finland's academic standing. In the development plan for education and research for 2011–16 published by the Ministry of Education and Culture, the need for a national science strategy in Finland that acknowledges both the value of basic research and the goal of supporting innovation development is clearly stated.

Both basic scientific research and innovation-focused research are also needed to resolve challenges in our everyday working life. A good example is technologically-mediated communication at work. Today we increasingly use diverse technologies to communicate with our professional contacts, in colleague relationships, in teams and working groups, and for management and leadership purposes. Communication technologies – such "social software" as instant messaging, audio conferencing, videoconferencing, and web conferencing – allow us to be in contact with one another in distance work and distributed organisations. Colleagues can be situated in different countries and represent different cultures and/or nationalities. In the Baltic area, in Europe and worldwide there are an increasing number of organisations where international and intercultural virtual teams are commonplace. Virtual teams are collaborative groups that are geographically and culturally distributed and rely on technologically-mediated communication. Members may occasionally meet face-to-face, but most of their interpersonal contacts are conducted through communication technologies.

The early stages of research on technologically-mediated communication were coloured by profound doubts about the usefulness of online interaction. In the 1970s and 1980s it was thought that exchanging messages via computers was

inefficient, impersonal, unfriendly or even hostile. It was generally believed that technical limitations (often referred to as reduced cues, cues filtered out, low social presence) prevented computer-mediated contacts from being satisfactory or productive. Face-to-face interaction was considered to be the ideal form of communication in all circumstances.

Today we know better. Research has shown that the characteristics of technology do not hinder, restrict or disturb communication processes or outcomes. Technology does not determine the ways we interact with one another; rather, we are quite flexible and inventive in using technological devices and crossing the barriers they originally were thought to create. Numerous studies have revealed that worthwhile online interaction depends more on social and cultural factors as well as on interpersonal and group dynamics than on the technology itself. Communicative functions and the tasks in question are also decisive. Research on virtual teams has shown that the quality of teaming is conditional on a large number of factors, technology being only one of them. Even the simplest asynchronous e-mail may be experienced as an effective and rewarding tool. Moreover, communication technologies are now mobile and ubiquitous, offering more possibilities than ever before.

In research on technologically-mediated communication, studies on technology users' reactions and behaviour are at the heart of basic scientific research. Out of pure curiosity, researchers have observed and analysed the ways people interact with one another via technologies. Much of this research has been conducted in experimental laboratory settings by analysing ad-hoc groups of university students. However, findings on interactional processes depend considerably on the context in which the studies have been conducted. This is why more research should be carried out in working-life contexts, for example in real virtual teams.

Basic research on technologically-mediated communication could truly benefit from closer ties to applied research activities. Communication technologies involve a large number of devices and software, and it is of crucial importance to develop them on the basis of users' experiences. Solutions that will support collaborative interaction, facilitate teamwork, develop team leadership and enhance knowledge management in virtual contexts are waiting to be invented. Basic research and innovation-focused research should seek more collaboration for their mutual benefit.

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The emergence in the 1970s of the Nordic mobile phone services and industry – learnings for today

By Jorma Nieminen

The story

To help tame the current financial crisis in much of the OECD, strong investment in innovative growth is needed. Some clues for how to achieve it can be found from not so distant history of the Baltic Sea region, by which I mean the launch of the nationwide mobile phone services in the Nordic countries in 1971. These “pre-cellular” services, ARP in Finland, OLT in Norway, and MTD in Sweden and Denmark, were realised in each country by the governmental PTT administrations (“PTTs”) in close Nordic cooperation. The globally novel services, covering nearly all territory, created first volume markets for radiotelephones, and thus a new opportunity for firms with appropriate capabilities. The pre-cellular services were followed by the jointly developed NMT system, the first internationally roaming cellular service opened in late 1981. It paved way for the GSM service in 1992, originally European, but soon the dominant global standard. Importantly, the PTTs limited their role to the infrastructure and service provision. The phones were left for the private industry to create, produce and market.

Tightly entwined with the services development, a stream of innovations towards increasing phone portability was introduced by the industry, especially in Finland. A crucial early step in 1974 was the introduction of the Salora SRP 24 transportable phone, a car-phone that could be turned into a self-contained 4.5 kg portable device, useable across the country, including lakes, coastal waters, and Lapland. The transportable concept was re-applied for the Mobira Talkman NMT phone in 1984, subsequently versioned to most cellular services worldwide. Mobira understood early on the need of small personal phones, and introduced in 1985 a 750 gram concept design for the NMT 450 service, later known as Mobira Cityman, or “model Gorba” for the NMT 900 service. By 1986 Nokia-Mobira pursued a development program of several successive ever smaller phones, largely defining the product evolution for several years.

In sum, the Nordic combination of the nationwide mobile service coverage and ever more portable phones added up to the radical innovation of ubiquitous mobile telephony, first time in the world. This had important implications in terms of innovation diffusion, and market and industry growth. Industrially, Salora’s SRP unit in Salo, Finland, with its early transportable phone was best endowed to exploit the new opportunity, and gained the Nordic market lead by 1975. This led to consolidation of the Finnish industry into Mobira, a joint venture between Salora and Nokia in 1979. The company was renamed in 1986 as Nokia-Mobira, and in 1989 as Nokia Mobile Phones. With its intensive and sustained product innovation program, the Finnish industry gathered strength, became globally significant in mid-1980s and dominant in late 1990s. The sustained growth of the industry created well-paid jobs of diverse skills by tens of thousands, and injected new wealth in the economy. Such an unexpected development in a typical high-tech field mostly ruled by giant American and Japanese MNCs gives rise to a question what made it possible. A recent study, comparing the outlined Finnish case and another case in Canada with not so different

antecedents, raises the quality and timing of the underlying core innovations at the centre to help explain what happened.

Analysis

To understand the story, we need to look at the global antecedents of the industry and what defines how innovations diffuse. The concept of cellular telephony was invented in the US in 1947, but was not realised there until 1983. Not much happened in the rest of the world either, which also explains the low competitive pressure from the dominant telecom industry in the US, Europe and Japan on the early Nordic market. This provided the local industry with an opportunity to develop capabilities in the early global lead market to meet the upcoming competition later on.

As to what made the Nordic pre-cellular and NMT services so successful, diffusion research proposes five key attributes that define the adoption speed and extent of an innovation: relative advantage, compatibility, complexity, trialability, and observability. The described Nordic combination of nationwide services and the transportable phones met the criteria well: The radical *advantage* was to first time have an anytime-anywhere phone connection, mobile or stationary. The service was *compatible* with the conventional telephone service by allowing calls to and from all over the world. Use of the mobile phone was *not complex*. Indeed, in the early service the calls were placed through a human operator who could help find a phone number, an address, a hotel, a gas station, or aid in an emergency. The service could easily be *tried* before own commitment in a friend’s car, boat, or summer place. Finally, a transportable 4.5 kg phone on a hotel’s breakfast table and the long VHF antennas on cars were conspicuously *observable* and interesting. All of this conduced to the rapid diffusion of the service and market growth.

But what gave the Nordic PTTs the foresight, entrepreneurial spark and courage to conceptualise and realise the pre-cellular services without a role model anywhere? And the wisdom to choose the public-private partnership model, in which the PTTs did the system design, specification, build-up, and service operation, but in which the private industry was called in to design, produce and market the user equipment meeting the specifications? In want of deeper scientific explanations, it may have been a case of brilliant public entrepreneurship around a core of divine inspiration.

Learnings and propositions

What are the learnings for today’s Baltic Sea region? Citing Nobel laureate Paul Krugman, we live now in depression economics with insufficient aggregate demand and plenty of un-employed resources. Underlying is a great uncertainty about the future, eating the courage of the private business and capital to invest big even in promising ventures. And the public side is limited by excessive extant debt. The problem then is how to get innovations off the ground notwithstanding, such that idle people, machines and capital can be put in productive use. The public-private

partnership model successfully used 40 years ago in the Nordic countries to create a new mighty industry may offer a solution by splitting the load and risks of new big ventures, and reinforcing total capabilities as well as mutual courage.

In search of worthy large-scale innovations, besides the “must-dos” like reducing the carbon footprint and cleaning the Baltic Sea, three categories come on mind. The first concerns ways to improve the productivity of businesses and public organisations. The second is about enhancing people’s quality of life as they perceive it and are willing to pay for. The third comprises methods to save costs of current operations and living. It is obvious that innovations in any of these categories carry a potential of added value, and thus a business opportunity. I hope that governments, firms, NGOs, and academia around the Baltic Rim would take a note of the Nordic story, and consider whether the related ideas could be of help in getting some worthy bigger things to move ahead even amidst the current

financial turbulence and wide-spread confusion. Priority should be given to innovations with potentially global appeal.

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Heterogeneity of innovation strategies of Poland's firms

By Anna Wziątek-Kubiak

Innovation plays a critical role in economic growth and competitiveness. However in respect to intensity of innovation the New Member States lag behind the incumbent EU countries. As the NMS firms share characteristics of followers, imitators, or non-cumulative firms, it is commonly recognised that their innovation strategies are based on learning coming from external sources and differ considerably from their incumbent EU counterparts.

In respect to innovation performance Poland does not differ from other NMS. In 2008 only 27.9% of Polish enterprises in industry and services reported innovation activities. This was almost two times less than the EU-27 average. R&D intensity (R&D expenditure as % of GDP) of Poland's economy was almost three times smaller than the EU-27 average. Only 31 % of R&D expenditure was financed by the business enterprise, i.e. much less than the EU-27 average.

On the other hand, Polish innovating enterprises are a dynamic part of an economy. In last 5 years, the average dynamics of growth of employment and turnover in Polish innovation enterprises was one of the highest in the EU-27. Dynamics of growth of turnover of innovative firms was much higher than that of employment and both rates were higher than that of Poland's economy average. Innovative enterprises in Poland have increased their productivity to higher degree than economy average.

As in the case of the incumbent EU countries, Poland's innovating enterprises are heterogeneous in respect to sources of innovation. Introducing cluster analysis which is based on a wide range of internal and external factors of innovation that are introduced in Oslo Manual, we select five types of innovation strategies introduced by Polish innovating enterprises. These strategies show different ways of accumulation of knowledge which is used in competition. Surprisingly, most of these strategies are common to the incumbent EU countries.

Types of innovation strategies introduces by Polish innovating firms

R&D based strategy

This is a kind of closed innovation strategy. It is characterised by a very high R&D intensity, a large share of R&D staff employed and strong cooperation with R&D organisations. However, although these firms invest in in-house R&D, they do not manage to improve the ability to identify, value and apply other sources of external knowledge coming from suppliers, customers and competitors. In effect they do not gain benefits from these cooperation.

Firms on this path to innovation tend to focus on product innovation. New products are strongly competitive on the domestic market. However focusing on R&D and neglecting the role of cooperation with non research partners does not allow them to gain a strong international competitiveness.

Strategy of open innovation

Firms who pursue this strategy not only do in-house R&D. They also extensively exploit knowledge from other organizations. They cooperate in R&D activities with domestic and foreign research organizations, independent researchers and with suppliers, customers and competitors. Developing in-house innovation capabilities allows these firms to accumulate and make use of external knowledge extracted from different innovation partners.

This strategy confirms that external knowledge benefits the firms that possess innovation potential. Innovation linkages

transfer into beneficial ones when they are supported by in-house R&D activities.

The share of new products in sales is one of the highest. The international competitiveness of products and production technology is also high. Open innovation strategy significantly enhances firms' competitiveness.

Users of innovation

This strategy is geared toward process, technology effects. It involves innovation activities aimed at improving a low level of technology, i.e. elimination of the main weaknesses of the firms.

Subcontracting of R&D substitutes in-house R&D which is low. It is accompanied by intensive cooperation with R&D organisation. This collaboration is very beneficial and results in high share of newly introduced products in sales. However their strong competitiveness on domestic market accompanies low level of international competitiveness. Comparison of this strategy with that of open innovation leads to conclusion that in-house innovation activity serving beneficiary absorption of external knowledge supports the improvement of international competitiveness of products.

High profile strategy

Most firms consistently run internal R&D activities and cooperate with external research organizations, including both domestic, foreign and independent scientists. These firms were supported by intensive subcontracting and cooperation. Such an approach resulted in high benefits that they took from cooperation with business partners and resulted in high innovation output and international competitiveness.

Low profile strategy

These firms have very low in-house innovation resources and activities and cooperation in R&D activities. They still focus on defensive restructuring. As they benefit from cooperation in terms of product quality and marketing, the role of diffusion of external knowledge is very important. However this diffusion does not translate into international competitiveness of their products which is weak. They operate in the lower quality segment of the domestic market where competitiveness of their products and technology is moderate.

Concluding remarks

Although intensity of innovation and innovation performance of Polish firms are much lower than that of the incumbent EU counterparts, there are no large differences in innovation behaviour and strategies of innovation between Polish innovating firms and their incumbent EU counterparts. It suggests that firstly, catching up process is the most dynamic in the case of Polish innovative firms. Secondly, there is a shift in competitive pressure of Polish firms from low-quality to higher quality, innovative products.

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Friendship between Finland and Poland

By Marjukka Mäyry

The main purpose for the existence **of the Union of the Finnish-Polish Associations** in Finland is to strengthen and fortify the friendly relations between Poland and Finland in today's Europe, to make the co-operation firmer and more intense at all levels. One significant way of doing this is to increase and deepen the knowledge of Polish history, society, economy, culture and your way of life in Poland among Finns and vice versa, the awareness of Polish people of Finland. Our relations as such is not a new phenomenon, they go back a long way in history.

The Finnish-Polish Association was founded in Helsinki as early as 1928. It started its work by taking every opportunity to make Poland better known among Finns. The initiators of founding the association were mainly highly educated, academic people; many of them being respected university professors and artists of great renown. They were in close contact with their colleagues in Poland and it was not too hard for them to pay visits to one another in those days either.

It was the Finnish-Polish Association together with the Warsaw Polish-Finnish Society, however, that actually started **the student exchange** between Poland and Finland. The associations organized many remarkable **cultural events**, for instance, the 100th Anniversary of Adam Mickiewicz in 1934. It was then that the Association published a booklet of Adam Mickiewicz's life and work.

Another significant event was four years later, a **cultural exchange program** was signed between Finland and Poland, the initiator being the Finnish-Polish Association.

Unfortunately, the Second World War broke up the co-operation for some years, but it started again soon after the war, to be more precise in 1947 and the co-operation has gone on strongly and actively ever since.

In the course of years there were so many new Polish societies all over the country, that in the year 1977 it was considered vitally important to found **an umbrella organization in Finland the Union of the Finnish-Polish Associations**. The main office is located in Helsinki where to hold meetings and where to arrange special events for members and those interested in the Finnish-Polish relations.

The main emphasis of the activity of the Union today are on **the language exchange program** and **the publication of The Finnish-Polish magazine** and also, in order to make **Polish films known in Finland and Finnish films** familiar with the Polish movie goers.

The Union in co-operation with the Warsaw Polish-Finnish Society has organized **language courses on an exchange basis**. Both parties choose three scholars for the courses and pay for their course fees, accommodation and teaching material. The exchange students can be people of all ages; people who need Polish or Finnish in their jobs or studies. These language courses are organized by the Polonicum Institute in Warsaw and by Helsinki University in Finland.

Traditionally, the annual **Polish film week** takes place in October and during the month some two to four films are shown in seven to nine cities all over Finland. We, Finns, feel privileged to watch the latest Polish films chosen by our very own film specialist. The Union organizes the film week in co-operation with the Polish Embassy in Finland.

To Poland the Union sends 3-4 documentary films to make Finnish films familiar with the Polish movie goers. There the Polish-Finnish societies organize the movies.

The Finnish-Polish magazine comes out annually giving information to the Finnish people interested in Poles and Poland, to make us Finns more aware about what is going on in Poland. We Finns feel fortunate to have a **magazine** published by our own Union. The Finnish-Polish Magazine comes out every year; the first time it was published was as early as the 1950's. It used to come out twice a year, but times are getting rough in Finland as well and the monetary funds are limited. The writers of the magazine are the best Finnish experts on society, economy, history and culture of Poland.

The magazine is, however, distributed not only in Finland but also to the Finnish Embassy in Warsaw, to the students studying Finnish at the University of Poznan and Warsaw, various exhibition centers, libraries, the Polish Embassy in Finland and the Finnish Embassy in Warsaw. It is also given out in various kinds of events organized for the public, not to forget passengers on the Finnlines ships sailing from Gdynia to Helsinki.

Other forms of activities

Today we have some twenty Finnish-Polish Associations in Finland. Most of them are in close contact with their **Polish Twin Cities** and the Polish-Finnish Societies in those places. The Union of the Finnish-Polish Associations has been active in finding **partner schools** for Finnish schools in Poland and Polish schools in Finland. The Union and the Finnish-Polish Associations in co-operation with Polish-Finnish Societies have also been busy **finding contacts** for Finns in Poland and Polish people in Finland who for various reasons need such help, e.g. for their study opportunities, presentations, art exhibitions, lectures, theatre performances, travels, drama performances, puppet theatre shows, to name but a few. This co-operation works both ways.

The Union of the Finnish-Polish Associations takes part in **an annual travel Fair in Helsinki**. The representatives of our Union answer the questions coming from the visitors and give out different booklets on Poland. Many Finns find travelling to Poland a fascinating idea, Poland not being too far a destination and still quite a different country and cultural surrounding from ours.

The Union has also supported the studies of **those Polish students** who wish to learn our language or who e.g. want to study in our universities or colleges by donating Finnish literature to the universities in Warsaw and Poznan. In return for similar privileges, some **Finnish students** have been able to improve their skills in the Polish language in Poznan and Warsaw Universities.

It was only recently that one of the greatest writers of Finnish literature, probably the best-known Finnish writer in Poland, **Mr Mika Waltari**, was celebrated for his great production. Professor **Panu Rajala**, a real expert on Mika Waltari, was sent over Poland to give a lecture on Waltari and his production at the University of Poznan and Warsaw.

The Union of Finnish-Polish Associations has supported Finnish Studies at University of Warsaw and Poznan donating Finnish literature to them and with the help of the

Svenska Kulturförbunden (the Swedish Culture Society) Swedish Studies at Gdansk University by donating Finnish-Swedish literature to them.

A few years ago, **Mr Derek Fewster**, an expert on Philosophy at Helsinki University was sent over to Gdansk to give some lectures on Finnish-Swedish culture and literature.

Poland having had the chairmanship of the EU in 2011, many events were organized in Finland to make Poland, Polish culture and Polish way of life much better known in Finland. Also the Union and many Finnish-Polish Associations organized several events to make today's Poland better known by organizing a series of lectures on Poland; the lecturers were real experts on Poland, such as Professor Matti Klinge, Mr Stefan Widomski, the honorary consul of Poland, and translators of the Polish literature Mrs Päivi Paloposki and Mr Tapani Kärkkäinen.

The economy of the Union of the Finnish-Polish Associations is funded by the Ministry of Education and

Culture, by membership fees and the advertisement fees received e.g. from those who advertise in our magazine. The Union has not paid staff, all activities are voluntary. I personally think and sincerely hope that the Union of the Finnish-Polish Associations in Finland will keep going strong in the future as well. I firmly believe that the situation will be the same in Poland.

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Finland



Maritime transport in winter is necessary for Baltic Sea states

By Hans Langh

Last winter once again proved without a doubt the importance of maritime transport in wintertime. Ships were stuck in ice and industry was forced to wait for raw materials and explain to customers why their goods were not being delivered on time.

There are two strategies for ensuring smooth maritime shipping in wintertime: mobilise more icebreakers in maritime areas or use ships that can successfully move through ice.

Finland has chosen a policy whereby icebreaking services are financed with taxable fairway dues. This means that ships that don't really require icebreaking assistance pay just as much for the service as ships that must be towed by icebreakers from open waters to unloading ports and, once emptied, on to loading ports and then practically to the start of open waters. Fairway dues in 2010 totalled EUR 67.8 million. Some 50 per cent of annual taxable fairway dues are attributed to icebreaking activities alone. A 9.5 per cent increase in taxable fairway dues is being proposed for 2012, the justification for which is the high cost of icebreaking, including towing services, in the Bay of Bothnia.

The need for icebreakers would substantially decrease if the ships that carry raw materials for industry were to load new cargo from the same port. An empty ship sailing from port to port travels in small draughts, which means its propeller mostly crushes chunks of ice with a weak thrust.

When Finland offers towing services to ships with a weaker engine output at no separate fee, it makes no sense for higher-quality, ice-going ships to sail to Finland. For that reason, Finnish industry uses the cheapest possible vessels. The best ice-going ships in Europe sail to St. Petersburg.

This also puts Finland in an unusual situation: because of the icebreakers, ships that could very well continue in open fairways without the help of icebreakers are forced to wait. This is because icebreakers are so occupied with towing weak vessels that they would not be able to assist ships travelling in the fairway if the weather conditions suddenly changed, a field of ice broke free and help was needed. The ideal situation would be if the vessels had nearly the same level of ice-going characteristics. The better ice-going vessels would sail in one convoy and weaker vessels in their own. Nowadays, one bad ship causes insurmountable problems for everyone.

In my opinion, a vessel should have an engine output and a hull shape that allow it to sail in an open fairway, and it should only require towing in exceptional situations to break through major ice ridges. For example, Langh Ship's three 6500 dwt vessels that navigate in the Bay of Bothnia – m/s Laura, m/s Hjördis and m/s Marjatta – have an engine output of 5850 kW and two winters ago did not require towing a single time, even though it was a relatively tough winter. Last winter, the vessels in question each required towing on only one occasion after breaking through a difficult ridge of ice. The task of icebreakers should be to assist vessels through difficult barriers – not to tow them from open water to a port.

In contrast, Langh Ship's 1A Super ships – m/s Aila and m/s Linda – which navigated the St. Petersburg–Helsinki–Central Europe route last winter, did not require icebreaking services at all. Those 11500 dwt ships have an engine output of 8400 kW. An old rule of thumb is that a good ice-going vessel should have one horsepower per dtw.

Free towing assistance has led to a situation whereby effective ice-going vessels have largely left the Bay of Bothnia. The vessels that remain have a weak engine output and at the

same time represent an environmental risk if they encounter problems in difficult ice conditions.

Only about 18 per cent of the industrial products exported from Finland are shipped on Finnish vessels, and the Finnish fleet will inevitably require renewal, as the average age of our merchant fleet is among the highest in Europe, at 17.5 years. Icebreakers require huge investments from the state. The price for one medium icebreaker exceeds EUR 100 million. If the goal is to smoothly handle increasing maritime transport, such as mining industry transports, with the current low-powered ships, several new icebreakers will be required.

The stricter requirements laid down by the International Maritime Organisation (IMO) as of 2015 and 2016 set pressures of their own on the renewal of vessels. These requirements involve restrictions on sulphur and nitrogen oxide emissions, ballast water cleaning, purification of cargo-hold cleaning water, and reducing nitrogen and phosphorous emissions. It is important to invest in new ships that fulfil the future requirements now; because modifying ships that are too old is unprofitable and operating old ships on low-emission diesel fuel will be too costly for all parties and will destroy the competitiveness of industry in the Baltic Sea area.

In this situation, we should ensure that new ships can sail properly in ice too and that we will not succumb to equipping our future ships with insufficient power under the pretext of environmental requirements. Icebreakers with a high engine output towing vessels with a low output creates a combination that causes considerable contamination to environmentally sensitive maritime areas of the North. This kind of combination causes considerably more emissions in relation to the volumes being shipped than, for example, a convoy of five ice-going vessels sailing behind an icebreaker.

The stricter regulations can be turned into a competitive advantage for maritime transport through innovative technological and political solutions.

At the moment, it is extremely difficult and costly to secure financing for new cargo vessels. Banks consider the shipping business to be high risk and, in addition to the Euribor, require very high margins. The requirements of the Basel II accord also raise the interest margins. The Baltic Sea states could, for example, within the framework already approved by the EU, grant reasonably priced guarantees, which would enable investments in new vessels.

Industry and merchant shipping must together find an ideal solution to future challenges in order to safeguard the competitiveness of industry in the Baltic Sea region.

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Strong recovery in maritime transport volumes stalled with economic uncertainty

By Elisa Holma

The year 2010 was time for growth and strong recovery in cargo volumes in the Baltic Sea ports. Also this year started with favourable economic development in all of the nine Baltic Sea countries. Foreign trade increased especially during the first half, but towards the end of the year, development has been slowing down and even stalled. However, in many ports, total cargo volumes are expected to reach higher levels than in 2010. The expectations for growth in 2012 are rather modest and cautious, being overshadowed by the prospect of a new economic recession.

Recovering cargo volumes in the Baltic Sea ports in 2010

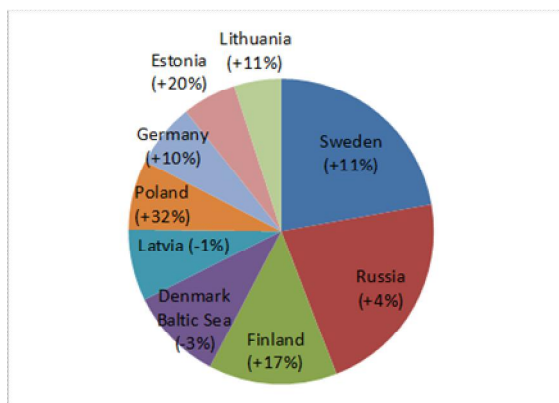
In 2010, Baltic Sea ports handled a total of 809 million tons of cargo (+9% y-o-y), after a dramatic drop of 10% in 2009. Cargo volumes increased in all Baltic Sea countries except for Denmark (Baltic Sea coast) and Latvia, where diminished transports of fossil fuels kept the cargo volumes at a slightly lower level than in 2009. The annual growth was strongest in Poland (+32% to 60 million tonnes), and in Estonia (+20% to 46 million tonnes). In both Poland and Estonia, strong growth was seen in all cargo types. In general, international imports, which faced the biggest falls in volumes in 2009, increased more than exports in the Baltic Sea ports (+14% and +6% respectively). Measured in total cargo volumes, Sweden regained its leading position in the Baltic Sea, with a share of more than a fifth. Sweden was closely followed by Russia, where volumes are largely composed of oil exports.

The volumes of all cargo types in international traffic increased in 2010. Strongest growth was seen in non-bulk cargoes (+17%), which had seen the deepest fall the year before. This class includes for example containers, where the volumes increased the most (+27%). Liquid bulk remained clearly the largest type of cargo handled in the Baltic Sea ports, with a total volume of 305 million tonnes (+1%). Dry bulk cargoes in international traffic were handled 190 million tonnes (+12% y-o-y).

Despite the strong growth, total volumes were still 2% (-17 mln tonnes) behind the peak volumes of the year 2007, non-bulk cargoes lagging the furthest behind peak volumes. In 2010, other than bulk cargoes were handled 8% less than in 2007, and dry bulk 4% less. Instead, liquid bulk cargoes reached the peak volumes in 2010.

Primorsk, St. Petersburg and Gothenburg remained the three biggest ports in the Baltic Sea in 2010. Most of the ten biggest ports were located in the eastern part of the Baltic Sea, four of these being located in the Gulf of Finland.

Fig. 1. Cargo handled in the Baltic Sea ports by country and annual growth rate (%) in 2010. Source: Baltic Port List 2011.



Slowing growth and uncertainty this year

Year 2011 started with favourable economic development in all of the Baltic Sea countries. Especially the first half of the year seemed encouraging, but towards the end of the year the expectations for growth have weakened and common economic uncertainty has increased.

The Baltic Sea region countries still have not recovered completely from the previous recession caused by the global financial crisis. Each country around the Baltic Sea has proceeded somewhat at its own pace when it comes to economic growth. During the autumn, general uncertainty in the global and European economies started again to weaken significantly both companies' and consumers' trust towards economic growth. In September, IMF forecasted GDP growth for the nine Baltic Sea countries together to be 3.3% this year and 2.3% next year, but predictions of a new recession have already been heard.

The amount of maritime cargo traffic in the Baltic Sea kept rising during the first half of the year. Total volumes handled by the 20 biggest ports increased appr. 7.5% in January-June 2011, year-on-year. As a result of a strong beginning of the year, most ports are expecting higher volumes to be handled this year than in 2010.

Modest growth expectations for the year 2012

According to the Baltic Port Barometer survey, carried out in August-September, the ports have cautious, yet optimistic, expectations for the year 2012. Modest growth is expected in cargo volumes in 2012, but at the same time the expectations are overshadowed by the prospect of a new economic recession. The brightest outlook is seen among the ports located in the eastern part of the Baltic Sea.

However, expectations for the year 2012 have clearly come down compared to predictions given in 2010 for the year 2011. Baltic Port Index (BPI), which gives an overview of the ports' expectations for the year to come, has halved from last year. BPI is now at 21 (last year at 50), meaning that the ports' expectations have weakened, but they still remain positive.

The volumes of all cargo types are expected to increase in the Baltic Sea, but expectations for bulk cargoes are more modest compared to non-bulk cargoes. Within non-bulk cargo, growth is expected especially in containers.

The article is based on an annual market data package, published by the Centre for Maritime Studies at the University of Turku. The package includes three publications: Baltic Port List, Baltic Port Insight and Baltic Port Barometer. Of these three, Baltic Port List 2011 includes detailed port statistics on 2010 and time series since 2006, Baltic Port Insight gives an overview of the current year in the Baltic Sea countries and ports, and Baltic Port Barometer provides information on Baltic Sea port development trends by assessing the business and traffic prospects across the BSR over short-term, year-on-year.

Elisa Holma

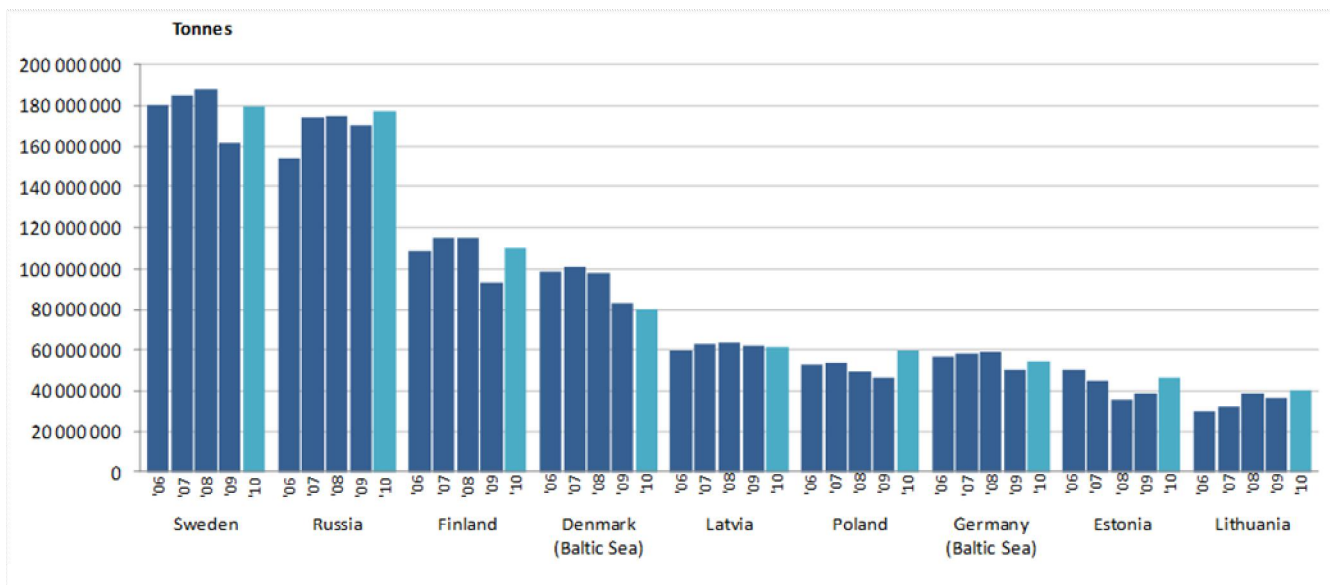
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Fig. 2. Total cargo volumes in the Baltic Sea ports by country in 2006-2010. Source: Baltic Port List 2011.



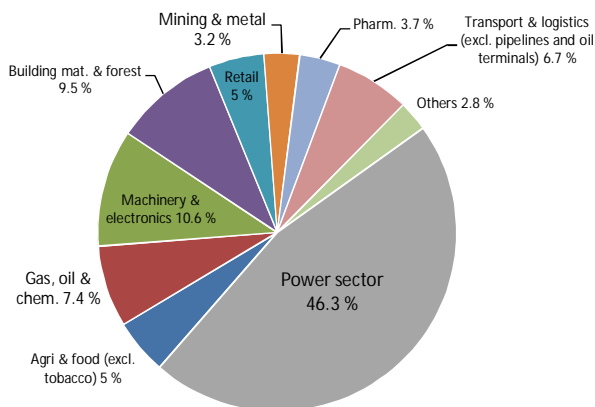
Real investment in Northwest Russia – Ground Zero for reindustrialization?

