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

In 2004, the Pan-European Institute (PEI) started to carry out the economic monitoring on the eastern part of the Baltic Sea region. Gradually, the Baltic Rim Economies (BRE) review was transformed from an economic monitoring into a discussion forum covering the whole of the region.

By now, the BRE has become the most recognised discussion forum among people interested in the development of the Baltic Sea Region and its surroundings. The review is electronically distributed to tens of thousands of organisations in over 80 countries i.e. the readership of the review goes far beyond the region itself.

By the end of 2010, we have received close to 700 expert columns. These articles have been written by the leading European politicians, representatives of international institutions, media, security-related organisations, regional decision-makers, businessmen, academics and other high profile experts.

You will find all these articles published during 2010 inside one cover, organised in a chronological order. In 2010, modernisation, security, energy, and the development of Arctic areas received a special attention.

In the future issues, the implementation of the EU's Strategy on the Baltic Sea Region will play a central role in the BRE review, which will now on be published on a quarterly basis. I wish this publication gives you an insight into the Baltic Sea region and perhaps inspires you to submit your intellectual contribution to some of the future BRE reviews.

I like to conclude by saying that the Baltic Sea region is much more than a remote area in Northern Europe inhabited by more than 60 million people. This region can form an integrating bridge between the EU and Russia. Perhaps, this integration based on the closer regional cooperation between the EU member states surrounding the Baltic Sea and Russia can in the future be called as "the Turku Process".

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Baltic Rim Economies review

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Contents

1/2010 1

2/2010 41

3/2010 75

4/2010 132

5/2010 173

EU-Russia relations - getting it right

By Jerzy Buzek

In 2009 we celebrated the 20th anniversary of the first free election in Poland as well as twenty years since the fall of the Berlin Wall. I recall these two events on purpose because, in common contemporary history, they signify the end of the division of the European continent into two antagonistic forces - West and East. Today we are still in the process of building lasting and stable mutual understanding, trust and respect, as relations between the European Union and the Federation of Russia during the last two decades have been profoundly marked by both ups and downs. Additionally, I am concerned by the results of recent surveys which showed that public perception of Russia within the European Union, as well as Russians' attitudes towards the West and its basic values, are still rather negative.

Why are good EU-Russia relations essential?
A glance at a map of Europe will persuade anyone that we cannot escape creating closer ties and maintaining dialogue. First of all, Russia brings a significant contribution to Europe's common cultural heritage. At the same time, both trade and investments between the EU and Russia remain substantial and continue to grow. It is well-known that the EU is by far Russia's main trading partner and investor, and Russia is the EU's third largest trading partner. Growing interdependence in economic terms depends not only on energy; impressive growth (of figures) has also been seen in services. Furthermore, Russia is an important actor on the geopolitical scene. The EU and Russia co-operate in dealing with a number of challenges, both internationally, as well as in our common neighbourhood. These include climate change, drug and human trafficking, organized crime, counter-terrorism, non-proliferation of WMD, the Middle East Peace Process and Iran. Nevertheless it is vital that this cooperation is based on respect for human rights and promotion of the rule of law. I am convinced that we should maintain the policy of constructive involvement of Russia in order to secure an effective international community. For those reasons I perceive relations with Russia as one of the key priorities of my foreign policy agenda.

The European Parliament has always supported putting EU-Russia relations on a stronger political level.
The Partnership and Cooperation Agreement (PCA) put in force in 1997, further complemented by the Four Common Spaces in 2005, created an institutional framework for regular consultations on diverse levels. As President of the European Parliament I am particularly glad of the EU-Russia Parliamentary Cooperation Committee's existence, whose members meet on regular basis and exchange views on current issues, but at the same time I believe that its role should be further strengthened. On the other hand I observe little progress in negotiations on a/the? new PCA. They must be accelerated, especially if the EU and Russia are to forge a partnership that can be called strategic. From the EU's point of view the new agreement should be broad ranging, comprehensive, legally binding with dispute settlement mechanisms, and based on shared commitments and values. Human rights should figure prominently in the treaty, as well as energy policy, based on the principles of the Energy Charter Treaty and the Transit Protocol.

Nowadays there are certain issues that attract the attention of the whole of Europe and the case of energy security is certainly among them.
From the European Union's point of view this burning issue is even more important as 40% of gas consumed, for both commercial and household needs, comes from Russia. Although EU Member States are major buyers of energy products, the relationship is one of interdependence and not dependence, as export to the EU constitutes a major contribution to Russian growth rates. Unfortunately last year's gas crisis undermined EU citizens' confidence and damaged Russia's reputation as a reliable supplier of energy. For that reason the EU must be able to avert any new gas dispute in the future. One way is to make sure that mutual energy relations are based on the principles of the Energy Charter Treaty (ECT), such as openness, transparency, reciprocity and nondiscrimination. As a representative of the European Union I need to stress that the EU wants to rely on a cooperation that privileges long-term mutual interests of stable demand and reliable supply over short-term political calculations.

One of the latest areas of mutual interest affecting EU-Russia relations is the Eastern Partnership policy.
I would like to strongly emphasise that this initiative is not aimed against any country, because the EU dismisses any notion of a sphere of influence and does not engage in zero-sum games. The Eastern Partnership should be perceived as a reinforcement of the already existing framework for relations with these neighbours that will enhance stability and prosperity in the entire region through mutually beneficial solutions. I truly hope that Russia will adopt a positive and constructive stance on this subject matter.

The European Parliament has repeatedly raised concerns related to Russia, regarding particularly rights of minorities, the situation of human rights defenders, rule of law, freedom of media, expression and assembly.
All members of the European Union share a common vision of the European continent based on the pillars of democracy, rule of law and human rights. On a number of occasions I personally expressed concern over a series of brutal murders of human rights defenders and stressed that the human rights situation is especially bad in Chechnya, where violence is on the rise and the atmosphere of lawlessness and impunity prevails. Furthermore, I have encouraged the authorities to pursue proper investigations as well as to ensure adequate protection for human rights activists and for the witnesses of the respective murder cases. This reminds me about the European Parliament's 2009 Sakharov Prize for Freedom of Thought for Russian civil rights defence organization "Memorial". In my speech I asked whether Andrei Sakharov would feel pride, or more a sense of sadness that today's Russia still needs such organisations. Regrettably, two of the prize recipients, Lyudmila Alexeyeva in the end of December and Oleg Orlov in the end of January, were put in detention after taking part in a protest with other human rights activists in Moscow. Those deeply disappointing and shocking actions send a message to the world that human rights defenders in Russia still cannot demonstrate freely.

The basis for a better EU-Russia relationship is neither confrontation, nor isolation, or unconditional cooperation, but a policy based on mutual trust, solidarity and the rule of law.
First and foremost the European Union pays particular attention to strengthening human rights and the rule of law as well as the independence of Russia's judiciary and legal system in line with the intentions already declared by President Medvedev. Both the EU and Russia should be able to discuss areas of disagreement in an open and constructive manner. On the other hand, while progress in the four common spaces is essential, success will ultimately depend on whether we can also create a common space of understanding and trust not only between our political elites but our societies. This is why I would like to warmly welcome initiatives such as the regular meetings of Young Citizens of Russia and the European Union. Our common work should continue to expand people-to-people contacts across the board. I am highly convinced that it will lead us to improving mutual understanding and trust in relations between the European Union and Russia.

Jerzy Buzek

President

The European Parliament

Photo © EP

Latvia's lesson – from crisis to sustainable growth

By Valdis Dombrovskis

On 27 January 2010, Joaquìn Almunia, then European Economic and Monetary Affairs Commissioner, stated:

"I commend the Latvian coalition government, the Saeima and the society at large for the courage and determination in delivering the efforts necessary to put the country on a more stable footing with the help of the EU and the wider international community. The multilateral assistance package, including the €3.1 billion loan by the European Union, has helped improve the economic conditions and outlook in Latvia by easing financial tensions and external financing pressures. Although not without difficulties, the government and the Parliament have delivered on their commitments, in line with the requirement set by the EU Finance Ministers and the criteria for the Balance of Payments assistance. However, the effort needs to continue, notably for what concerns further fiscal adjustment and ensuring a stronger and more sustainable economic activity in the future. While the recent budgetary consolidation progress in Latvia is very impressive by any standard there is obviously some way to go to bring the deficit below 3% of GDP to ensure a stable and sustainable environment in the future and with a view to adopt the euro".

The Commissioner's comments have made an encouraging start to the year, following a very difficult period for my Government, but even more so for most of the population.

Already by the end of 2008 Latvia was sliding into a deep economic crisis. The problems of the global economic recession were compounded by the unwise policies of previous years. GDP fell in 2009 by 19%, and unemployment has by now leaped to 20%. Tax revenues fell by 30% year-on-year in 2009. The real estate bubble burst.

Latvia had no choice but to turn to the IMF for a multilateral loan package, which came with stringent conditions. We will use the 7.5 billion euro stabilization loan over 2009-2011 to cover the budget deficit, refinance government liabilities, and support the banking system. At the same time, the government had to make many unpopular budget cuts and raise taxes in 2009, and the 2010 budget has been further consolidated by 500 million lats. Latvia's State budget for 2010 will have an 8.5 % deficit, and smaller deficits of 6% and 3% in the following two years.

Our fundamental aim is to carry out structural reforms – a set of economic and social measures that should improve Latvia's competitiveness. We are working in three directions:

First, boosting business through tax reform, reduction of the administrative burden, a more effective use of EU funds, and an Economic Development Program. The Program contains elements such as loans and guarantees for enterprises, support for start-ups and self-employment, and support for micro-enterprises.

Second, improving the effectiveness of public administration. This entails assessment of state functions, restructuring of expenditure, fiscal consolidation, and public administration reform. The purpose of this reform is to optimize institutions and their personnel, and to ensure a unifed pay system.

Third, reforms to our heathcare and education systems, boosting employment, and a social safety net to protect the very poorest and those who have no income once unemployment benefits have ended.

So, what lies ahead? My aim is to keep Latvia on the road to economic recovery this year, and never lose sight of the best exit strategy – a sustainable economy, which allows Latvia to meet the Maastricht criteria in 2012 and introduce the euro in 2014.

We estimate that GDP will contract in 2010 by about 2-3%%, and begin to grow after that, by at least 3-4% in 2011 and 5-6% in 2012.

As consumption power is down due to lower wages and higher taxes, we will rely mostly on external demand to stimulate the economy. To this end we are putting any available funds into boosting export competitiveness, and looking towards first signs of economic recovery in our export markets.

On an optimistic note, by some indicators Latvia is already on the road to recovery:

- Latvia's GDP decline is slowing down and the worst is behind us.
- The current account deficit has turned into a surplus of 9-10% of GDP; for the first time since 2000 our export is greater than import.
- The pace of consumer price growth continues to decline, leading to improvement of Latvia's competitiveness; inflation fell from a high of 17.5% to an average of 3.5% in 2009.
- Overall industrial production output was already growing quarter-to-quarter in 2009; metal working, chemical goods, paper products, transport and service sectors, as well as furniture and its component manufacturing have enlarged their export volume. The wood industry stands out with increasing volumes every month.
- Latvia's transport sector maintained solid indicators even during the deepest period of the crisis, and is currently improving, particularly in terms of railway and harbour turnover.
- Real estate prices have stabilized.

Of course, the economy is not just about numbers, and making neat rows of revenue and expenditure on paper. The state budget is about making choices that protect the most vulnerable sections of society in the short-term, but also benefit the greatest number of people in the long run.

As we begin to emerge from the current crisis, we must also look at the broader perspective and plan for the future. Across Europe, and especially in Latvia, demographic trends point to increasing fundamental challenges. As societies age, we will have to find new ways to balance public funds and adjust infrastructure to the new realities. Social security, health, education, housing, regional development - practically all spheres of government activity will be affected. If not addressed in a timely manner, these challenges have the potential to turn into a crisis.

I believe Latvia can borrow from the long experience of the Nordic countries in finding answers to the challenges regarding 'human capital'. Our regional neighbours are well-versed in labour market and re-training policies, show encouraging results to pro-birth rate incentives, and understand the importance of maintaining populations in rural areas. To this end the recently adopted European Union Baltic Sea Strategy should be useful as a framework for addressing demographic changes across our region. As Latvia this year holds the rotating chairmanship of the Baltic Council of Ministers, I will use available opportunities to raise this looming issue.

At present, as Latvia tackles the current crisis, we are already drawing lessons for the future. One of these lessons is simple - growth should be sustainable. Together with our regional partners, and with due attention to developing our human capital, I believe Latvia will meet its full potential.

Valdis Dombrovskis

Prime Minister

Latvia

Baltic Sea region offers great potential

By Mari Kiviniemi

The Baltic Sea region plays a major economic role for both Finland and the European Union. Altogether 40% of Finland's exports and 45% of imports in 2008 consisted of trade with Baltic Sea economies. Finland's three main trading partners are in the Baltic Sea territory, namely Germany, Sweden and Russia. Six out of Finland's ten main trading partners are in the Baltic Sea region. Over two-thirds of all inward foreign direct investment in Finland is from the Baltic Sea region and three-fifth of Finland's outward investment abroad is to the same region.

The Baltic Sea region already affords significant economic weight and potential. Approximately 15% of worldwide freight traffic takes place in the Baltic. Over 80% of Finland's foreign trade is by sea. Depending on the geographic definition, the total population of the Baltic Sea region amounts to around 85-100 million people. Aggregate GDP for the economies of the Baltic Sea coastline totalled over 12% of global GDP last year.

If we examine the Baltic Sea economies using different indicators of competitiveness, the area reveals itself to be an ever stronger and more dynamic European economic force, whose knowhow and experience in regional cooperation have stimulated interest across Europe and even further afield. Russia's role in the Baltic Sea region is growing steadily not only in terms of economic and knowledge potential but also in the context of environmental protection and in terms of challenges related to maritime transport. With St. Petersburg's role maturing into the second-most important centre in Russia, it has significant repercussions throughout the Baltic Sea region. The condition of the Baltic Sea and inter-regional economic cooperation have a direct impact on the wellbeing and sense of security of the Finnish people.

Economic growth in the Baltic Sea region notably builds on a high level of competence and innovation. Promoting and financing research and development projects, exploiting the best competencies as well as creating market conditions ideal for innovations are important factors in boosting economic growth in the region.

There is good capacity for economic growth not only in primary production but also in trade and commerce as well as in the service sector. Particularly interesting commercial opportunities from the viewpoint of Finnish entrepreneurship are to be found in the foodstuff industry and in telecommunications as well as in energy technologies and the financial sector.

Environmental protection and the economy share many factors in common. By combining these common denominators and by enhancing coordination we can pursue both objectives more effectively. Renewable energy sources is a good case in point. Finland as well as many companies in the Baltic Sea region offer high competence in energy efficiency and energy technologies. Finland boasts competencies and technologies in environmental protection and maritime safety, such as sophisticated vessel traffic management and monitoring systems, advanced dephosphorisation techniques and processing technology for soluble manure material, all of which ought to be marketed efficiently. Demand for such skills and products probably exists not only in the Baltic Sea region but in other marine areas too.

Opportunities in the Baltic Sea region for trade and commerce, subcontracting and investments have been exploited not only by large corporations but also small- and medium-sized enterprises alike. With cross-border entrepreneurship becoming more widespread, it is important to increase cohesion of the Baltic Sea market area, applying harmonised rules and procedures in the trade of goods and services and removing impediments to free movement of labour.

While it is also the EU's objective to create a common market area, in effect a considerable number of barriers to the full realisation of this potential still exist, especially in trade and commerce and in labour mobility. Free movement of labour, for instance, is not without obstacles even though it is now nearly five years since the Baltic States and Poland joined the European Union. Businesses also encounter various, mainly administrative impediments to trade, restricting and in some cases even hampering growth in reciprocal trade.

The Baltic Sea is virtually an inner sea of the European Union. The purpose of the EU's Baltic Sea Strategy is to devise a regional framework where the EU and its member states are free to determine their needs and to align them to the existing financial resources, thus creating sustainable environmental protection and generating prosperous economic and social development. Many of the European Union's common policies and programmes are instrumental for the Baltic Sea region too, and they will play a part in the implementation and financing of the Baltic Sea Strategy. The EU structural policy funds are the main sources of financing. Resources for the region have been sizeable to date and the Commission wishes the member states to allocate these funds to implementing key objectives of the Baltic Sea Strategy. Other related key policies are the EU's integrated maritime policy and implementation of the Marine Strategy Framework Directive, regulations related to the functioning of the internal market, the Lisbon Strategy for Growth and Jobs, and the trans-European policy on transport and energy networks.

The potential of the Baltic Sea region as a growing and more integrated economic area is enormous. The Baltic Sea region is unique and highly interesting both on the European scale and globally, mainly because its economies are at different stages of development, are different by nature and yet complement one another. We must now take advantage of this huge potential.

Mari Kiviniemi

Minister of Public Administration and Local Government

Finland

Security in a modern world - the example of the Baltic States

By Søren Gade

I have often said that freedom should never be taken for granted. Nowhere is this understood more clearly than in Lithuania, Latvia and Estonia. The approaches of the Baltic States on security issues have been exemplary since they gained their independence, and for two decades they have made a huge effort to come into their own. The Baltic efforts have been anchored in values such as solidarity and commitment, and the purpose of upholding their recently gained freedom cannot be mistaken. With substantial efforts the states are in the process of transforming their military forces in order to strengthen their ability to cooperate with other countries. When given the chance, Lithuania, Latvia and Estonia have demonstrated readiness and solidarity with the Alliance to take on both the tasks at hand in Afghanistan, and to direct their attention towards softer security issues, such as ensuring the safety of the Baltic Sea in cooperation with neighbouring partners. Denmark has enjoyed and still enjoys a broad cooperation with the Baltic States on defence issues including in operations in Afghanistan and earlier in Kosovo. I have witnessed first hand how this cooperation has flourished, as the three nations have integrated even deeper in primarily the EU and in NATO, but also in the Nordic-Baltic cooperation, and I feel strongly that the future prospects for enhanced cooperation looks very promising.

Changing security environment

The security of the Baltic Sea region has improved dramatically since the end of the Cold War, not least due to extensive cooperation in the region and beyond. The end of the Cold War signalled the beginning of a new era in the region. With the collapse of the bi-polar division of power, the security conditions in the Baltic region rapidly changed. Over the next decade, states formerly controlled by the Soviet Union gained their full independence, and some of them joined NATO and the EU. The change in the regional security conditions kicked off a period of economic growth and prosperity in the Baltic region. The progress was enabled first and foremost through the colossal efforts of each of the Baltic nations, and secondly through an extensive international cooperation in every field of society. Today, a financial crisis is challenging all our countries, and in the midst of requisite prioritisation, Lithuania, Latvia and Estonia stand firm in the international society's broad-spectred activities against terrorism in Afghanistan.

Facilitating NATO operations

For the last six years, NATO fighter aircraft have patrolled the skies over the three Baltic States. The so-called NATO Air Policing mission aims to enforce the sovereignty of the Baltic States, and preserve the states' territorial integrity. Since its beginning in 2004, the air policing has been supported with fighter aircraft from Belgium, the Czech Republic, Denmark, France, Germany, Norway, Poland, Portugal, Romania, Spain, Turkey, the United Kingdom and the United States. The continuous presence of NATO fighter aircraft is a visible sign of NATO's solidarity and commitment to the security and stability of the Baltic region. But foreign fighter aircraft cannot do the job alone. During one of my visits to the Baltic region, I have witnessed how the missions are effectively enabled through the various host nation support arrangements commonly provided by the Baltic states. The NATO Air Policing mission sends a strong signal to the surrounding world that the security of every single ally is the concern of all allies.

Providing security for others

Today, forces from the three Baltic states are deployed to distant theatres of operations, where they integrate efficiently with fighting forces from NATO members and other troop contributors. In Afghanistan, forces from Lithuania, Latvia and Estonia are deployed across the Afghanistan theatre of operations from Chagcharan in the west and Meymaneh in the north to Helmand in the south. Their forces are heavily engaged in missions ranging from direct action against the Taleban to reconstruction work undertaken in the Provincial Reconstruction Teams. During my visits to Afghanistan, I have heard many stories of the dedication and professionalism of the Lithuanian, Latvian and Estonian forces. Operating under the auspices of UN Security Council Resolutions, the three Baltic States set good examples of commitment and solidarity for the international community. Through their commitment they demonstrate that also smaller states have an important role to play in the fight for the security of the Alliance. The approach displayed by the three Baltic states commands respect.

Broad focus

The current period of stability in the Baltic Sea region has enabled the states to direct their attention toward other areas than security matters. With the approval of the so-called European Union Strategy for the Baltic Sea region, the region has signalled a strong determination to realize the potential for increased cooperation. The cooperation comprises enabling a sustainable environment, enhancing the region's prosperity, increasing accessibility and attractiveness, and ensuring the safety and security of the region. The strategy rests on the recognition that dealing effectively with transnational challenges requires international cooperation.

Lithuania, Latvia and Estonia have demonstrated the purpose and ability, not only to shift away from the security perceptions of the Cold War, but also to use resources to take part in the struggle against new security threats such as terrorism and cyber attacks, as well as safety related issues such as fighting pollution and enhancing maritime safety. These efforts are a testimony to the fact that transnational problems often require multinational solutions. Only through continued solidarity, and innovative and enhanced cooperation can we ensure the safety and security in the Baltic Sea region and beyond.

To me, the approach of Lithuania, Latvia and Estonia toward the tasks at hand in Afghanistan stands out as the quintessence of Alliance solidarity. In these times, Alliance solidarity is exactly what it takes to guarantee the security of us all.

Søren Gade

Minister of Defence

Denmark

Common and improved maritime surveillance

By Sten Tolgfors

At any given moment there are 2000 ships in the Baltic Sea. Oil transport has doubled in a short time and will continue to increase. Forty per cent of all Russian exports are shipped via the Baltic Sea, which is designated a Particularly Sensitive Sea Area (PSSA). Serious accidents could entail both humanitarian and financial risks for the countries in the neighbourhood.

A common recognised maritime picture (RMP) will make it easier for us to maintain and secure major transport flows through seas like the Baltic. At the same time, integrated maritime surveillance will make things easier in many other areas, such as maritime safety, marine rescue services, environmental emergency services and border controls.

During the Swedish Presidency of the EU, integrated maritime surveillance was a priority issue. There is a great need to improve coordination of maritime resources in the EU. This involves coordination of resources, both civilian and military, and also increasing coordination between maritime agencies.

Not only has the information acquired up to now been divided among countries, it has also been divided among various agencies within countries. The basic idea of increased cooperation on maritime surveillance is to utilise resources more effectively through improved coordination and increased interoperability between existing systems. The Swedish Presidency promoted the approach of linking systems already in operation rather than developing new systems.

Many of the civilian and military systems available in the EU Member States have not been equipped to exchange information with each other. But today's challenges with regard to crisis management do not allow a strict division between civilian and military actors. Instead, a coordinated approach is required to protect countries' interests more effectively.

Greater cooperation on maritime surveillance was initiated after the Estonia disaster in 1994. Like our neighbours, Sweden saw the need to improve maritime surveillance in the Baltic Sea so as to be better able to deal with accidents. Sweden and Finland began this cooperation by sharing radar images with one another. Step by step, this cooperation has been expanded.

A cooperative undertaking in which the Swedish Presidency was particularly active was the Sea Surveillance Cooperation in the Baltic Sea (SUCBAS) project. This is a regional project in the field of maritime surveillance involving cooperation between the defence forces of eight countries. SUCBAS is an administrative and technical solution for transferring information and means that the defence forces of the Baltic Sea region can exchange information on the maritime situation with each other more effectively.

Its use in civilian systems is designed so that sensitive military information is removed from the military maritime picture and the remaining information is transferred to a civilian system, e.g. the Swedish SJÖBASIS-system. In this way, civilian agencies can obtain rapid information to fulfil their tasks. This may involve, for example, intelligence on hazardous goods, maritime security and border and criminal intelligence. The system can also provide indications of abnormal shipping movements and warn the agency responsible. Other benefits are the provision of situation reports and oil spill drift forecasts in accidents. This year, Finland, Denmark and Sweden have obtained electronic access to each other's maritime pictures. The costs are small, currently a couple of hundred thousand Swedish kronor a year for Sweden, but the effect is considerable for our security.

The major challenge in efforts to integrate maritime surveillance in the EU is not a matter of investing in new, expensive technological systems, but primarily of legal and administrative issues.

To make existing systems for maritime transport and maritime surveillance more interoperable among Member States with coasts bordering the northern European maritime areas, the European Commission is co-financing a pilot project named MARSUNO (Maritime Surveillance Integration Northern European Sea Basins) for the northern European maritime areas. Twenty-three agencies from ten countries are participating in the project, which aims at showing how agencies working in the maritime area can cooperate more effectively by exchanging information among themselves and other measures.

The objective is the more efficient exercise of official authority, cost savings and the facilitation of maritime transport by simplifying notification procedures for shipping, and to enable better support for different agencies.

Maritime safety and safe transport are necessary for positive development in the Baltic Sea region. During the Swedish Presidency the EU Member States agreed to continue the process of integrating maritime surveillance. Together with our neighbours around the Baltic Sea and other EU countries, we will continue to develop the capacity to handle major accidents and emergencies. In this way, we will establish the capacity for an effective, safe and integrated maritime surveillance that, in the long term, will be able to cover the whole of Europe.

Sten Tolgfors

Minister for Defence

Sweden

The Baltic energy sector

By Krišjānis Kariņš

In Europe, we spend a lot of time talking about the importance of the internal market. Although the market functions quite well in many areas, in the field of energy the internal market cannot function fully for the basic reason that Europe still lacks grid interconnections between Member States, and still retains an "energy island" in the northeast. The gas and electric grids of the three Baltic countries of Estonia, Latvia, and Lithuania are still almost completely isolated from the rest of the EU. There can be no functioning internal market for energy without a fully integrated grid system.

This energy isolation is a result of the full incorporation of these countries into the former Soviet Union. During the 50 years of Soviet occupation, the energy grids in the Baltics were completely folded into the Soviet grid system, to whose successor countries they are still intricately linked today. Although the Baltic countries remain mostly isolated from the rest of the EU, they retain and regularly utilize the interconnections that they share with each other in both the gas and electricity sectors.

The current sole exception to Baltic energy isolation is the Estlink electrical connection between Tallinn and Helsinki, which is currently undergoing capacity expansion. After many years of discussion, other large inter-connector projects are also finally getting underway for electric grid connections between Lithuania and Sweden and Lithuania and Poland within the framework of the Baltic Sea Strategy. As these projects come on line, security of electric supply for the Baltics will only increase, as will their ability to participate in the internal market as producers and sellers of energy, as well as buyers.

The Baltic gas grid, on the other hand, remains completely isolated from other EU countries, which means that there is currently no end in sight to the 100% dependence on Russian gas supply. Indeed, as I have seen in the central control room of Gazprom in Moscow, the large underground storage facilities at Inčukalns in Latvia are viewed by Gazprom as an intricate part of the broader Russian gas supply system. After all, this storage facility supplies gas to the St. Petersburg area in Russia during the long winter months. Gazprom effectively owns not only the gas resources, it also controls the gas distribution system in the Baltics. There would be no interest from Russia's side to change this situation.

As large EU projects such as Nordstream (between Germany and Russia) unfold, the isolation and hence vulnerability of Baltic gas supply will only increase. Currently, the EU acquires most of its Russian gas via Ukraine, which means that when Russia exerts pressure on Ukraine via the gas sector, the entire EU is concerned and gets involved in finding a solution. If Ukraine, as well as Poland and the Baltic countries are circumvented via Nordstream, possible Russian pressure on these countries will not directly affect the rest of the EU, and hence potentially leave these countries in a much worse situation than today.

This situation is compounded by the fact that as of January 2010, the Ignalina nuclear power station in Lithuania has been shut down, according to the accession agreement to the EU in 2004. In terms of electric generation, Ignalina accounted for 70% of Lithuania's electrical generation, or 111% of electric consumption, which means that Lithuania was a net exporter of electricity until the closing of the Ignalina plant. Its northern neighbor Latvia produces only about 70% of consumption, which means that it was a buyer of electricity from Lithuania (among others). The gap in Lithuania and Latvia in electric supply will be partly compensated by electric production via oil shale in Estonia (whose production accounts for 169% of consumption in Estonia), partly by ready electricity imports from Russia and Belarus, partly by increased use of renewables, and partly by increased use of gas-fired electric generation plants in the Baltics, which before the closing of the Ignalina plant already accounted for about 9% of consumption in Estonia, 29% in Latvia, and 27% in Lithuania.

Besides building new gas grid interconnections between the Baltics and the rest of the EU, the other way to reduce this (growing) gas dependency on Russia is through the increased use of renewable resources, which is in line with the EU strategy for increasing the overall share of renewables in the EU to 20% by the year 2020.

In the Baltic countries, the leader in renewables is Latvia, which has an overall rate of 32% of renewable resources in its energy mix. This comes from utilizing the ample hydro and forest resources that abound in the country. Latvia is currently the second "greenest" country in the EU, and one of the "greenest" countries in the world. In the electricity sector, renewables account for 42% of consumption.

Lithuania's and Estonia's situations are different. In Lithuania, renewables account for 23% of its overall energy mix, with about 13% renewables in the electricity sector measured against consumption. If more natural gas capacity comes on line in Lithuania, this percentage could decrease. In Estonia, the rate of renewable resources in the overall energy mix is about 17%, with only about 3% of production in the electricity sector measured against consumption. The pervasive utilization of oil shale in Estonia will also be potentially decreasing as environmental requirements will diminish production in the coming years.

It should be taken to mind that increasing the share of renewable resources alone will not secure energy supply in the Baltics. Even Latvia with its 42% rate of renewable resources in the electricity sector produces only 70% of its total consumption. The Baltics will continue to also utilize fossil fuel sources coming from outside of their borders.

The full solution to energy security in the Baltics is by not only increasing the use of renewables and possibly building a new nuclear power plant, but by also becoming fully integrated into the EU electricity and gas grids. Grid interconnections are a prerequisite for a functioning internal energy market, which is the best guarantee of energy security not only for the Baltics, but for all of Europe.

Krišjānis Kariņš

MEP

Latvia

Save the Baltic Sea and boost the economy

By Anne-Mari Virolainen

We need concrete actions and sufficient financing to support the strategies aimed at developing the Baltic Sea region

The Baltic Sea region is a multi-faceted reality. Area consisting of nine coastal states and tens of millions of people combines interests ranging from environment and security to transport and economics. This complex reality involves vast challenges but gives huge opportunities. This fact should not to be neglected and on the contrary, adamant attention has to be given to our future as a "commonwealth of the Baltic Sea States".

Finnish government put out its Baltic Sea strategy in fall 2009. Almost in unison with Finland the European Commission revealed the EU Baltic Sea Strategy. These two long-term strategies support each other, no matter the differences in scope and in focus. Finnish government's strategy addresses mainly the environmental issues concerning the Baltic Sea. The question of how to salvage the sea and its fragile ecosystem is at the heart of the report. Focus is well-founded and these issues, no doubt, are the most urgent and need imminent action. The EU Baltic Sea strategy on the other hand is broader and has a more comprehensive way of examining the future of the Baltic Sea region. It embraces all the questions related to the well-being of Baltic Sea societies and issues range from environment to economics. I'd call it a strategical overview of Baltic Sea Region for it leaves almost nothing out. I'd also call it Baltic Sea's lifebelt because when successful, it really has the ability to save the Baltic Sea and economies surrounding and depending on it.

The strategy put forth by the European Commission has the power to put the Baltic Sea where it belongs to, among the top priorities of EU action. With good coordination and sufficient finance (20 million in 2010) we're able to bring every one - EU states, Russia as well as Belorussia - to the same table and make things happen. The potential results for Baltic economies and environment are beyond imagination.

Foundation of our well-being – environment

The first thing the visionary has to focus on is the environment. Nothing sustainable is created without the consistent care of the nature surrounding us. It is the very foundation of life and has to be nurtured. Before-mentioned strategies give us tools to act accordingly. We're able to steer the actions so that they fit best the demands of the environment and at the same time secure the cost-effectiveness. The nutrient load emanating from agriculture, waste water management, sea traffic as well as recreational yachting can be managed. Water pollution control and agriculture should not be pitted against each other, for we need both. Rather we should encourage farmers towards environmentally sound practices via suitable subsidies. In the future this trend has to be fortified and environmental subsidies for agriculture have to be aimed at areas causing the most of the discharge. This idea brought up in the Finnish government's Baltic Sea strategy is to be enforced from 2012 onwards.

For us the fear of an oil tanker being shipwrecked near our coast is ever present. This is something our fragile sea wouldn't be able to manage. As a result of the constant growth in marine transport in the Baltic Sea, the risk of a severe catastrophe is all-time high. The amount of oil and chemicals gliding through our sea everyday is titanic. This has to be taken more seriously because today we remain unprepared. Preventive measures need amplification.

We also need new thinking and new, reformist ways of operating. We need "a renaissance of ideas". Ideas such as emissions trading scheme for nutrient discharges or pilots for conserving endangered areas via rental arrangements are well worth considering. Appointing the Baltic Sea a status of a "special sphere" of nitric emissions, one could create stimulus for green innovations and technology, such as low-emission vessels or new waste water solutions. New ideas are not only welcome, they are necessary. We need both carrot and cane to succeed. The harsh fact that our sea is used as a dumping site has to be altered. The can be no more oil spills, no more lavatory waste discharges, no more deliberate actions going unpunished.

What is the prerequisite for prosperity? Cooperation, economics and transport

Cooperation is the magic word for Baltic Sea region's prosperity. There can be no success without reciprocal relations in all facets of society. This is especially true in the field of economics and transport. The Baltic Sea region and the interests within it intertwine in such a manner that the "soil for fruitful cooperation is fertile". More conscious advantage should be taken out of it.

The Baltic Sea region is the home market for Finnish companies, whether small, medium-sized or big. Investments and business opportunities within this market have created a positive momentum, sort of a "regional vigour" which has brought us all prosperity. We have to safeguard and boost this tendency. With most of the Baltic Sea States as members of the EU, the prospects for an ever-deepening companionship are better than ever. Internal markets, common currency and the free circulation of goods, people, services and money are all invincible foundations and facilitators for continuous partnership. These foundations should be fortified all around. This would help risk-estimation and result in a more long-term commitment.

For obvious reasons the trade in export and import should be encouraged. Common platforms for furthering these foreign and domestic investments within the Baltic Sea region should be created. By this, I don't mean a "Baltic Fortress" to be built. Rather the aim is to make the region realise more concretely the prospects of enhanced cooperation. Imagine the idea of a Baltic Sea energy grid that would be nimble and able to provide reasonably priced energy for the needs of people and business. Common rules would create common benefits.

Baltic Sea region needs new ideas. By distributing the know-how of our industries, regions and scientists, we're able to solve common problems and create common solutions. Investments in the field of research and development will bring forth new innovations and modern, environmentally sound technology. This in turn will create prosperity and new fields of economic growth. There are no real barriers preventing us from making this happen. Deepening regional cooperation will bring us balts new global leadership in innovative action. All we need is an open and cooperative mind.

Anne-Mari Virolainen

Member of Parliament

Finland

Promising challenges for Finnish economy - Russian market and Northern Dimension

By Ilkka Pöyhönen and Minna Martikainen

Economic crisis and process of globalization

Businesses in Finland and in EU have developed to global since 1980'. During that process meaning of close neighbouring relationships have become less important, especially when looking at business relationships. Before the globalization process, for instance, the co-operation among Northern countries was essential for businesses. However, since beginning of 1990's market structures in all main economies globally started to experience a drastic change towards international and global markets. Together with that process also financial markets changed globally.

When turning in to 2000's the word "global" started to reach new dimensions. From Finnish economy's view point year 2001 showed what the word "global" might mean. Finnish stock market crashed in year 2001 and value of listed companies vanished to one thirds of the values from 1999. Thru out 2000's slow recovery was observed, until year 2007. That specific year will remain in history as a year when the first real global economical crisis started. This crisis has really showed the true meaning of the word "global". It is known now that word "global" means higher risks than anyone ever could think of. It meant frauds in financial markets; in market sector that was thought to be most reliable and regulated. Word "global" also means huge amounts of high speed information flows. It also has meant more dead ends to businesses faster than anyone could imagine before.

Building up economic growth for future: role of Russian markets

What will be future like then? Key words for future development in economies will be reconstruction and safety. Reconstruction will be partially needed for all economies and businesses. Moreover, safe elements are needed to be able to do that. Finnish economy will need new ideas to support its future growth. It is evident that also Finnish businesses need to re-think their direction. Russian market has been a challenge and a promise to Finnish businesses thru out the decades. The fact that Russian market is geographically one of the largest market areas globally makes the challenge very promising. Main conclusion that always is mentioned at the end is that however undeveloped Russia market still might be, it's strength always is its' rich natural resources.

However, it is easy to get the impression that Finnish firms do not value Russian market as it could be valued. Mainly the reasons for under estimation are related to higher risks. However, Finnish should be able to control these business related risks more naturally than other nations or countries. This argument can be based on our joint history, even though the shared history has it challenges too. Our joint history guarantees that we have experiences thru out the decades, how people in our neighbouring country are behaving and how their lives have been thru out the years. Moreover, very importantly, the short distance and easy connection to travel to Russia, is definitely relevant issue related to the business environment with Russian firms. These two issues; an ability to reduce risk and cost are factors directly affecting to the productivity of business relations.

Role of Northern Dimension (ND) in Europe

One of Finland's goals in implementation of EU policies is to draw the Unions' attention to the special features of its Northern regions, and especially to the challenges and possibilities presented by having Russia as a neighbour. Specifically Northern Dimension (ND) policy is developed to promote cooperation on issues related to the whole Arctic region. Therefore final goal for ND policy is to promote stability, well-being and sustainable development in Northern Dimension. By supporting these strategic aims of ND also the development of whole EU area is supported.

Northern Dimension policy includes several cooperation areas. One of the most important themes is to reduce risks threatening well-being related to environment, health and social issues. ND policy also importantly is promoting economic welfare for instance by improving transport and logistics network. Moreover, cultural dimension is promoted by deepening cooperation among universities, higher education institutions and business sector. Also to support the joint interest of business sector Northern Dimension Business Council has been established to strengthen the networking of companies in the region. From European Union point of view Northern Dimension is been seen as mutually complementary and related to EU Baltic Sea Strategy. Both of these actions are supporting the development in important strategic areas of EU and are promoting mutually important issues for Europe. Northern Dimension policy is also warmly inviting countries outside Europe to join to the implementation of ND policy. Especially the countries like Iceland, Norway, Russia and Belarus, which are affecting to the Baltic Sea area, have a good opportunity to work in this policy and to affect for the future of the area.

Lappeenranta University of Technology specializing in NDI and Russian market

Lappeenranta University of Technology (LUT) is strongly supporting both strategic issues: to build the bridge to Russian markets and also to implement the Northern Dimension policy. Russian market has been one of the main strategic issues in LUT already for some years. LUT aims to be one of the main players in EU when it comes to developing and increasing the knowledge about Russian markets. The main tools for operating for this goal in LUT are education and research. LUT has several master programs where Russian specialists are been educated for different areas. The target of these programs is to educate Finnish or Russians, or even international persons to firms operating in Russian markets. One of LUT specialities is MITIM (Master in International Technology and Innovation Management) double degree program in the area of Business Administration. The master level program is educating business specialists fully educating them in two university structures at the same time. This special structure creates students to be very cross-cultural and strong persons to their future careers.

Lappeenranta University of Technology (LUT) is also supporting the implementation the Northern Dimension policy. Northern Dimension Institute (NDI) has been founded with the support of Northern Dimension Senior Officials' Meeting in autumn 2009. The purpose of NDI is to promote the implementation of ND policy by building up bridges among universities and governmental officials in ND area, including several other areas in EU. Moreover, one of the main goals of NDI is to create constant discussions and exchange of ideas and needs for ND and Northern Dimension Business Council. This way it is estimated that true goals of ND policy can be reached: to promote stability, well-being and sustainable development in Northern Dimension. Lappeenranta University of Technology will be coordinating NDI institute next three years. During that time LUT will make concrete steps to make ND policy to come effective. By supporting the implementation two important strategic issues; building up the bridge to Russian markets and also the implementation of the Northern Dimension policy Lappeenranta University of Technology (LUT) is forming sustainable and safe elements for the future of Finnish economy and EU.

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Baltic Sea as *Res Publica* - limits and prospects

By Oleg V. Kharkhordin

Baltic Sea is more than just a sea; it is a unique example of cooperation between nine coastal states. Among them, only Russia is not a member of the European Union. On the one hand, it poses difficulty for the single centralized EU policy-making towards the Baltic Sea as it would be in case of an EU «internal sea». On the other hand, it is not just a challenge, but also an opportunity for the European countries to have an additional space for cooperation in the Baltic region. Not only and not mainly Brussels officials, but those directly situated on the Baltic Sea -- like cities, local communities and coastal states -- finally define an agenda and development strategy for the region. In such a way, the Baltic Sea may become a «common thing» - *Res Publica* - for the coastal countries and people.

Thus, mechanisms of international cooperation, created in the region before almost all the Baltic countries joined the European Union, can be kept to get new impulses for further development. The best examples of such mechanisms are HELCOM and Council of the Baltic Sea States as well as many smaller network structures of different governmental and non-governmental actors. As a result of an intensive cooperation, a perception of the Baltic Sea is constructed not only as a resource, but also as an object for care, around which some common activities for better environmental, economic, social and cultural situation are staged.

One can say, of course, that in spite of a variety of existing networks around the Baltic Sea, it has not become *Res Publica* in the full meaning of the term. The main barriers are connected here with the predominantly intergovernmental character of cooperation. The main political decisions are still taken by the high-level officials. The disadvantage of this approach is most obvious in the case of Russia. Although the current President and Prime-Minister grew up on the Baltic coast, now they should pay attention both to Baikal Lake and Laptev Sea, to Sea of Japan and Black Sea. Therefore, the Baltic Sea is far from being the first of national priorities of Russia. Politicians and officials in Moscow sign very good international agreements and conventions, but when it comes to the allocation of the federal budget, they are not ready to fund the relatively wealthy Baltic region.

As research conducted by the Center for European Studies of the European University at St. Petersburg in the framework of international PROBALT project has demonstrated, implementation of the international obligations of Russia and its cooperation in the Baltic Sea in particular face serious limits. In most cases, local and regional authorities stay away from solving environmental problems. In the logic of «vertical of power» they wait for Moscow's moves to implement "their" international obligations and do not recognize these problems as local. This is especially clear in the Kaliningrad oblast, which depends strongly on the federal center both politically and financially. A little bit less acutely this problem is felt in a more affluent region of St. Petersburg, but still, this presents a sizable problem there also.

At the same time, in the subjects of Russian Federation some other actors, wishing to solve the Baltic Sea problems, are available. First of all, these are the scientific community and non-governmental organizations. Their potential is still underestimated not only by the Russian authorities, which maintain a traditional distance from society and the academia, but also by European partners. It is understandable, why the EU representatives prefer to cooperate with the agents having political authority. In contemporary Russia their word is really extremely important, and probably more important than the obligations of business, scientists or NGOs.

But this is not the only reason for the frequent neglect of Russian researchers on the part of the bodies of international cooperation. European partners still display some kind of distrust towards knowledge production of Russian scholars; frequently, they even promote their own academics. This strengthens the existing barriers between the authorities and scientific community even more. Russian officials prefer to speak about the «Western standards», which the country allegedly lacks, and do not see the home-grown research products. As a result, ignored scientific potential is lost for everybody.

An active involvement of the potential members of the Baltic knowledge community into the international cooperation is very important for the perception of the Baltic Sea as *Res Rublica*. And neither Moscow nor Brussels should see the Baltic region-building as a threat for their integration processes on the national and supranational levels correspondingly. The more regional integration projects the states and their parts have, the more flexible they become and the easier they can be then involved in the political and non-political communities of all levels including sub-national, national, regional and supranational ones. This thesis was argumentatively demonstrated in the book «North-West Russia: A Region or Several Regions?» recently published by the Center for European Studies of the European University at St. Petersburg.

In the 1990s, both politicians and academics enthusiastically talked about the new type of «region-building» across the national borders, with some common goal, problems and «common concerns» that tie many actors together. But plans for radiant future was also predicted for the Baltic region even before -- already in 1974 -- when the first version of the Helsinki Convention was signed. Thus, after all these projected plans, less and less optimism and hopes are expressed by the adherents of the single Baltic region-building in the 2000s. Still, this might be wrong. The idea of the Baltic as *Res Publica* does not necessarily contradict with other ideas: it just points towards the need for some additional civic activities, which would contribute to a better, more effective and more responsible problem-solving on the part of all actors involved.

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Education must be marketed

By Maija Palonheimo

Over the past few years, Finns have learned to associate the word 'Pisa' with something other than the leaning tower. Pisa surveys indicate that Finnish comprehensive schools work well and produce good results. Numerous delegations from different countries have visited Finland to learn about our schooling system. This miraculous situation can, naturally, be attributed to the decision-makers in charge of our national education policies – but also to the tens of thousands of teachers who carry out the actual educating work in our schools. And these teachers, who produce excellent results, have received their education in Finnish universities.

Education is a brand

International recognition has surely not been the primary goal of our education policy-making; the main aim has simply been to create a well-functioning education system. However, the successful schooling system, good teacher education and further training have resulted in a renowned product that could even be called a brand. So now that we have the product, how do we make it an exportable asset?

Education export strategy needed

Last year, the Finnish Minister of Education Henna Virkkunen set up a workgroup to prepare an education export strategy. The Government will address the strategy in February and March 2010. According to initial information, the goal is to significantly increase the proportion of education export in Finland's total exports by 2015. At the moment, exported education services amount to approximately four million euros, which only represents one-quarter of a per mille of the total service exports.

The education export strategy workgroup has addressed the following issues, among others:

- Providing students with education abroad
- Providing foreign students with education in Finland
- Teacher education and further training
- Export of teaching technology and material
- Consulting with regard to the creation of an education system.

Good product packages needed

Science has always been global. Over centuries, researchers and research groups have travelled around the world. However, the international mobility of university education itself lacks long traditions. The existence of a product or expertise does not constitute an export product as such; sales and marketing skills are also needed in the process.

The field of education needs exports as well as imports. Attracting degree students is not enough, because most of the students who complete a degree free of charge in Finland do not stay in the country. Education exports could also bring financial gain.

Over the past few years, universities around the world have started to market their education offerings, some even quite aggressively. Many universities have independently or jointly conducted market research in such countries as China and India and then implemented extensive, expensive marketing campaigns on the basis of the research results. The marketing has mainly focused on recruiting degree students. However, as the seller of a product or expertise, an individual university is a far too small and lightweight operator; marketing requires co-operation on the regional and also nationwide scale.

Marketing resources needed

Every university has a communications department. The main focus area, and also the strongest area of expertise, in university communications has always been information distribution. This may be one of the reasons why universities have traditionally allocated very low resources to communications. Recently, Finnish universities – as well as many universities in the Baltic region – have started to employ professional marketing experts, marketing managers and planners. Many universities have included communications managers in their management groups. This is a good foundation for the marketing of education exports.

The first major challenge is to generate a positive attitude towards education marketing within universities. Some people may still see science and education as sacred topics not suitable for the world of marketing. Resource allocation is another challenge for marketing. One marketing planner cannot make miracles happen alone. The various channels of social media could also be of great assistance, at least on a short-term basis, in the international marketing of education.

As an example of education exports, the University of Turku and the Saudi-Arabian campus of Arab Open University (AOU) have signed a letter of intent with regard to the development of teacher education in Saudi Arabia in January 2010. The King Abdullah School Educational Reform Initiative aims at reforming teacher education in Saudi Arabia. The project entails providing 500,000 Saudi-Arabian teachers with further training over the next five years. The proven good practices deployed in Finland are to be utilised in the project in co-operation with the University of Turku.

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Baltic interconnections and beyond - how the European Commissions works towards energy security in Europe

By Gerhard Sabathil

In the east of the Baltic Sea, Finland, Estonia, Latvia and Lithuania are four member states which remain isolated from the integrated European Union gas transmission system. Traditionally, these member states have depended heavily on Russia as single supplier for gas and, in some cases, electricity. Helping diversify the energy access of hitherto isolated markets is one of the priorities of the work of the European Commission in the field of energy, and part of the overall strategy to ensure energy security for Europe in the future.

The Baltic gas market

Overall gas supply to the EU is changing rapidly, and the isolated markets in the Eastern Baltic region, with their accumulated demand of roughly 10 billion cubic metres (bcm) per year, need to be regarded within the overall adaptations of gas supply to Europe. Russia remains one of the major suppliers of natural gas for Europe. Considerable gas reserves are available in Norway which is in close proximity to the markets in question, and further supplies can be activated through liquefied natural gas (LNG) terminals, as well as further interconnections towards the South and the East, once all gas markets within the EU are fully interconnected. The long-used gas fields in EU member states (United Kingdom, The Netherlands, Denmark and Germany) are slowly depleting, and may contribute to the region for a period of time to be calculated rather in years than decades. Due to different geological conditions in the member states, not all are suited for establishing underground gas storage. This is another sign that only a regional approach can provide an economically suitable security of supply. Conditions for underground supplies are good in Latvia, Germany, Poland, and Denmark and possibly in Lithuania. The most important gas storage in the region is Inčukalns in Latvia.

The scars of a divided Europe are still visible in the area. Over the decades, two almost separate systems of pipelines were constructed. While member states which were formerly part of the Warsaw Pact are supplied by Russia, others were supplied mainly by The Netherlands and Germany. Some links exist between both pipeline systems, especially the Yamal-Europe pipeline – but this works only in one direction, from East to West. Without usability in the opposite direction (the "reverse flow" possibility) the pipeline contributes only little to the overall security of supply. While Russia is capable to meet the current demand in the East Baltic Sea region, such supply depends heavily on the availability of the Inčukalns gas storage and is sensitive to possible disruptions.

The role of the European Commission

In November 2008, with the Second Strategic Energy Review[1], the European Commission outlined its Energy strategy for the years to come. One of the six priorities of the action plan is the establishment of an integrated Baltic energy market. The idea is simple: a regional energy market can only become reality if the isolation of energy markets is overcome by new key infrastructures that make possible the cross-border trade in electricity and gas between EU member states in the region. To this end, the President of the European Commission, Barroso, launched the idea of a "Baltic Energy Market Interconnection Plan (BEMIP)" at the 2008 autumn European Council.

The role of the European Commission has been first and foremost that of a facilitator. With its expertise, it helps identifying the necessary interconnections to pave the way for a fully functioning cross-border energy market. The project will be successful when member states, national energy regulators, energy industries, and public and private financial institutions work hand in hand. In order to coordinate the individual activities, the Commission chairs a High Level Group has been set up with the participation of Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden, and Norway as an observer. The Group completed the initial work on an action plan June 2009, which has been transferred in a Memorandum of Understanding among the member states that form the High Level Group.

Internal market rules and interconnections

Today, the BEMIP has left the planning stage. The phase of implementation has begun. Three main areas of work have been identified: to establish the legal and regulatory framework for a real electricity market, to build the necessary electricity interconnections and ensure electricity generation, and to establish a gas market with the appropriate infrastructures. Based on the Nordic electricity market model, the completion of the Plan will allow all EU member states in the region an equitable access to an open energy market.

Regarding electricity market integration, always in conformity with the EU internal electricity market rules, key measures are:

- the removal of regulated energy tariffs in order to allow the formation of market prices
- clear operating frameworks for transmission system operators (TSOs), that transmit electrical power from generation plants to regional or local electircity distribution operators (DSOs), to allow for transparent access to infrastructures.
- removal of cross-border restrictions
- establishment of market based congestion management as well as common reserves and balancing power market
- full opening of the retail market to end-consumers
- establishment of common power exchange for physical trade of energy products in the Nordic and Baltic area.

New electricity infrastructure projects are to be constructed between the Nordic countries, linking Finland and Sweden, Sweden and Norway, Denmark and Norway, and others. Additionally, there will be projects linking the Baltic area with the Nordic countries, as well as Poland, as well as interconnections between Poland and Germany.

On gas, infrastructure may include new interconnections, the better use of existing infrastructures (e. g. establishing or enhancing the possibilities to use supply lines that have primarily been used in one direction, also in the other direction (reverse flow), facilities for LNG, as well as the development of additional gas storages).

[1] Second Strategic Energy Review : an EU energy security and solidarity action plan of 13 November 2008 (http://ec.europa.eu/energy/strategies/2008/2008_11_ser2_en.htm)

The Baltic initiative as part of the overall EU energy policy

The BEMIP is an important element of the overall policies of the EU, combining a regional approach (with the "EU Strategy for the Baltic Sea Region"), with policies in the field of energy and the environment (with the 20-20 by 2020 climate goals and the energy security strategy). The European Commission can use various financial tools to support the BEMIP projects, including the European Economic Recovery Programme (EERP), the cohesion fund, the programme on Trans-European Networks for Energy (TEN-E), etc.

With the Lisbon Treaty in force, the EU will have an even greater role to play in ensuring energy supply to all member states. The challenge is twofold: to create the internal market set-up and to ensure the energy supply from third countries. The current Treaty on the Functioning of the European Union (TFEU)[2] makes the Union an energy actor of its own right, attributing to the Union a shared competence together with the member states (Art. 4 TFEU). Title XXI of the TFEU deals exclusively with the Union's role in the field of energy and outlines the goals of a truly European energy policy: ensure the functioning of the energy market, ensure security of energy supply, promote energy efficiency and energy saving, and the development of new and renewable forms of energy, and promote the interconnection of energy networks. These significant changes will provide the Commission with the necessary tools to actively ensure energy security in the Baltic region and beyond.

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[2] consolidated version in OJ C 115/47 of 9 May 2008 (to be found on http://eur-lex.europa.eu/en/treaties/index.htm)

Happy end of pipeline conflicts?

By Leonid Grigoriev

Experts on gas industry in Europe may not believe their eyes. Orthodox Christmas of 2010 is behind us and no gas war at all! After five years of gas conflicts in Eastern Europe and struggles for and against new pipelines now it's quiet. May be skeptics were right and gas did not matter but politics? Some sober minds often hinted at it, but the heat of debates was too high to take it easily.

What was so important about gas? What were these conflicts about? Since the demand for gas is down at the time of the severe industrial recession in EU also there is much less pressure on Russians to invest and close the possible supply gap. Now it is not a suppliers', but the consumers' market. But pipeline gas pricing is based on oil prices – so, downturn in prices and incomes is limited. Gazprom and other suppliers now are concerned with economics of the projects. EU forecasters keep reducing the projections for gas demand. And Russian experts are quite concern again: few years ago on the supply – now on the demand. Still there is a danger that rosy scenario of 20-20-20 may be not actually realized on time. May be the EU is gambling on renewable and CCS by 2020. In this case the common wisdom recommends more Russian gas available in a decade.

Any way the race of pipelines and upstream projects is visibly easing, diversity of energy (gas) supplies is increasing in EU. The serious pressure applied by Brussels on Ukrainian politicians to exclude any steps on their side dangerous to gas supply (as in 2009). Russian Prime-minister made Gazprom to go on serious concessions in "take or pay" contract system (for Ukraine only) this winter to prevent any "Russian gas issue" in recent presidential elections in Ukraine. It appears all three sides tried in earnest to avoid `complications of the previous year and succeeded. Political collapse of Victor Uschenko has cleared the way for more cooperation on the repair of pipelines by involved parties. And Ukrainian economy will not be consuming so much gas as before the crisis.

Starting project by project approach from North to South we look at Shtockman first. Now it will be delayed by few years due to a limited demand in EU, and the shale gas & LNG suppliers in the USA. Russian huge gas field was in the focus for years but now it is a very big project, but not a controversy of the ownership and management. Of cause it will contribute to the EU supply in 2020. But the Final Investment Decision for Shtockman is delayed by another year – gas suppliers are not going to create the excessive in the near term after crisis. As the Oriental proverb says: Cautious is Sister of Wisdom.

The next goes the North Stream – its "ecology" was quietly approved by Swedish and Finnish governments. So much political ink was spent around that project. To say the truth Brussels always stood by the North Stream. Probably this lesson must be highlighted separately from all – politics should be separated the commerce. Russian experts mostly believed in this outcome and happily report it to the public. Now it will go on the commercial basis, and also will be delayed by the recession.

Belorussian story of pipelines and conflicts has nothing to do with the European energy security. It's an issue of "sort of subsidy" between two countries. Again we see the serious improvement this year – actually no damage to supplies by a financial (energy related) conflict. Moscow Ministry of Finance has managed to get back some of export duty concessions from colleagues in Minsk. And again – no major headlines in Media.

South Stream is knocking again on the doors of Bulgaria with an expected success eventually. Romania tried to divert it to itself but failed and established (as compensation?) some elements of American Anti-Missile Defense. On this background Russian-Turkish energy cooperation has been strengthened. Second Blue Stream may be coming, Turkish waters may be used for South Stream and Nuclear Station may be built as a package.

What is the overall outcome the long snowy winter of 2010? EU has time for renewables, and Russia has time for more development in upstream and infrastructure. Transit countries are becoming friendlier to avoid future losses. Turkmenistan starts gas delivery to China and restarts them to Russia. One loser is obvious: Nabucco is again without money and gas (but with a lot of "goodwill"). Personally I believe it will be completed some day for Iranian gas.

My prediction in the fall of 2009 was pretty simple: given there is no new Ukrainian gas conflict in 2010 – we may see "Gas Returning scenario" to Europe. Gas has still the best economics among fuels and decade or two in vision. Nuclear power is politically difficult, coal is waiting for CCS, renewable look like slow. After losing the role of "a politically suspicious fuel" in EU natural gas may become again an energy favorite in years ahead of us. Winter 2010 has proved how quickly the political mines can be discharging by commerce and common sense.

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The future role of LNG in EU's gas supply – issues for consideration

By Boyan Kavalov and Hrvoje Petric

The sharp increase in energy prices in 2007-2008 and the temporary cutbacks in pipeline gas imports from Russia over the past few years have heightened EU concerns about the security, diversity, reliability and affordability of natural gas supply. The delivery of liquefied natural gas (LNG) by sea from various suppliers, as an alternative to mainstream shipments through pipelines, is seen as a way to relieve these concerns. Thus, world LNG trade has soared over the past three decades and is set to continue its rapid growth in the future. An accelerated penetration of LNG in the EU gas market by 2020-2030 may, however, present some important issues that deserve careful consideration.

LNG already contributes to the security and diversity of natural gas supply of the EU, even though its share of overall gas imports is moderate (≈15%). The gains in terms of diversity of supply may be reduced and even become doubtful if LNG takes up a much larger proportion of EU's gas imports. LNG supply is heavily concentrated in the hands of a small number of countries. The LNG market will most likely remain a seller driven market for the foreseeable future, because the development of world liquefaction capacity (the supply side) is lagging behind the development of re-gasification capacity (the demand side). The recently formed Gas Exporting Countries Forum (GECF), which is sometimes described as a "gas-OPEC", does not have the power to control pipeline gas deliveries in the world, but its members hold the lion's share of world LNG supply (□85%). The dominance of GECF over world LNG supply is not expected to ease in the foreseeable future and it is most likely to remain at 75-80% in the next 10 years, underpinned by GECF's □70% share of world gas reserves. Based on these arguments and given the specifics of gas trading and logistics, the creation of a cartel of LNG exporting countries should not be ruled out, even though the emergence of a global gas cartel seems unlikely. In this context, it is worth noting that OPEC's share of global oil supply is approximately half the size of GECF's share of world LNG supply; notwithstanding that more than half of OPEC members are also members of GECF. Unlike OPEC, the eventual LNG cartel will most probably not go for "hard" measures, such as quota fixing, but rather for "softer" approaches, such as co-ordinated (but not regulated) production, price regulation (setting some form of "floor price/s"), optimisation of shipments by regions ("tying/linking" certain users to certain suppliers), offering more favourable contractual terms and conditions (for exporters), increasing the share of flexible "spot" cargoes, etc. The future development of GECF is important for the EU, because Europe currently sources almost all of its LNG from GECF members. The involvement of Russia in GECF will be critical for the overall success of the cartel.

LNG projects are among the most expensive and technically complicated energy projects. Coupled with the likely predominance of supply over demand in the foreseeable future, if the EU chooses to go for a large contribution of LNG to meet its overall gas demand, EU customers will most likely face higher prices for gas. Price affordability may become a key issue when taking the political and investment decisions on LNG.

The LNG supply chain tends to be more energy intensive than the supply chain for pipeline gas, because of the extra processing steps. The difference is narrower when LNG is compared to remote pipeline deliveries, but closing the gap does not seem feasible in practice. Similarly, the LNG supply chain has a poorer balance of greenhouse gas (GHG) emissions than the pipeline gas supply chain. Typically the GHG performance gap is smaller than the energy efficiency gap, because of the unavoidable methane leaks from pipelines. LNG may be a less GHG-intensive option than pipeline supplies under certain conditions, e.g. when the alternative is very remote pipeline deliveries of gas or when LNG is brought to the end-users in liquid form and then re-gasified on-site. However, if LNG is going to be fired in advanced power generation plants equipped with carbon capture and storage facilities, its overall GHG balance might become comparable to that of coal and oil derivatives.

Owing to the liquefaction process, which involves some mandatory cleaning of the raw natural gas, LNG has higher purity, higher methane and overall energy content, and a more stable composition than pipeline gas. Hence, LNG can be considered as a superior fuel to the "leaner" pipeline gas. However, the superior quality of LNG, obtained at a higher cost in terms of energy use and GHG emissions, is actually a problem in Europe today. This is because the vast majority of end-use facilities are tuned to the "leaner" pipeline gas quality that dominates the overall EU gas mix. In order to meet quality requirements of users, LNG is usually blended ("contaminated" with pipeline gas or nitrogen) at the expense of further energy and GHG losses. With LNG's share of the EU's overall gas consumption widely expected to expand, some changes to the gas quality specifications in Europe may be necessary. There might therefore be a case for optimising LNG use by taking advantage of its superior quality over pipeline gas, i.e. evolving from a purely *logistics* concept to a *product* concept. The transport sector could be a potential niche market for LNG, where LNG could be used as a high-quality automotive fuel.

Shipping is the most volatile cost parameter in the whole LNG chain. It may define the relative competitiveness of LNG supply options against each other and with respect to other gas and non-gas energy alternatives. The development of the LNG fleet has closely followed that of LNG trade and this trend is likely to continue in the future. Unlike LNG production, the ownership structure of the LNG fleet is rather dispersed, at least at the present time. Although significant growth in LNG trade by sea is expected by 2020-2030, its impact on the overall traffic by sea, including in the main "choke points" of the English Channel, Dardanelles, Bosphorus and Suez Canal, will be negligible. This is because the LNG fleet accounts for only a modest share (currently less than 2%) of the global merchant fleet. While new LNG carriers are unlikely to be built in Europe, the anticipated growth in voyages to Europe may offer more ship repair opportunities to European shipyards, especially in Southern Europe. The main challenges facing LNG shipping appear to be the growing crew shortages (with potential negative implications for the safety records of the vessels operating) and traffic delays and related congestion risks in specific zones where there are more stringent safety and security rules for handling LNG carriers.

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Eurasian oil and gas - are perceptions changing too fast?

By Pekka Sutela

What a difference a year can make! In early 2009, after gas flows from East to West through Ukraine had just been restored, all the talk was about diminishing EU27 dependence on Russian gas. Though commentators necessarily disagreed on the exact division of the responsibility for supply disturbances between Russia and Ukraine, they were unanimous that this supply route had proven unreliable, that the EU27 dependence on Russian gas is excessive, and that speedy measures must be taken to moderate overall gas consumption, to diversify supply sources, and to create at least some of the infrastructure for a more common European gas market. Much has changed since. The issue however is, whether we are risking taking short-term cycles for long-term trends.

This, in particular, concerns the impact of the economic crisis. A few percentage points of global output have been lost, and the demand for resources has been correspondingly lower. The issue is whether post-crisis economic growth has been damaged for the medium-to-long term, or whether the world will return to previous trend growth in a year or so. If the latter were the case, as the most prestigious forecasting institutions, lead by the IMF increasingly believe, energy demand would - other things being equal - return to pre-crisis levels very soon. If, on the other hand, post-crisis growth would be permanently lower, even a single per cent drop in potential growth rate would imply a major shift in the demand-supply equation and therefore in prices and investment. But we really do not know yet, and the precautious decision would be to proceed as if potential growth has not been suppressed. Therefore, the forward-brought peak oil predictions, with obvious consequences for price, technical change and investment, must be taken more seriously than before.

But there is also an issue of peak demand. If growth in the wealthy nations remains low, and as growth in China is bound to moderate in several years, if true climate change goals are adopted and followed through, and if needed technical change is available, energy demand will not necessarily grow infinitely. If the EU27 potential growth rate is - say - less than 2 per cent annually, a historically relatively modest energy efficiency improvement of 2 per cent annually equals lower energy consumption in Europe. The 3 per cent growth rate in the USA would imply some increase in consumption, while a 5 per cent growth in China would indeed lead to much increased energy consumption. Two caveats are in order. China's future growth will be basically fuelled by coal with relatively modest implications for world energy trade. Also, a backward country like China has much wider efficiency potential than the OECD countries already at the technological frontier.

One cannot exclude the possibility of energy production being constrained by demand, not by supply in the decades to come.

At the same time the market is evolving. Additional LNG is now available and that together with demand depressed by the crisis, the diversification plans induced by the gas scare of early 2009 and continued emphasis on moderating climate change brought both oil and gas prices down, but nothing like the levels one could have expected in an environment of lower world economic activity. Instead of the 40 USD barrel prices widely expected, we are facing a price level double that. Whether that is because of exceptionally successful OPEC quota cuts, the strength of energy as an investment instrument or some other factors, the resilience of oil and gas prices has been a major surprise. Therefore, though the oil-linked and lagged Eurasian gas pricing mechanism has been vocally questioned, emphasis on long supply contracts may still stage a comeback. Pipeline gas suppliers have an evident interest in such contracts: very major investment outlays are involved both in opening up new fields and in maintaining old ones. In addition, any elementary textbook in economics tells that price discrimination is in the best interest of the seller, whether she is Russian, Norwegian or Libyan. Therefore, destination clauses have been a self-evident feature of supply contracts. Neither are they necessarily against the interests of the buyer. Especially when combined with supplier's ownership share in pipelines or otherwise downstream, they can be seen as part of a very strong commitment device potentially of high value in case of supply scarcity.

This is not to deny the merits of a more common European hydrocarbons market. While nobody would deny the need for more storage facilities and interconnectors, it is less self-evident how a spot-like market for gas might in practice combine with the continued relevance of long-term supply contracts. The European market continues to be geographically divided into three: Russia-dependent East, North Sea based West, and North Africa -dependent South. LNG has somewhat softened this division, but the time when the Baltic countries might consume Algerian pipeline gas is as distant as ever. Building parallel infrastructures would add into transport costs, as would any politically dictated unbundling of ownership - in fact a bureaucratic micromanagement of corporate governance - over extremely costly structures.

One more change is the recent euphoria over Northern American unconventional gas. At least the Shtokman project is seen by Russian authorities as conditional on US import demand for LNG. If however this demand shrinks to basically nothing, as it may, Shtokman should be postponed perhaps by decades. Concentrating Gazprom's highly stretched resources on Yamal would seem to make prominent sense anyway, and a clear-cut decision on shelving Shtokman would facilitate it. What happens in Northern America thus has a bearing on Europe as well. There seem to be geological reasons why unconventional gas will never have a major role in Europe itself. Further, extracting shale gas goes with huge environmental damage. Surely, environmental issues would in any case be much more pronounced in EU27 than in thinly populated parts of Canada, the USA and potentially Russia.