By Vladimir Miklashevsky

Over 40 major investment projects in Northwest Russia totaling \$13.6bn in value were declared, under construction, or launched during August 2010 to July 2011.¹ The region's share of real investment projects² nationally climbed to 18% during the period. The value of individual projects range from \$15m to \$4.6bn,³ and almost 40% of projects include foreign capital. As in other federal districts, the Russian state has been behind the most substantial investments. State money is also backing many private projects.

Consistent with trends elsewhere in Russia, the biggest real investments are in power sector. The second and third largest project categories are machinery & electronics and construction materials & forest industries (Figure 1). In other parts of Russia real investments in gas, oil refining and chemical industries lead the list, but in Northwest Russia machinery and retail have substantially higher shares than the norm. Agriculture, food, mining and metals, in contrast, are significantly lower. In terms of the number of projects, agriculture and food industries were a firm second (16%) after machinery & electronics with highest share (19%).

Figure 1. Main real investments in Northwest Russia, % of total value invested, August 2010 – July 2011



Source: East Office, Ekspert

At the moment, the Russian state is the only investor in power projects (\$6.3bn) in Northwest Russia. Rosatom, the state atomic energy corporation, is erecting the LAES-2 nuclear reactor in Sosnovy Bor in the Leningrad oblast. The plant's planned capacity should rise to 2,344 MW and 500 Gcal/h. The total investment is expected to be about \$4.6bn. Russian energy giants Gazprom and EES are behind several power block and electric substations.

The automotive industry continued to lead machinery investment. After a wave of launches of new automobile

plants in 2007–2010 (Ford, GM, Hyundai-Kia, MAN, Nissan, Toyota etc.), there has been a second wave in automotive components production. Known as "Russia's Detroit," the Leningrad oblast continues to attract new car assembly plants and kit producers that are largely funded with foreign capital. Nokian Tyres, a Finnish tire manufacturer (classified as "Others" in our sector groups) is expanding production to over 5.5m tires a year with an investment of \$343m. The second wave in machinery is increasing production and maintenance of equipment for power plants. Rosatom's Atomenergomash is building a new plant for production of reactor equipment (\$113m) on the grounds of Petrozavodskmash in Karelia. OSK, a Russian shipbuilder, and the South Korean STX have released a memorandum of intent to build a \$720m shipyard (greenfield) in St. Petersburg.

Despite this activity in central districts, the major investments in building materials and forest industry are in remote regions. Northwest Russia attracted almost \$1.3bn during August 2010 – July 2011. Founded by Russia's richest official, Andrei Molchanov,⁴ the LSR Group has launched a \$600m cement plant (greenfield) in the Leningrad region and is currently constructing a brickyard (\$371m). In the Novgorod region, the German Pflleiderer has resumed construction of a medium-density fiberboard (MDF) plant (\$267m). The company began the project in 2008, but suspended its efforts during the global recession.

Real incomes and consumption levels above the national average in St. Petersburg and Leningrad oblast have attracted both domestic and foreign retailers. According to the *Ekspert* data, five large investment projects in retail (\$674m) were green-lighted in August 2010 – July 2011. Foreign investors also are participating in two smaller projects: a \$27m shopping mall in the Kaliningrad region by Metro and a \$15m hypermarket in St. Petersburg by Auchan. The construction company Briz has erected its \$500m Galeria Shopping Center in St. Petersburg. There are several substantial projects in retail missing from the *Ekspert* data, however. In November 2010, for example, Finnish retailer Stockmann opened a shopping mall (\$260m) in St. Petersburg. In April 2011, the Finnish provider of trading sector services Kesko declared its intentions to invest \$850m during 2011-2015 in hypermarkets in the St. Petersburg and Moscow regions. Another Finnish retailer, S Group, announced plans during the period to build a number of hypermarkets in St. Petersburg in the near future.

There are six projects in the transport sector, totaling nearly \$1bn. If the oil terminal in Ust-Luga on the shores of the Baltic Sea is included, the value for the category nearly doubles to \$1.8bn. The terminal has been finalized by Gennady Timchenko's oil trader Gunvor. Another big terminal (\$200m) is also under construction at the Ust-Luga Port. The main investors are European container terminal operator Eurogate and First Quantum, owned by Vitaly Yuzhilin, a St. Petersburg billionaire. The state is helping investors at both the federal and regional level with access roads, land acquisition, and tax breaks.

¹ In addition to Kaliningrad, Leningrad, Novgorod and Pskov oblasts, St. Petersburg City we also consider Karelia and Murmansk oblast.

² Projects exceeding \$12m.

³ Individual country level data provided by *Ekspert Business Weekly* No. 3 (737), 14 (748), 24 (758), 37 (770).

⁴ According to Forbes, Andrei Molchanov, a member of the upper house of the Russian parliament, earned more than \$100m in 2010.

Cheap money provided by state-owned banks was a big main driver of the current spike in investment in agriculture and the food industry. In August 2010 – April 2011, seven projects, worth \$680m were registered in Northwest Russia. A new distinctive feature of these agriculture and food industry projects was their high capital intensity. The average amount of investment per project is expected to come close to \$100m. Among them are three giant pig farms (two funded with foreign capital).

Analyzing available data, a fall in real investments took place during May-July 2011 compared to the same period in 2010 (seasonally adjusted). Yet, the exact figure is ambiguous due to the estimation methods. Political risks and scarce capital availability obviously restrict real investment. The state decides where to allocate financing, and has lately shown greater interest in promoting social than real industrial investments. One hope is Russia's upcoming WTO membership which is expected to clarify rules and encourage efficiency gains through increased competition.

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Adaptation of business models to local conditions in Russia – five Nordic companies' experience

By Kim Wikström and Elena Ganskau

Nordic companies are increasingly interested in establishing business in Russia. They face challenges in adapting their business models to the local environment. The reason for this lies in severe differences regarding culture, legislation, technology, available capabilities and competition. There is also a considerable amount of incorrect stereotypes to be found in their guidelines for conducting business locally. There is an urgent need to find suitable approaches for how these companies should act and perform so that they meet local expectations and requirements. At the same time they should utilize their global capabilities and innovate for potential quantum leaps in a strongly emerging market.

PBI Research Institute has for several years analyzed various types of business models in project-based firms globally and in Russia. In 2010-2011, PBI conducted a study of how Nordic companies adapt their business models to local conditions and which factors play a decisive role in their development in Russia. Five Nordic companies representing different industries in Russia were selected for the analysis. In total, 26 interviews with the companies' managers and customers as well as industry experts were conducted and analyzed in combination with an analysis of documentation, such as strategic intentions and webpages. The aim was to discover the companies' approach to conducting business in Russia. The focus was on summarizing best practices and existing problems, and giving recommendations for further development of the companies' activities in Russia. Despite the fact that the results are based on the experience of only five companies, they provide valuable insight and guidelines regarding how foreign companies strive to establish and develop operations in Russia.

The companies studied employ different types of approaches in Russia and have different experiences and levels of maturity in their operations in Russia. The following business models were identified:

(1) The production-centered business model builds on local production for different industrial segments within serial and individual projects. Priority is given to product development, including design and innovation when considering local needs and demands. In addition, the closeness to the market ensures quick decisions and adaptation. These companies have a strong market position and support from local authorities, giving them more openings as regards prospects for further growth. Moreover, they have close collaboration with the local universities and suppliers. They mainly faced problems related to poor infrastructure, underdeveloped legislation, and having to obtain numerous approvals and permissions. Additionally, the various political situations in specific regions were often challenging for the local production. However, a cost benefit has been achieved, at least until now, as there are significant import duties if the products are produced abroad.

(2) The sales-centered business model is based on the organization of sales, distribution, and delivery process. These companies can capitalize on strengths using an efficient supply chain, unique benefits, lower pricing, a broader product line, or more customization options.

However, customs duties and other costs linked to transportation make the position of foreign companies without a local production base quite vulnerable. Furthermore, the importance and benefit from the local office is more limited. The model does not allow too rapid growth and it is not seen as a sustainable way to do business from a Russian point of view as local embedding is important. Moreover, sudden changes or disturbances at the border can dramatically impact the business. The benefits are flexibility and also the possibility of growth by extending the sales network.

(3) The service-centered business model means that the company's activity is focused on service solutions supporting the customers' value generating processes, e.g. design, installation, maintenance, after-sales support, etc. This model functions well if a company has long-term agreements with customers, quickly responds to inquiries, and has a wide network of service centers and warehouses with spare parts. However, the Russian market for services is underdeveloped and unpredictable. In addition, the level of competition is high – small local companies offer lower prices and acceptable quality, as well as flexible contract terms and fast delivery. This model gives constant feedback from the customers that could be better utilized by establishing a stronger presence by having spare parts, a certain degree of expertise and sales personnel in Russia. Furthermore, as the business environment is evolving quite rapidly, the companies tend to suffer from the distance involved.

(4) The essence of the investment-centered business model relates to organization and development of local projects aimed at meeting the interests of investing organizations. The investing company's role is to connect the sources of investment with local networks, including experts, authorities, producers, and suppliers. The outcome of projects may include both new material objects and intangible effects (e.g. ecological). This model is quite flexible and does not require launching large local facilities, although it is strongly dependent on a well managed network of partners, as well as political and legal factors. Thereby it is also rather vulnerable and there is a risk of missing business opportunities, because the local presence is weak. This is especially true for the early phases, when new investments and projects are discussed and planned.

There are significant differences when working with key clients in Russia and Nordic countries. It is quite problematic to develop long-term relationships, networks, and trust because of local, specific peculiarities. At the same time, the established personal contacts between managers and clients remain a significant reason to continue collaboration. Relationships between the customer and subcontractors in Russia often have a complicated structure, and different interests have to be balanced. Foreign companies cannot be involved in "the game" because of their ethical norms or lack of information or.

A point of development was in all five cases to increase the local presence. To pay attention to the collaboration between the local operations and the other relevant actors within the company is important.

As for relationships with headquarters, it is interesting and important that the independence of local management in making local decisions had a positive impact on motivation and development of the operation. However, our observations also revealed cases, where the headquarters tended to ignore initiatives and suggestions from the Russian side. As a result, the offering was designed and developed irrespective of local market needs or the decisions were accepted on the level of the entire company and were therefore not efficient locally. Cultural and language differences remain significant and create a problem when introducing the parent company's values and standards. Moreover, the opposite was observed where the local operations with autonomy became isolated and could not benefit from the experience and knowledge base in the Nordic companies. Training multicultural (multilingual) managers and transferring international experience through "best practices" can be a solution, blended with job-rotation and working in joint projects. Nonetheless, a strong motivation to work in Russia is important for local success. It is not easy to adapt Nordic values and business standards to Russian market conditions; collaboration needs to be based on respect, trust and a well-built value base. A strong interest from the executive level and involvement from the headquarters seems to support a sustainable local development, as long as local management is not micro-managed.

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Implementing a luxury strategy in Russia

By Esa Rautalinko

Finland's strong export tradition to Russia has been considered as an advantage. Growing Russian GDP has created increasing export possibilities and the proximity of the two countries enables efficient logistics to the biggest cities and their surroundings. However, the market has changed dramatically in the past two decades and will continue to do so in the foreseeable future. Unfortunately a large number of Finnish exporters have neglected their homework. Old assumptions and traditional "facts" are not today's realities and relying on those might be fatal.

Domestic Russian production has increased significantly in virtually all product categories and existing gaps in offerings have already been filled. Surely regulative actions have speeded the development, as in all emerging economies. But it would be short-sighted not to take into account the massive work done in Russia in the areas of R&D, marketing and production. A lot of this has naturally been enabled by foreign capital and corporations, but increasingly by Russian players.

The old Finnish "good enough for us, good enough to be exported" thinking is a sure way to a shrinking business. Because of this old way of thinking, Finnish exports to Russia has been sales focused, especially in consumer goods. Strategic marketing thinking has not been a priority and in many cases even the most trivial background work has not been done. And yet Russia gives almost endless possibilities for a true marketer because of the markets diversity.

Honkarakenne is the world leader in log homes focusing on luxury and premium customer segments offering individually designed houses and high-end service. Research data shows, that throughout the world there are strong trends supporting the chosen strategy.

1. Increasing wealth

The global financial crisis has naturally dented individual customers and created challenges, but the clear trend is that as an average people are getting wealthier. At the same time increasing differences in wealth distribution are creating social challenges. But still, there is a growing number of wealthy people in all major markets.

2. Individuality

The need for self expression rises together with wealth. Tailor-made solutions are vital in order to satisfy demanding customers and the solutions need to be integrated into a highly sophisticated way of service.

3. Urbanization

Even countries with a declining population, like Russia, verify this trend. Consumers are not willing to make compromises with a working infrastructure and expectations even in remote vacation locations are high, often higher than in cities. Because of this, large development projects are both popular and economical.

4. Ecology

Energy efficiency and CO2 footprint have been popular buzzwords for quite some time. However, ecology is not the primary selection criteria for most of the consumers. But real competitive advantages can be created and on the other hand, authorities are going to ensure by regulation that a positive development takes place.

These global trends need to be interpreted from a target market perspective, not from a Finnish one. Finns have a complicated, if not a traumatic tradition dealing with wealth and individuality when comparing us to emerging economies. Research data shows that Russians are more willing than Finns to invest in durables. When the needed funding is available, Russians put a lot of effort in acquiring a house fulfilling individual family needs. And very typically a substantial investment is allocated to elaborate interior detailing and decoration. So Russia, better than any other

market Honkarakenne is working with, is living true the abovementioned trends.

Another myth Finns still somewhat believe in is that product quality is everything. There is no denying the importance of traditional quality thinking. But instead of a competitive advantage it has become a hygiene factor, an entry ticket to attend the game. Thinking has to be widened to non-tangible service models, or "semi-tangibles", which as a term probably better describes the challenge. Most companies have defined service processes and have also put performance indicators into place (preferably in a multi-million CRM system...) but are still facing challenges and unpredicted customer behavior.

Sadly it is very rare that truly meaningful customer insights can be extracted from this expensively collected data. Service processes are always experienced individually and therefore beforehand decided KPIs have a challenge describing the customer experience. Some typical KPI data is naturally valuable, but having a constant multi-faceted dialogue with the customer from the first contact throughout the purchasing process is vital. And it is essential to recognize that the dialogue has to continue for the length of the whole life cycle until the next cycle begins. This is the only way to ensure a vital luxury strategy.

So what are the key learnings implementing a luxury strategy in Russia?

Do not use Finland as a benchmark

Russian customers have a different interpretation of luxury than Finns. In houses this means bigger average sizes, bold architecture, attention to detail and thorough interior styling.

Improve you speed

Russians are fast decision makers and expect the same from you. Finns have an excellent reputation of being precise and on time, but at the same time we are often considered to be hopelessly slow.

Be ready for changes

Especially luxury segment customers expect agility. Define your capability to make even last minute changes and which are the details where changes can be made and where not. Otherwise you end up selling nothing or selling with a poor margin.

Personalize your service

Service models for masses are for mass products. Luxury products need to be sold through a customized model in a flexible manner. This means that the work is resource consuming and you have to deal with it.

Product quality is not good enough

Relying on product quality as a sole competitive edge means failure. Quality can be copied in an increasing speed but experiences not. Also, it is harder to put a price ticket on experience than it is on quality.

It's not over

Luxury segment customers do not expect a project but a relationship. The relationship needs to be nurtured throughout the years even if there is no sales in perspective. You have to recognize the effects of both positive and negative grapevine. Luxury is created through experience.

Esa Rautalinko

President and CEO

Honkarakenne Oyj

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Sanitary ware market differences in the Baltic Sea region

By Pekka Kuusniemi

Recent crises have further differentiated sanitary ware markets in Finland and Sweden compared to the Baltic countries and Poland. Traditionally, the Nordic markets have a strong network of installers who purchase sanitary ware from technical wholesalers to be installed in their customer's premises. That has guaranteed a certain quality level for these products, which have a very central role in people's everyday life. In the newer market economies, purchasing power is naturally still on a lower level and therefore consumers are tend to look after cheaper products and install products by themselves. Very often the channel to the market is so called "big boxes", Do-It-Yourself –shops, when the price is the driver number one and professional advice is lacking.

New buildings like block of flats are mostly built and sold unaccomplished in the Baltics and Poland. That fact leads to totally different challenges when all consumers must be reached one-by-one. Each consumer make most of their decisions regarding to interior furniture, even fast furniture like kitchen fitments and bathroom equipment after purchased walls and ceiling. In the Nordics you are more often offered alternatives considering the level how flats are equipped but always constructors build houses till turn-key-completion.

Price sensitivity still leading

Whether we talk about higher or lower purchasing power markets, it is surprising how price sensitive product category sanitary ware has become. It is up to all market actors, but something can be considered to be done wrongly when there are e.g. washbasin faucets at a price level of ten euros. Still, we have to keep in mind that these durable goods are including a huge risk if they are faulty. Therefore, the potential to develop the sanitary ware market is huge if market actors would succeed to guide consumers better in these questions. If you would invest

fifty percent of a price of a new pair of jeans or at a price of a junior's ice hockey stick, you would have pleasant moments ten years ahead with your high quality faucet. The difference between these investments is the duration. You don't risk anything if buying a pair of jeans but having a water tower behind your low quality sanitary ware that creates a major water damage risk in addition to less good user-friendliness.

Towards water saving sanitary fittings

Water and energy saving is growing in importance also in the newer market economies. However, if we compare e.g. Swedish and Polish consumers in this respect there is a clear difference. Both markets give value to modern solutions with which you are able to use water in a user-friendly way. But, while Swedes are thinking more of saving world's water resources and using less energy to warm up the shower water, Polish consumers are interested more in their own wallet than ecology. Both are good reasons to think twice when making a choice for the next ten to twenty years. The payback time for a water saving solution is surprisingly short. If that could be added to the easy to use-features it would be a great benefit for the Baltic consumers to enjoy water and save energy in long term.

Pekka Kuusniemi

President and CEO

Oras Group

Finland



Russia – facing new challenges on the world gas markets

By Nodari Simoniya

During last several years we are witnessing very dramatic developments and drastic changes on the world gas markets. Russia (in fact “Gasprom”) was not prepared to adequately respond to these challenges. The more so, that in recent years in the West it became fashionable to speak about a threat of Russian energy monopoly for Europe that in future might allegedly lead to political dependence. These statements are constantly disseminated by almost all Western mass media sources with the latter naturally not taking any trouble to present in the least bit serious analysis of real state of affairs.

It's quite enough, however, to address facts and statistical data to receive evidence that in decades following the time when historical “gas in exchange for pipes” agreements with Austria and Germany were signed, in spite of absolute physical increase of gas deliveries from the Soviet Union, its share in total volume of European gas import decreased more than twice. It happened naturally due to diversification of import sources (from Norway with Algeria as well as other North African countries, plus Qatar, Trinidad and Tobago, etc.). What monopoly are we talking about?

And, nevertheless, “Gasprom” is a monopolist, but only in its own country. At its complete disposal the company has all the main export gas pipelines thanks to which it “makes miserable” the life of all the independent gas producers in Russia either imposing crushing terms of gas purchase, or forcing them to burn associated gas in flares, polluting the atmosphere. The history, however, has evidence that any monopoly sooner or later comes to an end. And such a monopoly usually breaks in its “weak link”. Until recently “Gasprom's” life was comfortable. It was “sitting” on “Soviet inheritance” and kept to the comfortable tracks beaten in earlier times. But when it became necessary to develop new deposits “Gasprom's” “weak link” became apparent – Arctic with its multiple challenges: severe climate, need for absolutely new innovation technology, its unknown off-shore, etc. The monopoly's leadership was neither psychologically, nor professionally ready to meet these challenges quickly, dynamically and widely.

More than this, “Gasprom's” leadership was permanently ignoring the fact that the Government had long ago formulated the concept of *state-private partnership* (SPP) where the state's role was in formulation of ideas and large national projects, in partial investment in the latter (especially in various infrastructure spheres), etc., while the role of business was that of operational initiative, realization of information technologies and the role of main investor. In the past “Gasprom” has clearly demonstrated its inability, and even reluctance to give up its comfortable existence and fit into this SPP concept, having balanced its purely corporative interests with national goals. All this could not pass by V.Putin's attention. Just as the fact that he practically had to display initiative himself in realization of actually all the largest energy projects applying the method of “manual management” (as if Russia is Singapore). Discontent accumulated. Finally, premier Putin has decided to apply “shock therapy” for “Gasprom” in LNG projects sphere, having created for the latter an active competitor represented by “Novatek”.

Perhaps, it is necessary to stress that all the steps made by the Government and V.Putin personally are in no way aimed at destruction of “Gasprom” as a large corporation. It would have been extremely unreasonable and damageable for the whole economy. But they are efficiently aimed against negative aspects of “Gasprom's” monopolism, which in recent years have turned into the main brake on almost all the large energy projects of Russia, and turned for “Gasprom” itself into hindering factor of its own development. V.Putin as chairman of the Committee of Foreign Investments in every way possible contributed to growth and organizational strengthening of private “Novatek”. More than that, the Government's criticism of “Gasprom” is becoming more and more open and directly threatening *monopolist status* of this company. In early February of 2011 V.Putin at a meeting in St.Petersburg in 2010 on the results of fuel and energy complex directly declared that the Government of Russian Federation may be ready for changes in the legislation if “Gasprom” – Russian

monopolist in gas transportation via main pipelines – did not allow independent gas producers access to its transportation capacities. “Either you work more efficiently, or we shall be forced to change the existing rules, to change the legislation”, - said the premier at this meeting, having stressed that “the company puts its own interests above the interests of the industry's development”.

“Novatek” in its turn not waste any minute and immediately started formation of his grand LNG production center on the Yamal peninsula. The leadership of the company intends according to its 2015-2017 plan to more than double capitalization of their company (up to US\$100 bln.) and bring natural gas extraction up to 60-80 billion cubic meters, and that of gas condensate – to 8 mln. tons. (In 2010 Novatek's production was 37,2 bcm of gas and 26 million barrels of condensate. Their big achievement was that in the meantime practically opened through navigation along the Northern Sea Route: August 14, 2010 tanker “Baltika” with experimental consignment of gas condensate (70 000 tons) freighted by “Novatek” from Sovcomflot (state shipping company) left Murmansk in Russia's extreme northwest and went to the Asia-Pacific region across the Arctic Ocean's Northern Sea Route. This consignment for China National Offshore Oil Company arrived at the Chinese port of Ningbo on 6 September. Business Monitor International consultancy commented upon this event as follows: “Novatek” can reduce its normal journey to Asia of around 20,400 km around the Suez Canal to around 12,500 km, allowing for significant reduction in transit time, fuel cost, and the risk of pirate attacks. President of “Novatek” L. Mikhelson who was on board of “Rossia” tanker during the whole route told “Vedomosti” reporter that delivery of condensate via Suez Channel at that time would have cost “Novatek” US\$ 50 per ton, i.e. approximately US\$3.5 mln. for the whole consignment, while delivery along NSR cost half a million dollars less.

Finally I would like to briefly formulate the main conclusions made from the above:

1. Russian Arctic zone is not only the key base for development of oil and gas industry, but also a “weak link” where in the last 3-4 years began and have been building up important shifts in the very model of this sector.
2. The most significant shifts are: the breakthrough of monopoly of some state oil and gas monopolies on home market and appearance of real competition.
3. It became obvious that fast and effective development of Russian fuel and energy complex is simply impossible without the closest international cooperation both with states-consumers of Russian hydrocarbons and advanced oil and gas corporations and service world companies. Any pretension on independent development of Arctic resources leads only to lengthy procrastinations and rise in cost of large energy projects.
4. At the same time the process of renewal of Russia's oil and gas industry will take several years, as the scale of the tasks it faces is enormous, while the obstacles necessary to overcome are too rooted in general economic structure of Russian society (the principal ones are double-dyed bureaucracy, pervasive corruption and still inevitable due to the management's low level of professionalism method of “hand management”).

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Russia towards energy saving and renewable energy

By Viesturs Ozolins

Global climate change has been a much debated subject, but question remains that the global climate is changing, with possibly grave consequences for human societies. Technologies for energy efficiency and renewable energy have become recognized as an important part for reducing carbon dioxide (CO₂) emissions and mitigating global climate change.

Russia is one of largest contributor to total CO₂ emissions in the world, together with the United States and China. With the rise of transnational environmental problems like global climate change, attention has been focused on international technology transfer as an instrument to mitigate these problems. Historically, Western technology transfer and cooperation played a significant role in some key aspects. International experience transfer leading to energy efficiency improvements and greater deployment of renewable energy could lead to substantial reductions of CO₂ emissions in Russia.

Despite huge existing technical-economic opportunities for energy efficiency and renewable energy, and despite advanced Russian technological capabilities, many transaction barriers limit technology transfer and investment in technologies for energy efficiency and renewable energy. Same time outdated standards created in Soviet times what are still used in energy sector quite often tight the hands for efficient project realizations.

There are good reasons why energy use is inefficient relative to that in Western countries. Some of these reasons can be found also in developed and developing countries. For example, equipment's and infrastructure were designed, developed, and produced during a period when energy was extremely cheap. Undervalued inputs led to much economic inefficiency in general.

Russia's President has stated lately that energy efficiency and energy conservation are among the 5 strategic priorities for Russia's technological development. In line with these governmental initiatives, this topical was served as an international platform for the exchange of practical experience and know-how gathered by companies and experts in the field of energy conservation and energy efficiency.

Company Gebwell Ltd. is a Finnish company specialized in energy saving and environment friendly heating and cooling system development, engineering and production who works hand in hand with Russian partners for energy efficiency projects. The vast product selection includes ground source heat pumps, energy accumulator systems and district heating substations.

As an expert in district heating field and renewable ground source energy technologies I will analyze several aspects of these systems and perspectives in Russia.

District Heating System

District heating is one of the most used heating systems in Russia but the system efficiency is very low, supply and distribution pipes in many cases are old and poorly insulated up to now. Heating equipment's in buildings are old and poorly maintained. District heat distribution systems are poorly controlled (if at all). And opening windows in wintertime is often still the in many cases only method to regulate heat comfort.

Energy efficiency and rehabilitation in district heating systems represent very high domestic priorities for Russia lately. Even with simply automation of heating processes large amount of energy could be saved. The main goal of such automation is to optimize heat production and distribution according to real-time fluctuations in heat demand, hydraulic conditions, and outdoor temperatures. Such control should take place in the heat plants, substations, and individual buildings and apartments.

Russian authorities are beginning to recognize the unsustainability of an economic model based on natural resource extraction, and to understand that improvements in energy efficiency would boost long-term economic competitiveness.

Technologies for improving the heating systems within existing buildings include building level energy metering units, and automation for controlling the heat entering the building, apartment-level heat meters and thermostatic radiator valves for controlling the heat to individual apartments, heat balancing valves for balancing the heat flows within the building, pipe insulation, and new substations for energy distribution.

Up to now the large amount of buildings in Russia connected to district heating system are not equipped with simple heat metering equipment's what basically should be one of the first steps towards energy saving measures. Same time building thermal envelopes also can be improved. Measures include additional roof and wall exterior or interior insulation, window replacement and mechanical ventilation systems.

Improvements to district heating systems include combustion controls and analyzers at heat plants, automation systems for distribution networks, variable speed drives on motors and pumps, pipe insulation, new pipelines, and new individual substations.

During last 10 years there has been many renovation projects implemented in district heating sector and building level as well, but this is just a small part large Russian energy system. Thanks to Russian government new energy efficiency law has been introduced with certain measures towards energy efficiency.

Renewable Energy and Ground Source Energy

Renewables, this has become one of the most often used terms in energy sector worldwide in last years. I think this is one of future perspectives also in Russia, but due to relatively cheap energy available this technology has not been so popular up to now.

One of the most popular and promising renewable energy technologies for heating sector in Northern Europe is ground source heat pumps and according today's situation it is less costly heating production system.

Up to now this technology has not been very popular, but Russian energy price growth in domestic market has led to heat pump market development due to its efficiency and environment friendly technology. Many people do not know that ground source systems can be used not only for heating production but cooling applications as well. For example one such kind of ground source system is able increase cooling efficiency many times comparing with regular air conditioning systems. Due to above mentioned this technology becomes more and more popular also in Russia due to its efficiency.

Learning from experience gained during many years participating in energy saving project realization in Europe, Russia and China, the key factor is hidden in heads of citizens as energy efficiency project should start there. Up to now it has been significant problem in Russia, but due to rapid energy prices increasing society is forced to think about energy saving measures also on consumer level.

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Antitrust cases against Russian oil companies – battle for cheap petrol is under way

By Svetlana Avdasheva and Guzel Yusupova

In 2006-2007, Russia amended its competition law and rules on prosecution. Turnover penalties (from 1 to 15% of the sale on the market affected) were introduced instead of fixed and relatively low fines. Impact of new system, potentially effective, depends dramatically on the goals of the rules enforcement. During last years the major aims of antitrust provisions enforcement is 'battle for low prices,' and the most important cases for Russian competition agency (Federal antitrust service RF, FAS) were the cases against oil companies.

Low prices as a goal does not correspond to world best practice of antitrust policy aimed at protection of competition but not the competitors or buyers directly. However we should keep in mind that Russian economy is dominated by resource-extracting, capital-intensive industries, with a small number of interdependent producers and high entry barriers. Structural features of Russian markets support coordination between sellers, tacit or explicit, which in turn results in high prices.

Prices for oil products occupy special place in the Russian economic policy. On the one hand, economy and budget are highly dependent on oil business, including export. On the other hand, low retail prices on oil are considered as a kind of social obligations of Russian government. The desire to keep oil product prices stable makes trying different way to solve the problem, in spite of the fact, that oil product prices in Russia are among the lowest in Europe (see figure 1).

Enforcement of antitrust provisions is considered as one of possible ways to force oil companies to charge low prices. In Autumn 2008 FAS identified four largest Russian oil companies – Lukoil, TNK-BP, Rosneft and Gazprom Neft as collectively dominant in four markets - gasoline, diesel fuel, heating fuel oil, and aircraft kerosene and abusing their dominance in the form of excessive prices and discrimination against independent wholesale buyers of oil products.

Decisions on the violation of the competition law were supported by two types of evidence: first is comparison of world oil price index and oil product price increase in domestic market and second is comparison of price and cost indexes of oil companies. FAS found that when world oil price increased, domestic retail prices of oil products increased at the same or higher rate, and the lag was minimal. On the contrary, under decreasing world oil prices domestic retail prices fell at lower rate and with increasing time lag. FAS also found that the increases in the prices of the products were greater than the increases in their costs, and were also greater than the increase in the wholesale price index for Russian industries. All the cases contain analyses of the prices, costs, and profits "needed for production and sale". However, Russian antitrust law does not provide instructions on what price mark-ups or profit rates might be "needed" in a market, nor what determines whether increases in those rates are permissible. In this context enforcement of the prohibition on 'excessive' price becomes too arbitrarily.

In summer 2009 the second wave of cases against 'Big Four' was initiated. The accusation of 'unjustified withdrawal of a commodity from the market' replaced the accusation of 'excessive price'. The increase of export volumes was regarded as a cause for the reduction in quantity and the increase of prices in domestic wholesale and retail; markets in the early 2009. Again, without any ruling it is difficult to find standard of decisions considered to be legal (do not export at all? do not export when prices in domestic market increase?).

In both cases oil companies were accused as discriminating independent wholesale buyers by charging higher prices in comparison to the subsidiaries of Big Four. In

addition, there was some emphasis placed on the refusal to supply independent wholesale customers during periods of supply shortage.

Supreme Arbitration Court RF found oil companies guilty (TNK BP in May 2010, Gazprom Neft in February 2011). Overall sum of penalties for Big Four, initially exceeding 26 bln RuR, was reduced to about 6 bln RuR. At the same time many regional subsidiaries of oil companies are accused by regional subdivisions of FAS in more than 500 cases during last three years.

Punishment of largest oil producers hardly can achieve primary objective of competition policy, in spite it could be able to prevent price increase in domestic markets (see figure 1). However, other policy measures are also under discussion or even implementation. In February 2011 prime-minister Vladimir Putin asked from Russian oil companies to decrease retail prices on gasoline and diesel fuel. Paradoxically, direct price cap on petrol can be preferable in comparison with antitrust enforcement for the prices exceeding cost, since the latter heavily depress the incentives of producer for cost-saving. To the autumn 2011 other legislative initiatives are under consideration. These are draft laws introducing new rules of contracts and pricing of oil and oil products.