Finally, the scene has somewhat eased politically. There is less purely politically motivated pressure in favor of Nabucco, where the underlying question - "But where is the gas?" - very much remains unresolved. There is also much less politically motivated opposition to North Stream. Overall, this together with the shifts in demand and supply just outlined seems to open a window -probably for several years - for rational and more relaxed consideration on how to combine the interests involved in Eurasian oil and gas. Basic facts remain: also in future oil and gas will flow from East to West, money, technologies and investment from West to East. This should create a sufficient basis for the necessary double coincidence of needs underlying any business transaction, small or large.

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Russia's future gas export capability

By Rafael Fernández

It isn't easy to determine Russia's future gas export capability, as this depends on the evolution of many different factors, both supply and demand side. However, despite what some commentators have suggested, especially just preceding the world crisis, it is my opinion that Russian supply agreements with European countries are not, and have never been, at risk.

From the standpoint of supply, the growth potential for Russian production in the medium term is certainly limited by the decline of the two West Siberian super fields of Yamburg and Urengoy. The depletion rate of these fields is difficult to predict, but, according to official sources, the entire production of Nadym-Purtaz, which accounts for 90% of all Russian output, is not expected to rise above 470 bcm in 2020, considerably below the 592 bcm produced in 2008. Given this sharp decrease, Russia will soon be forced to put into operation the huge reserves located in the Northwest (Yamal, the bays of Ob and Taz, Bolsekhetskaya, Shtokman) and East of the country (Eastern Siberia, Far East, and Sakhalin).

There is no doubt that, in the long term, these new regions have an enormous productive potential, but for the near future the question will be whether the investments required to commercialize these resources will arrive in time to offset the decline in production recorded by the large fields that were open during the Soviet era. In this respect, the most pessimistic analyses indicate that Gazrprom's passive investing policy until the early years of the new century, coupled with its recent policy heavily focused on expanding gas business abroad, make it impossible for new regions to grow so quickly as to avoid an overall drop in production.

However, there are reasons to be somewhat more optimistic, because Gazprom managers are well aware that becoming a global energy company also requires strengthening the core business, which is upstream, inside Russia. Thus, since 2005, the state company, in absolute harmony with government strategic policy, has been leading the development of major projects for drilling, production, and transport of gas from the East and Northwest regions, almost always sharing risks with large foreign companies.

Moreover, it is useful to recall that domestic production does not depend exclusively on Gazprom's production. Today, independent firms, including both gas (Novatek) and oil companies (Lukoil and Rosneft, in particular), share 17% of Russian output; in the future, these companies will surely register the highest production increases. The difficult thing is to guess how large these increases will be.

If over the next twelve years these companies were able to double their production --not an impossible goal-- Russian production could reach 800 bcm, even while Gazprom's production remains close to pre-crisis levels (550 bcm). Of course, 800 bcm could also be achieved if the independents fail to raise output to over 200 bcm by 2020 (production in 2008 was at 112 bcm); in this case, it would be necessary for Gazprom's production to reach 600 bcm, requiring a growth rate of just 0.7% per annum.

Authorities are confident about surpassing 800 bcm in 2020. Indeed, in the Russian energy strategy to 2030, recently approved by Parliament, production was placed in the range of 803-837 bcm, with three quarters coming from Gazprom and one quarter from the independents. Such growth would assume that in 12 to 15 years, 'new' regions will raise production from just 20 bcm in 2008 to around 300 bcm, providing more than one-third of Russian output in 2020 and more than half in 2030. These estimates are probably exaggerated, but beyond the numbers the government's new plan shows that in recent years companies and authorities have finally decided on a roadmap to address the challenges facing the gas sector.

Finally, it should be noted that Russian supply is not equivalent to domestic production, since the country has the opportunity to import gas from Central Asia. Although Turkmen gas to Russia was interrupted in 2009, and Gazprom wants to slash gas purchases to a maximum of 10.5 bcm per year from 2010-12, down from around 42 bcm/yr in 2007 and 2008, both countries are able to trade around 70-80 bcm annually, which, together with Kazakh exports, gives Russia an additional margin of nearly 100 bcm to meet both domestic and foreign demand, despite competition from China.

Therefore if total supply in 2020 (including imports from Central Asia) was in a range of 850-900 bcm, exports could reach 330-380 bcm, always provided that domestic consumption is kept within reasonable margins of growth. These rates might be around 1%, if we take into account that a) Russian economic growth will hardly meet the expectations made before the crisis, b) gas domestic prices are rising, and c) there is still ample room for energy saving through the gradual renovation of power plants, industrial capital, and housing stock. However, authorities foresee that consumption will rise faster, from 457 bcm to 539-564 bcm, translating to an annual growth rate that ranges between 1.3% and 1.7%. According to this growth, exports level in 2020 would be around 290-350 bcm. The Russian energy strategy hopes to reach 330 bcm.

Currently, almost 100% of Russian exports go to Europe, but Russian strategy envisions a substantial increase in sales to Asia; the government aims to raise Asian market share to 15% in 2020. This goal will not be easy to achieve, because investments are very much concentrated in Northwestern fields, but if gas from West Siberia is pumped to Asia through the Altai pipeline, the scope for export growth to Europe will be reduced: Russia's exports of gas to Europe could probably not be above 300 bcm from 207 bcm in 2008.

However, the European region includes the EU, Turkey, and CIS importing countries. As CIS demand will tend to shrink, as Russian export prices tend to rise, it is reasonable to expect that exports to the EU (plus Turkey) could reach 250 bcm in 2020 from 155 bcm in 2008. This increase is more than sufficient not only to ensure compliance with gas trade contracts, but to remain Russian share in EU gas imports close to present levels.

Finally, this overall balance is currently presenting even more flexible margins, because European consumption suffered a sharp drop in 2009, resulting in lower Russian exports, which were down 24% from 2008 (with 31% to Germany, 19% to Italy, 10% to France, and 17% to Turkey). As a result, Europeans are now ironically finding it difficult to satisfy trade contracts, since they are required to pay according to contracted use, regardless of actual use. This decline, however temporary, can be of great importance in the long-term, because it allows Russia to "keep" gas (Gazprom production fell to 462 bcm in 2009 from 550 in 2008, and overall production dropped to 583 from 664 bcm) and buy time to develop its investment projects, some of which (Shtockman, for example) are experiencing significant delays. In this way, Russia and the EU may leave behind the tensions that have surrounded gas trade in recent years.

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Gazprom's uncertain future within the gas market's 'quiet revolution'

By Roderick Kefferpütz

Last year has certainly been a roller-coaster ride for the natural gas market. Starting with Europe's longest interruption of gas supplies during the Russian-Ukrainian stand-off in January, the year ended with an unexpected oversupply of gas that threatened to lead to commercial disputes between Gazprom and its Western counterparts as the latter was loath to buy the required amount of gas stipulated under the take-or-pay contracts. Both events have cost Gazprom dearly. Sales fell 11.4 per cent last year to 140 billion cubic meters (bcm) with export revenues expected to have plummeted to $40-42 billion in 2009 compared with $64 billion the previous year.

While the Great Recession certainly shaved off a couple of percentage points from the overall gas demand as industrial output shrunk in order to cope with the new economic realities, thereby affecting Gazprom's exports, this is not the only factor. In fact, two other dynamics have continued to gradually transform the market to the detriment of Russia's gas monopoly.

First and foremost, the gas market is slowly but steadily becoming more and more global as new liquefied natural gas (LNG) supplies are rapidly expanding. Qatar is spearheading those developments having increased its LNG production by 67 per cent last year and hoping to expand exports to over 77 million tons per annum (tpa) while other actors, such as Australia, which is boosting its LNG capacities with the new Gorgon project, are also joining this trend. Abundant spot-market LNG supplies were particularly sought after in Europe as they were cheaper than Russian gas, whose price is indexed to oil. As such, European industries decided it was better business to buy gas independently or through other traders in the third and fourth quarter of 2009 for roughly $116 per thousand cubic meter (mcm) than for over $287/mcm under Gazprom's long-term contracts. The fact that the United States reduced its natural gas imports made even more LNG supplies available to other players such as the European Union.

This reduction in American natural gas imports is due to the second fundamental factor. US wildcat gas companies have advanced in drilling technology that has made the extraction of natural gas from shale formations possible. This has dramatically changed the outlook of gas supply. While just a couple of years back everyone thought the United States was running out of natural gas, now the market in America seems awash with it. This new 'shale gas' is a veritable game-changer. PFC Energy, for example, believes that developing shale gas could more than quadruple the world's known gas supplies. In this context, the major oil and gas companies have sought to acquire this new drilling technology named hydraulic fracturing, or fracking, by buying up some of the US independents or concluding co-operation agreements. ExxonMobil, for example, is acquiring XTO Energy for $41 billion while France's Total and Norway's Statoil have made joint venture agreements with Chesapeake Energy on its Barnett shale assets. And while the US is particularly rich in shale gas, other regions are not badly endowed either with companies investigating shale gas opportunities in China, India, Argentina and Canada. The former in particular would benefit from such gas supplies as it would provide it with greater energy security and a more environmentally-friendly fuel. In this context, Barack Obama together with Hu Jintao has recently launched the US-China Shale Gas Resource Initiative in order to use the experience in the US to assess China's potential supplies.

Europe also holds shale gas reserves, which are currently being explored in Sweden, Austria, Germany and Poland. The reserves of these unconventional gas supplies in Europe are unknown. But the International Energy Agency estimates them to be roughly at 35 trillion cubic meters. While this is significantly less than US or Russian supplies, it is still roughly six times the continent's conventional reserves. Tapping these gas supplies in the European Union could potentially reduce Russian gas imports. Gazprom has tried to downplay this fact stating that its gas is significantly cheaper than unconventional gas supplies but developing shale gas is, according to some sources, even profitable at $3.20 per mBtu (million British thermal units) although others put that figure closer to $8.50. Furthermore, if Russian gas continues to be indexed to the price of oil, unconventional supplies could certainly become competitive depending on dynamics in the oil market. Even if shale gas does not meet expectations in Europe, the expansion of unconventional gas supplies in the US will, as mentioned above, certainly benefit the European Union since reduced LNG imports from the US will re-direct tankers to re-gasification terminals in the EU, which are expanding in numbers, thereby boosting EU supplies and exerting downward pressure on prices.

Shale gas is, in the words of BP's Tony Hayward, truly a 'quiet revolution' that has the potential to significantly change the natural gas market. Even Gazprom has, according to Kommersant, recently acknowledged this stating that 'virtually all companies speak about the prospects of shale gas production – something that may radically change the entire global gas market'.[1] Unsurprisingly, rumours have circulated that the Russian gas giant might at some point decide itself to invest in some of the US wildcat unconventional gas developers in order to acquire their expertise.

Be that as it may, while Gazprom will certainly continue to play an important role in the global energy mix, it will have to adapt to the changing realities in the gas market, which will increase competition and thereby make its market share more vulnerable.

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[1] 'Gazprom to discuss strategy as US market set to slip away', RIA Novosti, 26 January 2009.

The surge in unconventional gas - implications for Russian export strategies

By Indra Øverland

This brief comment outlines the changes underway in the production of unconventional gas in North America and sketches the possible chain of consequences for Russia's role as a gas exporter. *If* the current trend in the production of unconventional gas continues, it may have a considerable impact on Russia's export strategies and economic prospects. In an extreme scenario it might even undermine the viability of the Nord Stream, Shtokman and Yamal projects.

Shale gas

There are several kinds of unconventional gas; here the focus is on shale gas. In recent years, two technologies have transformed natural gas production in North America: horizontal drilling and hydraulic fracturing. Horizontal drilling makes it possible to access larger areas within hydrocarbon fields. Hydraulic fracturing involves injecting mixtures of water and sand at high pressure to crack rock so that it releases gas once considered unreachable. As a result of new ways of combining these two techniques, shale gas fields previously deemed unprofitable to develop have now become highly attractive. In the two decades from 1990 to 2010, the use of shale gas expanded from covering 10% of US supplies, to 40% – and is still increasing rapidly.[1] As a result, gas prices in North America, where the new techniques were pioneered, have fallen sharply.

Four consequences

These developments on the other side of the Atlantic could potentially have several consequences for Russian gas exports. Let us look briefly at four of them.

(1) The first consequence can already be observed. With prices in the North American market falling, it has become less attractive to develop LNG projects which depend wholly or partially on that market. Import terminals for LNG in the USA are running at 10% of capacity.[2] The USA, which was until recently expected to become increasingly dependent on imports, might even become a net exporter of natural gas in the long term. In 2008, net imports accounted for 13% of natural gas consumed in the USA,[3] so it would not take much to close the gap.

(2) Because the North American market is saturated, more LNG from other parts of the world will also find its way to Europe, creating further competition for Russian gas there. Europe has excellent infrastructure in terms of a large number of reception terminals for LNG. In the North Atlantic Basin, LNG is supplied by countries such as Algeria, Nigeria, Libya, Trinidad and Tobago, Egypt and Norway. Any LNG not sold on long-term contracts and any future increases in LNG production (for example, from Angola) yet to be contracted may go to Europe, where there are already many import terminals, with more under construction or planned.

(3) Although the geological potential is still poorly mapped, shale gas is likely to be found and extracted in Europe itself on some scale. The question is how much, at what cost and whether environmental concerns related to the use of large amounts of water in hydrological fracturing will dampen these developments in Europe (perhaps also in North America). The International Energy Agency has estimated that unconventional gas reserves could be six times greater than conventional gas reserves in Europe.[4] There are currently projects to examine the shale gas potential in France, Germany, Poland, Sweden and the UK, and more countries will probably be added to this list. If – and this is still a major 'if'– there are big plays in unconventional gas in the EU and Ukraine, that would put downward pressure on natural gas prices in Europe, Gazprom's profits and the financial buoyancy of the Russian state. Such trends would be particularly salient if countries such as Poland and Ukraine, keen to lessen their current dependence on Russian gas, were found to have major reserves of shale gas. That could lead to a reshuffling of today's geopolitical power relationships in the region.

(4) Unconventional gas also exists in the Asia-Pacific region, including in China, although there is great uncertainty as to the magnitude of reserves and whether they are suited for extraction. If these resources are developed on a large scale, Russian gas exports could be squeezed from both the West and the East. Increasing Alaskan, South American and Middle Eastern LNG exports to the Far East due to the North American (and possible European) glut could reinforce the eastern part of such a squeeze. However, the consequences in the Far East may prove smaller, because the energy deficit there is growing faster than in the West.

Broader ramifications

If Russian gas exports should become partially displaced by unconventional gas and LNG from other countries, that would reduce the interdependence between Russia and its customer countries, lessening Russia's clout in the post-Soviet republics and Western Europe. It would also dampen economic growth in Russia and increase the pressure for an industrial policy more genuinely oriented towards innovation and manufacturing. On the other hand, there would also be less pressure to raise domestic Russian gas prices – thus *removing* an incentive for industrial diversification.

In a scenario in which shale gas is found and developed on a large scale in Europe as well as North America – still entirely hypothetical at this point – projects such as Nord Stream, Shtokman and Yamal (as well as Nabucco) might be cancelled, at least for the time being. Such developments would also mean that the Baltic countries would be facing a different Russia.

In the longer term (say 20 years), a shale-driven global gas glut could also have some rather different consequences. Readily available supplies of gas worldwide combined with the enforcement of a global climate regime and steadily expanding global LNG production could result in an evolution towards a world gas market, or at least tighter linkages between today's regional markets. The possible

[1] Yergin and Ineson, 'America's Natural Gas Revolution', Wall Street Journal, 2 Nov. 2009, http://online.wsj.com/article/SB10001424052748703399204574507440795971268.html, accessed 1 Feb. 2010.

[2] Shale Gas Blasts Open World Energy Market', Sunday Times, 1 Nov. 2009, http://business.timesonline.co.uk/tol/business/industry_sectors/natural_resources/article6898015.ece, accessed 1 Feb. 2010.

[3] EIA, 'Natural Gas Imports and Exports: 2008', http://www.eia.doe.gov/pub/oil_gas/natural_gas/feature_articles/2009/ngimpexp2008/ngimpexp2008.htm, accessed 2 Feb. 2010.

[4] Eric Watkins (2010) 'Shell Begins Drilling for Shale Gas in Sweden', Oil and Gas Journal, 15 Jan., http://www.ogj.com/index/article-display/3531908459/articles/oil-gas-journal/drilling-production-2/drilling-operations/2010/01/shell-begins_drilling.html, accessed 3 Feb. 2010.

combined eastern and western squeeze of Russian export markets mentioned above would be one such interlinkage. In such a situation, Russia might reinvigorate its initiatives towards Iran and other countries with major gas reserves, aiming at greater coordination of gas export policy and possibly even cartelisation. The potential emergence of larger spot markets with free trade in gas, driven by oversupply of unconventional gas and LNG, could prove particularly conducive to cartel-like behaviour.

Doubts

All these hypothetical developments would depend on the criss-crossing interactions between developments in the natural gas sector, global economic growth, the international climate regime and technological innovation. For example, the future international climate regime might promote gas strongly, thereby reducing the oversupply. Future technological developments could make unconventional gas cheaper to extract, or could allay the currently growing concerns about environmental impacts.

Actors oriented towards peak oil perspectives and convinced that the world will start running out of hydrocarbons in the near future hold that unconventional gas will prove to be a mere blip. They argue that production of unconventional gas surges rapidly, only to plummet after a very short time. In that case, the consequences of unconventional gas outlined above are likely to be non-events. Others argue that the long-term costs of extracting shale gas will undermine it as a major factor.

In contrast, organisations and commentators critical of peak oil perspectives, among them Cambridge Energy Research Associates (CERA), believe that the growth in unconventional gas will have a long-term impact. They argue that even if the decline rates for unconventional gas are relatively high, the cost of drilling is recouped so fast that it will still make economic sense, and that the reserves of unconventional gas are so great (at least in North America) that it is always possible to move on to new fields. If they are right, the possible consequences for Russia outlined above deserve more thorough analysis.

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Factors explaining the smooth co-operation between German and Russian gas companies

By Andreas Heinrich and Heiko Pleines

Co-operation between German gas companies, namely E.ON Ruhrgas and Wintershall (BASF), and Russia's Gazprom has developed slowly but steadily since the end of the Soviet Union. Their strategic partnership has expanded from the gas trade to joint investment projects in the upstream and downstream sectors. Although there have been delays and long negotiations over specific deals, there has never been a major setback or a real clash between the partners. This fairly smooth relationship is in sharp contrast to the experience of many other big foreign investors in Russia.

To uncover the factors behind this relative success, we conducted a survey of 20 international experts on German-Russian energy co-operation with company, advisory or academic backgrounds. The experts were asked in an open question to name the major explaining factors and rank them according to importance. However, about half of them declined to rank the factors, arguing that importance is difficult to quantify and that the various aspects are interdependent in their impact.

Although 85% of our respondents cited political factors as contributors to the smooth co-operation, not a single expert ranked them as the most important factors. Company strategy was mentioned by 80% of the respondents and ranked as the most important factor by a third of them. Macro-economic and historical factors were each mentioned by 50% of the respondents. Cultural and technological factors were at the bottom, mentioned by only 30% and 25% of the experts, respectively.

Political factors

When asked about political factors, the experts emphasized Germany's foreign policy, which has helped to forge a basic trust between the two countries since the 1970s. In the experts' view, this trust forms the basis for the continuous political backing of the gas companies as well as government support in both countries for closer economic ties. This mutual trust is seen as a kind of political 'insurance' against potential investment risks in Russia. On both sides, pragmatism prevails over a normative approach at the governmental and company levels.

In addition, some experts cited geopolitical considerations: The strategic partnership between the two countries gives both a bigger weight in European politics, especially concerning energy policy. Both countries prefer a bilateral energy policy and emphasize the role of the state in energy relations; this makes them 'natural' allies in their objections to the liberalization of the European gas market.

Experts closer to the companies put more stress on lower level politics, like support from specific ministries and specific government programmes as well as public programmes in the form of cultural exchanges or 'sister city' arrangements.

Company strategy

Concerning company strategy, experts stressed complementary interests based on the gas trade and a common desire to e.g. promote energy security through direct export links (such as the Nord Stream pipeline). Many also pointed to mutual asset ownership as an important strategic element.

Experts closer to the companies also mentioned mutual trust, continuities in personnel on both sides, an open-minded approach towards each other, and pragmatism. The exchange and training programmes for company employees and a relatively high number of German company employees with a Russian background were cited as examples. Some experts also mentioned sponsored activities as lower-ranking factors.

Macro-economic factors

The macro-economic factors mentioned by the experts can be divided into two groups: 1) German dependence on energy imports from Russia and Russian dependence on Germany as a major export market and access point to the vital EU market and 2) similar economic policy concepts and market structures. The experts highlighted the similarity of the German and Russian gas markets, e.g. their high degrees of state regulation and very limited competition due to oligopolies.

Historical factors

The experts offered examples of historical factors from the spheres of politics, macro-economics and company strategy. These were not argued to be direct causal links but rather elements contributing to tradition and continuity. The countries' business relations, which reach back more than three decades, have resulted in mutual experience and familiarity with one another. In this view both sides have come to trust and rely upon each other; these business relations have also created durable personal networks among the business elites in both countries.

Cultural factors

Some experts described Germans as being culturally closer to Russians than other Western nationalities active in the Russian oil and gas industry. A number of them explained this as a simple matter of cultural predisposition. Other pointed to what one expert called the Germans' lack of 'imperial hangovers' that could offend Russian partners; another respondent referred to the Russians' lack of 'superpower reflexes' toward Germans, who they see as the losers of World War II. Finally, several experts cited Germany's eye-level approach to co-operation, which entails equal rights and obligations for both partners (which are defined jointly and not just by the Western side).

Technological factors

Several experts noted that the existing pipeline infrastructure has become a factor in its own right. The mutually interlocking pipeline infrastructure makes it virtually impossible for the companies to cease co-operating even if all other factors of influence were no longer valid.

Conclusion

In the experts' view, the German gas companies' smooth and stable partnership with Gazprom is clearly rooted in the long-term co-operation strategy of German companies and the German government. This strategy is based on a deliberate restraint from criticism and a willingness to compromise, or an eye-level approach. In addition, the German government as well as the companies have developed a multitude of contacts and projects with Russian partners at the working level, which has led to stable personal networks at the lower levels of management and state administration.

This strategy is built on complementary interests in foreign policy in general, but specifically in foreign trade and energy security. This interdependence has been cemented for the long-term through a mutually interlocking pipeline infrastructure. The co-operation between German gas companies and Gazprom is also supported by a certain (perceived) cultural proximity. Finally, the long history of co-operation has created a feeling of familiarity and predictability, and therefore constitutes an explaining factor in its own right.

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Russia's Wild East - problematising Russia's gas industry in Sakha

By David Dusseault

Introduction

Unlike many regions of the Russian Federation, the Republic of Sakha (Yakutia) was able to withstand the economic hardships of the post-Soviet period due to the republic's natural wealth. While exports of Sakha's diamonds, coal and gold have since maintained an above average standard of living for the Republic's population, diversification of the traditional resource export economy looms. Resting on Sakha's economic horizon awaits a hydrocarbon driven boom, which if correctly harnessed, could serve to transform the Republic from a raw commodity exporter to the economic dynamo for the whole of Russia's Far East.

There are high expectations for and the possibilities to fulfill common socio-economic interests concerning Sakha's new role as energy dynamo for the Far East. Nevertheless, structural challenges to the fulfillment of the Republic's as well as Moscow's vision are posed by the region's extreme climate and environmental conditions; a substantial lack of basic infrastructure; the Republican administration's ability to coordinate domestic versus federal interests; as well as the sheer scope and ambition of the projects discussed below.

Growth and Investment in the Gas Industry

The resource base for Russia's energy sector is increasingly orientating towards Eastern Siberia and off the continental shelves of the Arctic Ocean and Okhotsk Sea for pre-peak or undeveloped greenfield projects. Within the context of the Far East Federal Okrug, Yakutia produces 38% of the gas (approximately 1.6bcm), 32% of which is utilized for power generation, while 65% is employed in district heating.

The Republic's major fields currently under production are located along the south-western reaches of the Veluj river valley towards the Republic's border with Irkutsk Oblast. This central cluster of fields which forms the basis for Sakha's growing gas industry is divided among the federal monopoly Gazprom (Chajadinskoje Field 2mt oil / 25bcm natural gas), the privately owned oil giant Surgutneftegaz (Talakanskoje Field 6.5mt oil / 790mcm natural gas), the Republican owned Sakhatransneftegaz (Otrjadinskoje Field 100mcm natural gas) and the joint stock company Taas-Jurjakh Neftegazdobycha (Srednjebotuobinskoje Field 4.5mt oil / 430mcm natural gas).

To augment the Republic's gas industry's activities beyond that of power and heat generation or gas export, the Sakha administration has earmarked funding for major capital investments in the transit and value added sectors. These mega investment projects include the Chajadanskoje-Khabarovsk gas pipeline, which will run natural gas from the central field cluster along the path taken by the ESPO oil pipeline to the Pacific port of Khabarovsk. Additionally, a combined natural gas and oil refinery complex will be built in the city of Lensk along with two smaller natural gas refineries in the cities of Yakutsk and Seligdar.

Regional gasification is also an important component of the Republic's gas strategy. In line with Federal directives and already accepted into law in 2002, Sakha's gasification programme had already constructed 1200km of pipeline and begun to deliver gas to 67 localities.

Assessing the Challenges

Unlike the more consolidated structural conditions observed west of the Urals, the planned development of Russia's energy sector in the Far East faces several daunting and interlinked challenges. First, there is the social component inherent in the country's domestic gas strategy. While Gazprom understands that it needs exports to derive revenue for its upstream operations, the company also realizes that the legitimacy of its business as well as the political system on the whole rests on providing affordable energy for domestic industry and individual consumers. Tensions between the Sakha administration and Gazprom surrounding the ultimate destination of Chajandanskij gas demonstrate this rift. The issue here goes beyond access to revenue streams. More importantly, deciding where the gas goes is an issue of agenda control for local, regional and federal interests.

Second, while the consideration above may be a debate about percentages, the ultimate viability of Sakha's gas industry may be of greater concern. Regardless of the financial crisis, businesses and the government are forging ahead with these megaprojects. As with all strategic ventures, there is a large degree of uncertainty surrounding the appropriateness of and ultimate chance of success for the chosen policy trajectory. What Russian federal and Sakha's regional interests are striving for is the establishment of **an integrated value chain** for the gas industry in the Far East. This may be easier said than done. The massive investment in the upstream can only be recovered if the products produced can be delivered profitably to consumers both in the domestic arena and markets abroad. None of the projects mentioned here can achieve reasonable rates of profitability by themselves without the successful interlinking with the other components in the upstream, value-added or downstream sectors.

This then brings me to the most crucial point, the issue of institutional coordination. Obviously, the scope of the natural gas strategy discussed goes beyond that of Sakha's geographical boundaries. Hence, the number of divergent interests within the private sector, administrative structures, and among consumers is huge. While companies will busy themselves with the construction of capital assets as well as the associated number-crunching, governmental institutions need to be additionally aware of the even distribution of associated benefits and costs derived from the energy sector to the public over the long term. Assigning competencies for oversight of the various stages in the gas industry's development is an overlooked aspect of the overall development strategy. With the physical, financial, informational and institutional structures still in flux, assigning environmental protection responsibilities, service provision and policy implementation powers to institutional bodies will also remain an open question. Just how this coordination vacuum will influence the overall socio-economic value of the gas sector industry in Sakha and the Far East remains to be seen.

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Russian gas exports in 2010s

By Mikhail Korchemkin

The "shale gas revolution" and the current economic crisis have changed the future of Russian gas exports. In a forecast published in September 2008, Gazprom anticipated a rapid growth of pipeline gas exports to Europe in the period from 2010 to 2015. However, in 2009 the exports dropped 12%, which has put a big question mark on the plans of Russian gas monopoly (see Table 1).

Table 1. Russian Gas Exports to Europe by Pipeline, bcm/year

	2008	2009	2010	2015	2020
Gazprom-2008 forecast:					
Contracted volumes	159	165	167	189	189
New contracts	-	-	-	29-33	30-36
Total:	159	165	167	219-222	220-225
Realistic forecast:					
Contracted volumes	159	140	150	170	180
New contracts	-	-	-	-	-
Total:	159	140	150	170	180

Sources: Gazprom; East European Gas Analysis.
Note: In the reporting format of Gazprom, Europe includes Turkey, but excludes Estonia, Latvia and Lithuania.

The sharp decline of Russian gas exports was caused by three major factors.

1) The drop of gas demand in Europe combined with the oversupply of LNG (rapid growth of shale gas production in the US has freed large volumes of LNG that were diverted to Europe).

2) Inflexible pricing policy of Gazprom (Russia has become one of the most expensive suppliers).

3) Gazprom's decision to cut off gas flow to Europe over the disagreement on the 86 million cubic meters of fuel gas with the total value of $35 million (Ukraine and Russia disagreed on the origin of fuel gas for compressor stations needed to transport Russian gas to Europe).

Despite being the second biggest loser in the European gas market after Nigeria, Gazprom still insists on the use of the old pricing formula and high minimum levels of take-or-pay contracts. With the price of spot gas and LNG being much lower than the price of Russian gas in Europe, Gazprom can sell just the minimum volumes allowed by the existing contracts. Chances for signing new contracts are very low.

Table 2 shows the capacity of gas export pipelines running from Russia to Europe and the corresponding flows in 2009 and 2020. In 2008 - the record year of Russian gas exports, Gazprom has utilized nearly 80% of its export capacity. It looks like this rate will remain a historic record. If Gazprom fulfills all its pipeline construction plans by 2020, the capacity utilization rate will be somewhere from 54% to 67%.

Table 2. Gas Export Capacity of Russia, bcm/year

	Capacity		Flow		
Export Route to Europe	**2009**	**2020**	**2009**	**2020-Min**	**2020-Max**
Existing pipelines:					
Exports via Ukraine	142	142	93	-	34
Exports via Belarus	35	35	32	24	35
Exports to Finland	7	7	4	6	6
Blue Stream (to Turkey)	16	16	11	16	16
Sub-total:	200	200	140	46	91
New pipelines:					
Nord Stream	-	55	-	55	55
South Stream	-	63	-	63	63
Blue Stream-2	-	16	-	16	16
Sub-total:	-	134	-	134	134
Total:	**200**	**334**	**140**	**180**	**225**

Low load factor and a longer transportation distance will increase the gas transmission expense of Gazprom and make Russian gas less competitive in the European market.

International Energy Agency estimates the reserves of shale gas in Europe at 15 trillion cubic meters, which is equal to the size of gas reserves of Yamal peninsula in Russia. This "European Yamal" will define the mid-term future of the European gas market. If the IEA estimation is correct, the growth of Russian gas exports to Europe may be postponed into the 2020s.

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Increasing energy efficiency is vitally important for the Russian economy

By Laura Solanko

Russia's economy is in many ways unavoidably dependent on energy production and energy exports. The largest enterprises are oil and gas giants, which are large by any measure even by global standards. Oil and gas companies and their subsidiaries are unquestionably the major companies in Russia. Only 19 oil and gas companies made their way into the Expert rating of the top-400 companies in Russia in 2008. Those 19 companies, however, accounted for 33% of the total sales of the 400 rated companies.[1] The remaining 381 companies accounted for only two thirds of total sales.

Additionally, these energy majors are often the main customers and owners of many service companies, especially in transportation, banking and construction. Therefore, it is not surprising that the energy sector as a whole comprises a large part of the domestic economy. According to many estimates, the energy sector accounts for a third of Russia's GDP. The figure should not be an over-estimate, as the country's largest company, Gazprom, claims to produce alone some 10% of Russia's GDP. Additionally, almost 50% of federal government revenues directly derive from taxing oil and gas extraction and exports.

Due to its dependence on energy resources Russia is, and will continue to be, dependent on the gyrations of the global economy. During the last ten years the Russian governments have managed the windfall revenues of constantly increasing export prices very prudently, storing large shares of them in sovereign extra-budgetary funds. These funds, counted among the central bank's foreign exchange reserves, did indeed provide a warmly welcomed cushion that insulated public expenditure from the dramatic decline in revenues in 2009. But even the large stabilization funds and extremely low public debt cannot insulate the Russian economy from a global shock.

The current crisis underlined the fact that even a country that manages one of the world's largest hydrocarbon resources needs global financial markets for funding its largest corporations. This is especially true considering that huge new investments are needed to keep up the current production levels in the future. At the end of the day, this may be one of the major lessons of this crisis for the Russian economy.

This dependence on global energy prices renders the Russian economy vulnerable to external shocks. Moreover, dependence on export earnings from a few raw materials is often seen to lead to the "resource curse", an equilibrium where the domestic economic institutions (eg rule of law, education, courts) remain in a poor condition, which leads to slow economic growth and wide income disparities. This scenario would clearly contradict all attempts to create a "modernized", innovations-based Russian economy – an idea most recently promoted by President Medvedev in his state of the nation speech in November 2009. Finally, production volumes of oil in particular are not projected in increase in the future. Future growth has to be found elsewhere.

The visions of diversified and modernized economy have yet to result in concrete action plans and forceful implementation. Therefore, at least in the medium term, Russian economy is likely to remain just as energy-dependent as it is now. This means that maintaining energy export capabilities will be a top priority in Russia's economic policy-making. As even the optimistic forecasts do not see large increases in production volumes in oil and gas over the next 20 years, securing export volumes in the future requires both curbing domestic energy consumption and securing the current volumes of energy imports (from Central Asia). Therefore, the improvement of energy efficiency will become vitally important for Russia. The potential is clearly huge and, encouragingly, Energy Strategy 2030 seriously discusses these issues. A new law on energy efficiency was adopted in November 2009, hopefully increasing awareness of energy efficiency in the country. Further, continuing price liberalization in wholesale electricity markets and in industrial use of natural gas will slowly force domestic consumers to optimize their energy use. But much remains to be done. Importing the already existing technologies and know-how from other countries would be the fastest way to achieve real results.

From the Russian perspective, the other important element in securing export capabilities is the securing of sufficient and reliable transport capacity. Besides the standard maintenance and repair, this includes the building of new oil and gas pipelines as well as new export harbors, in order to reduce dependence on sometimes unreliable transit countries. This explains why projects like the gas pipelines Nord Stream and South Stream, and the oil pipelines BPS-2 or TCP-2 are seen as vitally important by the Russian government.

Seen in this light, Nord Stream (planned to run from Russia through the Baltic Sea bed to Germany) is neither simply targeted against Ukraine or the Baltics nor ment to provide the Russian Baltic Fleet a missing *reason d'etre*. It can be seen as an unavoidable investment for securing uninterrupted deliveries of natural gas to Russia's major export markets.

All of this is readily acknowledged among the Russian policy-makers. The government's Energy Strategy strives for an economy in which the energy sector's role is less than 20% of GDP and energy efficiency is much improved by 2030. Even in the best of the cases, reducing energy dependency is a long-term goal. It would imply that the non-energy sectors of the economy should grow at faster rates than the energy sector. Increasing global energy prices are likely to make this target extremely difficult to attain. At the same time, the current large uncertainties of the structure and level of future energy demand in Russia's main export markets add to the vulnerabilities. Radical increases in energy efficiency and a decreasing role of hydrocarbons in the EU's energy mix would not be welcomed news in Moscow.

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[1] Expert-400 rating in the Russian weekly Expert Magazine no. 38(675) 2009.

Russia energy efficiency initiatives - a window of opportunity for the EU?

By Vadim Kononenko

2008-2009 witnessed a growing high-level interest to the problem of energy efficiency in Russia. Both President Medvedev and Prime Minister Putin stated that the government considered energy efficiency as a prerequisite for successful development of the country's economy. The issue was included in Russia's Energy Strategy for 2030 (although it was added to the document at a later stage). Despite that Russia's massive energy wastes and inefficiency of energy distribution and consumption have been discussed for years, the political will to radically improve things emerged only recently. The question is: will this nascent initiative be sustained by robust policies?

Russia has an enormous potential for improving its energy efficiency. The starting point is very low as Russia's economy is notoriously inefficient. According to EBRD data, Russia uses more than seven times more energy per unit of GDP than in Western Europe. Energy waste in the housing sectors is also very high as well as among the public sector buildings. In some way Russia's predicament is a legacy of the Soviet era's economy, when the energy was cheap, subsidized and plentiful. Now that the internal prices and tariffs for energy, even though still subsidized, have been on the rise, they become an incentive for the current energy efficiency initiatives.

The new legislation that was adopted in November 2009 puts forward several important steps as to how energy efficiency can be increased. The law establishes basic principles for the regulation of energy consumption to increase its efficiency and, inter alia, to encourage energy saving, and provides for various amendments to existing legislation (on technical regulation, housing, town-planning, taxation, etc.) to enforce energy-saving rules. The new law also establishes a general rule that buildings and other structures should meet applicable energy efficiency requirements both when being commissioned and during their subsequent operation. There are incentives such as tax cuts and also control measures such as the penalties including heavy fines, which may in certain cases be accompanied by confiscation of goods destined for circulation in breach of the applicable energy-saving and energy efficiency increase legislation.

The adoption of the new legislation in 2009 was welcomed by experts and practitioners however it is sometimes described as too general. There are several factors that make the implementation of the energy efficiency policies difficult.

First, it remains mostly ministry-led project with a strong top-down approach. The main bulk of work needs be done in Russia's regions by local authorities, in many cases as low as at the level of municipalities. Unfortunately, Russian municipal authorities lack expertise, funding, and administrative power to conduct energy efficiency projects. Furthermore, the energy needs, level of consumption and therefore energy efficiency potential varies throughout the regions. So far there have been only a few examples of successful energy efficiency projects in Nizhny Novgorod and North-West Russia.

Secondly, there are legal difficulties that pertain to ownership rights for energy delivery and distribution infrastructure in the housing sector. Private consumers can do very little in terms of cutting down on their consumption and thereby compensating for the rising energy costs unless they have the right to decide on energy distribution, insulation and other relevant infrastructure improvement in their houses. Things might change if a real energy efficiency market emerges in Russia with clear rules, tariffs and prices, taxation, and competition between consumers and providers of energy efficiency technologies and services.

Finally, the level of public awareness on energy efficiency is very low which makes it difficult to introduce new policies. In general, problems related to environment receive very little attention on the major TV channels if compared to the intensity of "green talk" in Europe and the US. The government is likely to face difficulties explaining to the people in Russia why the need to pay more for the new type of energy saving light bulbs, and more importantly, for heating and electricity in their homes, fuel for cars, and many other goods which include the price of energy. There is a need for comprehensive and effective measures to change the patterns of thinking among the people not only about energy consumption but also in a more general sense about responsibility for the environment and possibilities that the new legislation provides.

Can the EU help?

It is in the EU's interest to cooperate with Russia extensively in the field of energy security. Russia has an obvious need for expertise and knowhow as well as investments into energy efficiency projects. It is often argued that by responding to this need, the EU might make its energy relations with Russia more balanced and not so negatively and politically charged as it has been the case during the recent years. Although it is not likely that cooperation on energy efficiency alone can improve Russia-EU energy relations, it can still provide for a venue for positive and constructive interaction. This cooperation may include development of joint Russia-EU programs for technical support and exchange of information. There is also a big need for introducing new standards and techniques to educate Russia energy specialists and economists.

Geographically, it is important for the European actors to focus on Russia's regions and the municipal level of governance and on small and medium-size enterprises. In fact, the European agencies of cooperation including regional bodies such as EBRD, CBSS or Nordic institutions, for example NIB, Nordic Council of Ministers, have energy efficiency cooperation with Russia on their agenda but this trend could be ever strengthened.

Obviously, there are also vast opportunities for the European companies working in the energy efficiency, construction, infrastructure and other related industries, particularly among the Finnish and Nordic companies due to similarity of climate.

By improving energy efficiency, Moscow seeks to make Russia's economy more adapted to the challenges of today. While this is to a great extent an internal task for the Russian government to fulfill, it is important for the EU to realize the opportunities of its involvement.

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Vulnerability in interdependent energy relations

By Andres Mäe

The aim of this article is to find some practical advice from energy security studies for the decision-makers in designing an energy policy of a certain country.

Recent studies, focused on the vulnerability of interdependent energy relations, offer a number of indicators, risk variables and specific methodology, which are very useful for analysing vulnerability of energy supply of a certain country. The problem with such approach lies in the heterogeneity of risks and unclear time horizon that should be taken into account when evaluating energy vulnerability.

The very same indicators and variables will become rather impractical when used for calculation of energy vulnerability and diversity indices because a country will get no substantial help from its position in another table of vulnerability or diversity index to elaborate its energy policy. Those indices are ineligible for calculating possible economic loss from energy shortfall not to mention practical advice how to minimize energy vulnerability.

Another study offers expected shortfall as a vulnerability indicator. For energy policy designers this approach gives a possibility to calculate expected economic loss in case of shortfall of energy supply, which will show the extent of vulnerability of energy system of a certain country. Once those potential costs are known, the question is what should be done to minimize energy vulnerability.

The concept of opportunity costs is helpful in quantifying the value of alternative policies that seek to reduce expected economic loss.

The theory of interdependence uses vulnerability dimension of international relations to indicate the availability and costliness of alternatives. From this definition derive two aspects of alternatives – availability and affordability.

Availability is the extent to which resources are known about, accessible and feasible to extract. Affordability is the ability to purchase available resources without endangering other economic activities. Accordingly the vulnerability of energy system of a country can be measured by the availability and affordability of alternatives.

For example, country A imports all its natural gas from country B and for some reason started to worry about the security of supply, be it unexpected price increase of the commodity or interruptions of deliveries etc. Country A has now two options: (1) look for alternatives or (2) to acquiesce with the unstable situation. First option means that country A can substitute natural gas with some other fuel or look for another supplier. By second option country A has to acquiesce with existing relationship if there are no alternatives available or these alternatives are not affordable.

It has to be emphasized that energy dependency does not inevitably mean energy vulnerability because a country can be dependent without being vulnerable and be vulnerable without being dependent. Accordingly there is no need for country A to look for alternatives if the current dependence on country's B natural gas deliveries does not cause concern about the security of supply.

There are at least two partners in interdependent relationship. How would the decision of country A to prefer alternatives in terms of natural gas supply affect country B? A country exporting energy carriers like oil or natural gas might be vulnerable if energy exports represent the major part of its fiscal resources.

The theory of interdependence considers a relationship being interdependent if there is mutual interest in maintaining that relationship. From this definition derives that country's B behaviour will depend on the scale of its commercial interest towards the natural gas deliveries to country A.

Therefore A's decision to substitute natural gas import from country B should not remarkably influence B's behaviour if A's relative importance as an importer of natural gas is rather low or even insignificant for country B.

For example, a EU member state's dependence on Russian gas might be 100% but if the commercial interest of Gazprom towards gas export to that particular country is rather low then this member state can substitute imported natural gas with domestic fuels to minimize its vulnerability from increasing gas price without being afraid of harming economic relationship with Russia.

The main problem with analysing energy vulnerability is evaluation of the likelihood of the occurrence of an energy crisis and its impact on the economy. Because vulnerability is more a qualitative concept expressing the unbearable dimension of evaluated subject, it is only the actor itself who could estimate the vulnerability of relationship.

Accordingly country A may consider its energy relations with country B vulnerable while country C is satisfied with similar energy relations with country B. Countries are not equally faced with energy vulnerability and their responses may be different too, because of the strategic and political importance of vulnerability, which must not be underestimated. For example, the energy vulnerability of the Baltic States lies not only in 100% dependence of Russian gas but in the structure of the consumption of that gas: roughly equal parts are consumed by the petrochemical industry and district heating. Vulnerability issue concerns mostly the last one (shutting down petrochemical plants because of gas shortfall should not be considered as an energy security issue). Despite the fact that natural gas is easily replaced by heating oil, statutory requirement is needed to establish emergency stocks of heating oil in all co-generation power plants and boiler stations in case of sudden interruptions of gas supply.

A country deciding to replace an existing energy relationship with an alternative one or balancing it with diversification of energy supply has to take into account the following problem with minimizing energy vulnerability: liberalized energy market involve cost-saving reductions in spare network and generating capacity. Market is not favouring reserves or overcapacity be it a set-aside production units or emergency stocks of energy carriers necessary for energy security.

But liberalized energy market promotes effectiveness: effective energy consumption, effective technologies, energy saving, etc., which are also essential to minimize energy vulnerability.

Therefore the solution is to opt for a market-based policy for higher efficiency, but to complement it with additional intervention, e.g. taxation, subsidies or mandates, so as to ensure sufficiently high security stockholdings, fuel-switching capabilities and cross-border solidarity.

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Russian natural gas production and exports - the outlook to 2020

By Simon Pirani

The outlook for Russian natural gas production and exports has altered substantially as a result of the world economic crisis, which cut demand sharply. Fears that Russia could experience a supply squeeze have been overtaken by uncertainties about the rate at which European and FSU economies, and gas demand, will recover. The pace at which the Yamal peninsula gas fields will be developed, and the extent to which Russia might call on non-Gazprom producers and central Asian imports, are open to question.

The Russian gas balance is supplied from (with 2008 volumes in brackets): Gazprom production (550 bcm); non-Gazprom production, from independent gas companies and oil producers (114 bcm); and purchases from central Asia (61 bcm). Gas from these sources supplies European pipeline exports (160 bcm); CIS export markets, mainly Ukraine and Belarus (90 bcm); and the Russian domestic market (353 bcm).

The fall in demand made 2009 the hardest year in the Russian gas sector's history. In the European market, demand fell by about 6% year-on-year. Imports, especially Russian imports, were cut back more severely than domestic production, due to (a) the supply disruption caused by the Russia-Ukraine dispute in January 2009, and (b) buyers minimising purchases from Russia, whose gas was made disproportionately expensive when demand was lowest, in the first half of the year, by the oil-linked pricing structure used in long-term sales contracts. In the first nine months of 2009, Russian imports to OECD Europe were 21% down year on year. CIS sales fell even further – to Ukraine, by at least 40% year-on-year; Russian domestic sales fell by 6-7%.

The effect on Russian production was unprecedented: in 2009 it fell year on year by 12.3% (to 582.4 bcm), with Gazprom's output down by 16% (to 462.2 bcm) (preliminary figures). This short-term slump combined with uncertainty about the speed of economic recovery to upset previous assumptions about the necessary pace of investment in new production.

Production and import perspectives

For Gazprom, the central dilemma has been how to pace investment in the Yamal peninsula fields, which have the potential to produce 250-300 bcm/year. These are the only deposits capable, in the long term, of replacing production from the west Siberian gas fields (Urengoy, Medvezhe and Yamburg), which historically accounted for most Russian output, but are now in natural decline. (Their aggregate output is falling by 15-20 bcm/year, from about 475 bcm in 2005.) The Zapolyarnoe field, which began production in 2001, was an initial means of compensating for the decline.

Prior to the economic crisis, Gazprom's investment programme had provided for Bovanenkovo, the first of the Yamal fields, to start production in 2011 and increase it within three years to 115 bcm/year. In 2009, Gazprom announced a one-year delay in the start-up of Bovanenkovo, to late 2012, and a reduction in capital expenditure at the field by 30% to about $5 billion. (This was in the context of a 25% cutback in its overall investment programme, in line with those in the industry internationally.) Gazprom also confirmed its plan to build a major pipeline corridor from Bovanenkovo to Ukhta, in preference to the alternative of linking to existing lines from Yamburg, which would have implied a slower ramp-up of Yamal production. The Shtokman project, originally due to start up in 2013-14, seems more likely to be postponed to the late 2010s or early 2020s.

Nevertheless, the upset caused by the recession in both European and Russian markets means that a further slowdown of the Yamal development is possible. In this case, additional supplies from non-Gazprom producers, or from central Asia, would provide the most obvious means of compensating for the decline in western Siberian production in the meantime. However such an approach would impact negatively on Gazprom's balance sheet, and consequently on its ability to invest. How these dilemmas are resolved, and which approach is eventually taken, depends largely on debates in government, and between government and Gazprom, the outcome of which are not clear.

One possibility is that supply from the independent gas producers and oil companies will increase. In 2009 they collectively increased production by 5.5%, to 120.2 bcm (preliminary figures), confounding initial expectations that they would be compelled to cut back. A key factor is access to transport infrastructure. Despite general political commitment to the principle of third-party access, Gazprom, which owns and manages the network, has limited other producers' output by refusing access. In 2009, government took steps to enforce rules to raise utilisation of associated gas produced with oil, and to ensure that pipeline access was provided; estimates of associated gas flared annually range from 16 bcm to 38 bcm, and this is a significant potential source of additional supply. Another is the main independent gas producer, Novatek. Its 2009 output was 32 bcm. This could increase: Novatek has recently made an unprecedented challenge to Gazprom's market dominance by concluding supply contracts with OGK-1, one of Russia's largest power producers.

A further dilemma for Russia concerns central Asian imports. While Russian purchases from Uzbekistan and Kazakhstan are little changed, those from Turkmenistan, which have been 45-50 bcm/year in recent years, were cut entirely from April to December 2009. Gazprom refused to take Turkmen gas while demanding a renegotiation on price; Turkmenistan responded by intensifying its efforts to diversify export. A pipeline to China is completed and about 6 bcm will be exported in 2010, rising to 30 bcm/year or more within three years. Turkmen exports to Russia are expected to be only 10-11 bcm in 2010.

Exports and demand uncertainties

Some of the greatest dilemmas facing Russian gas production concern the European market. Its sales there are of disproportionate importance: for Gazprom, non-CIS sales account for just under one-third of gas volumes but for up to two-thirds of revenue. This will change only slowly: although Russia and other CIS governments have taken decisions to bring domestic prices up to European netback levels, such a transition is not expected to be completed until 2015.

The major uncertainties are (i) the pace at which demand will recover (it is expected to do so more slowly than in other regions), and (ii) the extent to which it will be served increasingly by alternative sources of supply, and in particular liquefied natural gas (LNG), including volumes diverted from the US and new volumes from Qatar.

Furthermore, the 2009 gas glut has raised the possibility of highly significant changes in the oil-linked pricing regime that could also have adverse consequences for Russia. Prices on the spot market were at a substantial discount, for

much of the year of around 50%, to the oil-linked prices. European consumers who buy gas on long-term contracts from Russia (i) reduced purchases from Russia, in favour of spot purchases where available, up to and in some cases beyond the limits imposed by contractual take-or-pay provisions, and (ii) raised the issue of pricing formulae in long-term contracts being amended to switch towards partial linkage with spot prices.

As economic recovery gets underway, volumes sold under long-term contracts seem likely to be maintained, but pricing formulae may be altered. Furthermore, there must be considerable doubt about whether there will be any demand in Europe for additional volumes of Russian gas up to 2020.

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Energy diversification towards the East - strategic imperative and operational response to the uncertainty of energy demand

By Danila Bochkarev

Gazprom is currently suffering from a drop in gas consumption and prices on the spot markets. The global financial crisis has reduced the volume of Russian gas sold both abroad and domestically. Gazprom's sales fell by 11.4 % last year, while its export revenues decreased from $64 billion in 2008 to $42 billion in 2009.

Situation analysis
Russia's oil and gas exports are still primarily focused on the European market, however Moscow is increasingly eager to diversify its export routes and find new customers. Taking into account the following factors, short- and mid-term prospects for Gazprom's exports to Europe appear bleak:

1) The EU's interest in energy supply diversification and the commitment of Brussels to its ambitious 'green' energy agenda. Even a partial implementation of the EU's 20/20/20 goals could significantly limit the natural gas consumption growth in Europe.
2) The liberalization of the EU gas market could significantly limit Gazprom's ability to enter the European energy downstream. Also, attempts by several EU energy companies to re-negotiate both pricing and volume parameters of the long-term contracts threaten the profitability of Gazprom's gas exports to Europe.
3) Commercial non-conventional gas produced in the U.S. and Europe and supply of cheap liquefied natural gas (LNG) from Qatar decreased significantly the price attractiveness of the North American market and put a serious pressure on the long-term contracts in Europe. It is estimated that the price of Gazprom's natural gas supplied to Europe is higher than deliveries under spot contracts. This explains the fact that Gazprom clients in Europe tend to contract the lowest volumes under their long-term obligations. Favourable conditions in North America would have allowed Gazprom to re-direct a part of his exports to the U.S., however these plans have been significantly altered by new discoveries of shale gas in Canada and the U.S.

Understandably, Russia's interest in diversifying towards Asian customers is explained by the level of uncertainty in the EU – Russia energy relations. It is partly based on Moscow's fears of economic over-dependence on the EU and its normative regulations, as well as on the uncertainty of the future level of gas consumption in Europe.

Operational response
There are delays to investment decisions – such as Gazprom's announcement to postpone the development of its Bovanenkovo gas field in the Yamal peninsula until 2012 and Shtokman field in the Barents Sea. At the same time, Sakhalin – II remains high on the company's agenda, and Gazprom, despite significant challenges, is likely to be engaged into new infrastructure projects in Siberia. One of the more important deals signed by Vladimir Putin during his visit in Beijing in October 2009 was a framework agreement on the natural gas supplies, expected to reach China in 2015. The agreement signed by Gazprom and the CNPC includes provisions for the construction of two gas pipelines to China from Siberia and Russian Far East. The Russian national interests in the security sphere are based on the principle of the state control over the energy infrastructure which is often used to direct export flows of hydrocarbons towards the specific markets. In case of cooperation with China and other Asian countries the company's commercial and strategic goals coincided with these interests.

Policy response
The development of closer energy relations with Asia, particularly with China, is determined by the Far East regional development initiative and national energy strategic goals. The latter aims at increasing Asia's share in Russian energy exports from its current 8 % of total exports to 25 – 30 % by 2030. Moscow by all means actively supports energy exploration, production and infrastructure development projects in Siberia and Russian Far East. Recently launched Transneft's ESPO pipeline and new energy deals with China pipeline serve as a good example of the government's interest in further opening towards the Pacific.

New rules of the energy game
The uncertainty of production/demand balance is the major reason for the Russian leaders to call for more global energy co-ordination between the major players, as President Dmitry Medvedev stated in his 'Conceptual Approach to the New Legal Framework for Energy Cooperation' presented in Helsinki in April 2009. Medvedev's energy proposal focuses, among other points, on establishing global "energy balances" that would define an adequate volume of energy production and consumption. Indeed, the certainty about demand/production balance will provide a necessary framework for major timely upstream and midstream investment projects, thus allowing to avoid both the supply crunch and over-production.

Conclusions
Russia will start playing a more active role in the Asia-Pacific region, gradually diversifying from its trade and energy partners in Europe, due to uncertainty of prospects for energy demand in the EU. Moscow understands that careful engagement with Beijing, Tokyo and other Asian capitals may bring the sustainable economic development of the Far East and thus contribute to the national GDP growth. However, this 'Asian connection' will remain limited for a number of objective security and economic reasons. As a consequence, Russia and the EU will be economically bound until at least 2030.

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(*)The views expressed here are those of the author and are not necessarily shared by the organisation, its board of directors or other staff.

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Nord Stream project – as seen from the Swedish point of view

By Maija Hyypiä

The building of the Nord Stream natural gas pipeline has given rise to a lot of debate in the countries surrounding the Baltic Sea, including Sweden and Finland. In Sweden, the approach to the Nord Stream has been quite different than in Finland, where the discussion of the issue has mostly evolved around the environmental aspects of the project. The public discussion in Finland has emphasised that the gas pipeline does not represent a security policy threat, whereas in the Swedish discussion the combination of Russia and the gas pipeline together is mainly seen as a threat.

Ever since the start of the planning of the project, the Swedish newspapers have written a lot about the issue. The general opinion has been that the project is a threat to Sweden and that its building should be prevented. The gas pipeline has been described as a political project, with the help of which Russia is trying to increase its international influence. As the gas pipeline is important to Russia both economically and strategically, its vicinity to Sweden's territory has been regarded as very problematic for the Swedish defence. It is also feared that political tensions will increase in the Baltic Sea region due to the pipeline. The writers of the Swedish newspapers have also expressed their concern over the Russian Navy's plans to monitor the pipeline. This would increase the presence and movements of the Russian Navy in the Baltic Sea and could potentially create a military threat to Sweden. It has even been argued that Russia could use the gas pipeline for spying on Sweden. The general view in the Swedish newspapers is that Russia is using its energy resources in order to try to increase its global and regional influence and power.

The Swedish debate over the Nord Stream gas pipeline has been linked to Russia's geopolitical ambitions. It has been asked whether the supposed threat that the pipeline represents, has any genuine effects to Swedish national security or whether the purpose is only to justify the opposition to the building of the pipeline. It has also been discussed whether Russia's geopolitical position should be defined through its history. Is Russia a superpower only because of its past? Should that old image be abandoned and replaced with a new worldview, where Russia is one of the equal international actors? Despite this kind of discussion, the general view in the Swedish newspapers seems to be that Russia and its gas pipeline are a threat to Sweden and the building of the pipeline should be prevented.

Another characteristic of the Swedish discussion on the Nord Stream is the criticism of Russia's internal development. It is argued that Russia's adverse internal development is a threat to other countries, also to Sweden. Putin's administration is criticised and the discussion emphasises his influence on the Russian state's pursuits. Russia, with Putin as its leader, is headed in the wrong direction and this is one of the reasons, why the building of the pipeline has been considered to be a threat to Sweden. The pipeline is regarded primarily as Putin's project and it should not be permitted to be built too close to Sweden's border.

At the same time the Nord Stream project has raised discussion in the Swedish media over whether Russia genuinely is a strong state or not. Is Russia still a superpower or is it becoming one? Should it be feared because of its present position? On the other hand it is being pointed out, that Russia is a weak state and its influence and power towards Europe has decreased and therefore it should not raise any concerns. Russia's position seems to be difficult to analyse and the future of the country is unforeseen.

The environmental concerns have also been brought up in the Swedish media. It has been highlighted that the pipeline would be a significant risk for the Baltic Sea. Wartime mines, old chemical weapons and old ammunitions should be removed and this could present serious environmental problems. However, the environmental concern has not had as big of a role in the Swedish discussion than it has in Finland. It even seems that the environmental aspects are raised only because they could be used to prevent the building of the pipeline.

The fact, that the pipeline would be built through Sweden's economic zone, is seen mostly as a burden, because Sweden will not even be able to benefit from it. According to the Swedish newspapers, a better option for the gas pipeline would be to build it aboveground through the Baltic States and Poland. These countries have been astonished by the fact that this option was not even considered. It has been discussed in Sweden, that the way Russia uses energy as a weapon and how it has excluded the Baltic States and Poland from the project, is an example of how Russia is trying to divide the European Union. It has been emphasised that this is one important reason, why the EU should have a common energy policy.

In November 2009, the Swedish government gave the permission to use its economic zone for building the pipeline under the Baltic Sea. After the decision the government was criticised in the newspapers for not taking into account the security policy threats. There was also criticism, that it is unsustainable policy from the government to see the Nord Stream only as an economic project. The government was accused of selling Swedish environmental interests for the benefit of Russian gas. However, at the same time it was admitted in some of the newspapers, that the Swedish government actually had no other choice than to give the permission. The rejection would not have been politically possible and, besides, there were two powerful neighbours – Germany and Russia – bringing on pressure. It was argued that Russia's influence in the EU will now increase and it can promote its own goals through the pipeline. There are also concerns that the Swedish Navy's presence in the Baltic Sea is not significant enough at the moment and it has poor knowledge about what is happening in the east side of Sweden. Because the gas pipeline will be built, the presence of the navy should be substantially increased.

The discussion in the Swedish newspapers over the Nord Stream gas pipeline is an excellent example of the continuous need of Russia's neighbouring countries to analyse Russia and its position. The Russian state is seen as a problematic actor. The example of the discussion also shows how a project that is primarily an economic and environmental one can be interpreted as a matter of foreign and security policy.

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Consequences of the decommissioning of Lithuanian nuclear power plant

By Joanna Hyndle

Despite many concerns and even protests of Lithuanian citizens Ignalina Nuclear Power Plant has been switched off on 31 December 2009. It happened at Brussels' demand for security reasons – Ignalina NPP had the same and the last in UE Soviet-designed RBMK-1500 reactor which exploded in the 1986 in Chernobyl. This forced decision has significant political and economic consequences for Lithuania. The most controversial remains the question whether the positive effects of decommissioning of Ignalina plant will prevail over the negative ones.

It is believed that with the closure of Ignalina NPP Lithuania has lost its symbol of energy independence. But in fact, the Lithuanians were first of all deprived of locally produced cheap energy on the Lithuanian energy market. Exclusion of Ignalina's power did not cause any shortage of energy but the electricity prices increased by 30 percent. Lithuania was forced to import from Russia more gas to maintain local energy production in few other Lithuanian power plants (the biggest energy producer is now state-controlled the natural gas and fuel oil-fired thermal power plant in Elektrenai with its 4 units each of 300 MW capacity). There is no doubt that growing energy prices and consumption of imported gas will affect increase the prices of daily consumer goods and will adversely impact Lithuanian economy (decline in GDP, inflation). Lithuania lost also the position of energy-exporting country, although in recent years, it was difficult to find customers due to the lack of electrical interconnections with countries and regions where there were shortages of energy.

Lithuanian authorities - the president Dalia Grybauskaite and the members of the government of Andrius Kubilius – prefer to underline the positive consequences of switching off Ignalina NPP. Their optimism is apparent from the decision to start from 1 January 2010 the real though a gradual liberalization of electric energy market (formally it started in 2002), which is to be completed in 2015. Also the great expectations of authorities are associated with the opening of the power exchange based on the Scandinavian Nord Pool platform.

With its cheap energy and big production capacities Ignalina NPP was a domestic monopolist. As long as it had been producing electricity no competition was possible for local producers and importers. The closure of the old nuclear power plant has created an opportunity to make significant steps towards implementation of common European Union energy policy and EU directives as well as a reform of the electricity sector.

In order to create an effective competition and market relations similar to those in other EU countries the government adopted new rules on electricity production and trading. In fact, the energy import is not a necessity for Lithuania. Even without Ignalina NPP Lithuanian domestic producers can potentially generate as much as 12 TWh annually. But production in Lithuanian power plants based on imported gas which Lithuania has to buy from the Russian Gazprom is more expensive than imports. The price of Russian gas delivered to Lithuania is comparable to those paid by other countries in Western Europe and again shows an upward trend due to rising oil prices.

Under the new regulations laid down in December 2009, only up to 4.5 TWh (half of Lithuania's demand for electric energy as it is predicted for 2010) will be covered by domestic production. The second part of Lithuania's needs for electricity will come from imports. The domestic production and some of imports from Estonia will be subsidized by the state and sold at regulated prices. 35 percent of energy users (consumers needing a capacity of 400 kW and upwards) have to buy energy on the exchange or conclude bilateral contracts with suppliers of imported energy. In few years government will undoubtedly stop subsidizing local energy producers and all of them will have to compete on the market. Authorities expect that during this transition period towards a totally liberalized market electricity prices will decline and local producers will be better prepared for competition on the market.

After only few weeks of operating it is difficult to identify the main trends of the Lithuanian energy exchange. The prices of electricity established on exchange are rather low and till now it satisfy the largest electricity consumers in Lithuania. If this trend continues the energy exchange can attract more consumers who have now direct contracts with suppliers. Among active participants were Latvians with their cheap hydro-generated electricity and Estonians with energy produced from Estonian oil shale. Lithuanian and Estonian companies entered also into a long-term contracts with Lithuanian clients. The strong position on the Lithuanian market have intermediary companies trading Russian electricity.

Before starting the exchange concerns about Russian domination over small Lithuanian energy market were prevalent in Lithuania. It is serious threat to the market and energy security of Lithuania. The establishing of exchange created a possibility for Lithuanian consumers to choose the provider of the electricity and the price factor became dominant over the origin of energy. This situation is especially difficult for Lithuanian producers dependent on Russian gas. They can find it hard to compete with Russian companies, since Lithuanian producers are subject to the obligations laid down by the EU and charged local taxes. In such a situation it can be necessary to impose restrictions on imports of Russian energy in order to protect local producers. Such a decision would be obviously contrary to the principles of free market. There are also promising negotiations under technical conditions of transit of the Ukrainian energy based on nuclear technology through Belarus to Lithuania. In this case, Russia may also try to use its influence in Ukraine and Belarus to hinder cooperation with Lithuania.

Unfortunately, till now operates only one electrical interconnection between the Baltic and Nordic electricity systems (submarine cable between Estonia and Finland). It seems clearly that there is no other option for Lithuania but to build new power links to Western European and Scandinavian energy systems. The EU founds allocated for electricity bridges from Lithuania to Sweden and Poland seems to accelerate decisions and actions of Lithuanian authorities on their construction.

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Shale gas – a game changer in the global energy play?

By Hanna Mäkinen

Shale gas – natural gas from rock formations – has become an important resource for energy industry. Earlier its extracting was considered too difficult and expensive but recent technological advances have made the exploitation of shale gas easier and more cost-effective. The shale gas revolution has already been spreading in the United States and profoundly transforming the North American natural gas market. Now some are expecting shale gas boom to hit Europe as well.

The exploitation of the so called unconventional natural gas sources – gas shales, coalbed methane and tight gas sands – began in North America approximately a decade ago. The existence of natural gas trapped in shale formations was nothing new but the break-through in technology – horizontal drilling and hydraulic fracturing – made shale gas exploitation highly productive. The gas shale resources in North America are huge and the production from shale formations is expected to be the fastest-growing source of unconventional natural gas production. According to the U.S. Energy Information Administration (EIA), natural gas production from shale formations will increase from 0.03 trillion cubic meters per year in 2006 to 0.12 trillion cubic meters – 18 % of total U.S. production – in 2030. Some analysts estimate the production to grow even faster, up to 50 % of total U.S. natural gas production in 2020. Resource estimates made by different organisations vary widely and are likely to change over time as new information and technology become available.

According to the International Energy Agency's (IEA) recent estimate, Europe's unconventional gas reserves could reach 35 trillion cubic meters, of which almost half in shale. Although amounting far less than in North America, the IEA estimates that these reserves would be enough to substitute natural gas imports for 40 years at current levels. It's not a surprise that the idea of indigenous natural gas reserves sound particularly appealing to Europeans that aim to decrease their dependence on imported energy. The shale gas resource base is global and large shale gas reserves are likely to exist for example in China and Central Asia, North Africa, Latin America and Australia. It is possible that unconventional gas could change the global geopolitics of natural gas when new supplier countries emerge and reliance on only a few suppliers decreases.

However, the unconventional gas exploration in Europe is in embryonic stage and both the size and the exploitability of the European unconventional gas reserves remain highly uncertain. Some experts see great potential in European shale gas resources whereas others regard the early estimates as highly exaggerated. There are also several factors that can slow down or complicate the shale gas production in Europe. To begin with, there are considerable geological differences with North America, and European shale formations aren't expected to have as much gas trapped in them. Therefore the technology developed in the U.S. can't just be transferred to Europe as such. Second, the building up of the required infrastructure takes some time, and certainly a lot of money. In addition, drilling is a large operation which can cause problems in densely populated Europe where wide open space is hard to find. Finally, the environmental impact of the shale gas exploitation has raised concerns in the U.S. and this will likely be brought on the agenda in Europe as well. Hence, whatever the size and recoverability of European shale gas reserves, it will certainly take a long time before any significant shale gas production can take place in Europe. It is expected to take at least a decade before shale gas can have a significant effect on European natural gas supply – before 2020 only minimal production volumes are predicted.

Despite all the uncertainties concerning the potential of Europe's shale gas reserves, several oil and gas companies are already exploring on European soil. Countries, where exploration projects are taking place, include at least Austria, France, Germany, Hungary, Poland, Sweden and the U.K., and the results are still pending. However, for example the Alum Shale of Sweden, the Silurian Shales of Poland and the Mikulov Shale of Austria are already considered to have high shale gas potential – according to some estimates the recoverable shale gas resources of the three basins combined range up to 4 trillion cubic meters. On the research front, the 6-year Gas Shales in Europe (GASH) project was launched in 2009 by the German Research Centre for Geosciences. The aim of the oil industry-funded project is to predict shale gas formation and occurrence in time and space, focusing on the potential gas shales of Europe.