To conclude, the battle for cheap petrol in Russia is still under way, and antitrust enforcement is only one of the weapons in this fight.

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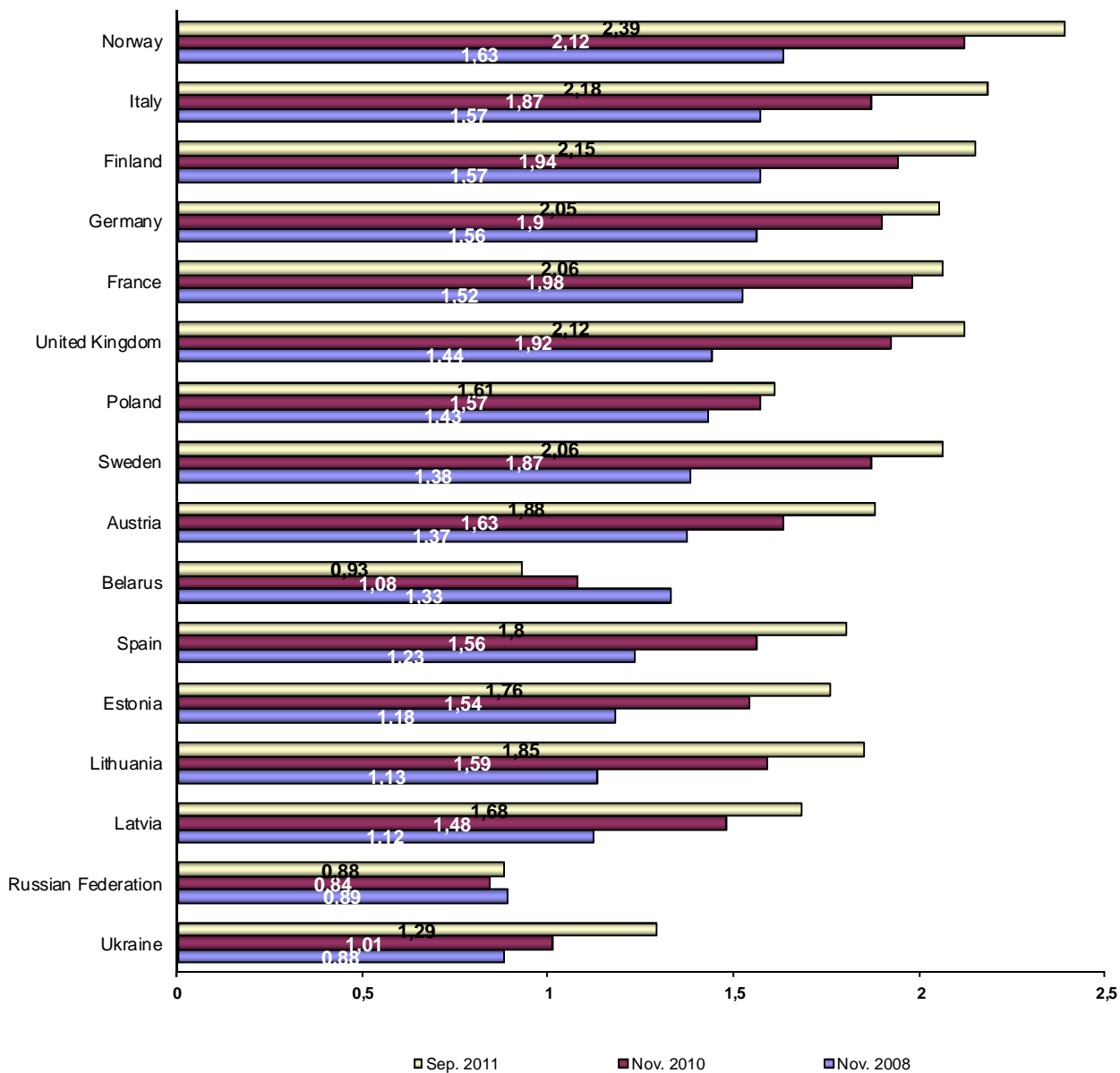
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Figure.1. The Comparison of retail gasoline prices in the world: Europe, Russian Federation, United Kingdom (Nov.2008, Nov.2010, Sept.2011), USD cent per liter



Source: <http://www.gtz.de/de/dokumente/gtz2009-en-ifp-part-2.pdf>
<http://www.gtz.de/de/dokumente/giz2011-international-fuel-prices-2010-2011-data-preview.pdf>

Special Economic Zones in Russia – new trends

By Stanislav Tkachenko and Dmitry Tkachenko

Special economic zones (SEZ) play special role in implementation of Russian Government's vision on how national economy should be reformed and modernized. Internal dynamics of their development is rather positive in recent four years. Since the end of 2009, there are seven new SEZ in several Russian regions and of different types of them. In general, there are 24 SEZ in Russian Federation today: 4 SEZ of industrial and production type, 4 SEZ of technological and innovation type, 13 SEZ with a specialization in tourism as well as 3 SEZ in sea-ports and logistics.

Among newly established SEZ there is highly advertised by Russian Prime-Minister "The Titanium Valley" in Sverdlovsk region, "Togliatti" SEZ in Samara region, which should save so called "monocity" from consequences of growing unemployment and even social unrest, and Murmansk Sea-Port SEZ with specialization in logistics.

Following indicators demonstrates SEZ development in Russian Federation in recent years:

	2007	2008	2009	2010	2011 (January-June)
Number of residents registered	50	141	207	267	288
Investment announced, billion RUR	34,237	90,839	144,864	219,900	n.a.
Number of jobs created by SEZ	699	3709	3919	5234	n.a.
Volume of sales of products and services, billion RUR	1,310	10,963	20,800	31,400	n.a.

Source: The Chamber of Audits of Russian Federation, 2011

Despite of very optimistic statistics on SEZs, it should be taken with cautious since all indicators, presented in the table above, are nominal ones and describe intentions rather than real achievements of SEZs administrations and Russian government. For example, statistics on residents of SEZs who actually started their projects is not available as well as volume of real investments and jobs, provided due to fulfillment of these projects. That's why representation of available statistics on SEZs is quite poor.

The growing skepticism on effectiveness of the whole SEZ's project and utilization of money from Russian federal budget let the Chamber of Audit of Russian Federation to start investigation of activities of SEZs in 2010-2011 and in previous periods. We may sum up results of the investigation by following:

- In 2005-2011 Russian budget devoted RUR 87,7 billion for implementing SEZs-related projects. Only RUR 46,3 billion, or 53 %, has been spent in reality, other

budget money has been secured at the accounts of the governmental Vnesheconombank (VEB). In April 2011 there were about RUR 40 billion (i.e. € 1 billion) of deposits of the Joint-Share Company "Special Economic Zones" at the VEB accounts. SEZ in Saint-Petersburg at the end of 2010 has received from the JSC "SEZ" only \$55 million of \$440 million, which has been approved by Russian Budget for its development.

- Only 58 of 396 infrastructural projects has been completed up to the Chamber of Audit investigation (15% of planned).
- Only 206 of 288 residents of SEZs have started their projects in SEZs, and their real investments has reached the level of RUR 36,2 billion.
- Economic efficiency of budget resources in industrial zones, is about 1,9 rouble per 1 rouble of budgetary investments; in the case of technological and innovation SEZs the figure is even less impressive – RUR 0,3 per RUR 1 of budget money.

Analysis of the 2011 Chamber of Audit investigation lead us to conclusion that at this moment the whole project of SEZs faces serious structural and institutional problems, which Russian Government don't know how to deal with. We have to mention here slow construction of infrastructure for SEZs by regional authorities, bureaucratic inefficiency, red-tape, lack of Russian managers with practical skills.

The most problematic sector is nowadays the tourist and recreational SEZs. These zones are located mostly in areas with very poor transport infrastructure and are hardly accessible both for businesses to invest and tourists to travel. The only exception is the tourist special economic zone in Kaliningrad, but it faces another difficulty due to the fact that it is located in national nature reserve (The Kuronian Spit). Construction and development in such areas are restricted by many environmental as well as bureaucratic regulations. That's why prospects for business success of tourist SEZ in Kaliningrad are rather bleak today. Poor infrastructure and lack of free land prevent development activities in another ambitious Kaliningrad project – Special gambling zone near the Yantarny settlement.

Despite of obvious difficulties, related to SEZs' establishment, their legal regime, effectiveness of investments, etc, Russian Government continue to put emphasis on them as very important driving mechanisms of Russian economy's modernization. In March 2011 the Prime-Minister Vladimir Putin has announced that in existing SEZs period of activities, which includes special legal status and tax exemptions, should be prolonged from 20 years nowadays to 35-40 year in the near future. Today there are several drafts of Federal Laws discussed by Russian governmental officials and law-makers in the State Duma and the Council of Federation. They include removal of restrictions for residents of SEZs for non-profile forms of activities, i.e. ability to lease their premises to other residents, to provide food for company's employees, etc. Russian Government is intending to simplify the registration

process for residents of technological and innovation type of SEZs as well as utilize mechanism of liberalization of tax regime to attract more residents into existing zones.

Summing up our overview of the current state of SEZs genesis, we should conclude that despite of serious problems, Special Economic Zones are very significant engines of modernization of national economy both at the federal and regional levels of economic governance. That's why Russian authorities will continue putting political and financial resources in their development to avoid resource curse . But it is almost impossible for them to get any long-lasting positive results from such efforts without further reforms of state corporations, liberalization of economic practices, establishment competitive institutions in domestic economy and demonopolization of its sensitive sectors. Russian membership in WTO is crucial step on the way and successful special economic zones will move this liberal trend even further.

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Six more years with Vladimir Putin

By Lena Jonson

On 24 September 2011 it was clearly demonstrated that Dmitry Medvedev's presidency had come to an end. He declared that he steps back in favour of the candidacy of Vladimir Putin in the March 2012 presidential elections. Medvedev's decision was perceived by most independent observers as the end of the 2009 modernization campaign and its embedded promises of political reform. Domestic critics regard the return of Putin as president a catastrophe for the country.

The serious problems described by Medvedev in his article "Russia, Go!" and in which he motivated the "modernization" campaign still exist. What Medvedev described as illnesses of a system, such as widespread corruption, lack of transparency, of democracy and rule of law, are as serious, or even more serious, today. How will Putin, during a third term as president, respond to these challenges? According to most Western observers and many Russian analysts, the Russian political system is highly obsolete in the context of the complexities of contemporary society. If Putin understood the scope of this challenge, his programme would be expected to include political reform.

Putin's critics do not expect political reform. In their analysis, Putin is both the creator of the present power system and its prisoner. He is at the top of a system created to guarantee him full control and stability. The power vertical, the large percentage of siloviki in state administration, and the Putin clan control of economic life are backbones of the system. At the same time corruption, which spreads due to lack of transparency and rule of law, undermines the very system and prevents control and management from above.

What Putin needs is to transfuse new blood into the system, blood which could help vitalise and modernize the system without revising its foundation. Yet, as pointed out by his critics, Putin has consummated a system where channels from below for demands, requests, and new ideas have been closed. Political alternatives are prevented by laws, regulations, and practices from above which make it utterly difficult for all efforts of independent political mobilization.

The United Russia party today constitutes the major channel for the communication of ideas upwards. Major career paths run through pro-Putin youth organizations. Although time has changed and no parallels should be made with the Soviet Communist Party nomenclatura, there are similarities with the way that alternative communication channels have been closed under Putin. The present system provides new faces but sorts out new ideas from reaching the official political discourse and agenda. Medvedev recently launched a website called "large government" to encourage new political ideas within the framework of United Russia's discourse. Yet, as long as there are no political mechanisms for introducing new ideas, except through the party of power, and no political institutions to be held accountable, "large government" innovations remain an illusion.

Putin has demonstrated, ever since he came to power in 2000 that his instincts as well as the instincts of the large contingent of siloviki in state decision-making positions, are to guarantee that the right of free speech, meetings, and demonstrations will remain highly restricted. As returning president he needs to try at least some piecemeal political reform during the years to come. Otherwise, six more years of restrictions postponing political reform could be highly counterproductive for his regime and for society at large.

According to sociological research, Russian society is undergoing deep changes. During the last more than one and a half years we have witnessed a trend of reduced support for the United Russia party, and for Medvedev and Putin. United

Russia is, however, guaranteed a majority in the State Duma, and Putin can be sure of being elected next March. Research shows that the strongest critics live in the large cities and belong to the middle class, individuals who have no party to articulate their demands. Some sociologists talk in terms of a "crisis in political confidence". Civic grass-root movements have mobilized people on specific issues and there are reports of spontaneous and temporary organizations and manifestations around the country by wider social groups in society on issues such as benefits, housing and employment. The use of laughter, irony and satire as political weapons by the democratic opposition during the last autumn are signs of a new political atmosphere in society.

Thus, the future President will meet a completely new situation with regard to the mood of the population. However, as pointed out by several analysts, the new situation includes not only discontent from the democratic opposition. Far stronger are the ultra-right nationalists fed by frustrated discontent and xenophobia. Putin seems more receptive to the mood and arguments from this constituency. He might have been taken by surprise by the mass manifestation of the almost 10.000 frustrated xenophobic young men at the Manezh Square in December 2010. He knows the strength of these moods, and he has on several occasions demonstrated his will to play the nationalist card. Therefore, he also cautiously prevents the nationalists from creating any independent organization outside or within the official party system.

With an economy highly dependent upon the export on oil and gas, and a state budget based on expectations on high world market prices on energy, Russia is vulnerable to fluctuations. The budget adopted recently for the period 2012-2014 with cuts of means to the social sector and increases to defence and internal security give small margins in case popular discontent would explode.

The issue of political reform will, whether he wants it or not, haunt Putin during the coming years. As he is basically unwilling to respond to such demands, Putin will take on measures to prevent them from spreading. But this may instead give nourishment for the opposition to grow. While the parties of the democratic opposition are viewed as no alternative for most people as demonstrated by opinion polls, a new generation of democratic leaders may appear from the civic grass-root movements. People like Alexei Navalnyi, Evgeniya Chirikova and Ilya Yasin may be among a future generation of leaders. However, if a reform movement is to succeed, a major role must be played by reform-minded groups already within the political elite. So far, there are no signs of this. The Putin elite seems united so far.

The changes in the Russian political atmosphere during the last one and a half years may be the faint sign of something new in the making, so far mainly hidden under the surface. Although this new popular energy may not materialize in the short run, at the end of the day it may become important, perhaps decisive, for political reform and modernization. This is something that a Putin 2.0 needs to take into account.

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The outline of political reforms in future Russia

By Kirill Rodionov

In September Vladimir Putin and Dmitry Medvedev declared a new configuration of the executive authority for the nearest 6 years. The reshuffle within the tandem became yet another act in the process of the power vertical strengthening, which started after Boris Eltsin had quitted as the President of the country. Political analysts are calculating how old the Nation Leader will be in 2024 and they draw parallels with the period of Brezhnev's stagnation. Is everything that fatal? Can one expect any changes?

In Russia the periods of political «warming up» and «cooling down» are synchronized with the periods of strengthening and weakening in the West. For example, the transition from NEP to the policy of collectivization, accelerated industrialization and mass terror occurred at the same time with the beginning of the Great Depression. Fast postwar recovery of Europe, consolidation of the Western countries under the authority of USA were the important factors of the situation, when by 1953 most of the Soviet elite had realized the necessity of reforms. The transition from Khrushchiov-Kosygin's reformations to the conservation of the USSR political system coincided in time with the Student Revolutions of 1968 and the following crisis of 1970s in the West (stagflation and energy crises of 1973 and 1979).

The world situation underwent a sweeping change in the 80s - «neoliberal revolution» of Reagan and Thatcher, democratic transformation of the South European countries, and the beginning of the market reforms in China also brought the politics in the USSR to the understanding that some reforms were necessary. Under the conditions of slump in oil prices in the middle of the 80s, acceleration of the European integration, a dynamic economic growth in the developed countries and reinforcement of the USA international influence Russia had to make radical reorganization of its socio-political and economic systems. But at the turn of the millennium the global situation changed once again – the crash of NASDAQ high-tech market in 2000, recession in the USA in 2001, the terrorist attack in 2001, difficulties of the USA in Iraq and Afghanistan, the failure of the referendum for ratification of the EU Constitution in 2004, the beginning of the mortgage crisis in the USA in 2007, and the financial turmoil of 2008-2009 indicate weakening of the Western countries in the first decade of the 21st century. Meanwhile in Russia certain authoritarian tendencies have started to gain momentum – the central TV channels takeover by the Kremlin, the raise of cutoff point for the political parties to pass to the State Duma, and the cancellation of gubernatorial elections.

The world economic crisis, which has started in 2008, is of a systemic character. Like the crises of the 30s and 70s, this crisis will be over only after a fundamental transformation of the world economy, including the formation of a new model for economic regulation, global economic cooperation and international currency relations. As the Great Depression and stagflation crisis experience shows, the development and implementation period for the new institutions and economic development mechanisms which is characterized by instability of the world economy usually lasts about 10 years. That's why it may be assumed that the world economy will return to the stable growth in the 2020s. Apparently, Russia will have to go through a radical reorganization at that very period, so as to adapt to the changes occurring at the global stage.

What will be the nature of the country's future transformation? After 1991 Russia made an attempt of triple transition – from the Empire to the nation, from the plan to the market and from totalitarianism to democracy. It was only the transition from the Soviet planned economy to the market economy that turned out to be relatively successful. Without doubt, there are many problems in Russian economy today: strong budget dependence on oil and

gas revenues, bloating government sector, low efficiency of the regulating institutions. However these problems are related to the overcoming Soviet heritage only to some degree - most of the oil net supplying countries face similar challenges. The problems of building a functioning democracy and creating a political nation turned out to be more difficult. The reformers of the future generations will have to solve these problems.

Political Reform

The configuration of the branches of government will be the most important aspect of the future political reform. The actual unaccountability of the Government to the Parliament was one of the main weaknesses of the Constitution of 1993. During the last fifteen years the bodies of legislative power have had practically no influence on the ministerial formation. In addition, the Lower House of the Russian Parliament didn't bear any political liability for the realization consequences of its decisions, and that made a negative impact on the lawmaking. The imbalance in the powers of the legislative and executive branches of government blocked the democratic process in 1990s and stimulated the strengthening of the authoritative tendencies in later years. In order to make the Government accountable to the Parliament it is necessary to link the ministerial formation procedure to the results of the Parliament elections.

Creation of the National State

Throughout the greater part of its history Russia hasn't been a national state, but a territorially integrated empire. Russia's existence as the mother country which united its conquered colonies justified the need for strong authoritative power which controlled separatism of the outskirts. After 1991 the empire has partially reproduced itself - the modern Russia includes regions which do not belong to it in the historical and cultural context, such as the North Caucasus. As in the Russian Empire and the Soviet Union the integration of regions in post-Soviet Russia is ensured by the vertical power and suppression of any spontaneous national movements. Personalistic regimes are formed in the national republics, which form the background for future separation from Russia. In the future Russia must be reconsidered as the National Russian State.

The formation of the National State must be accompanied by the entrance into the supranational communities of the Western world. Today there are no real preconditions for deep integration of Russia with the Western world. But China can play an important role in the future. This country is becoming the main competitor of the USA at the global level. As after the Second World War the Soviet menace was the reason for including Germany into the geopolitical space of the West, so modern China can be the key factor in the rapprochement between Russia and the developed countries.

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Belarus – no economic miracle for free

By Anaïs Marin

Last summer the Belarusian blogosphere circulated an announcement inviting internet users to the virtual funerals of the “Belarusian economic miracle”. Recent developments in Belarus-Russian relations show that the death notice was premature however: albeit weakened by a year of financial hardships, Belarus’ unsustainable economy has once again been rescued.

Isolated by the West since his last controversial re-election on 19 December 2010, Aliaksandr Lukashenka had but Moscow to turn to for economic support. In signing a series of agreements he recently secured the inflow of the Russian credits and subsidies desperately needed for maintaining the Belarusian economy afloat. These funds should also help him save his own skin in the process. Lukashenka’s paternalistic governance model being the cornerstone of his alleged “social contract” with Belarusians – whereby they would accept his autocratic rule in exchange for relative prosperity – any reduction in the generous social policies towards the population could jeopardize the stability of the regime itself.

Salvation has a cost however. Preserving Belarus’ Soviet-like economic model implies further delaying the structural reforms deemed indispensable to make the Belarusian economy competitive. More importantly, Russian support does not come for free, but in return for concessions which make Belarus more dependent on its neighbor for direct investments, cheap energy resources and hard currency.

Shortage of foreign currency is actually what triggered the down-spiraling of the Belarusian economy starting in January 2011, when the deficit of Belarus’ trade balance almost reached \$1bn. It is now estimated to approximate \$5bn, while foreign currency reserves have dwindled to \$4bn, although Belarus would need three times more cash to cover three months of its export needs. The third alarming macro-economic unbalance that appeared in the course of the past years is public indebtedness: Belarus’ foreign debt increased to \$25bn in January 2011 and it now amounts to over 56% of GDP.

The combination of these factors has put inflationary pressures on the already weakened Belarusian economy. According to Central Bank estimates, inflation could bypass 100% year-on-year by the beginning of 2012. The authorities responded to the subsequent depreciation of the national currency in devaluing the Belarusian ruble, first in late May by 56%, then again on 20 October, bringing its value against the US dollar to BYR 8680, whereas it was slightly over BYR 3000 one year ago.

The social consequences of the unfolding crisis are manifold. Several industries that cannot pay back their debts had to cut their production and lay off personnel. Inflation, devaluation and rising unemployment have eaten up the populist pay raises decided before the elections, when the average monthly salary of state-paid employees (ie. 70% of the Belarusian workforce) was raised to the symbolic level of \$500 equivalent. In real terms, the average purchasing power of Belarusians has now fallen to \$230.

Belarusians have reacted to this worsening economic situation with strategies of “exit and voice”. Labor emigration has exploded over the past months. Already before the crisis, 1mln Belarusians (20% of the working population) was employed abroad. The figure is on the rise, with Russia and Ukraine as favorite destinations, given that in the absence of a

framework agreement on visas and mobility, access to the EU job market is almost closed for Belarusians.

Disappointment with the regime for mishandling the economic crisis was first voiced out in June when car-drivers organized a slow-down action that paralyzed central Minsk following an increase in gasoline prices. The two following months, silent street demonstrations gathered thousands of protesters in several Belarusian towns on Wednesdays. Organized through social networks, this unprecedented wave of social unrest seriously worried the regime, which responded with violent repression and a tightening of the anti-riot legislation.

Adding to the ongoing crackdown against the political opposition, the worsening of the human rights situation in Belarus deprives the regime of any hope to obtain loans from Western countries and the IMF. Against this background, the aid package provided by Russia in November, the most generous “present” Belarus ever received in the past 20 years, is a godsend for Lukashenka: it allows his regime to “buy” social peace. This should be facilitated by the transfer of the second tranche, worth \$400mln, of a \$3bn three-year loan granted by the Eurasian Economic Community’s Stabilization Fund earlier this year.

In exchange, official Minsk apparently committed itself to supporting Russia’s reintegration plans of the post-Soviet economic space, made public by Vladimir Putin on 4 October. Lukashenka enthusiastically responded to this initiative of creating a “Eurasian Union” on the basis of the existing Customs Union of Russia, Belarus and Kazakhstan and on 18 November he signed the subsequent trilateral declaration. That same day, Russia’s Sberbank granted a \$1bn loan to Belarus.

Moscow’s aid package includes several other “rewards”, but such generosity is not altruistic: in trading its financial aid for geopolitical loyalty, Russia is strengthening its control over Belarus.

This is especially true in the energy field. On 25 November the representatives of the Union state of Russia and Belarus signed a contract on the conditions for supply and transit of Russian natural gas for 2012-14 which provides for prices to decrease to \$165 per 1000m³. This is about 40% less than what Belarus is currently paying, and represents a saving of \$2bn annually. In return for the rebate, official Minsk agreed to finalize the sale to Gazprom of the remaining 50% stakes of Beltransgaz, the state company owning the Belarusian pipeline network. Other privatization deals should follow that will allow the Belarusian regime to amass hard currency in exchange for selling out Belarus’ industrial assets.

Lukashenka’s unsustainable economic model has once again been miraculously rescued, but Belarusians will have to pay Russia back in kind – thus putting the very sovereignty of their country under serious threat.

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Economic cooperation around the Baltic Sea – in search of efficiency and good governance

By Barbro Widing

The recent EU Council conclusions on the review of the EU Strategy for the Baltic Sea Region (EUSBSR) and its annual meeting in Gdansk give reason to look at cooperation out of the box. Gdansk is well on its way to regain past splendour, but how is the international economic situation and public debt crises affecting cooperation around the Baltic Sea? Which are the outlooks for economic cooperation? How can we promote small and medium sized companies and their market access over the borders and improve good governance, too?

During the last twenty years networks have emerged and fell into oblivion. Most of them are not good at informing externally about their activities. Usually not horizontal nor cross sectorial, the networks are mainly paying attention to the stakeholders already engaged. When active people involved change jobs, organisations tend to stay, but dormant. As we know, there is no lack of organisations ranging from intergovernmental, regional, sub regional, cities to private-public networks and organisations.

Lately the intergovernmental regional councils of the north, viz. the Nordic Council, the Barents Euroarctic Council, the Arctic Council and the Council of Baltic Sea States have increased the exchange of information of activities. Consolidating resources in an umbrella organisation for Northern Europe, top of Europe, with separate regional chambers, have not been an issue of discussion. This lack of interest can partly be explained by different structures and memberships of the regional councils above. The oldest of them, the Nordic Council and the Nordic Council of Ministers have managed to develop a pragmatic structure based on five states and three autonomous regions. Their office in Vilnius support civic society development in Belarus. Estonia, Latvia and Lithuania have joined as co-owners of the Nordic Investment Bank. In addition there are some NB 8 and + dialogues.

During the first years of existence EUSBSR has led to further activation of collaboration networks. Some 80 projects are on track based on the vision to enable a sustainable environment, to enhance the region's prosperity, to increase accessibility and attractiveness and to ensure safety and security in the region. However, a closer look reveals that many of the reported projects were on the way already before EUSBSR. Due to practical restraints most projects do not involve partners from the entire region.

In this time of scarcity there is an obvious need of analytic thinking and new ways of working: how could we be better at tackling the real problems of our societies? Are we ready to develop collaboration into real coordination?

EUSBSR is the first macro-regional strategy of EU. It is built on a comprehensive approach to address cross-cutting or horizontal topics and cross border challenges. Obvious building blocks are transport, ICT and energy networks, but much could be achieved in other fields as well – if there is political will. A strategic step is the new linkage between the EUSBSR activities and the Europe 2020 goals. It implies identification of actions benefitting also from cooperation between neighbouring countries.

However, as national administration is well established in sectors, the benefits of macro-regional strategic actions are obviously a challenge. As a first step for cross border actions towards a macro-region, is there political will to streamline regional cooperation processes in the participating countries? The process would benefit from an allocated technical assistance for the whole macro-region in the EU Cohesion Policy structures. The proposed partnership agreements between the member states and the EU commission on the future focus of EU structural funds are major building blocks towards macro-regions. Another main contribution is aligning of funding from various EU funds and other international finance institutions further. The envisaged overall assessment of macro-regional strategies and the evaluation of their added value in 2013, demand practical experience to be compiled soon.

The preparations for the second macro-regional strategy, viz. the EU Danube strategy, benefitted from previous EUSBSR work. The analysis for the EU Danube strategy brought forward strategic thinking in setting *targets for cooperative actions*. This could be a straight way to compile the rather fragmented activities of the EUSBSR. Consequently, setting targets also for economic cooperation and its priority areas would promote horizontal actions around the Baltic Sea. Discussions about targets may serve as a door opener between different sectors and start co-creative processes. Such a process might promote refocusing EUSBSR cooperation on the most urgent and challenging problems for the region, which are macro-regional. However, horizontal action is not an easy way of cooperation and the process must rely on *political commitment at all levels*.

Success in the next review of EUSBSR in 2012 presuppose effective third country involvement in solving macro-regional challenges. Today the Northern Dimension, the Council of Baltic Sea States, the Nordic Council of Ministers and HELCOM are main cooperation platforms to involve non EU members in the region. How to ensure overall coordination of all the implementation activities? Involving relevant cooperation partners, in particular the Russian Federation, must be made as easy and direct as possible.

While not forgetting north-south dimensions of the EUSBSR, prosperity of the Baltic Sea Region is based on openness and dialogue with the surrounding world. Participation of relevant cooperation "outsiders" is especially valuable when using the EUSBSR as a globalisation strategy. Thus involving any relevant cooperation partners from outside the region should not be excluded.¹

Tasks ahead

Finnish small and medium sized companies represent less than a fifth of total exports from Finland, much less than in other similar countries. Specific national action is needed to

¹ A good example is the EPSIS project where Finland coordinates work together with Denmark, Sweden and the United Kingdom to support service innovation. In the European Service Innovation. Think Tank the partners and 10 additional European public authorities focus on the design and implementation of service innovation support.

push them out of their “comfort zone” and assist in forming new alliances to strengthen their potential and global competitiveness, thus creating new jobs as well.

When aiming at better alignment of existing sources of funding in the macro-region, venture capital should not be forgotten. The international debt crises made it difficult for SMEs to finance their investments. At present the venture market regulation is national, but the SMEs would largely benefit from a harmonised regional venture capital market.

In Gdansk the first political state of the region report was presented. It also contained some interesting regional analysis e.g. on labour migration. What could regionally be done to promote labour mobility? Another important cornerstone would be to regionally harmonise the mutual recognition of degrees over the borders.

The cooperation envisaged above could well be test cases in the renewal of the Council of Baltic Sea States in

its endeavours towards long term sustainable growth. Using our region as a testing ground for public policy and public private partnerships are worth exploring – especially in difficult times.

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Russia's 2012/2013 CBSS Presidency

By Dmitri Lanko

On July 1, 2012 the Russian Federation will take over the Presidency of the Council of Baltic Sea States from Germany. This time Russia appears to be better prepared for the Presidency compared to 2001/2002, when it held the Presidency for the last time. In late 2000 Russian diplomats serving for the Second European Department of the Russian Foreign Ministry, which is responsible for Russia's relations with countries of Northern Europe, including Nordic and Baltic States as well as the CBSS and other regional organizations, did not yet know what the priorities of the Presidency to start in half a year time were going to be. Today they know. There will be two major priorities. First, in line with the keyword of contemporary Russian politics, it is going to be cooperation for modernization. Second, in line with the guidelines of Russian policy towards Europe in general, it is going to be simplification of visa regimes.

The focus on modernization underlines the continuity between the Russian Presidency and the current German Presidency. One aim of the German Presidency was the modernize the south-eastern part of the Baltic Sea Region, under which Germany and Russia mean the Kaliningrad Region of the Russian Federation and neighboring areas of Lithuania and Poland. In line with that priority SEBA – Modernization Partnership for South East Baltic Area – has been established. During its presidency, Russia will do its best to attract more partners from among both public and private entities, first of all, to attract investors to infrastructure projects comparable to establishment of the ferry line connecting the seaport of Baltiysk in the Kaliningrad Region with both mainland Russia and foreign ports.

Russia will even go further and propose to establish an expert group on modernization under the auspices of the CBSS, taking the Expert Group on Sustainable Development – Baltic 21 as example. At the same time, Russian modernization discourse is widely criticized both outside and inside Russia. First, an important part of the context of modernization in Russia is the presidency of Dmitry Medvedev in 2008 – 2012, who made modernization a keyword of his term. As Medvedev is not planning to seek reelection in 2012, one may predict that the very word of modernization will disappear from the vocabulary of Russian diplomats and civil servants. Second, the outcomes of Medvedev's modernization face criticism for its focus on the soft and inability to tackle the hard problems of contemporary Russian economy.

Water supply infrastructure in Russian cities provides with a good example here. A feature of the infrastructure, which Russia inherited from the Soviet Union, is that it has to undergo maintenance annually; the maintenance usually takes around three weeks, when hot water is not supplied to residential buildings. Medvedev's modernization plan does not foresee reconstruction of hardware in order to shorten or even eliminate the three-week-long maintenance period; instead, it foresees soft improvement – setting a web site, which informs the residents of when exactly hot water will not be supplied to their homes. Though being an improvement, such kind of modernization fails to attract support of public opinion.