It is still worth mentioning that even though shale gas production in Europe will require years to start, Europe can benefit from shale gas before that in the form of decreasing natural gas prices and growing liquefied natural gas (LNG) supply. The North American shale gas boom has already led to oversupply of natural gas in the U.S., which has driven prices down and forced companies to temporarily cut back drilling. Before the new technological advances in the shale gas production, energy companies were investing billions of dollars in LNG facilities in the U.S. Now LNG import terminals run at very low capacity and there has even been discussion about turning them into export terminals instead. Due to the growing natural gas supply imported LNG will no longer be needed in the U.S., which will probably free LNG shipments to other destinations. This could cause a slump in natural gas prices even on a global scale and increase LNG affordability.

The IEA expects a large growth in LNG production during the next few years. On the flipside, it warns that plummeting natural gas prices and weakening demand together with the current economic situation could jeopardise future investments. This could lead to re-tightening natural gas markets after a few years, when the demand for natural gas supplies recovers. On the other hand, if the shale gas exploitation becomes more common and spreads outside North America, the amount of natural gas in the global markets may well increase.

Natural gas fits in well with the targets to reduce carbon emissions because it causes lower carbon emissions than other fossil fuels. It can be seen as a bridge between oil and coal, and renewable fuels, and unconventional gas could indeed drive a transformation in the energy sector. Another important energy issue, focal for Europeans, is security of supply. If European – and worldwide – shale gas reserves proved to be wide and their extraction cost-effective, shale gas could really turn out to be a game changer.

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'The BSAG way' - new ideas to rescue the Baltic Sea

By Anna Kotsalo-Mustonen

Throughout the years, the Baltic Sea has been illustrated in a number of ways in this Journal. Each author, naturally, has his or her own perceptions on the issue based on a combination of personal knowledge, experiences and relationship to the sea. What is common to all authors is that they value the sea and perceive it worthy of saving. But the motives differ. For some, the sea is a source of livelihood or has geopolitical value; the importance of the sea can be the result of simply enjoying the sea or the motive can even be as light as that it is trendy and socially acceptable to be conscious about the sea. Most authors present ideas how to save it and how to prevent further damages, but very few report action carried out or action to be started.

Interestingly, even though we all value the sea, it is in terrible shape and facing severe risks. One could ask why we haven't reacted even though we regard the sea valuable. It wouldn't be fair to say that we haven't reacted, as we have, indeed. We – all the countries constituting HELCOM (a lengthy agreement otherwise known as the Helsinki Commission Baltic Sea Action Plan) – have agreed on measures that should be taken for the sea to reach good ecological status. The agreement, signed in Krakow on November 15, 2007, provides a roadmap on how to save the sea. At present, we are living the beginning of 2010 and, so far, only Sweden has produced a national implementation plan.

We have reacted, but our pace is too slow. Simply put, the sea cannot wait. If we allow it to deteriorate further, we face the risk of passing the threshold from where there is no turning back. We need rethinking to pick up the pace. One type of analyzing of the current situation is that, roughly thinking, nobody actually owns the sea. Ownership usually means a natural incentive to treat well one's property and make sure that its value doesn't decrease; rather it should increase. Ownership has been the standard solution by economists to the tragedy of commons; in other words, joint ownership leading to disaster with lack of responsibility. Interestingly, the latest Nobel Prize winner Professor Elinor Ostrom has found evidence that also mutual dependence can lead to desirable results. By this I mean treating joint property, such as rivers, in a sustainable manner. As we cannot designate the ownership of the Baltic Sea to anyone, at least in the short run, we should look for new solutions. Professor Ostroms findings are encouraging.

When we, Saara Kankaanrinta, Ilkka Herlin and I, founded the BSAG foundation in 2007, we thought from the very beginning that we need a new approach. The existing methods to solve the problems of the sea are not enough and are too slow. Due to the urgency and large variety of problems, a new way of thinking of the problem is a must. Our hypothesis was that we need re-thinking or 'social innovation' on at least at two levels:

First, at the level of single projects: The traditional way of planning single projects and then collecting funds from the public to implement them one-by-one is an effective means to solve local problems and problems that are easy to 'package' and respond to the psychological needs of donors. However, this approach can never be fast enough to solve all the problems needed to save the sea. Also, the interest of the public is unpredictable, as new targets for nurturing guilty conscience emerge constantly.

BSAG's discovery here is not to collect money and buy implementation, but to catalyze a wide variety of concurrent projects by identifying natural incentives of different parties, companies, organizations, public entities, NGOs, to carry out projects that, at the same time, benefit the Baltic Sea and the implementing party. The outcome we are after by catalyzing win-win situations is that each party uses their own best competence or added value for the benefit of the sea, rather than donating money for the purchase of competences from third parties. By catalyzing projects, we also create a situation in which it is in the self interest of these parties to oversee that the projects are completed with high quality standards, as their own interests are in line with the Baltic Sea goals of the projects.

The problems of the Baltic Sea are many, and several direct and indirect competencies are needed to treat the problem-areas related to the eutrophication, maritime risks and emissions, threats imposed by hazardous substances and last but not least the threats to the biodiversity. The competencies in form of products, services and know-how are used directly and indirectly to work with these problems.

We already have proof that our innovative approach works. Some 120 companies, NGOs and public entities from all the nine coastal countries as well as from the U.S., the Netherlands, Belgium, France and Norway, have publicly manifested at www.bsas.fi that they will carry out a new project that will directly or indirectly help the Baltic Sea. During only nine months, and with minimal resources, the new innovative approach used by the BSAG has generated more new activity than anybody could dream of.

Second, at the societal level, the BSAG introduced a concept that has potential to be the dominant design for saving the sea and other nature targets in future. This social innovation can more or less be described as creating positive interdependencies in a social context. Our preliminary thoughts are encouraged by the path-breaking research findings by Elinor Ostrom. We continue our efforts to identify interdependencies and creating opportunities for new interdependencies.

An example of the latter one is the bold suggestion by the BSAG foundation to the President of the Republic of Finland, Ms Tarja Halonen, and the Prime Minister of Finland, Mr Matti Vanhanen, to form an exceptional trio for a novel approach. This led the trio to work together for the Baltic Sea in a process that we call the *Baltic Sea Action Summit -process* (BSAS-process). In the process, BSAG, as an agile NGO, manages the collection and follow up of the commitments; the president and prime minister support the process as the representational leadership of the country by providing their influence and networks.

The BSAS-process culminates into a high level *Baltic Sea Action Summit* in Helsinki in February 2010 where all those who have made a commitment to act will meet. Public decisions to act are called *commitments for the Baltic Sea*. The interdependencies will materialize in several levels: firms solving some problems of the sea together, and thus being interdependent on each other, for the outcome. Some problems present an opportunity for R&D, new markets or new networks. Simultaneously, heads of state will present commitments that, in turn, will create opportunities for companies.

The work by BSAG foundation will continue after the BSAS Summit 2010. The foundation will continue to bring together the best of public, scientific, entrepreneurial and philanthropic approaches to benefit the Baltic Sea. This requires an open mind and a fearless attitude to further challenge current practises and look for new and better approaches at all levels of the Baltic Sea work.

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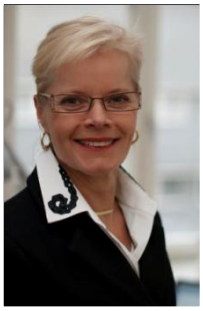

The EU strategy for the Baltic Sea Region - a first step

By Pertti Joenniemi

A milestone has been reached with the EU Commission having approved a Baltic Sea Strategy in June and the Council then endorsing it in October 2009.

Pawel Samescki, Commissioner for Regional Policy, rightly called the strategy a "new animal". It presents something entirely different, he argued, in allowing the EU to coordinate its policies in the region "in a "new modern way". And more generally, whereas the Union has for some time been occupied by developing policies and approaches vis-à-vis its exterior, it now seems that this direction of development has been complemented by an increase in the emphasis on intra-EU forms of integration.

In order to give such kind of regionalization a further push the issue has also landed on the Commission's agenda and the approach chosen is one of devising a comprehensive strategy common to the EU at large, albeit specifically directed at the Baltic Sea area as an initial test case. If the endeavour proves to be a success, the argument goes, it might be followed by other sea areas but also by mountain areas such as the Alps or river basins like the Danube. They could be similarly targeted.

Significantly, in the context of aspiring for an integrated approach the Baltic Sea area has then also been depicted as a singular entity both because of its potential for development as well the problems faced in the region. In being embraced as a 'macro-region' and elevated into a 'model', addressed as a 'test case' or characterized as a 'pioneer', the future of the Baltic Sea area has inevitably turned into an issue of considerable concern not only for the Commission and other potential candidates but also for the Union at large.

Thus, regionalization appears to have been provided with a more pronounced, legitimate and instrumental standing within the Union. It is in fact assigned with considerable priority as macro-regions are being viewed as important instruments for the EU to achieve its own internal grand objectives. The strategy is, in this sense, not just about the Baltic Sea region *per se* and macro-regions are not merely depicted as something that the Commission has to relate to and digest because of bottom-up pressure from the region itself. Instead, they are purported as an integral aspect of the essence of the Union. Moreover, the strategy does not just offer insight into the policies of the EU in relation to a particular region but it also provides crucial information on how regionalization and macro-regions such as the Baltic Sea-related one are viewed and approached in the context of EU-developments at large. Already the use of labels such as 'pilot' or 'experimental' testifies to this. It indicates that something beyond the ordinary is aspired for. The target set is not just one of intensifying the pursuance of established policies but one of embarking upon something new. Thus, the vocabularies used points to efforts of achieving a temporal change and progress beyond the ordinary.

The turn is then also quite concretely to be evidenced in the role assigned to the Commission. Whilst development in the Baltic Sea area has previously been shouldered by the countries of the region with the Commission mainly being present as an observer, the aspiring for an integrated approach in the context of the new strategy grants the Commission as far more central role. It has been allotted with a coordinating of the proposed initiatives, tasked with the reviewing of eventual progress and made responsible for the maintenance of the dynamics inherent in the Action Plan part of the strategy. The Commission is thus far from an observer once the implementation of the strategy starts this year as one of the key tasks faced by the new EU Commission.

Yet another sign of change consists of the employment of the concept of a strategy in naming the document approved. It unavoidably carries connotations of something out of the ordinary. The usage of the concept conveys the meaning that something of exceptional importance is being addressed and sorted out. Once employed, stakes are raised and issues get deliberately politicized as ordinary approaches do not appear to suffice. Furthermore, there is the implicit recognition that things could and should take a different turn. This is then to say that changes are called for and borderlines broken particularly in a temporal sense. Hence 'progress' is a word frequently used in the context of devising a strategy, this then implying that there is assumedly both a need and potential for the prevailing state of affairs to be altered. Progress may be warranted in the form of a re-start with regional integration having stalled or having experienced an outright backlash such as the one caused by the recent economic downturn or, to include a more positive perspective, because the success already achieved provides the ground for the region to take further steps on the path of regionalization and European integration. A strategy in the latter sense is not about remedying stagnation but providing stimulus and direction for further progress.

It may be safely assumed that the use of the terms strategy is deliberate and well considered in the document put forward by the Commission. Clearly, the Baltic Sea Strategy is meant to steer away from the current and ordinary state of affairs for the region to steam towards further change. The use of the concept is, in this sense, openly performative. It testifies to an interest of providing regionalization with a further push within the internal sphere of the Union and to single out, to a degree, a particular European region as a target for strategic thinking and quite distinct policies. Moreover, the EU itself has been allotted – as noted above – with a key position in the process of formulating a strategy, although it has at the same time been bound to do so by engaging itself in a dialogue with various other relevant actors such as the states of the region, some subnational units (Ländern, voivodeships, committees of the region etc.) and a variety of region-specific organizations.

Although the approving of an EU strategy for the Baltic Sea Region stands for something ground-braking as such, it is also to be noted that the very process of coining and formulating the document has yielded important insight into the state of affairs in the Baltic Sea area. Of particular value is the critical insight including the recognition that the Baltic Sea area appears to be too densely organized. There has been a considerable proliferation of region-specific bodies and yet it appears difficult to get them to work in a coherent and target-specific manner. In short, the high degree of institutionalization has sometimes hampered rather than advanced the pursuance of effective and successful policies. This is to be remedied, the strategy proposes, by improving the coordination of the various initiatives, by singling out priority areas, designating lead partners each responsible for their specific areas as well as by the introduction of specific targets and review dates. Above all the aim is one of moving beyond the tradition of empty declarations, a tradition that has to some extent been discernible also in the sphere of Baltic Sea cooperation.

It is quite logical in this light that the strategy does not propose the establishment of new institutions. However, it also refrains from passing recommendations that aim at a bolstering of regional developments through the allocation of additional financial means – with the caveat that this reservation and policy applies "at this time". Thus, in some sense the strategy is left hanging in the air. It is profoundly in the interest of the other regions within the EU as well as the Union at large that the Baltic Sea area really succeeds as a 'pioneer', and yet this insight does not seem to have sufficiently dawned upon the other regions part of the Union. Obviously, a competitive approach prevails and has to be challenged and revised for a further break-through to be achieved.

At the same time it is to be noted, though, that the Commission refers in no uncertain term to a process which is merely at its infancy. Only the first step has been taken so far and it may well be expected that once the visions are outlined and priorities set as well as agreed upon, the more practical and instrumental aspects of the strategy will fall in place with the Commission also taking upon itself the responsibility for coordination, monitoring, reporting, facilitation of the implementation and the follow-up. Among other things a review of "the European added-value of the strategy" and further implementation of the Action Plan is foreseen in 2011.

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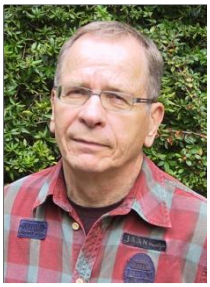

Baltic Sea Region, environment and recycling

By Timo Kuusakoski

In the near future, environmental laws in the Baltic Sea Region countries are going to be built according to targets set by joint EU environmental policy. In addition to Sweden and Finland, newer EU member countries like Estonia, Latvia, Lithuania and Poland are going to build their national environmental laws according to the EU's approved guidelines and directives.

The waste directive approved by the EU parliament and committee determinates clear goals and course regulations regarding how member countries should build their laws according to environmental policy set by the EU.

The amount of waste ending up in landfills should be clearly decreased, and at the same time re- use, recycling and recovery should be developed.

A five-step waste hierarchy should be similarly implemented by all membership countries as part of their national law by the year 2011. The hierarchy is as follows:

- avoid creating waste
- re- use
- recycling
- recovery
- landfilling

Approved detailed directives set by the EU are already determining the Baltic Sea Region's waste policy - for example incinerating, landfilling and cross-border international transportation of waste. In addition to those previously mentioned, the EU has set a whole bunch of producer liability-based directives, guiding producers and importers to take care of the waste management of products they have produced. During the 2000 decennium, end-of-life vehicles (ELVs), waste electronic and electric equipment (WEEEs) and battery producers are obliged to organize those products into re –use, recycling and other waste management.

Approximately 80 million people live around the Baltic Sea cost lines. This population is creating plenty of waste to be re-used, recycled and recovered. If using rough benchmark figures – annual daily living and industrial business work creates around 12 million metric tons of ferrous scrap, roughly 0,12 million tons of different non-ferrous metals, 40 million tons of mixed household waste, 8 million tons of construction waste, and different kinds of bio waste fractions to be further utilized amounts to at least 8 million tons. Currently, the utilization rates of all of the previously mentioned materials are varying, but it can definitely be said that they are not highly or optimally organized.

The mentioned benchmark figures are naturally varying depending on the regional wealth and industrial levels of the coastline cities and villages. Independent of the region's wealth or population, it is important that this, one of the most unique Sea regions in the world, is actively setting standards, which are setting guidelines for other countries and regions in the world. The set targets should be reached by effective recycling and material recovery rates – of course, taking into account the environmental aspects.

One point of concern is that the implementation of producer-liability principles to each of the Baltic Sea countries' own national laws has not come to fruition according to the EU's target time schedule. Another concern is that the organization of waste management has also proved to be difficult in certain countries. This has created a situation where it is impossible for the member countries to fulfill the EU´s utilization targets.

Kuusakoski Recycling has built a network covering the Baltic Sea Region, which enables waste sourcing, processing, re-using and land filling in a way that emissions and burdens to the environment can be minimized. Harmonized waste laws and working principles of the EU member countries are enlightening co-operation between the membership countries and enabling effective working models which are making it easier to combine the waste streams of different member countries. This way, economical advantages can be achieved and a more cost-effective way for utilization is created.

Citizens and decision makers of the Baltic Sea Region are required to take a much stronger and proactive grip to encourage behavior that helps to reach these targets. In addition to primary resources, there are possibilities to save the environment, energy and at the same time to even create electricity heat and valuable raw materials. Co-operation between environmental authorities has to be active, and the EU region's harmonized criteria must aid in achieving higher utilization rates and planning how waste management should be developed. For private companies, like Kuusakoski Recycling, the co-operation between the public and communal sectors is broad. There are big differences in ways of organizing waste management in the Baltic Sea member countries, but the best possible co-operation is giving best results.

The set goals should be approached by the support of utilizing effective technology, which should be constantly further developed. Also, technology and logistical development are influencing people's attitudes in their every day living, this increasingly starts to support proactive actions.

Assuming co-operation is heading in the right direction, the Baltic Sea region will be an impressive example to the rest of the world on honoring the environment in a responsible way and, from a business point-of-view, being an effective, harmonious area.

Timo Kuusakoski

President and CEO

Kuusakoski Oy

Finland

Nanotechnology on the northern shores

By Risto Nieminen

Nanotechnology is perceived as a great enabler for innovations across a wide range of industries and applications, from information and communication technologies to molecular medicine, from energy and environment to recycling and waste treatment. The roots of the ongoing rapid progress in nanotechnology can be traced back to the revolutionary 20th century discoveries in the physical sciences, when the conceptual and experimental groundwork for the atomic and molecular world was laid. These discoveries include the advent of techniques for atomic-scale probing and investigation, and the development of the theoretical framework based on quantum physics and chemistry.

Following Physics Nobel Laureate Richard Feynman's 1959 visionary challenge to physicists, the term "nanotechnology" was coined in the 1980s to describe the concept of designing and manipulating nanometer-scale objects down to the size of individual atoms and molecules. This includes both the miniaturizing, "*top-down"* approach which, starting in the 1950s, has enabled semiconductor microelectronics and the information-technology revolution, and the *"bottom-up"* approach. The latter is based on the programmed and controlled self-assembly and self-organisation of atoms and molecules, mimicking the biological world in its ability to fabricate objects with atomic-scale precision.

The key target of the nanotechnological approach is *functionality,* the idea to process materials as atomic assemblies to achieve the desired physical, chemical and biological properties. At the ultimate limit, atoms and molecules can be viewed as Lego bricks assembled to myriads of possible structures. The challenge is to do this in *a controllable way*, and to be able to *scale up* the building process to the levels required by industrial and economic viability. If this can be done, the possibilities for nanotechnology are boundless, and can lead to the ultimate recycleability of atoms on Earth.

Starting from the 1990s, the worldwide investment in nanotechnology and the underlying sciences has grown rapidly, and is presently at the level of 5-6 billion € annually. There are major government-funded programs underway in the EU, the US, Japan, and the Asia-Pacific area. Russia's government has recently announced that it will inject 318 billion rubles (7.8 billion €) by 2015 into its ambitious plan to develop and commercialize nanotechnologies.

Among the other Baltic Rim countries, Finland has been an active and early player in nanotechnology research and development. Tekes, the Finnish Funding Agency for Technology and Innovation, launched an early drive in the 1990s, followed by larger, ongoing research programmes in nanotechnology and functional materials. The Academy of Finland, responsible for basic-research funding, is running an agency-wide nanoscience programme, following a succession of targeted materials-research programmes. During 2005-2009, the total public-sector investment in nanotechnology was over 120 million €, including approximately 30 million € for infrastructure and instrumentation at universities and research establishments. The public funding was at least matched by private-sector funds. The public investment in nanotechnology and materials research continues rise, despite the economic downturn.

The role of basic research is crucial for the science underlying nanotechnology. It provides a major intellectual challenge, and is by nature deeply interdisciplinary. Research centers, where scientists with diverse backgrounds in physics, chemistry, biology, medicine and materials research meet each other in joint efforts, have been spawn at universities and research establishments worldwide, also many in Northern Europe and the Baltic Rim countries. Nanoscience and nanotechnology are also an important opportunity and challenge for universities in their efforts to revamp curricula and degree programmes to meet modern requirements.

Successful nanoscience research is critically dependent on high-quality infrastructure, including clean-room facilities for growth and processing, high-resolution instruments for atomic-scale imaging, manipulation and characterization, as well as major computing facilities for predictive modeling and simulation. The strongest nanoscience research constellations in the Nordic area are in the Helsinki-Espoo region in Finland and in the Öresund region in Denmark and Sweden, with many smaller, more focused activities at several university campuses. In the future, the major investments by the Swedish government in the world-class facilities for synchrotron-radiation and neutron sources in Lund could make it a unique hub for advanced characterization of nanomaterials.

Nanotechnology is seen as a cross-cutting competence area to enable innovation in all the key clusters of Finnish industry: information and communication technologies (ICT), the forest cluster, energy and environment, metals, construction, as well as health and well-being.

In *ICT*, nanotechnology in the form of novel materials, printed electronics and photonics means new types of devices, especially mobile, with enhanced functionalities and longer battery lifetimes. Among the new functionalities will be integrated sensor and monitoring capabilities, better displays and larger memories. The *forest cluster* is looking for new wood-based materials as well as nanotechnology-enhanced production technologies.

Cleaner and more efficient solutions for *energy and environment* are crucial for sustainable societies. Nanotechnology enables the development of environmentally benign materials and processes. An important example of the latter is heterogeneous nanoparticle catalysis for cleaning engine exhaust gases. More affordable and efficient solar-cell and fuel-cell concepts are also emerging from nanotechnology.

The *metal industry* is looking for novel lightweight alloys and composite materials, as well as intelligent solutions for production and automation. In *construction*, nanotechnology enables anti-fouling, self-healing and self-cleaning surfaces, as well as concrete-steel assemblies with tailored properties. In the *health sector*, nanoparticles are used in diagnostics. There are major opportunities in biomaterials for regenerative medicine, in drug discovery, and targeted drug delivery.

The number of Finnish companies active in nanotechnology has grown rapidly, and exceeds now 200. More than 70 of them have commercial products or processes. The annual turnover of the nanotechnology sector is approximately 320 million €, and the industry employs approximately 3000 professionals. The projected size of nanotechnology sector in Finland exceeds 1.3 billion € in 2013, with more than 10000 employed professionals.

This bodes well for the Finnish industry in its effort to maintain diversity and competitiveness. Given the rapid growth of nanotechnology applications, it is also important to engage the society at large in a dialogue of possible environmental and health issues related nanotechnology, notwithstanding their often exaggerated role in popular literature.

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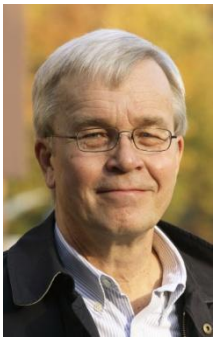

Economic crisis in Russia - specificity of management policy and lessons for economic policy making

By Boris Porfiriev

The waves of the major financial and economic crisis, which started in the USA in late 2007 and then shortly enveloped the biggest word economies reached Russia and hit the national economy in October 2008. This impact turned to be the most severe among the G8, at least by the end of 2009 as cool statistics reveal.[1] The key reason why the crisis in Russia has been most severe among the G8 roots primarily in *the structure of the Russia economy* with oil and gas persisting as undisputable leaders of its export. However, the protracted nature of the crisis to some extent at least could be attributed to the tardiness of crisis response dependent on the policy makers' *perception and assessment of the negative changes both in the US and other major economies and Russia.* No less important is such a perception in terms of the crisis recovery efficiency: in January 2010 some key officials believed that the crisis was over while many economists kept considering it too early to declare.

The policy makers' perception evolved though three modes. Initially it implied denial of a crisis. As late as November 2008 the official media cited the minister of finance saying, "we see some problems, no crisis", "Russia is the only safe heaven in the world economic turmoil". By that time the EU first (Q3 2008) and then USA and Japan (November 2008) admitted recession. Curiously enough, also by the end of November 2008 the Russia government developed the draft of first anti-crisis program. The next crisis perception mode involved partial admission with grace notes. From December 2008 to February 2009 the prime minister mentioned about "crisis occurrences or events", need to "cope with the implications of the global crisis to the local economy" and "withstand to the financial infection from overseas". By that time the government's first anti-crisis program was published with the draft of its second, improved version ready, too. Finally in March 2009 the crisis was formally admitted and the government's final version of the anti-crisis program was published focused on internal economic vulnerabilities.

The evolution of the perception modes above is in no way unique to Russia but instead is quite typical for crisis portraying both by policy makers and media.[2] However, *implementation of the crisis management policy carried out in Russia as a set of governmental anti-crisis programs or stimulus packages* (as in the other major economies) had its specificity. The key features and peculiarities of the programs included: tardiness of development and approval with the delay no less than 6 months; the highest cost among the G8 and China in relative terms: at our estimate, the percentage of the cumulated anti-crisis federal budget allocations and appropriations in the GDP by the end of 2009 amounted in Russia to 20 ($560 billion)[3] ; in EU – to 13 ($2000 billion); USA – to 10 ($1500 billion) and China – to 8 ($580 billion) (the numbers are rounded).

In addition, the first federal anti-crisis program turned to be vague dispersed over 17 so-called 'priority areas' with excessive bias on bailing out banks and big corporations (resembling somewhat Polson plan in USA), short-term and expensive credits poured to commercial banks and cheap subordinated credits generously splurged on 'fat cats', most of whom converted rubles to hard currencies then deposited in foreign banks. However, the second federal anti-crisis program was more focused with priorities declared reduced to seven: entirely fulfilled obligations of the government to provide social protection to the most affected communities; maintaining and strengthening industrial and technological capacity for the future economic development; internal demand as a basis for recovery and future development; modernization of economy (rushing from oil & gas growth to development based on innovations including investments in human capital and energy efficient technologies); protection of business from officials and combat against corruption;

[1] In terms of economic growth, investment and domestic demand reduction in Q4 2008 GDP growth rate plummeted to 2.2% from 7.8% in Q1-Q3 2008 followed by a net decline of 8,5% in 2009 (preliminary data). This was precipitated by industrial production output in 2009 fell by 11.5% while investment into fixed assets shrank by as much as 17.6%. Latest official economic forecasts of the GDP growth rate for 2010-2012 vary depending primarily on the expected oil price dynamics from conservative estimate of 5.2% – implying that 2009 sharp decrease will not be overcome – to moderate optimistic 11.2%, which would mean increase by 2.2% above the pre-crisis 2008 indicator. (See: Ministry of Economic Development of the Russian Federation (MED), Updated Forecast of the Socioeconomic Development for 2010 and Planning Period of 2011-2012: Basic Parameters (in Russian). Moscow, December 2009. www.economy.gov.ru/minec/resources/8848ae8040dcabc7bd59bfc8cc8c99f3/prognoz20102012.doc) Thus even if achieved it would be mere 0.7% of average annual GDP growth between 2008 and 2012 that correspond to stagnation or weak economic growth. (These numbers match the earlier estimates by MED providing for 0.1% to .3% in 2010 and up to 2019. See: A. Kudrin (the Russia minister of finance) and A. Klepach (the deputy minister of MED) presentations at St Petersburg International Economic Forum in summer 2009). The annual growth rate of retail sales slowed by 6.7% in 2009 and expected to rise to modest 5-6% in 2011-2012. The picture above should be amended by other macroeconomic indicators showing: 1) the budget shortage (up to 10% GDP with the National Wealth Fund operations inclusive) in 2009 and decreasing by over 5% GDP established earlier for 2010 and 3% GDP in 2011; 2) external borrowing increase over $10 billion after 2010 with conceivably no more Reserve Fund after 2010! 3) dynamics of external trade balance (in any scenario is assumed that exports will exceed imports by $100 billion in 2012); 4) currency outflow and persisting and huge corporate debt burden with almost $500 billion or corporate debt accumulated by late 2008 with $60 billion paid in Q4 2008 and $160 in 2009 meaning international reserves declined markedly. One should also add persisting high level of inflation by the end of 2009 amounting to 11.7% (although reduced against 13.3% in 2008 and expected further reduction to 6-7% in 2010-2011 and 5-6% in 2012). This will facilitate increasing the amount of real disposed income by 10.3% in 2010-2012 but at the same time the amount of living wage is expected to change negatively with the percentage of those with the level of incomes below the living wage benchmark remaining almost the same in 2012 (around 13%). Unemployment that reached some 6.5 million people in 2012 will go down to optimistically 5.6 million or 7.7% of economically active population (or conservatively to 6.2 million or 8.5%, respectively).

[2] See, e.g.: Rosenthal, U., Boin, R.A. and Comfort, L. (eds.) Managing Crises: Threats, Dilemmas and Opportunities. Springfield (IL): Charles Thomas, 2001; Boin, R.A., t' Hart, P., Stern, E. and Sundelius, B. The Politics of Crisis Management: Public Leadership under Pressure. NY: Cambridge Univ. Press, 2005.

[3] By mid April 2009 the total anti-crisis package amounted to some 12% of the GDP with half of this making up the fiscal stimulus and another half composed of liquidity provided by the Central bank and the government on a temporary basis. See: Kudrin, A.L. (Deputy Prime Minister and Minister of Finance of the Russian Federation). Russian Economic Policy and the Global Financial Crisis. Transcript of speech given at the Peterson Institute for International Economics on April 24, 2009.

securing normal functioning of the financial sector including stock market, making timely and efficiently implemented decisions; responsible macroeconomic policy, maintaining equilibrium ruble rate, curbing inflation.

Implementation of the policy priorities above in 2009 was far from declarations, partly for objective reasons (too huge inertia of the existed poor institutional system, too little time for 'big expectations', etc.) and partly due to the 'human factor'. For instance, funding of the targeted development programs was frozen or cut. Allocations for energy infrastructure and 'clean' innovations within the federal anti-crisis program are miniscule with less than 2% of the respective package against 12% in USA, 21% in Germany, 23% in France, 38% in China and skyrocketing to 89% in South Korea. As the president of Russia put it at the International Economic Forum in St Petersburg in July 2009, "innovations fail to make any progress".

Specific lessons and recommendations for policy making involve set of measures in both commodity and financial sectors of the national economy as well as in its governance. In the financial sector these should include: 1) Reduction of inflation by constraining appetite of monopolies and cutting down utility and transportation tariffs, food prices and cutting down huge budget expenditures on administration and management. In 2009 the rate of inflation reduced to less than 9% almost totally thanks to the sharp decrease in demand caused by the crisis. 2) Adding to the "long" money funds for investment via reform of the national pension insurance and insurance systems. The capacity of the existing systems in Russia is miniscule with accumulative pension funds of the enterprises amounting to some $10 billion (versus around $150 billion in Kazakhstan) and collection of insurance premiums less than $40 billion or a bit over 2% GDP only. Good news is that the federal government has already increased the level of pensions in 2009 and will add 40% more in 2010. However, given that the current level is some 25% of the average wage against the 40% minimum recommended by ILO this should be considered with reservation. 3) Strengthening the banking system by decentralization and loosening the Ministry of Finance (Treasury) excessive control over "budget" organizations and increasing efficiency of the Central bank operations.

In the commodity producing sector the focus of the policy should be development of the *realistic and efficient strategy* to diversify economy. While diversification means little right at the moment when markets all fail at once, it is a decisive advantage when recovery begins and long-term development is considered or when individual vulnerability to crisis agents' impact is involved.[4] Diversification implies: 1) Reducing the tax load on enterprises on condition that the savings are invested in modernization of machines and equipment, particularly in energy and electrical machine building, modern regional and big cargo planes production, gas- and petrochemical industries and wood processing. Special attention should be paid to development of the 'clean technologies', which comes in tune with the official strategy for innovative growth and pledges to reduce carbon emissions up to 25% by 2020; 2) Increasing the investment component of the federal consolidated budget and 3) Using the part (up to 50%) of the national currency reserve as loans to commercial banks for crediting investment projects.

In the *area of governance* of the economic development a set of the major institutional changes should be carried out under the permanent and tough control of the president and prime minister to provide efficiency of government and public management via: a) combating corruption at all levels of decision making, and b) upgrading the professional qualities of municipal and regional officials, including those in the crisis management area.

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[4] See: Nor just straw men. The biggest emerging economies are rebounding, even without recovery in the West. The Economist, June 20th 2009, p. 60-62.

Russia's social model of bureaucracy

By Jon Hellevig

I have identified three main problems which Russia has to overcome in order to create sustainable prosperity. These are: inflation, corruption and bureaucracy. I believe that the two former ones have been properly identified and even when the results are not so evident as we would wish the fight against them goes on to full extent. But in regards to bureaucracy it seems that even the problem has not been properly identified.

President Medvedev and Prime Minister Putin are the first to admit that Russia has a problem with bureaucracy. And like with any serious problem, the admission goes a good way for the cure. But apparently they do not fully grasp the nature of the problem. Bureaucracy is not just a question about how state officials behave; rather the whole administrative culture is the problem. However maliciously or vexatiously the bureaucrat acts, he is only acting within the received framework of the system of detrimental social practices and laws. Ignoble social practices cannot be changed overnight, but these political leaders have all the power on earth to change the laws of Russia. But it seems to me that they have not realized that they should start with just that. Instead it seems that too much effort goes on to conceive of ways to change the psychology of the bureaucrat and to conceive new rules which would deter his insatiable bureaucratic appetite.

These leaders could start with a total revamp of the laws of Russia. Each piece of legislation presently in force in Russia is modeled on the Soviet rule-kit – the idea to equip each law with useless but mandatory bureaucratic procedures that companies and citizen have to comply with just for the sake of doing it. To some extent these ideas stem from the maxim of the command system according to which all that is not explicitly allowed is to be considered forbidden. On the other side of the coin is the idea that the lawmaker wants to catch all potential law breakers– that is, in their mind all of us - before they actually break the law. There is an underlying firm belief that by requiring a lot of documents to be produced in a set form this aim will be achieved, even though it is this very aim that creates the opportunities for machinations by manipulating the form which in Russia is so much more valued than substance.

A very peculiar consequence of this bureaucratic formalism is that the lawmaker kind of considers that it does not have the power to pass binding laws before all the subjects explicitly express their consent by complying with the rules. In this vein, for example, the corporate laws of Russia require that companies undergo cumbersome processes of re-registering their charters to comply with any new provisions of the law. In countries with a mature administrative culture it goes without saying that a company charter is not valid to the extent it is in breach of law and no ridiculous mass re-registrations are needed. Last year minor changes in the law on limited liability corporations led to the need to re-register the charters of every single LLC company in Russia. This was a task that the tax authority in its capacity of registration authority, of course, was not prepared for. And because the bureaucrats at the tax office contrary to the Russian constitution refuse to accept a signed power of authority by the general director, all the general directors in the country had to stand personally in line for hours and sometimes days in order to do the filing. At least from Moscow we have reports that to comply with the bureaucracy people had to occupy their place in the line as early as four o'clock in the morning.

But bureaucracy in Russia is not only about selective and arbitrary adherence to cumbersome and absurd rules and red tape; rather it characterizes the entire administrative culture. It forms the misconceived model of how to conduct common affairs in an organization. Unfortunately the bureaucratic model has permeated society at large and even private enterprises follow the same bureaucratic command model. Russian enterprises mirror in all essentials the state administrative culture, a conspicuous feature of which is that cabinet ministers and executive committee members come to meetings as if they were schoolboys that have been summoned before the principal to get a lesson they will not forget. In this model there are no consultative meetings, rather the chief summons his subordinates for monologues, commands and reproaches.

Unfortunately this model is even actively propagated by the way Russian television cover government meetings. Most conspicuously the bureaucratic model entails the acceptance of the hierarchical command structure which effectively prevents any candid feedback from floating to the top.

We know from modern Western business administration that the quality of the corporate culture plays a decisive role for a company's success. We could compare the national economy with a corporation. Any corporation that would run such a corporate culture like the Russian administrative system would likely fail sooner or later. To succeed in the competition companies have cut down administrative barriers and organized themselves to meet the demands of the customer. And so have countries. A proper corporate culture spells better operations, more revenue and more profit. The same effects come about when a country liberalizes its administrative culture. Cutting bureaucracy would equal billions and billions of stimulus money as companies would be faster to seize and capitalize on opportunities and efficiency of operations would increase. I am confident that if Russia would seriously start mending its dire administrative culture then that would give an extra one to two percentages of GDP growth each year for at least a decade. Russian economy started a decade ago from very low levels and therefore there has been impressive growth even with these problems in the baggage. But to reach the next level of prosperity bureaucracy has to go.

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Russia

Challenges and prospects in economic use of local natural resources in Belarus

By Aleksei Bykov and Svetlana Vertai

The offence to economic and energy safety is the most important of the challenges for a sustainable development of open export oriented economy of the Republic of Belarus which is the result of high dependence on imports of intermediate goods, including raw materials and fuel and energy resources. The world crisis consequences, with growing protectionism in foreign markets traditional for Belarus among them, result in increase of the negative foreign trade balance. The latter leads to permanent external borrowings and disbalances in the national financial system. A possible factor that could allow reducing imports and boosting exports of goods and services is the extended economic use of local natural resources.

Natural resources that are not to be transported outside the regional economic system under consideration are viewed as local and can be used within its territory; otherwise a resource is considered as centralized. The majority of Belarusian natural resources can be equally classified as local or centralized.

The analysis of scientific publications on natural resources economics and management proves that resource abundance does not automatically turn to economic benefits for a country, yet it may become a significant condition for its sustainable development.

We have studied retrospectively the factors of material, capital and labor intensity in gross value added that influence the production growth in Belarusian industries, as well as the share of local resources in the total material consumption over the period between 2000 and 2007. The analysis was based on "input-output" tables' data processing using correlation and regression methods. We found out that the industry supply with local resource did not essentially influence on the production growth. The analysis also revealed the basic causes that hinder the production growth in Belarusian industries with a big share of local resources, including:

- insufficient advanced processing of the local raw materials into final products;
- low competitive position of goods produced by specific industries with a big share of local natural resources due to the use of obsolete and overworn equipment as well as insufficient application of the innovative management technologies, particularly marketing concepts, entrepreneurial skills, flexibility and adaptability.

The analysis done helped to ground methodological approaches to economic assessment of local natural resources involvement into economic circulation. The general idea for the techniques offered is the choice of the value added parameter as a main criterion for decision-making:

1. Method of decision substantiation for export of products based on local natural resources is applicable for goods traded at a stock exchange. The best variant of raw materials use (provided its economic efficiency) is where we create the maximum value added on a standard raw material unit.

2. Method of efficiency estimation for investments into projects of processing local natural resources. The project to implement will be the one with the minimum value of the key indicator of the gain capital capacity, taking into account its commercial payback. The gain capital capacity indicator is calculated as a ratio of the project investments amount to the annual value added created in the project.

3. Method of efficiency estimation for delivery of products manufactured mainly with the use of local natural resources, to the domestic market. It assumes the analysis of the value chain within a integrate business process – from raw material extraction or purchase to consumer goods production and selling. It is followed by calculating indicators of goods prices, total value added and material costs within the value chain. The efficiency criterion shall be the indicator of total material costs adjusted to the price and quality of the final produce; this indicator should be minimized.

These techniques applied to Belarusian companies specialized in forestry, wood processing, road construction and food processing has allowed validating strategic directions for development of firms that exploit local natural resources:

- The strategy of re-investing incomes from the export of raw materials into technological re-equipment implies the development of manufactures with advanced processing of raw materials through accumulation of raw material export incomes accrued during a period of favorable pricing environment.
- The strategy of joint value chain management is based on the interaction between the companies included in the integrate business process of the final produce, to find optimum decisions for all participants and decide on the subsequent joint distribution of incomes.

It is obvious that the principal limit to solve the problem of economic use of local natural resources in Belarus are considerable capital investments in manufacture modernization that will be required.

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Thematic network on geopolitics and security

By Lassi Heininen

The Thematic Network (TN) on Geopolitics and Security was established and approved in autumn 2009 by the Council of the University of the Arctic (UArctic) and the Steering Committee of the Northern Research Forum (NRF). The two detailed focus areas of the TN are first, Studies on (northern) Geopolitics and second, Studies on Security and different security dimensions. These two themes include different sub-themes, such as how geopolitics is present and implemented in the High North, what might mean indigenous point(s) of view of geopolitics, and how the North is seen in world politics and economics; and what might be among key indicators of the geopolitics in a changing North. And further, how different discourses on security are implemented in the North, what are special features of Northern security, and what kind of security factor climate change is.

The main aims of the Thematic Network on Geopolitics and Security are on one hand, to combine the two focus areas together, promote 'interdisciplinarity' and draw up a holistic picture on Northern (geo)politics, and on the other, to identify and analyze key indicators of northern geopolitics as well as special features of northern security. One more aim is to implement the interplay between research and teaching, between senior and young researchers as well as scientific and traditional knowledge(s), and between science and politics.

Behind the focus areas and aims of the TN is the 21st Century's geopolitics, where the High North is not a marginalised and isolated region, but closely integrated into the international community with a manifold growth in its geo-strategic importance in world politics. The region is also (very) stable and peaceful based on active and much institutional cooperation both regionalism by strong civil societies and region-building by democratic nation-states. Furthermore, there is a growing interest toward the region and its resources, and new options for to utilize them, both among the arctic states and globally due to the region's rich energy resources, new (though still potential) global sea routes and its high military-political importance. In addition of these there are also globalization and its flows and global environmental problems, such as climate change. All this means that the circumpolar North has entered into a significant and multi-dimensional geopolitical, geoeconomical and environmental change with new kinds of pressure of both security threats and interests from outside the region which easily emphasize state sovereignty.

At the first stage the Network is consisted of the following scholars from Europe, Russia and North America: Rasmus Bertensen from United Nations University, Matthias Finger from Swiss Federal Institute of Technology, Gunhild Hoogenson from University of Tromsö, Rob Huebert from University of Galgary, Nikita Lomagin from St. Petersburg State University, Heather Nicol from Trent University, Larisa Riabova from Kola Science Centre, Gleb Yarovoy from Petrozavodsk State University, Willy Östreng from Ocean Futures, and Lassi Heininen from the University of Lapland – he is also the lead for the Network.

Among the planned activities for to implement the aims and promote discourse on the two focus areas are to run an annual workshop back-to-back to international meetings and to act as a joint platform for dialogues for the UArctic Institute for Applied Circumpolar Policy and the Northern Research Forum. In 2010 the first event is the Calotte Academy 2010 – it is an annual, international travelling symposium and sub-forum for the Northern Research Forum – which will be organized in Apatity, Russia; Kirkenes, Norway and Inari, Finland in April 8-13, 2010. The main theme of the Calotte A 2010 is *The High North in World Politics and Economics.*

The second event is the 3rd conference of the UArctic Institute for Applied Circumpolar Policy with the title of *Climate Change and Human Security*. It will take place in Rovaniemi, Finland in the second week of September 2010 and be organized together with the Dartmouth College and the University of Alaska at Fairbanks and the University of Lapland. Finally, the Thematic Network on Geopolitics and Security will be involved in the 6th Open Assembly of the Northern Research Forum. This assembly with the main theme of *Our Ice Dependent World* will take place in Oslo and Kirkenes, Norway in October 24-27, 2010.

Discussions in the NRF Open Assemblies are open, democratic and lively with a method for "real-world problem-solving". Particularly they highlight matters of the role of research both in a society and the whole international community, and thus implement the interplay between politics and science, which is much needed, but not so much used, in political decision-making. Behind, is a perception that science is more than labs – it is the people and the environment for to cluster talented people, and build and promote both human capital and social capital.

For example, the 6th NRF Open Assembly entitled *Our Ice Dependent World* will discuss on the significance of Ice and the impact of dwindling ice on the complex interface of nature and society in all climatic zones of the world, both globally and particularly in the Arctic, the Antarctic and the Himalayans. The 6th will take place in October 24-27, 2010 in Oslo and Kirkenes, Norway.

All this is on one hand, based on the mission of the NRF "to provide a platform for an effective dialogue among members of the research community and a wide range of stakeholders to (a) facilitate research relevant to issues on the contemporary Northern agenda and (b) engage researchers, the policy community and other stakeholders to discuss, assess and report on research results and application". Consequently, the fundamental aim of the NRF is both "Dialogue-building" for problem-solving and confidence-building and "Stage-building" for to create a new kind and wider platform and to seek fresh thinking and bold new ideas from the leading minds across the North, and to implement the interplay between politics and science.

In addition to the biennial Open Assemblies there are also other activities organized by the NRF, such as Theme-workshops that lead up to or follow Open Assemblies, various sub-forums and NRF Network of Experts consisting of the NRF Young Researchers. The newest activity is the NRF Theme Project Groups on relevant northern issues acting as an epistemic community in their field(s) by gathering expertise from academia, political activity, administration, business and civil society. These groups are open for those who are interested in to participate in the work.

For more information, you can visit the NRF website (www.nrf.is).

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Making the sea a safer place

By Maria Damanaki

Since 2007, the European Commission has been advocating closer integration of the various maritime surveillance systems which exist across the EU member states and bordering regions. A more interoperable surveillance system would bring together existing monitoring and tracking systems used for maritime safety and security, protection of the marine environment, fisheries control, control of external borders and other law enforcement activities. In October 2009 the Commission set down four guiding principles to create a common information sharing environment as a response to the challenges of the Baltic and the Mediterranean sea basins. Now, we are working on a detailed step-by-step approach leading to the common information sharing environment, which we hope to present in the second half of this year.

But what is the common information sharing environment and what is its added value? It is widely recognised that the European seas provide prosperity to the EU. But they are also the scene of illegal activities, such as illegal immigration, drug or human trafficking, organised crime and illegal fishing, as well as of legal activities creating however threats on our common natural heritage, human lives and the marine environment, such as intense maritime traffic associated with ship accidents and marine pollution. Today, these threats are managed at least at the initial *awareness* level, in a fragmented way, within the remit of different sectoral authorities. Those authorities dealing with border control, customs, fisheries control, maritime safety, marine pollution response, maritime security of ships and ports, prevention and suppression of criminal activities tend to gather data and operational information for their own needs and do not necessarily benefit, sometimes out of an obsolete perception of maintaining ownership and prerogatives, from the work carried out by each other.

The benefits of sharing maritime surveillance information are evident. Often the authorities are dealing with different aspects of the same problem, or alternatively with different problems having common aspects. Making it possible to exchange already existing maritime surveillance information across sectors and borders should enhance their situation awareness, increase their efficiency and cut costs. The common information sharing environment is therefore a powerful *awareness creating* and in turn *decision making* tool in the hands of national authorities across Europe to carry out targeted operations and thus become more effective. In terms of costs, making existing sectoral surveillance systems (military included) available to other sectors, thus avoiding duplications in data collection, is a cost-effective option, against creating additional sectoral systems and investing on new infrastructures for gathering essentially the same data.

It is true that European sea basins face some common challenges, but it is all the more true that each has its own specific characteristics in this respect. For example the Baltic sea sees at any given time thousands (some esteem 1500) of ships, amongst them 250 tankers, being on the move from/to one of each ports from/to the North Sea; statistics show seaborne oil transportation through this "shared lake" to tend towards the incredible number of 200 million tons per year. As a result of this and its unique natural characteristics, the Baltic ecosystem is in danger.

In the south, EU's affiliation with Asia and Africa through the Mediterranean creates threats of a different nature. In addition to the intense maritime traffic that occurs also in the Med, hundred thousands of ill-fated people try to reach the European "paradise" through the Med every year.

EU maritime interests are also present far from our continent and they should be protected wherever they are, by means of naval operations in need of support from a clear maritime picture (the anti-piracy operation Atalanta is a striking example). The same is true for other Common Security and Defence Policy missions for peace-keeping, stability and humanitarian aid in several regions of the world.

The integration of maritime surveillance carries a very strong potential to provide the operational authorities with the necessary information for building knowledge. For giving answers to the fundamental questions 'who is there' and 'what is happening', consequently a concrete indication whether this is legal or not, an essential prerequisite for taking the right decision at the appropriate time. Such potential is absolutely useful for every authority carrying out duties at sea, in every sea basin around and even outside the continent.

Nowadays, the data is there. Numerous sensors on board ships, on shore, ashore, in the air and in space, as a result of international, EU and national legislation or initiatives provide messages, images, real or near real-time pictures. Some cross-border cooperation on surveillance also exists, much more developed and institutionalised in the Baltic. The Commission will, during the elaboration of the several steps of the Roadmap, i.e. until the end of 2013, explore to what extent a regional approach would fit better with the idea of the common information sharing environment. In other words, how such environment should be governed in order to better address regional specificities and related challenges.

For the time being, the potential of and obstacles for enhanced data exchange is being tested in a theatre of operations both in the northern sea basins (North and Baltic sea) and in the Mediterranean, following such regional approach. This is realised through two EU co-financed pilot projects, the MARSUNO (9 Member States plus Norway, amongst them all EU Baltic States and 21 national authorities participate) and the BlueMassMed (6 southern Member States, 32 national authorities involved). Those pilot projects are of particular importance, not only for the input they will provide to the Commission in building integration but above all for bringing neighbouring states together, for building trust and confidence (not least between civilian and military authorities) and for personifying member states interest in the integration process.

Whatever the challenges involved, the integration of maritime surveillance is a strong enabler for timely and effective reaction, to protect the interests of the EU and of Member States, to preserve sustainability, to make the EU safer and more secure.

Maria Damanaki

Commissioner for Maritime Affairs and Fisheries

European Commission

Measures of Finnish farmers to prevent the eutrophication of the Baltic Sea

By Sirkka-Liisa Anttila

For us Finns, the Baltic Sea is a window to Europe. It is also our most important route to the common market. With its wonderful archipelago, the Baltic Sea offers one of the most beautiful landscapes and tourist attractions in Finland. The unique beauty and value of the Archipelago Sea cannot be measured in money.

The Baltic Sea is an exceptionally shallow, brackish inland basin with a slow exchange of water. This means that any improvement to the current poor condition of the Baltic Sea will be slow. Even if we managed to stop the nutrient emissions to the Baltic Sea immediately, we would still suffer from the yellow inflorescence of cyanobacteria for many summers to come. In other words, there are no quick solutions, but decisions must be made quickly if we are to save the Baltic Sea.

During the past few decades, significant investments have been made in the effort to reduce the loading of water bodies by agriculture. With the agri-environmental support scheme, Finland has striven to reduce the nutrient content of the Baltic Sea throughout the country's membership in the European Union. The effects of the agri-environmental support scheme have been studied since 1995, and the support scheme has been improved as based on the latest research results at the beginning of each programme period. Thanks to the agri-environmental support scheme, the use of nutrients has decreased, and the growth of nutrient content in arable land has stopped.

The reduction in the amount of accumulated nutrients results from fertilizing in accordance with the agri-environmental support scheme, which is considerably tighter than the EU's Nitrates Directive. Indeed, the use of fertilizers has decreased significantly after the introduction of the support scheme. Phosphate fertilizer sales have dropped by 60% and nitrogen fertilizers by 25%. The nitrogen balance, which indicates the level of nitrogen left in the soil after the growth period, has decreased significantly in Finland since the country's accession to the EU.

Previously, phosphorus contained by artificial fertilizers and manure accumulated on agricultural land as a result of heavy fertilizing. Consequently, growth in the risk of phosphorus leaching into watercourses was stopped in the 1990s. Due to the structure of the Baltic Sea, floods as well as winters with little snow and much rain, the reduction in the use of nutrients has not significantly improved the condition of the water body so far.

The cultivation methods of Finnish farmers have become much more ecological. Direct runoff from manure storages has been eliminated, and the focus in environmental action has shifted to cultivation. The number of shoulders and buffer strips has increased, buffer zones have been established, and the use of vegetation cover in winter has increased.

The voluntary agri-environmental support scheme offered to farmers will continue to function as a key tool in reducing the nutrient load. In the coming programme period, the targeting of agri-environmental supports should be further improved. In the future, subsidies will be targeted geographically, and at the farm level at areas and parcels with the highest nutrient load. In addition to the targeted measures, all farmers receiving agri-environmental support are required to take action to reduce the nutrient load into watercourses.

Research has always played a key role in the development of agri-environmental support schemes, and the future programme will also be designed on the basis of the best, latest research available. With the voluntary nature of the agri-environmental support scheme, it is crucial that all measures are effective, meaningful and feasible. Furthermore, the compensation paid for these measures must cover the loss of income incurred by the farmer as their result. This is the only way to ensure that farmers practising agriculture in areas susceptible to leaching participate in the agri-environmental support scheme. The Ministry of Agriculture and Forestry takes the poor condition of the Baltic Sea very seriously, and is ready to face the challenge.

In February, Finland hosted the Baltic Sea Action Summit for the heads of states from countries round the Baltic Sea. The summit aimed to secure commitments from heads of state on goals to protect the Baltic Sea. About 140 concrete commitments were made at the summit to promote the protection of the Baltic Sea and to improve its ecological condition. Prime Minister Matti Vanhanen pledged the Finnish Government's commitment to strengthen its efforts in all areas to improve the state of the Archipelago Sea by 2020.

A key part of this commitment is reducing the nutrient load of agriculture in the drainage area of the Archipelago Sea. Finland wants to be a pioneer in the recycling of nutrients. Improving the recycling of nutrients and the adoption of new technologies are not only a large service to the Baltic Sea but also to agriculture.

In the future, the price of artificial fertilizers such as phosphorus will increase significantly as the global phosphorus reserves diminish. However, manure contains a large quantity of phosphorus. We now desperately need a technology that enables the processing of manure nutrients into a form that is usable for plants and easily transportable. Manure should not be categorized as waste. Instead, it should be viewed as a raw material for nutrients and energy, which should be utilized effectively.

While Finland's share in the total nutrient load of the Baltic Sea is small, it should never be downplayed. We must do our share in improving the condition of the Baltic Sea. I am happy to see that all countries bordering the Baltic Sea are committed to this goal. By working together and learning from one another, we will no doubt find new solutions to improve the condition of the Baltic Sea. No single country can save the Baltic Sea alone. What we need is concerted action and strong commitment from everyone. The best results are achieved through cooperation – for the good of the Baltic Sea.

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Minister of Agriculture and Forestry

Finland

Estonia and Euro - continuation of long-term policy of fiscal prudence

By Jürgen Ligi

At the time of writing this article, Estonia is meeting the reference values of the Maastricht criteria - a set of economic indicators that provides the basis for the European Commission and the European Central Bank to assess a Member State's status of convergence to become part of the Euro Area.

Estonia's fiscal deficit for 2009 was 1,7 per cent of GDP, well below the Maastricht reference value of 3 per cent, and its public debt is the lowest in the European Union, standing at 7 per cent of GDP as of end-2009. Strong fiscal performance is complemented by price convergence and price stability. The inflation rate is expected to remain at moderate levels in the years ahead. For nearly eighteen years has the external value of Estonia's currency – the kroon – been irrevocably fixed against the euro and, prior to the inception of the single currency, against the *deutsche mark.*

Estonia is waiting for the European Commission's proposal and the decision by the ECOFIN Council on the Euro Area enlargement. If the decisions are favorable, Estonia would adopt the euro by January 1, 2011.

Becoming part of the euro area is an achievement for every Member State. For Estonia is would be a reward for its efforts to maintain macroeconomic stability and to develop flexible, market friendly economic structures. The euro adoption should not be considered as an end goal in itself. Becoming member of the Euro Area is a natural outcome of our policies and an integral part of Estonia's long term economic strategy. It is achieved against the backdrop of a severe global crisis that hit hard Estonia's small and open economy. In this context, a few policy conclusions could be drawn.

First, prudent fiscal management, followed by all the governments since transition, was a precondition for supporting macroeconomic stability and resilience of the economy to external shocks. By running consistent surplus budgets for almost a decade, Estonia's government accumulated fiscal reserves that amounted to over 6 per cent of GDP by the end 2008. This was a cushion for the economy to survive the first shock of the global crisis without the need to take recourse to borrowing in extremely adverse market conditions in 2008 and 2009. The authorities were provided with a breathing space to devise fiscal and structural measures to adjust the economy.

Second, Estonian government took measures almost immediately after the crisis struck to keep fiscal position within the limits of the Stability and Growth Pact, and focused on maintaining the credibility of state finances. The authorities were confident that any negative impact would be offset by improved medium and long term prospects, as the economy would emerge from the crisis with a stronger fiscal position than otherwise the case would be. The cumulative fiscal tightening for 2008 and 2009 amounted to 10, 2 per cent of GDP in nominal terms and to 7 per cent of GDP in structurally adjusted terms. Estonia is now well positioned to achieve budget surplus, its Medium Term Fiscal Objective, by 2013.

Third, flexible labor markets and transparent business environment facilitated adjustment in individual firms. Companies cut back labor force and working hours, and the average salaries fell by 4, 5 percent in 2009. The overall adjustment was significant, as the unemployment stood at 15, 5 per cent as of end-February 2010. The employment ratio has kept up relatively well, 580 500 person has jobs (employment rate at *ca* 56 %) implying that much of labor force has remained active market participants in search of a new job. One result of this adjustment was a sharp correction of imbalances that had occurred after Estonia's accession to the EU in 2004. The current account turned into surplus of 6, 6 per cent of GDP in third quarter of 2009. There are also signs of renewed job creation, albeit it would take some time until the unemployment rate would return to its pre-crisis levels.

Forth, fiscal resilience and market flexibility were supported by strong banking system. The government and central bank have been actively supporting the integration with European Single Market. Nearly all banks and insurers in Estonia belong to Scandinavian and European groups. Additionally, banks and other financial intermediaries have substantial capital and liquidity buffers in Estonia. The combination of market integration and sizable domestic cushion proved to be invaluable to ensure financial stability. As of today, Estonian government has not spent a single taxpayer kroon to support the banking system.

An important policy conclusion from the last two years is the notion that well designed policy consolidation could pay off in relatively short term. Solid fundamentals need to be in place to that end - strong public and private balance sheets and culture of flexible markets and readiness to adjust. With these preconditions, the crisis management could focus on supply side measures that would result in speedier and relatively unharmed exit from the crisis. In Estonia, after a serious contraction of 14 per cent in 2009, growth has resumed and is expected to reach 3, 3 per cent in 2011. The other conclusion is that the present European Union policy coordination frameworks, such as Stability and Growth Pact, financial market integration and the Lisbon Strategy are growth enhancing, if rigorously implemented. The task now is to build upon the present strengths while devising the EU2020 strategy.

Estonia's possible accession to the Euro Area and policy experiences could have a beneficial impact for broader Baltic Sea region as well. Euro adoption would reduce financial risks and support investment flows and trade links in the region. Estonia's recovery and euro adoption provide an example that consistently sound policies will pay off eventually. Estonia is devoted to long-term tradition of prudent fiscal policies irrespective of eurozone membership.

Jürgen Ligi

Minister of Finance

Estonia

Changing energy security environment in Lithuania - old challenges and new responses

By Arvydas Sekmokas

Year 2010 represents a turning point in Lithuanian energy policy. While celebrating the 20th Anniversary of its independence restoration, Lithuania's energy independence is under the risk – the closure of Ignalina Nuclear Power Plant (NPP) at the end of 2009 once again raises the issue of Lithuania's energy insecurity.

The closure of Ignalina NPP has ended previous nuclear energy period of Lithuania's energy policy. After being a net exporter of electricity for more than two decades, from the beginning of this year Lithuania has changed its status to importer overnight. Such situation necessitates reconsideration of the current energy policy and drawing the new guidelines.

Lithuania's commitment to shut-down Ignalina NPP indicated in the EU Accession Treaty is an integral part of the broader picture of Lithuania's energy insecurity. Lithuania together with Latvia and Estonia is an "energy island". The synergy of closure of Ignalina NPP and status of an "energy island" implies demand for a new energy security agenda. Vital interconnections in order to integrate to the continental part of the EU internal energy market and new generation capacities to balance current energy-mix are two main responses while seeking to increase energy security of Lithuania.

Practical steps how to exit from energy isolation falls into two groups: physical interconnections and systemic integration into the European energy systems. Lithuania – Sweden (NordBalt) and Lithuania – Poland (LitPol Link) electricity interconnections are under rapid development and will be completed in 2015. However, physical interconnections, as it was mentioned before, should be also supplemented by systemic integration. Electricity interconnections and synchronous operation of electricity system with ENTSO-E Continental Europe network represents the main goal which will guarantee that Lithuania will be on the EU energy map and will be fully integrated into the EU energy market.

Lithuanian gas isolation represents another side of Lithuania as an "energy island". Natural gas for the customers of Lithuania is supplied from one source and by single pipeline. Total dependency on gas import source and gas supply infrastructure requires diversification. This goal could be achieved by building new gas interconnections with neighbouring countries and by diversification of gas import through the sea.

Currently developing Lithuania's energy infrastructure projects are multidirectional, but strives for the same goal. This multidirectional energy policy is oriented towards implementation of:

- Lithuania – Sweden (NordBalt) electricity interconnection
- Lithuania – Poland (LitPol Link) electricity interconnection
- Lithuania – Poland gas interconnection
- LNG terminal

The afore-mentioned interconnections and LNG terminal are of crucial importance for the long-term energy security of Lithuania, especially until the new nuclear power plant will be build. The conditions to implement these projects in time are strengthened by the Baltic Energy Market Interconnection Plan (BEMIP) endorsed on the 17th of June 2009. BEMIP covers the main electricity and gas interconnections, development of new electricity generation sources, creature of common market and development of LNG and underground gas storages in the Baltic Sea region. This is a comprehensive plan to move energy developments in the region and Lithuania is highly committed for the implementation of this plan and perceives BEMIP as a constituent part of National energy strategy.

Continuity of nuclear energy policy is the main strategic goal of Lithuania. Closure of Ignalina NPP marked the end of one nuclear power plant, nevertheless, nuclear energy remains the key principle of Lithuanian energy security. New nuclear power plant constitutes Lithuania's response to future energy supply deficit and principal option to increase generation capacities. The project, due to be implemented together with the regional partners (Estonia, Latvia and Poland), will significantly improve energy security situation of all Baltic countries. Currently the project is under systemic implementation according to strategic guidelines and an indicative timetable. After the Environmental Impact Assessment and preparation of Business and Financial Model have been completed, Lithuania is now dealing with potential strategic investors. Strategic investor will be chosen until the end of 2010. This will allow to move the project further and to select appropriate capacity and technology for the new nuclear power plant. Commissioning of the new power plant is planned for the year 2018–2020.

The closure of Ignalina NPP triggered not only development of energy infrastructure projects but also the creation of electricity market. After the closure of Ignalina NPP a certain part of electricity has to be supplemented from external electricity import sources. For this reason creation of market platform was the most efficient solution to achieve two important variables of energy security classics – sufficient energy for reliable price. As from the 1st of January 2010, Lithuania is gradually opening up its electricity market. At this date Lithuanian power exchange according to the Nord Pool principles started operating and it is an important step leading towards single and harmonized common Baltic electricity market integrated with the Nordic market. Full electricity market opening, foreseen in 2015, is the main precondition for energy market in the Baltics as well as in the EU.

Last but not the least Lithuania will continue to develop renewable energy and energy efficiency policies. These policies will be actively developed alongside building of the new nuclear power plant and implementation of electricity and gas interconnections. It is the long-term, comprehensive and horizontal energy security measure. It is one of the most efficient long-lasting stepping-stones to decrease Lithuania's dependence on fossil-fuels and reduce CO2 emission – the same goals as in the nuclear energy option. Currently renewable energy sources covers 13 percent of total energy consumption, the average share of renewable energy in total final energy consumption must annually grow around 1–2 percent and in 2020 renewables will comprise 23 percent of final energy consumption. The most important and most developed renewables in Lithuania are biomass and hydro-energy. Wind (on-shore and off-shore) and sun energy are potential renewables to be developed.

In conclusion, the main pillars of Lithuanian energy policy in the long term are nuclear energy and renewables. This long term strategy is oriented towards balanced and sustainable energy-mix. Intermediate goal – to build electricity and gas interconnections – is a prerequisite for Lithuania to become fully integrated into the EU's energy market.

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Hopes and concerns over the Eastern Partnership - the Belarus' view

By Sergei Martynov

The Eastern Partnership is a unique project in the way that it singles out for the first time all the six Eastern European states from the overall context of the EU neighbourhood and focuses on them as a regional entity.

Belarus responded with interest to the Eastern Partnership initiative from the very outset and actively contributed to its conceptual development both in the run-up to and following the 2009 Prague summit. We see it as a result-oriented cooperation framework, based on common democratic values, but whose scope goes far beyond these values. It should serve pragmatic interests of all partner states and the Wider Europe in general by fostering sustainable development, economic and social modernization in this part of the continent.

EaP is not an anteroom for an EU membership. The Eastern Partnership should enable the partner states to choose freely between integration into and equitable partnership with the European Union. Whatever their choice, they should enjoy equal access to all Partnership benefits. This will provide for the EaP to become a viable component of the current and future geopolitical landscape of a common Europe.

It is important to prevent this initiative from turning into a tool in the struggle over "spheres of influence". Belarus perhaps like no other partner state is averse to the idea of "drawing lines" and "taking sides". EaP activities should be open to any interested third country. For this reason Belarus welcomed the idea of creating an Eastern Partnership "group of friends". This should embrace in the first place the countries that are geographically close to our region and hence, best positioned to contribute directly to its development.

Belarus supported the topics of the first EaP flagship initiatives[1], even though their detailed content is still to be defined. They should be matched as soon as possible with the partner states' own projects for the benefit of the EaP region. This is necessary to secure the conceptual and operational synergy between the EU and non-EU parts of the EaP.

Belarus, alone and jointly with other partner countries and EU member states, came up with a number of such concrete proposals of regional importance in the fields of customs, strategic transport, energy security, cultural heritage, etc. However, eleven months after the launching of EaP at the Prague summit the prospects of any practical project activity are still vague. What was conceived as an ambitious and result-oriented initiative risks to bog down in lengthy discussions and preparatory meetings that consume the limited EaP budget. Moreover, its procedural framework is still incomplete and mandates and modalities governing the involvement of European financial institutions are still in the making. All this prevents partner countries from drawing their own projects and applying for funding.

But there is another important thing about the Eastern Partnership apart from project-making. Becoming closer to the EU not only means bringing about necessary reforms or advancing common values. It necessarily involves making our region known in Europe, promoting its economic, social, cultural, historic identity in the EU, encouraging the interest of the European public in Eastern neighbourhood matters.

The Eastern Partnership should become a platform for thematic presentations of our countries in the EU. Regular Eastern Partnership project fairs involving major international donors could be staged in European capitals. The EU should organize a string of European business and media tours to the partner states, promote studies and publications on Eastern neighbours. A Regional Development Forum could be set up as an umbrella for regular networking and match-making events bringing together companies, investors, economic authorities and researchers from Eastern partners and the EU.

Such events would make the best EaP publicity in Europe. They would also radically increase the partner states' own capacity to draw external funding into the Eastern Partnership, with a multiplier effect for Community funding.

Importantly, the Eastern Partnership should help striking the right and fair balance between security and mobility in Europe. Partner states that assure higher security standards should enjoy proportional facilitations in terms of mobility. Countries that already enjoy or seek such facilitations should be assisted in meeting relevant security commitments. Roadmaps for simplified visa regimes based on this principle should be extended to all partner states, as an element of the future uniform, equitable, legal and controlled migration area.