The focus on simplification of visa regimes underlines the continuity between the Russian Presidency and the Norwegian Presidency, which preceded the German Presidency. Though fight against trafficking in human beings was declared a priority of Norwegian Presidency, Norway decided to achieve it not via strengthening, but via lightening visa regime with Russia. In early 2011 Russia and Norway agreed on visa-free travel for residents in a 30-kilometer-wide zone on each side of the border between the two countries. The agreement will come in force in early 2012. It has already attracted attention of some other CBSS members: Poland and Lithuania would like to reach a similar agreement concerning residents of the Kaliningrad Region and neighboring areas of those countries, Latvia is interested in an agreement of the kind too.

During its Presidency, Russia will do its best to intensify negotiations on those agreements. Russian diplomats have already declared that the Russian-Norwegian agreement is the first step towards establishment of the common space of freedom between Russia and the European Union as agreed between the parties in St. Petersburg in 2003; in Russian view, the common space of freedom will allow all Russian citizens to travel visa-free to all Schengen countries and to the United Kingdom and Ireland. Declaring a priority within the CBSS being in line with Russian relations with the EU is a significant change in Russian policy towards the Baltic Sea Region; previously Russian diplomats have been very skeptical about the role of the European Commission in the CBSS, especially about its efforts aimed at standardizing of projects fulfilled under the auspices of the CBSS and other sub-regional institutions.

During its Presidency, Russia will also seek for continuity between its Presidency and the forthcoming Finnish Presidency. Thus, continuity with previous and future Presidencies is the keyword of Russia's 2012/2013 CBSS Presidency. Russia has overcome its isolationism in terms of that it sets top priorities of its Presidency in a dialogue with foreign partners. However, Russia remains an isolated country in terms of that its Foreign Ministry continues being isolated from other Russian actors interested in cooperation in the Baltic Sea Region, including companies, NGOs and think tanks. Priorities of Russia's presidency have not been initiated by those actors bottom-up. Instead, Russian Foreign Ministry will seek for partners in Russia to implement the priorities top-down. Those wishing to see improvements in this aspect must wait till Russia's 2023/2024 CBSS Presidency.

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Finland, and migration in the Baltic Sea Region

By Ismo Söderling

The current population of Finland is approximately 5.3 million. Just like the inhabitants of the other Nordic countries, many Finns have emigrated over time. The biggest migrations were directed at North America in the late 1800s and Sweden after the Second World War. Currently about 600,000 people in the United States claim Finnish heritage in the census, and in Sweden, the corresponding number is about 400,000. Finland is different from the other Nordic countries in that post-war emigration in particular has been quite active. In the case of Sweden the main attraction was our westerly neighbor's economic boom-time and Finland's own mass unemployment. In that respect, the migration to Sweden is somewhat similar to the current migration from Estonia to Finland.

Of Finland's inhabitants 2.7 % are foreign nationals; in other words, a substantially lower percentage than the EU27 average of 6.4 %. As a matter of fact, Finland's figure is the lowest in all of Western Europe; in the EU's present composition the only countries that lag behind Finland in relative terms are all former Socialist countries.

The size of the foreign population in Finland depends on how it is defined. The statistics below give an indication of the number of people with immigrant backgrounds currently living in Finland.

- At the end of 2010, there were 225,000 people in Finland who spoke a foreign language (i.e. not Finnish, Swedish or Sami).
- Approximately 168,000 foreign nationals were living in the country.
- There were 195,000 foreign-born people who spoke a language other than Finnish.

Depending on the criteria for defining "foreigners", the difference between the different immigrant categories can be as much as 30 %. The biggest immigrant groups had moved to Finland from Estonia and Russia.

What is the future of immigration to Finland?

In 1995, when I gave a lecture on immigration, I commented that "*I assume that in twenty years, there will be approximately 200,000 immigrants living in Finland, in other words, four times their current number*". The scale of my prediction roused some polemics among the audience and the other presenters. In the space of 15 years, however, we had already reached that number. What about going forward? It is always difficult to predict the future, but we do have a few demographic facts at our disposal. Our current fertility rate is 1.85 – despite the high level, it nevertheless remains below natural population growth. According to an estimate by Statistics Finland, mortality will surpass births in Finland by 2036. If the prediction is accurate, Finland's population growth will rely solely on immigration after that point.

But who are the potential new arrivals? That will certainly depend on the immigration policy practiced in our country. At the moment Finland has no active immigration policy. In terms of present immigration, one-third of immigrants come for employment-related reasons while two-thirds come because of family or educational reasons. In most other Western nations, this ratio is the reverse.

We will probably not see a major change in the main migration flows soon. The so-called great migrations from Russia have not yet occurred, so the pressure to migrate from there to Finland will probably continue. The same is true for Estonia – though with certain caveats: some of the migration pressure from Estonia toward Finland may morph into work commuting. Estonians might work in Finland but still keep their home in Estonia. Asians, on the other hand, are well-known for their strong family networks and hence we will probably continue to see ongoing migration to Finland from Vietnam, India, China and Thailand.

In an article published in 1994, I wrote as follows:

"The real migration pressure toward Europe comes from the Islamic countries in the Mediterranean Region. Two factors increase the likelihood of such migration: first, there is a decades-long tradition of migration to Europe. Second, population growth in the region is reaching proportions that will inevitably lead to some degree of migration pressure. For example, in Central Europe, there is one person under the age of 20 for each 60-year-old. In North Africa, the same ratio is 10 young people for each 60-year-old. The populations of Algeria, Morocco and Tunisia are expected to double over the next 25 years. In addition, many less-developed Third World countries suffer from political instability (Algeria, for example) and economic recession. Leaving the Sahara behind and looking toward Europe will certainly be a challenge for Hassan".

There are probably about 10 million immigrants from North African countries currently living in Western Europe, which makes the EU a natural immigration destination for North Africans. In order to promote greater economic and political stability in the so-called Maghreb countries it is important for the EU to economically engage these countries more effectively, enclosing the Mediterranean Sea within a single economic region. Whenever there is a political vacuum, someone will step in to fill it – and right now, the EU is in the midst of a grace period. Finland, too, will be affected by some of this migration pressure in the future.

Population projections in the Baltic Sea Region

The EU countries along the coast of the Baltic Sea (Finland, the Baltic countries, Sweden, Poland, Germany) now have a total population of about 141 million. According to Eurostat projections (Population Project), by 2050 the combined population of these countries will decline by nearly 10 million. The most worrisome aspect of this is that the population of Germany, which has been the engine behind EU's economic growth, already began to decline in 2004. The Baltic countries are also expected to lose about 10 % of their populations over the next four decades. The Nordic countries are in a somewhat better position in that their populations are experiencing growth.

Population researchers put a high value on the Nordic welfare model and its family policies that support child rearing and family formation in general. Even now, Nordic fertility rates clearly surpass those of other countries in the Baltic Sea Region. According to family researchers, what contributes to fertility is not just the welfare model, but also Nordic equality practices: the more equal the roles within families, the higher the number of children born to them.

Summing up

Finland has become an immigration-receiving country as the last one of the Nordic countries. The greatest number of new arrivals has come from neighboring areas, i.e. Russia and Estonia. Immigration to Finland is characterized by being largely motivated by family-related migration. Employment migration to Finland has at least so far been minor. The growing economic cooperation between Estonia and Finland will probably mean that, as a result of the countries' close geographic proximity, some segment of migration will be replaced by cross-border work commuting. In that case, some of the Estonians working in Helsinki will continue to maintain homes on the eastern side of the Gulf of Finland. Such cross-border employment regions have already formed between Germany and Poland.

The population of the Baltic Sea Region is in decline. The most troubling situation is in the Baltic countries, whose populations are predicted to decline by as much as 10 % over the next generation. In addition to growing

migration, the plummeting birth rate is contributing to the decline. For example, the birth rate in the Catholic Poland is currently approximately 1.4, at the same level as Italy's. According to family researchers, the Nordic welfare model and particularly its family-friendly policies encourage people to have children. Similarly, gender equality has been shown to have a positive effect on the number of children born.

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Joint promotion of the Baltic Sea Region – triple helix cooperation in practice

By Malla Paajanen and Riitta Kosonen

The climate of global competition has forced economies to look for growth potential in wider contexts than ever before. Macro-regional promotion, such as promotion of the Baltic Sea Region (BSR), shifts cities and countries from their traditional competitive positions to joint promotion and cooperation. The experience from the two-year project BaltMet Promo proves that the macro-regional promotion is challenging, but doable, and it can be successful and rewarding if the promotion work has been planned carefully. Most importantly, implementation of the work plan becomes substantially stronger if the cooperation platform comprises all critical stakeholders. The triple helix structure that brings together the business, research and education, and public sector is not the easiest tool to use, but its power is incontestable, as shown in the case of BaltMet Promo.

Promotional activities to attract tourists or investors are typical for cities, regions, and nations. Less frequently these activities are implemented on macro-regional level. However, the macro-regional perspective is gradually catching on in policy making, and even in strategy-building. The EU Strategy for the Baltic Sea Region (EUSBSR) represents the first comprehensive strategy covering several community policies that is targeted on a macro-region. In EUSBSR regional identity building has been identified as one of the horizontal activities.

The BaltMet Promo project partnership consisted of five city members of the BaltMet network, with City of Helsinki as the lead partner, research institutions, and the Baltic Development Forum that initiated the first BSR branding effort in 2007. The partnership covered six BSR countries (Finland, Latvia, Lithuania, Poland, Germany and Denmark) and received part-financing from the Baltic Sea Region Programme in 2010-11. In EUSBSR, BaltMet Promo was given the role to report on developments in regional identity building in different on-going projects. The project was coordinated by CEMAT at the Aalto University School of Economics, Helsinki.

BaltMet Promo was built on triple helix cooperation. In macro-regional promotion the triple helix approach is a necessity because no single stakeholder group has a mandate, motivation or obligation to take promotion agenda for the whole region. There is no owner, or authority, to claim 'property rights' on a macro-region such as BSR.

The project worked with a bottom-up approach. The core was to build three products that are of macro-regional nature. These 'BSR products' were designed in tourism, filmmaking talent, and investments. The product building process was not to create macro-regional products from scratch, rather it was product packaging. First, comprehensive research was compiled on the supply and demand for each product. In the next phase the research knowledge was delivered to the pilot team which consisted of specialists representing the project partners and business sector. Finally, the products were launched to their target market.

Two of the three pilot products chose Japan as the target market. In tourism, the Baltic Sea Region tourism product with a title 'Live like locals' invited Japanese tourists to experience the BSR cities in the local way. This meant, for instance, staying in an apartment instead of a hotel, walking in the fish market instead of taking a guided bus tour, or visiting a blacksmith studio instead of a museum. As the test market, three Japanese bloggers were selected to visit the Region in three different city combinations: Helsinki-St. Petersburg, Berlin-Warsaw, and Vilnius, Riga, and Tallinn. During their stay these Japanese young women kept blog of their travel experience, and their regular blog readers were able to follow

their route in real-time and learn about their tips for what to do and see. After the bloggers' visit to the destinations, their stories were delivered to Tokyo at the international JATA tourism fair in which representatives of the cities met with tourism agencies to gain their interest to add the 'Live like locals' product to their destination categories.

The filmmaking pilot product was designed as a 3-day coproduction forum for 10 young film directors, script writers and producers from BSR and 10 from Japan. The BSR-Japan Coproduction Forum was held in Vilnius in November gaining synergies with Scanorama international film festival which was held at the same time. The coproduction forum offered these 20 young professionals an opportunity to present their ideas on a 'pitching forum' to an distinguished panel of professionals. For many young filmmakers this was the first occasion of this kind. The interactive format of the forum was appreciated as in filmmaking like in all creative industries networking is a fundamental part of building a professional career. A virtual guidebook with country-specific information on filmmaking was also published to support coproduction between BSR and Japan.

The investment pilot organized Investor's Panels at two international trade fairs at MIPIM and Hannover Messe to introduce the region's strongholds as well as a Matchmaking event enabling investors to meet representatives from companies in BSR. An Investor's Guide was also published to present the Region's competitive advantages for investors.

Based on the experience from BaltMet Promo, macro-regional promotion can gain from a bottom-up approach that underlines the role of careful product building and wide stakeholder cooperation. This underlines the necessity to gain the business sector's interest to see the business potential in macro-regional product building and clustering. Even when the business potential is easy to acknowledge, its capitalization is neither easy nor fast. The BaltMet Promo story proves that cities and universities can have a substantial role in coordinating triple helix cooperation. Most efficiently this can be done by forming the triple helix cooperation platform that recognizes the natural division of roles; the business sector as product providers, universities as source of information about the market situation and potential, and cities and promotional organizations as nodes of contacts and communication.

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Words cannot save the Baltic Sea

By Liisa Rohweder

The need of intensifying the protection of the marine environment of the Baltic Sea and the sustainable use of its resources is a widely accepted truth. If we do not act now, we might lose the beautiful sea and its ecosystem forever.

The WWF Baltic Ecoregion Programme, comprised of WWF and partner organizations in each of the 9 coastal Baltic Sea countries, has been working for decades to protect the Baltic Sea. We have stressed the need for bold, hi-level political leadership to address the many challenges facing the Baltic Sea and have thus been active in influencing a number of agreements and conventions agreed by Baltic Sea governments intended to 'save the sea'. WWF Finland is one of the partner organizations in the Baltic Ecoregion Programme.

Words and agreements, however, cannot 'save' the Baltic Sea without the delivery and follow-through of the promises made. In 2007 we began to evaluate the degree to which governments were delivering upon their stated commitments – in the form of 'Scorecard' reports. Unfortunately, one of the key conclusions from these scorecard reports was that there was a growing gap between the statements and commitments made by governments and the corresponding actions needed to actually deliver upon their promises.

The latest WWF Baltic Sea Scorecard report was launched in August 2011. This report measured each of the nine coastal Baltic Sea countries' performance in implementing some of the most important international, regional and European agreements and conventions designed to manage and protect the Baltic Sea. On the basis of commitments made in these agreements, the 2011 scorecard assessed a limited number of key indicators within five focal areas of crucial importance to the Baltic Sea and its health: Eutrophication, Hazardous Substances, the Protection of Biodiversity, Maritime Activities, and Integrated Sea Use Management – the last being a more integrated approach to planning and managing the use of the sea and its resources. These five areas are all interlinked and dependent on each other. Negative or positive trends within one area will have immediate effects on the other areas as well. Special consideration was taken to grade Russia on a similar scale, even though all agreements and policies did not apply, as Russia is not an EU Member.

The Scorecard measured what each of the 9 governments actually delivered in these crucial areas and therefore how well political commitments were being met – as no agreement – no matter how ambitious – can be successful without equally ambitious delivery and implementation. The results of the analysis was expressed in 4 grade levels – from the top grade of 'A' to the weakest grade 'C' and at the bottom of the scale is an 'F' indicating a failing grade.

The results of the 2011 Scorecard are disappointing; the total grade for the whole region is an F, indicating that governments have failed to take their responsibility in the work to improve the situation for the Baltic Sea. At the top of the scores are Germany and Sweden, both earning a C grade. All other countries received an F. Finland ranked third, followed by Denmark, Estonia, Lithuania, Poland, Latvia and Russia in last place.

The areas of most concern regarding lack of adequate follow-through by governments include Eutrophication and the

Protection of Biodiversity, which unfortunately reflects well the poor situation in the Baltic Sea with yearly algal blooms and declining species and habitats. There has been some improvement when compared with earlier scorecards in the areas of Hazardous Substances, Maritime Activities and Integrated Sea Use Management, even though the overall score, for all countries together, in each of these areas is still only a C.

As the Scorecard demonstrates, words and agreements cannot 'save' the Baltic Sea without the delivery and follow-through of the promises made. These poor grades clearly indicate that the Baltic Sea countries are still failing to deliver upon their commitments and take the actions needed to protect and restore the Baltic Sea.

Baltic Sea Governments must show leadership and demonstrate their leadership and with actions, not only words. This and future Scorecards will continue to highlight the difference between commitments and delivery as the lack of action today is undermining the ambitions to save the Baltic Sea.

In addition to implementing existing agreements it is also time for governments to reform policies so that they work in harmony and not at cross-purposes which is too often the case today.

There is for example a need to redirect the EU Common Agricultural Policy from the current emphasis on intensification - which contributes to increased eutrophication - to instead supporting farmers to investing in sustainable agriculture which can promote biodiversity and a clean thriving rural environment.

Another example is the need to reform the EU Common Fisheries Policy to stop overfishing and ensure the sustainability of fish stocks, ecosystems and fishing communities.

And while government action and leadership is essential, it is not enough. It is the collective responsibility of all 'users' of the Baltic Sea's resources - businesses, communities, individuals, and civil society - to come together to secure the protection and sustainable development of this region.

We intend to revisit the Scorecard in the coming years in order to measure and monitor Government's progress – and see if they are, in fact, doing what they promised. We hope that providing a picture of the current situation will help encourage countries, governments, corporations and individuals to engage in and speed up the fight to protect and restore our joint treasure – the Baltic Sea.

For more information about the scorecard, please visit: http://wwf.panda.org/what_we_do/where_we_work/baltic/publications/?201517/WWF-Baltic-Sea-Scorecard-2011-Report or <http://wwf.fi>

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Table 1. Summary of results

Countries	Eutrophication	Hazardous substances	Biodiversity	Maritime activities	ISUM	Total Score	Grade
Denmark	8/24	7/12	4/15	6/13	3/15	28/79	F
Estonia	5/24	6/12	3/15	7/13	5/15	26/79	F
Finland	5/24	9/12	2/15	8/13	5/15	29/79	F
Germany	14/24	7/12	5/15	4/13	6/15	36/79	C
Latvia	4/24	5/12	5/15	2/13	3/15	19/79	F
Lithuania	6/24	6/12	4/15	6/13	3/15	25/79	F
Poland	7/24	6/12	3/15	4/13	5/15	25/79	F
Russia	8/24	1/12	1/15	5/13	3/15	18/79	F
Sweden	11/24	7/12	2/15	8/13	8/15	36/79	C
All Countries	68/216	54/108	29/135	50/117	41/135	242/711	F

Dioxin in Baltic salmon and herring – is it a toxicological problem?

By Mikko Nikinmaa

Big Baltic salmon and herring often contain dioxin levels that exceed the limits set to food items in the European Union. The permissible level agreed upon is solely a convention. Setting a limit based on scientific grounds would be impossible, as for example the acute toxicity of dioxin in different rat strains varies 10000-fold. Setting an equal limit for all food items does not take into account that the consumption of different items varies markedly. In Finland the milk consumption per day exceeds the consumption of Baltic herring and salmon per month. Yet the dioxin limits for both food sources are the same.

After 1970's the levels of both dioxin and PCBs (polychlorinated biphenyls, their toxicity is often given as dioxin equivalents) in the Baltic Sea environment have decreased, mainly as the result of increasing efficiency of water cleaning in paper and pulp industry. The decreased environmental contamination has been seen in Baltic Sea animals. Whereas seals in 1960's and 1970's were quite often infertile, at present their reproduction is so effective that they are a major fish consumer in the Baltic. The estimated population of grey seal in the Baltic Sea is currently approaching 10000; a five-fold increase from the population below 2000 in 1970's.

Despite the fact that both dioxin and PCBs have not been released in the environment in significant amount during the past years, they are still found in quite high concentrations. The major factors contributing to this are that the compounds are very stable and lipophilic. Consequently, they accumulate in organisms and concentrate in top predators such as salmon and seals. Since salmon and herring are typically quite fatty fish, lipophilic toxicants, such as dioxin, accumulate in them easily. Because dioxin and PCBs are very stable they are included in persistent organic pollutants (POPs).

Owing to the facts that dioxin concentration in Baltic Sea and its organisms is on the decline, that the permissible level is based on agreement and not hard scientific evidence and that the agreed permissible levels do not take into account the likely differences of intake, one can conclude that the presently observed dioxin levels in Baltic herring and salmon are not toxicologically important. They do not present a threat either to the organisms themselves or humans that are eating them.

Although one of the factors causing high dioxin levels in herring and salmon is that they are fatty fish, the regulation of dioxin levels in fish is poorly known. Dioxin and many other aromatic hydrocarbons go to the aryl hydrocarbon receptor (AhR) –dependent biotransformation pathway to be transformed to excretable forms. Because research on aryl hydrocarbon receptor started from toxicological angle, the protein is often called dioxin receptor. However, although the biotransformation pathway handles organic man-made toxicants, it did not evolve because of the recently produced artificial compounds such as dioxin. Rather, the pathway exists in animals as diverse as the nematode *Caenorhabditis elegans* and man. One of the functions that the AhR-dependent pathway is involved in is the development of neural system.

The ligands that the AhR-pathway has evolved to handle are poorly known. In addition to the involvement of

the pathway in the development of neural systems (with unknown ligands), it may have evolved for the biotransformation of toxic compounds in food, possibly of any coloured compounds (which are often aromatic molecules), or to treat breakdown products of compounds like haemo- and other globins or chlorophylls.

In fact, treating toxic food compounds may be the reason why dioxin remains at elevated levels in salmon and herring. The foodstuffs eaten by fish and by terrestrial domestic animals are markedly different. The compounds contained in cyanobacteria, phytoplankton and zooplankton are taken in by aquatic animals and will be transferred to the highest trophic level, top predators. Thus, these animals will need to be able to treat all the compounds ingested in the normal food. The compounds reaching the aquatic, mainly animal-eating, fish, and terrestrial domestic, mainly plant-eating, animals, are necessarily quite different. So, if the AhR-pathway plays a role in treating toxic compounds in food, one can expect that the structure of aryl hydrocarbon receptors in fish and mammals is different. Owing to the different structures of the receptors their ability to treat unnatural ligands such as dioxin can be markedly different. The possibly important role of the aryl hydrocarbon receptor in treating compounds contained in the natural food of aquatic animals is suggested by the fact that fish have evolved a more versatile AhR system than any terrestrial vertebrates.

Fish aryl hydrocarbon receptors bind and treat dioxin more poorly than mammalian ones. Since the ability to convert dioxin to a more polar compound is necessary for excretion, dioxin remains in fish but can be excreted in mammals. As the compound remains unaltered, it concentrates in fatty fish. The highest levels are reached in the biggest and oldest fish.

Understanding the reasons behind and possible consequences of high dioxin levels in fish requires that the functions of the animals is known in detail. The dioxin example illustrates that any investigations of environmental problems needs a functional component to evaluate alterations in ecosystems. Although environmental effects are often considered without physiological studies, one should remember that environmental effects can only take place, if the function of some organisms in the ecosystem is affected. Only by combining genetic, physiological and ecological approaches can environmental responses be understood. Such understanding is required to predict the economic consequences of environmental disturbances.

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The challenges of professional fishery in the Baltic Sea – a Finnish point of view

By Kim Jordas

The Finnish fishery has been going through a change in the 2000s, and professional fishery in the northern parts of the Baltic Sea especially is facing major challenges. To an ever increasing extent, the industry is forced to consider its very existence and the values that make the foundations of professional fishery.

Producing fish for consumer markets in a sustainable fashion has become the operative idea of professional fishery. A production chain committed to quality provides fish for the market for foodstuff and other purposes. Today's fishery also plays an important role in taking care of the environment; fishing is the only functional activity which removes significant amounts of phosphorus from the Baltic Sea.

The conditions of the fish stocks in the Baltic Sea are generally good, with a few exceptions. The good news is that the stocks of cod have taken a positive turn during the last few years. The herring stock in the Bothnian Bay remains one of the strongest fish stocks in the EU.

Professional fishery depends on strong fish stocks and on a good condition of the waters. For a good reason, some concern is felt as regards the state of the Baltic Sea. From the fishery's point of view it is utterly important that all the Baltic countries take prompt and decisive measures to restore the state of the Baltic. Some positive development has been noticed, but the progress is all too slow. Many parties seem to regard eutrophication as the major problem, but from the fishery's and the fish consumers' point of view the retention of various contaminants in the organisms and fish in the Baltic is a greater concern.

The operational environment as well as the society around professional fishery has changed quickly. This holds true for the environment and the social setting as well as the structure of the business and the market.

Society has become more protection-oriented and at least partly alienated from nature. The position of organizations concerned with conservation and recreational fishing has also become stronger in the political decision-making process. At the same time, the political weight of the primary production has diminished. For professional fishery, this has led to a narrower political elbow room, and it can be seen in the everyday life of many individual fishermen.

The Baltic Sea has become a more and more important point of interest for other user groups as well, and this leads to a concrete and physical reduction in the operation area of professional fishery. The recreational use of the sea and the sea shores, the increasing sea traffic, and especially the off-shore building are good examples of this. New fairways, the installing of cables and pipes at the bottom of the Baltic and the extraction of gravel, as well as the new and growing activity in establishing off-shore wind farms, they all reduce the operational area of professional fishery. Fishery is being chased away, area by area.

Fish is popular food today. However, a great change has taken place in the fish market; in Finland, an ever greater part of fish consumption is made of imported or farmed fish. Only seven per cent of our total fish consumption is made of natural fish caught by professional fishery. Farmed fish is an easy and economical product for

both the consumer and especially for the trade. As a starting point, natural fish produced in small units has an awkward competitive position in the modern chain-controlled retail.

Professional fishery has tried to adapt to the new situation in a number of different ways. In Finland, open sea fishery means trawling Baltic herring and Baltic sprat. The survival strategy adopted has been one of improving the efficiency: larger and more powerful vessels have been acquired to be able to move greater quantities of fish at a time. At the same time fishery has been concentrated to an increasingly smaller number of vessels. This strategy is not unfamiliar in other industries, such as agriculture, for example. Open sea fishery operates on the terms of the global market, and the activity is to a great extent businesslike. Traditionally, fishing has been family-centered: the fishing activities have involved the whole family, and the business has been passed on from father to son. The acquisition of greater units has demanded capital and the base of the activity has changed to companies.

In Finland, the last few years have seen a great deal of discussion, both inside and outside the business, about the changeover of fishing companies to foreign owners. At present a significant part of the Finnish open sea fleet is under actual foreign ownership and decision. The development has been a sore spot for the traditional business, but there seems to be no way back. The foreign owners have had more capital available, and the capital has been attracted by good Finnish quotas. On the other hand, the situation has created the elderly Finnish professional fishermen an opportunity to free them from the business.

The situation of coastal fishery is dramatically different from that of open sea fishery. Coastal fishery has not had the opportunity to use the same survival strategy. Coastal fishery is largely dependent on the home market, and as fishermen they are a heterogeneous group. On the one hand there are fishermen pursuing a businesslike enterprise, but on the other there are actors who have fishing as a hobby or a way of life. The percentage of pensioners is also great. This all makes the effective directing of any legislative or financial support measures difficult.

The number of coastal fishermen has been reduced by a third in the 2000s. According to a query in 2009, the negative trend will continue, and the distribution of age-classes explains a great deal. The average age of a fisherman is 52 years, and new coastal fishermen are not in sight to replace the ones planning to retire. As a fisherman retires, a multitude of know-how is lost, along with a significant part of culture that has been part of coastal life for centuries.

The reasons for the development above lie in the low profitability of the business. It has not been attractive enough in the eyes of the young. There are several reasons for the low profitability. The drastic growth in the populations of seals and cormorants in the Baltic Sea during the last 10–15 years has had a dramatic effect on the prerequisites of coastal fishery. The trap and catch losses diminish the economic return, and in the political

decision-making the fisherman has had to give way to the seals and the cormorants. The views on the effect of the seals and the cormorants on the fish stocks are different, but there are suggestions that the effects are significant. Recent developments in trap design have protected some part of coastal fishery, but perhaps too much has already been lost. Professional fishery has also had trouble acquiring fishing waters and fishing rights. The regional political dispute as to who can catch salmon and where it can be caught, has also contributed – in the form of tightening fishing restrictions - to the diminishing number of coastal fishermen.

The consumers, however, want to buy natural fish from their own country. The strong trend of favoring local food may well prove to be one possibility for the fishery to move ahead. The consumer pressure may be the only way to convince the politicians that professional fishery still has a function in modern society. Perhaps there is, after all, good cause to make an effort to cherish the small remaining craft of professional fishermen, working along the coast and archipelago of the Baltic Sea.

The EU is reforming her common fisheries policy. Eloquent rhetoric on protecting and supporting coastal fishery especially has as yet remained empty phrases. The coming year will prove whether the EU has a real inclination to improve the situation of coastal fishery. Several matters can, nevertheless, be influenced by national action as well, but that presupposes political will and courage.

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Intellectual entrepreneurship as a way to innovation economy

By Irina Sennikova

In May 2011 Latvia celebrated the 20th anniversary of its independence. Twenty years have passed since Latvia began its transition from a command to market economy. Within a relatively short time the foundations for a market economy have been laid and macroeconomic preconditions for economic growth created. Reforms conducted to transform the economy resulted in the fact that for several years Latvia was considered to be one of the fastest growing economies in Europe with an average 7% of annual growth. Accession to EU in May 2004 came as recognition of the achievements of the national economy and proved that the chosen way of development was right for the development of the country. Although Latvia, as many other countries, was badly hit by global economic crisis and is now suffering the consequences of global economic slowdown, the transition process which the country went through cannot be overestimated as it allowed the country to obtain its due place in European economic landscape. Currently Latvia is planning its development strategy in line with EU priorities set in Europe 2020 strategy, which expressed economic growth in three key words: smart, sustainable, and inclusive. Smart growth envisages developing the economy based on knowledge and innovation. By 2030 Latvia has to develop into a country with innovative and ecoefficient economy where intellectual and creative potential transforms into economic benefit. Strategic document Latvia 2030 says that in order to change intellectual and creative potential of a person into growth of innovative, energy efficient and competitive economy, the economic model must change. It is stressed that initiative and environment supporting entrepreneurship, support for the creation and commercialisation of new ideas, knowledge transfer and user-directed research come into the centre of attention. Here comes the question what new models can be offered in order to bring the country to a new level of development. Intellectual entrepreneurship can be one of the possible solutions, which I define as of capitalisation of knowledge in innovative environment. The underlying thought under the definition is that knowledge generation and creation of new intellectual capital are only possible when constant innovation is taking place, when, as soon as knowledge turns into information, new knowledge needs to be generated and commercialised so that the company stays competitive.

Looking back at the transition process in Latvia it can be said that the change from a socialist to a capitalist economy has been a traumatic experience in Latvia, where managers in the large state enterprises have found it difficult to adapt to the new competitive environment. They were unable to use effectively either their existing productive resources or their established economic relationships. As a result many established companies went into liquidation whereas some others were saved only by state intervention.

At the same time, although state enterprises have struggled, other sources of economic activity have emerged. Individual entrepreneurs who have been able to adapt to the new era have formed companies, generally with low levels of capital investment. This has occurred in various industry sectors, including manufacturing, retail,

education, information technologies, etc. Many of the individuals are professionally or scientifically qualified, but do not necessarily have any formal management education or experience. They have created companies not as a result of restructuring processes, but based on their intellectual abilities, previous experience, and intuitive understanding of economics and entrepreneurship. This gave rise to a research conducted by RISEBA (Riga International School of Economics and Business Administration), which tried to understand the reasons of success of these people. The research showed that there are many things that bring together two seemingly distant worlds - the one of intellectualism and the one of entrepreneurialism. True entrepreneurs, the same as intellectuals have a wide range of interests, which leads to a specific thinking process, develops creativity, innovation and heightened intuition. Both intellectuals and entrepreneurs can think critically of what they are doing and are never satisfied with the achieved, they are always in a development phase. Being driven by the result they wish to accomplish, they search for optimum solutions and are capable of making decisions in non-standard situations. Surprisingly, intellectuals feel themselves quite comfortably in entrepreneurial arena. With their thinking and analytic abilities it is easier to understand business logic. Diverse knowledge and communicability gives possibility to communicate with wider constituencies and be interesting for different people. It also provides a common language with professionals, which helps build trust and understanding within organisations. While being in business they see many intellectual challenges, which make their minds constantly work and does not allow to give up. They are able to innovate in non-innovative industries and search for non-standard decisions in standard spheres of entrepreneurship which requires lots of creativity. In a modern world intellectuals are perceived as a business engine and creators of new knowledge.

Therefore, it can be concluded that entrepreneurship provides not less, if not more, intellectual challenges and does not tend to become boring for relentless intellectual minds. Therefore, intellectuals should go to business, as they bring such things as harmony, inspiration, creativity and image thinking to it, thus making it better and more beautiful (if you can say so about business). Besides, intellectuals contribute to the core of business as well, as they bring business as such, make more competent decisions and foster higher quality of management.

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Future of North-South connections – about transportation, but not only transportation

By Erik Terk and Jüri Sakkeus

The countries on the Eastern shore of the Baltic Sea have made during the past twenty-odd years rapid progress in their integration into the world economy, especially the economy of the European Union. Yet this integration has not been equally rapid in all prospective directions. For example, the economies of Estonia and Latvia have very closely integrated into the Nordic economies, while their relations with Germany and Poland, which were several times stronger than those with the Nordic countries during the pre-war period, have developed quite slowly. It can be generally argued that the ties of the so-called border states of the EU “Eastern rim” with central Europe have suffered due to the inadequate land transport connections. For the same reason the mutual integration of the region's countries has been hindered to some extent. Relations between Estonia and Finland serve as the sole exception here as the absence of land link has been compensated by the rapidly developing maritime traffic. The North-South transport link is topical not merely from the aspect of better connections between the Baltic and central European states; it is also an important premise for intensifying the economic relations between the three Baltic states and Finland and an extensive geographical area from Ravenna in Italy to Odessa in Ukraine and further on to the large and growing market of Turkey. This direction has started to attract considerable interest among the economic circles of the aforementioned countries.

The situation in the region can significantly change with the construction of a direct European-gauge rail link from Tallinn to Warsaw. This project, the Rail Baltic, has recently undergone a feasibility study and has found support among the leading politicians of the region as well as the European Commission. It seems that even Latvia is overcoming its initial pessimism regarding the project. Finland's premier Jyrki Katainen recently expressed his unequivocal support to the project by welcoming the decision of the Baltic states' premiers to create a joint enterprise for the realisation of the Rail Baltic project. Katainen emphasised that the project is highly important for the improvement of the competitiveness of Finland's economy.

The new railway would be electric and have two tracks. It would carry both passengers and cargo, allowing passenger trains to travel from Tallinn to Warsaw within roughly six hours and freight trains to reach the Polish border from Tallinn in ten hours.

The 728-kilometre route of Rail Baltic would preferably run to the Polish border along the trajectory Tallinn-Pärnu-Riga-Panevezys-Kaunas.

The realisation of the project will take clearly more than ten years, while the assessment of its impact requires operating with an idea of economic and social conditions in twenty or more years and the latter could significantly differ from those currently considered as normal. The extrapolation into the future of the existing trends and relations could therefore be quite risky. The demand for transport, including different modes of transport could be driven in the future by new factors different from the current ones, while the completed new transport corridors could create additional economic and social effects, which were initially viewed as insignificant. Improved transport

connections or e.g. handling new flows of transit will change the relations and structure of economy and will contribute to economic growth; the changing economy, incl. the emergence of new businesses and improving standards of living in turn will initiate additional or different demand for transport. We shall attempt in the following text to present some viewpoints and considerations about which factors and changes should be taken into account. These positions were formed predominantly during the realisation of two projects: the cooperation of Estonian, Latvian and Lithuanian experts while building the Baltic states' integration scenarios (*Baltic Way(s) of Human Development: Twenty Years On*) and the *H-T Transplan* project, financed by the European Commission and addressing the planning and transport connections of the Helsinki and Tallinn metropolitan areas. During the realisation of these projects a series of partly interrelated problems with greater geo-economic significance cropped up, which provide a broader view of the issues concerning the Rail Baltic construction and the general development of a transport corridor linking the countries to the East of the Baltic Sea. The most important of these issues were:

- the volume, type and impact on Rail Baltic of the Finland-related flow of cargo;
- the share of long-range (further than the next country) travels in Rail Baltic passenger traffic portfolio;
- the change of cargo flow structure in the traffic within the Baltic Sea region, incl. the changes caused by the convergence of the former post-socialist economies with the so-called old EU countries;
- further development of the three Baltic states' economies, its forms and impact on demand for transport;
- the impact of the development of integration of Helsinki and Tallinn metropolitan regions, the emergence of a twin city, on future demand for transport;
- the impact of potential processes in the functioning of the EU on the likelihood of supporting major transport-related infrastructure projects;
- the potential of mutual strengthening of North-South and East-West (predominantly related to Russia) transport flows;
- the change of ratio between various modes of transport, incl. due to ecological demands and restrictions;
- the effect of geo-economic changes (especially the ascent of East Asia) on the increasing of Europe-related flows of cargo;
- the emergence of new international transit corridors, which could be related to the region under observation;
- likely changes of the dynamics and pattern of the people's mobility; their effect on the demand for passenger transport.

It is not possible to provide definite answers to a large share of the above questions, but it is possible to attempt to foresee the most likely trends of developments and their interrelation. The *H-T Transplan* project included the building of four possible scenarios for the analysing of the

changes of the transport situation and the related effects dependent on the potential growth rate of international economy, the ability of the EU to support major infrastructure projects in the future and the ability and motivation of the region under observation to operate proactively and to coordinate activities. The initial analysis of the scenarios shows that in case of continued normal growth of the international economy and retained/strengthened strategic capability of the EU it is possible to foresee continued integration of the EU's Eastern edge countries as well as significant increase of transport volumes and the continued important role of the transport and logistics sector as an economic growth engine. The conclusion is based primarily on the following positions:

- Rail Baltic becomes not merely a rail link between the three Baltic states and Central Europe, but will probably handle a rather large cargo flow related to Finland;
- The two important components of this cargo flow are, first, Finland's increasing trade with Latvia, Lithuania and central Europe (possibly also with the Southeastern direction) and, secondly, the East Asian cargo flow from the Arctic Ocean, which will at least partly move southward across Finland;
- While at present it is maritime transport, which primarily suffers from the stricter norms concerning sulphur pollution, it can be presumed in the longer run that ecological criteria applied to all modes of transport will continue the already existing policy of driving the transport from the roads to railways and to the sea. This will mean the continued competitiveness of logistics schemes based on the combination of maritime and rail traffic.
- The mobility of the people will increase with the rising of the living standards, the mobility pattern will become more diverse;
- The Helsinki-Tallinn integration will increase; the emergence of the twin city will significantly boost the need for transport. It is possible that in the further future this will lead to the construction of a Helsinki-Tallinn tunnel;
- The North-South and East-West transport corridors would not compete in the longer perspective, but will mutually strengthen each other. Fast rail link to the core of Europe will create premises for logistics and distribution centres, which can handle the movement of cargos not only in the North-South, but also in the East-West direction. There will be better opportunities for providing warehousing and value adding services to enterprises in Northwestern Russia in handling their products moving to Europe.
- Estonia, Latvia and Lithuania will gradually turn into an increasingly integrated economic space, where international firms, largely based on the Nordic capital,

can specialise and cooperate. This will be related, among other factors, to the increasing cargo volumes;

- In case of increasing cost of aviation fuel the Rail Baltic can successfully compete with air traffic in longer distances;
- Although a large share of the present intra-industrial trade between Finland and the Baltic states would disappear with the reduction of the wage gap and other price gaps of production input, it would be replaced by a new type of intra-industrial trade, based largely on balanced cooperation, both concerning manufactured goods and services. The "less distant" Central Europe, thanks to good rail connections, will increase the market of the firms operating in the Baltic states (and Finland), their competitiveness in the value chain of goods and services for the European market will improve. This will accelerate the modernisation of the structure of goods being produced in the Baltic states.

Well functioning transport connections both for passenger and cargo transport are a vital premise for trade and the development of closer forms of integration. The transport projects of the Eastern Baltic countries like the Rail Baltica, Via Baltica, the construction of large port terminals, incl. for handling transcontinental cargos, etc, will presume good international cooperation and the EU support, but their realisation is a significant factor in bridging the development gap between the new EU member countries and the Nordic countries so as to contribute to the development of the entire Baltic Sea region.

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How to select international distribution channels for business software products?

By Esa Sallinen

Internationalization of the Finnish software industry

The total size of the Finnish software industry grew by 5 percent in 2010 to approximately 3.2 billion euros. Roughly 45 percent of the software firms received some international revenue, but only one fifth generated over 20 percent of their total revenue from international markets. About 40 percent of the firms with no international revenue were planning to internationalize.

Yet, improvements on the internationalization front are required because the foundations for the global competitiveness are in good shape, and the small domestic market does not provide enough potential for growth. Finland has a skillful workforce, a good international reputation, technological know-how, and an abundance of small flourishing software firms with substantial growth potential. In developing industry-specific software, Finland is one of the most competent countries in the world. The software industry in Finland has been characterized as the most probable growing ground for the 'next Nokia', and the country as the second most favorable environment for the development of software businesses after the U.S.

Although large software product firms and some game companies typically receive the most media coverage, small and medium-sized firms, which serve the business and public sector customers, are more typical in Finland. Unfortunately, the business models of these firms do not internationalize as easily as the ones based on standardized consumer software. Furthermore, business-to-business software firms tend to be technologically-oriented and lack marketing skills, especially in an international context.

Selecting suitable channels for sales, promotion and delivery is one of the key areas of improvement for the internationalization of Finnish software firms. These are the most critical functions in distributing software to foreign countries.

What are the characteristics specific to business software products?

A thorough understanding of the characteristics of a particular software product is the starting point for distribution arrangements. The intangibility enables online delivery and provides many opportunities, but the knowledge and service characteristics of business software products often complicate the distribution.

Firstly, core software usually cannot be delivered unchanged to all customers, but requires some modifications. Often business software products have to be localized to foreign conditions or customized to meet the needs of different industries or individual customers. Moreover, the implementation projects of business software often take time, and intensive after-sales services are frequently required. Often a software product only forms the core of the total customer offering which includes a wide variety of services, as well.

Secondly, software is always based on knowledge, which may be technical or functional knowledge about software itself or about the business processes of customer industries. Possessing such information may be required during the sales process and the service delivery (e.g., consulting, installation, support).

How to consider these characteristics when selecting international distribution channels?

No universal solution to channel selections exists, even though the characteristics are known. In the early stages of internationalization, online deliveries directly from the headquarters are often sufficient as they can be mostly conducted online. Sales can be operated from the headquarters or can be contracted out to

foreign sales partners. At some point however, if the sales volume in a particular market grows enough, a shift to channels that are locally present and provide the delivery of services will become an issue. The presence in foreign markets can be achieved by establishing foreign units, alone or together with partners, or by cooperating with independent intermediaries.

The Internet can be utilized as the main channel of promotion and delivery, but sales negotiations usually require a sit-down with the customer, as the software product is only one part of the negotiable solution and the price may be quite high. The Internet is more suitable sales channel for highly standardized software.

The extent to which the aforementioned characteristics occur in a certain software product partially determines which channel arrangements would be most suitable. In general, high service- and knowledge requirements favor integrated channels. Simple and standardized products with low service content, as well as general applications used across various industries can be more easily distributed through independent intermediaries.

This is due to the fact that transferring software-related knowledge to outside entities can be a demanding task. It may become too costly to carry out, particularly in the case of highly complex and firm-specific knowledge. Intermediaries that are able to absorb such knowledge at a reasonable cost may be hard to find. If taking care of the distribution requires both, knowledge on the processes of a specific industry and technical competence, then finding suitable intermediaries becomes especially problematic. If appropriate intermediaries can be found, tighter cooperation is needed than in cases of simple software products.

High service requirements may call for physical presence in foreign markets. Often software and service deliveries do not require physical interaction and can be conducted via electronic interfaces, but if the quick delivery of service is crucial and the market is distant, a service provider should locate at least in a nearby time zone. If the necessary services are complex to deliver, they often complicate the use of intermediaries. For example, a complicated installation process may discourage the producer from using intermediaries and the intermediaries from distributing the software. However, if the delivery can be supplemented with value-adding services, this can become a source of extra revenues and thus an incentive for intermediaries.

Some customer industries are extremely global, whereas others apply mostly local standards, which affect the level of localization required. The need for extensive localization favors the use of foreign partners because they possess first-hand knowledge on local conditions.

It is strongly recommended to take into account the specific characteristics of a particular business software product when selecting international distribution channels. By carefully evaluating the characteristics of its software product, a producer can avoid extra costs and lost opportunities caused by unsuitable channel selections.

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A renewed approach to the Eastern Partnership

By Štefan Füle

The reverberations from recent events in North Africa have been felt right across the European neighbourhood. They have led the European Union to reflect not just on its relationship with its neighbours in the South, but also on the lessons that can usefully be applied to its cooperation with its Eastern partners. These lessons have helped to inspire and inform a renewed approach to the Eastern Partnership, which reaffirms the central importance of the core values of democracy, rights and freedoms, and restates the importance of engaging with all parts of society if we are to achieve our shared ambitions.

While not as dramatic as those in the south, we have seen many positive developments in our Eastern neighbourhood over the past months. We have achieved progress in our work on political association, economic integration, mobility, and a whole range of other important areas. Yet there are also a number of areas, such as progress on democracy, rights and freedoms, where we have fallen below our expectations, and where it is clear that more needs to be done. It was in this context that we set out a revised approach to the European Neighbourhood Policy in an EU Communication in May, and a renewed agenda for the Eastern Partnership at the recent Summit in Warsaw.

This renewed approach reinforces the central importance of those core values that have always been at the very heart of the Eastern Partnership. The need to secure democracy, basic freedoms and rights is fundamental and non-negotiable, and must continue to be the key strand running through all of our work if we are to build the stable, secure and prosperous region to which we aspire. Indeed, our experiences have shown that reforms in other areas simply cannot be sustained if they are not underpinned by political reforms, and this was a key conclusion of the Eastern Partnership Summit in Warsaw.

Our strong commitment to these core values is demonstrated by the fact that European Union support will now be contingent on the progress made to secure them. In those countries where progress on reforms is good, there will be the opportunity to benefit from the full range of cooperation and financial assistance. But in those countries where there is a clear lack of progress, such as is currently the case in Belarus, we will suspend our bilateral cooperation with the authorities until those conditions change, refocusing our aid on support to civil society and the population at large. This is the '*more for more*' principle which forms a key part of our new, more differentiated approach to the European neighbourhood.

As part of this, we must continue to clearly articulate the benefits of increased cooperation. While these benefits are too numerous to detail here, one of the most significant is surely the increased growth and prosperity that can accrue from enhanced economic links with the largest trading bloc in the world. Market access alone brings substantial benefits, but our intention is to go well beyond this by supporting countries to fully exploit these opportunities. Cooperation to achieve regulatory approximation is therefore a key part of the Deep and Comprehensive Free Trade Areas which we aim to negotiate with partner countries as part of their broader Association Agreements.

Increased mobility between partner countries and the European Union is another important attraction. Greater interpersonal contact and the increased exchange of ideas between citizens can be an invaluable asset, and we hope that we will eventually be able to establish visa-free regimes with all of our partner countries. In the meantime, we are taking a number of important steps in this direction. This includes the successful agreement of visa facilitation and readmission agreements with Georgia earlier this year, and the

implementation of action plans towards visa liberalisation with Moldova and Ukraine. Even with Belarus, where we have reduced our bilateral cooperation with the authorities in response to their ongoing crackdown, we have offered to negotiate agreements on mobility for the benefit of the broader population.

In addition, there are significant benefits to be accrued from increased cooperation in a range of other sectors, including energy, transport, the environment, climate change, electronic communications, agriculture and rural development.

Some of our partner countries also express clear aspirations to join the European Union. While the Eastern Partnership is not about membership of the European Union in the immediate future, it is clear that deep reforms to secure democracy, rights and freedoms have the potential to bring ever closer political association and deeper economic integration with the European Union within reach. It is on these same values that Article 49 of the European Union Treaty is based.

There are therefore clearly significant incentives for partner governments to undertake reforms. Yet, in all of these areas, it is clear that we will be unable to achieve our aims by working with governments alone. We must continue to engage with all parts of society if we are to bring about lasting change. In this regard, the role of civil society organisations will continue to be crucial in pressing for reform, and in reaching out to the broader population. This was a key conclusion of the recent Eastern Partnership Summit in Warsaw.

Indeed, the crucial role that civil society already plays has been demonstrated by recent developments in Belarus. While the EU has been clear that further bilateral engagement with the Belarusian authorities will not be possible until significant progress is made to establish basic rights and freedoms, our cooperation with civil society has been significantly stepped up and is enabling us to maintain the pressure for reform. We have continued to increase our support for their work, and have even gone beyond our pledge to quadruple the available funding.

We will continue to support civil society organisations as fully as possible as they strive to achieve our shared ambitions. This includes continued support for the coordinating role of the Eastern Partnership Civil Society Forum, and increased financial assistance through the newly-established European Neighbourhood Civil Society Facility and the planned European Endowment for Democracy. It also includes continued work to involve civil society representatives in our formal dialogues with partner governments.

We therefore have an ambitious new agenda for the Eastern Partnership. The challenge now will be to ensure its successful implementation, including through the establishment of an 'Eastern Partnership Roadmap' early next year, which will set out the full range of our joint work. In this way, we will continue to support the development of a stable, secure and prosperous region, with the core values of democracy, rights and freedoms at its heart.

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Six months of the Polish Presidency

By Konrad Niklewicz

On 1st July 2011 Poland took over the EU Council Presidency. It was not only a great challenge requiring strategic planning, full political and organisational activity at domestic and European levels, but also an excellent opportunity to help shape the European Union.

Proper preparation turned out to be the strength of the Polish Presidency. We began to perform our tasks as early as 2007 by analysing the experiences of other countries. Financial resources for organisation were secured in 2009, and that was when logistic preparations, training courses for Polish officials and initial promotion and information efforts got under way. Such early preparations brought about positive effects: we had a well-prepared programme and were ready to react quickly to unexpected events. For instance, following the attacks in Norway, the Polish Presidency convened a joint meeting of working parties on terrorism.

Tremendous public support for the European idea in Poland was without any doubt the strength of our Presidency. In 2011, 83 per cent of Poles stated in public opinion surveys that they were happy Poland was an EU member.

Priorities of the Polish Presidency had one basic goal — to help get the introduction of the European Union on a rapid economic growth track and strengthen its political power. The Polish Presidency fulfilled that objective through the development of the internal market and electronic market in particular to cite one example.

The construction of a proper multiannual community budget which would be appropriate for EU ambitions is another method to speed up economic growth in the Union. As the EU Presidency, we are glad to note that we have had some specific achievements in this field: we started negotiations on the Multiannual Financial Framework 2014-2020. The stage of negotiations was summed up in a special Presidency report where we emphasised that arriving at a consensus was possible. Most Member States agreed that the European Commission's budget proposal should be the basis for further work. Jointly with the European Parliament and European Commission, as the first Presidency, we decided to organise a Budget Conference. Involving representatives of national parliaments was a special value of that meeting. Denmark, which has taken over the Presidency from us, has already confirmed that it is going to continue the idea of Budget Conferences as a forum where political support for decisions on the MFF can be built.

As the Presidency, we have been (and as a Member State we still are) convinced that the determination of Multiannual Financial Framework will translate into the shape Europe takes on over the next decade. We don't need any unclear debates on the principles of distribution of resources for saving programmes or on priorities of specific policies. Instead, we believe that we have to strive to balance our budgets and, at the same time, promote economic growth and create jobs, especially in Europe. Poland, the country I am from, is an example of proper utilisation of European funds which are now helping us weather the economic and financial crisis. Having our experiences in mind, I do believe that the EU must now work to achieve consensus on the MFF, and that will lead all the Member States out of the existing crisis back to the economic growth path.

We have also achieved some tangible positive results in other spheres beneficial to the EU. We have strengthened European security in many different fields including energy policy, external border control, supervision over financial

markets and the food market. The conclusions on strengthening the external dimension of the EU energy policy, adopted by the EU Council in November 2011, is particularly important. Thanks to them, we have clearly defined market principles in external relations, such as those with the Russian Federation, key infrastructure projects which allow the import of raw materials from outside the EU and cooperation of the Member States at international forums.

It was us who caused the 'six-pack' economic governance legislation to be adopted. It has already become valid and has actually strengthened the economic governance in the European Union. It should also be mentioned that we managed to reach an agreement in the Council and EU Parliament on a Single EU Patent. The preparatory work on the patent had taken more than 30 years!

We devoted a significant part of our activity to the role of the EU in the world. We are convinced that good neighbour relations can strengthen Europe also in the economic dimension and bring it the most benefits at relatively small expense. That is why September's Eastern Partnership Summit was one of the most important events of the Polish Presidency. While preparing the Eastern Partnership project, Poland used its own experiences of economic and political transformation. Therefore, development of civil society, which is a driving force of democracy, is of key importance to the Eastern Partnership.

We haven't forgotten about the European Union's southern neighbours. Following recent events in Tunisia, Egypt, Libya and other countries of the Southern Neighbourhood, the Polish Presidency sought cooperation based on partnership while focusing on supporting democratic transformation, constructing modern state structures based on constitutional reforms, strengthening the judiciary and security and fighting corruption. It was Poland's Foreign Minister who was the first to visit Benghazi liberated by Libyan insurgents.

The involvement of Poland in the process of EU enlargement should also be mentioned here. On 9th December Croatia signed the Treaty of Accession thanks to its determination and the support from the Presidency. We have managed to conclude the work started by the Croats in 2003. Other aspiring candidates, including Serbia and Montenegro, have also made further steps towards the Union.

Our Presidency coincided with a difficult period of financial crisis. We hope we have coped with the challenge. We encouraged EU states, including those from outside the euro area, to display greater solidarity and discipline within the whole EU and euro area. The Polish Presidency brought about the adoption of specific solutions but also sought to strengthen European integration. We have kept repeating the whole time that we need more Europe, not less. We have passed the baton on to the next country with head held high. Good luck Denmark!

Konrad Niklewicz

*Spokesman for the Polish
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Poland



Ukraine-EU relations – overview of the recent developments and perspectives for the nearest future

By Andrii Deshchytsia

The year 2011 will enter into Ukrainian history as a turning point in the process of the country's European integration. Foremost, it has been a year of decisive progress in negotiations on the Association Agreement between Ukraine and EU.

Ukraine and the European Union have never been as close to the final deal on the Association Agreement, as they are today. This progress has become possible due to intensive efforts of both sides during almost four years of negotiation process.

At the end of October we have reached a broad political understanding on the majority of outstanding issues in the negotiations on Deep and Comprehensive Free Trade Area (DCFTA). After the 21st round on 11 November, 2011, we are also very close to wrapping up negotiations on the political part of the Association Agreement.

A number of arrangements agreed within the negotiations are result of difficult compromise between two sides. These compromises would be impossible without clear political will and sincere interest of both Ukraine and EU to conclude a really ambitious Agreement.

We do hope that mutually acceptable solution on European perspective in the future Association Agreement could be reached. It would be a powerful signal for 46 million of Ukrainians which will have to deal with comprehensive reforms as the Association Agreement enters into force. It would also revitalize the whole project of European integration which is in need of a new strong impetus.

Above all, the agreement will mean that Ukraine will be legally bound to a huge file of EU legislation. Ukraine is committed to adopt approximately 80 per cent of EU legislation in the coming decade, with a view to taking stake in the EU market. Given the current economic crisis, one can imagine the huge amount of political will, and financial and human resources, which are required for such a task of strategic importance.

Therefore, in no case the Agreement should be treated like a gift to us. It is not only Ukraine which is interested in the EU. The European Union has its own stakes in this Association too.

First of all, Ukraine means more security and stability. Because of its size and unique geo-strategic location the security in Europe can only be enhanced if Ukraine successfully completes its European integration process. The example of Ukraine having evolved from a post-Soviet state to a truly European democracy would demonstrate that the European idea is still a powerful tool that can change the economic, political and societal reality even beyond the EU umbrella.

Second, Ukraine means a secure energy supply and better communications. Our country plays unique role as

the transportation and energy hub of the continent. As a part of a single European energy market Ukraine will greatly enhance energy security of Europe. The recent accession to the European Energy Community was an important step forward that made Europe stronger.

Third, Ukraine means a new EU market, enormous in its potential and capabilities. The country of 46 million, with an advanced industry and a fertile agriculture is a promising target for foreign investors. The Association Agreement and DCFTA will bring European standards and regulations – thus improving investment climate, making business environment predictable and transparent.

For the current Ukrainian government the European integration is a cornerstone not only of our foreign policy as it used to be, but first and foremost it is a guideline for internal developments, reforms and modernization of the country.

The EU oriented reforms have been implemented steadily and decisively since Ukraine's new administration is in office. Highly ambitious reform programme launched by the Government covers 21 spheres and is the most comprehensive reform agenda since Ukraine gained independence in 1991.

The purpose of all actions is to build Europe in Ukraine, to let Ukrainians feel they are living in Europe, to bring European standards to any given sphere of the public life.

We are fully conscious that the agenda before us is challenging, be it in terms of internal reforms or in terms of greater convergence between Ukraine and the EU.

Ukraine is a nation of euro-optimists which sees the EU not only as the democratic beacon and the most convincing success story on the continent, but also as our natural habitat, historic destination and home. This is what the EU-integration is for Ukraine: coming home.

And this is why despite the turbulent times in Europe most Ukrainians take the EU-integration personal and with a great deal of faith.

Andrii Deshchytsia

Ambassador

Embassy of Ukraine to Finland



Towards a new European Security Strategy

By Stanisław Koziej

The European Union's ambitions to play a greater role in security issues still fail to be translated into concrete actions. Problems faced by the EU, as regards security policy, result neither from quite natural differences in the interests of the individual Member States nor from the ongoing financial crisis. The roots of problems are of more general nature. It is my contention that they stem from lack of consensus on strategic foundations. Hence, it is of major importance to further develop EU civil and military capabilities (strengthening the operations planning system, continuing the development of the pooling and sharing initiative, adapting the EU battlegroup concept to real operational needs) and to start debate about the EU's strategic goals in the area of security policy. Poland aims at using her experiences gathered during the Presidency of the EU Council, which is now coming to an end, in further works on strengthening the Common Foreign and Security Policy, including the Common Security and Defence Policy.

Therefore, I wish to focus on a single aspect of immense importance. I remain convinced that within the European Union it is high time to initiate a review of the 2003 European Security Strategy. The review should lead to amending the said Strategy. There are many arguments to support this proposition.

Change is happening not only in Europe. Our entire strategic environment is undergoing significant evolution. On a global scale, we can clearly see that the strategic centre of gravity is shifting towards Asia, with China and India gaining increasingly in importance. It is in that direction that the USA will surely be looking, at the cost of Europe's interests. This will also exert impact upon Russia's strategy.

In the regional dimension, the latest developments in North Africa have confirmed, once again, that serious sources of risk for our security exist in Europe's direct neighbourhood. New threats are not necessarily traditional, i.e. political and military ones. Non-military security dimensions, including transnational and asymmetric ones, are becoming just as important: migrations and their consequences, terrorism, cyber security, security of trade routes, energy security or rivalry for natural resources.

Without any doubt, the current binding security strategy has played a positive role in recent years, stimulating the

process of strategic organization of the EU in the face of security problems. In practice, however, the strategy has been implemented only to a limited extent. It focuses more on listing threats rather than indicating detailed tasks to be carried out by the EU institutions or defining prerogatives which should be developed by means of a political process.

Therefore, today we should go further ahead. One needs to do more than simply adjust the contents of the strategy to the present and future conditions of the security environment. We should also set up more concrete and precise mechanisms for its implementation, which will allow to impose some discipline on the EU's strategic debate in the future. Moreover, a provision on a regular update of subsequent EU security strategies would be of key importance.

How can an amendment process be successfully conducted? I deem advisable to use positive experiences from our work on developing the latest NATO Strategic Concept. I am referring to a Wise Men Group that could be appointed with a view to developing a draft report which would then be discussed by the representatives of the President of the European Council, the High Representative of the Union for Foreign Affairs and Security Policy as well as the Presidents of the European Commission and the European Parliament.

Europe cannot afford further stagnation in strategic issues, one which creates deadlock both in foreign and security policies. Therefore, it is of major importance to launch the strategic review soon, preferably in 2012. That would result in adopting a new European Security Strategy in 2013, i.e. on the tenth anniversary of its first-ever establishment. The European Union needs such a strategic impulse for its security identity.

Stanisław Koziej

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The Polish Presidency and the Eastern Partnership

By Beata Wojna

As one of the most important architects of the Eastern Partnership (EaP), Poland pursued an ambitious EU presidency agenda in which the promotion of this initiative occupied an important place. When assuming rotating presidency in July this year Poland defined very clear priorities for the Eastern Partnership: to conclude Association Agreements and create deep and comprehensive free trade areas, by finalizing or making substantial progress in its negotiations with Ukraine and Moldova, and to make progress in the process of visa liberalisation and deepen sectoral cooperation. Poland expected also to encourage Belarus to cooperate with the EU, provided it respects the fundamental principles of democracy and human rights.¹ Political and social changes in the North Africa and Middle East, negative political evolution in some eastern partners and, finally, the economic crisis of the EU turned out the implementation of this programme into a complicated task and forced Poland to make double efforts during the six-month at the EU's helm to achieve positive results in the priorities envisaged for the EaP.

Reconciling the East and the South

The point of departure for the Polish presidency was to be equally engaged in the south and the east, taking care of a balanced development of both dimensions of the European Neighbourhood Policy (ENP). More than twenty different meetings in the EaP format at the head of states, ministerial and senior officials levels, the EaP Civil Society Forum, the inauguration of the EaP parliamentary cooperation (Euronest Parliamentary Assembly) and the Conference of Local and Regional Authorities of the EaP gave more visibility to the eastern dimension of the European Neighbourhood Policy in times when the EU attention was turned towards North Africa and Middle East. At the same time the Polish presidency wanted to move away from a perception of the two dimensions of the ENP, the eastern and the southern, as vying for political attention and funding. With a proposal to create the European Endowment for Democracy – which appeared as a Polish response to the Arab spring – and support for democratic transition in Tunisia and Libya, Poland demonstrated that it is possible to be actively engaged in the promotion of the EaP and to have positive impact on the southern neighbourhood.

Finally, the results of Polish activity in this area will remain beyond the end of the presidency and the European Endowment for Democracy - new lightly structured, flexible, inclusive and non-bureaucratic funding tool for democratisation and building of the civil society in the neighbourhood to become operational in the first half of 2012 - could have a special role to play in the authoritarian states in Eastern Europe (Belarus, Azerbaijan) by supporting emerging actors in the political field such as democracy activists, dissidents, registered or unregistered civil-society organizations, trade unions and independent media and think-tanks, and maybe political parties.

¹ *Programme of the Polish Presidency of the Council of the European Union*, 1 July 2011- 31 December 2011, http://pl2011.eu/sites/default/files/users/shared/o_prezydencja/programme_of_the_polish_presidency_of_the_council_of_the_eu.pdf.

The Warsaw summit outcomes

Polish activity in promoting EU relations with eastern neighbours allowed to achieve some of the short and medium term goals of the EaP, especially in trade and migration areas. The second EaP summit celebrated in Warsaw in September – the central event of the Polish presidency which gathered almost all heads of states and governments of the EU members and Eastern partners and the highest representatives of the EU institutions – was the occasion not only to evaluate the implementation of the initiative since it had been launched at the first EaP summit in Prague in 2009, but also to announce important political decisions.

During the Warsaw summit the possible finalisation of EU-Ukraine negotiations on the DCFTA and the beginning of DCFTA's negotiations with Moldova and Georgia by the end of 2011 were declared. In fact, by the end of the Polish presidency, negotiations on all technical aspects of DCFTA with Ukraine - one of the key priorities of the Polish presidency - were concluded. The participants of the summit also confirmed the possibility for partner countries “to take gradual steps towards visa-free regimes in due course on a case-by-case basis provided that conditions for well managed and secure mobility set out in two-phase action plans for visa liberalisation are in place.” It means in practice that the full abolition of visas for the Eastern neighbours - the key demand of some eastern partners in its relations with the EU - could be possible in a short/medium perspective for citizens of countries that have fulfilled all the EU's requirements.²

On the weakest side of the Warsaw summit should be included relatively low presence of democratisation (being the Belarusian case the only one to be considered) and civil society dimensions in the final joint declaration, which was probably due to the sensitivity of eastern leaders to this kind of issues. Finally, the silence on the European perspective for the eastern neighbours – balanced to some extent by recognising the European aspirations and the European choice of some partners and highlighting the particular role for the Eastern Partnership to support those eastern partners who seek an ever closer relationship with the EU – seems to be the most important missing point.

The old problems and uncertainties - final evaluation

The six-month Polish presidency proved – and the case of Ukraine is the best example - that the progress of the EaP depends mainly on the states to which it is addressed and not so much on positive results of summits or efforts undertaken by the presidency. On 11 October 2011, shortly after the Warsaw summit, Yulia Tymoshenko - former Prime Minister and political rival of the current Ukrainian President Viktor Yanukovich - was convicted of abuse of power during negotiations on a gas contract with Russia in 2009. She was sentenced to seven years in prison, a fine as compensation for \$200 million in losses incurred by the state fuel company Naftohaz and a ban on holding public office for three years. From the EU's

² *Joint Declaration of the Eastern Partnership Summit*, Warsaw, 29-30 September 2011, http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ec/124843.pdf.

perspective, the Tymoshenko's episode is the most significant argument in favour of the position that Ukraine is not ready to sign the EU-Ukraine Association Agreement. So despite the finalisation of the negotiations on the DCFTA, the toughest part of the Association Agreement, there is the likelihood that its signing - conceived as a culminating event of the Polish presidency - will be postponed due to political problems with Ukraine.