The EaP could stimulate the search for sustained economic growth solutions in the region. It should encourage the European Union to address outstanding issues in its trade with individual partner states impeding their fair access to the EU market. As a first step toward the goal of deep and comprehensive free trade areas, this would bring immediate benefits for their economies.

In general, the Eastern Partnership has been so far a mixed success. It has a vast potential to become a really useful framework capable of improving in a tangible manner the existing cooperation system in Europe. Belarus stands ready to contribute to the search for solutions that would turn this initiative into an efficient and user-friendly tool adapted to the needs of our economies and societies. On the other hand, we must together keep its initial thrust safe from erosion. This involves safeguarding its basic principles enshrined in the 2009 Prague Declaration by securing equal participation of all partner states in its various formats – including the nascent parliamentary dimension. Second, we must prevent the Eastern Partnership from remaining forever just another of many discussion fora in Europe.

This is what will ensure its eventual and strategically important success.

As a closely knitted group with a tradition of socially oriented reforms and environmentally sustainable economic growth, the Baltic/Nordic countries seem to be natural partners of the six Eastern European states in their pursuit of economic transition and modernisation. Baltic and Nordic countries should have an important role to play in advancing the goals of the Eastern Partnership. They could contribute bilaterally to its various initiatives, integrate their own "centres of excellence" into the EaP cooperation system and work towards increased visibility of the Eastern Partnership within regional groupings in the Baltic. At the same time, they could draw material benefits from becoming closer to an increasingly interconnected and dynamic string of states spreading between the Baltic and the Caspian seas.

Through its presence in the Council of the Baltic Sea States, the Northern Dimension framework, growing cooperation with other multilateral fora in the area, Belarus will seek to secure an interested and positive involvement of its Northern neighbours into the Eastern Partnership process.

Sergei Martynov

Minister for Foreign Affairs

Belarus

[1] Integrated border management, 2) Prevention of, preparedness for, and response to natural and man-made disasters, 3) Small and Medium Enterprise Facility, 4) Regional energy markets and energy efficiency.

The success of the Baltic Sea region is anchored to communality

By Jutta Urpilainen

The financial potential of the Baltic Sea region has been immense throughout the ages. In the Hanseatic days merchant ships travelled from port to port. Salt, fur and fish have been replaced with new products, the least of which is not energy in its various forms. If trade in the old days increased the flow of language and culture from south to north, is the region's busy activity today, too, a channel between the east and the west. For Finland and Russia alike the region is logistically of key importance.

History holds the key to the future. Building communality is the biggest challenge for those operating in the Baltic Sea region. The Baltic Sea region no longer has the Cold War dichotomy; the gaps in economical and social wellbeing are deep though. We have all the prerequisites to increase connections and cooperation whether it comes to economy, environment, education, energy or tourism.

Finland has, if the political leaders of the country so wish, the possibility to have a key role in this development. Finland is fully aboard the European integration. At the same time, Russia is our biggest foreign trade partner. We also have functional and broad bilateral cooperation with Russia. The work we have done with the northern dimension policies in the European Union is a natural part of this partnership.

Export the Nordic model

The financial crisis that has shaken the entire world has, once again, showed the strength of the Nordic social model. The welfare model based on open trade, stable labour markets, strong safety networks and social justice works in financial turmoil. Unemployment has not increased nearly as rapidly north of the Baltic Sea as it has done on its southern side. People's safety networks have not been sacrificed, which has meant that the burden is shared more equally between different groups of people.

As for economy, I would, indeed, offer the Nordic model to be used more widely in the countries in the Baltic Sea region. We should revise John Maynard Keynes' economic principles and see an active state as a strong point. For this part, though, we in Finland need to shape up as well. The right-wing government has neglected public investments that support employment and made various tax cuts worth several billions of Euros. This must be seen as a cautionary example. The state of Finland's public finance has, because of these choices, deteriorated significantly.

A stable labour market is a distinct trait of the Nordic model as well. In Finland, where the union membership rate is high, the number of industrial actions taken has reduced significantly over the decades, which means that by bargaining for the conditions of work, stability and predictability have been gained. This, then, has strengthened the conditions for economic growth. When the Baltic states joined the European Union, cooperation in the trade union movement was enhanced. By open-mindedly seeking best practices across borders, the bilateral and multilateral relationships are strengthened at the same time. This should continue.

To practical cooperation

A joint will is the prerequisite for all good cooperation. Mere political declarations do not carry far. Concrete, practical cooperation is needed. A good example of cooperation in the field of environment is the treatment of the St. Petersburg wastewaters that was founded on strong cooperation between Finland and Russia. From a near zero level, St. Petersburg has reached treating over 90% in ten years. The state of the Gulf of Finland keeps enhancing as Russia conveys the good example to smaller population centres. The increasing interest in environmental issues in Russia helps significantly.

The Strategy for the Baltic Sea Region adopted by the European Union strengthens the dialogue further. Finland has played a significant role in drafting the strategy and now in implementing it. Even though the strategy is an internal one for the Union, the practical projects will in many matters be agreed upon with partner states. In answering the most central challenges in the Baltic region, the input of all states in the region is needed.

Alongside the approved and traditional actions, new and innovative ways of cooperation are needed. In February the Baltic Sea Action Summit was organised in Finland. It gathered a diverse group of participants: heads of states and representatives of cities of the region and company management and civic society actors alike were present. The project began the implementation of altogether 140 commitments. They are related to eutrophication, challenges of sea traffic, maintaining biodiversity and other central problem areas. The project that brought the public and private open-mindedly together got a good response.

Protecting the environment does, indeed, offer an excellent dimension to cooperation. However, it is not the only one. When speaking about an ever wealthier and better future, it would, for example, be sensible to increase youth exchange between countries. The development of the region could also be considered through the recent European Union 2020 Strategy. Could we get better results in, for example, our energy solutions, reducing emissions or reducing poverty through better cooperation? In any case strengthening the cooperation will not do any harm.

Toward a new Hanseatic League

Today the traditions of the Hanseatic League founded as early as in the 13th century are honoured by celebrating the Hanseatic Days. The event that is organised in Tartu, Estonia in July could be an inspiration for other cooperation as well. The countries in the Baltic Sea region face many common challenges. Energy, environment and logistics take a key role.

Competing interests and historical baggage can be seen in these questions. If taking big leaps seems difficult, we should take small steps forward. Through the practical cooperation that would arise we could further strengthen the centuries-old culture of cooperation.

This is an era of increasing trade, movement of people and other communications in the Baltic Sea region. The civic societies grow stronger. The success of the region can be built on this positive change. The identity of the Baltic Sea region can be built through communality. At the same time, communality and cooperation that arises from it also releases the growth potential of the region.

Jutta Urpilainen

Chairman

SDP

Finland

The EEAS is coming - do not expect a big bang

By Anneli Jäätteenmäki

Providing a single telephone number for the EU foreign policy chief is a relatively straightforward matter. Alas, ensuring that the message given from the number is coherent and uniform is exponentially harder. Yet this is the essential task of the new High Representative Catherine Ashton. As she acts as a spokesperson for the 27 member states, they are ultimately responsible for the coherency of the foreign policy.

The entry into force of the Lisbon Treaty set off the creation of the European External Action Service (EEAS). In late March 2010, Lady Ashton published her proposal for the service amidst all too familiar turf wars between the different institutions, each trying to secure as much say as possible over the creation, functioning and overseeing of the EEAS. The following months will be full of debate and amendments. Only time will tell how the machine runs in practice.

The potential benefits for the EEAS are considerable. If it succeeds in developing an effective EU foreign policy, the annals of European diplomacy will be changed.

The change will be incremental and rather slow. One can enact new institutions with a stroke of a pen but ensuring their smooth functioning needs resources, patience and compromises. For the change to be successful, there should be a change of culture of conducting external affairs. In the future, significant foreign policy decisions might be taken in the Council by qualified majority voting.

However, existing political realities are acknowledged in the Lisbon Treaty by two declarations, which are meant to sooth the member states wary of new powers given to the EU institutions. Thus, the new foreign policy structures will "not affect the responsibilities of the member states, as they currently exist, for the formulation and conduct of their foreign policy nor their national representation in third countries and international organisations."

Lady Ashton's task is colossal. She is to work as the high representative for foreign and security policy, vice-president of the European Commission and chair of the Council of foreign ministers.

There will be plenty of time to find errors of judgment and difficulties of implementation in her initial work. This is not to undermine the importance of change of views at this crucial planning stage. It is rather to point out that Ashton should be given enough time to prove her abilities.

The reduced role of the foreign ministers at the EU meetings will hurt some as they will be presided over by the High Representative in the Council and excluded from the meetings of the European Council. Given the traditional high profile of foreign ministers and the calibre of the incumbents in general, their reduced role might take some time to digest.

On the other hand, foreign ministries have already lost their monopoly over external affairs – if there ever was one – to myriad actors. Foreign ministries should be able to adapt to changing times by default.

From the national perspective the new powers of the EU in the sensitive areas of foreign policy can be interpreted as a threat to national interests, whatever they may be. There is generally no talk of winding down the embassies abroad. On the contrary, it is still held valid that no international organisation can represent any single member state better than the state herself. The common feeling and expectation is that the coming external action service will only supplement the national foreign services.

There are some costly dangers of duplication, inefficiencies and overlap when the EU delegations are strengthened and national embassies continue to coexist with them. The high talk of efficient use of taxpayers' money is suddenly toned down.

It remains to be seen whether cooperation works between EU delegations and national embassies in practice. At the moment there are some practical problems such as the lack of secure communication channels between them.

Recruitment will also present some challenges. Will the loyalties of staff originated from the national diplomatic services be fully transferred to serve the interests of the EU as a whole? Will the "broadest possible geographic basis" and merit prevail in recruiting new staff? Pure technocrats do not exist in large numbers. People with personal histories and sympathies do.

The staff serving in the EU institutions is amongst the best paid and most technically competent civil servants in the world. Setting up the EEAS is a golden opportunity to make them also the best team players. Subsequently, all recruits, including persons from the national ministries, should be tested in social skills.

It has been a pleasure to note that the personnel selection office will now assess these core competencies amongst a host of others that are essential in a civil service of the 21st century.

There is also some pruning to do in the staffing of the Council and Commission personnel who work in external affairs in Brussels and in third countries. On the other hand, ensuring that the Parliament is able to truly exercise adequate legislative and budgetary control of the EEAS requires proper level of staffing at the Parliament.

This should be very clear but unfortunately political accountability is not addressed in the draft decision currently being circulated. Fundamentally, parliamentary scrutiny is impossible if the MEPs are not interested in overseeing the work of the EEAS.

Turning into policy matters, it is very important that trade and development issues are integrated into the remit of the EEAS. According to the current draft decision, there is a worrying separation of development competencies between the new service and the Commission. It is not acceptable that the general aim of policy coherence is compromised. Much of the EU's foreign policy leverage is in trade and development. If these are not properly coordinated, the leverage is wasted.

In conclusion, the creation of the EEAS is potentially a step forward in the Europeanisation of foreign policy. Smaller member states such as Finland will especially benefit from the common policies and strengthened EU delegations.

A new culture and consensus of doing diplomacy will emerge. By pooling their resources, the member states will punch above their individual weight in world politics, thus proving the musings about European decline greatly exaggerated. On the other hand, they might not.

The EEAS is only a tool. If it is to be a truly European tool, the big member states must be willing to conduct common foreign policy in cooperation with the smaller members. When the President of France, the German Chancellor and the British Prime Minister want to be seen and respected on the world stage, the room for common foreign policy is limited, even with the EEAS.

Anneli Jäätteenmäki

MEP

European Parliament

Main vectors of cooperation

By Sergey L. Katanandov

Many people are interested in how the world economic crisis affected the economic ties of the Republic of Karelia. It is true that Karelia is an export-oriented border region of Russia, over 40% of our production are supplied to foreign markets. Due to worsening of the foreign trade business environment, sales volumes decreased by almost one third in 2009. A response to that were the anti-crisis measures adopted by the Government of Karelia. Systematic address work with enterprises and investment projects was arranged.

As a result, not a single foreign investor refused his plans in Karelia. For example, enterprises of the "PKC Group" company in Kostomuksha, producing wiring for trucks and electronic devices, turned out in a complicated situation due to the decrease of the order portfolio. We have many times met with the leadership of the company, our experts visited the production site, and as a result we worked out a Joint Plan of administrative, technical and taxation measures. Due to these actions we managed to improve the situation and avoid wholesale redundancy.

Some of our partners even managed to increase production in 2009. The "Stora Enso" company started a pellet production plant in the settlement of Impilahti of the Pitkyaranta district. The Swedish company "Swedwood" producing furniture panels in Kostomuksha, Finnish "Rappala" producing fishing equipment in Sortavala and others worked stable. Such important results help create a favorable investment image of Karelia.

One of the strategic directions of our work is development of transport communication and communications. We continued to develop the Petrozavodsk Airport. Due to the actions taken by the Government of Karelia federal financing was granted and runway lighting installed. This will let us arrange the all-year-round flights between Helsinki and Petrozavodsk.

Despite the limited regional financing, we continued to invest in development of the motorway system. Namely, traffic conditions on the road part Kochkoma – Ledmozero – state border were improved. Implying further reconstruction, the road Priozersk – Sortavala – Petrozavodsk got the federal status last year. Since part of it runs along the border, there appears an extra opportunity to develop border-crossing points, for example, in the Lahdenpohja district.

Last year the 200-th Anniversary of entering of the Grand Duchy of Finland in the Russian Empire was widely celebrated. In the autumn on the premises of the Petrozavosk State University we held together with the Government of Finland a big conference of researchers, dedicated to this event.

In November 2009 our meeting with Tarja Halonen with participation of the Oulu Governor Eino Siuruainen took place. During the meeting we summed up our cooperation for the year and cleared up the perspectives of future interaction. Namely, in 2009 there were 28 projects implemented in such spheres as environment protection, agriculture and forestry, health and social care, cooperation of rescue and fire services, with total volume of financing of 2 million Euros. Tarja Halonen assured that the administrative reform in Finland, during which counties are reformed in administrative districts, will not interfere with further development of mutually beneficial ties.

A good example of international ties is a joint work of the Petrozavodsk State University and Karelian Research Centre of the Russian Academy of Sciences with Finnish colleagues. Our scientists take part in research projects, students and post-graduates undertake an internship abroad, export of educational services is developed. I would especially like to note such a direction in the University activities as production cooperation on the basis of the IT-park. I think that this is one of the most perspective forms of cooperation with Finnish and other foreign companies, a principally new level of interaction and transition to an innovative economy.

Regional programmes of cross-border cooperation of Russia and the European Union started at the end of 2009, where Russia takes part as a budget co-financer. One of these programmes is "Karelia", the territory of its action complies with the "Euroregion Karelia", uniting our republic and three Finnish Regional Councils. The Government of the Republic of Karelia has formed a list of first priority infrastructure projects, which we hope to implement within the Programme. As one of the top priorities we see the economic development. This surely does not mean that there will be no projects in education, culture and healthcare. Except that, the Programme of Cross-Border Cooperation of the Republic of Karelia until 2015 is being developed. In this work we are in a constant contact with the Ministry of Regional Development of the Russian Federation, which is the coordinator of the cross-border cooperation not only with the EU, but also of the bilateral cooperation between Russia and Finland. We hope that the developed projects will contribute to an improvement of the life quality of the Karelia's border regions and the republic as a whole. I am sure that in 2010 our interaction with foreign partners will only increase.

On the eve of the 90-th Anniversary of the Establishment of the Republic of Karelia, together with the Office of the President of the Russian Federation Plenipotentiary Envoy in the North-West Federal District, we arrange a conference, where, with participation of a wide range of Russian and foreign participants, the actual issues of cross-border cooperation will be discussed. One of them is the experience of development of Euroregions in the EU countries and Russia.

We hope that during the current year new investment projects will be started. Together with the Federal Authorities the work on further development of the frontier-guard, customs and road infrastructure will be continued. Of course, we will develop different initiatives in the spheres of culture, education, sport, youth policy, which will facilitate development of good neighbourhood relations between the Republic of Karelia and Finland.

Economic crises should not be a barrier for cooperation development.

Sergey L. Katanandov

Head of the Republic of Karelia

Russia

The Baltic Sea - example for the whole Europe

By Heikki Aurasmaa

The Baltic Sea is of great significance to Finland. It carries more than 80 per cent of Finnish foreign trade. In 2008, trade with the Baltic Sea countries accounted for 40 per cent of Finnish exports and 45 per cent of imports. Finland's three largest trading partners – Germany, Sweden and Russia – are all Baltic Sea countries. If Norway is included among the Baltic Sea countries, as many as six of Finland's top ten trading partners lie in the Baltic Sea Region. In addition, the majority (70%) of foreign direct investments (FDIs) in Finland originate from the region, and a large share of Finnish FDIs abroad (40%) are made within it. Indeed, the Baltic Sea Region can even be considered Finland's home market, since the country's national market is rather small in size.

The Baltic Sea also is of major economic and international significance and potential. Some 15 per cent of the world's freight traffic is conducted there and the share is about increase. Last year, the Baltic Rim countries' aggregate GDP exceeded 12% of world GDP. Furthermore, the population of nearby markets number some 85 million, which is 17 times the Finnish population. The Baltic Sea economic area plays a major commercial role in the economies of most Baltic Rim countries. Moreover, Russia's importance in the development of the Baltic Sea Region is continuously growing with respect to the economy and knowledge potential, environmental protection as well as projects related to marine traffic.

The EU's enlargement has led to a considerable rise in business opportunities in the Baltic Sea Region, enabling a new type of business based on strong Nordic ownership. In addition, the diversification of business activities in the Baltic countries and Poland has created new opportunities for business also in the region's neighbouring countries, such as Ukraine and, to some extent, Belarus. In this internationalisation process, high-level expertise and services are an asset.

Baltic Sea cooperation, both economic and in terms of knowledge, research and innovation activity, presents an attractive outlook for regions social and economic development. Deepening the economic integration and enhancing its business environment will create new prerequisites for the region's economic growth and success. This will reinforce its possibilities of coping in the face of intensifying global competition, in whose context the ageing of the region's population will pose a major additional challenge.

Economic growth in the Baltic Sea region springs from excellence and innovation. Thus, the fullest, most efficient use of existing potential is vital to the region's economic growth and competitiveness. In universities and research institutes, increasing collaboration between students, teachers and researchers is a natural way of enhancing cooperation. The region's enterprises should be involved more intensively in this. In fact, this so-called triple helix model has yielded excellent results in Finland's regional innovation policy and its application would be crucial in Baltic Sea area cooperation. Key drivers in reinforcing economic growth include the promotion of common R&D projects, securing financing, the utilisation of the best competencies on offer in the Baltic Sea Region and creating market conditions that encourage innovations. Promoting innovative clusters will also provide small innovation companies with a broader-based operating environment that supports business development.

Global competition underlines the importance of a region's accessibility to its competitiveness. Thus, solutions associated with Baltic Sea Region traffic systems are crucial, particularly to Finland, which lacks a direct road connection to the European market. Transport systems as well as reliability and speed of transport are now more important as competitive factors and essential assets in terms of logistical costs. In addition to effective traffic connections, intelligent transport systems must be developed with the help of ICT. Intelligent systems can be used to optimise transport, thereby reducing the environmental load and impacts on climate change caused by traffic. Another benefit lies in safer transport, including the directing of road, rail and sea traffic.

For the development of the region's transport systems, a comprehensive network of key connections is required, covering all forms of transport. A priority network should be a continuous pan-European network using intelligent transport solutions and enabling the smooth and safe transport of goods and persons. In addition, a closer connection between northern areas and EU markets is required, including the utilisation of northern natural resources and the development of tourism.

The Baltic Sea's ecological value, and the recreation and tourism opportunities it affords, are of huge importance not only to the region's population but also internationally. Extensive archipelago areas are characteristic of the Baltic Sea, particularly in its northern reaches. Preserving the sea's natural and cultural values, its coastline and archipelago and their sustainable use would directly reinforce both the region's economy and its population's well-being.

The value and importance of the Baltic Sea Region as well as its potential has been widely notified and more and more efforts have been taken to enhance co-ordinated development actions in the Region to improve its social and economic development as well as the condition of the sea it self. A good example of this is the EU's Baltic Sea Strategy that was approved by the European Council last autumn 2009. However, strong and long term joint effort is needed to implement it and to make the Baltic Sea Region as one of the most flourishing economic and cultural area in the whole world. But it is an issue we strongly believe and work for.

Heikki Aurasmaa

Undersecretary of State

Ministry of Employment and the Economy

Finland

Innovation policy in Russia - new trends

By Oleg V. Fomichev

Historic success of the USSR in the XXth century – victory in the Second World War, creation of the nuclear weapon and atomic energy sector, leadership in the space research and military aircraft construction – were to a considerable degree based on the advanced technological achievements of the national science and industry. Our progress was due to the giant concentration of all the country's resources on the solution of technological problems of defense industrial complex. Having switched over to the market economy, Russia has faced new challenges in the XXIst century. These new challenges are stipulated not by military confrontation but by increasing competition with the developed and developing nations for the worthy niche in the world market. Meanwhile, it is obvious that the contemporary base for our economy - raw materials export with low value added – will soon become subject to considerable erosion because of the global economic shift towards "green" and energy-saving technology as well as due to the toughening competition in the raw materials market.

For Russia the only way of further development and raise in standard of living up to the European level is technological development, based on the modernization and innovations. Russia has all capabilities for the "innovation leap" as the country still has considerable scientific and technical potential. In the number of people occupied in research and development Russia ranks third or fourth in the world. Russia is also one of the world leaders in such disciplines as nanotechnology, living systems, environment, nuclear and space systems, energy-saving technologies, supercomputers design and software.

Main obstacles of current Russian technological disadvantage are not only insufficient R&D expenditures but also the inability to convert knowledge into competitive goods and technologies. Unfortunately, our entrepreneurs are mostly used to live without tough market competition catering only for available domestic market which is not characterized by substantial demand for advanced technology products, so they don't want to change this model in future. This is largely related to the bubble in the economy before the crisis which entailed the enterprises' illusion of the possibility to get profit without investment in new products and technologies.

Talking about the entrepreneurs' responsibility for the innovative development of their companies we also must admit the lack of government attention to the restructuring of advanced technology industries. Traditionally we paid more attention to the financing of the research sphere, supposing that high level of research would ultimately lead to high level of innovation activity in the economy.

Tax incentives were mainly given to the extractive industry and did not support sectors with high value added. Another negative factor from our point of view is the absence of effective support of the innovations in the real sector. Government expenditures on science have increased whereas co-financing of innovations in private industries remained extremely low – the share of enterprizes getting government financial support for technological innovations in Russia is close to zero in comparison to European countries.

Now it is the time for government policy to focus on the stimulation of innovation activity in real-sector enterprises. Despite the fact that the role of the state in post-crisis recovery have risen, it is precisely business that is to become the principal innovation "driver" at the new stage of economic growth. The backbone of the modernization policy is therefore a stimulation of innovations, creating the class of innovative enterprises, modernization of the scientific sector and engineering.

At the same time we are not going to follow our specific Russian "third way". In the past few years state has made a lot for creating conditions for innovative development – basic innovation infrastructure (business-incubators, technology transfer centers, industrial parks, special zones); financial development institutions were established like Russian Venture Company and government co-sponsored venture funds, Development Bank, public Corporation for Nanotechnologies ("Rosnanotech") etc. Program of support to small and medium size businesses was approved. The law was enacted, that finally granted the right to universities to establish start-ups.

Now there is a need for, so to say, innovative self-identification. Taking into account the crisis aftermath and long-run trends of the global technological development it is crucial to specify our competitive advantages and the path of our future innovative progress. This is the issue for the Innovation Strategy of The Russian Federation that is now under development in the government.

As for practical actions, that government is going to take in short-run to stimulate innovations in state and private sectors, they are as follows:

In the state sector the goal is to utilize giant potential of the public procurement system to create demand for high-tech and innovative goods and services based on the experience of several OECD countries, e.g. Great Britain, Korea.

Another challenge is innovation development in public companies. Our state-owned companies as a rule don't invest in innovations: new technologies or cutting-edge goods and services. Taking into account (still) the large share of state-owned enterprises in the economy it certainly leads to the lack of demand for such products countrywide. The mechanisms of tackling this problem are not totally market-oriented – the biggest public corporations will be obliged to develop the corporate innovation strategies, that will supposedly be discussed and approved by the government.

The situation is more complicated for the private companies – their motivation for the introduction of innovations is defined by the market demand and competition. However, the President has made a decision to support innovation projects of private companies. For high-tech economic sectors, such as IT and engineering companies, selective tax cuts are going to be introduced. State support of start-ups has been almost doubled last year and will grow further.

The efficiency of development institutions (funds and public corporations) will be raised as long as they have considerable financial resources to allocate. They will help to arrange the transfer of promising technological projects from idea to industrial implementation.

Furthermore, the President has made a decision to create new "green-field" innovation center in Skolkovo near Moscow. Interaction with European R&D and venture capital community is a necessary prerequisite for the success of a project and can be profitable for all countries desided to participate.

Wrapping up, technological modernization and innovative development of Russian economy, Russia's successful integration into the global high-tech market is beneficial not only for our country. The truly cutting-edge, disruptive innovations have always appeared at an intersection of different sciences, cultures and peoples. Without innovative Russia the socio-economic potential of Europe and the world would be considerably lower.

Oleg V. Fomichev

Director

Department of Strategic Management and Budgeting

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The Russian Federation

No shortcut to visa-free travel

By Vesa Häkkinen

Russian Foreign Minister Sergei Lavrov has announced that Russia is prepared to agree on visa-free travel with the European Union at any time, even tomorrow. His rhetoric is understandable since the EU and Russia agreed on a long-term perspective for visa-free travel as early as in 2003. However, it goes without saying that exemptions from visa requirements cannot be introduced overnight.

In Finland's opinion the EU and Russia should, already in the near future, determine concrete conditions for reciprocal visa freedom. Finnish Foreign Minister Alexander Stubb has raised publicly at least two problems that are crucial from Finland's standpoint. They have no direct connection with visas but are clearly connected with the reciprocal facilitation of movement.

One of the problems highlighted by Minister Stubb is the Russian bureaucracy in granting work permits. It is most regrettable that Russia took measures impeding the operations of all European businessmen in Russia at the same time when the reciprocal visa facilitation agreement between the EU and Russia became applicable in June 2007. After all, there is good reason to regard this agreement as the first concrete step towards visa-free travel.

According to the visa facilitation agreement, the fee for processing visa applications amounts to 35 euros and the processing must not exceed 10 calendar days. The agreement facilitates separately the travels of certain groups, such as drivers, members of official delegations and students. The EU has concluded visa facilitation agreements with seven other countries in addition to Russia.

The other problem that Minister Stubb has mentioned is connected with registrations in Russia. As known, a foreign citizen staying in Russia for more than three working days must register the stay. Under the visa facilitation agreement the parties agreed to undertake measures to simplify the registration procedures. Russia has not complied with this obligation.

Besides solving these specific issues, crucial to Finland, the EU and Russia must determine the general conditions for visa-free travel. The conditions have already been discussed in the so-called visa dialogue, launched in April 2007. Among other issues, this dialogue has dealt with document security, illegal immigration, and public order and security. Moreover, the parties have discussed such questions as the freedom of movement of Russian citizens and the issuance of passports to Russians from the human rights point of view.

Finland, who supports visa-free travel between the EU and Russia, considers that also the problems identified during the visa dialogue must be solved before agreeing on reciprocal visa freedom.

In addition to clearly specified conditions, Finland supports immediate steps to facilitate movement and people-to-people contacts on a reciprocal basis. The visa facilitation agreement, the EU Visa Code and the national legislation of Russia form an excellent basis for such steps.

In recent years, Finland itself has taken so many steps in the required direction that Russia, in turn, is now expected to take the next one. Russia has shown both willingness and ability to flexibility, for instance by granting unilateral visa exemptions to cruise ship passengers staying in Russia for less than 72 hours. As the summer cruise season is beginning, it remains to be seen how many Finns or citizens of other EU Member States in the Baltic Sea region use this opportunity of visa-free travel.

It is already known that Russians have made good use of the flexibility provided by Finland. Last year, well over 700 000 Russians obtained a Schengen visa for Finland. Of all visas issued last year, more than 80 per cent were long-term multiple-entry visas. As a Schengen visa is valid for travel to nearly all European countries, Russian citizens can move in Europe much more easily than only a few years ago.

Furthermore, measured by national standards, the efforts made by Finland to improve the visa services in its missions in Russia are enormous. In 2004, the consulate-general in St. Petersburg opened large new premises. The visa offices in Moscow and Murmansk have been extended continually, and also the consular agency in Petrozavodsk started work in new premises at the beginning of this year.

Another facilitation in Russia is that Schengen visas for Finland may also be applied for in Yekaterinburg and Pskov, where the Schengen partners Hungary and Estonia represent Finland in visa issues. Moreover, Finland and Poland are negotiating the possibility of agreeing that Poland would represent Finland in Kaliningrad.

Considering the above-mentioned numbers of visa applications and the location of Russia in Finland's neighbourhood it is no wonder that Finland focuses its activity in visa issues specifically on Russia. However, Finland supports continuing an active visa facilitation policy with other countries, too.

Examples of such other countries include Ukraine, which also has concluded a visa facilitation agreement with the EU, and the future visa facilitation partner Georgia. It is noteworthy that both these countries have unilaterally exempted all EU citizens from visa requirements.

Russia cannot be expected to show similar flexibility. Still, even small positive signals, as the unilateral visa exemption for cruise ship passengers, are more than welcome.

The EU, too, must be active. In practice, the European Commission has the right of initiative for promoting visa-free travel further – in other words, for starting to determine concrete conditions for it. The Commission is naturally waiting to receive a signal from at least a considerable number of Member States that they are unanimous about the importance of the issue.

In these circumstances it is in the interest of both the EU and Russia to promote visa exemptions on all fronts, step by step, by giving clear signals and avoiding timetables carved in stone. There are no shortcuts to visa-free travel.

Vesa Häkkinen

Deputy Director

Passport and Visa Unit

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Finland

Vilnius city - for the admirers of modern life and unique traditions

By Vilius Navickas

Theoreticians of the urban culture unanimously agree: the aura of a city is something more than just bricks and buildings. People are no longer easily impressed by architectural masterpieces. Today they need more, i.e. something beyond touch or feeling: the spirit of the city.

Vilnius, the capital of Lithuania, can take pride in its stunning architecture. The Old Town of Vilnius was inscribed in the UNESCO world heritage list: with little lost over the course of time, it is as it has long been—a sight of several hundred years ago. Therefore, some people call Vilnius a city of unique churches, others, a handbook of architecture with live lessons, and the rest simply enjoy the vivacious life of the Old Town.

Another centre of attraction is the contemporary architecture quarter, which is gradually becoming a modern district of skyscrapers. Another surprise is in the adjacent district, i.e. in the residential area of wooden urban architecture in the very centre of the city. Plans for the future include transforming it into an open public park. Thus, one of the advantages of Vilnius is its compactness. The city is free of traffic congestions characteristic of major European capitals. Although the length and breadth of the city are not immense, there is no provincial feel to life.

The way the historical buildings, old as they are, maintain the highest global standards of cultural life leaves quite an impression on practically all visitors to Vilnius. The Vilnius and Kristupas classical music festivals as well as two international jazz festivals attract world-famous performers. The international theatre festival *Sirenos*. has also gained momentum, as well as the modern dance festival *The New Baltic Dance.* Directors of Vilnius theatres are winners of numerous European and global stage awards. Entire groups of theatre lovers come from abroad to enjoy the shows of world-known directors in the Vilnius Opera and Ballet Theatre.

The best-known world exhibitions were organised in the modern National Art Gallery, which opened in Vilnius last year. To attract even more admirers to the city, construction of a Guggenheim Museum is now in the works.

Currently new cultural traditions are arising that correspond to a new challenge—to bring culture closer to people. The traditional events of the Vilnius European Capital of Culture programme (e.g. street performances, projects such as *Let There Be Night and Art in Unexpected Spaces*) attract tens of thousands of people. They escape from a daily routine and view the surrounding world in a different light.

But most of all, Vilnius is proud of one unique event, which reveals via traditions, folklore and folk-art, the values which the nation of Lithuania has retained best. A large annual folk arts and crafts fair in honour of St. Kazimieras (Casimir), begun over 400 years ago, is organised in the city on the first weekend of March. It attracts folk art professionals from all over Lithuania, as well as national cuisine masters and a variety of craftsmen. Every urbanite considers himself obliged to visit the Kaziukas Fair: not for the sake of buying, but to plunge into the spirit of national heritage. Craftsmen take part in spectacular carnivals, counties present their cultural values, whereas for people it is a perfect opportunity to purchase unique handmade crafts: from kitchen utensils to chests or boxes to hot tubs.

By the end of summer, the city is again full of people attending the Baltramiejus Fair. It begins in the Old Town with a solemn parade of masquerading craftsmen, followed by various games and street performances.

The Capital Days in September are also very popular. One can taste traditional Lithuanian dishes or try his fortune in the national crafts throughout the main streets: make clay pots, produce nails or broaches, weave a piece of fabric, make spoons, play old traditional music instruments or listen to tales of old fashioned shoe-making. The fair is also famous for folk and modern music performances, exhibitions and impressive street performances.

Situated on a crossroads between the East and the West, Vilnius not only retains its unique face, but seeks to expand its role. About 100,000 students study in higher institutions annually. They speak the languages of Western and Eastern countries fluently; they are motivated and seek career advancements. In order to retain perspective young people, the city has simplified bureaucratic obstacles for foreign direct investment creating new jobs.

Because education is a priority, Vilnius can also take pride in effective education centres providing rapid development of the conference tourism. The number of big conference halls has increased, and the recently established conference tourism office is committed to organise an event of the Conference Tourism Association. Usually international conferences are held in venues having a good background of scientific and practical work, therefore we are glad that Lithuanian specialists (physicians, physicists and other representatives of progressive technologies) are recognised all over the world.

Cycling became very popular when bicycle paths were build in the city. Bicycle rental chains plan to open this summer, thus citizens will have the opportunity to rent a bicycle at one location and return it at another.

Vilnius is one of the greenest European capitals. Every year it designates new green zones adjusted to public recreation needs. The popular Bernardinai Monastery Park, situated close to one of the city's emblems, Gediminas Tower, is currently under reconstruction. It will include reconstruction of the park's historical structure with greenhouses, gardens and beds of herbs cherished by monks.

Another ambitious plan is to revitalise the Neris River, one of the main Lithuanian rivers that runs through Vilnius: establish boating clubs and harbors, launch more sightseeing ships, establish a tourism information centre on water, arrange the embankment lighting system, create a sculpture park, as well as places for the folk art trade.

Thus, Vilnius is under a rapid renovation. It tries to keep harmony between the new and the old, and retains its face for those who are fascinated by the city. Apart from the architectural masterpieces, guests of Vilnius notice a unique atmosphere of the city, its warm and kind people and hospitable environment. It constantly surprises visitors by presenting diverse cultural treasures: the famous women of old, an interesting record of currency circulation, and events underground. Residents are interested in the past of Vilnius and are proud of the city they live in. Maybe that is why they are so attentive to visitors of their city.

Vilius Navickas

Mayor

Vilnius

Lithuania

”Finnish House” in the heart of St Petersburg

By Arto Mustajoki

In 2009, Finland celebrated historical events that took place two hundred years ago, though it was not quite clear what the main reason for the festivities was. In 1809, after a war between Sweden and Russia, Finland was transferred from its Western neighbour to the Eastern one. This was the beginning of the period of an autonomous Finland, known as the Grand Duchy of the Russian Empire. Becoming part of Russia – an enemy that Finland has fought against – might seem an unlikely cause of celebration for the Finns. However, the period of autonomy, which lasted for more than a century, is commonly regarded as a positive preparatory phase for the independence of the Finnish nation.

The anniversary year ended with an opening ceremony of the House of Finland in St Petersburg. The Prime Ministers of the two countries, Matti Vanhanen and Vladimir Putin, signed a certificate which meant that the renovation of the building had been finalized and the premises were ready for utilization. This was not strictly true, and the actual use of the building did not begin immediately; but the visit by the political leaders gave a great boost to the final stages of the repair work and to the public profile of the House. The various organizations involved will start their activities in the building in May 2010.

The House, located in the very heart of the city, will provide a unique opportunity for Finland to be more visible in St Petersburg. It brings together various Finnish organizations, such as the Cultural Institute of Finland; the Helsinki Centre, which accommodates not only activities of the city of Helsinki, but also of Tampere and Kotka; a representative office of the city of Turku; the Finnish–Russian Chamber of Commerce; FINPRO, the Finnish trade promoter; and promotion offices of the Jyväskylä and Mikkeli regions. The Finnish school, patronized by the Finnish General Consulate and intended for the children of parents working in the city, will also be based in this building. Some studio apartments are also available for Finnish researchers and artists temporary working in St Petersburg.

The initiator of the House of Finland concept has been the Finnish St Petersburg Foundation, which was founded twenty years ago by universities, churches, friendship associations, public organizations, ministries, and some private enterprises. Its main purpose is to maintain the Finnish Institute in St Petersburg. Finland has a total of 17 such institutes in various parts of the world. They are dedicated to the promotion of Finnish culture and research and to establishing links with the local authorities and a wider public. The institutes are independent actors, but receive a modest yearly subsidy from the Finnish state. Since the very beginning, the St Petersburg Foundation has been searching for a suitable location for the Institute. After multiphase trials three years ago, everything clicked into place when the City of St Petersburg approached the Foundation. After speedy negotiations, a building of 4,500 square metres in *Bolshaja Konjushennaja* Street (just off the *Nevsky Prospect*) was let to the Foundation for 49 years. It was obvious that the highest political structures of the City supported the endeavour, and so did the Finnish authorities.

The location of the building is ideal. The street is one of the most beautiful ones in St Petersburg. The area has a long tradition of accommodating famous inhabitants, including the Nobel family and several Russian authors and poets. The house itself is “a piece of Finland” in St Petersburg. It is part of the traditional Finnish district, in the centre of which stands the Evangelical Lutheran church of St Maria owned by the Ingrian Church. The house was built in 1847. The famous Finnish priest Uno Cygnaeus, known as the father of the Finnish primary school, worked here before his career in Finland. Carl Gustaf Emil Mannerheim, an officer of the Russian army and subsequently Marshal of Finland, worked in the house, and an office of the Finnish bank was also located there. All these activities took place, of course, in the pre-Soviet times when there was no real border between Russia and Finland.

The renovation and modernization of a large building is a great challenge everywhere. It is no less demanding a task in a country like Russia. For a relatively small foundation it has also represented a certain risk. Besides the need to obtain all the necessary permissions and to find contractors, etc., additional difficulty has been caused by the special status of Institute. It has a director who signs all the official documents, but the money comes from the Foundation. The whole process would not have been possible without the help of several important partners: the City of St Petersburg, the Finnish Government, the Finnish General Consulate, The Ingrian Church, and numerous others. The costs, approximately 13 million euros, have been covered by a bank loan guaranteed by the Finnish Government.

We can say that the Finns have returned to their roots. The “Finnish House” will give a substantial boost to Finnish affairs in the St Petersburg region and in Russia more generally.

Arto Mustajoki

Professor of Russian

University of Helsinki

Chair of the Board of the Finnish St Petersburg Foundation

Finland

Photo: Seppo Muukkonen

Those who adapt survive

By Lasse Paitsola

The economic recession, which began by the end of 2008, has revealed exactly how much "smaller" the world has become over the last few decades. The financial problems of one country were reflected everywhere almost instantly. It seemed that everyone reacted at the same moment, and the reactions did not necessarily correspond to the real economy of the nation or the business in question. Some of the reactions were excessive.

For businesses, globalisation appears as the necessity to adapt to new, demanding circumstances. A completely new kind of flexibility and cost-effectiveness are required. These demands are reflected in the company board, management, and personnel as well as financiers. Competence and improved reaction times are required at all levels.

Nurminen Logistics has gained operational experience in international markets over three centuries. Being an international business has never been questioned in the company. Today, Nurminen Logistics' main market areas are Finland, the Baltic Sea region, Russia and other CIS countries.

In 2008, more than 30 percent of the value of the Russian imports passed through Finland and, if will and expertise exist, it should be possible to keep the share high in the future, too. Finland shares 1,300 km of well functioning border with Russia. From Asia, for instance, it is possible to import goods into Russia and other CIS countries directly by rail or ship, but particularly for those who value the service performance engendered by security, ease of border formalities and long-lasting logistical experience, it is worth using Finland as a gateway to the countries in question. Our logistical infrastructure is in good shape: harbours, roads, railways and terminals all work well. Our ports will not suffer from congestion even when the economy starts to recover, road and rail transportation from the ports will function efficiently, and sufficient attention is paid to security factors. Service quality is also a decisive factor in determining where goods transit. Professional, service-oriented and international personnel is capable of doing what is agreed on for the most demanding shipping projects as well. Knowledge of the local circumstances and regulations is a necessity, especially in Russia and other CIS countries.

Nowadays, transit traffic from Finland is mainly heading east but, in the future, the flow will definitely be two-way, once goods also start to be manufactured in increasing quantities in Russia and other CIS countries. The need for developing logistics and new traffic routes continues to increase, in particular in western Russia. Projects for new freight and oil harbours are ongoing in the country, and the Baltic Sea region remains topical also due to the gas pipe project. The new, northern route, opening up as a result of the climate change and, in connection to it, the role of the Murmansk region, will also introduce completely novel opportunities for both Finland and Russia.

Change is not a concept unfamiliar to Nurminen Logistics. After the establishment of the company, known at the time as John Nurminen, in Rauma in 1886, it has offered an extremely versatile range of services in nearly all sectors of logistics. The history of the company has been documented in a book – aptly entitled *Muodonmuutoksia (Metamorphosis)* – and whoever reads it will be convinced that the ability to adapt to each situation and to make the strategic decisions required are the keys to success and a long life. A factor contributing to the success of the company – which started off as a family business to become the listed company it is today – has also been the fact that it has been owned by the same family for four generations. Long-span ownership policies have made it possible to develop company operations in a sensible manner.

Nurminen Logistics aims at being an operator to be reckoned with in the next century too, and this is the reason behind its constant renewal. The ability to adapt to the prevailing conditions is a feature that companies should be able to reciprocally expect from the state, the authorities and the labour market organisations, too. Opportunities should be created, not prevented. Excessive promotion of vested interests benefits no one, but results in catastrophic consequences for all parties. Successful management of the streams of flows requires that the handler never stop moving.

Lasse Paitsola

President and CEO

Nurminen Logistics Plc

Finland

Ten-year anniversary of the Russian international transport corridors - what lies ahead?

By Katri Pynnöniemi

Roughly ten years ago, in autumn 2000, the Russian Ministry of Transport launched its policy on the Russian international transport corridors. This initiative was introduced as a new aspect of Russian economic policy, aimed at channelling much-needed investments into the crumbling infrastructures and the transport sector in general. The development of the corridors was envisioned in the "Modernization of Russia's transport system 2002-2010" federal target programme, which was approved in late 2001. As estimated in that year, investments in infrastructure modernization during the programme period would amount to 4.6 trillion roubles. The time is now ripe to analyze the results of this ten-year phase of development.

According to information issued by Minister of Transport Igor Levitin in March 2010, budget spending during the programme period increased fourfold from 70 billion roubles in 2002 to 283.1 billion roubles in 2009. The total investments in the programme in 2009 were 752.8 billion roubles, almost twice as much as in 2002.Yet, concrete results are poor, especially when it comes to the road sector. Vladislav Inozemtsev, the head of the Moscow Center for Research on Post-Industrial Societies, cites Rosstat figures according to which the length of automobile highways remained practically unchanged from 1995 through 2007. By adding local roads to these figures, the authorities have masked an actual nine per cent decrease in the country's road system.[1]

A comparison with China illustrates the scale of the problem. According to Minister Levitin, 23 thousand kilometres of road were built within the programme period (2002-2009). This is less than half the amount that China built in 2008 alone (53.6 thousand km). If the length of the road system is inadequate, the same can be said about its quality. It has been estimated that only 40 per cent of the federal automobile roads meet the requirements in terms of pavement standards and road width. In an international comparison, Russia ranks 118th out of 133 countries in terms of the quality of its highways, as indicated in the latest report by the World Economic Forum. According to experts in the industry, this is mainly due to outdated construction practices and massive corruption, a common hallmark of the sector.

Failures to deliver what was planned and the poor quality of the existing infrastructures are serious concerns when it comes to Russia's global competitiveness and economic growth prospects. Dividing the 12 pillars of competitiveness identified in the above-mentioned report into four, Dmitry Medvedev, in his speech at the Krasnoyarsk Economic Forum in February 2008, emphasized the importance of institutions, infrastructure, innovation and investments for Russia's development. It was against this backdrop that the Russian government approved a new federal target programme in May 2008 designated "development of the transport system 2010-2015". It was estimated at the time that up to 21 trillion roubles (€583 billion) would be required to develop the transport system. This is comparable with the estimated total cost of €600 billion for the trans-European transport network in the EU area. Moreover, investments required for the development of the rail system by 2030 will amount to 13 trillion roubles (€361 billion).[2]

What these figures mainly demonstrate is the magnitude of the task ahead. One of the key questions is whether Russia will manage to create workable relations between state and non-state actors and to radically alter the current constellation of corruption and inefficiency in the state administration. The global financial crisis and the subsequent economic downturn in Russia have already forced the government to reduce and reschedule the planned investments in infrastructure. This has made decisions on how and where the scarce resources will be allocated even more critical.

For example, the average annual figure of 650 billion roubles to be invested in upgrading and building the road infrastructure was slashed to 263.4 billion roubles in 2010. The planned investments in the road sector are roughly comparable to the Russian Railways investment programme, which amounts to 270.5 billion roubles in 2010. It is important to note, however, that government subsidies to the company in the same year total 141.4 billion roubles, including 60 billion roubles allocated to construction projects for the Sochi Olympics, and a total of 81.4 billion roubles in compensation for losses incurred in passenger and cargo transport. Furthermore, as indicated by the president of Russian Railways, Vladimir Yakunin, the company is seeking a minimum of 400 billion roubles in subsidies from the government over the next six years, including a deficit of 7 billion roubles in funds earmarked for the Sochi project.[3] The Ministry of Finance has already pointed to the need to trim the investment portion of the budget for 2011 as well.[4]

As far as the international transport corridors are concerned, as indicated above, investments in roads, railways and other installations targeted at the international transport corridors have been slow in coming, or missed their 'point of destination' altogether. Nor has Russia been able to significantly increase its share in international transit transport. At present, approximately one per cent of the trade flows between Asia and Europe runs through Russia. At the same time, Russia has been consistent in its policy of decreasing the country's dependency on neighbouring countries' infrastructures vital to its energy exports. This has meant that installations which mainly serve the needs of the energy sector have been upgraded. The new oil terminal at Ust-Luga is the latest example of this trend. The new port is expected to be completed by 2012. The projected capacity of the port is from 25 million tons up to 50 million tons annually. Thus, it seems that Russia has succeeded in 'opening a window to Europe'. However, if the current pace of deterioration of the infrastructure base of the country is not halted, the distance between Russian products and global markets is only set to increase, further jeopardizing aspirations for an 'innovative path' of development.

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[2] Pynnöniemi, Katri 2008. "The transport infrastructure in Russia: from modernization to development – fact and fiction". FIIA Briefing Paper no 16.

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Growing role of sustained transport links and contribution to region's competitiveness - news from Lithuania

By Sigitas Brazinskas

Recent studies have shown that the biggest competition between companies appears not among themselves, but rather between various supply chains. While goods distribution service is performed, an appropriate attitude shows that costs mostly occur not in a company or companies, but outside their legal boundaries such as supply of raw material, components, distribution and sales. Thus it is essentially important to evaluate costs with the right approach from "beginning to the end" as all costs will be reflected in the final product price at the final sales point.

To this extent such atittude reaches the essence of a value chain management where any decision or solution makes considerable impact to the price for a customer as well as entire competitiveness where it might be a single company, country or region. There is no difference between product, service, region or country. Investment just in roads and railways is less reasonable if ports can't handle cargo or vehicles have to stand longely at the borders.

The goal of these activities is to offer the customer a level of value that exceeds the cost of the activities, thereby resulting in a profit margin. Therefore several cost drivers such as geographic location, timing of market entry, delivery time from one country to other where several countries are crossed, capacity utilisation and economy of scale play an important role.

Recent economic crisis has hit the Baltic countries most significantly in the EU: GDP went down in average to minus 15 % in 2009, unemployment rate is more than 10 %. Governments had to take appropriate measures to stabilise further decline. Every country had chosen different ways to stabilize own economies where the major aim remains to set preconditions to support it for sustainable and inclusive growth.

Despite negative news from various sectors such as industry, finances, tourism, retail in the Baltic countries in 2009, major region transport companies (it includes both passenger and cargo by air, sea and roads) have reported positive latest trends and indicators.

It is obvious that the Baltic countries finally get the real value related to transport when cargo and passenger flows start passing via the region in larger volumes. There are several transport links with significant benefit to contribute to Estonia's, Latvia's and Lithuania's economies and enhance region's competitiveness. Every link is unique in relation to transported cargo, passenger routes, port and airports geographic locations, utilised capacities, flexibility and other features.

All three Baltic countries largely depend on export and situation in foreign markets. Consumption had decreased as a result of the latest world economical decline there. In a such situation transport has started to play a crucial role to assure sustained cargo flows between more stable economic regions which were impacted less by the economic crisis such as Nordic countries, Germany, Poland and Far East countries. The Baltic countries are right in the middle between these large and economically stable regions. They can offer transport and logistic services and connect these regions. In this context Lithuania has a number of features which might be presented and exposed on the international arena. The news is that both Lithuanian state authorities and private companies have taken appropriate measures to enhance and explore arrising business opportunities to link Europe and Far East regions.

To facilitate this growth Lithuania has contributed by arranging the Asia-Europe Meeting (ASEM) in October 2009 which aimed to facilitate developing of a balanced and sustainable transcontinental transport system - the gap to be bridged in a minister-level meeting. The ASEM was followed by the Asia-Europe Transport Development Forum with participants from transport companies. Further international conferences with presentations on existing shuttle train "Viking", Klaipeda port infrastructure development and reduced port duties, short waiting time at border cross were arranged in Finland, Sweden, Kazachstan, on the way are Germany, Denmark, Russia (Kaliningrad), Belarus, Georgia and other countries.

Delivery time starts to play an essential role as never before. If cargo is delivered from Far East ports to Europe by sea transport within two months, products might become obsolete when they reach distribution centers in Europe. Railway connection takes just a few weeks, however here agreements between the states are very important. Latest news for the container train "Viking" inform that EU-Belarus border crossing takes just 30 minutes, goods are delivered fast from the original station to the destination, it is safe and environment friendly conveyance. Any cargo by road can be delivered from Klaipeda to Moscow within 24 hours. A strategic interest for the Baltic region countries represent a creation of a transit system and logistical services for dynamically developing cargo flow going through the territory of Belarus and Ukraine further to Russia, Turkey, Georgia, Kazachstan and other countries. The East-West Transport Corridor (EWTC) is gaining its credibility to be known on the map.

Environmental protection and climate change are also important indicators. As some cargo has to be handled from ships to road transport several times during shipping via Nordic ports, new ferry lines and sustain connection to railway transport are demanded.

Since Klaipėda port is ice-free, shipping route and delivery schedule are not impacted by cold climate conditions. Port has been modernized in the recent time and has more capacities to offer. The Lithuanian government aims to enhance port's competitiveness among the Baltic sea ports and has made several exemptions in duties. From March 2010 Klaipeda port started offering significant discounts for cruise, ro-ro liner and other incoming ships.

Lithuania has the European railway gauge from the Polish side with growing number of logistic facilities and opportunities along the border. New technology solutions are launched where vehicles can be reloaded on railway platforms and shipped further with minimal impact to environment, decreased number of trucks on roads and delivery time.

Lithuania already has remarkable achievements in transport development and offers diversified and flexible transport means (roads, sea, railway), combined delivery solutions (railway-trucks and vice versus,) various directions to neighboring countries (roads and European railway gauge), advantage as the short waiting time to cross the EU-Belarus border. This leads to a win-win approach for countries in the region as fast deliveries facilitate easier market entry, product distribution, sales, new customers, productivity, growing prosperity and competitiveness at the end.

However further success depends on two factors such as transport development and opportunity promotion. Since promotion is progressing at full speed, challenges for full fledged development are still ahead. Agreements between states for smooth cargo delivery, infrastructure investments, environment protection remain as key areas to be developed. Recent actions set by the Lithuanian government show that development is directed towards right direction and mutual benefit.

Sigitas Brazinskas

Commercial attaché

Embassy of Lithuania in Sweden

The Baltic Sea Strategy and economic growth in the Baltic Sea Region

By Timo Laukkanen

The adoption of the EU Strategy for the Baltic Sea Region and its Action Plan was one of the autumn 2009 Swedish EU Presidency's highlights. The strategy and its action plan offer something for almost everyone. But are we able to finance the implementation of the agreed agenda, and are the implementation structures in place?

The goal-setting of the strategy – to make the Baltic Sea Region environmentally sustainable, accessible, attractive, safe and secure – is easy to share by everyone. We must, however, make sure that we can afford all the good endeavours that are listed in the Strategy and its Action Plan.

Sustainable economic development is a high priority for all of us. To achieve adequate growth we must ensure that our companies are winners in the global competition. This is not in conflict with the Baltic Sea Strategy goal-setting and we all seem to agree with that. In practise this means proceeding in balance with the available resources and without jeopardising the global competitiveness of our companies.

The economic crisis started in the second half of 2008 and 2009 was a tough year for the Baltic Sea states. Getting back to a solid growth path requires fostering competitive business environment. Even in the wealthiest Baltic Sea states stimulation of economic growth by borrowing billions can not continue forever.

Most of the required measures are in the hands of the national governments and parliaments, but re-gional cooperation can support the recovery of our interlinked economies.

From Lisbon Agenda to EU2020 strategy

The Lisbon Agenda, which was launched in 2000 to turn the EU into the most competitive and dynamic knowledge-based economy in the world by 2010 failed to meet its target. This concerns both the whole of the EU and the Baltic Sea region. However, it was not a total failure and a lot was achieved. Work on the Lisbon issues must now be continued under the new EU2020 strategy.

EU, regional and national business organisations proposed many Lisbon agenda recommendations in their statements and other contributions to the preparation of the Baltic Sea Strategy and its Action Plan. Those proposals are valid today as well.

Business-friendly daily operational environment

To secure sustainable economic growth we must improve the daily business environment to ensure global competitiveness of our companies. Surveys that have been made among Finnish companies underline the need for well-defined laws, regulations and instructions, custom-oriented information ser-vices and prompt binding preliminary rulings especially in customs, competition, taxation and environmental issues. This and a wider use of e-services will also help in cutting expenditure in companies and public administration.

All costs and benefits of the introduction of new laws and regulations that have direct or indirect effect on business should be carefully evaluated and self-regulation like recommendations on Corporate Governance should be used more widely.

No to protectionist measures

Liberal and well-functioning import, export and investment policies have been crucially important for the success of the Baltic Sea companies. A vast share of their growth has come from international operations and the share of exports has traditionally been high in most of the Baltic Sea economies.

The global economic crisis has raised protectionism which limits the export potential. Despite of the possible short-term positive effects from protectionist measures the Baltic Sea states should continue active promotion of free trade and investment liberalisation.

To further facilitate trade and investment inside the region the Baltic Sea Business Advisory Commit-tee has proposed that the Council of the Baltic Sea States should prepare a study on the current state, problems and possibilities of trade and investment liberalisation in the region. Unfortunately too often economic problems lead to a tunnel vision and short-sighted problem-solving methods instead of looking for best practises abroad.

Infrastructure to support business

Long distances and remote location in the north of Europe require strong input in infrastructure to minimize the cost of transport and logistics. For Finnish companies these costs are one third higher than for most of the Central European companies. In addition to increasing domestic investments the Baltic Sea states should strengthen their cooperation to speed up TEN and other cross-border investments.

Concerted efforts are also needed to prevent the adverse effect of the introduction of the International Maritime Organisation (IMO) decision on new marine fuel sulphur regulations from October 2008. The decision sets diverse standards for environmental requirements in northern and southern Europe. The strictest rules relate to the Baltic Sea, the North Sea and the English Channel. In practice this means a change from heavy fuel oil to more expensive distilled fuel by 2015 in marine transport. This will drastically affect the costs of export and import industries as the cost of sea freight will increase by 30-50 %.

Environmental protection is high on the agenda of the Baltic Sea business community Cleantech being the flagship of business in this area. We must only ensure that whatever decisions are made their costs and effects should be carefully examined and weighed.

Need to address strategy implementation

The time since the adoption of the EU Strategy for the Baltic Sea Region and its Action Plan is short and it is easy to understand that practical results take time. The business emphasizes the urgency of taking action and would like to see a solid structure to be in place for the implementation of the Strategy and its Action Plan.

The need for regional cooperation is obvious. However, regional cooperation issues seem to be hanging somewhere between international, EU and domestic affairs. Preparation for ministerial conferences gives a temporary boost to the Baltic Sea Cooperation, but we should not be satisfied with that. The EU Strategy and its Action Plan must not be left floating free on the waves of the Baltic Sea between annual high-level meetings.

Timo Laukkanen

Senior Advisor

Confederation of Finnish Industries EK

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De-securitize the Russia policy of the West

By Hans-Joachim Spanger

Securitization is not just a term in finance to distribute risk. It has also made its way into international politics where it rather creates risks: Coined by the Copenhagen School and Ole Wæver, it essentially refers to the transformation of a given issue into a matter of security and can be regarded as an extreme version of politicization. It quite often acts as a diversionary tool - and Russia's peculiar relationship with NATO is a case in point.

On 29 November 2009 Russian President Dmitri Medvedev launched his draft of a "European Security Treaty". Having long called for an overhaul of the current system in order to ensure that security on the European continent becomes truly "indivisible" - and not dominated by NATO -, Russia has finally come up with a concrete proposal. The proposed measures look fairly modest as compared to the alarmism with which both sides have for long decried their mutually exclusive security interests. Essentially Russia calls for a - legally binding - pledge to consult each other, bilaterally, multilaterally and in a conference format, depending on the severity of actions that might affect the security of any party to the proposed treaty.

Not much later, in January 2010, the "Institute of Contemporary Development" issued a report on "Russia in the 21st Century: Visions for the Future" which amounts to no less than an OECD blueprint for the comprehensive modernisation of Russia. This is in itself not extraordinary, except for the fact that Medvedev is chairman of the institute's Board of Trustees. According to the report, comprehensive modernisation also entails a turnaround in Russia's foreign policy, heading for membership in the EU and also in a "substantially changed" NATO and making the country's external relations conditional on how they contribute to its internal development - the latter being the frequently stated guiding principle of Medvedev's "extremely pragmatic" foreign policy.

The bold vision and the modest proposal are intimately linked - by the person of the Russian President and no less conceptually as his draft treaty proposes rules of engagement that try to reconcile Russia's claim to Great Power status and its European (and ultimately Western) vocation. The West, however, is rather intent on decoupling. Ready to pocket the vision as reinforcing the Western trajectory, it has not yet shown willingness to consider anything possibly impeding its own freedom of action. This is short-sighted as the security treaty can act as a building bloc towards the modernisation project and in overcoming the mutual resentment und notably Russia's obsession with NATO that obscures the cooperative opportunities in Europe - and ultimately Medvedev's modernisation project.

It is indeed a long way to joining an organisation that Russia's new military doctrine, signed into force by President Medvedev on 5 February 2010, stipulates as constituting the No.1 external "danger". This official statement is just another expression of the deeply entrenched Russian NATO syndrome.

There has been virtually no change in Russia's attitude over time: the same grievances have been expressed in the same way since 1994, when Russia was pondering over its accession to NATO's "Partnership for Peace" programme. From that time on Russia has consistently called for a universal security system based on equality and argued against "new dividing lines in Europe". And it left no doubt that Russia had to react "adequately" to NATO expansion. The current grievances are not any different and list: (a) NATO's willingness to expand further, (b) the anti-Russian or outright antagonistic attitudes of many (new) members, (c) NATO's desire for military superiority, or (d) the military bases and installations close to Russia's borders, including land- and sea-based missile defence systems. These grievances have by no means been confined to those parts of Russian society with vested interests in a confrontational posture such as the Military Industrial Complex. Take, for instance, another report from the "Institute of Contemporary Development" on Russian-US relations, in which Aleksei Arbatov gave some hints on the broad-based consensus: although acknowledging a "low likelihood of a premeditated wide-scale military attack on Russia", he claims - very much in line with Andrei Kozyrev's famous Helsinki speech in 1992 - "disastrous results" in case of NATO's further expansion and in particular with regard to the inclusion of Ukraine.

And finally there is a kind of conceptual mismatch between, on the one hand, the emphasis on quite up-to-date objectives (notably that the overall aim of modernising Russia can best be achieved in close cooperation with the most advanced countries in the West) and new trans-national threats (such as terrorist attacks, trans-national organized crime, WMD proliferation, illegal migration, and climate change) and the concurrent reference to fairly traditional threat perceptions, on the other, when it comes to NATO and to the US. So far the latter have taken precedence.

These factors clearly show that one can hardly attribute Russia's stance on NATO to Putin and the authoritarian departure of Russia from the mainstream of European politics, as pundits of the democratic peace theory would have it. Rather it is much more deeply seated and of a structural nature to be reckoned with. One is the Great Power aspiration - nothing peculiar to Russia. There is an ostensible call that Russia will never accept being relegated to the sidelines of the civilized world. With the Great Power comes the quest for an exclusive sphere of interest, the notorious bone of contention between Russia and the US in particular. A third - and more recent - factor is the change in the international balance of power, most notably the rise of the BRIC countries (Brazil, Russia, India, China). This has given the impression of providing new openings. In fact, the issue of "multipolarity" that became much more tangible along with the BRIC, is the only thing that has visibly changed in favour of Russia.

Having piled up mutual misunderstandings and accusations for more than a decade, one lesson seems obvious: NATO cannot rest on its benign rhetoric and keep wondering why Russia does not subscribe to it. If it is to improve relations with Russia, the West clearly has to move. In light of the prevailing balance of power it clearly can do so without undermining its standing or less so its existence. And the opportunity provided by President Medvedev, who ultimately refers back to Gorbachev's vision of a Common European Home, should not again be squandered.

NATO cannot expect to escape pan-European rules of conduct indefinitely - if it does not want to alienate Russia indefinitely. Consider the alternative: a quite traditional concert of great powers, which would inevitably come about if a comprehensive rule-based system does not materialize. And this would even further broaden and lift security concerns to undue prominence. Therefore the urgent need to seriously negotiate the proposed security treaty.

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Arctic security – beating the alarm for the wrong reasons

By Sven G. Holtsmark

Recent years have witnessed a surge in interest in Arctic issues, including Arctic security. This became particularly evident from August 2007, when the planting of a Russian flag on the North Pole sea bed resulted in a frenzy of international attention, much focused on the allegedly growing potential for violent conflict in the region. The good news is that much of the alarmist coverage of Arctic issues has been based on misperceptions of the issues involved. As a matter of fact, there are good reasons to believe that that the Arctic will remain a region of pragmatic and peaceful cooperation among the major stakeholders. The bad news is that alarmist misperceptions in the public discourse threaten to influence policy makers' decisions. If so were to happen, we will have one more example of a dire prophecy contributing to its own fulfilment.

Two closely related factors are behind the re-emerging focus on the Arctic – climate change and the potential significance of still-unexplored Arctic petroleum resources. Climate change – because the gradually reduced ice coverage in parts of the Arctic Ocean in the coming decades may open the region to large-scale economic activity to a degree never before experienced. To mention only one major implication: Reduced ice coverage may open the Arctic Ocean to new sea lines of communication (SLOC) between Asia, Europe and North America. Petroleum – because recent stipulations suggest that on- and off-shore fields north of the Arctic circle may contain as much as 30% of the worlds undiscovered reserves of natural gas, and 10% of undiscovered oil. This second factor is reinforced by the first factor, climate change – reduced ice coverage has the potential to open additional off-shore fields for exploitation.

Thus, there are solid reasons behind the increasing focus on the Arctic. But there are equally solid reasons to tune down both expectations of a rapid opening-up of the region for commercial activity, and the alarmist prophesies of the Arctic as a breading ground for future conflicts. Notably, the exploitation of new Arctic off-shore fields involves formidable technological and environmental challenges. Much due to this, extracting petroleum from these fields will in most cases be extremely costly, with a corresponding need for consistently high prices of gas and oil. The growing uncertainty about the prospects for the development of the Shtokman natural gas field in the Russian Exclusive Economic Zone (EEZ) in the Barents Sea illustrates the point. As regards the potential for new Arctic SLOCs, there are huge uncertainties about when, or if at all, these will become economically viable to the degree that they will start competing with today's traditional sea lanes. Last year's passage of two German ships along the Northern Sea Route did nothing to alter this picture.

Discussions of Arctic security often emphasise the existence in the Arctic of unresolved maritime borders and legal disputes. This includes firstly a number of not finally settled delimitations between Arctic Ocean states' EEZs (most importantly between Russia and Norway, US and Canada, and US and Russia) and disagreements about the status of Arctic waterways (parts of the North-West and North-East Passages). Secondly, some Arctic Ocean littoral states claim, or are expected to claim, control over their continental shelf far beyond the 200 nautical EEZ. Some of these claims are, or may be, overlapping.

To some analysts and commentators, the combination of unresolved delimitation issues *and* presence of petroleum almost by default points towards conflict. This needs not be the case. Russia's and the other littoral states' claims for an extended continental shelf follow directly from the implementation of the 1982 United Nations Convention on the Law of the Seas, UNCLOS. Some of these claims have already been settled, others are still to be made or are in the process of being evaluated according to UNCLOS procedures. Equally important: The most promising potential petroleum reserves are in areas of undisputed national jurisdiction. The much-publicized overlapping claims (Russia, Canada, Denmark) close to the North Pole are hardly related to the prospects of finding petroleum – which is expected to be almost non-existent in these areas. On the other hand, it would be surprising if states did not make the full use of available legal means when they are invited to present territorial claims.

Rather than pointing towards conflict, the prospects of increasing economic activity in the Arctic Ocean will by themselves present strong incentives for Arctic cooperation. Large-scale exploitation of technologically and environmentally challenging Arctic Ocean petroleum fields is only imaginable under conditions of regional peace and stability. This also applies to the transportation of oil and gas out of the region, and to the exploitation of mineral resources on the Arctic Ocean seabed. Moreover, security of demand is as important for the exporting country as security of supply for the importer. This is particularly true in the case of an economy as heavily dependent on energy exports as Russia's. This, together with the long history of successful regional cooperation on resources management in the region, even between Cold War foes, gives cause for optimism. The Arctic's post-Second World War history of stability and pragmatic cooperation is actually one of the factors attracting global attention to its still-unexplored petroleum and mineral resources.

In the Arctic as elsewhere there is, and is likely to remain, the residual risk that disputes over national interests can lead to violent conflict. This danger will increase if policy is developed based on basic misperceptions. It can be argued that the state of Arctic security in the long run will be determined primarily by the bilateral and multilateral interaction between Russia and the other states bordering on the Arctic Ocean. This, in turn, implies that Arctic affairs will be intertwined with the broader picture of relations between Russia and the West. However, this will not be a one-way relationship. Given the importance of the Arctic region for the Russian economy and its military posture, and the increasing awareness of the importance of Arctic issues in Western countries, relations with Russia in the Arctic may turn out to be one of the determinants of the evolution of relations between Russia and the West in general.

With this in mind, policy makers should focus on the potential for expanding cooperation to further develop robust regimes for the handling of issues such as ecological safety and living resources management, the challenges of opening and operating new SLOCs, and the handling of security threats emanating from outside the Arctic Ocean region. In many cases, framework regimes are already in place, so there is no need to start from a "blank sheet".

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Russia's modernization campaign - towards a high-tech Potemkin village?

By Philip Hanson

For the past six months or so, Russian politicians have been making speeches about modernization. Prime Minister Vladimir Putin now heads a 26-member government Commission on High Technologies and Innovation. President Dmitrii Medvedev heads the presidential Commission on the Modernization and Technical Development of the Russian Economy. If technological progress requires competition, the president and prime minister are certainly providing it.

But how serious is all the talk? The short answer is that it is serious but unlikely to produce results.

Under different names, the topic of technological catching-up has been a staple of Russian political discourse since Peter the Great. Under the heading of 'diversification' it was actively discussed among policy-makers in the latter part of Putin's first presidential term. In 2003 the Ministry of Economic Development and Trade (as it then was) proposed various policies for stimulating manufacturing at the expense of the natural-resource industries. The subsequent hiking of taxation on oil companies was intended in part to achieve this.

The current round of campaigning goes back to 2007-08. This was when the famous Putin Plan for the upgrading of Russia into a leading-edge knowledge economy by 2020 took shape. The latest burst of political activity, however, began with several pronouncements by Medvedev last year, including his address to the Federal Assembly in September. He called then for Russia to cease to be 'a primitive raw materials economy' and instead to become 'a smart economy producing unique knowledge, new goods and technology of use to people', particularly in medicine, IT, telecoms and space, as well as in the energy sector.

Both Putin's and Medvedev's speeches on the subject indicate that they see Russian modernization as a top-down, state-led process. It is true that they both advocate investments in education and the reduction of barriers to the development of small firms – which free-market liberals would agree with. But the emphasis is on state programmes and large companies – the latter either state-controlled or working closely with the state.

The presidential modernization commission has fewer administrative powers and less funding than the government commission, but it has in recent months made the running so far as proclamations are concerned. Here it has the advantage of the presentational skills of presidential aide Vladislav Surkov. It also has the substantial merit of having Russia's most effective economic administrator, Anatolii Chubais, on board. It is the presidential commission that is establishing a 'Russian Silicon Valley', to be built at Skolkovo, near Moscow.

Russian liberals have been highly critical of the whole approach, whether from Putin or from Medvedev. Yulia Latynina sums it up: 'Modernization is impossible in Russia because there can be no nanotechnologies in the Byzantine Empire'. The liberal view is that state industrial policy, even if it is sometimes successful in some countries, cannot succeed in present-day Russia, where the state machine is corrupt and grossly inefficient. What liberals want to see is reform that will allow a properly independent judiciary, the rule of law, protection of property rights and the removal in general of impediments to competition. This in turn, in the view of most liberals, requires political liberalization: the introduction of open competition into politics. Without those changes, the grand state schemes envisaged by the president and the prime minister will create only large black holes in the state budget.

There are other difficulties. Russian science and technology are weak. There are plenty of researchers, but they are aging, under-paid, under-motivated and still working in semi-seclusion from the outside world. In September last year a group of expatriate Russian scientists sent an open letter to the Russian President and Prime Minister; they deplored what they described as the 'catastrophic state' of Russian fundamental science. The letter's signatories were working in leading universities and research institutes in the US, UK, Germany, France, Australia and other countries. Their judgement carries a lot of weight.

Neither higher education nor applied science is in good shape either. In the widely-used THE-QS rankings of world universities, Russia has four in the top 500, against 10 Indian and 11 Chinese universities. World Intellectual Property Organization data for 2007 show the following percentage shares in all patent applications outside the country of residence of the first-named patentee: India 0.48; China 0.90; Russia 0.14. Anatolii Chubais himself has pointed out that there is very little private-sector demand for R&D in an economy dominated by industries that are not R&D-intensive.

There has been some clarification and improvement in modernization policies. At first all the emphasis was on Russia somehow, in a decade, becoming a major source of products and processes new to the whole world. Now both the presidential and the government commissions have recognised that catching-up by absorbing technologies new to Russia but already established elsewhere has to be part of the agenda. But it is still an agenda in which large state-controlled entities linked to the old military industrial complex – the United Shipbuilding Corporation, the United Aircraft-building Corporation, Rostekhnologii, Rosnanotekh, etc – are assigned key tasks. Rosnano is due to become a joint-stock company instead of a legally-anomalous 'state corporation' by the end of 2010, which is a modest improvement. Anatolii Chubais has used some of Rosnano's resources to establish a venture capital fund, to encourage small, high-tech start-ups. But the basic approach remains top-down.

Overall, the prospects for the modernization campaign are not good.

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Sea level rise in the Baltic Sea

By Martin Vermeer

The rise in global temperatures due to the anthropogenic greenhouse effect is already causing the level of the world's oceans to rise. These two related processes will accelerate spectacularly in decades to come, almost independently of success in reducing greenhouse gas emissions. What impacts will this have on countries around the Baltic Sea? This question naturally contains two sub-questions:

1. How locally representative is global mean sea level rise?
2. How much sea level rise is cancelled out by the post-glacial land uplift ongoing in Fennoscandia?

Methods of sea level monitoring

Two complementary techniques are widely used to monitor sea level: tide gauges, and satellite radar altimetry. Traditional tide gauges or mareographs monitor variation in sea level relative to the solid Earth at the gauge's location. In satellite altimetry, radar pulses bounce off the sea surface below a satellite, the orbit of which is precisely tracked using the Global Positioning System. Unlike tide gauges, which only measure in fixed locations, the satellite in its orbit scans over time the full extent of the world ocean also away from coastlines. It thus gives a much better measure of the *global mean* of sea level – albeit only from 1992 onward, when Topex/Poseidon, the first satellite of this kind, was launched. Tide gauges again have been in widespread operation for well over a century.

Several researchers have studied sea level rise over the instrumental period: [1] and [2] arrived at similar results despite using very different, clever analysis methodologies. Over the 20th Century sea level has risen by 17 ± 5 cm, and is distinctly accelerating.

Recent estimates of future global sea level rise

Non-scientists may find it challenging to gain a coherent understanding of the state of the science on climate change and sea level rise. One needs to place available sources into a "credibility hierarchy" – see, e.g., [3] –, before using them to build a consistent picture to base policy making on. This is in essence what the Intergovernmental Panel on Climate Change (IPCC) endeavours to do globally. Never rely on one source, always consider the full span of the literature. Even so, not all reported results are equal: appearance in well-reputed peer review journals, authors' publication history, replication by others, methodological independence, etc. all matter.

In recent literature, projected sea level rise over the rest of this century has seen an upward adjustment [4,5,6,7,8]. Whereas the IPCC's Fourth Assessment Report (AR4, [9]) gives a range of 18 to 59 cm – noting the uncertainty in dynamical ice flow processes, which could add surprises – these more recent papers all arrive at higher to much higher ranges, like Pfeffer et al.'s 80-200 cm [8].

Of these papers, only [8] considers physical ice flow processes; the other five use "semi-empirical modelling": extrapolation of an empirically found relationship between the rate of sea level rise and some function of temperature. As extrapolation is inherently risky, one would wish for further independent estimates based on better physical understanding of ice sheet dynamics. Work is ongoing aimed at resolving this conundrum and may bear fruit in the years ahead. It would seem wise to allow these results to inform major adaptation commitments, even in the 2050 time frame.

Sea level rise in the Baltic Sea

For the Baltic area, there are further considerations. Firstly, impact is diminished by the ongoing post-glacial land uplift in Sweden and Finland. Secondly, a less known but important effect is the "fingerprint" of continental ice sheet melt due to the change in gravity field (geoid) when the mass from an ice sheet redistributes itself over the world ocean. E.g., the molten ice from Greenland will mostly flee to the southern hemisphere, while in its immediate vicinity, sea level will even subside. Fennoscandia straddles the zero line.

Several authors, e.g., [10,11], have painstakingly modelled this effect. The overall conclusion is, that the local effect of sea level rise on the Baltic coasts may be only some 60-80% of the global mean value; less on coasts, like Ostrobothnia, where a powerful land uplift is ongoing; more on the German coast where there is subsidence.

Assessing the potential for damage and appropriateness of adaptation measures is again a very broad, specialized subject of its own into which I am not equipped to venture.

Conclusion

Before the century is out, Nature will have the last word, vindicating the scientific community for sounding appropriate warnings. Those wishing to be on the right side of history, be they policy makers or informed citizens, must resist wishful thinking and lending credence to the loudest voices. Instead, they need to recognize that domain expertise matters: either respect it, or independently acquire it. There is no royal road. As C.S. Lewis writes (*Miracles,* Ch. 6):

"[But] the man who will neither obey wisdom in others nor adventure for her himself is fatal."

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The beginning of the end of European integration?

By Philipp Schwartz

Macro-regional strategies or at least the political will to create such show up right now all around Europe. First experiences are already made with the implementation of the EU Strategy for the Baltic Sea Region. At the same time is ongoing a public consultation process for a strategy of the Danube region to be submitted to the European Council by the European Commission by the end of this year. There are thoughts on an Alpine Strategy, and a North Sea Strategy has been mentioned. As much benefit macro-regional strategies as such bring for their respective macro-region, isn't this approach scrutinizing the very idea of European (Union) integration? By identifying macro-region after macro-region, addressing the challenges of and using the opportunities within a macro-region, is this not "the beginning of the end" of European integration? Don't we put at risk the great achievements if we start splitting up again into various macro-regions? Do we eventually need later a "Strategy for EU Strategies" to coordinate the various macro-regional efforts? The answer would be "no" as the EU Strategy for the Baltic Sea Region or any other macro-regional strategy is to be seen rather as a coordination tool. It is about coordinated efforts for the benefit of a macro-region, herewith for the cohesion of the EU as a whole.

Tools are there to be used to turn priorities into action. "From Priorities to Action" was also the name of a seminar organised by the Central Baltic INTERREG IV A Programme 2007-2013 (www.centralbaltic.eu) in March this year in Tallinn. "From Priorities to Action" could also be the name of the process initiated and supported by the EU Strategy for the Baltic Sea Region. Although in this context one should rather speak about "From Priorities to *Coordinated* Action" as the Baltic Sea region definitely did not lack actions in the past. But it is not the pure number of actions which counts. Doing something does not necessarily create added-value beyond the action itself. The Central Baltic INTERREG IV A Programme 2007-2013 provides a framework to create such added-value – a framework where tackling problems, challenges and development areas which need combined cross-border efforts can be brought to life, not only under the Programme itself, but also under the EU Strategy for the Baltic Sea Region.

But what comes then, when problems are solved, challenges tackled and development areas developed, hence priorities achieved? Priorities again! As certain priorities will be achieved by certain actions, new problems, challenges and development areas will appear, and new priorities will have to be set. It would be important that this setting of new priorities would be a natural process where priorities derive from concrete and existing needs and not one where priorities are "formulated wishful thinking". And when is "then"? "Then" is after 2013, when the present programming period 2007-2013 is over. The discussions on post-2013 have started and it is now time to influence the outcome. Let's therefore return to the opening question if the EU Strategy for the Baltic Sea Region is "the beginning of the end" of European integration? No, we are rather at "the end of the beginning" of a new, better coordinated set-up for (macro-regional) cooperation. However, whether this new set-up is vital depends to a large extent on how the future programming period 2014 onwards will be shaped. For the time being, with the vast number of funding programmes and possibly soon several macro-regional strategies within the EU, it is important to be open minded and to look beyond one's own core business to see one's chances as well as duties regarding European integration now and after 2013. In this context, the Central Baltic INTERREG IV A Programme 2007-2013 could be seen as a "little" macro-regional strategy as the programme consists of three (sub-)programmes all with their own specific needs and resources, however the same three priorities. One could therefore say that the Central Baltic INTERREG IV A Programme 2007-2013, somewhat similarly to the EU Strategy for the Baltic Sea Region, aims at coordinating and aligning the activities and funding in these three geographies striving for one Central Baltic area which is attractive to live in, invest into and to travel to. This is not to be done by neglecting the distinctive characteristics, but by using the different strengths complementing each other. The future can therefore not be to merge all existing funding programmes into the one big pot providing funding to the region like a watering pot. Definitely, certain topics and geographies will also in the future need special attention and support. But the overall set-up could possibly be aligned and simplified. At least it is worth discussing – now!

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Latvian-Russian relations - a new thaw?

By Nils Muiznieks

Relations between Latvia and Russia have generally been quite cool over the last 20 years with occasional periods of "deep frost." Recent developments have led some observers to speak of a "new thaw" in relations, as contacts at various levels have intensified. However, old sources of tension – Russia's desire to maintain its influence in Latvia, Latvia's minority policy, and disagreements surrounding history – persist and can be activated at little notice. This suggests the need for caution and a long-term perspective, as well as the necessity of building institutionalized knowledge about Russia in Latvia to inform Latvian policy-making and lay the groundwork for a more active Latvian role in NATO, EU and Baltic Sea region discussions about cooperation with Russia.

The legacy of the last 20 years includes many ups and downs in Latvian-Russian relations. From the restoration of independence in 1991 until 1994 and the signing of an inter-state agreement, tensions revolved primarily around security, as Russia delayed in withdrawing its troops and shutting down an early-warning radar station. The citizenship status and language rights of Latvia's large population of post-war Russian-speaking settlers have surfaced as acrimonious bilateral issues at more-or-less regular intervals. In the late 1990s and early 2000s, Russia strongly objected to Latvia's moves towards NATO and sought "compensatory measures" for acquiescence to Latvia's EU accession. In 2002, as part of its policy of lessening its dependence on transit countries, Russia diverted oil exports from Latvia's Ventspils port to Primorsk, thereby downgrading the importance of Latvia in Russia's important hydrocarbons export sector. In 2005 history complicated relations, as Latvia's efforts to make reference to the 1920 Soviet-Latvian Peace Treaty prompted Russia to scuttle a border agreement. Moreover, the Latvian President's initiatives to educate the world about Latvian history on the 60th anniversary of the end of World War II struck some raw nerves in Russia.

After Latvia's accession to the EU and NATO, relations slowly began to change. Some issues, such as trade and the visa regime, were no longer on the bilateral agenda, but shifted to the level of EU-Russian relations, while accession to NATO eased existential security concerns in Latvia. 2007 marked a turning point, as a political and business consensus in Latvia emerged on the need to move forward in relations with Russia. After much Latvian soul-searching, agreement was reached on a Border Treaty in which Latvia abandoned all claims to territory lost to Russia after World War II. Since then relations have thawed considerably.

After years of delays, the intergovernmental Latvian-Russian commission was finally constituted and has met regularly over the last two years to discuss economic cooperation, humanitarian issues, border demarcation, etc. Russian Foreign Minister Sergey Lavrov is scheduled to visit Riga in Spring 2010 to sign bilateral treaties on cooperation in the fight against crime, cooperation in the field of tourism, and the prevention of double taxation and tax evasion. Recently, Latvian President Valdis Zatlers accepted an invitation to go to Moscow on May 9 to attend ceremonies commemorating the 65th anniversary of the end of World War II – a controversial step within Latvia, since the end of World War II marked the loss of Latvian independence and the onset of Stalinist repressions. The Riga City Council has developed close cooperation with Moscow, and the two city governments plan to organize a gathering of mayors from the Baltic Sea region and Western Russia in Riga in July 2010.

Political dialogue has been supplemented by concrete cooperation. In mid-2009, the United States began to use Latvian ports to ship non-lethal equipment by rail through Russia and Central Asia to resupply its forces in Afghanistan. The emergence of the Northern Distribution Network has implied intense cooperation not only between the US and partners traditionally suspicious of NATO in the East, but also between Latvia and Russia in the realm of customs and border-crossing. Since Latvia's accession to the EU, Latvian-Russian trade has boomed: from 2003 through 2008 the value of imports from Russia increased by a factor of three, while the value of exports to Russia increased almost sixfold. While trade in 2009 decreased due to the economic crisis, Russia remains Latvia's 3rd largest export market and second largest source of imports. Russian tourists are increasingly common in Riga, Jurmala and elsewhere in Latvia – 2009 witnessed a 22% increase compared to 2008 in visas granted to tourists from Russia.

Despite the increased propensity to talk, trade and visit, traditional sources of bilateral tension remain. Notwithstanding Latvian-Russian cooperation to facilitate military transit, the Russian-Georgian war in August 2008 rattled nerves in Baltic capitals and prompted Baltic officials to request reassurance from NATO allies in the form of contingency planning, military infrastructure and NATO maneuvers in the region. Russia, in turn, engaged in saber rattling in autumn 2009, organizing two large anti-NATO military maneuvers in Belarus and Western Russia (Zapad 2009 and Ladoga) based on the improbable scenario of ethnic Poles in Belarus rising up and terrorists from Lithuania attacking Kaliningrad.

Disagreements over history and minority policy continue to resurface in various fora. While Russia has sought to stem the publication of critical analyses of the past within Russia, it also created a commission to combat historical "falsification" by its neighbours, including Latvia. One new arena for Latvian-Russian memory battles is the European Court of Human Rights, which has passed rulings on a number of cases dealing with fraught issues from the past. The Court is scheduled to pass a decision soon on a controversial case involving a former Red partisan commander named Vasilijs Kononovs, whom the Latvian courts tried for war crimes but whom Russia hails as a war hero. Russia has become more active in defending its "compatriots" in Latvia by funding non-governmental organizations and granting Russian citizenship to Latvian residents. All the while, Gazprom and Itera – Russia's natural gas giants – continue to maneuver within Latvia and to cultivate local political allies in their effort to maintain Latvia's dependence on Russian gas and energy networks.

Interestingly, after years of denying the importance of the Soviet legacy, researchers in Latvia have recently taken a new interest in the post-Soviet space. The University of Latvia has created an inter-disciplinary doctoral programme in post-Soviet studies. This suggests not only recognition of the lingering importance of the Soviet legacy as a brake on development, but also a growing appreciation of the importance of analyzing Russia and its influence in Latvia. Given Latvia's membership in the EU, increased Baltic-Nordic cooperation in studying Russia is necessary to generate a common understanding of opportunities and challenges in EU-Russia relations. Here, there is also much room for cooperation with Russian colleagues.

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Minority rights in the Baltic States

By David J. Galbreath

Estonia, Latvia and Lithuania, like most other states in Central and Eastern Europe, have significantly large minority communities of minorities. These minorities range from traditional Livonian and Old Believers to Soviet era Russians, Belorussians, Poles, and Ukrainians. Of these minorities, it has been the so-called 'Russian-speakers', who make up a larger group than that of ethnic Russians along, that have gathered most attention. This attention has sprung from the several factors. The first is that the majority of these minorities arrived after the 1940 annexation of the Baltic States into the Soviet Union. The second is that these 'Russian-speakers' have maintained a close affinity with Russian culture and the Russian state. The third factor is that, given the first two characteristics, the 'Russian-speaking' minorities have remained politically sensitive in the three Baltic States, but particularly more so in Estonia and Latvia. For this reason, the European Union, Council of Europe and the OSCE focused a great deal of attention on minority rights in the Baltic States prior to the 2004 EU enlargement. This short article discusses the underlying themes of minority issues in the pre-enlargement and post-enlargement phases.

Why the Fuss?

Baltic independence practically came at the end of August 1991, following attempted coup in Moscow that same month. Prior to independence, the national movements were split between 'restorationists' and reformists who had different opinions of whether to include the Soviet era minorities or not. The 'restorationists' were politically more successful in Estonia and Latvia, who pushed for a restrictive citizenship law that would only allow automatic citizenship for those who either held or direct descendant held citizenship in the inter-war period. In Lithuania, the reformers instituted an inclusive citizenship law that affected both Russian-speakers and Poles to allow them automatic citizenship for any who had resided in Soviet Lithuania for 10 years or longer. To say that Estonia and Latvia went one direction and Lithuania went another hides a great deal of difference between the former pair and obfuscates societal tensions in the latter, especially in its relations with Poland. Nevertheless, several things can be said about this early period. The first is that despite the eruption of ethnic conflict in other place in the former Soviet Union such as Moldova, Georgia and Azerbaijan, political tensions did not lead to societal conflict. The second is that on the whole, the situation for the average 'Russian-speaker' has remained the same, in terms of statelessness and political alienation. Finally, despite often vitriolic rhetoric between the Russian and Baltic governments, the Russian Federation has had little influence on the political and social circumstances of the 'Russian-speaking' communities in the Baltic States.

European integration arguably had the greatest affect 'Russian-speakers' although this should not be overstated. The protection of minority rights was a part of the Copenhagen Criteria, which was used as a rough guide to hold acceding-states to a minimum requirement of EU standards. The EU worked together with the Council of Europe and the OSCE High Commissioner on National Minorities to pressure Estonia and Latvia in particular into changes. Such changes occurred in the two Baltic states when children in 1992 and after were granted automatic citizenship should their parents make the request. Other than making sure that minorities had access to naturalization procedures and insuring that the Baltic states meet the standards set by their own legislation, European conditionality had a limited affect on minority communities. In other words, while the pre-enlargement period illustrated a great deal of protection, European organizations were largely unwilling to move to a position of empowerment.

What did enlargement change?

Following the May 2004 accession of the Baltic States into both the EU and NATO, few circumstances have changed from the pre-enlargement phase. The Baltic governments have done little to improve the circumstances of stateless minorities in the short term. In the long term, it is a reasonable to argue that the changes in the education law in Latvia, and to a lesser extent Estonia, will lead to positive changes in terms of citizenship. Prior to 2004, Latvian schools were divided between those that taught in the state language and those that taught in minority languages (e.g Russian, Polish). At the beginning of the 2004 school year, minority language schools were forced to teach a 60/40 split between the state language and minority language respectively. The preceding year and beginning of the 2004 school year produced a series of protests against the education reforms, under banners such as 'Save our Schools'. Minority groups did not like the reform's affect teaching minority languages to children, while the state assumed that linguistic integration could only happen at an increased rate of fluency in the state language. Following the 2004 school year, there has been little in terms of collective opposition to the education reforms.

Things turned even worse in Estonia in April 2007 following the parliamentary elections that returned the governing coalition to power. In an increasingly hostile atmosphere, the government acted on an electoral promise to remove the so-called 'bronze soldier' from near Old Tallinn. As the heavy equipment was brought in, the protest began to stop the removal of the memorial statue. The protest turned into a riot that ravaged the old town and surrounding city centre streets for several nights. For Estonia, it was an indication of how little the Russian-speaking population had integrated into Estonia. For the Russian-speakers, the incident was further indication of how little the Estonian state cared for the minority community and a collective sense of sacrifice during the Second World War.

While other statues have come and gone, there has been little in terms of collective violence in any of the Baltic States. The greatest problem for majorities and minorities alike is the financial crisis that has affected Baltic states in general and Latvia especially badly. The Georgian-Russian war of August 2008 also illustrated the dangers to the Baltic governments of the security risks in ignoring minority issues and taking an excessively hostile approach with Moscow. While enlargment has helped insure that the same that happened to Georgia could not happen to the Baltic states, the post-enlargment minority rights regime has stalled when it comes to empowering minority communities in the Baltic states.

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Limits of Europeanization - policy discourses on minority rights in Lithuania

By Vilana Pilinkaite-Sotirovic

In the post-Communist area there has been a clear tendency to pay lip service to supporting national minority rights. In fact, instead of promoting tolerance and diversity, "cultural minority rights" policies in post-Communist Europe tend to focus on cultural activities and education, which may result in the marginalization and division of people associated with traditional minority groups. At the same time, on the governmental level, there is an increase in awareness of "non-traditional" minorities (such as sexual minorities, immigrants, the disabled, among others). This awareness is related to several directives issued by the EU (specifically, the EU Council Directive 2000/43/EC and 2000/78/EC) which highlight categories such as racial identity, sexual orientation and disability.

The impact of Europeanization, understood (broadly) as spreading European norms and social practices, should not be ignored. In Lithuania, for example, adoption of the Law on Equal Opportunities (2005) was followed by the 'National Antidiscrimination Programme 2006-2008' which attempts to promote democracy based on ethnic diversity and non-discrimination. Created and coordinated by the Lithuanian Ministry of Social Security and Labour, the Lithuanian programme stated that there was a pressing need for 'research, analysis and education for tolerance'. Unfortunately, the initiative does not go beyond an evaluation of the situation. It fails to address the real issues related to ethnic intolerance and discrimination, such as the poverty experienced by ethnic minorities and discrimination in the marketplace. Similarly, the new 'Strategy of Development of Ethnic Minority Policies 2007-2015', approved by the government of Lithuania in October 2007, did not include any measures to reduce unemployment and social exclusion of ethnic minority groups, despite the fact that these issues were identified by the government as the main obstacles for the social integration of minorities. Recent sociological studies suggest that Lithuania's labour market is segregated along ethnic lines. Ethnic Lithuanians are more likely to be in the higher echelons of government and administration, while ethnic Poles and Russians are more likely to work as skilled or unskilled workers. Ethnic Poles and Russians report that they have to rely on their ethnic connections when looking for a job. These findings suggest the absence of equal opportunities in the labour market, but so far this issue has not received the attention of the Lithuanian government. Currently, there are approximately 300 ethnic minority NGOs registered in Lithuania. The main goal of their activities is to preserve the culture of ethnic minorities, protecting them from assimilation. At the same time, these NGOs embraces cultural nationalism and promote networking based on belonging to the same ethnic group, creating an ethnically segmented civil society and hindering the development of cross-cultural civil society.

Since 2006 social research has demonstrated the tendencies in society to view tolerance and non-discrimination of minorities as "positive" ideals; however, the profound value structure has not been affected. This is particular evident in the society's attitudes about sexual minorities and Roma. 70 percent of the respondents would "never" approve of any discrimination related to sexual orientation. But 61 percent acknowledged that they would "never" want to belong to any organization which includes homosexuals as its members, and 56 percent of people admitted that they do not want to live in the same neighborhood as homosexuals. Another public survey, which assessed discrimination in the labor market, showed that almost 90 percent of Lithuania's employers described themselves as "tolerant." This suggests that they do not support discrimination against minorities. However, the majority of respondents confessed that they would not agree to employ Roma. 40 percent said that they were afraid that other workers would express dissatisfaction with their decision to employ minorities, and 74 percent expressed doubts about the abilities of people belonging to these groups to perform well in workplace. Though most recent public opinion surveys suggest the tendencies to decrease negative attitudes to Roma, migrants and some socially vulnerable groups, however, the hierarchy of the most unpopular groups remains unchanged—Roma, Muslims and homosexuals are likely to experience social exclusion.

Integration into the European space (culturally, geographically, politically) has introduced new public discourses and created social practices that are essential for a diffusion of international norms associated with minority rights. Regardless the legal instruments on equal opportunities adopted in 2005, the policy discourse did not imply the ability to detach the perceptions about national security and national well being including the preservation of traditional values from minority rights. Several recent developments suggest that the presence of and especially political activism of "non-traditional" minority groups are still likely to be seen as a threat to traditional values. For example, in 2007, the European Year of Equal Opportunities, the City Council in Vilnius banned the entry of the promotional bus of the EU's campaign *For Diversity against Discrimination.* Moreover, citing "security reasons," in 2008 the City Council voted unanimously to deny permission for the human rights organizations to peaceful gathering "For Promotion of Human Rights and Diversity", but allowed ultra-nationalist groups to march in the center of Vilnius. Similarly, the Roma are seen as a group that continue to be a security threat (related to drug trafficking). Several years ago, to fight this "security threat," the municipal government of Vilnius ordered the destruction of numerous "illegally" built houses inhabited by Roma residents in a settlement close to Vilnius.

The most recent policy discourse on preservation of traditional family values openly questioned the European democratic principles. Many Lithuanian parliamentarians claimed that they wanted to protect "traditional Lithuanian family values" and suspended the inclusion "sexual orientation" into the amendments to the Law on Equal Opportunity, a concept, they argued, "alien" to the "traditional" Lithuanian society. Majority parliamentarians openly expressed homophobic attitudes and attempted to introduce the censorship on mass media to protect society from "homosexual propaganda" while debating the law on Protection of Minors from Negative Information in Mass Media". To protect what they consider family values, conservative politicians went as far as to question the authority of the European Parliament for the intervention to the affairs of sovereign country when the European Parliament called Lithuania to follow European values of tolerance and non-discrimination.

Paradoxically, after Lithuania's entry into the EU, there was a backlash against equality policies and non-discrimination norms. By and large, this reaction came from socially conservative politicians across the political spectrum who claimed to support traditional national values and used different strategies, such as questioning the meaning of "sexual orientation", banning "homosexual propaganda" and scrutinizing the recommendation of the European Parliament. Currently the policy discourse in Lithuania on the protection of "traditional values" has been stronger than the inspiration to "Europeanize" by incorporating norms of tolerance and non-discrimination.

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The Baltic economies after a perfect storm

By Marek Tiits

The global crisis stroke, as argued by many, by complete surprise and there was very little individual small economies such as the ones on the Baltic Sea Region could themselves do to avoid the domestic crisis that followed. Is this really so? What have we learned from this crisis? Are there any extra lessons to be taken?

The general hope and perception emerging from recent international media coverage is that the global financial and economic crisis is nearly over. The employment figures remain sluggish, but financial markets enjoyed last year extraordinary gains, and a number of economies have started to demonstrate again quite reasonable growth rates. In the Baltic Sea Region, also things seem to have started to return back to normal. The quarterly GDP growth was in Q4 2009 for the countries in the Baltic Sea region close to 0% or even slightly positive. Estonia prepares for adoption of euro in 2011 and the budget crisis in Greece has overshadowed the woes in the Baltic States. The view that the crisis is nearly over and everything will continue as previously represents a rather comforting outlook. This is a very tempting, yet dangerous way of thinking.

Finland, which was in the recent years known as one of the most competitive economies in the World, was hit by the global crisis severely. So, one could argue that small export led economies were hit harder than bigger nations. Still, the economies of the three Baltic States were in terms of the contraction of the GDP in 2009 among the worst hit economies in the World. How is this that the earlier very rapid GDP growth turned into the severest crisis of the kind?

The very rapid economic growth demonstrated by the Baltic States over the last years built on the inflow of foreign finance. The inflow of capital, which came at record low interest rates, triggered in the Baltic States major asset and consumption booms accompanied by large current account deficits. The subsequent domestically led growth triggered a very rapid growth of wages that outpaced significantly the productivity growth in the exporting industry. According to the OECD, the unit labour cost increased in 2005-2009 in the Baltic States by 50-60%, and the real effective exchange rate of these economies appreciated together with this very rapidly. The above reflects a very rapid erosion of the competitiveness of these economies.

The global financial and economic crisis was for this part of the World a perfect storm that hit the weakest point of these economies. The global financial crisis led in the Q4 2008 suddenly to the reversal of the flows of foreign capital. The earlier inflows of finance to the Baltic States turned suddenly into outflows, while the demand on the export markets contracted simultaneously as well.

The earlier economic imbalances were so large that it was basically impossible to compensate for this only by increasing the productivity at the existing businesses. For example, we calculated last year for Estonia that, in order to sustain the 2007 level of GDP, and to compensate fully for the previous inflow of capital, her export revenues would need to increase overnight twofold.

The gap between the wage and productivity levels appeared, as the result of the above, suddenly to be so large that the private sector had little choice but to cut heavily the costs. In the fixed exchange rate regime, wage cuts are essentially the only way out of such situation. Yet, the 20-25% wage deflation, which was very much needed in the Baltic States, takes a lot of time to actually take place throughout the economy. Therefore, wage cost cutting has worked mostly through decline in employment and rapidly increasing unemployment, while the hourly wage costs have declined very little.

The Baltic States have had throughout 2000s difficulties in closing their trade deficits. In the end of the 2008, when that the currencies of the neighbouring non-euro-based economies depreciated by 20-25%, it became even harder to compete at the export markets. All of the above led to major decline of the foreign exchange income, domestic consumption and GDP.

The public sector response to the crisis has varied from country to country, but it has still involved, predominantly, attempts at closing the rapidly increasing public deficits and balancing the state budgets. Understandably, with declining tax revenues and increasing social costs, the public sector had in general very little resources available for supporting the upgrading and productivity growth in the exporting industry. Yet, this way, the contraction of the Baltic economies became even more rapid than it would have been otherwise.

The crisis has led to an increasing economic, regional and societal polarisation in the Baltic States. The situation is better in the capital cities and bigger regional centres, as they have always a bigger role in the international trade and services, but also in the provision of public services. The more remote regions, which are not lucky to have strong exporting industry districts, are in deep trouble as the decline in domestic consumption and increase in unemployment has hit these parts of the countries the hardest.

The hardship the Baltic States, and especially the more remote parts of these countries, are likely to continue face is in no way unique. It is just a part of a much broader pattern, where the peripheral Europe from the Baltic States or Balkans to the Spain or Ireland have all faced a similar externally fuelled consumption booms that have now went bust. There is no way for the domestic consumption led growth, be it public or private debt led, to come back. While the European periphery cannot (or do not want to) devalue, they are unable to earn enough export revenues to support reasonable levels of GDP growth and employment either. Unless anything changes, this hints of a forthcoming longer period of slow growth and high unemployment.

What the lagging regions and countries in Europe need is major anchor investments into their exporting industry. Such investments will serve as catalysts to the development of entrepreneurship and various smaller companies, which benefit from the presence of the above anchor investments that intermediate the smaller local companies and global market. The only problem is that such large-scale investments do not happen by the way of the automatic convergence of costs and living standards.

The above thinking is in fact very well known from the classical development economics developed by Paul Rosenstein-Rodan, Ragnar Nurkse and others more than the half of the century ago. Nurkse resumed in his theoretical excurse that a gold standard as the basis for exchange rates, or currency union such as eurozone, can only function if the exchange rate regime comes together with strong co-ordination of employment and economic development policies.[1]

The dilemma the European periphery faces now is that no member state is not necessarily willing to hand more policy power over to the Brussels; yet the role of the cross border policy co-ordination and of the EU cohesion and regional policies has still to increase.

Marek Tiits

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For more detailed review of the economic development in the Baltic States, please consult also the forthcoming State of the Region Report 2010.

[1] See also: Ragnar Nurkse, "Domestic and International Equilibrium", in: Seymour Edwin Harris (ed.), The New Economics: Keynes' Influence on Theory and Public Policy, New York: A. A. Knopf 1947, pp. 264-292.

EU Baltic Sea strategy: regions taking the chance – are they?

By Kirsi Stjernberg

The time has come

The time has come to put the Baltic Sea Strategy into practice. It is the very first macro-regional approach of the European Union, and we, "the Balts", have the privilege of being the pioneers of this new thinking. At the same time we also have certain pressure, together with the Commission, to succeed in it. I have heard lots of doubts about this way too comprehensive strategy with no direct funding. Is it only going to be a piece of paper, a strategy among others that never leads to any tangible actions?

Anyhow, it is not always the outcome that is the most important thing; important is also the process itself. It is about the EU and Commission having given a visible role for the regions and cities in this process. We have been listened to during the consultation phase, and we are now given responsibilities if only we take them. We have a great chance to show our commitment and capacity, right now. The wheels are turning, and the new macro-regional strategy for Danube is already under preparation, partly depending on the success of the Baltic Sea Strategy. The discussions of the future EU Cohesion Policy 2013+ have also begun. The regions showing activity now in implementing the strategy can hardly be totally neglected in these negotiations.

The question is, have we really understood the possibilities of the strategy and its action plan on the regional level? Are our local and regional politicians committed to this, taking the implementation in their own hands, not waiting for orders from above? Are we modern enough to be able to see the power of cooperation over the borders, even with those regions that at the same time are our competitors?

Southwest Finland taking the challenge

I am happy to say, that Southwest Finland is working hard to be in the forefront of putting the strategy into practice. Our region and its different actors are active in many fields of the strategy, but as an example of what a region can do, Regional Council of Southwest Finland has taken responsibility as a lead partner in one of the flagship projects of the strategy action plan. This is thanks to our long-term regional partner, Mecklenburg-Vorpommern in Germany. They were ambitious enough to take the responsibility as coordinator for the tourism priority in the action plan and wanted to have their regional partners on board as flagship leaders. Our Regional Council is responsible for a flagship called "Attract tourists to rural areas especially coastal ones". The regional tourism organization, Turku Touring, is in charge of the implementation on practical level.

We are only in the beginning, but already preparing for this project has brought us closer together with several actors both locally, nationally as well as internationally. Marshal Office, Vojvodship Pomorskie, University of Greifswald and Cruise Baltic (tbc) are the other enthusiastic flagship leaders of the tourism priority, and all these flagship projects will work in close co-operation.

Baltic Sea Region has a good potential for becoming a unique, attractive tourism destination. To achieve this, we need to understand the importance of deep co-operation between regions and common development of expertise, know-how and products. It's about identifying the uniqueness of each small region and fitting it into the big picture of the whole Baltic Sea Region. All the products and destinations must be accessible and form service chains working well together. The goal of the flagship project is to create a Baltic Sea Region "Centre of Excellence", formed by tourism organizations, education bodies, public and private sector, gathering the best know-how and developing potential of the region. This potential is used for developing sustainable tourism products, services and destinations based on nature and culture in rural, especially coastal, areas. A special mentoring program for uniting different actors and companies from different regions and countries is also developed.

A fresh approach

The flagship project can be seen as an umbrella, seeking to find the best practices in tourism field. This way, a common understanding of the future of tourism in this region will be achieved. Having a common view will help attracting EU funding and also in influencing the future funding mechanisms. The common goals are implemented in several different projects, both on-going and new ones, locally, nationally and most of all on the whole Baltic Sea Region. The fresh thinking behind this is that these projects will be financed by different EU and national/regional funding programmes together. It might also be possible that the loans of European Investment Bank and Nordic Investment Bank could be used for funding these activities.

One thing discussed a lot concerning the whole strategy, and just as well the tourism part of it, is of course how to involve Russia in this work. ENPI, European Neighbourhood Policy Instrument, might give a possibility for this, if only the Russians can be convinced of the benefits of co-operation. In this, the existing local and regional partnerships with Russia can play an important role.

Kick-off seminar of our flagship, on "open call basis", will be held in the end of the summer in Turku. Our region can't, and we don't want to, work alone for these goals. We need you too!

Kirsi Stjernberg

Special Planner

Regional Council of Southwest Finland

Finland

Baltic Studies - a changing research agenda

By Heiko Pääbo

Baltic Studies is an interdisciplinary research agenda that has focused on the developments in three Baltic states: Estonia, Latvia and Lithuania. This particular focus of the area studies has provided valuable results to understand better how three small nations have formed their societies, cultures, political and economic lives. In addition, it has provided a good research agenda for comparative studies to explore the societal nexuses on the Eastern rim of the Baltic Sea. Nevertheless, the concept of Baltic Studies in this form can be considered as a remnant of the Cold War Era and in current context it needs revision to extend its borders to more suitable framework. In the following article the author argues for refreshed concept of Baltic Studies as area studies of the Baltic Sea Region.

In 1968 the Association for the Advancement of Baltic Studies was established at the University of Maryland. The purpose of the association has been to promote research and education in various disciplines of the Baltic Studies. In addition, the organisation by involving many Baltic origin scholars abroad offered a good opportunity to introduce Estonians, Latvians and Lithuanians on the global level. It facilitated to make more understandable the complex issue of the Baltic nations during the Cold War and find support for their national causes. This function has its particular importance in the context of statehood continuity of three Baltic states and it also has contributed for the construction of external identity of the Baltic states. The restoration of independence in 1991 changed significantly the research agenda of the Baltic Studies and it involved considerably transitional studies in its research agenda. It enabled also bring together Baltic scholars from abroad and from the Baltic states more actively that enabled to extend the research perspectives. In addition, the socio-political realities started to challenge the concept of Baltic states that focused narrowly only on Estonia, Latvia and Lithuania. Societies of three nations faced new opportunities and it also brought about reconstruction of identities. By middle of the 1990s political elites of Estonia and Lithuania were challenging externally imposed Baltic identity and they started to look for broader and more suitable frameworks for self-identification that is not reminding past trauma as the Baltic states concept does by referring to the Soviet occupation and repressions.

The new broader framework that is more suitable to current international developments is the Baltic Studies as the umbrella for the research about the Baltic Sea Region. This initiative has been launched in the region by the scholars from the Eastern and Western rim of the Baltic Sea to overcome the Cold War iron curtain and erase the borders in the region that has been divided by the ideological confrontation after the World War 2. Several universities in the region have launched semester or MA programmes related to the Baltic Studies in the new framework that focuses on the entire region of the Sea. The new concept of Baltic Studies stands on the belief that water is what links us not separates the nations. Therefore BalticStudyNet, the network of eight Baltic Sea universities has defined its aim to join forces to make the region unified and to enhance research and studies of the societies, cultures, economies and politics of the nations who live around the Baltic Sea. The renewed concept of Baltic Studies is also more suitable for current developments in the European Union where recently adopted Baltic Sea Strategy aims to increase integration and cooperation in the Northern part of Europe and thereby to increase its dynamic development as well as competitivity in the global context. Therefore area studies should also support socio-political developments to provide needed expertise for enhancement of the region.

The redefinition of the concept of Baltic Studies is not an easy task. The internalised understanding of the Baltic region as three Baltic states is not easy to change and extend it on the broader regional level. Currently in the region there is collected sufficient scholarly as well as political support to redefine the area and initiate research on the Baltic Sea Region. In longer run it also facilitates to internalise the regional identity among the population. However, the internal acceptance of the changing the frameworks is not sufficient but there should be also external recognition of the regional identity. It is not so easy to overcome the actively internalised old borders and to replace it with new concepts because it seems for people as an artificial construction in comparison to internalised perceptions. Nevertheless, from the general point of view both regional definitions are artificial and the only difference is the level of internalisation of the concepts. Therefore the Baltic Studies should move more actively towards broader regional framework to include entire Baltic Sea Region and thereby to facilitate internalisation of new regional construction.

Academic world has crucial role in developing new understandings and social beliefs. Therefore it should be acknowledged that research agendas in area studies have also important role in constructing regions. The Association for the Advancement of Baltic Studies and the Society for the Advancements of Scandinavian Studies will hold the first joint conference this April in Seattle to bring together Baltic Studies and Scandinavian Studies that can be considered as the first step for bringing together two area studies in Americas to help to form an umbrella for the Baltic Sea Region studies. It is an important development that sets also new agenda for internalising of new understanding of Baltic Studies.

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Finnish investments in Estonia

By Pellervo Erkkilä

Finland and Sweden have been the biggest investors in Estonia during the last twenty years. While Sweden has mainly invested in banking sector – two largest Estonian Banks, Hansapank and Uhispank are in Swedish ownership – have Finns earlier mainly invested in manufacturing, food processing, retail and hotel sectors, but during last ten years has Finnish financing sector – Sampo Bank and IF Insurance sector also been active in the market. Totally 4200 Finnish companies have investments in Estonia Tallinn with its neighboring areas have been the most popular locations due to the infrastructure conditions and transport connections between Estonia and Finland. Outside Tallinn one of the biggest investments has been Rakvere Meat Processing Plant by HKScan producing large scale of meat products mainly for domestic market. The company is also active in other Baltic countries having deliveries to the whole area. Finnish retail chains S-Group and Kesko are expanding their activities in Estonia having supermarkets in the biggest Estonian cities. In hotel business the first Finnish company was SRV Group who acquired the shares of hotel Viru in Tallinn. The company enlarged the hotel by building a modern shopping mall in connection to it. Also other hotelkeeping companies have entered to the Estonian market in Tallinn region and in Pärnu. Finnish manufacturing companies started mainly by purchasing or establishing small and medium sized mechanical engineering companies to supplement their own production in Finland. The most successful Finnish manufacturing company in Estonia has for years been Elcoteq Ltd, manufacturing mobile phones, components and devices for Nokia and Ericson and Elcoteq AS has been for many years the biggest Estonian export company. In energy sector Fortum Corporation has been in the market for years and is at the moment investing USD 125 mio in a new combined heat and power plant in Pärnu. Neste Oil has a chain for fuel distribution and service stations covering the whole country. Last time have more small and medium size Finnish manufacturing companies started to invest in Estonia. They find today modern facilities and skilled labor for competitive prices. For example Hyrles Oy is investing in new production line for special metal sheets and electronic components. Eastern Estonia have been recently attracted Finnish investments. Material handling equipment manufacturer Cargotec Ltd has invested EEK 300 mio in new factory in Narva on the Russian border. The subsidiary exports all of its output. Also S-Group and Vicus Capital are investing in Narva: S-Group for a Prisma supermarket and Vicus for a shopping mall.

Is today the right moment to invest in Estonia? There are several factors recommending investments: State economy has successfully been stabilized: Payment balance has turned to positive and State debt is lowest in EU. Inflation rate is under 3 %. Country has 2009 fulfilled Maastrich requirements for joining EURO area in 2011.

Overheated real estate prices have calmed down. Modern manufacturing facilities available for rent starting at 2 EUR/m2/month. Skilled labor available starting at EUR 700 / month. Example of costs & salary calculations for employer and employee: Gross salary: 10 000 EEK /month

Employer:

- social tax of 33% = 3300 EEK is to be paid by employer
- unemployment insurance premium of 1,4 % is to be paid by employer
- total costs to the employer are 13440 EEK/month

Employee:

- Unemployment insurance premium of 2,8% = 280 EEK is withheld
- Funded pension payment of 2,0 % = 200 EEK is withheld
- Income tax of 1768 EEK is withheld, calculated as 21% from 7270 (10 000 – 280 – 200 – 2250) = 1527 EEK. 2250 EEK is 1/12 of the annual basic exemption of 27 000 EEK.
- Net salary to the employee is 8193 EEK / month, calculated as 10 000 – 280 – 1527 = 8193.

So, summarizing: Estonia is today an interesting market for foreign investments due to its open society, reasonable cost level and modern IT – network and banking systems.

Pellervo Erkkilä

Chairman

Finnish- Estonian Trade Association

Finland

The Baltic Sea - our common *mare politicum*

By Kimmo Elo

Since the end of the Cold war and especially during the last decade the Baltic sea region has also become a political space competing with other regions in Europe. The previous dividing line which ran between the socialist and capitalist blocks in the middle of the Baltic sea has vanished. It has been replaced with a pan-European framework including both the northern and southern rim states of the Baltic sea. The northern balance, which firmly anchored the Nordic states between the superpowers, has been replaced by a Baltic balance, causing a need for a re-thinking of the re-gained political sovereignty.

Baltic balance refers to the fact that the contemporary Baltic sea region is a geopolitical space squeezed between Russia and Europe. The western boundary of this region is made up of one of the most important member states of the European Union (EU): Germany. In the east, the region borders on Russia, the other strong player in the region and Europe. Thus, the Baltic sea region is the geopolitical corridor linking together the core of the EU –Germany– and the EU's most important neighbor, Russia.

The replacement of the Northern balance by Baltic balance and the emergence of the idea of a common Baltic space has not occurred without tensions. As the cold war ended, the former status of the Baltic sea region as an important region in terms of security politics was canceled almost overnight. In the recent years two separate and partly overlapping, partly parallel developments have dominated the area. On the one hand, the Baltic states have had a clear agenda aiming at memberships in the most central political, economic and security organizations of the West. On the other hand, the Nordic states fought their impending marginalization on the emerging mental map of the new Europe. They also fought against the impending diminished predictability in the Baltic Sea region by seeking closeness to the most important European players, especially to Germany.

However, although the chosen paths differed, they have all led to the same political goal – the emergence of the EU as *the* political and economical focal point of the region. The EU has become the "natural forum" of the Baltic sea region, thus forcing the rim states toward closer cooperation. Although this has opened up entirely new possibilities, developments in the recent years have also made clear, that the "imagined community" built around the Baltic sea region is not as homogeneous as one might expect.

This heterogeneity is visible both in economic and political terms. Economically, there exists a wide gap between the Northern and Western rim states and the Southern and Eastern rim states. In concrete terms, the Baltic sea region is – as the latest economic crisis has shown – equipped to overcome economical turbulence in a different way. What is common for all countries in the region is their strong dependence on Germany as the most important economic partner. Germany is by far the strongest economic power in the region. Most importantly, the strongest linkage here is between Russia and Germany.

The *Nord Stream* gas pipeline project connecting Russia and Germany undoubtedly makes the Baltic sea region important within the EU in terms of energy politics. But it also shows, that the energy question has a strong political aspect letting the past, present and future to clash. Additionally, the energy debate reveals how closely interrelated economical and political power nowadays are. The attempts to de-politicize the pipeline project have *strengthened* the political tensions not only within the Baltic sea region, but also within the EU, as the southern Baltic sea rim states see themselves as disconnected from the decisions concerning energy politics.

All these developments of the recent years stress and underline the need for an understanding of the Baltic sea region as our common *mare politicum*, our common political sea. The Baltic sea should be politicized, since without a strong political commitment from all rim states inside or outside the EU the whole region remains a region that speaks with many voices. The fact is that the Baltic sea region is, when compared with other "supraregional dimensions" of the EU (e.g. the Mediterranean/Southern dimension, the Eastern dimension or the Transatlantic dimension), rather small and heterogeneous, even fragile politically.

The rim states between Germany and Russia have to understand, that if they want to turn the Baltic sea region to a powerful player in the EU, they need to cooperate with both Germany and Russia. On the one hand, support from Germany is mandatory for successfully putting Baltic sea region issues on the EU agenda. On the other hand, without a functioning cooperation with Russia all attempts to establish common Baltic sea politics remain incomplete. The core problem is that both Germany and Russia have other competing interests outside the Baltic sea region. This makes the situation even more asymmetric: To become politically and economically strong, the Baltic sea region requires support from Germany and Russia, but Germany and Russia can be strong also without the Baltic sea region. Therefore the most important task for the future is to convince both Germany and Russia that they would benefit from cooperation within the Baltic sea region.

In the recent years the recent past has dominated politics in the Baltic sea region both causing new and strengthening old tensions in the region. We should not forget that there have been times in the past when the Baltic sea region has been seen as a common *mare politicum* between Europe and Russia as well as a common space for common ideas. The whole region has benefited from that kind of thinking. The most certain way of preventing positive things from happening is letting the political will to get lost in a cacophony of rim states speaking with many voices.

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National innovative system in Belarus - glance at the regions

By Nina I. Bohdan

The concept of innovative systems is based on multiple i.e. supranational, national and regional levels. In 2006 Belarusian government approved the Concept of National Innovative System and developed the State Program of its realization for 2006-2010.

The Belarus national innovative system is shaped in the context of creating the knowledge economy and the world economic globalization that requires to reveal new factors of economic growth and to recognize the role of regions in the current development trends.

The analysis proves that Belarus has created the basic human capital for the knowledge economy. The country has enough resources to solve the problems of developing a modern economy. The number of Belarusians with higher education in the age group between 24 and 65 is twice as high as in EU (53% against 23.5%), with a good part of them engaged in scientific and technical activities. At the same time, we observe a certain stagnation of innovative processes in the country:

- the growth of innovative activity in industry in 2003-2008 was slow (13.6% in 2003 to 17.6% in 2008, while in the developed countries every 2nd enterprise is engaged in innovative activities);
- the share of hi-tech export in the industrial export does not exceed 3-4% (20% in the developed countries);
- small innovative businesses do not develop. Their share in the scientific and technical sphere reduced twice during the last 5 years.

In spite of scientific advance and numerous qualified personnel, there is no significant progress in the innovative development of the country. The main reason of the weak adaptation of the Belarus enterprises for innovative calls of the new century stays at the institutional level. The complexities of the transformation period and historical conditions did not promote the active role for the enterprises in financing of research and development. Institutional building of the country's innovative system has political aims and priorities. In Belarus the State innovation development program on 2006-2010 was accepted and is realization. The regional level of the innovative system has to play an important role in this program

A number of factors contribute to increasing the importance of innovative systems at the regional level. First, due to globalization, regions are getting more involved in the international exchange beyond national borders; they become independent policy makers and legislators at the regional level. Second, it is the regional environment that determines in many ways the competitiveness of the national business at the national level. Innovations result from the environment rather than from individual efforts. Third, there has occurred a definite change of innovative development at the local level. The concept of "new regionalism" has come to replace "fordism" with its mass production and mass consumption. The postindustrial economy is highly dynamic and individualized in manufacturing and consumption, which makes a much too greater emphasis on the regional factor.

The analysis shows a significant asymmetry in regional scientific and technical potential in Belarus .The basic part of the scientific and technical potential is concentrated in the capital city; moreover, no significant shift towards its regional distribution has been observed recently. We observe essential asymmetries in the density of expenses on R&D and the number of researchers in regions: 80% of these are concentrated in the centre. Yet, the "gaps" in the density of scientific workers over the country's territory can be partially explained by objective factors such as the concentration of the academic and other scientific organizations in the capital city. Another reason is the so-called inclusion factor - the capital city and region take advantages of close location to the center, better information access; they get more research grants.

However, we should note that the asymmetry of innovative activity in the regions isn't as significant as that of scientific and technical potential. Regions with relatively weak scientific potential overcome or do not lag much behind the regions that have a significant human, financial and technical potential. There are several reasons for this:

- The innovative process has changed in the modern economy. It used to proceed from so-called "linear model" when innovations were based on scientific research; now it proceeds from so-called "integrated model". In such conditions the critical factor comes to be the institutional environment, rules of the game and the nature of interrelations between participants of the innovative process (scientists, businessmen, politicians, financiers and officials).
- The other reason of a rather weak impact of scientific and technical potential on innovative processes is in the fact that many tasks for scientific and technical programs and innovative projects get initiated by scientists, not by producers; they are seldom preceded or accompanied by marketing research. The scientific and technical product often finds no demand because of low susceptibility to innovations in the real sector of economy.
- The third reason is the lack of experience in statistical reflection of innovative processes in the country which explains disproportions in scientific and technical potential and results of innovative activities in the regions. The innovations statistics requires highly qualified performers. Unfortunately, there still remain many unsolved problems in statistical survey of innovative activities.
- Finally, there exist certain differences in the institutional environment. The western regions of Belarus, with their smaller share in industrial production and accordingly smaller depth and duration of transformations after the Soviet Union disintegrated, have better preserved their «historical memory» of doing business and common ways of regulating market processes as they had become a part of the USSR later than the rest of Belarus. Besides, the western regions (Brest and Grodno) are influenced by the 'demonstration effect' due to their location on the border with the European Union. These regions have a greater share of employed at private and foreign enterprises.

Stability of the national innovative system depends on the degree of integration of its supranational levels in the development strategy and their response to innovative challenges in science and technologies. Meanwhile, the present state of the Belarusian national innovative system is characterized by its fragmentation and, therefore, instability. Innovative activities of regional enterprises and companies depend both on their scientific and technical potential and institutional potential that is much more difficult to estimate. The estimation of the institutional environment in the region is complicated because of the necessity to measure "non-technical" barriers to innovative activities. The problem is that institutions as a form of public life are interrelated in many different ways that are regulated by the laws of their internal dynamics. Parameters of the institutional potential have to characterize the ability of interaction between the research sector and industry and define the presence of business networks in the region as a set of stable and relatively closed communications between economic agents that are interested in expanding and developing innovative activities. The regional authorities are required to provide mutual cooperation between enterprises, scientific institutions and universities to promote innovative activity in their regions.

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Interactions between a post-modern (the EU) and modern (Russia) players of international relations - setbacks for mutual integration

By Laurynas Kasciunas

Robert Cooper defines the EU a post-modern actor of the international relations, whereas, Russia is considered a modern actor of international relations. According to R.Cooper, the processes of European integration laid the foundations of voluntary opening of previously strictly country-sovereignty related issues to external interference. The EU as a post-modern system thus does not depend any more on zero-sum solutions and does not accentuate sovereignty and the distinction between domestic and external affairs. To put it in other words, the EU is a system of mutual interference in the member states' domestic affairs.

Meanwhile, the „modern" Russia follows a strictly „sovereignist" approach towards security and foreign policy. The political regime of the country is based on political vertical, whereas the economy (especially concerning the strategic sectors) is highly centralised and interlocked with the political regime. In contemporary Russia property rights of large capital have become a matter of negotiation and separate agreements between the business and the state. This trend is particularly vivid in the strategic sectors of economy. The state provides guarantees on property rights and safeguards the balance of influence between competing interest groupings and the business provide their loyalty for the state. Such system could be considered a „new social contract" among the Russian state and the people. A wide spreading variety of models of business-politics junction could be identified: some private business structures have a protégé status being patronized by a specific influential state agency and thus enjoying a special protectionist position; another model implies that large enterprise can be simply owned by high rank bureaucrats and politicians (or their groupings), although such ownership is often not formally validated.

According to modernization scholar Anton Oleinik, in countries where modernization was lagging behind, the state usually performed a special role in the "catch-up" process. In Russia modernization has been governed largely by the state. Such role of the state was a direct outcome of the weak status of the private sector. In successful cases of modernization (Great Britain or the US) the strength of the private property allowed for the separation of economics from politics, it means, that these domains became autonomous vis-à-vis each other. Whereas in Russia there were always channels through which the state could penetrate into the economic sphere, something that created conditions for the gradual interlocking of politics and economics. This is how the phenomenon of "property power" was born in Russia, i.e. when the political regime acquired the power to selectively ensure the right to private property in exchange for political loyalty.

The interlocking of politics and economics in Russia reduces the likelihood of the emergence of alternative centers of power. The fact that the state has been at the centre of the modernization process in Russia, means that bureaucratic "machinery" has the power monopoly within the state. Therefore the internal architecture of groups, who controls this "machinery" and the principles of functioning of this groups need to be at the centre of attention in efforts to assess the scenarios of future development of Russia's political-economic system. It is also important to understand that any attempts (external or internal) at systemic reform are going to be met with severe resistance from the dominant power groups.

In developing countries, such as Russia, modernization processes are basically imported from the outside and implemented by the governing elite, but always in a selective way. In other words, developing countries tend to choose models of modernization that do not conflict with the established rules-of-the-game and the institutional/power setting.

Another important feature of Russian „modernity" is the emphasis on sovereignty that results in strict differentiation between domestic and external policies. Russia holds a particularly stiff position against any type of external interference and adaptation of external or international rules in its domestic or foreign policies, and holds a particular approach on functioning of international and supranational regimes. To put it in other words, the „golden rule" of Russian conduct in international affairs is „no interference in Russian domestic affairs".

The principle of sovereignty supremacy obviously spills over into Russian external affairs as well. For example in relation to various transnational or supranational organizations Russia usually prefers talking to the key states separately, than the organization as a whole, to put it in other words, Russia acts to bring in a certain degree of re-nationalization of foreign policy into international regimes. Concerning international security regimes, Russia remains highly selective and declarative in its participation. Again the basic principle of Russia's participation in any international regime calls for involvement in decision-making of organization as deeply as possible, simultaneously avoiding any requirements that could interfere in Russian domestic or foreign policy.

Some academicians claim that Russia has developed a very unique and qualitatively new mode of state-market relations that requires totally new tool of analysis and does not fit into any existing schemes. Nevertheless, the current Russian political and economic regime is now commonly characterized as a political vertical, state corporation or a system of bureaucratic capitalism. The key features attributed to such a system are the following: a hermetic and external influence-resistant political system; fusion of the political and economic elites and bureaucratic-corporate control over the strategic branches of economy, the latter being banned from direct foreign investment. For instance, Russian legal regulations restrain foreign investment in 42 strategic branches of economy, among them – arm production, aircraft and space technologies, digital technologies and processing of natural resources.

The whole of the above described characteristics determines that any attempts by external actors (be it states or international organizations) to bind Russia to a specific set of rules (e.g. European initiatives to apply the European method in Russia), as well as, initiatives of increasing Russian economic dependence via direct foreign investment in the strategic sectors are usually doomed to failure.

The existing political vertical and specific model of politics and economy fusion determine the reluctancy of Russian political and economic system to adopt external pressures. Nevertheless, such model of state and economy governance is especially sensitive to various domestic pressures: redistribution of spheres of influence, competition among the

elite groupings, failures to achieve inner consensus, etc. This means that Russian political stability (and potential change) depends on the settled balance among agencies of power and ability to manage the competition among elite groupings via the existent "rules of the game". To be more exact, the state stability fully depends upon stability of the "rules of the game" within political and economical elite.

The equilibrium within the political and economic elites is maintained by a specific system of "checks and balances", i. e. the equal division of economic benefits and political privileges among separate elite groupings. Such a system can only be maintained in a centralized state economy and by state control over the most important branches of economy (imposing such control directly or through ownership of loyal oligarchs). Such preconditions of state stability stiffly anchor the state's economic structure, because any structural reform in the strategic sectors (diversification, liberalization or restructuring) implies not only a radical change in the state's economic foundations, but also a drastic review of the consolidated "rules of the game" for the political elites. A change of that proportion could trigger inner crisis among the elites.

The decisions that have been made by the Russian government in the face of the international economic and financial crisis confirm the assumptions on complexity of any reform in Russia. At the end of 2008 a list of about 300 large strategic companies has been compiled, to indicate clearly which companies shall be eligible to receive state support. One out of several criteria of enlisting companies in such a register was the systemic character of a company. Ten largest energy corporations were enlisted. It is expected that existence of such a list shall trigger further merges and growth of companies, emergence of new monopolies dependent on state donations. Such a trend is likely to emerge as the already enlisted companies receive state support and become capable of absorbing smaller and financially weaker enterprises that are not eligible for state support.

So, the fusion of economic and political power plays is a particularly important obstacle to reforms not only in the political system of Russia, but also in the economy of this country. And only changes in the interactions between economic and political power can impose transformation of Russia.

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New business competence through executive MBA programmes

By Kirsi Kostia

Challenging times call for new strategies

In the current challenging economic situation, several Baltic Sea Region organizations are facing need for strong renewal in their businesses. In many companies the executive management have to deal with cost cutting programmes that characterize everyday life and at the same time to be prepared for the future development. If the crisis has hit hard, survival is the major effort. But as many studies have pointed out, there is a risk that future competences of the company have been eliminated at the same time with cut costs. Top management is too busy taking care of the day-to-day problems to be able to think about the future strategies.

During challenging times it is very important to develop the company for future business. Top managers need new ways to think about their business and challenge their current strategy. They need "mind fertilizers" and good networks. Good way to boost top management learning is executive education programmes and especially eMBA programmes (executive Master of Business Administration). TSE exe at Turku School of Economics and several other business schools through the Baltic Sea Region offer high level programmes that combine on one hand practical business needs and on the other hand the latest research knowledge in Business Administration and the Baltic Region business.

Executives learn through networking

The structure of our highly regarded eMBA programme In Turku School of Economics is based on three focus areas: business competence, strategic thinking and leadership. We have used these elements to construct a programme that incorporates the above mentioned balanced mix of academic study and utilizing knowledge from current research, practical know-how, business cases and company visits, development projects that benefit the company, and learning from each other. The last element, learning from each other, is a crucial element of the executive programmes. Based on the feedback from our programme participants, I suggest that collaborative learning is approximately half of the learning. The other half comes from the traditionally emphasized programme content. Business Schools may have content emphasis based on research focus areas of the business school, but the basic elements of business administration (strategy, accounting, marketing, management etc.) are there, too.

As our slogan in Turku School of Economics eMBA programme says, "a journey far begins from near". The programme has a strong future orientation, with the aim of learning to look far and to be prepared for new challenges. At the same time, it is also necessary to know yourself and your own leadership qualities. We believe in development that begins from within oneself. And that is one reason why during critical times it is important that top managers emphasize development and develop themselves. Executive programmes are delivered so that it is possible to study while working full time. Good programmes are planned so that live business cases and decision situations can be used in building solutions through learning.

Executive education provides competitive advantage

Executive programmes offered by highly valued business schools are ways to engage key executives to a company. Usually Executive MBA programmes are intended for middle and top managers as well as future potentials. Usually these programmes take 1,5-3 years to complete while studying part-time. The eMBA title is highly valued in the business world and stands as a proof of the person's competence. At the same time, it is a sign that the employer company is willing to invest in developing their human resources. Life-long learning is a way of thinking in business, too.

To sum up the advantages of the eMBA programme, it will deepen and expand your business competence with the latest applied academic knowledge. You will acquire a broader understanding of business world, and knowledge, skills and insights that enable you to advance to new and more challenging positions. You will receive tools and confidence for discussions and decision-making. And what is important in the longer run, the executive programmes will improve your skills in strategic thinking, managing the global business environment and capturing the big picture. You will acquire competence and tools for strategy processes, from planning to implementation. The long lasting programmes (contrasting to short, topic specific programmes) will develop your leadership and learn you to know yourself better as a leader. You will be able to utilise your strengths in leading people and managing change. You will learn to appreciate the meaning and value of constant learning and development. And as was mentioned above, the collaborative learning perspective is very important; the programmes will inevitably widen your network and you will learn to know best practices in other business areas.

For the employer organisation to get the best use of the investment, it is important that the eMBA studies are directly connected to other development projects in the organization, for example through assignments, theses, strategy reports, etc. Utilizing new information and knowledge brings about innovative solutions that can be put in practice without delay. An eMBA student brings fresh business competence and new tools for strategic management to the organization. From the talent management perspective, the eMBA can be seen as part of the HR tool box and career planning in the organization. And finally, the eMBA programme offers an opportunity for benchmarking and networking. It is also possible that the programme provider can be a real strategic partner for discussing the organisation's development in general or for research cooperation, too.

Learning through reflection

The eMBA programme is a demanding academic programme, which requires commitment from both the participants and their employers. For the students, this means that in addition to participating in the programme sessions, they will invest in active learning, self-improvement and transferring learning to their own work and workplace. Support from the employer ensures maximal practical benefit from the programme. The programme provider in its part commits to offering the latest academic knowledge and expertise applied to practice, diverse learning methods, expert speakers and competent trainers. The greatest benefit for the company will be gained through ensuring that the new knowledge is utilised also in practice.

In adult education, reflection is important and actually a crucial part of learning; new knowledge and skills are built upon previously gained learning and experiences in practical business. The students should actively develop their own skills and knowledge by interpreting and adapting what they see and hear.

Learning is not just an individual process, but also a collective process. According to the collaborative concept of learning, knowledge is constructed in interaction through dialogue. Emphasis on collective learning means in practice the importance of interaction among the participants. That can be encouraged in various ways during the study sessions.

For us in Turku School of Economics, developing this programme has been a long-term endeavour, and in the spring 2009 we were awarded international EPAS accreditation by the EFMD (European Foundation for Management Development). Strong ties with the business world, comprehensive and balanced contents of the programme, high quality network of trainers and the capable and committed staff at TSE exe, among others, were cited as our programme's strengths.

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The European Commission's Europe 2020 vision for research and innovation

By Máire Geoghegan-Quinn

Research and innovation are at the core of the EU's Europe 2020 strategy for a sustainable social market economy. We need a more dynamic Europe, where innovative firms want to do business, and where talented people want to live and work.

We must tackle the bottlenecks that prevent bright ideas from reaching the market. For example, the MP3 audio standard was developed in Europe but exploited commercially mostly by American and Japanese companies

This is not purely an economic issue. Research and innovation are also a key driver of social advances, for example in medicine, education and public administration.

So I have four main priorities for my mandate as Commissioner.

First, re-focus research and innovation policies on the "grand challenges" facing our society: climate change, energy security, food security, health and an ageing population.

Second, significantly increase overall public and private sector investment in research and development, towards the Europe 2020 target of 3% of GDP. The Commission is currently working to help Member States to set their own targets so that Europe as a whole can reach the 3%.

My third priority is to complete a single, unified European Research Area. For example, we need to remove the pension and social security obstacles which prevent researchers from moving freely between countries.