The EaP is a long-term strategic framework for the EU's relations with its Eastern neighbours and the Polish presidency contributed positively to conclude two years and a half of its implementation, to maintain the Eastern neighbourhood in the EU agenda in times when the attention was focused on Arab spring and economic crisis, and to achieve some of short and medium term results in trade and migration areas. Moreover, it demonstrated that it is possible to be actively involved in the east and to support the southern dimension of the ENP. This is a good starting point for the next two years of the implementation of the EaP. However, and these is the main lesson from the

Polish presidency, the old problems and uncertainties in the EaP countries linked to the general relapse in democratisation, being Moldova probably the only success story, and the gap between the EU's offer and neighbours expectations, including the reluctance of the EU member states to consider the European perspective for the Eastern neighbours, sentence the EaP to a very long and difficult way forward.

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Polish EU Council Presidency – efficient presidency in the difficult times

By Agnieszka Łada

The Polish EU Council Presidency had to confront some high expectations. The government in Warsaw, believed to be well prepared for the presidency and enjoying the better and better reputation in Europe, had not only the task of pushing the EU agenda but also that of shaping the EU system in the areas which still required changes after the Lisbon Treaty had come into force. It was believed that as a relatively big country, with the economy not hampered by the crisis as much as other countries (in 2009 Poland was the only country to achieve economic growth), with the society showing very pro-European attitudes (over 80% accept Polish membership in the EU and two thirds believe that this membership is something good) and with a government efficiently operating on the European scene, Poland had a chance to go beyond the day-to-day administration of the Union. At the same time, all the actions of the Presidency were watched very closely as it was the first presidency held by Warsaw. The Poles had been aware of the standards set high and of the challenges they would have to face. They also knew that presidencies were often surprised by the reality. It did happen again during the last six months. The financial crisis pushed other topics into the background. Even though the situation was not easy, Polish Presidency proved to be efficient and effective. It did not make any revolutionary changes, but it fulfilled its duties well, without any significant embarrassment that would cause a stir in Brussels and in other capitals.

The on-going economic crisis required stronger action in the economic area – finalising the reform processes already underway, but also undertaking new initiatives. Especially with regards to the latter, the position of Poland was not easy. As a country outside the Eurozone, Poland had no influence over a number of the decisions taken in the light of the crisis. The Minister of Finance could not even participate in the meetings of the Eurogroup, which made things even more difficult organisationally and politically. Therefore Poland tried to ensure that the countries remaining outside the Eurozone could participate in the talks on the future of the EU. The decisions adopted during the summit of 8-9 December 2011 provide such an opportunity.

The list of Polish priorities contained points suggesting that Poland would strive for strengthening EU economy and for stimulating growth. In this area a lot has been achieved. The greatest success has been the adoption of the package of six legislative acts, known as the “six-pack”, expected to strengthen the economic governance in the European Union and to protect the Union from subsequent crises. It was during the Polish 6 months that, after 30 years of disputes, an agreement was reached on the single European patent, which would reduce the costs related to registering inventions by entrepreneurs in the whole EU. An agreement was also reached on the so called correlation tables, that is, special documents describing the process of implementation of the EU law in the Member States. The report “Towards a European consensus on growth” pointed out the areas where, according to the Presidency, there was development potential that should be tapped in the coming years.

Simultaneously, the Polish Presidency launched consultations on the future multiannual financial framework. Their purpose, however, was not to carry out negotiations but to gather opinions of the Member States, EU institutions and national parliaments. That was the purpose of the first ever budget conference. At the end of the year, Poland presented a review of all the opinions, to be used by the next, Danish Presidency, for launching the budget negotiations.

Poland, as a traditional advocate of the interests of the countries east of the European Union, was also expected to become involved in the development of the Eastern Partnership initiative. However, the events in the southern neighbourhood of the EU diverted the Union’s attention from the East, as additional action was required with regard to North Africa. After the reform of the Lisbon Treaty, this part of the EU foreign policy is now within the remit of the High Representative of the Union for Foreign Affairs and Security Policy. Yet, the rules of cooperation with the Presidency in a number of areas where their competencies overlapped still had to be established. As a result, the cooperation between the Presidency and the High Representative was smooth. The regular contacts between the Representative and the Polish Foreign Minister enabled efficient coordination at the highest level. Poles represented Baroness Ashton during some foreign visits or when hosting meetings with third countries, thus developing the framework for cooperation between EEAS and the Presidency.

Poland faced an uneasy task related to the policy towards the eastern neighbours. The lack of reforms and signs on their part, and especially the situation in Ukraine connected with the arrest of the opposition leader or prosecution of democratic activists in Belarus were the reason why no grounds or political will could be found for further tightening of their relations with the EU. In spite of that, the Eastern Partnership summit brought positive results, under the circumstances, although the absence of the Belarusian delegation was a certain dissonance.

The Polish response to the weakness of the democratic forces in the Eastern and Southern neighbourhood was the idea of establishing the European Endowment for Democracy, a new instrument expected to support transformation processes faster and more effectively than the existing ones. Poles managed to include the initiative in the EU documents relatively fast, as for the EU standards. The work on the establishment of the Endowment was taken over by the EEAS, but it was the Poles who did the lobbying. Eventually, the decision on establishing the EED had not been taken by the end of the year because there was not enough time for proper consultations in the Member States and for explaining all the doubts related to its structure. This Polish effort should be then given a positive assessment even though it did not end in unequivocal success. Similar assessment should be given to the development of the concept for strengthening the common EU security policy. The initiative to form the common permanent command for planning of military and civilian EU actions, proposed by Poland, was supported all EU member States except the UK, which made it impossible to reach the agreement.

The Polish Presidency will not be remembered by the Europeans for any revolutionary changes. Yet, this is not the role of the rotating presidency nowadays. Finalising several important negotiations, efficient implementation of the agenda and great involvement in working for the future of the EU allows us to include it among good, successful presidencies.

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Eastern Partnership and Poland's EU presidency

By Adam Eberhardt

One of the priorities of the EU Council presidency held by Poland in the second half of 2011 was to strengthen the Eastern Partnership – a policy aimed to foster rapprochement between the states of Eastern Europe and South Caucasus on one side and the European Union on the other. Poland's interest in the success of transformation in the EU's Eastern neighbourhood results from its natural interests of a border state. It is not in Poland's interest to have its eastern border considered a frontier of the European model of socio-economic development and draw a line which limits the area of respect for fundamental European values.

On 29–30 September in Warsaw an Eastern Partnership summit was held. The summit debates focused on the improvement of efficiency of the programme mechanisms employed so far. The summit's goal was not to cause a breakthrough in the functioning of the EaP, as any such breakthrough at this stage is not possible, but to confirm the vitality of the EaP and give impetus to its further development. Originally the summit had been scheduled to take place in Budapest in spring 2011, however, due to the expected low attendance of European leaders the Hungarian EU Presidency decided to transfer the organization duties to Poland. The Warsaw summit was attended by heads of the major EU institutions (Herman van Rompuy, Catherine Ashton, Jerzy Buzek, Štefan Füle), some of the leaders of EU states (including Angela Merkel) and all of the invited presidents of states which participate in the EP (no invitation was extended to Alyaksandr Lukashenka).

It seems that the main goal of the EaP summit was to reduce the mutual discouragement evident in the EU's relations with its Eastern neighbours. This fatigue among the EU states results from their disappointment with the transformation of the Eastern European states which progresses slowly and encounters numerous problems. It escalated in 2011 as a result of developments in the region (crackdown on opposition in Belarus, autocratic tendencies in Ukraine's politics) but also due to the relatively successful actions carried out in the Mediterranean. Democratisation of the North African states reduces the pressure for the EU's success in Eastern Europe, diverts the attention of EU institutions both in the political aspect and in terms of the EU's readiness to offer financial support. It should be remembered that the European Neighbourhood Policy, which encompasses both the Mediterranean states and those subject to the Eastern Partnership, functions as a system of interconnections. Different, competing priorities adopted by the individual EU states lead to a peculiar 'tug-of-war' within the European Neighbourhood Policy – a success of the South can translate into marginalisation of the East. It is particularly evident in the case of the difficult negotiations on the EU's new multiannual financial perspective which started recently.

The EU's disappointment with the cooperation with the EaP states is also evident in the moods of both the authorities and the societies in countries such as Ukraine, Moldova or Georgia which in previous years counted on a more generous offer on the part of the EU which would include, among other elements, EU membership perspective aimed to motivate them to implement the Community acquis. A drop in the attractiveness and attraction of the EU in the East results also from the current European integration crisis.

So, the Eastern Partnership summit organised by Poland was an attempt to show that the EU's Eastern policy is not just a bureaucratic instrument, but also it contains a strong political component which can be a stimulus to a rapprochement between the Eastern European and South Caucasus countries and the European Union. The more detailed issues connected with the filling of the political framework with specific content have remained beyond the competence of states which hold EU presidency, particularly since the Lisbon Treaty has been in force. In the current half year, however, Poland lobbied for accelerated implementation of the most prominent EaP projects.

The most important success was the conclusion of negotiations on the EU-Ukraine Association Agreement which, among other aims, is meant to be a step towards the creation of a Deep and Comprehensive Free Trade Area (DCFTA). In the recent months the European Union started works on Association Agreements with all partners except Belarus. Additionally, in December 2001 negotiations were opened on the trade part of the agreements with Moldova and Georgia.

Activities were continued to foster the rapprochement between the Eastern neighbours and the EU also in the social sphere. The non-governmental Eastern Partnership Civil Society Forum has been particularly active and organised a summit which took place on 28–30 November 2011 in Poznań, Poland. Visa dialogue with the neighbouring countries was continued, and Ukraine and Moldova – the two most advanced countries in this respect – have decided to implement Action Plans which specify the conditions and criteria to be met by these countries; only then can they expect visa abolition. Moreover, the Eastern Partnership has become a stimulus for increasing the financing and obtaining extra funds from other sources such as the European Investment Bank.

Currently, the main difficulty in the EU's Eastern policy is the future of the dialogue with Ukraine considering that the Ukrainian authorities are using the judiciary for their own purposes, as evidenced by the example (one of many) of the detention and sentence of the opposition leader Yulia Tymoshenko. Despite its condemnation of the actions carried out by the authorities in Kyiv Poland was in favour of initialling the Association Agreement with Ukraine and treated this as the end of the process of technical work on the document which contains more than 1300 pages. The decision to initial the document increases the chance of its final signing, ratification and implementation when the situation in Ukraine improves, and thereby it has become another instrument of pressure exerted on the authorities in Kyiv. Obviously, the decision concerning the future of the Association Agreement should be viewed in the wider context of the policy of conditionality based on two principles: "more for more" and "less for less". It is understood that the EU's offer addressed to Ukraine should be reduced in response to the country's authorities' limiting of civil freedoms.

It should be remembered, however, that in the context of problems with respecting European values the reduction of the offer for Ukraine may lead to weakening the EU's influence on that country and, as a result, may fuel certain negative tendencies already apparent today. The Polish side argued that the Association Agreement, being an element of Europeanisation of Ukraine and implementation of European standards and principles, is of particular importance exactly because of the fragility of the Ukrainian democracy. Following this logic, the Association Agreement is not a reward for President Yanukovich, but an instrument of extorting from Kyiv the changes expected by the EU. The current situation suggests that this argumentation is unlikely to find support in all EU states. The future of the most important Eastern Partnership project and Poland's foreign policy priority towards the Eastern Partnership, i.e. implementation of the Association Agreement with Ukraine, is therefore still uncertain.

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Belarus and the Eastern Partnership in 2011

By Alex Nice

The decision to include Belarus in the Eastern Partnership was controversial, with some representatives of the country's opposition and civil society arguing that the EU's relationship with Minsk should only be upgraded when the human rights situation in the country improved. Prior to the establishment of the Eastern Partnership, the EU lacked any format for structured dialogue with Belarus. The conclusion and ratification of a Partnership and Cooperation Agreement with Belarus were suspended by the EU in 1997 after President Lukashenka consolidated his authoritarian rule. Trade between the EU and Belarus is still governed by a Soviet-era agreement. The launch of the Eastern Partnership inter-parliamentary forum was delayed for two years due to disagreement over the involvement of deputies from Belarus. The first meeting finally took place in February 2011 without the participation of Belarusian representatives.

The acceptance of Belarus into the Eastern Partnership marked an all-too brief convergence of interests between Minsk and Brussels. Increasing pressure and declining energy subsidies from Moscow had underlined to Lukashenka the dangers of excessive dependence on Russia, whilst the EU, in the aftermath of the Russia-Georgia war, perceived the need to take a more proactive position in the region if the sovereignty of its neighbours was not to be further compromised. The decision to engage with Belarus, in spite of the country's authoritarian political system, was thus driven by realist security concerns, but was not necessarily incompatible with the EU's normative agenda. In return for engagement, the regime made some modest steps in the direction of political liberalisation, such as allowing two opposition newspapers to be legally distributed, and permitting the registration of opposition candidates in the presidential election. Such moves were largely symbolic, but nevertheless helped to ease the political and intellectual atmosphere in the country and gave significant encouragement to civil society.¹

This brief thaw in relations was brought to an abrupt end on 19 December 2010 by the authorities' coordinated attack on protesters who had gathered in Minsk to contest the results of the presidential election, which Lukashenka claimed to have won with almost 80 percent of the vote. The EU's relations with Belarus in 2011 have been fundamentally shaped by the consequences of that fatal night and further repressive actions which have included increased restrictions on the activities and funding of NGOs, the violent dispersal of small protests organised through social networking sites, and the on-going intimidation and arrest of civil society and opposition representatives, including the human-rights campaigner Ales Bialiatski. There are currently over 20 political prisoners in Belarus, including two former presidential candidates.

The EU has responded by re-imposing the travel ban on leading figures in the Belarusian elite, which had been suspended on a rolling basis from October 2008. Whilst Belarus has not been excluded from the Eastern Partnership, the EU has broken off virtually all official contact with the regime. Owing to the visa ban, Foreign Minister Sergey Martynov was invited instead of Lukashenka to the Eastern Partnership summit in Warsaw in September 2011. Belarus decided to boycott the summit in response on grounds of discrimination.

The release of all political prisoners has been set as a precondition for the resumption of any dialogue. With relations at an impasse, the impact of the Eastern Partnership on relations with Belarus has been minimal in 2011. But whilst the EU's principled position on political prisoners has created the appearance of unity, the fundamental policy question regarding whether to isolate or engage the Belarusian regime has not gone away. Following the Warsaw Summit, Poland again attempted to leverage Belarus' behaviour through conditionality, offering \$9 billion in exchange for the release of prisoners, the opening of

dialogue between the opposition and the authorities, and the conduct of a free and fair parliamentary election in 2012. Only the first of these conditions is feasible. The authorities have nothing to gain from a dialogue with the opposition and it is unclear that the opposition has anything meaningful to say to those in power. Demanding a free and fair election is tantamount to asking Lukashenka to prepare the circumstances for his own demise. It was also unclear where this money would come from, making the offer appear even less credible to Minsk.

The grim reality is that the EU have very little leverage vis-à-vis Belarus. In November 2011, Minsk and Moscow concluded a range of agreements on energy prices and the sale of the second half of the pipeline network Beltransgaz for \$2.5 billion which provide further Russian subsidies to the Belarusian economy. Armed with these rents, Lukashenka is likely to be able to stabilise the economy in the short term without resorting to international assistance or concessions to the EU.

The EU's interactions with Belarus bring some of the conceptual problems of the Eastern Partnership into particularly sharp focus. EU policy on Belarus is shaped by three contrasting policy aims: a desire to strengthen Belarusian statehood and sovereignty; a need to have a functional relationship with a direct neighbour of the EU; and a normative agenda based on external governance to liberalize the Belarusian political system. All three of these aims are legitimate, but they are not necessarily compatible. External governance and the use of conditionality imply a tutelary relationship that belies the notion of partnership and joint ownership supposedly embedded in the initiative.²

Whilst Belarus continues to hold political prisoners, these policy choices remain abstract. The status quo is unlikely to remain for long, however. The recent deals with Russia have staved off immediate financial collapse, but the current economic model remains unsustainable without considerable foreign support. Russia will continue to seek the sale of major state assets in exchange for subsidies, including the oil refineries and the potash producer Belruskali. Conflict is almost certain to re-emerge between the two brotherly nations. At some point soon Lukashenka may again try to diversify his foreign policy options and the question of engaging with the Lukashenka regime will again be on the EU's political agenda. Observers have suggested that in the few areas where dialogue has taken place, Belarusian officials have proven to be amongst the most professional and responsive interlocutors of the Eastern Partnership countries.³ If the release of political prisoners can be achieved, the scope for interaction with Belarus through the Eastern Partnership should not be underestimated.

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¹ Vitali Silitki, "The EU's Eastern Partnership: Why it May Help Democracy Promotion and How the United States can Help Move it Forward", PONARS Eurasia Policy Memo No. 70, p. 4 http://www.gwu.edu/~ieresgwu/assets/docs/pepm_070.pdf.

² Elena Korosteleva, "The Eastern Partnership Initiative: A New Opportunity for Neighbours?", *Journal of Communist Studies and Transition Politics*, Vol. 27, No.1, March 2011, pp. 1-21.

³ Anaïs Marin, "Saving What Can Be: What the Eastern Partnership Could (Still) Bring to Belarus", *Eastern Partnership Review*, Estonian Center of Eastern Partnership, http://www.eceap.eu/ul/EaP_3_artikkel.pdf

The Polish Presidency in the European Union in 2011

By Agnieszka Wójcicka

There are terminological as well as conceptual problems with the notion of the presidency, especially after the changes introduced by the Lisbon Treaty (LT) which have had an impact on the states taking over the six-month management of the EU. These problems, presented below, influence the main theses of this paper. The first one underlines that there is a different approach to estimating the Polish Presidency in the European Union (EU) after the changes brought by the LT (which can result in the statement that, *de facto*, the presidency lost important functions). Nevertheless, the 'post-Lisbon' order does not diminish the significance of the challenges which are faced by a state taking over the presidency, and it is true that all member states supported these changes by first signing and then ratifying the LT. The second thesis stresses that independent external factors such as the global and Eurozone crises, and the fact that Poland is not a member of the European Economic and Monetary Union (EMU) create a background against which the Polish Presidency could be described as the one with the 'Janus face'. Poland, as a non-euro state holding the EU presidency, is not a part of the internal and/or external scandals regarding the crisis in Euroland but also has a responsibility to participate in tackling its outcomes. On the other hand, it can be stated that – on account of this crisis – Poland is in practice not holding the presidency as the 'Merkozy'¹ order is observed within EU. Still, there is a need to stress that, for instance, the decisions taken during the European Council summit in Brussels on 8-9th of December 2011 portray the Polish initiatives and active involvement or solidarity with the Eurozone².

Tomasz R. Szymczyński's claim that both terms, the "presidency of the Council of the European Union (CEU)" and the "presidency of the EU" are relevant because of specific reasons is correct. This author's novel analysis³ of the approach of Pierre Bourdieu and the concept of the EU presidency shows that there is a dilemma in which the interpretation influences the conceptual apparatus used. Consequently, if the legal field is taken into consideration, the basis of the functioning of the presidency is limited to the Council (as CEU to the Council⁴ - the treaty notion). If, in this context, the autonomy of the Committee of Permanent Representatives (COREPER) is not taken into account, it may be passed over but the limitation of the presidency to CEU creates a controversy concerning the status of the European Council (EC). This is why T. R. Szymczyński proposes⁵ that these issues can be viewed

through the perspective of the democracy deficit in the EU. Such cognitive dissonance experienced by 'common' citizens goes against the concept of bringing citizens closer to EU matters.⁶

The LT brought other conceptual challenges by introducing the offices of the President of the European Council (a position taken by Herman Van Rompuy - the former prime minister of Belgium) and the High Representative of the Union for Foreign Affairs and Security Policy (held by Catherine Ashton from Great Britain) as well as the mechanism of presidency trios. As a consequence, the Prime Minister of Poland – Donald Tusk does not preside over the work of the European Council (which was previously the most prestigious area of the presidency). Analogically, C. Ashton's office limited the sphere of actions possible in the Foreign Affairs Council (FAC) for a state performing the presidency tasks. This is why the Minister of Foreign Affairs of Poland – Radosław Sikorski acts as C. Ashton's 'loyal deputy'.

In spite of these challenges and the specific paradox creating contradictory circumstances for the Polish Presidency (the willingness to enhance the roles of EU institutions, especially the European Commission, and the theoretical 'post-Lisbon' reality in which they are indeed stronger runs parallel to the practical dominance of the 'Merkozy' order), there are certain results of the course of Poland's six-month EU Presidency, the most important of which can be: 1. the preparations for Croatia's entry into the EU finalised in Brussels; 2. the suggestions regarding the institutional arrangements and anti-crisis measures, including possible treaty amendments, in order to prevent the creation of a 'two-speed Europe' and to strengthen the financial discipline with the inclusion of non-euro states to the fiscal pact. During the summit in Brussels new rules of public finance discipline⁷ were proposed. These included: 1. sanctions against states exceeding proscribed levels of budget deficit and public debt; 2. forcing the maintaining of balanced budgets in the national constitutions of all member states; 3. enhancing the role of the European Commission to which member states will be obliged to submit their initial draft budgets; 4. the strengthening of the International Monetary Fund (INF) by euro and non-euro states with €200 billion to be used in support of debt-ridden Euroland economies. These rules would be implemented through an intergovernmental⁸ accord. It looks likely that 26 member states will become signatories but without the United Kingdom (the Prime Minister of the UK - David Cameron vetoed the Franco-German blueprint).

In conclusion, the Polish Presidency in the EU has been a combination of the greatest opportunities and challenges for Poland as an EU member state which took the role on for the first time. It indicates that a less ambitious plan

¹ This phrase is coined from the surnames of Angela Merkel and Nicolas Sarkozy who play the leading roles in the EU.

² These initiatives have met with criticism from the opposition party - Law and Justice (PiS).

³ T.R. Szymczyński, *Prezydencja w Unii Europejskiej. Teoretyczne i praktyczne aspekty z perspektywy podejścia Pierre'a Bourdieu*, in: *Priorytety prezydencji Polski w Radzie Unii Europejskiej*, Z. Czachór, T.R. Szymczyński (eds), Warszawa 2011, pp. 51-82.

⁴ The presidency, from the historical perspective, is assigned to the Council (since 8 December 1993 to CEU on the basis of the decision of the Council after the Treaty on European Union came into force on 1 November 1993). See the in-depth explanation: T.R. Szymczyński, *Prezydencja...*, op.cit., p. 75.

⁵ T.R. Szymczyński, *Problematyka zjawiska deficytu demokratycznego w Unii Europejskiej – stan obecny oraz perspektywy*, in: *Stary kontynent w nowym tysiącleciu*, Z. Drozdowicz (ed.), Poznań 2002, pp. 59-73.

⁶ See more about these issues in: T.R. Szymczyński, *Ireland, the Lisbon Treaty and the European Referendum*, "European Governance" 2008, Vol. 2, No. 2. Available here: www.urge.it; T.R. Szymczyński, *Prezydencja...*, op.cit., p. 76-77.

⁷ The official website of the Polish Presidency, <http://pl2011.eu/en/>, 13 December 2011.

⁸ This implementation may not have the desired effect because, for example, the changes aimed at the enhancement of the role of the European Commission must have their basis in the primary law and require treaty amendments. The intergovernmental accord brings different results.

would have meant missing an opportunity and an overambitious vision would likely have been a failure. This presidency was the crowning of Polish EU membership and it was put to the test by external factors outside Poland's control (the financial and economic crises) as well as by domestic factors, as for example, the parliamentary elections that took place in Poland during the presidency. As the institution of the presidency raises expectations (which can lead to negative reactions when unfulfilled) and has results (which bring positive responses when attained), under these conditions the Polish strategy was 'not to make promises'. The 'post-Lisbon' and 'Merkozy' status quo in the circumstances of the mentioned crises created a context which makes it necessary to view the Polish Presidency as neither extremely successful nor totally ineffective.⁹

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⁹ An additional perspective on the Polish Presidency will be known after the EU Kiev summit in Ukraine on 19 December 2011. The debate in the Polish parliament about the decision taken in Brussels on 8-9th will be held on 15 December 2011 while Polish Prime Minister Donald Tusk will summarise the presidency at a plenary session of the European Parliament in Strasbourg on 14 December 2011.

The Polish EU Presidency and the Eastern Partnership

By Rafał Sadowski

The activation of the EU's policy towards its eastern neighbours and the strengthening of the Eastern Partnership (EaP) formed one of the priorities of the Polish Presidency of the EU Council. When attempting to sum up the achievements of the presidency in this area on the one hand there have been successes such as the activation of sectoral cooperation, a certain improvement of the mechanisms of the functioning of the EaP and the achievement of certain steps forward in bilateral co-operation (above all the practical finalisation of negotiations on the free trade area with Ukraine and the launch of it with Moldova and Georgia). On the other hand, though, the Polish Presidency failed to gain increased political significance for the EaP on the EU's political agenda, which was dominated by the issues of the eurozone crisis and by the Arab revolutions in north Africa. However, it was not necessarily down to the activities of the Presidency itself.

By stating that the Eastern Partnership (EaP) is one of the priorities of the Polish Presidency of the EU Council leads on naturally from the strategic significance the Eastern European region has for the interests of Poland. Those interests are defined as strengthened independence and the stability of the countries of the region. One of the instruments for this is their integration into European structures. Long before it joined the EU Poland was aiming at an activation of EU policy in its eastern dimension. From the end of the '90s Poland had been attempting to actively participate in and initiate EU activities geared towards the east; this became somehow a Polish 'specialisation' in the EU. The effect of this was the action, taken in cooperation with Sweden, with the initiative to establish the Eastern Partnership, which was launched at a summit in Prague in May 2009.

Warsaw attempted to take advantage of its Presidency of the EU Council to activate EU policy on the eastern neighbours and to strengthen the political significance of the Eastern Partnership. It is worth noting here that the European Commission and the European External Action Service are chiefly responsible for the implementation of activities within the EaP. The role of the Presidency is highly limited and brings about mainly political stimulation of activity from the EU's institutions. The main aims of activity within the Presidency regarding the EaP were focused above all on three issues:

1. the achievement of significant progress in the negotiations of the Association Agreements and on Deep and Comprehensive Free Trade Areas (DCFTA). It concerned the closing of negotiations with Ukraine and with Moldova and Georgia the launch of negotiations on the DCFTA.
2. achieving progress in the process of visa liberalisation.
3. the development of sectoral cooperation through the organisation of a series of meetings at ministerial and expert levels.

The most important event to take place during the Presidency was the Eastern Partnership summit, which took place in Warsaw on 29th-30th September. Poland's ambition was to strengthen the political dimension of the EaP. The possibilities of extending political integration

turned out, however, to be limited due to opposition from a part of EU countries and also due to the lack of success the partner states had in modernisation and the growing reservations concerning the state of democracy in some of them. In this situation the decisions of the summit were focused on raising the effectiveness of the mechanisms of the EaP already in existence. The strategy for action within the EaP is beginning to be focused in on drawing partners into sectoral co-operation and the extension of the possibilities for them to participate in programmes and EU agendas. Decisions were made for example on the acceptance of association agendas which are supposed to facilitate the implementation of association agreements by defining the priority goals and activities. The summit also bound the High Representative and the European Commission to working out a road map for the EaP which would define its priorities, instruments and activities to be implemented by the next summit in 2013. The announcement of an increase of funds for the implementation of the EaP for 2011-2013 by 150 million euros was rather symbolic but important.

The activation of sectoral and multilateral cooperation within the EaP was certainly a success of the Presidency. A large amount of ministerial and expert meetings were arranged on the subject of the widest possible range of areas of cooperation, including: culture and youth exchanges, the judiciary, transport, mobility, the fight against corruption, customs, co-operation between statistics agencies, ombudsmen, sanitary services and food security, environmental protection, etc. The Third Civil Society Forum also took place during the Presidency in November in Poznań. The activity of two EaP structures was also launched during the Presidency: the Conference of Regional and Local Authorities for the Eastern Partnership and the Eastern Partnership Business Forum which is a platform for contacts and co-operation for representatives of the business world. These activities are of course selected and indeed selective areas and do not have a comprehensive character; they do, however, allow for the stimulation of European integration in those defined areas.

A success of the bilateral cooperation of the EaP was seen in the decision made by the EU to launch negotiations on the agreement of a DCFTA with Georgia and Moldova. The negotiations on the Association Agreement with Ukraine are also practically complete but pen has not yet been put to paper due to the events on the Ukrainian political scene and the arrest of former Prime Minister Yulia Tymoshenko by the government in Kyiv.

No significant progress was made however in the process of visa liberalisation. The European Commission in September presented rather critical reports evaluating the progress made by Ukraine and Moldova in fulfilling the first stage of the EU Action Plan on Visa Liberalisation. Despite certain successes being recorded, shortcomings meant that neither country passed on to the second stage of implementing these plans.

Poland also actively tried to react to crisis situations which threatened the progress being made in the implementation of the EaP. An example of this may be the unfolding of the situation in Ukraine and the signing of the Association Agreement being blocked. Warsaw engaged

itself in undertaking intensive dialogue with the government in Kyiv; an example of this are: when Poland's former president, Aleksander Kwaśniewski visited Kyiv in September; when the presidents of Poland, Germany and Ukraine met in Wrocław and those of Poland and Ukraine met in Kyiv in November and when foreign ministers of Poland and Sweden visited Donietsk in late November. Belarus has also had its individual position as the government in Minsk intensified repression against the society. Poland took a principled position on this issue, strongly criticising the actions of Minsk and it furthermore extended support to the democratic opposition. During the EaP summit in Warsaw a declaration was accepted on the Belarus issue in which the EU states criticised human rights violations in Belarus. The EU also presented an aid package worth nine billion US dollars for Belarus which would be granted when there was a situation of a liberalisation of the political system.

During its Presidency Poland managed to activate activities taken within the EaP, mainly through organising

sectoral co-operation meetings. The EaP has been permanently written into the EU's foreign policy and has become the main EU initiative towards its eastern neighbours which includes a model for the European integration of the countries from this region. On the scale of the entire presidency, though, it had less significance than the challenges of the EU itself – above all the financial and political crises and the need to introduce institutional reforms – and than the development of the situation in the southern neighbourhood following the Arab Spring.

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Together faster and more efficiently

By Janusz Wróbel

Pruszcz Gdański is a special place for me. I have lived here since birth having the opportunity to observe changes in the city at first and then for more than a decade to participate actively in them. The most important development has taken place during our presence in the European Union.

Today my city is one of the most attractive places in northern Poland. Such an opinion is confirmed both by investors and by the countrywide economic rankings. In the recent years Pruszcz Gdański has been ranked highly in the Golden Hundred of Self-Governments as well as in the ranking of biweekly "Wspólnota" (Community). Our advantage is the industrial district. Many well-known companies have their seats here, among others Investa, Crown Cork, Polish Post or LPP S.A. Investors say that it was friendly politics that encouraged them to choose this location – quick and easy formalities, help and care from 'the first step'.

Recently we have acquired a very valuable prize in the category of cities of sustainable development. It means that Pruszcz Gdański with its 27 000 inhabitants is attractive not only for investors but also for people who plan to settle here. They are drawn here by a unique, small-town atmosphere which allows one to run from the urban tumult and relax. And the big city is very close.

The centre of Pruszcz Gdański is only 10 km away from the heart of thousand-year-old Gdańsk. For potential new residents it is one of the main assets as well as the easy access to Tricity Metropolis. The town is an important road and rail hub – all strategic Pomeranian routes intersect here. Tricity bypass which is also the beginning of the road leading to the German border becomes A-1 freeway near Pruszcz. There is also the Southern Bypass of Gdańsk which is a part of trunk road number 7 leading to Warsaw and further South. Main railway line to Tricity, Aeroclub airport used by more and more small planes.

It is just the big road infrastructure which is the indicator of the development of Pruszcz Gdański in the European Union context. Building new communication solutions, which was possible thanks to coo financing form the European Union became a very important impulse for the increased attractiveness of the city. And we used our chance efficiently. Thanks to funds from the European Union we were able to build one of the most important urban investments and at the same time the one hardest to

implement– the bypass of Pruszcz Gdański which will be opened for the first drivers in December. We are getting ready for new investments.