At a time when public finances are under such pressure, taxpayers rightly demand the maximum from every euro spent on research just as in other policy areas. Value for money on a European scale requires avoiding duplication of effort, notably by expanding the use of Joint Programming Initiatives where Member States pool resources. The first of these to get fully underway a couple of months ago is on Alzheimer's and neurodegenerative diseases.

My fourth priority is to simplify financial and administrative procedures for EU research funding, without compromising on scrutiny of how taxpayers' money is being spent.

The EU's Research Framework Programmes – the current one is the seventh, worth over € 50 billion over seven years - are a tried and tested way of getting results. But participants have to fill in too many forms, too often. This can discourage participation, especially by SMEs.

I set out at the end of April a series of improvements. Some can be put into practice rapidly as part of existing programmes. Some can only be implemented once the European Parliament and the Member States have approved the Commission's proposals to change the overall financial rules for EU funding programmes and how we ensure compliance with them.

None of these objectives can be achieved if we do not make the best use of Europe's biggest asset – its people and their talents. In particular, we need more women in science.

We also need to look beyond Europe, learn from others, cooperate with them and offer our expertise and our technological capacity to developing countries. I recently went to the US to meet the key research and innovation players in the Obama administration, which has set the same 3% target for R&D investment as we have set in the EU.

We increasingly cooperate with China and will have a strong presence at the Science and Technology Week at the Shanghai Expo in June. We run several partnership programmes with Africa as well, including on health issues.

I am currently working, with a Group of Commissioners that I chair, on preparing the European Research and Innovation Strategy that will be our blueprint for delivering results on the four priorities I set out above.

Developing Europe's R&D capacity will be a core feature of the Strategy. It will include measures for developing world-class research infrastructures: everything from polar research vessels and bio-banks to particle accelerators and very large telescopes.

But the Strategy will go well beyond research spending. It will give a vigorous push to reaching an agreement on an EU Patent. It will include measures to increase the public procurement of innovation.

Our Strategy will put a great deal of emphasis on finance. We need to ensure that innovative companies, especially high-growth SMEs, get easier access to funding. We will work harder on improving the cross-border provision of venture capital. We are working with the European Investment Bank to increase the loan finance available to support research and innovation.

Every EU Member State is behind what we are trying to do, because the crisis has changed the game. It has put research and innovation at the top of the political agenda, as the only way to deliver new sources of growth and sustainable jobs to replace those which have been lost.

Of course, this is particularly important in countries, including several in the Baltic region, where the crisis has hit jobs particularly hard. What is more, there are strong historical examples of best practice in the region, for example Finland's continued investment in knowledge during an acute crisis in the 1990s.

Indeed, many of the region's economies have a very strong research and innovation record. Finland and Sweden already exceed the overall EU target figure of 3% of GDP invested in research and Denmark is only marginally below it. It will now be important in their own interests and those of the rest of Europe to set and achieve even more ambitious targets under the Europe 2020 Strategy.

The new EU Member States in the Baltic region all have a rate of improvement in innovation performance above the EU average, even if inevitably there remains plenty of catching up to do.

The EU has recently agreed a regional cooperation initiative, BONUS, which brings together European and national research funding and aims to enhance the Baltic Sea region's research capacity, in order to promote more sustainable development

Cross-border cooperation on research and innovation in the Baltic is not limited to EU Member States alone. I am pleased to note the recent adoption of the Council of the Baltic Sea States' (CBSS) Joint Vision 2020, which lays a strong emphasis on issues linked to science and innovation. Of course, the European Commission is a key player in the CBSS and President Barroso addressed the summit in Vilnius where the Joint Vision was adopted.

These are a few examples of why the Baltic region can be seen as a microcosm of the challenges facing us and also of some of the right responses.

Sustainable recovery from the crisis depends on developing a culture of innovation in Europe. This will not happen overnight. But there is genuine political will at all levels and a huge scientific and entrepreneurial talent pool to draw on. I believe we can deliver results.

Máire Geoghegan-Quinn

Commissioner for Research, Innovation and Science

European Commission

R&D in Estonia – capacity building in progress

By Tõnis Lukas

With a population of 1,4 million, Estonia needs to balance between research and development (R&D) specialisation and educational coverage. Having its own language-based culture and higher education system creates a situation where one must balance between the national interests of maintaining coverage in all fields and creating an open internationally competitive R&D system and environment which is attractive for young talents, top researchers and entrepreneurs from all over the world. In a small open society we must have to consider our actions carefully and acknowledge that we cannot achieve the best results in all fields. In developing R&D capacities, countries equip themselves with strategies and policies to promote capacity building, ranging from prioritisation of specific target areas, adequate funding policies, human resource development, infrastructure investments and internationalization. In order to catch-up with the developed countries, Estonia also has to design and implement its R&D capacity building principles and polices.

Priorities

The Estonian Research and Development and Innovation Strategy „Knowledge-based Estonia" 2007-2013 determines priority fields which need special attention from the state such as biotechnology, ICT, material technology, energy technology, environmental protection and welfare services. Through the launch of national programmes, human as well as material resources have to be focused on these technologies and key areas, where success can be achieved in world level frontier research and which are important in establishing sustainable economic growth. For achieving this, priority areas and technologies of national R&D programmes have been given a preferred status also in other horizontal support measures.

R&D Funding

Estonia is the leading country in the European Union concerning the growth of R&D investments as the growth of total R&D expenditure (GERD) of Estonia has been in 2000-2008 on average 24 % per year. In 2008 the R&D intensity was 1,29% of GDP. The growth in private sector has been faster than in public sector - the share of BERD in GERD in 2000-2008 has grown from 22,5% to 43,2% as in 2000-2008 the total average growth of BERD was 35% per year. The strategy "Knowledge-based Estonia" includes an objective of R&D expenditure growth in Estonia, which is 1.9% in 2010 and 3% of GDP in 2014[1], while private sector R&D intensity in these years should be respectively 0.9% and 1.6%. Intensive growth of R&D investments clearly demonstrates that conditions for capacity building activities are good. But still in relation to general economic situation since 2008, the investment environment has deteriorated as well, which is why it is increasingly important for the state to support and facilitate innovation investments of enterprises. Added to this there are some risks of fast growth. For example how to manage and absorb effectively the growth and what is a right balance between different policy elements and financial instruments. On a long run the research system needs stability and sustainability, but during fast change no stability exists.

R&D Infrastructure development

Since 2006 Estonia has had more systematic approach towards R&D infrastructure development mainly through implementing EU Structural Funds. In order to set clear investment principles, the base of Estonia's R&D infrastructure policy was approved by the Government of the Republic in 2008. The main objectives of infrastructure policy are covering the investment shortage of 20 years; developing priorities of specific fields and ensuring efficient use of new or up-dated infrastructure. The modernising of general infrastructure of R&D institutions and universities was launched in 2008. Big R&D infrastructure investments for constructing and renovating buildings were funded and also modernising of research apparatus and equipment is on the agenda. Long-term infrastructure investments cannot be organised through one strategy period (i.e. 2007-2013). Due to this Estonia has started the process of roadmapping research infrastructures with a time horizon of 10–20 years. The Estonian roadmap is modelled after the example of Finland's research infrastructure roadmap. The Estonian roadmap lists 20 objects and 5 of them are listed also in ESFRI roadmap. First objects will be included in the investment plan to be approved by the government in 2010.

Development of human resources

In terms of capacity building in human resources, the key question for Estonia is how to move from brain drain to brain gain? Since 2008 Estonia has had a major growth in human factor support with the support of European Social Fund. Doctoral studies, mobility and internationalisation for Estonian Master and PhD students, young researchers and faculty members are funded through the programme "DoRa". In addition, conditions have been laid down for engaging PhD students from other countries to study in Estonia. Top researcher grants for 3-5 years are financed by Researchers Mobility Programme "Mobilitas". In order to increase the efficiency of doctoral studies in Estonia and to improve the quality of tutoring doctoral candidates 13 new doctoral schools were elected in 2009. Estonia has to make its efforts to reduce brain drain and recruit talented individuals at the same time.

Supporting excellence and internationalisation

In the period of 2001-2007, there were 10 centres of excellence and since 2008 there are 7 centres of excellence with the goal to support internationally high level research and development of Estonian R&D institutions and ensure its sustainability, and to create preconditions for strengthening cooperation and competitiveness capacity of Estonian research in the European Research Area. In terms of more intensive international co-operation it is important to develop existing links with traditional partners. Estonian researchers have traditionally very close links with Nordic region and Central-European countries. For example in FP6, the main partners for Estonian researchers were Germany, United Kingdom and France (Archimedes Foundation 2007). As Prof Jüri Allik has brought out, one potential factor behind the relative success of Estonian science could be partnership with scientifically more advanced countries, particularly with Sweden, Finland, and Germany. A considerable proportion of

[1] Due to economic crisis, the revised target of 3% will be reached by 2016.

publications is prepared and published in co-authorship with colleagues from countries that are ahead of Estonia both in terms of the intensity and impact of research. Somewhat surprisingly Estonian science has the highest impact (7.87) compared to all other former Communist bloc countries (Allik 2008). Dedicated actions must be taken to further reinforce the excellence and creativity while taking advantage of the knowledge and knowhow existing in the leading research organisations of Europe.

Conclusion

The progress of Estonian capacity building activities is good, but it is too early to analyse the impact of all these policies. The best way to achieve national goals is to be an internationally competitive, active and trustworthy partner. Implementing our capacity building strategy creates trust and confidence which is needed for stabile research environment.

Tõnis Lukas

Minister of Education and Research

Estonia

Links:

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The Baltic Sea – at the cross roads of politics and religion

By Mitro Repo

The Orthodox Church is known for its conservativeness and stability, even if the physical and societal world surrounding us is changing. The dogmas, the theological basis of the Church, were formed millennia ago, and have not really changed ever since. Even new emerging challenges have not been able to rock its foundation. The Church has also remained firm in its conservativeness as regard to "hot issues" discussed in other churches and in the society at large, such as gender equality, homosexuality and priests' right for political activity.

However, in spite of its obvious resistance to change, the Orthodox Church is not ignoring environmental issues and problems ever more present in our planet. The human responsibility in polluting and overexploiting water resources has become a matter of concern also within the Church during the last decencies. In this respect the Orthodox Church has taken proactive steps - I am happy and proud that the highest authority of the Orthodox Church, Patriarch Bartholomeus established the Religious and Scientific Committee[1] in 1994. To date, the Committee has hosted interdisciplinary and inter-religious symposia[2] to reflect the fate of the rivers and seas, and to force religious debate on the natural environment.

In June 2003, the 5th Symposium, organised under the patronage of the ecumenical Patriarch and HE Romano Prodi, then President of the European Commission, was devoted to the Baltic Sea under the title *The Baltic Sea – A Common Heritage, A Shared Responsibility*. The Symposium gathered together theologians, scientists, policy makers and environmentalists to promote dialogue between religion and science. In the conclusions of the Symposium it was stated that there is an important opportunity to expand the involvement of Church in the long-term efforts to protect and conserve the Baltic Sea. The social and environmental crisis shows that so far the Church has not been very successful in this task. Among the states around the Baltic, sharp socio-economic contrasts and unjustifiable inequality exist. The Symposium also paid attention that the ecological problem is not simply economic and technological; it is also spiritual and cultural. People need to change their attitudes towards the nature and stop overexploiting natural resources, in other words an act of repentance is required.

Also in the ecumenical context, the Christian Churches around the Baltic Sea have been active in protecting the Baltic Sea and nurturing cooperation. In this regard, in the early 1980's a network 'Theology in the Baltic Region', also known as Theobalt[3] was created. Its aim is to contribute to increasing knowledge, understanding and closeness among churches, individuals and countries in the Baltic region as well as safeguarding the environment, society, peace and basic Christian values.

Like the Religious and Scientific Committee under Patriarch Bartholomeus, Theobalt is organising conferences on various issues. One of the first conferences organised was dedicated to the Baltic Sea's state of health. Here as well, common Christian responsibility for the environment and to the Baltic Sea in particular was underlined.

Currently, as a MEP I have gained a new insight on the environmental issues and the ways how we humans can take our responsibility over the nature. Deteriorating processes can be changed and redirected if there is enough political will and determined actors. There are global and multinational instruments to tackle the environmental issues. I am following closely the political processes on how Baltic Sea issues are and have been handled in the Baltic Sea regional and European level.

Already for four decades the Baltic Sea Environment protection Commission, HELCOM, has coordinated countries' environmental management actions. EU regulations and directives, which have come into force during the previous Parliaments, force the countries to limit and control their deteriorating activities. Based on the initiative made by the European Parliament a few years ago, the EU is now launching the Baltic Sea Strategy which aims at making the Baltic Sea region as environmentally sustainable, prosperous, attractive and safe. Important components of the strategy are the Baltic Sea Region Programme, running until 2013, which aims at strengthening the development towards a sustainable, competitive and territorially integrated Baltic Sea region. Limiting environmental pollution is one of its priorities. The Parliament will soon be adopting a specific research programme, BONUS-169, which aims at promoting top science for the better management of the environmental issues of the Baltic Sea and use science to produce 'fit-for-purpose' ecosystem-based regulations, policies and management practices aimed at safeguarding the sustainable use of the ecosystem's goods and services.

I have always been, both in my previous capacity as priest as well as in my current position as politician, deeply concernd over the state of the Baltic Sea. I believe that cooperation is the key word as only by working together we are able to get results. Therefore it is of utmost importance to build up a mutual understanding and strengthen relations between different actors around the Baltic region - be it Churches, states, regional authorities or individuals.

Mitro Repo

MEP

European Parliament

[1] www.patriarchate.org/patriarch/the-green-patriarch
[2] http://www.rsesymposia.org/
[3] www.theobalt.eu

Estonia joins Euro zone

By Mart Laar

After the restoration of independence Estonia has been one of the most fast developing economies in the World. From the absolute collapse, hyperinflation and fall of production during the last years of communism Estonia was turned to modern and vivid economy, one of most free in Europe by the Economic Freedom Index and the most competitive among the new member states of the EU. From appr. 20% from average European GDP per capita in PPP in 1992 Estonia reached nearly 70% from it to 2008. During three years before the crises Estonian economy developed by 10% annually in average.

Such success had unfortunately its price. In such situation governments often tend to believe that high economic growth now continues endlessly, allowing government significantly raise its spending not even thinking, is such spending sustainable in the longer run. Fast growth of public sector salaries lead to overall growth for cost of labour, by nearly 20% annually. The bubble was also supported by the policy of government, which preferred high economic growth to financial stability. Thanks to this Estonia missed the opportunity to join euro zone soon in 2007. Thanks to the pressure of Estonian Bank government nevertheless decides not to use all surplus to the spending, but build at least some reserves. This was right decision, which created reserves, which helped afterwards to smoothen the financial impact of economic crises. In Latvia such reserves were not created, which pushed Latvia to the more serious crises compared to Estonia.

In 2008 the bubble in the World economy collapsed. Actually it was not miracle that it collapsed but rather that it stayed there so long. The Western economies were soon by decades spend more as they earned. Now they had to pay the price. The problems in the World economy hit Estonia very fast. The loss of markets decreased the economic growth, even as many still wanted to believe that Estonia will survive the crises without big difficulties. In this situation the government nevertheless decided to act. It was not easy decision as there was still lot of optimism on the situation. The Government decided to pass supplementary negative budget, cutting budget of 2008 by some billions EEK. With this Estonia avoided the fate of Latvia, where the monetary system and bigger banks just collapsed To save their currency from devaluation, Latvia turned for help to IMF and European Union, which took Latvia's under control. problems and dependence from IMF. Opposition fought actively against the cuts, but the cuts were made. Even more difficult situation developed with the draft budget of 2009. Looking on worsening prognoses government coalition decided before the last reading to cut it again, not going unfortunately enough far.

During the first months of 2009 the situation in economy worsened significantly. The GDP decreased, export fall – unemployment started to grow. The crises hit Estonia specially hard as Estonia as small and open economy was specially depending from the trade – when it collapsed, large part of economy followed. All together the GDP sank in 2009 by 14,5%, leading to the fast growth of unemployment, which reached nearly 15% to the end of year. Thanks to the weak demand the inflation decreased significantly, creating danger of serious deflation. All this lead to even faster fall of state revenues and budget was pushed seriously out of balance. Even as there were still some reserves available, government decided not to use them, but concentrate to the budget cuts and adjustments with the goal to keep budget deficit lower from 3%.

To minimize negative influence of cuts to economic activity, these were nearly not made on the area of investments, increasing efforts to take use all money from European structural founds. This demanded redirecting some founds and good cooperation with the European institutions, what was also achieved. Other area what was mostly not touched by the cuts was education and research and development. Their role in the budget actually increased during the crises. Most cuts were concentrated on government spending, including salaries, which were cut often more as 20%. Salaries of teachers, policemen and fire fighters were mostly saved from cuts. Several government social programs, which were planned to be introduced in 2009, were abolished or postponed. Pensions were not raised by 20% as planned, in the new labour law several privileges were cut, all planned tax cuts were postponed. To balance the budget, the VAT was raised by 2% and several exemptions abolished and excise taxes raised. These were painful decisions but gave result. All together the budget balance was adjusted nearly by 20%, which pushed budget deficit to 1,4% from GDP. Guaranteeing the sustainability of budget stability the pension age was also raised in 2009.

With this Estonia has fulfilled all Maastricht criteria. Estonia's inflation was on 1,9%, the government's debt Estonia was lowest in Europe and budget deficit under 3% as demanded by Maastricht criteria. Basing all these results first European Commission, then the European Parliament and just recently EU Financial Ministers supported the invitation of Estonia to the Euro zone from 1.January 2011. Estonia itself has passed necessary laws and regulations and is technically ready for move to the Euro zone.

This does not mean that the problems are over. Estonian unemployment has started to fall, but is still too high for sustainable development of the country. There is danger of the growth of inflation due to the higher energy prices. Estonian debt is low, but looking to the negative experience of some countries with Euro, there is a danger now to start to increase it. Till now Estonia has successfully avoided the debt trap, where by now many European countries have fallen. This policy must continue also in future. Estonia needs continuation of structural reforms, modernization of economy and more innovation, making Estonia more competitive in the World markets. Forecasts for GDP growth of Estonia stand on 0,9 in 2010 and 3,8 percent in 2011, which is still low to seriously decrease the unemployment.

In this context it is clear that the Euro would not bring paradise to Estonia, but it gives to Estonia powerful tool to move the country faster forward.

Mart Laar

Member of the Estonian Parliament

Estonia

The Baltic needs intensive measures

By Susanna Huovinen

The Baltic is the home sea for the peoples living around its shores. Now the home sea is in trouble. The condition of the Baltic is worryingly poor and it is one of the world's most polluted sea areas. States must commit themselves to more effective measures to protect the Baltic, because otherwise the situation is threatening to become worse year after year.

In June 2009 the Finnish Government gave the Eduskunta the report on the Baltic that the legislators had requested. The Environment Committee, which I chair, completed their deliberation of the report early this year and urged the Government to undertake intensive measures to protect the sea. Finland's inputs will not suffice on their own; other countries, too, must make their contributions. It is worrying from the perspective of the Baltic that at the recent ministerial conference of the Helsinki Commission, or HELCOM, in Moscow, some objectives were once again postponed until further into the future. That does not auger well for the Baltic.

The Baltic catchment area is home to nearly 85 million people and there is a lot of industry and agriculture in all of the countries around the sea. According to estimates, the nutrient load entering the Baltic has increased several-fold in the past hundred years. From the perspective of protecting the Baltic, the worst problem and the hardest to deal with is eutrophication; we have not had sufficient success in solving or even mitigating the problems associated with it. The heavy nutrient load due to anthropogenic activity throughout the Baltic catchment has led to large quantities of nitrogen and phosphorus being stored in the sea. The effects of eutrophication can be seen in increasing water cloudiness, slimy deposits on shorelines, a weakening of the oxygen situation on the sea bottom and more vigorous blooms of blue-green algae.

The effects of climate change can also be seen in the Baltic. The amount of winter precipitation is growing, and this increases rates of runoff into the sea. Also for that reason, there is a need for considerably more effective measures to stop the advance of eutrophication.

A major environmental risk in the Baltic and especially the Gulf of Finland is the growing amount of oil transports and the consequent danger of accidents and spills. It is estimated that the amount of oil being transported each year may be about 250 million tonnes by 2015. An oil disaster could at its worst destroy and alter the ecosystem of the sea for a long time. The impacts on living organisms, species diversity in the aquatic environment and even on Finland's national wealth could be extremely destructive.

Effective measures are needed also in agriculture. Throughout the Baltic area, an estimated 50 per cent of the total nutrient load and around 70 per cent of the nitrogen are caused by agriculture. Agriculture's share of the phosphorous load from Finland is estimated to be about 60 per cent and about 50 per cent of the nitrogen load. Especially from the perspective of the condition of the Archipelagic Sea and the coastline, agricultural runoff is a key eutrophying factor.

The nutrients entering the Baltic from communities and industry in Finland has been declining in recent decades, whereas the load originating in agriculture has hardly changed at all. Therefore it is obvious that without a clear reduction in the level of the load from agriculture, Finland will not be able to achieve the goals set for efforts to protect the Baltic.

The contributions of experts at formal hearings arranged by the Committee reinforced the conception that the ecological state of the Baltic is very serious. The most significant problems are associated with the nutrient load caused by agriculture and community wastewaters as well as the major risks of an accident that a growing volume of oil transports is causing. The Committee emphasised in its own submission that reducing emissions is absolutely essential throughout the Baltic catchment and in all sectors. National measures can affect especially the condition of the coast and international ones that of the open sea.

Although we were satisfied that the Baltic report was submitted and a large number of measures were compiled in it, our conclusion was nevertheless that the measures proposed are not enough on the whole to improve the condition of the Baltic. The timetable for measures, their evaluation and coordination must be considerably improved.

The Committee appended ten statements, which are binding on the Finnish Government, to its submission. We expect that the Government will raise the level of ambition and launch effective measures both here in Finland and in international contacts to help the sea. Only we residents of the riparian states can ensure that looking at photos or videos will not be the only way future generations can admire the Baltic. Our home sea needs our help now.

Susanna Huovinen

Representative
(Social Democrat)

Chair of the Environment Committee

Parliament of Finland

Broad parliamentary support for Baltic Sea Region initiatives

By Christina Gestrin

The Baltic Sea Region has great potential for further progress in economic development, social welfare and environmental protection. But to realize that potential and continue to benefit from the region's opportunities, we must also improve our ability to manage the strains brought on by development. It is a paramount task to find a sustainable balance between future economic growth and ecological care.

The Baltic Sea Parliamentary Conference (BSPC) was established in 1991 as a forum for political dialogue between parliamentarians from the Baltic Sea Region. BSPC gathers parliamentarians from 11 national parliaments, 11 regional parliaments and 5 parliamentary organizations around the Baltic Sea. The BSPC thus constitutes a unique and comprehensive parliamentary bridge between *all* the EU- and non-EU countries of the region.

BSPC is first and foremost a political body. Its primary mission is to raise awareness and opinion on topical issues in the Baltic Sea Region. It strives at promoting efforts to support a sustainable environmental, social and economic development of the Baltic Sea Region. Parliamentarians bring an added value to the process by listening to the grassroots; by raising awareness and building opinion; by driving political issues in their own parliaments; by exerting political pressure on governments to fulfill their commitments and obligations, and by acting as watchdogs to make sure they do; and by initiating and adopting budgetary allocations and - not least - legislation.

The 19th annual Conference in Mariehamn 29-31 August this year will tackle issues such as climate change and biodiversity, peace and security in the Baltic Sea region, integrated maritime policy, and trafficking.

BSPC is currently operating political working groups on integrated maritime policy and on civil security and trafficking. A BSPC working group serves as a kind of target-oriented and temporary political task force to elaborate joint political positions and recommendations on specific issues. BSPC has the clear ambition to synchronize its priorities and objectives with those of the corresponding organs at the CBSS, which, in BSPC's opinion, has a leading role in initiating and coordinating actions against the challenges of the Baltic Sea Region.

In recent years, a number of promising initiatives and programmes have been launched in and for the Baltic Sea Region. It is essential that they are transformed into practical deeds and results. The HELCOM Baltic Sea Action Plan has received the support from BSPC from day one as a central tool for restoring good ecological status of the Baltic Sea by 2021. Already at the Ministerial Meeting in Krakow in 2007, the HELCOM member states pledged to present National Implementation Plans at the Moscow Ministerial meeting in May 2010. It is regrettable that not all HELCOM member states were able to present Implementation Plans at the Moscow meeting. BSPC now expects that the remaining states will follow suit and present their Implementation Plans at the planned high-level meeting of HELCOM in early 2011.

The EU Baltic Sea Strategy is a step forward in the EU's perception and management of Baltic Sea Region issues, and BSPC took active part in the consultation process preceding the adoption of the strategy. However, the Strategy is an internal EU instrument. It is therefore essential that it is closely aligned with and conducted in the spirit of the Northern Dimension, which brings together both EU- and non-EU members as equal partners. No credible solution to any major challenge in the Region can be found if relevant stakeholders are excluded from cooperation. The desirability and modalities for inviting countries adjacent to the Baltic Sea Region to observe or take part in activities in the Region should also be considered.

The Baltic Sea States Summit in Helsinki in February 2010 is a fresh example of an initiative that aims at devising practical activities to restore and protect a healthy environment in the Baltic Sea Region. BSPC submitted a commitment to the Summit to provide political backing on the issue of safety of navigation and the creation of a joint ship reporting system for the whole Baltic Sea.

Action requires resources. Hence, it is very encouraging to hear international financial institutions claim that there is really no shortage of money for projects. What is lacking, however, is bankable projects, meaning coherent, realistic and viable projects to implement plans and programmes. Based on an initiative by parliamentarians of the region, the Nordic Investment Bank and the Nordic Environment Finance Corporation have launched a BSAP Trust Fund to support the development of bankable projects for the implementation of the HELCOM BSAP. This is an undertaking that should merit the full political and financial support from all the governments in the region. In any case, the present economic downturn must not be taken as an excuse for lowering environmental goals, cutting resources or delaying timetables for environmental work.

The Baltic Sea Region is bustling with actors and initiatives. The good news is that this provides a broad resource base and a battery of competencies. The bad news is that it entails a risk for duplication of efforts. A strengthened, more regular and practical dialogue between stakeholders could be instrumental in better defining their comparative advantages, respective roles and modes of cooperation in dealing with the challenges of the Region. This would augment both their individual and combined impact. Everyone must not do everything.

Many of the issues and challenges of the Baltic Sea Region are complex and have different repercussions for different countries. But just because there are diverging views on issues, a forum such as the BSPC is all the more important. It can provide an arena where differences can be openly aired and where a candid political debate can be held. That, in turn, is a necessary prerequisite for the pursuit of pragmatic approaches and compromises to tricky issues. In that sense, BSPC contributes to a transparent, democratic and rewarding political process, as well as to practical solutions, in the Baltic Sea Region.

Christina Gestrin

MP

Finland

Chairman of the Baltic Sea Parliamentary Conference (www.bspc.net)

We are linked not only by pragmatics

By Alexander Prokhorenko

In 1953 the city of Turku became the first sister-city of Leningrad. Since then our partnership has been actively developing in many spheres. Every two years there are alternating Days of Turku in Petersburg and Days of Petersburg in Turku. In 2006 a joint working group for cooperation between Saint Petersburg and Turku was created that identifies new "growth points" twice a year.

Our priorities and plans are documentally sustained: on June 8, 2008 Governor of Saint Petersburg V.I. Matvienko and Mayor of Turku M. Pukkinen signed the Agreement on Approval of the Program of trade-economic, scientific-technical and humanitarian cooperation for 2008-2011.

Both Turku and Saint Petersburg have the strategy of cluster development. We are aware of the great prospects in joint projects of maritime communities (the Maritime Council under the Government of Saint Petersburg, the Maritime Assembly and the Marine Museum Association).

The agenda of our immediate work includes the following areas:

- logistics of the Baltic Sea region, organization of carriage of goods by sea;
- issues of ecological safety and improved quality of the Baltic Sea water;
- cooperation in shipbuilding (first and foremost, under "Arctic Welding" project);
- renewable energy sources;
- university scientific exchange programs and projects on issues of protection of intellectual property rights;
- cooperation in the area of biodevelopments;
- stepping up of economic interaction of science parks;
- book publishing, replenishment of the electronic content of libraries and sharing experience of promotion of reading.

As a consequence, Turku companies have expressed their wish to take part in "Technical Fair", exhibition "Ecology of a Big City", "Building Week" as well as St. Petersburg International Innovation Forum and in the International Conference on Transport Ecology. Following the motor industry cluster the innovation industry has been declared a strategic area by the Government of Saint Petersburg. The volume of innovative products of Petersburg business increased 2.7 times in 2009 compared to 2008. The share of innovations in the total volume of dispatched products has grown to 6.5%. It should be remembered that until recently it was so microscopic that could not be calculated. This is where we see a point of reference of active cooperation with Turku.

We have had joint negotiations on starting regular flight connection between Petersburg and Turku and the decision on direct flights has been made.

Partnership always implies a single, open and operative information space. Therefore, in 2008 the Information Business Center of Saint Petersburg was officially opened in the Turku region (formerly the interaction proceeded through the Center of Turku Region Development and Petersburg "BIZCON" company). Mutual regular visits of journalists are both a good tradition and most interesting dialogue. The House of Finland started working in Saint Petersburg in October 2009 and a representative office of Turku is supposed to be opened on its basis.

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But we are linked not only by pragmatics but also by the great mutual interest in the culture sphere. The Turku People's University opened the information-educational center "Russian Museum: a Virtual Branch". Programs of the Finnish language studies and the Russian language preservation have been developed for Russian citizens living in Turku. Using modern multimedia possibilities teachers of Turku and Petersburg share their experience raising issues of cross-cultural educational environment in schools, strengthening of the tolerant outlook of young people.

Our partnership is on the threshold of a significant project of 2011: Turku will become the Cultural Capital city of Europe. Petersburg organizations of culture have actively participated in preparing the program of events of the Year.

For example, the Baltic International Festival Center is preparing "Theater Ark" project for the cultural capital city that will present Petersburg theater works and productions of Baltic countries. "Baltic House" is the main partner of the City Theater of Turku in the project of "New Baltic Drama 2011". Its best competition works will be offered to the residents and numerous guests of Turku in 2011. Of special interest is the joint project of Petersburg, Turku and Tallinn that will also be the Cultural Capital city of Europe in 2011.

The popular saying "a friend in need is a friend indeed" is more and more often interpreted by businessmen as "a partner is tried by a crisis". I am sure that economic, cultural and scientific-technical cooperation of Saint Petersburg and Turku will preserve the atmosphere of long-standing friendship and strengthen the business component despite the global crisis. By the way, the anti-crisis plan of the Government of Saint Petersburg has been pronounced the most effective among other regions of the Russian Federation due to its operational efficiency and open dialogue with foreign partners. Not a single large investor has left Petersburg market while the interest in integration has grown in the area of innovations and cluster policy.

Alexander Prokhorenko

Chairman of the Committee for External Relations

Saint Petersburg

Russia

Turku and St. Petersburg

By Armas Lahoniitty

Turku and St. Petersburg have been sister cities since 1953. It was a time when the Bolsheviks still ruled Russia and these agreements were formally established only after Moscow authorized the local decision-makers in St. Petersburg to sign them. This was also the first contractual relationship between the two cities.

Contacts developed over the decades that followed. These contacts took the form of the exchange of delegations and culture and youth groups. A lot of people who were involved in this work are still alive.

When the Soviet Union broke up, the cities began to seek new ways and new forms of interaction. The exchange of delegations was accompanied by efforts to achieve some long lasting results. This meant scientific cooperation, increased trade and other joint ventures. Especially tourism has been to this day a priority, which is natural. St. Petersburg is the former capital, which is reflected in the city's architecture, art collections, music, theater, etc. On the other hand, the Turku area is one of the oldest areas in Finland to be settled and the region also boasts many island tourism opportunities. Turku has also become a gateway for Russians who wish to travel by boat to Stockholm.

In the year 2010 and onwards, the deepening of economic and cultural cooperation is even more important, and also very possible. Between the two countries travel regulations and formalities should be reduced and sped up. The end of 2010 will see a new high-speed train connection from Helsinki to St. Petersburg, which will reduce the total time of travel between Turku and St. Petersburg to approximately five and a half hours. Also, obtaining a direct air link between Turku and St. Petersburg is now in sight for the first time after years of effort.

The Turku Region has a very strong concentration of metal and electronics industry and this creates a strong foundation for the possibility of cooperation with the Russians. Both St. Petersburg and Turku are major university, research and innovation cities. The two cities are both filled with such expertise and knowhow that the other country could and should utilize it for business and otherwise. The Turku region is home to a significant number of Russian people, whose skills in language could be used here. Also, St. Petersburg has the Consulate General of Finland and Turku has the Russian equivalent representation.

The amount of shopping tourists from Saint Petersburg is still negligible in Turku, as Helsinki and Kymi stop these groups. To develop this stream of tourists, shopping tourism must be combined with the other kinds of possibilities Turku provides, so the distance does not become an obstacle. It would be important to get the people who are on their way to Stockholm to stop by in Turku, so they could benefit from what this region has to offer and likewise Turku would benefit from the increased business.

The St. Petersburg Foundation has maintained The Finnish Cultural Institute in St. Petersburg since 1995. The Institute has now obtained new premises right in the center of St. Petersburg on the Bolshaja Konjushennaja Street. The Foundation has leased the building, which was finished in 1847, from the city of St. Petersburg, and which has now been completely renovated to a high class office building. In addition to the institute the building houses the offices of several regional development companies and Finnish government-financed organizations supporting export and cooperation in innovation. The most significant of these are Finnpro, The Finnish-Russian Chamber of Commerce, Helsinki Center and the offices of Turku, Jyväskylä and Mikkeli. The building will also house some businesses in the near future.

The Finland-house provides an excellent base for Turku and the entire Finland Proper in the heart of St. Petersburg. The house has an auditorium, conference facilities, a café and a sauna. A variety of conferences, exhibitions and meetings can be organized there. The Finland-house gives birth to a nexus for all things Finnish in St. Petersburg, and it serves to deepen Finnish and Russian cooperation and improve the promotion of practical issues.

Armas Lahoniitty

The Finnish St.Petersburg Foundation

acting councel

Former Lord Mayor of Turku

Finland

Natural cooperation takes a substantial effort to start

By Dmitriy Lisenkov

Russia and Finland are neighboring states with the common boarder of approximately 1,300 kilometers, common access to the sea and centuries of close interactions. Despite that natural closeness there is not much of joint success, which has been achieved by the two countries on the innovation front.

Supporting R&D activities and commercialization of their results are now important priorities in both our countries. Both Russia and Finland have state-backed nanotechnology initiatives and decided to conclude a memorandum of understanding on cooperation in the field of nanotechnology with an action plan for the upcoming year between the Ministry of Employment and the Economy of Finland and the Russian Corporation of Nanotechnologies ("RUSNANO"). This memorandum would allow both sides to test each other's real intentions regarding the cooperation ideas.

It has to be noted that RUSNANO was established in September 2007 by the Federal law to enable Russian Government policy in the field of nanotechnology. Currently the corporation manages over € 8 billion made available to it in the form of direct investment and loan guarantees by the state. To accomplish its tasks, RUSNANO co-invests in nanotechnology industry projects that have high commercial potential and/or social benefit. Early-stage investment by RUSNANO lowers the risk of its investment partners from the private sector. As of end of May 2010, 76 such projects were approved for funding for the total volume over € 6,5 billion (including RUSNANO's share of € 2,8 billion). These investments are intended to ensure that the annual output of the Russian nano-industry reaches around € 24 billion in 2015. In order to assist the Russian nanotechnology industry in entering the global market and strengthening its international links RUSNANO develops partnerships with the leading nanotechnology centers and investors worldwide.

The above-mentioned cooperation memorandum was signed during the First Nanotechnology International Forum in Moscow in December 2008. It was quite a natural step but at the same time it became the first of its kind. The purpose of the memorandum was not to announce any major initiative or joint project in the nanotechnology field. It has laid the legal ground for further steps and joint efforts in such areas of mutual concern as standardization and safety, intellectual property rights protection and foresights development, and, of course, co-funding innovation businesses in the field of nanotechnology and supporting their cross-boarder activities. In 2009, a number of mutual activities were performed both in Finland and Russia, including Nanotech Partnering Forum in Espoo, one of the leading innovation hubs in Finland. During that event some groups from the two countries met and started initial collaboration discussion. While RUSNANO and its partners succeeded in facilitating such discussions they kept learning about the possible issues along the way.

The official visit of the RUSNANO delegation took place in February 2009, when the top management of the corporation met with the Finnish political and business leaders in an attempt to understand the roots and the perspectives of the country's innovation system and to find the right partners. The best practices were learned to be applied in RUSNANO's activities.

Building wide technology cooperation is a long and difficult endeavor. Still, it starts with some practical steps. That is why in December 2009 the Industry Investment Ltd ("FII") and RUSNANO agreed to create a co-investment program. FII is a government-owned investment company which mission is to promote business, employment and economic growth through capital investment. The investments of FII amount to € 650 million to-date. FII and RUSNANO are very similar in its activities and both intend to actively help technology companies become major international players.

The actual co-investment agreement was signed in Lappeenranta, Finland on May 27, 2010 during the First EU-Russia Innovation Forum. The signing was done in the presence of Russia's Prime Minister Vladimir Putin and Finland's Prime Minister Matti Vanhanen.

The aim of the cooperation is to co-invest a total of € 50 million in rapidly growing nanotechnology companies operating in Finland and Russia, so that companies could also benefit from technologies developed in both countries. This cooperation is expected to become a first case of efficient technology transfer between the countries while creating wealth for stakeholders. Industry Investment and RUSNANO are evaluating possible target companies and will invest in them jointly and on equal terms. Both corporations have already reviewed together the deal flow and identified a number of interesting companies. The first joint investment can happen within the next six months. The investment program will last for up to three years. However, it is just a first step to test the deal flow of prospective nanotechnology companies for such cooperation. If it proves to be efficient and successful the parties pre-agreed to consider extending the program to set up a joint venture capital fund with the aim of investing in companies operating in both Russia and Finland.

The sides strongly believe that combining top-level Finnish know-how with extensive Russian expertise will produce globally competitive technologies. This co-investment program will also allow consolidating resources and experience in developing innovative companies thus opening new opportunities to enter global markets for Russian and Finnish technologies.

The Finnish-Russian cooperation can be a good example of the right approach to technology cooperation between EU countries and Russia. It is clear that more unified policies and joint support programs can bring a great benefit to the high-tech companies.

Dmitriy Lisenkov

Managing Director

RUSNANO

Russia

Science to the rescue of the Baltic Sea

By Markku Mattila and Laura Raaska

It has become clear that the role of science as a source of new knowledge has taken on increasing importance in meeting the grand challenges of a globalised world, such as global warming, dwindling supplies of energy, water and food security, ageing societies, public health, pandemics and security. The Academy of Finland feels the health of the Baltic Sea should be added to this list of challenges.

The European Union's Strategy for the Baltic Sea Region was adopted last year. The overall goals of the strategy are to make the Baltic Sea region an environmentally sustainable place, to enhance the region's prosperity, to improve the accessibility and attractiveness of the region, and to ensure safety and security throughout the region. The importance of science and research was strongly underlined as a basis for the implementation of the strategy.

Finland has a long tradition of Baltic Sea research, as do the other countries in the Baltic Sea region. Research programmes by the Academy of Finland, for instance, and various efforts by the EU have offered great opportunities and scope for versatile research collaboration. The Academy of Finland is committed to promoting research in the Baltic Sea region in the long term, and has consistently allocated funding to Baltic Sea research.

One of the foremost goals of the Academy, besides providing financial support, is to strengthen cooperation between all stakeholders in Baltic Sea research. This long-term commitment has, for example, led to the start of the international Baltic Sea research programme BONUS. One of the main goals of the BONUS programme is to enhance the collaboration and dialogue between end-users of research results and the research community.

We need dialogue

An understanding of the full importance of a dialogue between science and society has recently emerged in Europe. New approaches to coordinating and integrating national science funding and research programmes have been developed and new processes are in the pipeline. Baltic Sea research is a pioneering effort in this context. The European Research Area Board has recently published a strategic overview of research in Europe entitled *Preparing Europe for a New Renaissance*. One of the policy themes needed is a shared responsibility between science, policy-making and society, where public policy is based on evidence and underpinned by a 'new social contract' between science and society; a 'contract' that emphasises responsibility for action as well as freedom of thought.

The Baltic Sea Research Programme, BONUS, is a joint effort between eight EU Member States. The six-year preparation process that preceded the programme was coordinated by the Academy of Finland. Now, BONUS is about to receive a prominent status in Europe. On 29 October 2009, the EU Commission put forward a proposal for a decision by the European Parliament and the Council on participation in a joint Baltic Sea research and development programme, BONUS. Implementing the programme under Article 185 of the EC Treaty will secure long-term and substantial funding for the programme. The legislative proposal concerning BONUS has been through the co-decision procedure of the EU Parliament and the Council, and the final approval of the programme is expected from the Parliament in June 2010. The anticipated funding volume is EUR 100 million, of which half comes from the EU and half from the participating countries. All in all, it is a large-scale joint investment in Baltic Sea research. Russia has also been reserved an opportunity to participate in the calls opened through the programme.

BONUS tackles the most critical environmental issues

The focus of the Baltic Sea Research Programme is on the most critical environmental issues, such as eutrophication, pollution, climate change and maritime safety. Besides producing new knowledge, a key goal of the research programme is also to create forums between the science community and end-users of research results, to promote cutting-edge research in areas of strategic importance to the Baltic Sea, and to combine Baltic Sea research, researcher mobility and training.

As a whole, the programme will engage in research not only within the natural sciences, but also within social and economic effect mechanisms. The societal impact of the programme will be enhanced through intensive stakeholder involvement and cooperation with other relevant EU and national programmes.

The programme will be implemented in two phases: a strategic phase between 2010 and 2011, followed by an implementation phase between 2012 and 2016. The strategic phase will set the scene for the implementation by drafting the Strategic Research Agenda, setting up Stakeholder Consultation Platforms, and preparing implementation modalities. During the five-year implementation phase, at least three calls for proposals will be published with a view to funding projects that address the objectives of BONUS. These calls will be targeted at multi-partner and transnational cooperation, and they will include research, technological development, training and dissemination activities.

In addition to providing financial support, the Academy of Finland fosters cooperation between all stakeholders engaged in Baltic Sea research. Research may not always immediately provide clear solutions, but it creates a deep understanding of specific world phenomena. The BONUS Day, held in Helsinki on 9 February 2010, is a good example of activities aimed at stepping up stakeholder dialogue. The event brought together a total of 70 representatives of the academic community, governments and NGOs in the Baltic Sea Region to discuss new ways of using research as a basis for policy decisions, to enhance cross-sectoral communication and the values of the Baltic Sea. In particular, the focus was on maritime safety and the multitude of goods and services provided by the Baltic Sea ecosystem.

The message that was conveyed to heads of Baltic Sea countries and delivered a day after the BONUS Day at the Baltic Sea Action Summit emphasised the role of the Helsinki Commission (HELCOM) in implementing the EU Baltic Sea Strategy. The gist of the message was that the programme will provide an excellent opportunity for HELCOM to use relevant and up-to-date research results.

Markku Mattila
Professor, President

Laura Raaska
Adjunct Professor, Director

Academy of Finland

EU Strategy for the Baltic Sea Region and innovation policy

By Veli-Pekka Saarnivaara

EU strategy and action plan for the Baltic Sea region were approved and published in 2009. There are four pillars in the Baltic Sea Action Plan:

- Sustainable environmental policy
- Thriving regional economy
- Attractive region with functioning transportation services and
- Secure region.

All the targets are important and meaningful.

The implementation plan has 15 priority sectors and 80 Flagship-projects. One of the projects is "The Flagship-project on Research and Innovation, Clusters and SME networks". When executing this project it should be kept in mind that innovation policy can't be isolated from other policies; it means that all the four pillars of the EU Baltic Sea region strategy – environment, economy, transportation and security – can and should be affected by innovation policy.

It's really fine that the Baltic Sea region has a strategy to face the future challenges, solve the emerging problems and utilize the new opportunities. Unfortunately it isn't very clear how to implement the strategy to really reach the results wanted and needed. I'll try to give some examples to concretize the challenges.

The Baltic Sea is one of the most polluted waters in the world. It is a shame to the Baltic Sea countries and shows lack of political will and courage. We have structural funds (maybe others like CBC/ENPI, too) to build real incentives especially for agriculture to solve the problem but they have not been used properly.

Does this have something to do with innovation policy? Yes it does! If you want to create incentives for innovations, the most powerful mean is to affect the markets to change the demand and thus create motivation to find new solutions. This is something what has been underestimated in innovation policy. Of course common markets and free trade are important and a must but besides that we need strong incentives to change the behavior of the consumers or producers – in this case the main polluter of the Baltic Sea. On a wider scope market incentives can be used to create lead markets in relevant fields, for example in energy and environment.

The main topic of the Baltic Sea region strategy – of course – is cooperation. In the research, development and innovation (r&d&i) policy the flagship project is dealing for example with transnational clusters and networks of SME's. Co-operation and networking are important and becoming even more important in the near future because traditional national clusters have disintegrated and new global value networks have been established. These networks are changing and reorganizing themselves all the time. All the companies have to find and take their place in global value networks – as brand owner, system owner, service provider, component deliverer, resource supplier etc.

If you are not looking after global networks and trying to find the best partners globally, you will lose the game. Thus to build clusters which are not really global, and to look after partners which are not really the best ones globally, is not a wise strategy. Still you have good opportunities to find partners on a certain region - like on the Baltic Sea region – but the search and co-operation should not be limited on this region. It should be part of and integrated in global cooperation and networks.

It is also important to rethink what is the role of public actors when talking about clusters, which are mainly networks of private companies. I don't believe in the competence of public actors when trying to shape value networks. It is the core competence of companies in their specific fields. The public sector should create a good operational environment for companies and risk funding for innovations.

Networks of SME's sound a bit strange when talking about innovation policy. I'm sure that networks of SME's are relevant for example in trade promotion but in r&d&i we should, I think, to concentrate on value networks and build the r&d&i-cooperation also on them. It means that companies integrate business networks with innovation networks and build innovation cooperation on business partnerships.

Concerning big companies pure research networks are possible and also needed. They are able to invest in long term strategic pre-commercial research and they should build tight and intensive cooperation with universities and research institutes, like has happened for example in national technology programs and is happening in new "Strategic Centers for Science, Technology and Innovation" in Finland. This kind of cooperation should be global but we of course can have activities in Baltic Sea region to boost global networking as a part of it Baltic Sea region cooperation – but not pure Baltic or Nordic cooperation, neither in companies' innovation processes nor in academic research.

Today it is very popular to speak about user and customer driven innovation and to understand it totally wrong. You can't ask the customers or users what they want because they do not know what they could want – they can't realize the opportunities of new technologies. It would be better to talk about demand based or demand driven innovation. Demand based innovation means: you have a vision on future demand, understanding business concepts to answer the demand, strong will to create the demand, means to show the opportunities and ability to combine customers in the innovation process to test different solutions. This means co-creating value with customers and tapping knowledge from users. This is on the responsibility of private companies but also of public actors when developing public services. Public sector should have a role in building cooperation between companies and academia to make relevant strategic choices in public research, and it could have a role to organize and partly fund test beds and living labs for exploration as well as to renew public procurement practices for innovative procurement, but a more powerful task of administration and politicians is to affect the demand by regulation and incentives so that the societal targets will be reached – this is a part of the lead market idea which could be used in the Baltic Sea region.

Veli-Pekka Saarnivaara

Director General, CEO

Tekes – Finnish Funding Agency for Technology and Innovation

Finland

Creating the world's first global innovation hub chain: Technopolis is now operating in Finland, Russia and Estonia – and just getting warmed up

By Keith Silverang

Globalization has also brought with it the rise of international chains, networks and franchises. The world has its Ikeas, its Starbucks, its Hiltons and its Elixia fitness center chains. Like it or not, the world is getting smaller and more homogeneous. The Web has provided entrepreneurs and corporations with instant access to the global customer community – **if** you can get their attention amid the noise. Successful growth companies have understood that to master this universe you have to be the best in the world in your own niche, but to have sufficient scale and generate the big numbers – to be a true growth story - you need to operate internationally, preferably globally. That is the way of the New World we live in.

The real estate business is widely considered a local game. It is typically quite conservative and dominated by risk management issues. Given the events of the global financial meltdown and the capital intensiveness of the real estate sector, this is hardly surprising. It also does much to explain why very few authentic real estate chains have arisen outside of the hotel and retail sectors. This is particularly true of science and technology parks. Apart from office hotel chains the business is fragmented and dominated in Europe by municipally and university owned parks operating locally. Elsewhere in the world you will find significant privately owned parks as well, but rarely do they operate as a chain or even as a coordinated network.

Technopolis wants to be the game changer. We now have 15 campuses in 7 cities in Finland and Russia. We're in the process of acquiring our first Estonian campus in Tallinn. Our campuses are now operating as an authentic innovation environment chain with centralized chain and service concept development and management. Our vision is to become a European-wide chain over the next few years. After that the sky's the limit.

And why not?

We've already learned that the right combination of investment in the right kind of infrastructure and services for knowledge-intensive growth businesses and their partners can create the dynamics that make innovation ecosystems take off. It's not nearly enough to construct nice buildings. In fact, more often than not, public sector driven innovation centers and incubators are glass monuments that are expensive to build, even more expensive to operate and do not optimally enable the effective interaction of innovation players, not to mention their rapid expansion within a single campus. Technopolis' public sector partners, have learned that we can not only free up critical capital for them, but that by entrusting their strategic innovation assets to us they can be sure that we will invest continuously in more growth of the innovation hub and deploy services that most effectively support the attraction and expansion of growth companies.

I believe strongly that the formula for success is universal. Shared infrastructure services such as advanced ICT and video conferencing generate savings and productivity improvements that are appreciated anywhere. Our online and physical matchmaking services enable growth companies to find venture capital and reference customers from around the world. Technopolis has productized solutions that not only network agents within a single innovation hub, but also connect all of our innovation hubs to each other and to world class companies, financiers and partners around the globe.

St. Petersburg is a case in point. Even though the first 24,000 square meter phase of our 80,000 m2 park will not launch until next summer, we already have had a half dozen matchmaking events and have brought several high quality Russian start-ups into our international investor matchmaking system where they have received attention from international risk investors who didn't even know they existed before. Technopolis Pulkovo, with monthly matchmaking events, global fund raising solutions for local growth companies, world-class video conferencing solutions and a built-in community of domestic and international technology companies of all shapes and sizes will revolutionize the St. Pete innovation system, giving it access to the capital and corporate connections that it so desperately needs to begin reaching its tremendous potential.

Our joint venture in Tallinn will go further and faster because Technopolis Ulemiste City will have critical mass from the very beginning, with 60,000 m2 of high-quality modern office space and an excellent customer portfolio. Estonia is one of the most wired countries in the world and the birthplace of Skype has a proven capacity to generate world-class start-ups. Once Technopolis begins connecting them to its investor and customer networks things will start happening.

You can see where this will lead. The more innovation hubs we acquire, the better the value proposition is for both our clients and for their stakeholders. In the near future we will be able to offer international venture capitalists and corporations a one-stop-shop to meet the best Nordic, Russian and Baltic growth companies. For our tenants this means access to world class capital, customers and partners. As we become a European-wide player and then a global player we are creating a unique virtual and physical matchmaking market that will be very hard to match, never mind duplicate. It's easy to understand then why the European Investment Bank and the European Bank for Reconstruction and Development have been keen to finance our projects. We're not building technoparks to get a quick return. We're creating sustainable innovation ecosystems that give birth to and enhance the knowledge economy where ever we go.

It's this passion for entrepreneurship and innovation that separates Technopolis from conventional real estate companies, especially the listed ones. And it is this passion that we enable us to fulfill our mission to create the world's first and finest chain of innovation hubs.

Keith Silverang

CEO

Technopolis Plc

Finland

Is there a new Finnish Innovation System?

By N Tapani Saarinen

There is a long tradition and strong base in the Finnish Innovation System. Since the middle of the 1980s, the Finnish government claimed that Finland should be described as a country of knowledge and expertise. As a part of this task, the government was investing more money in R&D. But it was not only the government – the Finnish industry also took an active part. As a matter of fact, measuring the money spent on R&D compared to overall GDP, Finland has for long been among the three most enthusiastic countries in the world.

The founding of TEKES (the Finnish Funding Agency for Technology and Innovation) - one of the main financing instruments - took place in 1983 as a part of this development, and it has been financing Finnish innovations ever since. One decade later Ministry of Intern Affairs started the Centre Of Expertise Programme to help Regions in the need for innovation infrastructure. Afterwards, both decisions can be seen as excellent examples of innovation Policy and a manner of organizing cooperation between the universities and the industry.

The Centre of Expertise Programme claims to turn top-level expertise into new business and jobs. In the new phase of the Programme the definition is quite similar to the one that was written in 1994:

"*The Centre of Expertise Programme lays the ground for diverse innovation activities in which high-levelresearch is combined with technological, design and business competence. The programme is a tool for regional innovation, which contains ready-made operating models and networks for the national and international markets. The programme offers networks and services for companies, universities, universities of applied sciences and research institutions.*

The Centre of Expertise Programme reinforces innovation hubs that can be desirable partners for international networks. Through the programme, companies can receive competitive advantages through the meetings between different regions and sectors."

In both cases the State acts perfectly in its role in Triple Helix Model. Also in both cases the Finnish science parks and/or technology centres are important players as coordinators and catalysts.

Finnish government and politicians decided to aim at ensuring that the infrastructure for science, research and development is the best of the world. And that is true even today. The Government Programme of Prime Minister Matti Vanhanen´s second Cabinet says:

"The Government will boost resources for research and development with a view to increasing R&D funding to four per cent of GDP in the public and private sector. General university funding will be increased across the board and donations for scientific research will be made widely tax deductible. Within the scope of the centre's of excellence strategy, strategic centre's of expertise will becreated in collaboration with the private sector, as outlined by the Science and Technology Policy Council. The Government will help set up a leading international university in Finland."

The Finnish economy benefitted from the national innovation infrastructure during the recession that took place after the collapse of Soviet Union in the beginning of 1990´s. Target for the public funding created success. More than three quarters of the national innovation money was spent in IT and electronics. It created the success story of Nokia, but also a huge number of SMEs benefitting from this situation.

Now our economy is facing a similar situation and similar problems. A selection of governmental instruments - almost the same as in the 1990´s – is available to be used to help the companies in need. There is one exception: The National Strategic Centres for Science, Technology and Innovations (SHOKs).

The SHOKs – the new financing instrument – are a part of the national innovation policy with the aim to focus on certain important industrial areas. However, in the present economical situation it seems not to be a very successful definition of measures. Being controlled by the big industry the SHOKs do not enable the SMEs to join in their R&D programmes and projects fairly.

In the previous recession the SMEs could benefit substantially from the public resourcing, but today the situation is clearly different. The great majority of the innovation money goes to the bigger companies. And unfortunately in such industry, the future of which is crucially dependent of labour costs. This means, that there will be no additional boost to SMEs and no easy way out from the economical recession.

Recent evaluation report of the Finnish innovation system gives a slight warning for the funding of SHOKs:

"The panel is cautiously optimistic about the national Strategic Centre's for Science, Technology and Innovations (SHOKs) but suggests limiting public resources devoted to them. In the panel's view SHOKs are mostly about incrementally renewing larger incumbent companies in traditional industries."

At the same time one of the crucial players in Finnish innovation system, the universities, is in a transition state. There is a great disorder, if not a chaos, present. The academic production of new knowledge is at risk. Our university institution suffers from lack of money and acclimatization to a new situation.

The previous creates a great challenge for all players in the new innovation system. Already there are signs of internecine competition within organizations. Diminishing funding, increasing bureaucracy and regional requirements are not the best basis for cooperation and further discussions.

Finland has benefitted from a functional network of innovation actors for a long time. In the Triple Helix model everybody has had his natural position. What will happen next? Will there be a new national Innovation System ?

N Tapani Saarinen

Vice President,
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Finland

Chinese innovation and it's significance for Finland

By Simo Karetie

China has made innovation a cornerstone of the country's future development and set herself a target to become an innovation oriented country by 2020. This requires an environment that enhances opportunities for innovation. OECD review of China's innovation policy came to a conclusion that reforms have created outstanding growth of economy. However, China will need to develop the framework conditions for innovation, including good corporate governance, effective IPR protection, adoption of international standards and a modern and pro-competitive regulatory regime to build a modern, high performance national, enterprise based innovation system.

China needs to further open its markets to foreign investment to obtain the full benefits of foreign technology. OECD foreign direct investment regulatory restrictiveness index for China is much higher (more restrictive) than OECD average, South Africa, Brazil, Russia or India. There is a growing foreign concern over some expressions of China's policies including Chinese competitive pressure, enforcement of IPR's, claims of forced technology transfer and the National Indigenous Innovation Policy.

From an international perspective the main goal is the integration of China into an increasingly global knowledge and innovation system. Domestic innovation capability will facilitate the integration of foreign-invested enterprises in the Chinese innovation system and contribute to better protection of intellectual property rights. China has enjoyed a massive inflow of outsourcing activities and foreign direct investment, bringing technology and knowledge to the country.

One of the OECD's conclusions is evident, China's emergence as a more innovation-based economy will lead to more vigorous competition as Chinese companies are entering the world market and strongly challenging other players. They have been effective in combining the Chinese advantages and opportunities provided by globalisation, including access to global market of goods, capital and technology. Business has also benefited of government incentives of various types are available ranging from land acquisition, raw materials and capital, export financing etc.

Chinese companies have been effective in their tactics, applying bottom of the pyramid strategies and targeting markets on the periphery, including Africa, developing Asia, Eastern Europe and Russia where regulatory and legal environment resembles that of China. At the same time concerns over China's investment behaviour in developing markets have been raised which stresses the importance of responsible business conduct and establishing a level playing field in export financing practices and other government incentives.

Chinese companies have focused on cost efficiency of production processes and developing market-based applications, integrating western technologies into production and developing those further. However, they still have some weaknesses compared to many western counterparts including shortage of sufficient knowledge and strength in base technology to develop entirely new technologies in the frontline of technology development. Also, they lack strong brands and proprietary technologies as well as business process know-how.

FDI can be categorized as seeking natural resources, product markets, strategic assets (advanced technology, brands and distribution channels), diversification or efficiency, or any of their combination. Innovation related FDI is mainly associated to acquisition of strategic assets.

To reduce their handicaps and finding strategic assets also Chinese companies are acquiring foreign companies and establishing subsidiaries to connect into technology development. Examples of this include Lenovo acquiring IBM pc's and Geely's recent acquisition of Volvo. As Chinese companies are upgrading their global competitiveness these acquisitions are expected to increase.

Chinese companies establish subsidiaries in centres of new technology to access knowledge, identify new technologies and cooperate with partners and customers. Huawei as an example has set up a R&D centre i.a. in Stockholm and Gothenburg. Business logic of these innovation out-posts is based on growth and internationalisation of companies and connecting to foreign technology and innovation centres.

Finnish companies have made significant contributions to innovation in China. They have benefited of the growth of Chinese market, talent pool and expertise. They have invested in manufacturing, in R&D and in knowledge intensive services. They are contributing to the fabric of Chinese economy through their own or JV facilities, via retail and distribution networks, logistic and supply chains, services and sales networks as well as via outsourcing and purchasing activities and bring added-value to economic growth, production, exports, employment, innovation and environmental sustainability.

Based on this experience and the strong tradition of mutually beneficial economic cooperation of the Finnish and Chinese economies there should be much more cross-border activities in trade, investment, research and development, which is crucially important for commercialization of innovations.

Finnish Ministry of the Employment and the Economy has recently announced that a Chinese Innovation Centre will be set up in Finland, aiming at supporting Finnish and Chinese companies in building mutual innovation and cooperation in the field of high technology to improve their competitiveness. It has also been reported that it will provide access abroad for Chinese high-tech companies and serve as an service organization for them and Chinese and public institutions.

International innovation networks are of particular importance in increasing our competitiveness, productivity and cost efficiency, including expanding business and university cooperation and further improving education and cooperation between universities. There can be found mutual benefits from this setting where Finland and China can build innovative capacity. In Finland competition is based on open market, equal treatment and a level playing field for all companies alike, an important prerequisite for business and economies to grow and develop. The innovation partnership must be supported by an innovation enabling business environment.

Simo Karetie

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International companies can boost Finland's innovation system

By Tuomo Airaksinen

Innovation activities and high-level know-how contribute to the Finnish economy and the welfare of the society in many ways. This is also acknowledged in national decision-making and objective setting, where investing in innovation is seen as a tool for addressing the different challenges facing Finnish society. The significance of innovation has become widely accepted in recent decades by different sectors of the society, to the extent that it is now possible to discuss innovation in terms of a common national strategy and mission.

Over the years, Finland's national innovation system has often been highly ranked in international comparisons and league tables. Indeed, Finland is today among the top countries globally in terms of R&D spending per capita. The Finnish government's budget for R&D in 2010 is EUR 2,055 million, while the share of public R&D funding of GDP is estimated to rise to 1.17 per cent. There are many commendable examples of cooperation between different organisations, and the public and private sectors, in the quest to fulfil national innovation objectives. Finland has focused on certain knowledge-intensive sectors, R&D activity, and has also created a business environment which is well regarded internationally. Finland's education system has also been honed to be the best in the world.

These are impressive achievements but there is also a lively ongoing debate in Finland on whether the national innovation system is fully delivering on its objectives. The policy report *Evaluation of the Finnish National Innovation System,* commissioned by Finland's Ministry of Employment and the Economy and published in October 2009, identified several important challenges faced by the current system. It argues that the Finnish taxpayers' money invested in public R&D and in the public support system is not creating enough high growth entrepreneurial firms.

The report also states that "Relative to its investments in R&D, Finland invests disproportionately less in the commercialization of the results." In other words, Finland is not fulfilling its potential to create more high growth firms that produce world-class goods and services for international markets. Other concerns raised in the report include the "low number of active private earliest-stage venture capital investors, the small absolute size of investments, and the limited competition and international experience among venture capital investors."

These are clearly important challenges that need to be addressed. Perhaps the greatest challenge facing Finland's innovation system is internationalisation, both in terms of research cooperation and in business itself. In the Finnish system it is mainly the large companies that operate internationally. Small and medium-sized companies, research institutes and the university sector are still too Finland-centred. The number of foreign companies and the scale of their operations in Finland are still fairly limited despite the excellent business environment available to them.

By its very nature, innovation activity is international. Research has shown a clear relationship between a country's level of globalisation and its innovativeness. It is the social dimension of globalisation that has the strongest correlation with innovation, for example in areas like the mobility of researchers and experts, the capacity to maintain international contacts, and the utilisation of internationally produced knowledge. In today's interconnected world, not even the biggest countries manage to go it alone and their innovation activities increasingly rely on knowledge produced elsewhere.

What the Finnish innovation system urgently needs is more international operators and more openness to competition. Reaching this objective requires the same spirit of cooperation and target orientation that has gone into the development of the country's R&D environment. The process can also be supported by different incentives like taxes and other traditional economic tools. Nevertheless, perhaps the most important factors towards changing the current situation are active cooperation and greater visibility on the international arena.

Finland's cooperation within the Baltic region and the other EU countries is natural and already has a long tradition. It is also worth remembering that most countries are wrestling with the very same challenges as Finland, so in many cases networking is essential and mutually beneficial from the perspective of all the parties. Securing Europe's competitiveness in relation to Asia and the United States is our joint challenge and opportunity.

There are many other countries that also share the strategy and objective of investing in high-level knowledge. The competition is tough but not impossible for Finland and other small economies. For example, Finnish companies and consumers are early adopters of emerging technologies, which makes Finland an ideal test bed for new solutions and technologies. Foreign-owned companies operating in Finland can also benefit from access to the latest research from the extensive cooperation between Finnish universities and the private sector.

As Finland starts reforming its national innovation system, it is crucial to recognise that international companies and business networks are key resources in this process. Vast amounts of knowledge, know-how and capital are channelled through these companies and any reforms will not succeed without their active engagement.

At the same time there should be an understanding that Finland's innovation system and business environment cannot be developed forever through more state resources and intervention. The system does not need of more taxpayers' money to make it work more effectively. Instead, the state should focus on establishing a well-functioning infrastructure and creating the most conducive environment possible for business and international cooperation. Finnish companies can and should establish their own international networks and attract funding from international sources, instead of relying too much on financial support from the state.

A report on financing growth entrepreneurship by Professor Vesa Puttonen from the Helsinki School of Economics, published in May 2010, identifies the lack of private capital and low level of internationalisation in the venture capital market as major blocks to the emergence of high growth innovation companies in Finland. Rather than increasing public funding or undertaking direct interventions, Puttonen recommends that the state promotes the internationalisation of the investment market.

More international investors, foreign companies and technical experts are required in Finland for its national innovation system to move forward. Finland also has a great deal to offer international companies. It is these mutual benefits that drive the work of Invest in Finland in communicating about the country's business opportunities and value as an investment location for international companies.

Tuomo Airaksinen

CEO

Invest in Finland

Finland

Invest in Finland

Invest in Finland is a government agency promoting foreign investments into Finland. It assists international companies in finding business opportunities in Finland and provides all the relevant information and guidance required to establish a business in Finland.

The University-Business Partnerships

By Lauri Lajunen

The knowledge-based economy is on the agenda around the world. At the same time, global change challenges both the private and public sectors to develop more economical, more efficient and more environmentally sustainable production methods, products and services. In this situation new innovations increasingly depend on observations and results achieved through scientific work. Therefore, it is quite logical that universities now occupy an increasingly important role and that they are faced with vast expectations and demands.

National innovation systems rely on universities, and politicians and businesses seek cooperation with them. Against this background it should come as no surprise that university reforms have taken place or are underway in countries like Austria, Germany, Denmark, Sweden and Finland. Japan, South Korea and China are also actively developing their universities. Goals for these reforms and development measures include the enhancement of the quality of research and teaching, and the increasing of universities social and economic impact.

There are versatile ways for universities and companies to cooperate. Diploma thesis work for companies, common research projects and programs, joint research an innovation centers, commissioned research, consultations, joint seminars, company experts as guest lecturers and donated professor's chairs are some of the forms of cooperation which most universities have been taking part in for years.

High quality research and up-to-date teaching make the foundation of a university's reputation. A university that can offer this will attract to its campus and vicinity, the research and development capacity of businesses simply because the platform for research cooperation is naturally there and the companies can easily recruit an educated work force. It is in the interest of companies to cooperate in research and offer diploma thesis projects and traineeships for the students. In the best of cases a win-win situation is created - both the company and the university will thrive, since a university greatly benefits from the surrounding strong and versatile business and service structures. On the other hand, the service structures and the companies need the university. Universities create innovations as a result of their research, which translates into new products, new businesses or better services. Thus, the social and economic impact of a university is two-fold.

One department cannot do everything possible under the sun and at the same time acquire a good international level of quality and efficacy. Devising a strategy requires making choices and setting clear goals. This entails taking into account changes in scientific knowledge and social relevance.

University of Oulu is a science community of 3,000 employees and 16,000 students. The university has a large scientific base of nine educational areas, which are organized in six faculties or schools (education, humanities, natural sciences, medicine, economics and business administration, and technology). The focus areas of research are information technology; biosciences and health; environment, natural resources and materials; and cultural identity. In addition, there are four development areas which are business studies and economics; research-based teacher education; mining and mineral engineering, and steel research. In these areas the university is a strong international scientific community and each of these fields has a great impact on the economic and cultural life of Northern Finland.

Competition introduces new challenges continually. To maintain an achieved position will be increasingly difficult, since everyone is investing in improving their performance. In addition to identifying your strengths and potentials it is necessary to recognize your weaknesses and threats and to deal with them.