Open and united Europe isn't just infrastructure. The citizens of Pruszcz Gdański have always traveled a lot. Nowadays anywhere in Europe we can meet familiar number plates. It used to be the same long time ago. The famous 'Amber Route' finished in Pruszcz Gdański. We decided to reach to the European heritage and reconstruct an ancient trade village from Roman times. Where the waste ground used to be, there is now a unique education, exhibition and reconstruction centre which shows how European cultures used to influence and penetrate each other during many centuries.

Within common Europe we are united by communication routes and common history told by among others international tourist routes. In Pruszcz, apart from the Amber Route, there is also Cistercian Route, Hydroelectric Power Station Route or Mennonites Route.

The Mennonites who were a part of big Dutch society lived in Pruszcz Gdański since the beginning of the 19th century. Today because of their religious and cultural specificity they are one of the symbols of centuries old Polish-Dutch cooperation which still develops dynamically.

A few weeks ago the Dutch decided to have the city of fans for Euro 2012 on the airport in Pruszcz Gdański. It turned out that the Dutch team will play in Ukraine with which we have also been strengthening our cooperation recently. The continuous integration with European Union encourages Ukrainians to watch us to see what there is still left to do in order to join common Europe some day. It is the best stimulant for further development for us. It is also an honor to transfer our European experiences further to places where others want to implement them.

Janusz Wróbel

Mayor of Pruszcz Gdański

City of Pruszcz Gdański

Poland

The European Union's external energy policy and its relations with its neighbours to the East

By Agata Łoskot-Strachota

In September this year the European Commission issued a communication on the EU's energy relations with its external partners. It identified the major directions for action and the tools which should be created. At the same time, the EU is more and more frequently becoming involved in these relations, including with its highly important Eastern neighbours. In November this year the European Commissioner for Energy attended the launch of the Nord Stream pipeline; he was criticised for standing in the shadow of Chancellor Merkel and President Medvedev, yet any greater involvement on his part could be viewed as being problematic in the context of past controversies surrounding Nord Stream. Several months earlier EU member states gave a negotiating mandate to the European Commission to carry out negotiations with Azerbaijan and Turkmenistan concerning the legal framework for the planned Trans-Caspian Gas Pipeline. This was considered a success for the European Commission. A success that would not however have any major direct impact on the implementation of the project. For over a year EU officials have been involved in intergovernmental negotiations on the energy supplies to some of the new member states (which is a matter of concern for the other countries) and presently opts for information sharing on the contracts signed or negotiated. These examples illustrate very well the far from obvious status of: the EU's mandate in the external energy policy, the forms of its involvement and sometimes also the effectiveness of its actions. However, the nature of the EU energy market (open, dependent on external supplies) and the degree of its interconnectivity with external markets (at regional or global level) make the external energy policy an integral and necessary part of the EU's energy policy, mirroring the developments of the internal market. This is probably among the reasons why the internal energy market rules are becoming the EU's key tool especially in relations with its partners in the immediate neighbourhood. This policy formula brings tangible effects, but it also has certain limitations, as evidenced by the EU's relations with its Eastern neighbours. Ukraine, which is to follow the EU's path in its energy market reforms, has also inherited some of the shortcomings of the EU's solutions and may multiply the EU's mistakes. The divergent interests and the doubts of the member states and European business regarding the EU's rules, or sometimes the lack of will to implement them fully, re-emerge and take a more solid form in relations with Russia's Gazprom. Finally, the EU's focus on its own solutions and the fact that too little attention is being paid to the needs of its key partners both result in the post-Soviet energy resources producers' search for alternative markets other than the EU.

Currently, the broadly understood Eastern neighbourhood area (including Russia & Central Asian states which are not covered by the EU's neighbourhood policy) is the main source of gas imported by EU member states (i.e. the Russian gas and the Caspian gas which is hoped to enable the diversification of supplies), an important source of oil (Russia, Azerbaijan, Kazakhstan) and an increasingly significant partner in the electricity field (important also in the context of the effects of the EU's

climate policy or the reinforced tendency to move away from nuclear energy). It is the key area of the transit of hydrocarbons to Europe (Ukraine and Belarus are still the most significant route of gas transit to the EU and an important oil export route). It is also a set of markets which are connected with the EU market to differing degrees. The changes on the Ukrainian or the Russian energy market related to e.g. the demand for or the prices of energy, or the general investment climate, are likely to be reflected also in the EU. In this context the EU seems to have adopted two major objectives towards the states in its immediate Eastern neighbourhood. On the one hand it wishes to secure itself a sustainable, stable and secure access to energy from the East. On the other, it is fostering closer cooperation and eventually – the integration of its Eastern neighbours' markets with its own.

The EU member states' bilateral cooperation with Russia, with other energy suppliers or with transit states has not always allowed for the interests of all member states to be secured. It sometimes resulted in decisions which were contrary to the interests of some EU states. One good example here is the construction the Nord Stream pipeline, completed (first line) in November 2011. The process of the implementation of the initiative (including granting it EU priority project status) caused numerous controversies within the EU. Nord Stream has emphasised, among other things, the diverging priorities of individual member states in their energy relations with Russia and has highlighted the divisions within the EU on those who considered the increased import levels of Russian gas an opportunity, and those who saw it as a potential threat. It underlined both the necessity and the challenges connected with the shaping of the common policy towards external partners. The experience resulting from the process of implementing Nord Stream is certain to have influenced the way the EU gets involved in other significant infrastructure projects connecting the EU with third countries. A good example here is the Southern Corridor, when the EU was reluctant to grant particular importance to one of the initiative's projects (Nabucco, ITGI, TAP) not wishing to favour some of the companies/states involved at the expense of others. This cautious and ambiguous stance the EU has assumed could however have been one of the reasons for the stagnation of the Southern Corridor project.

The discussion on the principles of implementation for joint investments and strategic infrastructural projects such as Nord Stream has also been an element of a much wider debate on the principles of cooperation with companies from third countries and the third countries themselves. The EU would like to make these principles ever more based on its own law and standards. The EU's internal market is becoming – *inter alia* due to the internal divergences and shortcomings of the EU's energy policy – a key tool in the EU's relations with its neighbours, including those to the East. The principles of the liberalising energy market are to be followed not only by domestic companies, but also by companies from third countries, and the provisions of the subsequently adopted directives are having an increasingly significant impact on multiple issues including the shape of

the contracts with external suppliers and foreign investments in the energy sector. The process of adaptation to EU market rules sometimes generates problems in the cooperation with external partners. This is particularly visible in the case of cooperation with Russia's Gazprom. Implementation of the principles of full unbundling may lead, among other issues, to the necessity of selling a part of its EU assets (the case of Lithuania). The obligation to guarantee third party access to infrastructure impacts on the functioning of the already existing and the planned pipelines, including Yamal-Europe or the German Nord Stream pipelines (NEL and OPAL). In consequence, the liberalisation directives have become one of the key disputed issues in EU-Russia gas relations, while the dilemma of balance between consistency in implementing the EU's own law and the strategic importance of good energy relations with Russia is one of the major challenges faced by the EU's energy policy.

Ensuring the execution of its internal market rules is not the only thing the EU is striving for. It also wants to export its solutions outside, as evidenced by the recent enlargement of the Energy Community to include Ukraine and Moldova. Whether such activities in the EU's Eastern neighbourhood prove to be effective is very uncertain. Ukraine could actually be the best test for the feasibility of the EU plans. It is important for the EU as a transit country. It is also one of few states in the neighbourhood to have a solid interest in extending their energy cooperation with the EU as it considers it a counterbalance and a tool in its energy relations with Russia. Although Ukraine has already started, among other initiatives, the process of gas

law reform, its finalisation & implementation would require a concrete and attractive offer and increased involvement from the EU. Meanwhile, the EU's involvement in Ukraine seems to be weakening. It will be all the more difficult to transplant the EU's principles to other states in the EU's Eastern neighbourhood, with Belarus being one of the most challenging partners due to its accelerating integration with Russia. The EU policy formula based on the export of its own solutions has major limitations, and it appears that it not only lacks relative attractiveness to EU partners but also the solutions themselves do not respond to the key problems/needs of the individual states. This is evident in the case of energy suppliers. Forced adaptation to EU rules may result in these partners intensifying their search for new markets (e.g. Russia's plans for the export of gas to China may be linked to the liberalisation of the EU market). In the case of potential new suppliers (including Azerbaijan and potentially Kazakhstan) the EU's pressure on the implementation of its internal principles may have a deterrent effect, as it generates tangible costs and the benefits are regarded as mostly intangible.

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Between the Baltic and the Mediterranean

By Adam Łukasiewicz

To many people of the Mediterranean region, Poland is a remote northern country on the cold Baltic sea, without direct connections with the South. Such a vision of the Baltic area is subject to modifications by archaeology.

Already in the Neolithic and in the Bronze periods (from the sixth to the second millennium BC), contacts and migrations brought to the Baltic area impulses from the Mediterranean. We may suppose that inspiration could be exported in both directions.

Some historians still think in terms of a division of ancient Europe into two zones: the countries of the Roman Empire and of the "Barbaricum".

Another question is, where exactly is the Central and where the Eastern Europe? Answers to such questions change in the course of time. Under the early Roman Empire the river Hypanis (Boh, by some researchers mixed up with the Bug) was the eastern border of Europe. A famous Roman poet of the first century BC, who was also a general of the emperor Octavian and the first Roman governor of Egypt, Caius Cornelius Gallus, wrote about that river:

Uno tellures dividit amne duas
"With one coast it divides two continents".

These five words preserved in the work of an ancient geographer Vibius Sequester happened to be the only extant fragment of Gallus' poetry, until a discovery at Qasr Ibrim in Nubia in 1978 brought us more of his writings on papyrus.

I think that we may infer from that line of Gallus, that in antiquity a borderline on a river was situated not in the middle of the stream but along a coast!

Claudius Ptolemy in the 2nd century AD distinguishes the western (book II) and eastern (book III) Europe. Nevertheless, both parts are to him one continent. Ptolemy's eastern Europe reaches far beyond the Hypanis and includes Sarmatia, Maeotis Palus (the Azov Sea) and the river Tanais (Don). Later, the notion of Europe as a continent reached the Ural.

An important phenomenon in the European prehistory is the early appearance of a splendid culture on the vast areas of today's Ukraine and Romania. That culture called Tripolye-Cucuteni in the 5th millennium BC produced painted pottery of very high standard, similar to the products of the Aegean civilization, but much earlier. The most astonishing fact is the early appearance in that culture of important pre-urban agglomerations and of an enigmatic writing system. That mysterious culture disappeared, leaving place to new peoples.

Later, in the Bronze Age, about 3 500 years ago, we can already speak of Europe's cultural unity. In the Bronze Age a complex civilization extended from the Baltic to the Mediterranean and covered the Western, Central and Eastern Europe, making a bridge between the most advanced countries of the Near East and the Aegean, and the European North.

No people in Europe lives where it had originally lived. The idea of autochthonous peoples living in a zone *ab origine*, is a myth. The toponyms and hydronyms often preserve scraps of the language of predecessors. The entire European population originally came from outside and was ever since wandering to and fro. Even the Alps and the Carpathians were much less a barrier than usually believed. However, some regions show less mobility than other regions, and the Baltic area was always an area of remarkable stability.

The distances should not be overestimated. The way from Warsaw to Alexandria in Egypt is shorter than from Warsaw to Cadiz in Spain!

The Goths who in the third century AD devastated the Aegean coasts, had wandered from the North to the shores of the Black Sea and later in a raid reached the Levant. Rivers and seas were efficient ways of communication. In full light of Hellenistic history, the Celts who inhabited a great part of Europe invaded Asia Minor and settled in Galatia in that Asiatic peninsula. Ancient historiographers describe migrations of Germanic tribes, later the invasions of Huns, Avars and Alans, and finally the coming of Slavs, brave warriors who - according to the historian Procopius - were much feared in the Byzantine empire.

Poland, situated at the crossroads of Europe, has also been a meeting place of those wandering peoples. After the establishment of a permanent Slavonic presence on the Vistula, the area was still open to influences from the South. The evidence is manifold and comes for example from the fragmentary clay tablets from Podedłocze, found in 1986 by Ewa Marczak at the excavations directed by prof. Jerzy Gąssowski, and dated approximately to the 8th century AD. They contain the Nomina Christi written in Greek, as a visible trace of Byzantine influence in a Western Slavonic area. A similar conclusion results from prof. Andrzej Buko's research on a more recent medieval tower in Stolpie in Eastern Poland, which has close analogies in Byzantine Greece.

Archaeology shows, how far reached the trade of Central and Eastern Europe in the early medieval, pre-Christian period. The excavations of the Institute of Archaeology of the University of Warsaw at Truszki-Zalesie near Kolno in north-eastern Poland have brought fragmentary evidence of contacts with the civilizations of Central Asia and of the Mediterranean in the early 10th century. There are also other similar sites.

In the early 10th century, the western Slavs in Poland created a mighty independent medieval state which in 966 adopted Christianity and functioned according to the Western standards. That state could resist the attempts of various invaders, including the Mongols who in the 13th century reached the Eastern and Central Europe after having covered many thousands kilometers. The Mongols demonstrated that rapid long distance migrations were possible to horse-riding peoples. For almost two centuries they dominated the eastern zone of Europe. Their descendants, still living in the area among the Slavs, are proudly aware of their pedigree rooted in the empire of Jenghiz-Khan.

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Poland as a tourism destination – looking for a place in the market

By Ewa Dziedzic

The fall of the Iron Curtain signaled the beginning of the radical change in Poland's political, social and economic life. For tourism that meant the deep transformation of the environment in which it used to operate. Under the communist regime tourism was treated in twofold way: there was deep distinction between international and domestic tourism. The international tourism, especially involving relationships with the Western countries, was perceived as a tool for earning hard currency and achieving propaganda goals. So a network of dedicated hotels was created to accommodate foreigners and a few tour operators were allowed to service both incoming and outgoing traffic. Domestic tourism was considered to be a part of social services delivered to workers by trade unions and state enterprises. Overwhelming majority of the tourism supply was state-owned and the demand was satisfied by controlled distribution of services.

Although the system was similar in all countries in the Central and Eastern Europe some particular solutions could differ. Proportions between international and domestic tourism varied depending on perception of the tourism attractiveness by the state authorities. The countries with warmer climate and access to sea developed some number of resorts, others like Hungary and Czechoslovakia focused on their capitals. Polish tourism stayed dominated by socially oriented domestic tourism. The supply was concentrated along the Baltic Sea coast, mountainous regions at the Southern border and to lesser extent in some lake districts located in the Northern part of the country. It consisted of rather rudimentary facilities for beach tourism, downhill skiing, spas included into the medical care system and some outdoor activities like trekking, kayaking or sailing. The offer was complemented by major cities and a few smaller towns with historical and cultural heritage.

With the beginning of the new era the Polish tourism faced several major challenges:

1. decreasing demand for domestic tourism caused by dropping real incomes of households and erosion of the system of support for social tourism;
2. the fall of demand from the former Eastern bloc states;
3. the necessity to compete with outbound destinations for more affluent Polish tourist,
4. the lack of recognisability of Poland in the main Western tourism source market.

The challenges were accompanied by poor quality of transport infrastructure impeding the physical accessibility to many destinations within the country, lack of good quality diversified accommodation, a lack of knowledge how to run tourism business in market conditions and an absence of administrative structures interested in and capable of developing tourism destinations. But there were also opportunities. Firstly, Poland was associated with anti-communist Solidarity movement and the Pope John Paul II that appealed to some groups of potential visitors from the Western countries. Secondly, the economic transformation resulted in collapse of many plants and collective farms and high structural unemployment. The traditional destinations for recreational tourism were strongly hit by those developments because of their peripheral location and weak economic base and tourism remained almost a sole option for economic development there. Thirdly, most tourism facilities were privatized and new owners wanted to receive returns on their investment. Fourthly, Poland's strive to join the EU resulted in growing co-operation and adaptation of the Polish economy and law to its standards. Poland received technical and financial support for its efforts and tourism became one of the areas of such co-operation.

The program PHARE-TOURIN helped to prepare the first national strategy of the tourism product development and to adjust tourism administration to the models worked-out in countries with market economy. The strategy identified the following "brand products":

- business tourism with special stress on MICE sector,
- city and cultural tourism,
- sport, recreational and special interests tourism,
- rural tourism,
- transit and border zone tourism.

The strategy implementation embraced the promotional campaign that was to create the image of Poland as a tourism destination. Poland was positioned as a country of diversified natural landscapes and rich traditional rural life. The theme was supported by design of logo and slogan: "Poland Naturally". The outcomes of those efforts were limited and some reasons may be named to explain why: the campaign was not supported by any spectacular attraction and offers based on it. In fact it went against the popular view that post-communist countries were grey and heavily polluted. It should be also remembered that tourism based on outdoor and rural activities is spatially dispersed, the size of market segments interested in it is limited and many of potential visitors prefer destinations located not too far from their place of residence, especially as repeat travel is concerned.

Despite the limited success of Poland's positioning the PHARE-TOURIN program incited interest in tourism as an economic activity both among entrepreneurs and local authorities. The next impulse for tourism development came with Poland's accession to the EU that involved the implementation of "open sky" policy and breaking of the actual monopoly of Warsaw airport on international flights. The authorities of other cities and low cost carriers quickly realized the potential of regional airports and their actions resulted in growing international traffic to those cities, especially to Cracow, Wrocław and Gdańsk. The better recognisability of Poland was paradoxically supported by a controversial phenomenon of work emigration of Poles to other EU countries, mainly to the UK and Ireland. All that prompted the Polish Tourist Organization to rebrand Poland and to position it as a country offering surprising experiences to people who look for something new, getting beyond formatted tourist products. The new campaign has been focused on city, cultural and MICE tourism but does not neglect visitors looking for active holidays. The new concept has found its reflection in a special logo and slogan: "Move Your Imagination!"

The data on hotel accommodation and trends in tourism nights show that Poland has started to keep pace with its neighbours. But although the stress on city and cultural tourism seems to be a good strategic choice it has not solved all problems. The poor accessibility of many destinations still remains a major hindrance for tourism development. The other threats arise from the saturation and unsustainable models of tourism development in some destinations. The problem is compounded by high seasonality of beach tourism and weak use of the potential for creation of second-tier destinations around the primary ones. Those issues are especially acute as the Baltic coast resorts are concerned.

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Warsaw School of Economics and its international co-operation with Belarus and Ukraine

By Elzbieta Kawecka-Wyrzykowska

With the collapse of the socialist economy system, majority of research contacts and students' exchange programs with Eastern partners were substantially reduced at the Warsaw School of Economics (SGH – *Szkola Główna Handlowa w Warszawie*). For obvious reasons, the main focus of interest, both for faculty and students, have become Western partners, offering teaching programs and expertise useful for the needs of the market economy being implemented in Poland. It took some time to rebuild earlier contacts and to establish new ones with Eastern partners, including Belarus and Ukraine (B&U).

Nowadays SGH, being the oldest economics and management university in Poland, has a broad network of research and teaching contacts with foreign partners all over the world. SGH is also a member of prestigious international networks, among them PIM (Partners in International Management, a consortium of leading international business schools) and CEMS (Global Alliance in Management Education, number 2 Management Programme in the world and number 1 over last 3 years according to 2011 FT Ranking) composed of 27 best business schools in Europe and outside the continent, and offering Master in International Management.

Cooperation with Eastern neighbours, including that with B&U, still is not as extensive as with Western partners. Out of more than 250 partner universities and business schools of SGH, only a few are located in Belarus and Ukraine. However, contacts with these countries have been developing in recent years and nowadays include a number of different instruments and fields of interest.

First of all, there is a substantial number of Ukrainian and Belarusian students coming to SGH for degree programs. They usually have Polish roots and majority of them are able to study in Polish. In the academic year 2010/2011, there were 72 students from Ukraine and 116 from Belarus enrolled in degree programs (both at the first and the second cycle of studies). The number of SGH students interested in exchange programs with universities from both countries is very low but nevertheless there are some SGH students studying in B&U. Also, each year 1-2 students from countries in question study within PhD program (in Polish or in English). An additional dimension of these contacts is the annual conference "East-West Bridge" organized by SGH Students Association East West Business which gathers students from Eastern countries among them B&U and Russia (the recent workshop was on the application of modern technologies in business).

In the years 2002-2007 SGH implemented a project Business Management Education in Ukraine, financed from the American Government grant USAID, in co-operation with University of Minnesota (covering 26 Ukrainian High Schools). Its task was to support adjustment of Ukrainian educational business programs to market economy rules (creation of MBA and post-degree programs).

As a part of long lasting scholarships program Lane Kirkland "Transformation in CEEC" financed by Polish-American Freedom Foundation, SGH hosts each year young researchers from both countries offering them research consultancy.

As regards research, the main partners in Ukraine are: National University Kiev Mohyla Academy, Association "Regulator Reforms Support Centre" in Kiev; Ukrainian Academy of Customs Dnipropetrovsk and National University of Lviv. Main SGH research partners in Belarus include: Belarusian National Technical University in Minsk; Belarusian State Economic University in Minsk and Yanka Kupala State University in Grodno (the last one - in the framework of BSRUN network).

Research co-operation with B&U covers such areas as: Polish - Belorussian Transborder Customs Co-operation, role of FDI in

Ukrainian economy, customs issues, tourism development, tax policies, experience of transformation etc. Results of this co-operation have been presented at conferences and published in Belorussian and Ukrainian journals.

SGH researches participated in two research projects conducted with partners from B&U within the EU 6 Framework Program. The first one "Economic and Social Consequences of Industrial Restructuring in Russia and Ukraine", WP 8 "Restructuring and Social Safety Nets in Russia and Ukraine" (in co-operation with National University Kiev Mohyla Academy). The second one "European Network for Better Regulation", aimed at improving and disseminating the current knowledge on regulatory processes (in co-operation with Association "Regulator Reforms Support Centre" in Kiev).

An important and very valuable in terms of practical applications component of bilateral contacts is several expertises and opinions that have been prepared by SGH experts for the Government and Parliament of Ukraine on customs procedures, rules of origin of goods and their compatibility with international standards. Co-operation on customs issues has been conducted also with Customs Offices in Belarus and Ukraine as well as with the Customs Faculties of the Belarusian National Technical University and Belarusian State Economic University in Minsk.

SGH faculty have been co-operating closely with Polish-Ukrainian and Ukrainian-Polish Chambers of Commerce as well as with Polish-Belarusian and Belarusian-Polish Chambers of Commerce. These contacts involve regular exchange of experience related to customs clearance and procedures in force on the neighboring borders and presenting papers during the annual conferences organized by Chambers.

Moreover, periodical contacts and exchange of ideas take place during annual international conferences organized by academic associations and organizations whose members are Polish, Belorussian and Ukrainian universities and business schools (e.g. CEEMAN, BRUSN).

SGH is open for closer contacts covering all possible areas. As regards teaching, SGH has been offering several degree programs not only in Polish but also in English at all three studies cycles. Moreover, students can choose individual courses offered in foreign languages (mostly in English and German).

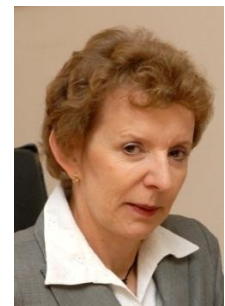
SGH faculty have also very rich experience in research and practical advice on macro- and microeconomics studies, management, demography, social and regional studies and many other areas. They have largely contributed to the economic and social transformation of Polish economy in the 1990s and to country's integration into the EU, with extensive expertise and as top leaders of business community, of the Government, the Parliament and of other key public and private institutions. The faculty are ready to share all those experiences and knowledge with interested partners.

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Poland



Ukrainian mainstream and dream stream of Russian energy policy

By Michael Gonchar

2011 was the year of commissioning the LNG-terminal GATE in the Netherlands and the pipeline Nord Stream in the Baltic Sea, which represents the competition between LNG and pipeline supplies. Since the late 90s, Russia has materialized a number of projects of non-transit pipelines. The pilot project was a Russian-Turkish Trans Black Sea Blue Stream pipeline. According to Russians' view, Nord Stream as well as South Stream through the Black Sea will strengthen energy security in Europe, removing the risks of transit. But there are some doubts about this vision.

1. On November 25, 2011, three weeks after the Nord Stream kick off, there was a «gas surrender» in Belarus. 100% of BelTransGaz now belong to Gazprom in exchange for a three-year period of low prices for Russian gas and Minsk participation in the Russian initiative of the Eurasian Union. As for Ukraine, Russia's position was clearly specified in the leaked to the press in 2009 document of the Russian Foreign Ministry: «to consider Russia's participation in the exploitation of Ukrainian gas transmission system as a strategic goal». Thus, both bypass projects - Nord Stream and South Stream - played a role of a powerful factor in the political and psychological pressure on transit countries - Ukraine and Belarus. The purpose was to force them to transfer control over their national gas transportation systems to Gazprom.
2. If we look at the scheme of existing and proposed routes of Russian gas exports (Baltic, Belorussian, Ukrainian, Black Sea), we can come to unexpected conclusions. Diversification of routes could result in varying the amounts, prices and directions of supplies to the European Union from the East. This could be done not only with a view to maximize the revenue of Gazprom. It could be also an ideal opportunity to put pressure on one or another country by threatening to restrict/disrupt supplies. And this requires that the pipeline infrastructure on all routes should be under the control of Gazprom. This is just why it retains controlling stake in both streams.
3. Confirmation of Russia's intentions to manipulate the created surplus capacities are statements of the Gazprom management. Here are two of them in 2011 that belong to the same person - the head of Gazprom. I quote from Reuters:

Feb 16, 2011. The launch of the Nord Stream gas pipeline on the bed of the Baltic Sea will not affect gas supplies to Europe via Ukraine and Belarus, the head of Russia's top gas producer, Gazprom said.

May 25, 2011. CEO Russia's gas monopoly Gazprom said on Wednesday during a gas meeting in Brussels that around 20 bcm of gas would be diverted from transit to Europe via neighbouring Ukraine to Nord Stream.

This is certainly not conducive to strengthening confidence to Russia as a partner not only in Ukraine but also in the whole Europe.
4. Economics of gas transportation through new routes is indeed inferior to gas transit through the gas transmission systems of Ukraine and Belarus. However, the Russians allege on the economic attractiveness of the bypasses. The example of the Blue Stream indicates the opposite. Despite the fact that Trans Black Sea pipeline has a maximum capacity of 16

billion cu m, the bulk of supply flows by the traditional route through Ukraine, even taking into account the fact that gas supply by Blue Stream is exempt from export duties. Indicators of the past five years are quite evident:

	2006	2007	2008	2009	2010
Total Gazprom's export to Turkey, bcma	19,9	23,4	23,8	20,0	18,01
Including <i>Blue Stream</i> , bcma	7,5	9,5	10,1	9,8	8,1

Source: Gazprom

We can conclude that Russia needs Ukrainian and Belarusian mainstreams to conduct gas business with the EU, and bypass flows are necessary to wage «gas wars». And Russia does not need alternative gas resources on the EU market, especially from the Caspian region and Central Asia. Thus, there is an irreceivability of the projects of the Southern Gas Corridor and the EU Trans-Caspian pipeline.

Who will win the competition of the pipeline projects - the Southern Gas Corridor or the South Stream? For me, the winner will be the LNG and infrastructure integration of the EU gas market. Confirmation of this is quite successful promotion of the LNG terminal projects. Inauguration by Queen Beatrix of the Netherlands of the LNG terminal at Rotterdam on September 23, 2011 with a very indicative title GATE (Gas Access To Europe) is very symbolic. In 2014, two more LNG terminals will start operation - at Dunkirk (France) and Swinoujście (Poland).

The risk of Russian ambitions is once again proved by the statements of Russian politicians. For example, Mikhail Margelov, the Chairman of the Committee on Foreign Affairs of the Russian Senate and Special Presidential Envoy to Africa, expressed quite openly: «... **oil and gas policy should be not just an important part, but also one of the main instruments of Russian foreign policy**». In 2011 the Russia's foreign policy got «Putin's program» – creation of the Eurasian Union with consequent economic and political expansion of the Russian Federation. It should be done not only on post-Soviet space, and not only in the energy sector.

For the EU and Ukraine there are two important things in the current situation. For the Commission it is essential not to make exceptions from the Third Energy Package for certain projects, such as OPAL, NEL, and South Stream. For Ukraine it is also necessary to preserve the independent status of the Ukrainian gas mainstream by integrating it into the EU infrastructure through the mechanism proposed in the Communication «The EU Energy Policy: Engaging with Partners beyond Our Borders» as of September 7, 2011: «The EU must support efforts to rehabilitate Ukraine's Gas Transmission System while improving transparency and the legal framework. It should aim at faster integrating Ukraine into the Energy Community».

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Strategy XXI

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South Stream – behind rhetoric

By Andriy Chubyk

On September 16, 2011 Russian Gazprom, Italian Eni, French EdF and German Wintershall signed a shareholders' agreement on the construction of South Stream gas pipeline in the framework of South Stream Transport AG. Participation of two new shareholders became possible due to reduction in the share of the Italian Eni (OAO "Gazprom" - 50%, Eni - 20%, Wintershall and EdF -15% for each). The reasons for such acquiescence were not disclosed, however, it could be suggested that the following factors played important role:

- Guarantee on laying marine part of the pipeline (for Eni) and accordingly, significant gains;
- Guarantee for access to gas production assets in Russia (for Wintershall and EdF);
- Discounts in gas price for South Stream related contracts;
- Reduction of investment risks for European energy companies;
- Easing of credits for the project through participation of more than one international company.

The company South Stream Transport AG was registered in the Swiss Canton Zug. It will own marine part of the South Stream pipeline instead of South Stream AG, founded by Gazprom and Eni in 2008.

The final investment decision on the project for the creditor banks should be prepared in the second half of 2012. Start of the pipeline construction is scheduled for 2013. The first line with the capacity of 15.57 bcm will probably be launched in December 2015. The preliminary cost of the project is about €15.5 bln¹, which should cover construction of the underwater and land branches outside of Russia. At first it is planned to lay only one of four pipelines, but it needs anyway completion of pre-construction works on the route for the entire project, which will certainly absorb the biggest part of the announced amount. Thus, for nearly 16 bcm of gas an astronomical sum should be paid. The value of almost 2500 km of infrastructure in Russia is not disclosed yet and not officially counted to the general budget of the project².

Since 2008, Russia signed memorandums of understanding on construction of South Stream gas pipeline with Bulgaria, Serbia, Hungary, Greece, Slovenia, Croatia and Austria³.

For participation Russia promised to most of European partners opening of favorable credit lines or conditions for cooperation in gas sphere. For example, Bulgarian support for South Stream only in terms of transit payments is promised to be evaluated at €2.5 bln⁴, which is questionable, given the relatively short length of pipeline on the territory of Bulgaria.

The grand South Stream project is associated with enormous political and economic benefits, which its participants seem to get from. What kind of benefits in fact will be received and by whom?

Prima facie all interested parties, meaning involved states, will have advantages. However, it could be very far away from the truth. For example, Russia as possibly the most interested party will receive a bypass gas transport route with planned maximum capacity of 63 bcm, which is approximately equal to the lowest technological level of Ukraine's GTS functionality in the transit mode under high pressure. Political advantage is measured not with civilized desire to improve relations with partner countries, but the possibility to manipulate with volumes of gas supply, whenever the leadership of Russia will consider protecting interests of own [country]. In such a case, Russia will be able to cut off gas supplies both to Ukraine and to Romania and Slovakia, which are currently carried out through Shebelynka-Ismail and Urengoy-Pomary-Uzhgorod pipelines. The only advantage that is even difficult to be identified as economic, could be creation of conditions for reducing the cost attractiveness of Ukrainian industrial assets and their further acquisition for a song by Russian companies.

At the same time by any further gas dispute Ukraine will be certainly lost for Gazprom as one of the largest buyers of Russian gas, or at least profitability of its marketing will be significantly reduced, as Russian shareholders, no doubt, will agree to cooperate with Gazprom only if gas prices will be equal with Russian.

The cost of Russian gas transit through Ukraine to the EU and Balkan states in 2010 amounted to \$2,6 bln⁵ for 98,6 bcm⁶, which is even less than announced transit expenses of maximum possible 63 bcm via Bulgaria. Given that Gazprom is going to build up or has built up joint ventures for gas purchase with in most cases state energy companies in countries on the planned South Stream route, it will be the owner of gas on the whole technological chain. Further it means that it will pay for transport services of the South Stream Transport AG, while revenues of all mentioned joint ventures will be transferred and allotted in Swiss Zug without possibilities to monitor this process. For borrowed credits on construction of domestic part from Western Siberia to Black Sea coast primarily Russian customers will pay, while repayment of credits on marine and European part of the project is intended to be put on all buyers of Gazprom's gas in Europe due to long-term contracts, which are so stubbornly defended by the political leadership of Russia.