The strengths of University of Oulu include multi-disciplinarity and a broad knowledge base of high international level in the fields of focus. The university networks closely with the surrounding society and it has advanced strategies and a structure for regional cooperation. Out-dated basic funding and the diminishing recruiting sphere due to decreasing number of population in Northern Finland are clearly threats. In order to be successful in research, education and in societal resource mission a university must have good human and financial resources and functional internal processes and structures. A university will maintain its competitive edge only if these processes and structures remain flexible and only if it offers its researchers and teachers a chance to develop and renew themselves. In addition to this, success necessitates good partners and allies both in Finland and in abroad. In the future, it is predominantly networks who compete and to belong to strong networks is part of success. It can be said that for a university to be successful it is not only the scientific development which counts, but also the needs of the surrounding society and the global developments.

When universities and businesses cooperate we need to keep in mind that a research university of high international standing cannot and should not become a research and development laboratory or gopher for the assignments of a company. The primary role of a university is the production and creation of new knowledge. A university will carry out research that businesses might need in five to 10 years time and which might not have a direct application at the moment. High quality research together with relevant teaching and ambition are our priorities.

Lauri Lajunen

Rector

The University of Oulu

Finland

Principles for a new-generation innovation policy

By Leonid Gokhberg

Today the Russian economy is facing long-term challenges, connected with the global rivalry and exhaustion of sources for growth of raw materials exports. These challenges have led to activation of S&T and innovation policies during the last decade. The shift towards innovation-based growth has been declared in Russia as the key objective of the state policy and the only possible development model. During recent years a number of strategic documents was adopted, which were aiming at public support to S&T, integration between science and universities, creation of organizational, legal and economic incentives for innovation, improvement of the IPR regulation, etc. Further policy agenda for innovation is being intensively discussed.

However, a specificity of the Russian situation lies in the resistance to change: the level of enterprises' innovation activity remains inadequately low in the period of economic growth as well as under the crisis pressure. Less than 10% of their overall population in industry are involved in technological innovation. Though even their interest in the "intellectual" end of the innovation processes, such as R&D or acquisition of IPR, is extremely low under the influence of certain reasons (often external to S&T, innovation and production activities). Acquisition of equipment, most frequently by exports, dominates expenditure on technological innovation (59% of the respective total), and this trend inevitably dooms industry to a catching-up trajectory.

In spite of the above-mentioned measures it is still challenging to manage legal, administrative, financial and other deficiencies fully. Structural misbalances and technological underdevelopment of the economy, low innovation capacities of companies, and insufficient output of the R&D sector make global positions of the country extremely vulnerable and inconsistent.

To a great deal, present problems and limitations in the Russian national innovation system (NIS) have systemic roots and must be tackled only within the framework of a comprehensive reform programme. Current problems can be best described as "the inflation of notions" in the Russian innovation policy.

Indeed, there already is a number of major policy instruments available, e.g. tax allowances for innovative companies, technoparks, special economic zones, etc. At the same time, there is a gap between the best international practices which those terms were generally derived from, on the one hand, and the real implementation of those instruments, on the other. This gap can be traced in different elements of NIS: technoparks mostly lease their premises; special economic zones have only fences, and even their construction is sometimes incomplete; tax exempts are avoided by many enterprises (especially those without strong legal services), as they beware of the risks related to tax enforcement, when if relevant expenses of a company are not recognized as "innovative", the consequences might be extremely severe. Therefore it is required to conduct the instruments' revision, assessment of their regulating impacts and comprehension of the policy mix.

The next issue is the lack of systemic approach in a basket of policy instruments. Existing separately, they are related neither in their aims, nor in implementation mechanisms or effects, and often contradict each other in terms of their impact. This can be considered a manifestation of fragmentation and miscoordination of state authorities — an internationally well-known process — when they set either too general goals, which are impossible to achieve by a single agency, or do not take into account the impact of their activities on reaching more global goals. It is time to shift from piecemeal strategies of specific agencies to a whole-of-the-government innovation policy model, including formation of a coordinated portfolio of innovation development institutions.

Innovation processes are restrained by the lack of companies and R&D organizations' long-term vision: planning horizons for the former are mostly limited to 3-5 years, while for the latter they do not usually exceed 1-3 years depending on the duration of publicly-funded projects. Poor cooperation between industry and academia is explained by the absence of desired external conditions for businesses and internal resources for long-term R&D investment in companies, whereas science cannot make ready-to-use technologies available for rapid implementation and returns to companies under tough market pressures. For the R&D sector, further consequences include its lagging behind companies' needs, particularly, those which are involved into global competition (not only in external markets, but in the Russian market as well), and technological competitors. Reduction of employment in R&D, ageing of researchers, deterioration of R&D fixed assets continues; as a result the quality of technology supply keeps slashing.

Central place in the policy mix should be occupied by the instruments supporting cooperative linkages between all actors: enterprises, state (at different levels), R&D organizations, universities, and international partners. The state traditionally plays a role of a major sponsor or a proprietor, while its function as a moderator of linkages in the NIS remains underdeveloped. Technological platforms can be a solution, but the governmental policy must become more flexible: as far as innovation projects move towards advanced stages of their life cycles, its function of direct funding should decrease, while that of risks reduction along with legal, organizational and networked support should increase. Training at all stages of the innovation cycle must be within state's priorities as well. In such case its intervention will be a "trigger" for long-term innovation projects, based on efficient linkages between key actors.

Success of technological platforms will indicate whether the institutions of the Russian economy and the state policy in particular are ready for transition to innovation-based growth de facto. But the capacity of making a breakthrough and stepping to the forefront in this area still remains under the question.

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Russia

Trade relations between the Republic of Belarus and the Republic of Finland in progress

By Gennady Korolyonok

Globalization of the world economy inevitably leads to wider cooperation between countries with different levels of economic development, one of its most important directions being a more intensive international trade. The latter is able to create the country's positive image abroad.

Foreign trade is progressing rapidly. It is greatly facilitated by free trade economic communities of different types (EFTA, etc.), customs unions (EEC) and other units existing in the field of trade. Thus, they allowed some member states to abolish customs duties and remove quantitative limitations to free movement of goods, services, capital and labour. All these measures substantially speed up trade relations between countries.

A certain progress is evident in trade relations between Belarus and Finland, too.

In 1992 the governments of the Republic of Belarus and the Republic of Finland signed the Agreement on Trade and Economic Cooperation that helped mutually accord the most favored nation treatment in trade. Its essence consists of providing participants with tax privileges such as lower charges, duties and taxes, and priority access for their goods in both countries, etc. These resulted in much more intensive trade between our countries.

Table. Distribution of Exports and Imports between the Republic of Belarus and the Republic of Finland

Index	Year							
	2005		2006		2007		2008	
	US doll., mln	% to total import/ export volume	US doll., mln	% to total import/ export volume	US doll., mln	% to total import/ export volume	US doll., mln	% to total import/ export volume
Exports	30.7	0.34	28.3	0.25	37.6	0.29	11.6	0.53
Imports	51.2	0.92	75.9	0.97	102.9	1.06	172	1.28

** See statistical digest "Внешняя торговля Республики Беларусь" (Foreign Trade of the Republic of Belarus) – Minsk: 2009, p.69*

The dynamics of trade relations is characterized by the data in the Table.

The Table proves a certain positive tendency in the trade between the two countries. Thus, exports from the Republic of Belarus between 2005 and 2008 grew to 115.6 mln. US dollars, i.e. 3.8 times, and imports – to 172 mln. US dollars, i.e. 3.42 times.

Yet, the volume of trade between the two countries in absolute figures can hardly be considered satisfactory, in spite of the general positive tendency in developing trade relations. To compare, the ex-USSR countries and countries of the former Soviet block, thanks to their traditional trade connections have the following indices in 2008: Poland – export of goods reaching 1808.4 mln. US dollars, import 1155.2 mln. US dollars; Lithuania – 622.5 mln. And 234 mln., Latvia – 2184.2 mln. and 138 mln. US dollars respectively.

Bearing in mind its high level of development in ferrous and non-ferrous metallurgy, machine engineering, electronic, paper and wood processing industries as well as in other economic fields, Finland is an attractive trade partner for Belarus. We should note here that during the world economic crisis countries experience reduction in trade relations which necessitates searching new possibilities to expand the trade cooperation between the Republic of Belarus and Finland. It is the interest in closer trade and economic cooperation between the two countries that necessitates considering at the government level establishing trade missions, opening trade houses, developing the commodity distribution network to mutually promote products to the markets of the Republic of Belarus and Finland.

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Development of innovations in Kaliningrad Region - general characterization and overview of the perspectives

By Timur Gareev and Igor Denisov

In the previous issue of the Newsletter both national and international dimensions of current innovation policies of Russian Federation were analyzed (to compare, see, for example, expert evaluations in articles 485 and 495 [Bimonthly Review, 2: 2010]). The aim of this review is to discuss the specific reactions of Kaliningrad region economy to innovation stimuli.

In 2009 Russian Federation introduced a chapter on innovative activity of its regions into the National Innovation Report. However, the innovation policy as a whole still lacks adequate geographical dimension.

Russian Federation has always been – and still remains – a country with a diverse regional landscape, and each of its regions has its own understanding of how to build up and develop regional innovation systems. Recent federal initiatives suggest that the country is implementing the model of concentrated (polarized) development of national innovation system ('top-down' approach). To give an example, one might recall both priority funding of the traditional centers of science and research and large-scale investment projects supporting the development of new 'science cities', such as Skolkovo.

The regions are actively competing against each other to attract targeted 'innovation development' funds. In this competition, the advantage of Kaliningrad region is geopolitical and institutional (thanks to its special economic status), rather than a research and development one. In many ways Kaliningrad region is a unique location for innovation development. One of the main features of innovation development is the fully-functioning 'science-industry-government' network.

As to its *science*, the region has three public institutions of higher education – Immanuel Kant State University of Russia (IKSUR), Kaliningrad State Technical University and Baltic State Academy. In addition, there are 8 research institutes, 9 research and development enterprises, 27 small innovation firms, 36 innovation-active companies and a number of individual inventors and innovators. Geographically, the major innovation projects and organizations of the region are concentrated in the city of Kaliningrad, which is characteristic for the regional development as a whole – its economy is mostly centripetal. At the same time, two other towns in the region have been recently demonstrating significant innovation system development: Gurievsk, which is located just outside the city of Kaliningrad and thus further strengthens the innovations center, and Gusev, which has welcomed a number of innovation-active enterprises and created an industrial part, and through that was able to decentralize innovation activity of the region.

As for the infrastructure, apart from the specific ministries of the Government of Kaliningrad Region, the region also has 2 non-commercial partnership projects: *Kaliningrad Center for Innovation and Technology* and *Kaliningrad Technology Transfer Center.* Other organizations that have to be mentioned include the Chamber of Commerce of Kaliningrad Region, 'Baltica' Innovation and Technology Center, SME Support Foundation, "Innovation park" of IKSUR and others.

In the middle of 2009 Russian Federation adopted a Federal Law on the creation of firms with participation of universities and research institutes. As a result, several of the Kaliningrad higher educational establishments have already launched a number of pilot start-ups. FASIE, the Federal Foundation for Development of Innovative SMEs, is the main source of financial support for the innovative enterprises in the region. Several projects operating under the umbrella of the Foundation – *Start, Razvitiye, Pusk, Temp, and U.M.N.I.K*. – stimulate the creation of those innovation businesses, whose primary goal is to create and develop intellectual property (such as patents, working models or production prototypes). In the 5 years of its work the Foundation has helped to launch almost 40 start-ups in Kaliningrad area, 27 of which are still successfully running their operations. The turnover of the most successful of those enterprises is sufficient enough to allow those companies to self-finance participation in large-scale regional, national and international projects. In 2009 alone those companies were able to set up 5 interregional and 3 international innovation projects.

Since 2006 the region has seen a significant increase in the number of qualified healthcare, medical education and medical biotechnologies resident personnel. This is directly connected to the creation of a new medical school at Immanuel Kant State University of Russia.

The industry of the region tends to follow a number of stages in adopting new technologies – from copying to innovations. Innovations are, as a rule, first introduced in the spheres of economy with low market entry and export barriers. This is typical of IT, for example; and the Kaliningrad Region now has more than 20 successful IT companies that specialize in development of software for export and providing IT-solutions for businesses. In the region, however, there has also been created a number of start-ups operating on the basis of self-developed innovations. This situation accounts for a recent advance of locally-produced technologies to national and international markets. This is characteristic for agricultural technologies, processing of raw materials, food industry, professional equipment development, healthcare and biotechnology, IT-solutions for agriculture and housing and utility services.

To stimulate the development of large enterprises of Kaliningrad region there functions a Special Economic Zone regime. The role of the latter in the innovative development is debatable. On the one hand, the SEZ regime attracts direct foreign investments (and related technological solutions). On the other hand, the tax relief conditions are not geared towards supporting innovative businesses. Since 2006 more than 60 companies (with aggregated investment potential of about 1 billion EURO) have been added to the regional resident registry, but only 10% of the 47 economically-active residents utilize innovative approaches. At the same time, the SEZ residents account for at least 20% of permanent investments (with the use of the newest technologies). Moreover, SEZ has 18 active residents with 100% foreign capital, and they are responsible for at least one third of the total amount of investment funds. The industry of the region still bears relatively high transaction costs related to the financing of the development of new technologies.

Deterrents of the innovation development in Kaliningrad region include structural limitations of venture financing, various substitution practices (e.g. demand for innovations is substituted with import), as well as lack of developed interregional and international cooperation and technology exchange networks.

The success of international business innovation cooperation is further deterred by the weakness of innovative

infrastructure and relatively low capacity of telecommunication networks. To a degree, the development of international cooperation between regional R&D centers that have experience in critical technologies is also hindered by certain institutional requirements (for instance, but the requirements of export control).

The perspectives of international cooperation in innovation and research lie in the implementation of two interrelated schemes. The first concerns the development of various tools of technology transfer within the cooperation network. *Gate2RuBIN* (Gate to Russian Business Innovation Networks) project, launched in 2008 on the basis of the *Enterprise European Network* (EEN), can be given as an example. The second – and the most attractive for Kaliningrad region of the two – is the creation of open, transparent mutually beneficial international cooperation in the Baltic Sea area. Both schemes should be prioritized in such projects as *Neighborhood*, and within the framework of other systemic international mechanisms.

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Branding the university - why and how?

By Pirjo Vuokko

In Finland, recent years in the university sector have been the years of mergers. These mergers have also raised questions concerning the names and visual images of the new, post-merger universities. However, more significant is that discussions on university branding are now more than ever in the air. This is not just because of the mergers, but because competition is more and more present also in the university life. Universities compete for the favour of different stakeholders, i.e. financiers, donors, potential and present students and personnel, media, and academic and business partners. These stakeholders make their decisions concerning the university based on their own knowledge, beliefs, values and criteria. This is where image, reputation and brand count: they have an impact on people's decisions.

What is then a brand and what does branding mean? In brief, two concepts are integral to branding: promise and value added. If a university really is a brand, it has an appealing promise to its stakeholders, and through its activities it offers value added, i.e. something unique and important for them. Promise does not mean promising just about anything that might inspire and tempt stakeholders. Instead, promise should concern issues that are characteristic to your university, i.e. things that make you you. This is important as the promises should be fulfilled, as well.

What really creates strong stakeholder relationships is the university's uniqueness. This does not necessarily mean that your curriculum is completely different compared to the others'. Uniqueness can also be based on how, where, when or with whom the university acts. The university can have, for example, its own solutions or ways of operating, it can offer its services through special channels, or it can offer its programmes to specific audiences. Of course, the people working within and with the university count as well. Whatever this uniqueness is for any individual university, it is important to strengthen, not weaken, the academic identity of the university through it. That is also what stakeholders wish for the universities to do. Therefore, two things are needed: point-of-parity (issues that make you a credible university, so that you are considered as a relevant choice) and point-of-difference (benefits that make you the best possible choice).

A few months ago I asked some business managers (who are important stakeholders for our business school) what kind of university offers most value added to them and their company. What they expected most from the university is success in research and education. They also valued a good university image, and competence to create and nurture long-term corporate links. When I asked the same question from the School's management and unit directors, the answers were much the same: high quality research, education and corporate relations were emphasised. These are also the three missions defined for Finnish universities. Therefore, university branding really means strengthening the academic identity and special features of a university.

Although branding processes usually involve lively and even passionate discussions over university name, logo or the visual image in general, these issues are but a small part of branding, and not even central to it. Brands cannot be built in an office or on paper. University is a brand, if the people relevant and important for it see it that way. It is important that the organisation itself recognises and defines its brand identity (how do you see yourselves), defines its target image (how do you wish to be regarded) and creates its brand strategy (how do you aim to achieve the target image, i.e. 'your brand'). Following these processes, the university may have such a position in its stakeholders' minds that it could be called truly a 'Brand'.

However, does this process bring value also to the university? Branding is said to be an investment. Therefore, it is relevant to speak about return on investment in this case, as well. Strong position, i.e. brand is an immaterial property or asset to the university (according to e.g. Interbrand's estimation, world's top brand companies may have greater immaterial than material property). It has an impact on the university's performance, makes its communications more effective, and makes it easier to create new relationships. Through branding, the university may emerge as a credible choice – or even the first choice. Being a strong brand may be like "lubrication oil" to the university's intentions and processes.

The meaning of branding is not only visible in relation to external stakeholders. What is also important is how it impacts the internal stakeholders, and how they, in part, have an impact on branding. Branding is not handled through printed plans, organisational changes, or external communications. Brands should be lived and experienced within the organisation. Living the brand means that the university personnel has such pride and passion for their work that it makes it possible to fulfil the university's unique promise. This should be reflected in leadership. If you wish to create a brand, you should have your leadership in line with the intended image, and all the university personnel should be informed, committed, and supported. Branding is everybody's process – or otherwise it is nobody's.

Branding is usually connected conceptually and in practice to marketing, marketing communications and image building, i.e. the organisation's way of telling about itself. However, it is not just the amount and volume of voice that counts. If you don't have relevant messages to your audience, volume or repetitions don't help to produce the intended impact. Therefore, it is important to know your audience. Branding processes require also listening to the stakeholders. If you wish to be strongly and positively in your stakeholders' minds, first you have to know what is already there: what they know and how they feel about you, and what kind of needs, values and expectations they have that match with the university's interests. Building a brand means being genuinely and continuously interested in the stakeholders. Therefore, more than just sending more messages towards the audience branding means expanding the ways to ask and receive messages from the audience. This way the university learns how to be a relevant and unique partner to its stakeholders.

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Finland

Estonia and the EU – political innovation and the quest for independence

By Jaak Treiman and Liisa Välikangas

The most recent financial crisis has ignited discussion about the European Union's viability. As the EU struggles to build confidence in the economies of some of its Southern member states concerns have been voiced that national sovereignty is a barrier to necessary corrective actions and that a failure to take effective action will emasculate the EU. The proposed EU right to inspect national budgets for their level of indebtedness is given as one example of sovereignty as a barrier – a supranational organization assuming a function traditionally in the exclusive domain of national government.

Estonia, and some other members of the former Soviet empire in the Baltic Rim, offers a counterpoint to any discussion about sovereignty and the EU. Also offered is a different perspective on how other issues facing the EU can be addressed. In 2004 Estonia joined the European Union precisely because it wanted to preserve its sovereignty, maintain its independence and enhance the well being of its population. It was willing to relinquish traditional indicia of sovereignty in order to do so.

In democracies the focal point of all national and supranational policies and activities is, or at least should be, the right to make free choices. Independence and sovereignty and policies that impact these concepts should be thought of in that context. Estonia, which throughout much of its history has lacked these privileges, is a helpful starting-point.

Since the 13th Century Estonians have been vassals to Danes, Swedes, Germans and Russians. Eventually, in 1918, freedom was secured and an independent state formed only to be lost as a consequence of World War II. Following fifty years of totalitarian governance that had no place for personal choice, Estonians regained their freedom and their country in 1991.

With its history of vassalage the Estonian national consciousness is sensitive to the possibility of foreign invaders – a sensitivity whetted by its Soviet occupation. Its journey through that occupation, rarely told by others, is well remembered by Estonians.

Secret protocols to the Molotov-Ribbentrop Pact of 1939 assigned Estonia to the Soviet "sphere of influence." The entry of Soviet troops into Estonia shortly thereafter marked the end of personal freedom and national independence and the start of another foreign occupation. Mock elections followed and a new, handpicked Estonian Parliament with Soviet soldiers nevertheless stationed inside Parliament's chambers and tanks outside "protecting" the parliamentarians but with turrets pointing toward the Parliament building, voted to become part of the USSR. Estonians had lost their independence and sovereignty.

Lacking a means for peacefully expressing their convictions, members of Estonia's Forest Brothers began to wage guerilla warfare against the Soviets. Their activity ceased in 1956, when the crushing of the Hungarian Revolution also crushed all hope for Western support. Their bylaws described them as a "voluntary, secret, and armed organization of national resistance" whose goal was "to fight for the honor and independence of Estonia" and to instill "faith in the restoration of Estonian independent statehood." They were "to act with responsibility and courage, without fear of giving my life for a better future for Estonia." The bylaws did not address what that "better future" would or should consist of.

It should be remembered that mass, random deportations, executions, losses incurred through war, and the flight of refugees between 1939 and 1944 resulted in an approximately 18 percent depletion of Estonia's pre Molotov-Ribbentrop population of 1.1 million. Between the end of World War II and 1949 Moscow sent a large influx of approximately 145,000 Russian workers to live in Estonia. More Russian and other Slavic immigration occurred in later years.

By 1989 Estonia's Estonian population had dropped from 94 percent to 61 percent. While loss of independence and sovereignty had not meant a loss of nationality, Estonians saw the infusion of non-Estonians, combined with other Soviet policies, as an attempt to obliterate Estonian nationality – its language, traditions and ethnicity. Combined with loss of independence and sovereignty Estonia and Estonians would become nothing more than a piece of history.

Economically Moscow sought to establish an industrial base of heavy industry and tied Estonia firmly into the centralized structure of its all-union economy. Loosely analogous to the British colonial system, the "center", i.e. the Russian Republic through its state organs, controlled the economy and the other republics, including Estonia, produced goods and agricultural products for the benefit of the center. Thus the freedom to choose one's toil and to benefit from it was compromised.

Although economically better off than most of the other republics Estonians' chaffed at the strictures of totalitarian rule and the deprivations and inefficiencies of the Soviet centralized economy. They recalled that before World War II Finland and Estonia roughly shared economic parity. Parity became disparity. The Soviet system provided fertile background for Estonia's independence leaders when they obtained a copy of Nobel laureate Milton Friedman's book, *Free to Choose.* For a people who rarely had the right to exercise choice, the book offered inspiration and a blueprint.

Either consciously or unconsciously, Estonians did not seek independence for the sake of independence. What they sought was, as the Forest Brothers said, a "better future". Independence was merely the best way to secure both their personal freedoms and their economic goals.

In 1991 World War II finally ended for Estonia, the "Singing Revolution" was complete and independence was again secured. The newly formed, democratically elected Estonian government began to reintegrate Estonia into international society and decided what economic and social policies the once-again independent country would follow.

Estonia quickly assumed membership in the United Nations and its various sub organs. Listening to its Eastern neighbor's continued growls, NATO membership was also deemed a priority, not only for its promise of collective security but also for the psychological deterrence it offered. Privatization, early issuance of its own currency and an unabashedly free market orientation were Estonia's economic mantras.

In an innovative political move, Estonians looked to insure their independence and sovereignty by voluntarily relinquishing some of the traditional indicia of independence and sovereignty. Estonia sought EU membership and continues its efforts to enter the eurozone. Interestingly, while externally the EU often sees itself as a vehicle for projecting a grander, worldwide European political influence and internally is focused on economic growth, for small

nation-states such as Estonia the EU is a vehicle for independence and freedom from outside tyranny.

Even as their development of a state that thrives economically and politically continues, Estonia is an example of agility and determination rising from the burdens of history to pursue liberty that the EU should emulate. Totalitarian regimes continue to pose challenges to democracy, economically and politically. The EU has concentrated on economics. Baltic Rim countries such as Estonia can provide a reminder that the case for political innovation that enhances the environment for political liberty can - and needs to - be sustained.

Innovation in democratic governance that goes beyond labels and catch phrases is sorely needed to counter the intransigence of bureaucracies and mentally aging societies looking back rather than forward, looking at enhancing old age pensions rather than enhancing the ability of the next generation to make its choices. Traditional models on which economic growth has been built, whether models of sovereignty or models of competition, will be challenged, as raw growth yields to strategic renewal and ecologically sustainable life styles.

Contrary to current headlines, the need for economic innovation may not be as dire as the need for innovation in matters of political governance, governance that enhances fundamental freedoms and provides an alternative to non-democratic yet economically powerful regimes. The European Union, with its incessant calls for growth to be delivered by its corporations and startups, should focus on remembering what its ultimate *raison d'être* is, ensuring the liberties of the people. It should proceed to innovate its own operating principles and procedures, remembering that its policies are ultimately a matter of choice for its people to make. In that quest, Baltic Rim countries can provide a ready and competent ground for experimentation in successful political governance.

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Rosnano and Skolkovo are Russia's best innovation promoting measures, but they are not enough to modernise Russia as a whole

By Kari Liuhto

No money today – no honey tomorrow

Russia spends only 1% of its GDP to research and development (R&D), which is a low figure even compared to China. In monetary terms, Russia's R&D spending is critically small, just about USD 20 billion annually. China invests 4 times more than Russia into its R&D.

Russia has put more emphasis on R&D by founding Rosnano, a major state-owned nanotechnology corporation, in 2007. Rosnano is a mega project in Russia's nano-modernisation. The corporation has close to 100 nanotechnology projects with total investments amounting to USD 8 billion, including USD 3.5 billion investments from Rosnano.

Besides the state investments, Russia needs to seduce the private sector, including foreign organisations, to invest more in R&D. Currently, Russian industry accounts for less than 30% in the country's R&D spending, whereas industry covers around 55-78% of R&D spending in the EU, the USA, China and Japan. This gives indisputable evidence that Russia's R&D is, at the moment, too state-run to form an effective, flexible, and sustainable innovation system. (*See Table 1 at the end of the article)*

Skolkovo: more special than others?

The World Bank survey ranks Russia's knowledge economy in 60th place out of 146 countries studied. Russia performs extremely poorly in terms of the Economic Incentive Regime, describing Russia's tariff and non-tariff barriers, regulatory quality, and rule of law. As Russia's business environment is harsh in general, it is no wonder why Russia has founded several types of special administrative areas since the collapse of the USSR. (*See Table 2 at the end of the article)*

Russia has around 100 science towns, techno parks and special economic zones. So far, the results of these privileged administrative areas have been extremely modest. Despite their less than encouraging experience, the Russian leadership has decided to found another science town, Skolkovo, to become Russia's Silicon Valley.

The recent public discussion around Skolkovo leads one to assume that the Russian leadership has learnt from earlier mistakes related to special zones, and hence, it grants Skolkovo sufficient administrative privileges i.e. tax holidays, a right to import technology from abroad without tariffs, and the freedom to operate outside the Russian bureaucracy. Even if considerable administrative privileges aid in designing a globally competitive innovation oasis inside Russia, the organisational skills of the leadership of Skolkovo Innovation City ultimately determine the success of this special zone.

Industrial catch up requires foreign firms

Skoda would obviously have bankrupted without their collaboration with Volkswagen. The Skoda story gives a valuable lesson to Russia's modernisers i.e. it takes far too long for Russian industries to catch up with their Western counterparts alone, and therefore, Russia should do more in attracting leading foreign firms to invest in Russia.

The inward FDI stock-GDP ratio in Russia is around 12.7%, whereas in the Czech Republic it is 52.7%. The difference of 40 percentage points really makes a difference in the future modernisation of these countries. The share of the FDI in the Russian GDP is absolutely too low to cause a major technology transfer to Russia, particularly when one keeps in mind that at least a fifth of Russia's inward FDI stock is Russian by origin.

According to the Foreign Investment Advisory Council, administrative barriers and other characteristics related to the administration are the main difficulties for foreign firms operating in Russia. (*See Chart 1 at the end of the article)*

The only way for Russia to attract foreign investment is to create more a competitive (less bureaucratic) business environment and to promote industrial co-operation with foreign firms. Russia has already carried out successful collaboration in the automobile industry, but closer co-operation is needed in other fields of heavy machine building, such as aviation and shipbuilding. To put it differently, Russia does not only need innovations geerating growth in the long-term but industrial co-operation generating wellbeing at the moment.

Russia's modernisation should not be regarded as a project with a fixed period but rather a comprehensive non-stop process all over the Russian businesses. Even if Rosnano and Skolkovo are, by far, the best shots in Russia's current modernisation arsenal, they clearly are not enough, and therefore, the Russian leadership should mobilise the whole Russian enterprise population to invest more in research and development. I am afraid that the activitisation of the enterprise population cannot be done dministratively but rather through more intensive competition.

Therefore, Russia needs to intensify its efforts: 1) in supporting privatisation (re-privatising the assets dropped into state hands in the aftermath of the global financial crisis), 2) creating innovation-oriented entrepreneurship (eliminating bureaucratic procedures and dramatically reducing the number of bureaucrats), 3) improving the functioning of the legislative system (making judges financially and politically independent), 4) improving investment climate (liberating the law on strategic sectors passed two years ago), and 5) promoting the internationalisation of Russia's knowledge-intensive organisations (encouraging Rosnano to establish repesentative offices abroad and financing the internationalisation of Russia's innovation firms).

To end, the EU-Russia Partnership for Modernisation is currently the main political framework to develop the EU-Russia relations in the field of innovation co-operation. This initiative should fast result in concrete actions. One of the concrete actions could be the establishment of the common EU-Russia Innovation Centre in Finland.

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Table 1

Country	R&D expenditure (USD billion)	Share of R&D expenditure in GDP (per cent)	Share of industry in R&D expenditure (per cent)	Number of researchers (1000)
USA	398	2.8	67	1 426
EU27	264	1.8	55	1 448
Germany *	72	2.5	68	291
Finland	7	3.5	68	41
Japan *	148	3.4	78	710
China *	102	1.4	70	1 423
Russia	23	1.0	29	451

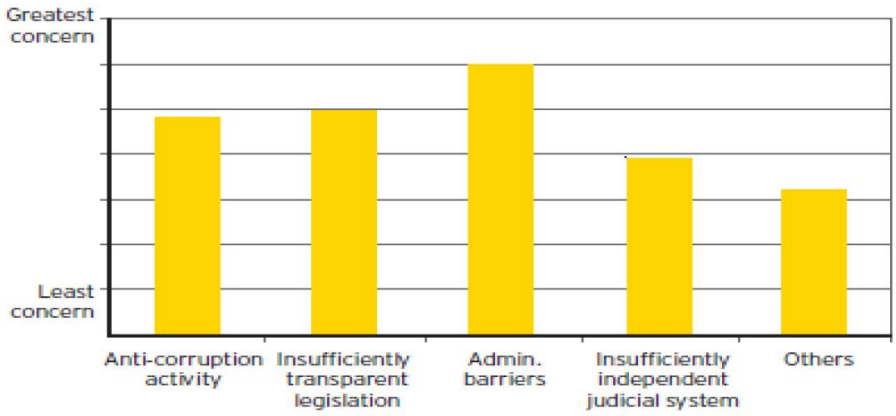
Source: OECD, Main Science and Technology Indicators 2009-2. * data of 2007

Table 2

Rank / country	Knowledge Economy Index	Economic Incentive Regime	Innovation	Education	ICT
1. Denmark	9.52	9.61	9.49	9.78	9.21
3. Finland	9.37	9.31	9.67	9.77	8.73
9. USA	9.02	9.04	9.47	8.74	8.83
12. Germany	8.96	9.06	8.94	8.36	9.47
20. Japan	8.42	7.81	9.22	8.67	8.00
60. Russia	5.55	1.76	6.88	7.19	6.38
81. China	4.47	3.90	5.44	4.20	4.33

Source: World Bank, Knowledge Economy Index, 2009.

Chart 1



Source: FIAC, Foreign Direct Investment in Russia 2008.

The EU-Russia modernisation partnership

By Fraser Cameron

At the end of May, EU and Russian leaders agreed at their summit in Rostov on the Don to work together on a 'modernisation partnership.' Behind the fine words of the summit communiqué, however, there are significant differences about what each side means by 'modernisation'. The situation is even more complicated because there are divisions within the Russian elite as the extent to which modernisation should touch the political system as opposed to economic reform. Igor Yurgens, the head of the Institute for Contemporary Development, a think tank close to President Medvedev, has outlined proposals for a comprehensive reform of Russian society. Those close to Prime Minister Putin prefer a more limited agenda, essentially seeking to make the current economic system work more efficiently.

The European Commission has put forward its own views on what the modernisation partnership should cover. Top of the list is the rule of law. This also reflects the concerns of President Medvedev who has repeatedly drawn attention to the problems of 'legal nihilism' in Russia. The absence of the rule of law not only hampers the development of a modern, civil society but also discourages Western investment in Russia. Russian leaders acknowledge the importance of attracting FDI to help the modernisation process but business leaders are hesitant to invest there without improved legal certainty and a fair dispute settlement mechanism. Guarantees concerning property rights are also essential.

The EU, largely through its support for programmes run by the Council of Europe, already makes some limited contribution to the strengthening of the rule of law in Russia. The EU could also assist Russia in drafting legislation providing for the safeguard of foreign investments. But the main push must come from Russia itself. Change has to start at the top and rhetoric must be followed by action. Many believe that the release of Mikhail Khodorkovsky, the imprisoned former boss of Yukos, would be a good signal of changed attitudes Fair and effective implementation of the laws is essential. Russia should give priority to the reduction and simplification of legislation affecting business activities.

Russian GDP and exports are highly dependent on energy resources. The Russian leadership has acknowledged the importance of diversifying the economy and increasing its trade. But Russia has given contradictory signals about its willingness and commitment to join the WTO and introduced a number of protectionist measures, especially non-tariff barriers, during the past twelve months. To reassure the EU and other international partners, Russia needs to give a categorical assurance regarding its commitment to join the WTO as soon as possible.

One area where both sides should see added value by working together is green technology. Russia lags way behind the EU in environmental standards and is one of the worse polluters when it comes to CO2 emissions. Helping Russia achieve greater energy efficiency would be a real win-win development. Such a move would tie in with closer cooperation in science and research where Russia is strong in a number of fields. The EU should increase funding for cooperation in science and research and facilitate Russian involvement in EU programmes. This should be linked to the modernisation partnership.

Another area where Russia could draw on EU experience is regional development. There are huge inequalities between the regions in Russia, a problem compounded by the many 'mono-cities' (dependent on one – usually out-dated – industry). Russia would also benefit from EU experience and technology in the renewal of its outdated infrastructure.

Such an ambitious agenda requires much more trust between both sides than is apparent today, especially after Moscow's military adventures in the Caucasus. There needs to be a vast increase in people to people contacts – students, different professions, journalists, lawyers, etc. Russia is keen to see the abolition of visas for visiting the EU. This is a fine objective but it would have a better chance of success if Moscow stopped making EU businessmen register every time they visit a separate region in Russia.

Finally, there should be a new EU budget line for EU-Russia relations with a specific focus on the modernisation partnership. If Russia is serious about modernisation – and there are serious doubts about the political will – then it should recognise that the only real source of outside assistance is the EU.

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Can Saint-Petersburg meet the challenge of innovation age?

By Oleg N. Misko and Sergei F. Sutyrin

One could sensible argue that transition of Russian society from its current natural resource based pattern of economic development towards "innovation-based" one constitutes top priority of Federal authorities. There are several Presidential Decrees as well as other basic documents (Federal Laws and Federal Programme) legally supporting abovementioned priority. Existing regional legislation specifies general goal to different aspects of innovation policy.

Traditionally being one of leading national scientific centers St.Petersburg logically enough strives for a status of "Russian innovation capital". Special comprehensive programme of innovation policy measures for the city has been elaborated in 2007 in order to promote respective changes. It includes infrastructural development; measures aimed at facilitation of contacts between Rosnano (State Corporation in charge of allocation of financial resources for innovations) and both individuals and legal entities applying for respective funding; provision of information support. Within the framework of the latter Second St.Petersburg International Innovation Forum took place on 30.09-03.10.2009 with a total sum of signed contracts equaled to more than 1 billion RUR (about 26 million euro[1]).

At the first glance all that might look impressive. At the same time real significance of so far achieved results appears to be pretty modest. In particular, this sum would be sufficient to construct just about 5 km of roads in St.Petersburg. As for existing infrastructure, at the moment it includes 12 information-consulting centers; one (!) business incubator; approved project of "special economic innovation zone" with assigned land plot; small number of other projects at the stage of design.

What about future prospects? In order to assess them properly at least two points should be taken under consideration. First of all, economy of innovations (as well as any other type of economy) should be based upon sufficient *resources.* In our case the key role belongs to human capital. Generally speaking St.Petersburg has certain competitive advantages in this field. Namely they are higher than national average educational level of labour force and well-developed network of universities (currently 101 both government and non-government entities of higher education) and research institutes (95 entities) with substantial stock of innovation projects potentially able to be introduced into industrial production.

At the same time, existing potential is clearly underutilized. According to the official statistics in 2009 for each 100 people employed by industry there were 20 people involved in various forms of R&D. In spite of this impressive ratio total value of all R&D contracts implemented in the city equaled to less than 7% of industrial production. One could sensible argue that real innovation component of these 7% hardly exceeds one third, that is about 2% of total industrial production.

Secondly, without an appropriate *system of governance* chances to succeed in transition under discussion are really pretty low. Traditionally Russian industrial sector and R&D one operated almost totally independent from each other. The former tried to buy technologies and new high-tech equipment mainly from abroad. The latter also preferred to focus rather on foreign customers than on domestic enterprises. The main idea behind establishment of State Corporation Rosnano was precisely to bridge this gap.

At the level of St.Petersburg above-mentioned comprehensive programme is the only official document, which defines trends and guidelines in development of regional "innovation-based economy". Meanwhile in its current form the programme has several obvious drawbacks. First of all, key economic indicators it is based upon are too general, partly irrelevant and open to serious distortions. In particular, number one in the list – GRP per capita – doesn't reflect any direct results or factors of "innovation-based economy". Both "value of dispatched innovative output" and its "share in total dispatched output" (second and third in the list) might include large or even very large components which have nothing to do with innovations per se. Unfortunately, regional statistical abstracts do not provide any information on definitions and methods used for respective calculations.

Secondly, neither general principles of the programme's no its criteria and indicators correspond properly with that of Rosnano. The latter focuses primarily on two indicators – total number of the companies established with its assistance and overall value of investments (loans and state guaranties as well as contribution in statutory funds of established companies). Under the circumstances probability of a certain conflict between two sets of goals is pretty high.

As for Rosnano taken as such, current performance of the corporation provides substantial ground for criticism. It might be challenged for its failure to create sufficient innovation incentives. Instead, in many cases it provokes elaboration of corruption schemes to receive budget financing for the projects often regardless of their innovative content. In addition, SMEs are doomed to be discriminated in their attempts to get support. It is both easier and better for Rosnano to finance one large project than several small ones. More than that, according to official site of the Corporation it invests only in the projects with expected annual sales after 5 years of their implementation exceeding 6.4 million euro.

Taking all this under consideration one could hardly feel optimistic regarding the prospects of St.Petersburg programme to be properly fulfilled by 2011. Data provided in Comprehensive programme of innovation policy shows next quantitative objectives to be reached by 2011: GRP per capita – 11.6 thousand euro (6.3), value of dispatched innovative output – 2238.2 million euro (604.9), share of dispatched innovative output in total dispatched output – 10.3% (2.0), technological innovations – 581.5 million euro (33.3), number of elaborated advanced production technologies – 97 units (169), number of issued patents – 2585 (n.a.), number of employees in R&D – 111,0 thousand persons (44.7)[2].

To sum up, in order Russia in general, St.Petersburg in particular could adequately meet challenges of innovation era serious adjustments in the governance of the process are needed both at the federal and regional levels. Without these adjustments Russian quest for "innovation-based" economy is most probably doomed to share destiny of many previous officially declared campaigns.

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[1] 1 euro=39,04RUR (22.04.2010); the same exchange rate is used through the whole article.

[2] Data in brackets shows the 2008 statistics.
Source: Calculated on the basis of Petrostat, Goskomstat, www.spbinno.ru

The EU and Russia already have what it takes to succeed

By Hiski Haukkala

Innovations and becoming an innovative information society seems to be the buzzword currently in Russia. Perhaps the most eloquent proponent of the approach has been the President Dmitri Medvedev who tirelessly in his recent speeches has spurred Russia to engage itself in a radical overhaul of its economy and society. The starting gun in this respect was his long article "Forward Russia!", published on the web-pages of gazeta.ru in September 2009.

This debate has gathered momentum in recent months. Another important catalyst for the debate was the Moscow-based Institute for Contemporary Development (INSOR) report "Russia in the 21st century: vision for the future" on Russia's future choices in early 2010. In the report a group of Russian intellectuals fleshed out a vision for an open and liberal Russia that would eventually become fully integrated into the main Euro-Atlantic structures, NATO and possibly even the EU included.

This is not the place to discuss the realism of these ideas. The main point is that as a result of these inputs, the Russians are now engaged in a lively domestic debate concerning the prospects of Russia's modernization. In addition to seeking to embrace innovations in the abstract, the Russians are now asking themselves what it actually means in the here and now. This is also forcing them to take a long hard look into the mirror and to concede that they do not particularly like what they see: Russia is seen as lagging behind the rest of the world. In President Medvedev's words, Russia suffers from endemic corruption and backwardness and these are key things that need to be rectified if Russia is to become a modern and successful state in the 21st century.

These debates and intentions are of course highly welcome. In a certain sense, Russia has squandered its first two post-Soviet decades. Although many of the old structures have been dismantled, new industries and new competitiveness have failed to materialize. Now it seems that Russia has set its sights to rectify this shortcoming. The choice is overdue but a correct one. It is also going to be difficult, as the gap between Russia and the rest of the world, including Russia's reliance on the primary sector for economic growth, has only increased during the 2000s.

The domestic debate in Russia has already had an impact also on the country's relations with other actors. When it comes to the EU−Russia relationship the key word now is Partnership for Modernization, or P4M. The concept was launched by the President of the European Commission Jose Manuel Barroso at the EU−Russia Summit in Stockholm in November 2009. The initiative has been received with some enthusiasm on the Russian side. The recent EU−Russia Summit in Rostov on Don in June further endorsed the idea.

On the one hand, the P4M is to be welcomed. In recent years the EU−Russia relationship has been characterized by mutual indifference; it reminds of a strategic partnership adrift. During the recent period of better U.S.−Russian ties this feature has become more striking: The U.S. and Russia have been able to agree on a new START treaty while the negotiations for a new post-PCA agreement have shown only limited progress (to be sure, the new EU−Russia agreement is much more ambitious and wider that the new START). Yet if the new P4M results in improved atmosphere between the EU and Russia and helps the two to concentrate their minds on actual substance then it is to be welcomed.

But on the other hand the P4M concept raises some questions as well. As was already mentioned, the EU and Russia already have another on-going process: the negotiations for a new post-PCA agreement. Nine rounds of talks have been conducted but the process has been fraught with difficulties mainly due to Russia's unclear stance concerning the WTO membership which for the EU is a sine qua non for a deeper economic engagement with Russia. In this respect it would be unfortunate if the P4M concept further diverted energies from the negotiation process or the actual task of bringing Russia's economy closer to Europe.

In the final analysis, the EU and Russia do not really need a new Partnership for Modernization. In fact, it would not be a disaster if they failed to complete a new post-PCA agreement, either. The current PCA is still based on a vision that is sound – Russia's integration and close political cooperation with Europe. What is more, the two parties already engaged themselves five years ago in a detailed exercise to create Four Common Spaces for cooperation and joint road maps to guide their implementation– another useful instrument that seems to be in danger of falling to the wayside.

In this respect it would be unfortunate if the parties invested their best energies into yet another protracted process. There is no need to re-invent the wheel as all the necessary ingredients to succeed are already in place. What is required is determined and persistent implementation to reach these goals. Admittedly, that will be an exercise where the devil may reside not only in the details but all along the way.

At the end of the day the issue boils down to Russia's own choices. Encouragingly, the debate is now there in Russia. Russians are once again pondering the future, which was not the case just a few years ago. So a chance to reinvigorate also EU−Russian relations exists. But no one can ram it down the Russians' throats. The decision can only come from and be made by the Russians themselves.

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The writing reflects personal views and do not necessarily represent the official Finnish position

Assessing the prospects of Russia's modernization

By Igor Torbakov

"Modernization" appears to be the most important catchword in Moscow these days – similar to glasnost and perestroika twenty five years back. However, the mixed – if not outright confusing – signals concerning Russia's societal transformation coming from the country's top echelons of power suggest that the prospects of Russian reform are dim.

There seems to be a consensus among analysts that the Kremlin started making noises about the need of a thorough modernization of Russia's economic system having been seriously alarmed by the impact of the global crisis. No wonder – as the world-wide economic downturn has hit Russia particularly hard: by the end of 2008 Russia looked more like a fragile and unstable petro-state rather than a mighty energy superpower as its rulers chose to cast it during the pre-crisis "fat years" of the sky-rocketing fuel prices.

It was these new drastic economic circumstances that prompted some forward-looking economists and liberal-minded members of Russian political class to ponder the best possible ways out of the crisis situation – whereby the ad hoc anti-crisis measures would be combined with the comprehensive modernization strategy. Out of that intellectual milieu came President Dmitry Medvedev's now famous essay "Go, Russia!" which some commentators labeled as Russia's "modernization manifesto."

Remarkably, though, Medvedev's piece clearly reflected – in both what it did say about the Russian situation and what it ignored – the formidable obstacles that any thorough transformation of Russia's socio-economic system is likely to be faced with.

Analyzing the current state of Russia's economy, Medvedev did admit in no uncertain terms that the "emperor has no clothes" – Russia's outdated resource-based economic model, he said, is unsustainable and should be replaced by the modern knowledge-based innovative economic system. Missing from his analysis, however, are two key aspects – 1) the discussion of how the resource-based economy feeds the rent-based social system and authoritarian political regime and 2) the idea that there is a vital link between successful economic modernization and the reform of key state institutions.

I would argue that it is precisely the so-called "resource curse" that makes Russia a country that is particularly difficult to "modernize."

As some perceptive analysts have long argued, already since the 1970s, that is, even before the collapse of the Soviet Union, a new and troubling trend has been on the rise whereby the country came to be increasingly dependent on the export of natural resources. The proceeds from the trade in commodities have in no way been connected with either the labor productivity or the country's general economic development. This trend appears to have reached its pinnacle during the so-called "Putin decade" which was blessed with the super-high prices for hydrocarbons – a fact that is reflected in the Kremlin's pet concept of "Russia as an energy superpower."

This same "Putin decade," however, has clearly demonstrated that the political risks of the resource-based economy are too high as one of its most debilitating results is the degradation of most social institutions. Russia's current political regime – the proverbial *vertical of power* – with its rubber-stamp parliament, phony party system, subservient judiciary and controlled media is intimately interconnected with Russia's economic resource-based model resting, as it is, on three main foundations: rent-seeking, corruption, and monopoly.

Symptomatically, the global crisis seems to have made the resource-based nature of the Russian economy even more pronounced. As some commentators note, most measures adopted by the Russian government in 2009 led to the aggravation of the "resource curse" – Russia's extracting industries have found themselves in even more privileged situation than they were in prior to the global slump.

So we appear to be witnessing the classic case of a vicious circle: the abundance of "cheap money" originating in the oil and gas sector spawns corruption, rent redistribution and patronage networks eventually leading to the degeneration of social institutions – which are vital to the progressive development of other (non-resource-based) industries.

Now, the big question of course is this: are there within Russia's political class the forces which are capable to act as the agents of change? So far, the answer to this question is unclear. There are two reasons why Russian elite seems reluctant to initiate a comprehensive transformation of the country's socio-economic system.

First, Russia's current leaders belong to the generation who lived through the collapse of the Soviet Union. Although they might be ignorant of Alexis de Tocqueville's famous dictum that the "worst times for a bad regime come when it makes attempt to improve itself," but the experience of the erratic reforms of the late 1980s that led to the disintegration of the great state undoubtedly left an indelible mark in their psyche. Second, the Russian rulers presiding over the current authoritarian regime are perfectly aware that any modernization that would encompass the wholesale reform of the state will eventually bring about their own redundancy – like other authoritarian modernizers before them they will have to leave the political stage.

On the other hand, though, the most perceptive members of Russia's political class seem to understand that the only alternative to the country's modernization is its further degradation and geopolitical marginalization.

The mixed signals coming from the Kremlin appear to reflect the confusion of Russia's leaders about the tough choices they are currently facing.

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Progress of the Special Economic Zones in North-West Russia

By Stanislav Tkachenko and Dmitry Tkachenko

Plans for establishing Special Economic Zones (SEZ) in the USSR were first announced in the mid-1980s. Already at that time the consensus had emerged that the most efficient location for these zones was in the border regions – in Belorussia and the Baltic Republics. But the discussion on the level of experts and government officials didn't produce than any clear results. During the last years of the USSR, the initiative for development of SEZ projects moved to the regional level, with "Vyborg" SEZ in Leningrad Oblast as one of forerunners. After the disintegration of the USSR, the development of the full-scale legal basis for SEZ has finally begun.

Federal legislation of SEZs

Legislation on SEZs in Russia today consists of:

- The Federal Law of 22.07.2005 № 116-FL (as of 31.01.2008) "On Special Economic Zones". This Law gives a definition of "Special Economic Zones", lists the four types of these zones, describes the types of economic activities residents are allowed to engage in, and defines the legal procedure to establish and manage these zones.
- Regulations of the federal Government and the Ministry of Economic development. These documents (about 60 overall) define incidental issues of Russian SEZ's performance.
- The Edict of the President of the Russian Federation in July 2005, № 885 «On the Federal Agency's Management of Special Economic Zones" (FAMSEZ). The Agency has received the power to establish and manage Special Economic Zones.

In 2006 the Government of Russia has set up the Joint Stock Company "Special Economic Zones" and on January 26, 2010 banker Igor Kosov was appointed as its CEO. On November 5, 2009, Presidential Edict № 110 revoked the FAMSEZ and divided its functions and project funding between the Department on Special Economic Zones, the Ministry of Economic Development and the Joint Stock Company "Special Economic Zones"

There are altogether 17 SEZs today in Russia. Investing rather significant federal resources into them, Russian authorities have the following priorities:

1. assistance in diversification of the national economy;
2. development of the manufacturing industry;
3. engineering design and production of high-tech goods;
4. modernization of transport and logistic infrastructure;
5. contribution to modernization via creation of growing points of technological growth.

SEZs in North-Western Russia

North-Western federal district (11 regions including St. Petersburg and Kaliningrad) is characterized by a high level of economic development, skilled labour, and strategic location vis-à-vis the European Union – Russia's most important economic partner. As we have mentioned, the very first SEZ has been opened in the Kaliningrad oblast since 1990, even if its economic development was unstable. The zone has experienced a rebirth in 2005, simultaneously with the replacement of the previous generation of Kaliningrad regional elites, who were closely connected to the military establishment. New governor Georgy Boos is a "heavy-weight" politician, serving prior to his governorship as Deputy Chairman of the State Duma and Minister of Taxation. On January 10, 2006 the Federal Law № 16-FL "On economic zone in Kaliningrad region" was adopted. It provides the regional administration and residents of the SEZ with badly needed standardization and accountability of legal and administrative regimes.

The creation of the SEZ in St.Petersburg was approved on December 21, 2005 by the Regulation of the Federal Governmental № 780 "On creation of special economic zone of the innovational type in St. Petersburg". The Special Agreement "On creation of special economic zone of the innovational type on the territory of St. Petersburg" was signed on January 18, 2006 between the Government of Russia and the Administration of St. Petersburg. This SEZ is divided in two sections: 1) "Noydorf" (Strelna suburb of St.Petersburg) – 19 ha, and 2) "Novoorlovsky forest park" in northern St.Petersburg – 110 ha. The SEZ will start its full-scale functioning in late 2010-early 2011, with RUR 9 billion of public (federal and regional) investments put into infrastructure and more than 30 already registered residents. Specializations of the St. Petersburg SEZ include the following: instrument-making; health-related technologies; electronics; means of communication and IT-technologies.

In addition, on February 3, 2007 a Special Economic Zone for tourism and recreation at the Zelenograd district of Kaliningrad oblast has been approved. Its territory is 67 square kilometers, and its funding from the federal and regional budgets amounts to about RUR 2 billion, as well as private investments totaling up to RUR 6 billion.

Nowadays only one of three SEZs in NW Russia (Kaliningrad) may be considered as functioning well with significant inbound investments and positive impact on the regional economy. There are 63 residents in the Kaliningrad SEZ with gross accumulated investments of RUR 41,5 billion. Until now RUR 21,4 billion was used for new construction, RUR 1,5 billion was put into reconstruction of already existing industrial/logistic infrastructure and, finally, RUR 17,6 billion was utilized in fixed capital and new technologies. The largest number of residents is in the manufacturing sector (34), with the construction sector in second place (16) and transport and communication companies in third place (13). In January 2010, 45 of 63 residents had already started their business, with total shipment and production of rendered services at RUR 27,7 billion in 2009. There are 5,500 employees at the SEZ businesses, and 80 % of the production of the SEZ in Kaliningrad goes to the Russian market.

The problems which the Kaliningrad zone is facing, are: 1) the long distance from the SEZ to receptive markets of Moscow and St. Petersburg; 2) the complete dependence of residential companies on imported raw materials and assembling parts; 3) the lack of the federal government's strategic vision on long-term socio-economic development of the Kaliningrad oblast.

There are even fewer results to be considered in St.Petersburg: there are plans to start first production at the "Noydorf" section of the SEZ in late summer of 2010. And there is not a single resident in the Zelenograd tourist and recreational SEZ in Kaliningrad at this point.

Challenges

The following challenges face SEZs in Russia today:

1. *High threshold for inbound investments into SEZ* required for residents to receive official status (just recently it was decreased from €10 million to €3 million).
2. *Shortage of experts in the management of the SEZ and professional personnel for registered enterprises.*
3. *Long periods of infrastructure's construction by regional authorities.*
4. *Bureaucratic hurdles*, which prevent many businesses from entering SEZs and starting their operations.

In September 2009 President Dmitry Medvedev of Russia has announced his "modernization" strategy. At the center of it is the construction of Skolkovo – an ultra-modern research and technological complex next to Moscow - a Russian analogue of the Silicon Valley. The status of Skolkovo in some respects is close to a traditional SEZ. But since Skolkovo is a testing ground for Russia's attempts to convince other regions of the country to attract both modern technologies and leading international specialists – further optimization of SEZ legislation and practice of its implementation is considered today as the strategic priority.

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The bumps in Russia's innovation chase

By Valtteri Kaartemo and Kari Liuhto

In 2005, four new technology-innovative special economic zones (SEZs) were set up in order to facilitate Russia's transformation from a resource-based economy to a more innovative system. It is acknowledged that SEZs are necessary but not sufficient instruments for the modernisation process in Russia. This acknowledgment refers to the foreseeable bumps ahead in the Russian innovation chase.

The purpose of the SEZs must be linked with the aims of the modernisation process. Modernisation should not be considered as a government programme but as a constant activity in everyday life. Major changes occur only when there is a real need to change i.e. free and fair competition is the only way to force the companies to constantly improve their practices. Common wisdom says that without competition there cannot be competitiveness. Therefore, Russia should abolish the obstacles to free competition, including the privileges of oligarchs.

Without the participation of the world's leading innovation companies, Russia's innovation reform will remain a political exercise. The Skoda case shows that international brand co-operation creates consumer confidence and success stories. Without international brand co-operation, it will take decades before "Made in Russia" stands for high quality. Without foreign participation, Russian natural resources will run out before innovation reform brings tangible changes to the Russian GDP.

Should the Russian innovation reform lean on the military-industrial complex, the participation of leading foreign companies in Russia's innovation reform will remain modest and Western countries will implicitly restrict the inflow of Western high-tech to Russia i.e. the era of the neo-CoCom policy will commence.

Russia's bureaucracy causes enormous inertia, and Russia's novel ideas at the top of society do not materialise at regional level without breaking the passive change resistance forces of the regional administration. The training of regional elites and the nomination of the new change forces is the only way to transform reform at the federal level to reach regional levels. Without corruption-free regional elites, any current reform is doomed to be a superficial administrative exercise.

The impact of the zones must be dispersed throughout the rest of the economy to have a wider influence on the modernisation process. Alone, the SEZs do not provide anything. It is the effective use of these instruments, which may have impact. The innovation activity of the state-run corporations (Rosnano and Russian Technologies) and major private corporations is a necessary but not a sufficient condition to cause major reform in Russia. Therefore, the mobilisation of the private sectors' R&D expenditure, particularly among SMEs, is key in modernising Russia's natural resource-based economy. In this context, one should bear in mind that companies are not interested in economic modernisation but achieving their own goals. Currently, the private sector (including major private corporations) accounts for only 20–25% of the R&D expenditure in Russia.

The concentration on high-tech innovations is a risky innovation policy, since the development costs and possibility of failure is higher than that of low- and medium-tech innovations. Moreover, low- and medium-tech innovations' spill-over effects often occur faster than that of high-tech. The high political value of high-tech innovations may thus realise itself too late. Therefore, Russia's innovation policy should not only build on high-technology but on the products and services in which wide population of Russian companies have existing advantages.

Moreover, in order to enhance the process, the SEZs need to contain the "specialty factor", which means that the zones must differ in characteristics from the rest of the economy. We claim that SEZs in Russia are not special enough to result in a major FDI inflow to Russia, which is a prerequisite for economic modernisation. The SEZs should either offer more benefits to foreign investors or the SEZs should be abolished. No matter which alternative is chosen, the major policy measures should be directed to improving the immaterial property rights and functioning of the legal system i.e. the improvement of the general investment climate.

Russia's innovation reform, with the aforementioned bumps, can be compared to car racing. Rosnano, Russian Technologies and innovation-financing institutions are fuel for the car engine, which is formed mainly by the Russian SMEs and large corporations. The research institutions and academia provide the headlights to see a bit further ahead. The political leadership forming the driving team (the driver and the navigator) should have a consensus on the direction they want to steer their vehicle. The driving team can avoid the bumps and the road blocks ahead created by bureaucracy only by studying the route in advance. However, the driving tandem cannot influence the speed of the competing teams. Unlawful measures result in disqualification and loss of permission to participate in the global race. The Russian population monitors the developments from the back seat, and possibly changes the driving tandem, if they do not show acceptable results rapidly enough. Even if the future of Russia's modernisation is everything but certain, one cannot win without participating in the race. Fortunately, President Medvedev's team has realised this, which gives Russia a chance to succeed.

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Big projects as a stimulus for innovation development in Russia

By Irina Dezhina

During the last several years there is an ongoing discussion concerning the measures and approaches to stimulate innovation development in Russia. Should the country put its major effort in development of breakthrough innovations or should it support imitations (through purchase of foreign equipment and technologies, licenses, know-how, etc.)? Breakthrough innovations are usually seen in the form of "big projects" – in a way, this is a Soviet legacy when big projects were considered as a measure to keep independence, defense capability and such. Still, counting on "technological breakthrough" is the prevailing approach in government policy at the present time.

Moreover, big projects are playing a growing role in recent innovation policy. These are creation of nanotechnology network, establishment of national research and federal universities, large initiatives to attract best foreign scholars to Russia, and, finally, the project to build an "innovation city" in the Moscow region, at Skolkovo.

In February 2010 President D.Medvedev announced the intention to create a modern science-technological complex aimed at development and commercialization of new technologies, in five areas that he earlier announced as all-country priorities: energy efficiency, information technologies, telecommunications, biotechnologies, and nuclear technologies. According to the President, this should become an absolutely competitive project, and this is how it differs from everything that was done so far. In another words, the government has admitted that all previous measures in the innovation area were not globally competitive.

Since the very beginning this was and continues to be a purely "governmental" project – because its concept, location and other basic questions were discussed in a narrow circle of government officials with very limited representation of some largest companies. Regional leaders were not included in the discussion.

Initially it was announced that the place where the new city should be located, will be selected based on such criteria as the level of infrastructure development as well as its accessibility. Therefore regions meeting such criteria (for example, Tomsk, Novosibirsk, St.-Petersburg, Obninsk, Dubna, Zelenograd and some others) were ready to compete to become a new innovation city ("innograd"). However later it was announced that the winner is Skolkovo – a location that evidently does not satisfy all of the announced requirements.

It may be assumed, that in the government there were two competing concepts. According to the first one, it is crucial to build a new city in an empty space because it is easier to start from scratch in order to bring new culture, technologies, and "people without past". The competing approach is that the city should be based in an already well-developed place where government previously made large investments in infrastructure – for example, in one of the four currently existing technical-innovation zones. Indeed, it is better to try to build something new and avoid any bad legacy; but is it possible to find people "without past"? Also, the "ideal model" of Skolkovo was seen as replication of the U.S. Silicon valley. However American specialists admit that it is impossible "to build" Silicon Valley but rather there should be made an attempt to create conditions favorable for its natural appearance. As it is widely known, the phenomenon of Silicon Valley was not widely repeated even within the United States.

The final choice was for building all new infrastructures which, once again, may be interpreted as a failure of previous government projects to created innovation environment in the country. But if so, why there was no hindsight, why were not the mistakes and omissions made in the past evaluated?

The selection of the place was followed by unprecedented government decisions concerning establishment of privileged economic conditions within the borders of a new city. The package of new legal initiatives should be presented to the members of the State Duma by the end of the second quarter of 2010. The new measures include but are not limited, to:

1. Introduction of diverse system of tax exemptions and privileges.
2. Development of simplified rules of technical regulations.
3. Introduction of special sanitary regulations and norms of fire safety.
4. Facilitation of coordination with different authorities, and creation of brand new "user-friendly" subdivisions of such government agencies as the Ministry of Interior, Federal Migration Service, Federal Tax Service, Federal Customs Service, Federal Patent Office and some others.
5. Creation of brand new R&D centers – at least two in each Presidential priority areas, modeled from the U.S. experience.
6. Special conditions to attract foreign specialists to work in Skolkovo, based on the changes in visa system and migratory legislation.

Meanwhile the volume of investments in the creation of Skolkovo is not defined yet, partly because not all deals are negotiated. For example, under discussion is the participation of the Massachusetts Institute of Technology in the establishment of an R&D center and in the formation of a new technical university that will be located in the territory of Skolkovo.

It is expected that the first outcomes will be visible not earlier then in 2015. Even though the overall hopes are very high, the very process of this project's birth and the first steps of its realization have revealed problematic areas and pitfalls of the government innovation policy. First, the decision-making process may be called situational when at the beginning and the end choices are made on the basis of political considerations rather then economically justified criteria.

Second, there is a certain degree of idealization of foreign experience. Foreign approaches are often seen as perfect models, and the wider context in which they are working is not counted. The measures themselves are not viewed critically, in their evolution. In the final analysis this leads to disappointment because the adopted measures do not work correctly in the Russian environment. Third, there is a dramatic lack of monitoring and evaluation of previous initiatives; hindsight is unfashionable; only foresight is developing.

When there are resources, political will and a thought-out strategy for realization of a big project, then the chances for success are rather high. However all previous Russian history of big projects shows that some of the important components are always lacking. The Skolkovo project may become a success if it will manage to create a persuasive set of measures, which, in turn, will provide an insight in how all government structures should work in order to create an innovative environment – not in the selected city but in the country as a whole.

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Russia

Developing the Russian innovation system – potential for increased cooperation with Finland

By Kaisa-Kerttu Peltola

Russia has a lot of largely unused innovation potential and the country has a relatively large science base and a well developed education system in science and technology. One of the positive characteristics which should also be better utilised is the large potential market and resources for innovative activities in Russia. Indicators of innovation activity, however, reveal an imbalance between the public resources allocated to knowledge creation and the innovation outputs. This imbalance as well as the limited role of the private-sector in R&D, are some of the major challenges of the Russian innovation system.

Russia's innovation system is still in the phase of transition resulting in problems such as the lack of cooperation and coordination of different organisations in the innovation system and undeveloped intermediary system which have had a negative effect for instance on commercialisation of innovations. Supporting cooperation on national and international levels should therefore also be emphasised in the Russian innovation policies.

Although Russia has made progress in the development of innovation policy, policies have been largely based on a research-centered ideology and have not been able to repair the weaknesses in the innovation system. Russian science and technology policy has a strong focus on the R&D which has not been responding to the demands of the market. More support for market oriented innovation development and commercialisation of innovations, by means of development for instance public-private partnerships, would be needed, in order to make the innovation process in Russia more effective.

An important challenge of the Russian innovation policy is to encourage a stronger participation of the Russian business sector in the innovation process, as the lack of commitment by the business sector is a major weakness in the Russian innovation system. Integration in international markets and attracting more foreign direct investment in technology intensive sectors should also be emphasised in the Russian innovation policy in order to promote technology transfer and accelerate technical progress. Russia has a lot of potential in certain leading research and innovation industries. However, the efficient use of vast natural resources on the international market is a challenge for Russia's technology intensive industries as well as its ability to commercialise research findings into marketable products.

Attraction of foreign investment and foreign presence is important for Russian innovation system and learning from foreign experience is growing but it is not yet a standard activity of responsible government ministries. Although Russian companies have already entered into partnerships with foreign companies in various ways in order to get access to the latest technology as well as managerial and marketing experience and Russian research organisations have been active in mobilising foreign support and research contracts, this development should be further supported and developed in the government policy level.

Despite the problems of the Russian innovation system it also provides foreign actors with opportunities to expand their operations and benefit from the developing opportunities. Considering potential for increasing cooperation between the Finnish and Russian innovation systems opportunities for benchmarking and mutual benefits can be found. One of the strengths of the Finnish innovation system is a well developed network of intermediary institutions providing innovation support and expertise, set up to help Finnish businesses, universities and other providers of knowledge to use different services at different stages of the innovation process. Collaboration between the private and public sector in Finland is also strong. On the other hand, the relatively small size of the country can be considered a weakness as the domestic market for innovations and R&D is quite small.

Russia, on the other hand, provides with a large potential market and resources for innovative activities. As pointed out earlier Russia still has transitioning innovation system where market oriented actors coexist with Soviet-style organisations and mechanisms. The different strengths and weaknesses, however, create many opportunities for mutual learning and cooperation between Finland and Russia. Finnish actors can benefit from the opportunities of the market potential nearby and the knowledge and experience of the Finnish as well as other foreign actors can have a positive effect on the development of the Russian innovation system.

Increasing the efficiency of the Russian innovation environment is, in other words, also in the interests of Finnish organisations as it offers new opportunities for innovative activities. The cooperation and creation of networks with different levels of the national innovation systems involved in the innovation development including the public sector organisations is a precondition for the cooperation. Policies enhancing the cooperation between Finnish and Russian innovation organisations are needed, especially cooperation within concrete projects with mutual benefits should be further supported by governments on both sides.

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Commercialisation of innovations requires co-operation and networks

By Leena Aarikka-Stenroos and Birgitta Sandberg

Innovations have been acknowledged to be critical to the long-term survival of many firms and vital for the future prosperity of various regions. However, developing and marketing innovations are known to be very demanding tasks. Challenges in development are related to technological uncertainty. It is widely acknowledged that R&D co-operation provides access to complementary technological knowledge and, hence, helps in managing uncertainties related to technology. However, overcoming the technological challenges is not enough to turn invention into innovation, i.e. to make it succeed commercially. Commercialising an invention also requires coping with considerable market uncertainty, which stems from the novel features of new products. Customers, distributors, partners and other actors in the business environment may find it hard to accept a new product. In these situations traditional marketing tools tend to be of limited use.