It is so far clear, that the project will bring political and economic benefits not to the Russian state and its citizens and even not to the state company Gazprom as a major taxpayer to the federal budget, but to a limited band of interested persons, which will have access to bearer shares in Swiss Zug.

In return, most of European states, participating at the South Stream project, will receive:

- additional stiff long-term contracts on supply of expensive Russian gas;

¹ <http://inosmi.ru/world/20110620/170936875.html>

² <http://south-stream.info/index.php?id=10>

³ <http://south-stream.info/index.php?id=14>

⁴ <http://riaновости.рф/tpolitics/20101113/295990360.html>

⁵ <http://www.rbc.ua/ukr/newline/show-gazprom-ukraina-v-2010-ga-uzlugi-go-tranzitu-gaza-poluchila-21022011124000>

⁶ http://mpe.kmu.gov.ua/fuel/control/uk/publish/article?art_id=188753&cat_id=35081

- political implications as a consequence of European energy legislation, in particular third gas package violation (EU member states);
- loss of control over gas transportation systems in own territory (Balkan states).

European shareholders will undertake additional investment risks and worsen own credit rating through additional obligations regarding loans for the project. Economic benefits from gas production in Russia seems to be also quite low given exclusive access of Gazprom to the Unified gas transportation system and weak legislative support to foreign investors. Moreover there is a high probability that the European Commission will apply sanctions against companies-shareholders for activities, which contradict the norms of the European energy legislation.

The South Stream project is still facing the problem of choosing a route through Turkish or Ukrainian exclusive economic zone. With both countries Russia allowed itself to aggravate relations over the gas issue. Both countries are not interested in implementation of the South Stream, because it limits their transit role. However Turkey feels itself confident enough in negotiations as it has diversified system of gas imports (Azerbaijan, Iran, LNG terminals). Russia currently does not want to give up the gas price and to commit to participation in the Samsun-Ceyhan oil pipeline project, as hopes to achieve significant progress in gas talks with Ukraine. Here possible intentions could be:

1. Obtaining consent for routing the South Stream through the exclusive economic zone of Ukraine for certain reductions in the price on imported Russian gas.
2. Obtaining control over Ukrainian GTS via joint venture (consortium).

Under the first option Ukraine can rely on temporary drawbacks, because after project implementation Gazprom will certainly try to cancel immediately such "disadvantageous" conditions of cooperation with Ukraine. For Ukraine such concession may result not only in drop of profits due to reduction of gas transit, but in creation of technical conditions for GTS transport disability (reducing gas supply to the lowest level of technological functionality) and ultimate goal to gain control over it latter for token payment.

The second option also does not warrant revision or abandonment of South Stream construction, because its implementation may be delayed only temporarily. And preferences in gas price will also be temporary. Strategically, the South Stream will remain a priority of Russian political leadership, as it allows completing envelopment maneuver with pipeline infrastructure over the EU under Russian control, which corresponds to the Energy Strategy of Russia for the period up to 2030 and last but not least will bring significant economic benefits to companies involved in construction.

As third option, the peculiar vicious circle of political intergovernmental discussions Russia-Ukraine-Turkey can be terminated through the implementation of the idea of building an LNG terminal on the Russian Black Sea coast. In this case, Russia will not require permits of other Black Sea states and preserve country's image, while successfully implement politically and economically difficult project of gas supply to Europe in view of current economic realities on the gas market. However, this option is much less attractive for project initiators and it attracts attention only in critical cases, such as Turkey's recent refusal to allow laying of South Stream through its exclusive economic zone⁷.

Summarizing the above, it may be noted that the South Stream project is politically expedient only for Russia, and only as a means of further energy blackmail of gas importers, rather than creation of conditions for development of natural gas exports.

Economically it is advantageous only for companies, involved in its construction and for the group of shareholders, which own shares in Swiss offshore companies.

European countries, seeking diversification of both sources and routes of energy supplies, are certainly not in list of South Stream beneficiaries.

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Ukraine

⁷ <http://www.nr2.ru/moskow/351288.html>

Belarus – the thwarted partnership

By Anaïs Marin

Belarus is an exception in the Eastern Partnership because it is the only EU neighbor not entitled to fully participate in the initiative due to the poor human rights and rule of law record of its leadership. This situation is somehow paradoxical, given that Poland's main intention upon launching the Eastern Partnership initiative in 2008 was to compensate for the fact that Belarus' authoritarian president Alexander Lukashenka had already snubbed the European Neighborhood Policy. Following the August 2008 Russian-Georgian war, drawing Belarus closer to the EU had become even more of a priority for Poland, which shares a direct land border with both Belarus and Russia. Hence, Brussels extended the Belarusian government an invitation to attend the inaugural Eastern Partnership Summit in Prague in May 2009 even if the regime had failed to meet most of the requirements, listed in a non-paper issued in November 2006, upon which the EU conditioned the resuming of dialogue. Official Minsk accepted the invitation, wrongly assuming that in the Eastern Partnership framework "joint ownership" would prevail over the EU's conditionality principles.

In the absence of a Partnership and Cooperation Agreement – the ratification of which has been frozen since Alexander Lukashenka's "constitutional coup" in 1996 – Brussels has no institutional framework for cooperation with official Minsk. This implies that since 1997 the EU's common policy on Belarus has been governed by EU Council resolutions and sanctions. Hence the political constituent of the Eastern Partnership (the bilateral track towards an Association Agreement and visa liberalization with the EU) is closed to Belarus. The latter cannot start negotiations on a Deep and Comprehensive Free Trade Agreement (DCFTA) either since, like Azerbaijan, it does not meet the precondition of WTO membership. This leaves Belarus but access to the multilateral track of the Eastern Partnership, which encourages horizontal (regional) cooperation with and among Eastern Partners, including within the Civil Society Forum, currently the only Eastern Partnership institution Belarus is actively participating in.

The last fraudulent re-election of Alexander Lukashenka on 19 December 2010 and the ongoing crackdown against the opposition, independent media and human rights defenders in Belarus prompted the EU to abandon its "critical engagement" policy and re-instate "restrictive measures" (a visa ban, assets freeze and, since June, targeted economic sanctions) against the Belarusian regime. Despite the lobbying of other Eastern Partners in favor of a softer stance on Belarus, the Eastern Partnership inter-parliamentary assembly (EURONEST) first convened this year without the participation of Belarusian parliamentarians, whose election the European Parliament considers as illegitimate.

Tensions mounted ahead of the second Eastern Partnership Summit convened in Warsaw on 29 September 2011. The EU Presidency, which had invited one of the rare members of the Belarusian government who is not on the visa ban list, Prime Minister Mikhail Myasnikovitch, refused to grant the Belarusian ambassador to Poland, whom official Minsk wanted to accredit instead, the right to stand on an equal footing with heads of State and

government. As a result, the Belarusian delegation slammed the door on the first day of the Summit to protest what it considered as an unfair discrimination.

Indeed, the EU's tough stance on Belarus contrasts with its accommodating position towards Azerbaijan, whose democracy credentials are arguably very poor as well, not to mention the fact that conditionality is absent from the EU's "strategic partnership" with Russia. One pragmatic explanation for such "double standards" in the EU's democratic conditionality discourse is that the latter countries hold the gas and oil resources on which the EU is dependent for its energy consumption.

Ironically, including Belarus in the Eastern Partnership was actually meant to help this transit country reduce its own dependence on Russian hydrocarbons, the re-exportation of which is a major source of income for Belarus, albeit a more costly one since the first "gas wars" with Russia erupted in 2006-7. This explains why official Minsk initially met the prospect of fostering multilateral cooperation within the Eastern Partnership with enthusiasm: it expected that EU donors would invest in big transport, energy and infrastructure projects, and provide Belarus with the Western technologies it desperately needs to modernize its oil refineries and transit facilities.

Therefore, in 2009-10 the Belarusian government invested considerable effort to make the most of its participation in Eastern Partnership sector meetings within platforms 2 (economic integration and convergence with EU policies) and 3 (energy security). It developed business contacts and drafted projects meant to diversify Belarus' energy deliveries thanks to EU support. Official Minsk, which was then envisaging importing crude oil from Venezuela through Lithuanian and Ukrainian terminals, proposed to design ambitious transit infrastructure projects labeled as a trilateral contribution to the Eastern Partnership. None of these projects was given any attention in Brussels however, possibly because the emergence of a Baltic-Black Sea oil corridor is not in the interest of those EU member states holding stakes in the alternative route opened with the Nord Stream pipeline.

Against this background, the virtual exclusion of Belarus from the Eastern Partnership on political grounds provided Russia with an opportunity to foster its own geo-economic interests in the region. The acceleration of Russia's re-integration plans within the Eurasian Economic Union, illustrated with the purchase of Belarusian gas transit operator Beltransgas by Gazprom on 28 November, augurs ill of the potential to draw Belarus any closer to the EU. This, in turn, is a severe drawback for the democratic forces and civil society organizations of Belarus, which had put great hope in the Eastern Partnership for breaking the deadlock of Belarus' 17 years of almost uninterrupted isolation from Europe.

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Belarus's energy security

By Anton Lobach

We all live in a Global World

The problem of energy security is not a matter of individual countries. Of coordination of actions in the field of energy security depends a peace and economic development of our planet. However, due to energy resources there are conflicts and contemporary military expansions arise. Therefore, the issues of energy, military, economic and environmental security are seriously interrelated.

Today talk about energy security can only be in the context of international relations. No one country can not live and develop alone without interaction with the global world. For Belarus, this statement is especially true. Energy Security goes from Economic Security and Political Economy.

The regionalization

Contemporary processes of globalization are accompanied by regionalization. The most important reason of this regionalization - is to create of both: the economic and energy security.

The European countries joined into the European Union. This allows them to perform a single force to external partners and to support each other within the union.

Belarus has also felt the need to join into a regional association. Since Belarus has teamed up with Russia and Kazakhstan in the Customs Union. In this regard, it was forced to neglect some of their interests. In particular, certain income of the state budget and some degree of independence. At the same time, literally, on the meeting of prime ministers of Russia and Belarus on August 15, 2011 signed an agreement to provide special prices in energy for Belarus in 2012 year. This is a form of energy security, which we assign to the geopolitical.

Discounts on energy provide additional economic growth

Getting the special price of energy makes it possible to Belarusian goods and services to get a competitive advantage in international markets. The population and domestic enterprises can save their costs and generate additional profits. This is a form of energy security, which we assign to the economic.

Belarus Energy Situation

There are not enough domestic energy resources in Belarus. However, the costs amount of Energy is up to 35% of GDP. Energy rise in price has caused a serious currency crisis in March 2011 in Belarus.

A similar situation we see in international markets. Oil rise in price stimulates a constant rising cost of food, causes currency crises and imbalances in the global economy.

On the example of the major economies countries, we see that one of the factors of economic development is the availability of energy resources. Countries without their own resources become into dependent of their energy suppliers.

In 1990, Belarus consumed 750 kg of oil equivalent per 1 thousand dollars of GDP; in 2008 it was 320 kg.

However, the energy intensity of GDP in Belarus is higher than 2 or more times if to compare with the highly developed countries. Belarus should reduce the energy intensity of GDP in two directions: reducing consumption of fuel in energy production and rational use of already produced energy.

The Volumes of consumption in Belarus

Up to 90% of electricity and thermal energy in Belarus is generated using imported natural gas. It makes the country's

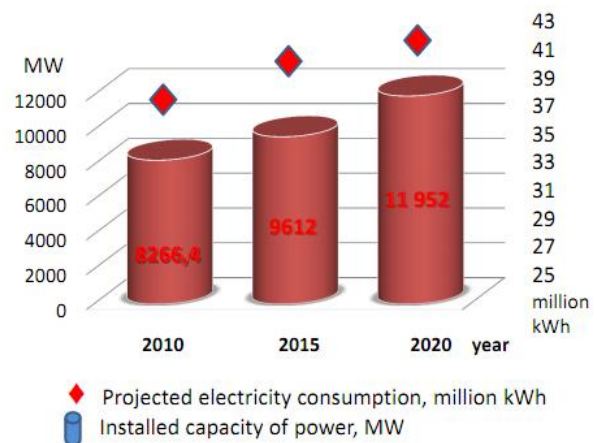
growing economy is too sensitive to fluctuations in gas prices and forces to search for alternative sources of energy.

The annual volume of gas imports is 21.7 billion cubic meters, of oil - 20.5 million tons, of coal - 200 tons a year. The contract price of gas for Belarus in the first quarter of this year amounted to \$223.15 per thousand cubic meters, compared to \$195.67 per thousand cubic meters in the IV quarter of 2010. In 2010, the average price of Russian gas for Belarus was \$187 per thousand cubic meters. Belarus has spent more than \$ 4 billion for import of gas in 2010 year (4.0579 million). Overall, in 2010 Belarus has spent more than \$ 9.5 billion on oil import. The price going up and influence the economy.

In addition, in 2011 Belarus imported 3 billion kWh of electricity from Russia, as well as 2.5 billion kWh of Ukraine.

According to the estimates of gross consumption of energy resources will increase from 37.05 in 2005 to 52.4 million tons of coal equivalent in 2020, including energy - from 35 to 50.3 billion kWh.

Belarus is used 36.14 billion kWh of electricity a year and consumed, in addition, 33.9 million Gcal of heat energy as well. (Source: Ministry of Energy of the Republic of Belarus.)



The Renovation of the energy system

Belarus been building the concept of energy security for many years. During this time, Belarus has upgraded power networks and generation capacity. And we must also say about the credit support of the International Bank for Reconstruction and Development in this work.

Renovation of energy system and its rational use are among the directions of reducing energy intensity of GDP. Since 1995, "Belarus increased by 2.5 times in the GDP without the practical increase in energy consumption, and this is already an achievement."

Diversification

The reliance on import energy has prompted ambitious plans to diversification of energy supplies, improve energy efficiency and sustainability.

To provide energy security Belarus is trying to diversify its supplier. For this purpose Belarus delivers oil from Azerbaijan and Venezuela through ports of the Ukraine and the Baltic countries. And we must honestly admit that the cost of such actions is quite large.

In 2010 the total supply of oil brand Santa Barbara from Venezuela in Belarus amounted to 1.8 million tons and worth \$ 1.15 billion (about \$ 638 per ton, including delivery). And if to compare in the same 2010 oil deliveries from Russia

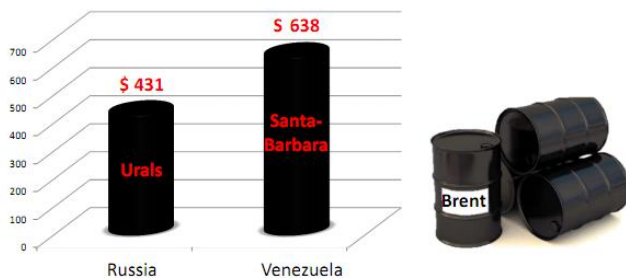
amounted to 13 million tons and worth \$ 5.6 billion. In this way, one tone of Russian oil brand Urals cost for Belarusian budget of \$ 431. (Source: Belstat)

In the future Belarus plans to conduct the purchase of oil and petroleum products from Kazakhstan and to find an alternative to Russian gas supplies.

From local resources Belarus plans to produce up to 25% of electricity and heat already by 2012. Mainly it should be achieved by increasing the peat extraction (up to 3.3 million tons) and of firewood (up to 11 million cubic meters). It gives equivalent to the replacement of 3.5 billion cubic meters of gas.

Increasing competition for renewable energy development is prompting new markets and cost-savings for infrastructure.

The Diversification Cost



Alternative energy sources

Due to high energy costs it has been studied various possibilities of alternative energy development in Belarus. Currently developing projects on the use of solar and wind energy. The possibilities of application of hydrogen energy technologies are also studding.

There were made substantial investments to improve Belarus' renewable capacity, with proposals including three hydroelectric plants, several biomass and combined heat and power plants, plus the construction of over 2,400 wind turbines. Of all renewables, biofuel is most attractive to Belarus because of the vast areas of forest and farmland across the country.

Biofuel facilities are being constructed on the south of the country to produce 650 million liters of bioethanol a year.

Chemical company Azot is experimenting with the production of methyl ether from rape oil.

Biomass also offers ways to reclaim land contaminated by the Chernobyl disaster as the growing and harvesting process helps clean-up the land.

The government has committed to ensuring at least 25% of energy to be produced by local fuels and renewable energy sources by 2012.

To stimulate the development of alternative energy The Ministry of Energy of Belarus buys this electricity by the rate 3 times higher than it sells electricity to customers.

Going to the nuclear power station

We do a lot, but sometimes that's not enough. We need to save what we have and take care of the future. Natural resources are limited, alternative energy sources are not sufficient and we need to resort to more complicated things.

Thus the decision about the necessity building a nuclear power plant in Belarus has made.

Certainly, there are both supporters and opponents of this decision. And of course it is one solution that has more

questions than answers. Of course the main issue in this context is energy security.

Nuclear Power Station

Construction of nuclear power plant will reduce growth in energy tariffs and replace the fuel balance of Belarus for more than 5 billion cubic meters of natural gas.

The new nuclear agenda is creating significant business opportunities in a wide range of markets for companies that possess expertise in nuclear technology and plant operation.

NPP in the world - according to IAEA

According to the **International Atomic Energy Agency at UN** (IAEA), more than 18% of the electricity generated in the world is produced by nuclear reactors.

There are around 440 nuclear reactors with total capacity of over 365 MW, which are located in more than 30 countries. The main generation capacity is concentrated in Western Europe and the USA. Only in 2000-2005, put into operation 30 new reactors. Currently, 12 countries, built 29 reactors with a total capacity of about 25 MW. According to experts of the International Atomic Energy Agency UN planned to build 130 new units by 2020.

As state leaders, who spend most of its electricity needs are met by nuclear power plants, are France (77%), Slovakia (57.8%), Belgium (56%) and Sweden (49.2%).

Nuclear power plants operate in 15 out of 27 countries - EU members and produce about a third of the energy generated in the EU electricity.

The largest number of nuclear reactors have the United States (104), France (59), Japan (53), Russia (30) and UK (27). Among the top ten richest countries in the world, only Italy has not its nuclear plant. However, it makes extensive use of electricity of French nuclear power plants.

Conclusions

Thus appears a balance of Advantages and Disadvantages.

It's a very contradictory balance between the obvious advantages of economy and ecology on the one hand and the risk of possible accidents on the other side. Moreover, if economic and even environmental factors can accurately calculate the risks can only guess.

And General Director of the International Atomic Energy Agency at UN Mohamed ElBarade being a realist, speaking in June 2004 at a conference in Moscow, gently said: "... at a time when nuclear power is celebrating its 50th anniversary, its future - though it may have becomes promising - and it still remains uncertain".

That's why the problem of Energy Security is not a matter of individual countries. On coordination of actions in field of Energy Security depends a peace and economic development of our world.

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Currency crisis 2011 in Belarus

By Eduard Simchanka

According to Belarusian standards year 2010 was relatively stable. GDP grew by 7.6%, CPI was 110.9%, refinancing rate during the year decreased from 13.5 to 10.5%. At the beginning of 2011 the official rate of Belarusian ruble against the basket of currencies stood at 1057¹ (3000 to the U.S. dollar, 3999 to euro and 98 to Russian ruble). After devaluation of Belarusian ruble by 20% in early 2009, the value of the basket has remained close to the center of the band and was decreasing relatively slowly (about 5% per year) over the last two years. Certain devaluation expectations were associated mainly with increased current account deficit and external debt and the rapid growth of the salary and pensions at the end of 2010 before president elections. But the scale and the course the crisis have exceeded all expectations.

Evolution of the crisis may be divided into two stages. The first stage began with a shortage of hard currency. In January 2011 Belarusian Currency and Stock Exchange (BCSE) increased fee from buyers of foreign currency from 0.0095% to 2% (reduced to 0.03% in August). In March, restrictions were imposed on the purchase of foreign currency for companies and population, then corridor of exchange rate on interbank market was expanded from 2 to 10%. Companies could buy the currency at the official rate only for energy, medicines and other priority aims, and population only for some immediate needs. In April, the National Bank allowed free rate fixing at the interbank market and an "electronic point of cash foreign exchange" appeared in the Internet. Thus, the first stage ended by return to a system of multiple exchange rates (for the first time since the end of 2000).

The second stage lasted for about six months - from April to October. In May, the National Bank expanded the corridor of fluctuations of the Belarusian ruble to a basket of currencies from 8% to 12%, imposed restrictions on buying medicines at the official rate, allowed free rate fixing on the interbank currency market and in exchange offices. Finally on May 24 National Bank officially devaluated the Belarusian ruble to the basket at 1.54 times to 1810 (to the beginning of 2011 at 1.71 times). In September, an additional trading session at BCSE was introduced, in which exchange rate was formed on the basis of supply and demand. On October, 20 the main and the additional trading sessions of BCSE were merged. Exchange rate at the single session became the new official exchange rate. This meant the second official devaluation of Belarusian ruble at 1.69 times from 2027 to 3059 (YTD at 2.89 times). So the second stage of the crisis ended by official recognition of the real depreciation of the Belarusian ruble, return to a single exchange rate and rejection of the fixed exchange rate regime. The dynamics of main exchange rates during crisis is shown in Figure 1.

The crisis has caused the acceleration of inflation (DTY more than 100%), decline in revenues, short-term shortages of certain goods. Actions of authorities to tackle the crisis included increasing the refinancing rate, statements to reduce spending on government programs and attempts to find additional external financing. Meanwhile, money supply (M2) for nine months increased by 1.44 times compared with the corresponding period in 2010, salaries of state employees and pensions were increased.

Explanations of the crisis include the lack of reserves, excess emission and concessional lending, large trade deficit, growth of external debt and companies indebtedness, rising energy prices, income increase at the end of 2010, boom in the automobile market in the first half of 2011 (before rise of customs duties). The wider explanations consisted in reference to an inefficient economic model, a high proportion of state sector and active use of administrative methods. Great emphasis was placed on the impact of inflation and devaluation expectations and external forces. All this, however, does not explain depth and duration of the crisis.

In my opinion, the main cause of the crisis lies in setting too high GDP and income growth goals and their realization by command methods and through additional emission and foreign borrowing. Implementation of such goals during the last ten years has enabled to increase GDP by more than 42% and the real incomes of more than 75% in each of five-year periods 2001 - 2005 and 2006 - 2010. Specificity of the pre-crisis five-year period compared to the previous one was in switching from mostly internal to mostly external sources of additional financing. Growth of money supply (M2) was 14.1 in 2001 - 2005 and 3.0 times in 2006 - 2010. External debt increased at 2.45 times (long-term at 1.7, state debt at 1.3 times) in the first five years and at 5.54 times (respectively 10.6 and 18.3 times) in the second five years. At the same time, the regime of a fixed peg resulted in a deviation of exchange rate from its equilibrium level and increasing of demand for the currency. However, this additional funding was actually excessive in terms of efficiency.

The scale of the crisis could be much less if not an artificial increase in income before the elections in late 2010, effect of which are lasting in 2011 and which directly and indirectly increased consumer imports, and mentioned demand for cars at the end of 2010 and the first half of 2011. However, the overall impact of these factors is a smaller part of the accumulated imbalances. The crisis have led to refusal from fixed exchange rate regime, which for years was considered a prerequisite for economic growth, adaptation to external shocks and restricting inflation. Its overall effect consists in deterioration of economic situation and perspectives of economic development.

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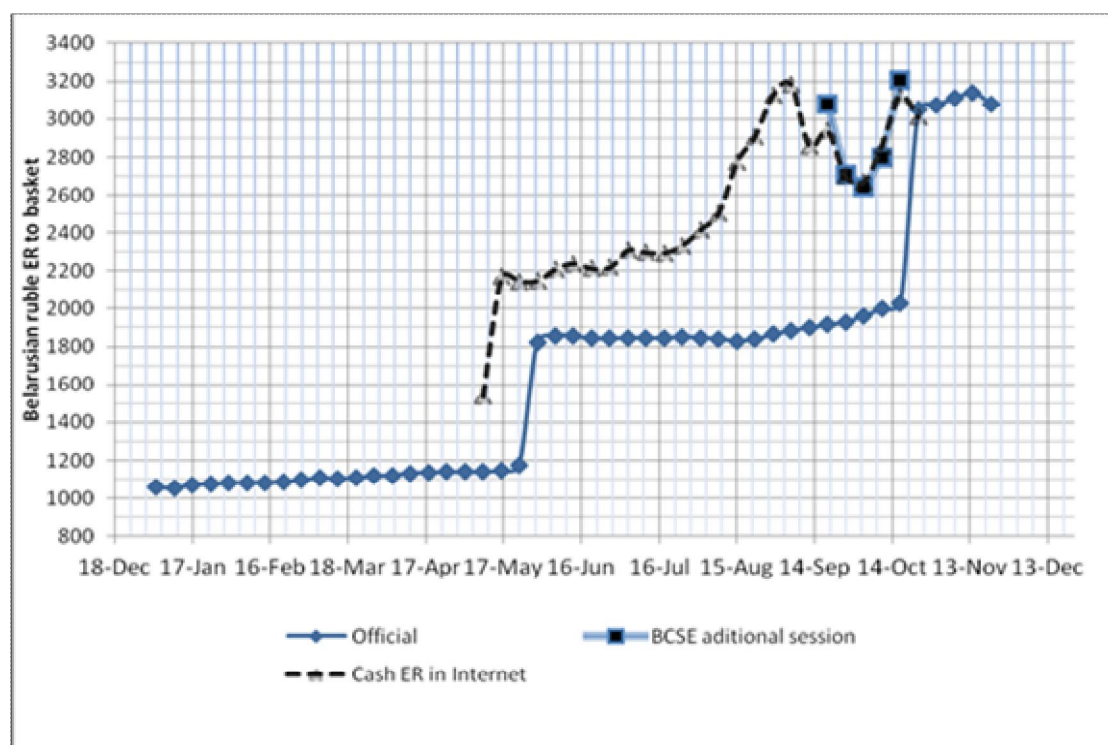
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¹ Since 2009 Belarus used crawling peg of Belarusian ruble to the basket of U.S. dollar, euro and Russian ruble with a horizontal corridor. The value of the basket is calculated as the geometric mean of the currencies. At the beginning of 2009 the corridor was $\pm 5\%$ relative to the central value, in the middle of the year it increased to 10%, in 2010 was $\pm 10\%$, for 2011 defined $\pm 8\%$.

Figure 1 Dynamics of the official exchange rate, exchange rate at BCSE additional session and cash rate at the black market



Sources: National Bank official statistics, www.procopovi.ch (Internet cash rate)

Georgia and its role in energy transit towards the West

By Murman Margvelashvili and George Mukhigulishvili

As a part of the ancient Silk Road Georgia historically was on a significant trading route between East and West. Georgia's importance for energy transit became obvious in the beginning of 20th century by oil exports from Azerbaijan to the Black Sea ports and its role as the key energy transit country was revived in post Soviet times. Currently Baku-Supsa and Baku-Tbilisi-Ceyhan oil pipelines transport about 30mln tons of oil annually while SCP gas pipeline supplies up to 8 BCM of natural gas per annum from Azerbaijan to Turkey. Railway transports 4mln tons of Kazakh oil. Georgia also provides transit of Russian gas to Armenia transporting about 1.5-2 BCM annually.

Having no significant oil & gas reserves, Georgia covers 60-70% of domestic gas needs through the gas provided by transit agreements while the rest is also imported. Thus by linking the interests of own energy supply to the interests of other countries Georgia has achieved a reasonable level of energy security and stable gas prices. Notably, it was the startup of SCP that allowed Georgia to diversify its gas supply away from critical dependence on Russian imports.

Energy transit is also a major factor of state security for Georgia. It is noteworthy that during the 2008 warfare with Russia no energy infrastructure was damaged and though about 20% of Georgian territory is still occupied, there has been no interruption in energy flows. Georgia's potential role in energy transit to Europe is believed to be among the strongest factors of Western interest and support for Georgia's independence and aspirations to join NATO and EU.

Therefore, due to political, energy security and economic reasons Georgia is vitally interested in further development of energy transit routes over its territory.

Georgia's transit role is strongly enhanced by EU plans of diversifying its external energy supply. While facing the challenges of growing energy demand, declining gas production, unreliable supply from North Africa and dim prospects of nuclear energy, Europe calls for development of renewable energy sources and use of natural gas as the most economical and climate friendly intermediate fuel. At the same time EU needs to assure the security of gas supply and avoid the dependence on major monopoly players that would be tempted to use their monopoly position for political gains. Indeed, natural gas is tied to the delivery routes and the goal for Europe is to achieve that these routes operate with transparent and equitable rules assuring stability and fair market price of the supply.

Currently Russia supplies about 30-35%¹ of EU gas demand while some Eastern European states are completely dependent on Russian gas. Many instances indicate the use of energy as political instrument by Russia and make this high degree of dependence unacceptable for the EU. Political differential pricing of gas for different countries, 2009 winter gas crisis in Eastern Europe, earlier 2006 winter electricity and gas attack on Georgia, as well as emerging internal political instability do not add to the Russia's image as a reliable and neutral supplier. Trying to enhance its monopoly position Russia is actively engaged in acquisition of strategic energy infrastructures in other countries and subsidizes the construction of new strategic pipelines to enclose the Europe by the network under own control and to separate it from the vast gas reserves of the Caspian and Middle East.

In its search for diversification of energy supplies EU has been developing the concept of Southern Gas Corridor (SC) to allow EU consumers' access to vast Caspian gas reserves. According to current estimates the gas reserves of Azerbaijan are evaluated at 4-5 trillion cubic meters (tcm)², while Turkmenistan and

Kazakhstan own 20+³ and 2.5 tcm respectively⁴. *The strategic objective of the (Southern) corridor is to achieve a supply to the EU of roughly 10-20% of EU gas demand ("Big Gas") by 2020, equivalent to 45-90 bcma.*⁵ There are several intended projects (Nabucco, White Stream, TAP, ITGI, but also AGRI, recently announced SEEP and Trans-Anatolian pipeline) at various stages of development that comprise the concept of Southern Corridor. The EU strategy of developing the key SC projects concurrently is designed to reduce the transportation risks for the Caspian producers by assuring the "Effective CORRIDOR" for gas transportation via two parallel routes west of Georgia, one across Turkey (Nabucco, TAP, ITGI, SEEP and Trans-Anatolian pipeline) and another across the Black Sea (White Stream subsea pipeline and AGRI (Azerbaijan-Georgia-Romania Interconnector) LNG transportation system).

Southern corridor is a complex mix of projects involving a big number of diverse players. Its strategic value to the EU is directly linked to independence from Russian influence. Georgia, being a small but critical link of this complex chain, may critically affect its success by avoiding or falling under the influence of this monopoly player.

Georgia's Euro-Atlantic aspirations contribute to its image of a country with proven track record of a reliable transit state. The potential leverages that might be provided by Russian military presence, ownership or control of critical energy infrastructure and informal business relations, can be effectively curbed only by transparent legal environment and decision making practices of EU standards as well as political support by Western countries. Thus it is in the interests of EU as well as Georgia that the latter strengthens its independence and becomes a more democratic country with stable and transparent legal system, open policy making, strong institutions and sustainable development prospects.

It is in mutual interest to expedite Georgia's reforms and Euro-Atlantic integration process through existing and new mechanisms including Eastern Partnership, Energy Community etc. An important condition of this work should be closer cooperation and more detailed consideration of specifics of Georgian energy market and its economic interests that should be protected in this process. Such an approach will result in a faster progress and allow seize the opportunities still existing for both sides in the rapidly changing global environment.

Murman Margvelashvili

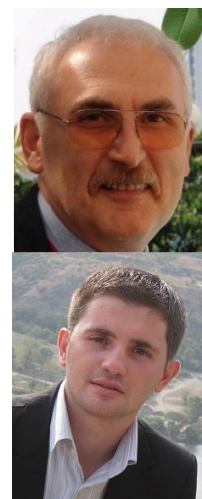
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¹ 34.2% in 2009 http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Energy_production_and_imports

² SOCAR

³ <http://oilprice.com/Energy/Natural-Gas/Green-Eyed-Gazprom-Attacks-Turkmenistan-s-Natural-Gas-Resources.html>

⁴ CIA <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2179rank.html>

⁵ http://ec.europa.eu/energy/infrastructure/strategy2020_en.htm



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