However, co-operation and networking may help a firm to overcome the challenges inherent in the commercialisation of innovations. Marketing resources gained through network relations may be an effective way of decreasing marketing costs and of communicating multifaceted benefits that prospective users may otherwise fail to understand. Small firms in particular may lack financial and competence resources, and the legitimacy that enables them to reach potential customers. Thus, relations in commercialisation networks can facilitate diffusion and adoption, and provide manifold complementary resources. Various actors with diverse resources contribute commercialisation tasks such as customer education, distribution, marketing communication, and credibility building. Innovating firms thus need to develop relationships with critical parties in order to establish a supportive commercialisation context.

When an innovating firm moves from development to commercialisation its network relations change radically. It is however challenging to create relations between actors who have not co-operated before. In fact, the existing relations and resources of actors in the development network can be extremely valuable in enabling change in commercialisation in terms of building trust, credibility and commitment. Therefore, we suggest that commercialisation activities should start during the development phase and managers should already then purposefully create relations with diverse actors that are either of direct use in commercialisation or that have relations with other relevant actors. Hence, the key actors would be committed to the innovation before the commercialisation begins.

The innovating firm needs to forge relations not only with users but also with leading partners such as distributors, complementaries and opinion leaders, whose contribution to market creation is crucial. In the optimal situation networking for commercialisation combines the complementary resources of service and product providers in different kinds of related industries and profit and non-profit organisations. Actor dissimilarity and the multidimensional structure of the network foster commercialisation because different actors carrying out different tasks are more likely to complement each other. It has been earlier acknowledged that the development of innovations benefits from co-operation across industry borders and combinations of knowledge from different branches. However, we argue that such a radical combination of resources might also benefit the commercialisation. For example, Finnish Nordic Walking Poles were successfully commercialised in the co-operation of Exel Ltd (innovating firm), various non-profit organisations, and sports institutions.

Nevertheless, we acknowledge that actor diversity and dissimilarity tends to complicate the manageability of the network. Actors are committed to commercialisation only if it fits in with their activities, strategy and business model. Potential partners need clear resource trade-offs as motivators to integrate resources, especially if they do not see the co-operation as strategic. Trust building is increasingly important in innovations because the emerging business ideas are vague and the goals, roles and activities are blurred, and co-operation may easily turn into competition

To sum up, commercialisation of an innovation does not need to be a battle of an individual innovating firm, but it can be taken care by a group of organisations. Co-operation may be challenging but we argue that even more challenging it is to try to pave the road to the new innovation alone.

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Systemic innovation thinking as a tool for breakthrough innovations

By Jari Kaivo-oja

We need more dynamic innovation policy.[1] The idea of systemic innovation is not new. It was presented by Fuller (1928) in the context of the Dymaxion house case in the U.S.[2] The Dymazion was revolutionary housing innovation, which was never entering the U.S. housing markets. Fuller's big systemic innovation for the industry has yet to be realized. Companies need to redefine how to work together.

Why? Companies and corporations had lack of systemic innovation competences. However, today many companies and corporations have new competences to implement systemic innovations and cross barriers of systemic innovations. Most systemic innovations, like the Dymaxion house, fail to diffuse in the industries and services even though many can offer demonstrable benefits in terms of time, cost, quality and/or safety issues. Those that survive suffer from poor adoption even though some innovative solutions have proven to add significant, measurable value added to companies.

Recent data and research findings show that systemic innovations diffuse slowly in project-based and service industries. Slow diffusion rate of systemic innovations is an alarming issue for European companies. Industrial research in the U.S. shows clearly that systemic innovations diffuse more slowly than incremental innovations. Expanding our understanding of systemic innovation thinking is critical as companies, corporations and industries, which continue to evolve into project-based forms of organization. For companies it is challenging that systemic innovations diffuse more slowly than incremental innovations in project-based industries. Diffusion speed and operations of systemic innovations should be managed in a better way in SMEs and in the corporate world. Systemic innovation thinking requires multiple companies to change in a coordinated fashion. Critical subsystems are databases, engines and interfaces.[3]

Systemic innovation requires also combination corporate foresight research, corporate planning and organizational change management. It is also obvious that networking and partnership strategies must be connected to systemic innovation thinking of SMEs and corporations.[4] Big projects are won by the strategic company alliances. Linear thinking of traditional supply chain management is not right way to manage systemic innovations. We need increasing use of enterprise resource (both material and immaterial) planning, service design thinking and the prefabrication of product/service component systems. There must be also a very strong link between foresight and change management in order to promote more efficient systemic innovation processes. Talk is cheap, action matters more in the systemic innovation management.

How to promote systemic innovations? It is possible to list some critical issues which have impacts on the speed of systemic innovation. The following issues are important ones[5]:

(1) Decrease *the span (number of specialist firms) of the systemic innovation process*. This makes managing issues more ease.
(2) If the systemic innovation impacts multiple experts/specialists on your project, project managers *must create a dialogue forum that develops mutual trust for those firms impacted*. They should also encourage regular meetings and discussions between impacted companies and even possibly require project team members to work in the same work space. Information sharing matters in a systemic innovation process.
(3) Project managers *must know where systemic interdependencies lay* in the project in order to understand how a systemic innovation can be adopted over the course of multiple projects (a systemic innovation program). If interdependence is significant, project managers must pay careful attention to managing the other constructs identified in this research.
(4) If the systemic innovation impacts the process of multiple specialists on the project, *project managers should choose just one contractor from each specialist group and work with them on several projects*. Over time, as inter-organizational routines are able to form, project managers can then begin to introduce new contractors to the bidding shortlist for each specialist firm type.

Systemic innovations are highly non-linear and it derives from evolving working practices, project collaborations and problem-solving routines. Systemic innovations are also driven by EU and government regulations, client demand trends and skills supply. Systemic innovations take place between companies, consultants and clients. Systemic innovations do not necessary happen in the R&D labs, but they take place in between organizational boundaries, also in non-conventional settings.

For Baltic Rim economies systemic innovation thinking is one big challenge. Innovation co-operation and companies of BER-countries could get many benefits from systemic innovation co-operation. Baltic Rim company alliances are needed to increase competitiveness in the global markets

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Does the European Union overprotect intellectual property?

By Tuomas Mylly

The establishing of the European Communities overlapped with the final stages of the industrial society paradigm. Innovation, too, became recognised as being important for economic growth in the course of the industrial revolution. Yet intellectual property (IP) assumed a marginal and defensive role in early Community law. Like property in general, it was nationally protected. Nationally defined IP formed a legally constituted monopoly or a protectionist impediment for the realisation of the basic Community freedoms and the objectives of Community competition law alike.

Community harmonisation of IP law started relatively late, in 1989 in the form of the First Trademark Directive. After this, the expansion of the Community dimension of IP law has been noteworthy. Now national legislation in the field of IP law *not* originating from the European Union (EU) law has become minimal. The EU Courts give annually several important decisions interpreting IP law, having effects throughout the Union. Although the member state regulation of IP will not abruptly vanish, the most important legislative and interpretive decisions are now made on the EU-level.

More recently, the Commission has called free movement of knowledge and innovation a "*fifth freedom*" in the single market. Whereas the single market was "*originally conceived for an economy reliant on primary products and manufactured goods*", now the single market "*can be a platform to stimulate innovation in Europe*" (*A Single Market for 21st Century Europe*, 2007). The Commission further states that "*Europe requires strong industrial property rights to protect its innovations and remain competitive in the global knowledge-based economy*" (*An Industrial Property Rights Strategy for Europe*, 2008). This raises the question: does the information society imply an automatic and simple logic whereby information is now recognised as the key input and commodity in the global economy, hence requiring ever-stronger protection?

In the following, the development of the IP dimension in the EU will be divided into three phases: *the common market phase*, *the reconciliation phase* and *the proprietarian phase*.

The common market phase is characterised by negative integration and the perception of IP rights as nationally defined restraints of internal trade and competition. The territorial nature of IP rights was thus considered as antagonistic to the integration objectives of the Community. This phase, lasting from late 1950s to late 1980s, is characterised by the active application to IP rights of the free movement and competition rules. The Court was the central actor in shaping the status of IP rights. Legislative initiatives outside IP's competition law interface failed. The Community Patent Convention represents an unsuccessful attempt of this phase to introduce a European system of protection.

The reconciliation phase lasted from the late 1980s until mid 1990s. This period essentially relaxed the traditional common market and competition objectives and accommodated them with the emerging positive integration: legislative measures harmonising domestic IP protection. The phase coincides with the ambitious internal market -programme and the general relaxation of the EU Court's case law in the area of free movement of goods and state-based restrictions of competition. The Trademark and Software Copyright Directives sought to accommodate competition-related interests with the objectives of protection.

The proprietarian phase is characterised by legislative activities emphasising the protection of investments in the form of strong protection (databases and copyright), easily obtainable rights (designs) and protectionism insulating the Union market from external price competition. The protection of other interests, be it competition, fundamental rights or cultural interests, is left for other laws. The genesis of the era coincides with the coming into force of the TRIPS Agreement in 1996. The Commission Green Papers of that time elevated innovation and information creation to central policy objectives of the Community. The case law of the EU Courts from this period is not consistent. In the area of copyright the basic premise has been the establishment of a "*high level of protection*".With regard to trademarks, the EU Courts have better internalised competition-related concerns in their interpretations.

There are multiple reasons underlying the proprietarian ethos. The EU is not insulated from the intensification of international trade and global competition. Innovation-based comparative advantage and growth have emerged as the new fundamental policy objectives of the EU, as expressions of techno-nationalistic spirit on EU-level. Social costs imposed by IP rights do not seem to exist, but a simple logic of "*strengthened protection – more innovation*" prevails. It should also be noted that the US courts have instruments that are more flexible at their disposable to balance the rights of the IP owners with public interests. These include the *misuse* and *fair use* doctrines, among others. More recently, the US courts have sought to counter-balance the excesses of proprietarian IP laws and pre-existing interpretations.

The EU's aims have been broadened from the economic domain to cover a broader range of values. The aims of the EU now include respect for human dignity, liberty, democracy, equality, the rule of law and respect for human rights. EU law now also comprises a developed system of fundamental rights protection. Its economic model is supposed to be based on "*social market economy*", implying the presence of a strong social dimension. Such fundamental changes in the underlying objectives of the EU enable challenging the "*strong industrial property rights*" -ethos from within EU law. Each ideological phase contains the seeds of its decline. There are now some weak signs of a possibility of a re-evaluation of the current trend. Yet the time is not ripe yet to pronounce the emergence of a fourth phase in EU's IP protection.

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Main peculiarities of the Russian intellectual property legislation

By Igor Nevzorov

A combination of certain principles inherited from the Soviet times and set of legal concepts adopted from the Western law, the Russian intellectual property legislation currently is one of the most unusual and complicated laws in the modern world.

Now, as opposed to the legislative structure in most European countries, most of IP rules in Russia are codified. IP codification enacted since January 2008 is a continuation of a Soviet tradition where all IP regulations were combined into one code (the 1964 Civil Code).

The main distinction of the Russian IP regulation is the priority of the so called "imperative rules" of the Russian legislation over any other regulations contained in foreign law. It is directly established[1] that, despite of any foreign rules regarding intellectual property, the effect, volume, restrictions on and allowed use of IP in Russia are governed by the Russian Civil Code. Thus, any use or transfer of IP in contravention of Russian law will be deemed in Russia as illegal, null and void.

Russian "imperative rules" contain a number of specific provisions and requirements differing from those provided by Western intellectual property regulations. Among them the following are to be underlined:

- *Obligatory state registration of trademarks, service marks and patented items in regard to the Russian territory*. Where obligatory registration has not been completed, the IP is deemed as not legally existing in Russia. Therefore, companies generally have no legal protection and have no possibility to pay royalties for the use of such IP if it has not been properly registered.

- *Obligatory confidentiality protection procedures in regard to know-how.* Under Russian law, know-how is a separate item of intellectual property which comes into existence only after the company completes certain formalities to ensure the protection of the know-how (e.g., marking all know-how carriers with confidentiality labels, adopting internal policies to protect confidentiality, restricting access to the confidential information, etc.). If such measures have not been taken, the company will have no recourse if the confidential information is disclosed, and it will not be able to transfer (license) the information as know-how (rights to use know-how).

- *Obligatory state registration of IP transfer (license) agreements in regard to trademarks, service marks, patented items.* An agreement concerning registered IP (trademark, service mark, patented item) will be valid in Russia only after it is properly registered with the relevant intellectual property agency (Rospatent). If an agreement is concluded but not registered, it is deemed as having no legal effect in Russia.

- *Each IP license agreement should contain all "essential provisions"* directly stipulated in Russian law (e.g., subject of the agreement specifying the item of IP to be transferred or licensed, ways and area of allowed use of the IP). Otherwise, the agreement will be deemed as not concluded and having no legal effect.

- *Future IP may not be transferred or licensed*. The Russian law says that only the existing IP may be transferred or licensed. Therefore, if contracting parties intend to transfer (license) IP to be created in the future (but currently can't be precisely specified in an agreement since it has not yet come into existence), the agreement will be deemed as not concluded and having no legal effect.

The above issues and peculiarities are important not only from the legal perspective (in regard to the possibility of IP rights protection in Russia), but also from the tax perspective. Where IP will is not deemed to be existing in Russia, or license agreement does not meet the requirements provided in the Russian law, there is a risk that the tax authorities may claim the expenses (e.g., royalties) incurred by one of the parties to the license agreement as economically unjustified or not documented. This may affect the company's income tax calculation in Russia so that the amount of income tax will be increased.

In regard to IP benefits provided under the Russian law but probably not available under the legislation of foreign countries, it is necessary to mention the following:

- Russian law provides a shorter (3 year) term for cancellation of trademarks due to non-use. Where a company does not use its trademark (e.g. in regard to certain registered classes of goods) over 3 consecutive years, the trademark registration may be fully or partially terminated at the request of any interested party,
- Russian law provides for a possibility to cancel a third party trademark if it was registered in an act of "unfair competition", i.e. if a company registers a trademark similar or identical to the logo of a competitor (even if such logo is not a registered trademark), then such registration may be deemed "unfair", and the trademark will be cancelled,
- Under the Russian law a company "automatically" has an exclusive right to use IP created by its employees as part of their employment duties. It will be sufficient for the company to prove that the author is its employee and was instructed by the company to create the IP.
- Russian law stipulates the possibility to patent in Russia feed and beverage recipes (e.g., bread, beer, etc.). Other companies will be allowed to use the same recipe only if proper consent is given by the patent owner or under a license agreement.
- Under the Russian law, IP may be used by third parties not only under license agreements concluded with the IP owner, but also based on unilateral authorization given by the owner (clause 1229 of the Civil Code of the Russian Federation).

The above peculiarities are specific to the Russian IP legislation. We assume that the Russian IP law will continue developing to become more Western-oriented and more consistent with current European IP regulation. However, the current requirements of the Russian IP law should be strictly adhered to by all foreign companies seeking to establish or expand their business in Russia.

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[1] Clause 1231 of the Civil Code of the Russian Federation

The perfect storm

By Mika Aaltonen and Michael Loescher

INTRODUCTION

The perfect storm of events puts Finland in the center of new world transit lanes, for better or for worse. The melting of the Arctic sea ice will make global circumnavigation possible, the discovery of vast, proven reserves in the Arctic, north of Finland and Russia and north of Canada, will mean gas and oil pipelines become possible through Finland. The development of a modern, high-technology TransEurasian railway from St. Petersburg to Vladivostok and eastern China, creates a high-speed roll-on, roll-off containerized sea/land passage from Finland to the 3,9 billion people in central, southern and eastern Asia at very low logistics costs.

The described developments place Finland in a unique position economically, politically and socially. The question is, can Finland step up to the detailed planning necessary to move into the future. Studying technology is one thing: but *what we describe here is a seismic event, with Finland at the center*. Redrawing the map of the world hasn't been done since 1492. We believe it is within Finland's power-- over the next 20 years-- to find an entirely new and self-supporting future with a thriving economy. The central obstacle, we predict, will be well-meaning inertia. It is difficult for a small country to see the strategic crossroads in which time and chance have placed it.

A TRANSITION IN THE WORLD COMMUNICATION LANES

Melting of the Arctic Ice Cap

In the first quarter of the 21st Century, a confluence of three otherwise unrelated developments is set to reposition Finland so that it lays precisely astride the largest communications and logistics lanes on the globe.

The first of these developments is the relentless melting of the Arctic Ice Cap, which is variously estimated to proceed at a pace so that by 2020, circumpolar navigation of the globe will be possible year-round without icebreakers. This will mean that many types of goods can be moved to and from Finland to North America, South America, East Asia, and Australia at perhaps 60 percent of the cost of today's transit. From a Finnish point of shipment to the Arctic, either an easterly or a westerly Arctic transit, exiting by way of the Bering Straits opens up into the Pacific, which in turn leads to East Asia and, on the North American continent, the four principal rail lines that cross America.

Petroleum and gas reserves in the Arctic

Into this tumult we may throw the second development, which is the discovery and quantification of vast petroleum and gas reserves in the Arctic. The estimates of the new deposits are, at least, 90 billion barrels of oil (bbo), 1,670 trillion cubic feet of natural gas (tcf) and 44 billion barrels of natural gas liquids. This is roughly 40 percent of the now known world petroleum resources. If we add Canadian oil sands-- 175 bbo-- to the new Arctic discoveries, it is clear than the compass heading for the world's future petroleum energy resources points due north from everywhere.

The most direct route for Arctic oil and gas (and Swedish iron ore) is to create a short high-technology sealand bridge from either Tromsa or from the southern shore of Porsangen Fjord or Varangerfjorden to Kemi or Oulu on the Gulf of Botnia. Such a route would transform Finland's economy, creating an entirely new commercial ecology for the west coast of Finland.

The Modernization of the Trans-Siberian Railway

The third development is the decision by the Russian government to continue the modernization of the Trans-Siberian Railway, which from St. Petersburg connects Europe to Vladivostok and the East China seaports. The Trans-Siberian Railway is presently a Russian Federal Corporation, but the government has declared its intent to take the company public and the present collapse in the Russian economy almost certainly will require external capital. The first high-speed containerized freight moved from Moscow to Berlin last year. There are also many subordinate routes in development, the longest of which is the route through western China from her seaports (proceeding quickly with strong Chinese government backing.) Two other lines linking the Indian subcontinent and Indochina, respectively, have more significant funding and construction hurdles.

A SKETCH OF STRATEGIC IMPLICATIONS

Almost all analysts agree that sometime during the decade from 2020-2030, these two vast communications lanes will reach sufficient maturity to create, in effect, three intersecting flows of transit, centered on the Arctic, and spinning into the transcontinental rail systems of Asia and North America. Finland, of course, is at the center of two key points-- presenting both abundant opportunities and challenges. Cheap labor and cheap transportation lower the already low (relative to Europe) cost of China's supply-side logistics. Obviously, new markets for Europe in Asia, in the Americas and Australasia become much more accessible than they are now. Precision manufacturing seems closer to our reach when logistics costs are down and markets are, therefore, relatively, closer. The shipping industry, slowed because of the global financial crisis, will be forced to change. Much of the planned containerized shipping, tanking, and bulk carrier tonnage on the draft board today is for new ship types that can transit the smaller Panama Canal and Suez, which in turn are both planned to be widened and deepened at huge expense. Neither fits into the dynamics we illustrate below.

In effect, the northern hemisphere would become a kind of commercial "Pangaea", an economic super-continent linked by sophisticated rail/sea lanes.

With the described developments a large amount of strategic implications follow. Simply put, our concern is for the agility and analytical base of the Finnish Innovation System, which is heading into perfect storm over the next 20 years. How we weather that storm will determine the future of Finland, and more widely of the Baltic Sea region countries.

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NATO, Russia, and the future of the European security system

By Christopher S. Chivvis

A central deficiency of the European security system today, as a growing number of scholars have come to recognize, is that it isolates Russia, and thus hampers our ability to address effectively the most pressing challenges that Europe and America face, whether on arms control, Iran, weak states, Al Qaeda, or a host of other issues.

On the structural level, a Russia that was better integrated into the European security system would share in Europe's economic and political stability and thus have greater reason to support it.

On the state level, integration would promote Russia's domestic modernization, strengthen its governing institutions, encourage a more democratic political culture, and thus reduce some of the main tensions in European security today.

On the geopolitical level, a Russia firmly anchored in the West would help ensure that new regional institutions such as the Central Asian "Collective Security Treaty Organization" (CSTO) harmonize with NATO rather than compete with it.

The challenge today is how best to accomplish this integration.

One route would be that proposed by Russian President Dimiti Medvedev: establish a new organization to govern pan-European security. This proposal has the merit of showing that at least some forces in Russia have grasped the danger that continued isolation poses for Russia and are genuinely interested in positive change. Indeed, the proposal could be indicative of a broader shift in Russian foreign policy toward greater cooperation with the west, as proposed in a recently leaked Russian Foreign Ministry report.

The United States has been reluctant to embrace the idea of a new security treaty, however, for obvious reasons -- most notably the concern that Russia's main objective in this proposal is to undermine NATO's unity.

Although it is possible to imagine certain preconditions to discussion of a new European security organization that might benefit the United States and its allies -- for example, requiring as a prerequisite for negotiation public statements by all sides that borders in Europe will remain inviolable -- these discussion, even if they did take place, would probably lead nowhere.

What are the other options?

One alternative that has been raised in both Germany and the United States is to offer Russia membership in NATO.

The basic argument is that because NATO is the premier security institution in Europe, it is impossible to talk seriously about integrating Russia into the European security architecture without seriously considering Russian membership in the Alliance.

The logic is sound, but the idea is clearly too fraught to be realistic. First, rather than lessening tensions between Russia and its neighbors, Russian membership in NATO could easily increase those tensions, simply importing them into the Alliance. Second, the process of bringing Russia into the Alliance would be so immense that it would require an extraordinary act of American leadership. The United States is not at all ready to expend the political capital that this task would require. Third, even if it were feasible to bring Russia in, Russian membership would raise serious questions about Article V: Would Russian membership involve a commitment to defend Russia's border with China? Is this credible? How would this be viewed in China itself?

In short, the idea of enlarging NATO to Russia is too far-fetched for the foreseeable future, and probably beyond that.

But it is still true that NATO must be at the center of any serious effort to integrate Russia into the European security system. Hence, the best option is rejuvenation and reform of the NATO-Russia Council.

The NATO-Russia Council was sharply criticized on account of its failure to operate during the 2008 Russia-Georgia war. This failure, however, was more demonstrative of the limits of institutions in general than of the NATO-Russia Council in particular. No institution can work if its states do not want it to. Any institution that seeks to integrate Russia into the European system will run precisely the same risk.

The current reset of U.S.-Russia relations, however, opens the door to a new era in which a rejuvenated NATO-Russia Council, reformed and far more ambitious than the Council of the past, could become a viable option.

If properly handled, a rejuvenated NATO-Russia Council would give Russia a respectable forum in which to express legitimate concerns about the evolution of European security, while forcing Russia to play a more constructive role in debates over issues of common concern. It could become the central location for consultations on issues ranging from counter-terrorism cooperation, to missile defense, to nuclear arms control. Indeed, it is difficult to see how missile defense can be discussed effectively with both NATO and Russia, as has been proposed by the United States, without the NATO-Russia Council.

Rejuvenating the NATO-Russia council will not be easy, of course, especially since there are indications that Russia has no intention of doing so. Reform could moreover be derailed by an excessive focus on procedural details, even though these matter. Rather, reform will have to focus on substantive issues of concern to Russia, the United States, and Europe in the field of security, and thus serve as a means of ensuring that in their "reset" the United States and Russia account for the valid interests NATO's European members, and vice-versa.

Ultimately, the successful integration of Russia into the European security system is highly desirable, but not apt to work unless NATO plays a central role. Developing that role would be a boon to all members of the alliance, not to mention in Russia's own best interest.

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EU? Baltic Sea Region? Finland? Helsinki? There are many to choose from, but which one will succeed?

By Tatu Laurila

The past two decades have been the stage for some profound economic and political shifts worldwide. The comparison of the true competitive edge of continents, countries and regions has become increasingly difficult and volatile – some estimations have obviously been overly pessimistic and others grossly optimistic.

In our own continent, the pace of the development in the old Eastern Bloc countries surprised and challenged the old Western European countries in the 1990's. We Finns have to openly admit that our neighbor and friend Estonia has been a forerunner in, for example, planning and rolling out public e-services. This is just one concrete example of the future driven dynamism of the newer EU member countries.

On a global level, China keeps exceeding all estimates and expectations, when it comes to growth rates and the country's importance as a global economic powerhouse. It is no longer just the world's factory, as most leading multinational companies have already adapted a China strategy that is market driven. Cost reduction might have been the driver for former strategies when many Finnish manufacturers started moving their production into China some ten years ago.

Today, Finnish companies start R&D centers in the most advanced megacities in China to answer the needs of the growing Chinese market demands. While Western economies reported negative or zero growth in the preceding two to three years, the Chinese have taken over and ever better position in the global economic competition. A relatively new dimension in the Chinese economic expansion is their active – some might say even aggressive – role as an outbound investor abroad. For China the first priority targets have been natural resources that are located in other developing countries.

The source of new opportunities is between our ears

The new wave of Chinese investments will be brand and knowledge driven. This is something that opens a totally different view from receiver's point of view. Natural resources can be acquired once and that's about it. Brand and knowledge assets are much more rooted in the original soil and ecosystem of the original idea and in most cases it is necessary to build up a continued strategy that is based on the country or region of its origin. For example, can you imagine Volvo leaving Sweden altogether and becoming a fully Chinese car? My feeling is that it will base its future on the assets it has built for its best customer segments, but diversify to satisfy the growing needs of the expanding Chinese markets.

Innovation, especially knowledge-driven innovation, as an investment driver is even more lucrative than brands. Our leading innovation companies are already located in the innovation hotspots on all continents. Northern EU should play an active role when the growing number of Chinese hi-tech companies start to "go abroad" as the official Chinese policy encourages. Finland and Helsinki are taking this challenge to heart and have decided invest in it long-term.

Finland is in the crossroads of the East and West and well positioned on the globe when it comes to air routes from Europe to China, has some unique competitive advantages. Golden Bridge – a Chinese innovation center will start in Helsinki region in the very near future. This China specific business and innovation service platform aims at helping Chinese companies to identify and realize knowledge driven opportunities in Finland, in the Northern Europe and in Russia. There is already evidence that this offering is relevant for Chinese companies and I believe that this platform will become an economically important investment driver for us in the long run.

New horizons and new perspectives

Investment promotion in China is a challenge for a small country like Finland and its capital region Helsinki. I think that no other small European country will find it any easier. This raises a question of usable meta-region level brand and offerings when suffering from the poor resolution brought forth by long distances. This is one of the reasons Greater Helsinki Promotion, along with the City of Helsinki and 10 Baltic Sea Region capital regions, is involved in BaltMetPromo, a pilot project rigged at finding out if the region could market itself as a single brand. Through three pilot programs in the fields of Investments, Talent and Travel, we're joining hoping to prove, that marketing and promotion can be done together for the benefit of all, without a sum zero game.

It remains to be seen if we will find our strength in a geographical context or something more promotional like the old Hansa was at the time of its global trade dominance. In either case, we should embrace new opportunities, new methods and new friends as we build a more sustainable world.

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Greater Helsinki Promotion Ltd

Finland

Russia's medium-term growth prospects still uncertain

By Iikka Korhonen

In 2009 Russia's gross domestic product decreased by 7.9%. Therefore, Russia's GDP decline was the largest among G20 countries. In the area of former Soviet Union many countries like Ukraine and Latvia experienced even larger GDP drops, but this is of course not much of a comfort for Russians. Russia's economy bottomed out during the summer of 2009 as the most immediate effects of the global financial crisis dissipated, but recovery has been very uneven. In the following I assess the current situation in the Russian economy and growth prospects in the medium run.

While the overall GDP registered clear quarter-on-quarter growth in the last two quarters of 2009, level of economic activity is still well below that attained in year 2008. Rosstat, the Russian statistical agency, has announced that in the first quarter of 2010 gross domestic product increased 2.9% year-on-year, which was a disappointment to many observers. For example, Russia's Ministry of Economy had just a few weeks earlier assessed that GDP grew 4.5% in the first quarter. Even if the first quarter GDP numbers are later revised slightly upwards, it is clear that Russian growth is currently quite anemic.

Among Russia's main economic sectors, it is the manufacturing industry which has fared the best in the recent times. In the first four months of 2010 volume of industrial production was up 6.9% year-on-year. Retail sales are up, but only barely, and construction activity is still contracting, some 18 months after the global financial crisis broke out. Month-on-month numbers indicate that overall investments are already growing, however.

Russia's slow recovery can be attributed to many factors. Despite the fact that higher oil prices have given Russia higher exports revenues, global capital flows remain quite subdued. Russia's foreign currency reserves have climbed to approximately $450 billion, while they were some $380 billion in the spring of 2009. At the same time, Russian companies and especially banks have not increased their foreign indebtedness. As much of the Russian lending boom in 2004-2008 was financed by channeling funds borrowed from aboard, Russian banks' unwillingness or inability to increase their borrowing means that bank lending increases only marginally.

It is likely that Russian investments will truly recover only when bank lending increases and companies' assessment of future business prospects improves. The current uncertainty in global financial markets has decreased investors' appetite for risk, which will also curtail Russian banks' access to funds. Furthermore, concerns over sovereign debt have reduced bond issuance the world over. In May 2010 the world-wide issuance of private sector bonds was only one third of the amount issued in April. Many large Russian companies have organized most of their financing from international markets, and if the current illiquidity persists, they may face constraints on their financing. Generally these large Russian companies operate in the raw material sectors, and they may be just too large for the Russian banking sector. This illustrates the dependence of the Russian economy on the outside world. Even though the Russian government is still practically debt-free, the same does not apply to the Russian economy more generally.

In 2010 and 2011 Russia will register relatively robust GDP growth numbers, and cumulative growth will be approximately 10%. However, this only means that the Russian GDP will reach its 2008 level at the end of 2011. Also in this sense Russia is far from unique, however. Most OECD countries face similar "lost years", and for many of them the pre-crisis GDP level will be reached only in 2012 or even later. In this sense the effects of the recent crisis are less severe for Russia.

Where will the Russian growth come from? This year and also in 2011 much of the recovery is about bouncing back from the deep recession in the first half of 2009. As domestic demand slowly recovers on the back of global growth, Russian companies will start thinking about investment opportunities. However, in many sectors – like office and commercial real estate – the existing stock is more than enough for a while. And, as previously mentioned, availability of financing may hamper investment activities. Therefore private consumption will be the main driver of economy for a while, as there is also strong pressure to get public expenditures under control. With its current production structure, increasing export volumes will be very difficult for Russia.

In 2010-2011 Russia's growth will surpass many OECD countries' growth rates, but economy will really take off only when Russian investments start to increase. This requires strong recovery also in the global economy, and more risk appetite in the international capital markets, which illustrates Russia's dependence on the outside world.

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Russia - two years after the crisis

By Ivan Korolev

Up to now it looks like Russia survived the world crisis more or less smoothly despite a 9 percent decrease of GDP and surge of unemployment in 2009. The government managed to avoid a significant drop of the average personal income. In fact, it increased pensions substantially, and launched a far-reaching reform of health system. Anti-crisis measures helped the banking system to overcome the crisis – no major bank crashed. Financial grants were channeled to large industrial enterprises, infrastructure projects, and agriculture.

In 2009 the Federal Government budget revenues were decreased by 29 percent. Nevertheless the budget expenditure was increased by 27% mostly on social aims. It has been done thanks to the money which the government accumulated in previous years. Besides an increase in oil and metals prices at the world markets has also helped. Russian international financial position continues to improve. In March-April 2010 foreign exchange reserves were increasing by 5-6 billion dollars every week. Nominal rate of Rouble was slowly restoring up to the pre-crisis level. During the last two years taxes remained practically stable. Nationalization of private companies was used on a very small scale, especially in comparison with practices of majority of the industrial countries.

A relatively favorable international financial position of Russia has strengthened its worldwide political influence, especially in the post-Soviet area. Russia agreed to cut gas prices to Ukraine by 30 percent in exchange for a long term extension of the Russian navy's lease in Sevastopol. In parallel Russia promised to invest in the city of Sevastopol where the Russian Black Sea navy is based. The deal also includes contracts for Russian companies to build two nuclear reactors in Ukraine. Besides a merger of GASPROM and Ukrainian NAFTAGAS was offered. At the same time prospects for economic cooperation with developed and developing countries have somewhat improved. Ambitious gas transport projects with West European countries are now being more intensively realized than before the crisis. Nuclear energy projects with Brazil, Argentine, Venezuela, Turkey and Italy were preliminarily agreed upon. The new START Treaty signed between the USA and Russia as an important step towards a more secure world may prove to be beneficial for further development of Russian international business.

For sure, the medal has underside as well. Illusions of economic stabilization may be dangerous. The worst case scenario would be for Russian leaders to overestimate the current role of the country in the world. Systemic problems of the Russian economy have not disappeared. These problems are well known: resource-based economic structure, backlog in labor productivity and competitiveness, low energy-efficiency, high inflation, weakness of financial system, numerous depressed regions, corruption etc.

During the crisis new trouble-spots have become acute: high indebtedness of private enterprises and their desire to evade taxes, budget deficits at federal, regional and municipal levels, the growth of shadow economy, high unemployment especially in small towns and rural areas.

According to ***Russian Economic Barometer*** surveys, a share of industrial enterprises with relatively normal financial position fell from 78 percent in 2007 to 50 percent in 2009. At the same time credit terms for non-financial sector dramatically aggravated. For many enterprises bank credits are not accessible even now. In 2009 consolidated budget ran an unprecedented deficit of 2,4 trillion Roubles or 5,9 percent of GDP. Budget deficit forecasts for 2010 – 6 percent of GDP. Official figures place shadow economy at 20-25 percent of GDP. Independent estimates - up to 40 percent. Official unemployment rate in Russia now stands at 8,2 percent, an increase of about 2,5 percent from the onset of the economic crisis in 2008. A discrepancy in unemployment between regions is enormous: from 1 percent in Moscow to 30-50 percent in some of the Northern Caucasian Republics.

But in general the shock of the crisis was not strong enough to stimulate radical political and economic reforms to solve these problems step by step.

In the midterm perspective Russia is currently facing more obstacles to growth than it did before the crisis. Its dependence on world oil prices has increased. So have risks for the future economic development.

In 2010 Russia resumed growth. But recovery will be slow and long one. Economy is expected to reach pre-crisis level only in the second half of 2012. Manufacturing sectors, especially consumers goods production as well as construction industry (which suffered most seriously during and as result of the crisis) are likely to grow even slower than GDP in general.

Modernization of the Russian economy requires WTO membership of the country. The trade body's rules would stimulate foreign direct investment, make domestic business environment more stable and transparent, and open new opportunities for small and medium companies. Stricter rule-based economic policy would benefit not only Russian consumers (this is absolutely evident for everybody), but also many Russian producers who suffer from monopolistic structure of domestic economy. It is in the interests of Russia to join WTO before a Common market with Kazakhstan and Belarus is created. It would mean a return to the previous modus vivendi of conducting negotiations based on individual admission to the WTO.

Profound cooperation with Western countries in all areas is crucial to making Russian economy able to respond to future shocks. Russia's interests in transforming international trade and financial systems coincide with the positions of G-7 to a much greater extent than with those of our partners at the exotic BRIC Group – a club which includes countries with absolutely different economic cultures and history, different economic and political problems and prospects.

That's why Russia's self-identification as a part of European civilization is an important precondition for next generation of structural reforms which would make Russia more open, friendly and prosperous.

The post-crisis environment gives chances for such reforms. But just chances.

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Raising Germany's awareness of the Baltic Sea region

By Andreas Klein and Catja Gaebel

Germany has always been an integral part of the Baltic Sea region, not only geographically, but also culturally, economically and politically. At its northern federal states Schleswig-Holstein and Mecklenburg-Vorpommern Germany has a 2247km long coastline to the Baltic Sea, thus making it an abutting nation on one of the most dynamic economic regions within the European Union. Currently, about 10 per cent of the German exports go to the countries of the Baltic Sea region.

Since the glorious times of the Hanseatic League, Hamburg is the central port of Germany - reloading point for goods from the North Sea to the Baltic Sea and vice versa. Today, the port of Hamburg has grown beyond its role as Germany's gateway to the world; moreover, it forms the world's gateway to mainland Europe, and above all to Central and Southeastern Europe, Scandinavia, and the Baltic region. All this underlines the significance of the Baltic Sea region to Germany's foreign and economic relations, for business, trade and cultural exchange.

A variety of Baltic Sea multilateral agreements have been made which the Federal Republic of Germany has joined directly or as a member state of the EU. Marine environmental protection is the most regulated area, while co-operation in the area of science is currently in its development still expandable. Furthermore, there are numerous bilateral agreements between Germany and the other Baltic Sea states. These agreements do not reflect the actual intensity of cooperation exactly since the cooperation is often regulated through multilateral agreements, particularly EU agreements.

Nevertheless, one should have in mind that only a small part of Germany is actually bordering the Baltic Sea. The western German federal states North Rhine Westphalia and Rhineland Palatine or the southern federal states Baden-Wurttemberg and Bavaria see their political and economic interests rather in the Rhine or the Danube region. Moreover, the federal government in Berlin was always skeptical towards an intermediate level between the national and European level, thus opposing the institutionalization of regionalization.

Since the EU enlargement in 2004 with the Baltic Sea states Poland, Estonia, Latvia and Lithuania joining the EU, thus making the Baltic Sea EU's inland sea, this skepticism gave way to a rather pragmatic approach concerning this region. In a joint declaration of the CDU/CSU and the SPD Parliamentary fraction in May 2009 both parties supported the Baltic Sea Strategy of the EU. The German Bundestag welcomed this European initiative bringing the Baltic Sea region into the focus of the EU. Furthermore, Germany is expecting from the strategy a better coordination and concentration of already existing initiatives in the region on governmental and non-governmental level as well as within the European commission and between the national Parliaments. Having in mind the geographic borders of Germany, the German government as well as the German Bundestag are expecting the Baltic Sea region to become a model for similar initiatives in other regions in Europe, like the Danube region or the Adriatic region where Germany also has political and economic interests.

A particular challenge for a successful Baltic Sea policy is the cooperation with the Russian Federation. Currently, Russia is a member at the Baltic Sea Council, in the Helsinki Commission and other intergovernmental institutions of the region like the Northern dimension. The Northern dimension in particular– including the Barents Sea, the Arctic Sea, Iceland, Norway, the oblast Kaliningrad and north western Russia - offers a platform for cooperation between the EU, its member states and the Northern European non-EU countries. The Baltic Sea marks the connecting centre of those regional approaches and political strategies.

Above all, the German Bundestag supports the successful implementation of the EU Baltic Sea strategy especially in the improvement of the environmental situation of the highly polluted Baltic Sea, as well as in the development of transportation and energy routes between the abutting countries. Norway and Russia should be included in this dialogue as well in order to reach the highest level of coordination and cooperation in the region.

In a report commissioned by the German Konrad Adenauer Foundation professor Esko Antola from the University of Turku comes to the conclusion that Germany's (and Poland's) commitment to the region is indispensable for the successful implementation of the Baltic Sea strategy. According to Antola enhancing the attraction of the Baltic Sea to Germany's political decision makers is a key issue for the region, its integration and its having a strong voice in Europe. Therefore, despite the joint declaration of the two biggest groups in the German Bundestag, CDU/CSU and SPD, raising Germany's awareness of the region and strengthening the commitment of Germany beyond the already involved northern federal states Schleswig-Holstein, Mecklenburg-Vorpommern and the city of Hamburg remain paramount for the promotion of the region. The May 2009 declaration of the German Bundestag to engage more actively with the region as well as the recent visits of the newly appointed Minister of Foreign Affairs, Guido Westerwelle and Secretary of State Cornelia Pieper to the Baltic States give reason to expect a greater attention to the region within German politics in the years to come.

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Nordic co-operation - fading to oblivion or resurrection through regionalism?

By Maria-Elena Cowell

Bring politics back to politics, many say, and many a candidate claims upon electoral campaigns.

Despite the current unpopularity of politics – or what is generally understood by it – it is actually the lack of politics and oversupply of pragmatic management that seems to generate problems. One problem of depolitization is a lack of general interest and public debate, another is the want of ambition in goal-setting and, eventually, decision-making. The non-existence of political agenda with competing ideas and differing standpoints can be seen to have a stabilizing effect; rightly so. But stability can easily lead to inertia and stagnation. Lack of politics often imply lack of inspiration and spirit: the driving forces of change in society. When decision-making is stripped off all values and visions – alternative choices – and downgraded to simple administration, few dare question existing practices or the sense of everything. "Art of the possible" becomes a mere convention.

This is, unfortunately, manifest in the Nordic co-operation. If Nordic co-operation continues in its current form – that of conformity - its true potential is, sadly, lost.

It has been 50 years since the signing of the Helsinki Treaty; the agreement that marked the foundation of Nordic co-operation. It is quite legitimate to ask whether that Treaty needs an update to the 21st century, and most would agree on the need of reform. But as in any institutions, fear prevails over reformism: such an opening could be hazardous to the *status quo;* financially speaking even fatal to some operations or units.

At the risk of repetition of clichés I would like to paraphrase Jean Monnet: Nothing is possible without people; nothing is lasting without institutions. The Nordic Council and the Nordic Council of Ministers have as institutions sustained enormous changes in their environment. The world looks different now, and its fundamental changes must affect the Nordic co-operation as well.

Some may claim that the Nordic co-operation has lost its relevance, not least thanks to the successful European integration which 15 years ago embraced even Finland and Sweden. Global perspective – the rise of China, India and Brazil, for instance – seems to validate the argument. But we may neglect underlying megatrends and their effects. Macro-regions are quickly developing within the enlarged Union. The Baltic Sea Strategy is a piloting example, and there are more in the pipeline: the Danube, the Alps, the Black Sea, the Mediterranean... Beyond the borders of the EU, the Arctic areas are rising in importance both in terms of commerce and security.

What is peculiar is that Nordic co-operation enjoys large popular support. In opinion polls, e.g., the one conducted by the Finnish Business and Policy Forum EVA in 2008, it has rated higher than the EU, but, paradoxically, the responsibilities that citizens would like to submit to the Nordic co-operation – cross-border fight against crime for instance – are not within the scope of NC activities. There is, in other words, a clear discrepancy between the expectations of citizens and the operational mandate of of the Nordic Council (Hvad er viktigt i Norden? Opinionsundersøgelse 2008. www.norden.org/pub/ovrigt/statistik/sk/ANP2008752.pdf) One would feel tempted to draw the conclusion that the Nordic citizens are more prepared to deepen the Nordic process of integration than their leaders.

Swedish historian Gunnar Wetterberg, former diplomat and well-known societal debator, caused some commotion when, in an article published in *Dagens Nyheter*, he proposed a full-fledged federal state comprising the Nordic countries. According to him – and it cannot be denied – the integration at the Nordic level was left halfway; the EU has since taken over and set an example of integration dynamics. Whether or not a new Kalmar Union would make sense or be advisable in the first place, the argument remains valid. The Nordic States could have gone much further. For Wetterberg, history offers clear examples of successful confederations between nations far more different from each other than the five Nordic nations: France, Germany and Italy, to name but a few. Lacking an acute necessity, as in times of military crisis, an adequate incentive could be found in the economy of scale: together the five Nordic countries' economies would rate among the biggest ten in the world. It would secure a seat at the G20 table at least, but the true added value would not only be of a political, but of a financial nature.

What should be done with these established institutions now? It is refreshing to play with the idea of a nasty quick fix: all down with dynamite, adjustment to a state of zero institutions, and then, after a long and profound re-evaluation gazing at the hole in the ground, the building of new ones out of today's needs and wishes. Instead of perpetual compromises, the lowest common denominators, or feeble cosmetic changes – a true new beginning, the reconstruction of the Nordic co-operation. What an invigorating thought!

Unfortunately such explosive – political unanimity – is unlikely to be found. So we need to tackle the second best option of slow, step-by-step reform, because after all, moving at some direction represents dynamism compared to a standstill. The world has not stopped turning, and we people with our man-made institutions shall move along.

Nordic co-operation could be raised on another level through the same kind of functional integration such as characterized the early European process of integration. By enlarging the thematic agenda to the hardest core of politics, security, defence, economy, and fiscal policies, then political ambitions also would return; as would the spirit.

Not aiming higher is just an excuse for not doing much at all.

Maria-Elena Cowell

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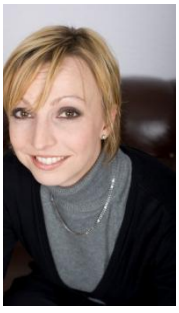

Comprehensive coordination of environmental monitoring is necessary for ecosystem-based management of coastal and marine areas

By Anne Erkkilä

Why is environmental data so substantial to the management of coastal and marine areas?

Environmental management and protection measures in the coastal areas and shallow seas are challenged by the cumulative consequences of multilayered and multi-scaled environmental threats and the uncertainty about the ecosystem responses. This has led to requirements for more effective and holistic environmental management. For example, the European Union (EU) has adopted an ecosystem approach framework as a general policy. This is reflected e.g. in the Water Framework Directive and Marine Strategy Framework Directive. The latter apply the ecosystem approach to open sea areas. The HELCOM Baltic Sea Action Plan seeks to implement an ecosystem approach to the integrated management of human activities to support the sustainable use of ecosystem goods and services.

Holistic environmental management requires comprehensive information on changes in the status of ecosystems. As a consequence, the role of environmental monitoring as the primary source of information on the environmental effects of both natural change and anthropogenic activities is becoming more emphasized. Most of the information supporting the management of coastal and marine areas is produced by regularly conducted environmental monitoring programmes.

Spatial and temporal representativeness of monitoring data is crucial for management and planning activities

The repetitive measurement of variables i.e. the gathering of field data forms the core of environmental monitoring. Global and regional environmental problems have increased the need for information on the status of the environment and its changes on a large scale. At the same time, the growing public and political awareness of environmental issues has increased the need for local and small scale information. Environmental monitoring is thus challenged by contradictory requirements, such as cost-effectiveness versus adequate and spatially comprehensive data production.

In a complex and extensive coastal environment, the production of spatially and temporally representative information on environment is a challenging task. For example, in the geographically complex and extensive coastal areas of southwest Finland, no single method of data gathering can produce a spatially and temporally comprehensive description of the environmental status and changes. The information value of any single *in situ* measurement is relatively low, unless the data can be connected spatially and/or temporally to ambient environmental conditions and past measurements performed at the same location.

By increasing the frequency of *in situ* sampling and broadening the time frame of the monitoring, the better temporal representativeness of data is achieved. These adjustments would apply exceptionally well to the monitoring of water quality and phytoplankton dynamics. In practice, the frequency of field sampling efforts is constrained by resource limitations. The water quality sampling would benefit from the wider use of high-frequency automated sampling devices (e.g. buoys) as well as sondes and on-board flow-through systems, which allow more rapid sampling at several stations. Even if the accuracy of the observations was lower than that of laboratory measurements and despite the potential problems on vertical and spatial representativeness, the measurements would be valuable for spatial modelling. Also remotely sensed data is valuable for monitoring since it provides a synoptic view over extensive areas and contributes to the interpretation of field data. Extensive operational satellite observing systems for the Baltic Sea have been developed for operative monitoring (see www.environment.fi/syke/remotesensing).

Comprehensive coordination of the environmental data gathering is the key to a cost-effective monitoring regime which supports the holistic ecosystem-based management

A holistic approach to the gathering and management of environmental data fits the ecosystem-based management regimes. It requires the comprehensive consideration of the various components of coastal and marine systems and their spatial and temporal interaction. This can be effectively facilitated by an approach that considers the coastal region as a geographical entity, with diverse interacting processes on a multitude of spatial scales.

Comprehensive regional coordination of monitoring activities is important in order to increase the cost-effectiveness of information production. In practice, this requires the increased coordination of sampling design, field work efforts, the use of remote sensing, spatio-temporal modelling and other procedures to improve the usability of the environmental monitoring data. The efforts on national level call for cooperative action between a number of specialist and interest groups, and the corresponding financing bodies. It is also important to choose the monitored topics and their variables so that it becomes possible to achieve a good cost-benefit ratio considering the short and long-term uses of the collected data.

The integration of field sampling, remote sensing and modelling techniques enhance our understanding of the coastal and marine environment in the Baltic Sea. Integrative actions are increasingly required as the implementation of the EU directives at national level also demand a holistic approach to monitoring systems. This creates an opportunity to develop a more cost-efficient, multi-purpose and scientifically robust monitoring regimes that effectively support the management of coastal and marine areas.

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In search of a narrative

By Hardo Pajula

Three Baltic countries and Poland have proved themselves adept players at convergence game. When the international credit crisis blew the half-time whistle in 2007-08, Estonia's standard of living – measured by PPP euros per capita – had advanced from roughly two fifths of EU average in 1997 to two thirds. While the progress made by other three countries was somewhat less pronounced, all of them shared the broad outlines of the catch-up driven growth. Perhaps even more importantly, all countries had undergone a deep social transformation of becoming liberal democracies.

The exceptionally speedy convergence was set in motion by the return of the four to their natural habitat from which they had been cut off for decades. Consequently, massive pent-up reserve of mutually beneficial transaction between the Old and New Europe pushed structural changes, communal transformation and – as a result – lifted living standards.

The still unfolding crisis need not mean more than just a brief interlude in this long-run process of equalisation of per capita income levels. On the other hand, however, convergence is rather different from gravitation – there is nothing automatic or inevitable about it. In fact, as the sorrow example of East Germany implies, there is a threat that once low-hanging fruits have been picked, convergence may stall or even lapse into divergence. Given a huge potential of the Baltic Rim region, this would be a deplorable as well as avoidable outcome.

Starting from potential, Baltic Sea is surrounded by nine countries whose combined population and output are approximately 47m and $1200bn respectively (in the case three biggest countries, we have counted only the populations and corresponding output of their maritime provinces). Interestingly enough, these figures are both population- and outputwise on par with South-Korea. Thus what we have here is the twelfth largest economy in the world at the margin of Europe consisting of some the wealthiest countries right next to still relatively poor neighbours – if there ever was an ideal playground for convergence, this one must come rather close to it.

However, the potential is yet to be exploited and this requires among other things imagination and … a good story capable of inspiring and uniting the nations sitting around this inner lake of Europe. While the visible iron curtain may have fallen already more twenty years ago, its mental counterpart has predictably proven a much more tenacious animal. It suffices only to glimpse at the CNBC chart of European capital markets – it's all darkness to the east of Oder-Neisse. More relevantly to the topic at hand, in this region the invisible wall runs from Virolahti over Kronstadt, Narva to Aluksne ja Demene and then again along Nemunas, Šešupe and Liepona back towards the Baltic Sea and manifests itself on the one hand in the queues of lorries stretching to up to 30km and, on the other hand, vastly diverging interpretations of recent history in the minds of Russians and their former communist satellites. It is not too bold to argue that *if* the visible and invisible aspects of this wall could somehow be lowered, broken through or – let alone – eliminated, the whole region would receive a development stimulus whose significance and magnitude could very well match the one given by the breakthrough of the Baltic countries and Poland to the sea.

Needless to say, it is a tall order. For the last two decades all four countries have rushed towards European and Transatlantic structures with the overreaching purpose of setting themselves apart from Russia. Given the traumatic experience of having been subjected to the one of the most oppressive regimes in history, it was really an imperative of survival. However, now that all of us are members of the EU and the NATO and Estonia is likely to join the eurozone on top that, this period of history has perhaps run its course and the gradually unfolding drama around public finances will soon set new priorities on policymakers' agendas.

At the risk of the hyperbole one could perhaps argue that the post-communist countries of the Rim have indulged in their independence – from the viewpoint of psychology of deprivation hardly a surprising outcome – by nourishing an almost complete paraphernalia of statehood. As the credit crisis now grinds its way through the public books, the smaller countries will soon find out that the service of self-governance that they are rendering to themselves is just far too costly to uphold and that there are substantial economies scale to be reaped from both broader and deeper intergovernmental cooperation.

Herein lie two major challenges for the coming decades: how to design more cost-effective regional structures of public governance? and how to devise a mutually beneficial and – crucially – more relaxed framework for engaging Russia into region's economic development? It does not take a degree in political science to realise that desirable steps in either direction will require far reaching changes in the mental universe of all nations involved. In particular, it will demand abandoning some of the most cherished ideas about themselves – or, in other words, changing old narratives with new and more constructive ones.

There are two fundamental stories behind the current set-up in the Baltic Rim – and for the rest of Central and Eastern Europe for that matter: one is about the national romanticism of the 19th century and the other is about the World War II. The first one is of course the primary agent behind the post World War I political map of Europe, whereas the national liberation movements of 1980s and 1990s can in turn be viewed as attempts to go back to pre-1939 era. The other is the pivotal part of Russian mindset and a source of bitter disagreements between it and its immediate Western neighbours. While anyone underestimates the durability of these two myths at his own peril, it is equally clear that the challenges of the post-credit-bubble world call for more helpful narratives.

Fortunately, the very region itself offers a tale which has almost all the desired elements: cosmopolitanism, commercialism, an astute mixture of autonomy and political unity plus the inclusion of Russia. Hanseatic League – an economic alliance of trading cities stretched from Novgorod to London during the Late Middle Ages and early modern period – has left an imprint on psyche of all nations caught up in it. First of all, Old Danish and Old Swedish were heavily influenced by *Mittleniederdeutsch* – the *lingua franca* of the League. Second, the broadly similar architecture of the cities around the sea speaks of essential similarities of mental landscape.

Surely this story has to be twisted a bit to make it meet the bonding purposes at hand, for *Hanse* was a predominantly German affair and its projection to the present ethnical and political map of Northern Europe could be wrought with dangers of its own. Then again, if it suggests that there is more to Russia than just Ivan Terrible and Stalin, it would be a good start on its own.

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Enterprise´s social responsibility

By Harri Melin

We have read many stories about modern Russian capitalism. One of the lessons has been that a lot of companies have adopted a new policy is social issues. During the socialist times companies were responsible for basic social services like kindergartens, local transport and housing. Today these services do not any more belong to enterprises. Local government is supposed to be responsible for them.

Social scientists at the University of Tampere have followed social change in Russian Karelia for several years. One of our places of interest has been the city of Kondopoga. Kondopoga is a paper mill community about 40 km north of Petrozavodsk. The city has about 35 000 inhabitants. The paper mill was established in the year 1923. First managers of the factory were Finns, who moved to construct socialism after October revolution. Later they became victims of Stalin´s purges.

Today Kondopoga is one of the biggest paper mill companies in Russia, with 6 000 employees. It is well know by its former CEO since Vitaly.A. Federmesser, who created a very special managerial strategy. Joint Stock Company Kondopoga is established in the year 1992. Controlling block of shares is owned by the employees, top managers having the strategic ownership. The company is operating not only in paper production but has also its own cargo port, a power station, ceramic brick factory (est. 1995), rainbow trout farm and large scale farm production (milk, poultry, pigs) and own shops in the city.

In Karelia Kondopoga is a rich but divided city. In the core there is the paper mill and its employees. They pay more than 90% of all local taxes. The second layer is made by local people not working for the mill. They make a kind of semi-periphery. Immigrants from Caucasus are located in the periphery

What comes to social services Kondopoga mill has not followed the new pattern of transforming social services to the local government. During the past 20 years the company has made a lot of investments into the local community. It has mostly been responsible for basic infrastructure such as roads and electricity. However this is not rare, many companies do the same. But the company has built an ice palace, a palace of arts, palace of creativity, two swimming pool. All these institutions are operating with free of charge or with nominal prises for the workers and their children. It invites specialists to lecture and train juniors e.g. in ice hockey and swimming.

The company is also offering educational support for the children of its employees. It has its own vocational school, which has study programmes for paper mill specialists. It sends students to St Petersburg universities and pays all the costs. There is also a grant programme. It has repaired several local school buildings and takes care of the maintenance of these buildings.

The company supports young families. As a result of new policies the birth rate in Kondopoga is increasing. What has been done? Young mothers who are working in the factory have three years maternity leave with full wages. The paper mill owns several kindergartens. It also helps young families with their housing problems. The mill has its own housing loan programme for the workers.

The support goes not only for children and young families but for pensioners too. The mill pays higher pensions than in the average in Karelia. The pensioners have a right for cheap health care and for cheap cultural services. There are special celebrations for former workers and they receive special gift boxes for Christmas.

For the workers, the mill offers excellent health care services. It has built new buildings, which are equipped with newest technical device. These buildings include general policlinic, heart policlinic, dentist services and a preventive recreation centre. It is worth mentioning that professors from the university of Petrozavodsk take make study trips to Kondopoga. Workers have permanent health control and the fees for health care are nominal. All these institutions have hired highly qualified specialists to work for them.

Kondopoga paper mill takes its social responsibilities seriously. If we interpret sociologically what has been said above, there are a couple of remarks. Fist with the active social policy the company is creating social integration and strong commitment. The company is showing that it cares for the workers, so workers should be loyal towards the company. Secondly we can say that all this is also about social control. If one wants to work at the paper mill (s)he should behave in a proper way. Thirdly the company has a very strong power position in relation to local government.

This far the Kondopoga paper mill has been a success story for both the company and its workers. However times they are changing. Former CEO Vitaly Federmesser died two years ago. In the circumstances of economic crisis and increasing competition new management is forced to reconsider the company policies. During last months the mill has gradually started to transfer its social objects, such as sport complex, ice palace, hotel and cultural centres to self-financing units. The mill have been responsible for kindergartens but recently it has transferred practically all of them to the possession of city administration. Compared with other Karelian paper mill companies Kondopoga has paid lower wages to its employees. Now it seems that the wage level is increasing but at the same time social benefits are decreasing. It is interesting to see what will happen in the future.

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Business in the Baltic Sea Region - future perspective

By Jarkko Heinonen

Measured in various ways, the Baltic Sea economic area provides companies with a good operating environment with plenty of growth potential. The countries in the region do very well in global competitiveness and welfare rankings. Apart from the effects of the current financial crisis, the region's economy has also grown vigorously. The significance of the Baltic Sea region is shown by it constituting the fifth largest economic area in the world.

An apt way to describe the business world is to say that "the only constant is change". During the last 10–20 years the business structure in the Baltic Sea region has changed substantially through various mergers, ceased production, establishment of operations in the region, and business growth. The recent past shows that the developments in global economy may significantly alter the industrial structure at regional level. The loss of companies or even whole branches of industry is a natural part of economic development. It only becomes a problem if the capacity for economic renewal is poor. The capacity for renewal, on the other hand, requires new product and production innovations as well as SMEs that are able and willing to grow. I myself would parallel a great deal of the capacity for economic renewal with the opportunities provided by the economic area for the growth and development of SMEs.

An essential structural problem facing the Baltic Sea economic area is that it is mainly comprised of rather small economies. This creates at least three problems in terms of market efficiency.

The domestic market, vitally important for small companies, provides very limited potential for growth. Thus a company aiming at growth must at a very early stage, often with insufficient resources, also invest in developing its international business operations.

Another problem comes from small domestic markets often causing market segmentation that may result in poor competitive pressure. Lack of competitive pressure, on the other hand, weakens the development of a company's international competitiveness.

The third problem is that the so-called critical mass of business and production operations often remains inadequate. Various studies have shown that the development of new product and production innovations are substantially enhanced by a sufficiently large and versatile sectoral cluster being formed in the area. Moreover, empirical studies in economics have revealed that business operations tend to concentrate geographically. Operations are preferably located in areas with other companies already operating in the sector. If the cluster structures formed in the Baltic Sea region are insufficient, our region will lose some of its attraction as a business location. This creates a risk that the concentration of production may lead to the relocation of production and R&D outside the Baltic Sea economic area.

A well-functioning single market of the EU would be an excellent solution to the structural problem of the Baltic Sea economic area. Unfortunately, the common market area is far from being as functional as needed. In fact, the Baltic Sea region should be a forerunner in the European Union and through regional co-operation build even better functioning common markets within the Baltic Sea region that now exist in the EU. It is important to aim high, meaning in practice that crossing national borders should not add to the bureaucracy concerning trade in any way.

An additional challenge facing the Baltic Sea countries is the shift in the focus of the global market towards Asia. This is mainly due to an increase in the overall production in the global economy, and thereby not treating anyone unfairly. The population of China corresponds to 20 per cent of the population of the entire world. At least in principle, free trade will lead to the convergence of economies. Hence China should also eventually answer for 20 per cent of global production. Currently 8 per cent of global industrial production originates in China, and consequently the big markets can be expected to continue to grow significantly.

A problem is created by the fact that while the focal point of the global economy used to be situated practically right next to us, it is now geographically much farther away. To maintain the competitiveness of the Baltic Sea region, we must also be able to operate in the growing Asian market from where we stand. This brings many additional challenges to SMEs. We have already seen that large enterprises have been very successful in establishing operations in the new growing markets, whereas for SMEs the task has clearly been more demanding. Thus it would certainly be beneficial e.g. to find ways to reinforce the cluster structures and thereby allow SMEs to have an easier access to the markets that are geographically distant.

I strongly believe that through closer co-operation the Baltic Sea region will be able to maintain its competitive position. However, in part, my optimism about closer co-operation is quite simply based on the fact that it is something we must achieve. We are very closely interconnected in terms of the development of our welfare, and we know it. Therefore also the means for building a genuine common market, a common cluster policy, and a common innovation environment will be found.

In terms of business structure I believe that the development will lead to bigger companies and an increasing number of companies operating in the entire Baltic Sea region. A great deal of the growth is enabled by company acquisitions which help build an operating network covering the whole region. As a market area the Baltic Sea region will become increasingly integrated also in terms of service production, and at the same time the competitive pressure between companies will increase and the segmentation of the market into different national markets will decrease. All this is possible because, for various reasons, not least because of the long common history, the Baltic Sea countries still comprise the most convenient area for co-operation between companies.

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Increasing tourism in the Baltic Sea Region

By Saara-Sofia Sutela and Antti Koskinen

Tourism plays an important role in the socio-economic and political development of countries. It contributes to cultural exchange and is often instrumental in a positive evolution of international relations. Tourism is one of the fastest growing industries and even though there are no mass tourism locations, in general the Baltic Sea Region (BSR) is attracting a growing number of visitors.

History, culture, nature and good infrastructure are the main elements that attract tourists in the area. Mainly this tourism is either domestic or from the very neighboring countries. Main concentrations are the capitals and the German coast. The biggest potentiality might not only be in attracting tourists from outside the BSR, but in *increasing tourism flows between the countries surrounding the Baltic Sea*. Overall the BSR as a whole should be seen as an inviting tourist attraction. This requires governmental cooperation.

At the moment there exist lots of tourism organizations and actors in the BSR area. They are supporting and promoting different activities and causes in the area and a number of them also grant financial support. However, the various stakeholders in tourism are not working together. The knowledge of projects, ventures and marketing operation are kept national instead of openly sharing and spreading information. The tourism between the countries of BSR should be increased more jointly.

Even though there already are many different kinds of organizations trying to increase the tourism in the area, the region would need organization concentrating on especially on the marketing of *BSR as an area*. The existing organizations could be utilized so that this would not necessarily require much special funding. The information concerning the area, its countries and different attractions should be collected under one database, which would then be promoted in all BSR countries. Currently it is time consuming trying to find information of the area as one. On **a joint website** places and events could be presented according to tourist interests (themes such as "natural wonders", "medieval architecture" etc.), instead of dividing them simply by countries. The concentration could be more on tourists from within the BSR, whereas existing websites are mainly oriented on tourism from outside the region.

Also **travel agency services and package trips** within the BSR could be offered centrally. Classical travel agency solutions are easy to combine into a mutual website. At the moment there are no travel agencies specializing in the BSR. Different kinds of packages would improve the image of the whole area. BSR consists of several countries with different traditions and different cultural heritage and one of the competitive advantages of the region is that it has many interesting attractions close to each other. Services of travel agencies are especially useful for older generations as the agency takes care of most practical arrangements. Besides classical package holidays a BSR agency could provide thematic trips such as "Festivals of the Baltic states", "Thousand lakes by bike" or "Historical castle architecture".

In terms of tourism focused on specific topics or themes, an important example is the various music festivals held within the BSR. One idea would be to introduce an annual BSR festival held alternately in different cities of BSR. Performers from each country could be introduced, being an easy way to get a grasp of cultures from all over the BSR. Organizing this kind of event in a different country every year would profit all countries involved. The festival could also have more than music to offer: examples of traditional and playful sport competitions from the BSR, such as popular "wife carrying" and sauna championships, could take place during the event.

A marketing solution to younger generations could be a "BSR **Combined Travel Pass**". For a long time interrail train tickets have been a popular way for especially young people to travel in Europe. The possibilities of interrail could be widened further to a combined train, ferry and bus ticket which enables the passenger to travel within the BSR for a reasonable price. Some of the best places to travel to in the BSR are not accessible by train, therefore buses and ferries would enable the ideal way to connect the Baltic Sea countries. This would be a golden opportunity for travelers to really travel off the beaten path and visit destinations that they have never even heard of. Marketing wise, the importance of sustainable development and **environmental friendly tourism**, found as one of the key elements of increasing tourism in the area, could this way be brought into a wider concentration. Saving the Baltic Sea as a shared goal should link the Baltic States together also from the tourism perspective.

Communication, co-operation and marketing are vital parts in successful development of the tourism within the BSR. One of the biggest challenges in inter-Baltic sea tourism is the enormous difference in incomes between countries. These differences naturally have a great influence on the prices of consumer products and services and it needs to be considered when developing tourism between the BSR countries. Increasing tourism in the area would not only provide economical growth, but also strengthen the identity of the region. As tourism services are provided mainly by small and medium sized companies, it is important to note the role of governments in the success of tourism industry. Could foreign ministries from BSR countries be involved as ministries of tourism too? All in all, the Baltic Sea Region would need a stronger brand as one attractive area.

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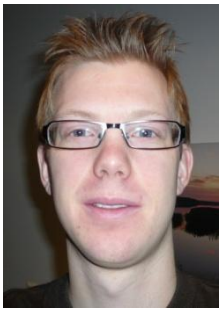

Unconventional gas - is there a quite revolution and what does it mean for the Russian energy policy?

By Andrey Shadurskiy

There is nothing new of unconventional gas: the first commercial gas well was dug in a shale play in Fredonia, NY back in 1821. Some four decades later, the Drake well started the epoch of conventional gas and only the oil crises of the 1970s made the USA turn back to the abundant local resources. The generous "Section 29" tax credit available for unconventional gas producers from 1980 to 1992/2002 had laid the foundation for what was dubbed "the quiet energy revolution" by Tony Hayward, BP's CEO. Neither the final conference paper of the US Energy Policy Act of 2003, nor the finally adopted US Energy Policy Act of 2005 stipulated any tax credits for this industry any more, reflecting its maturity in one playing field with the conventional gas. The dynamics of the latest five years have proven, the decision-makers were right.

Although shale gas is the most vocal now, it is worth keeping in mind two other basic unconventional gas types: tight sands and coalbed methane. In fact, it was the coalbed methane accounting for the most of the rise in unconventional gas production in the USA under the "Section 29" tax credit in 1980-90s. Taking coalbed methane (CBM) into account is crucial for an analysis of the implications of rising unconventional gas production for the Russian energy policy: not only because of looming Chinese CBM production, but also due to Gazprom's close interest in Russian CBM reserves: it will be not only developing its own expertise in this field, but will try to acquire American one and lobby for a Russian kind of "Section 29" provision that may be even more generous than the original one.

Although the issue of unconventional gas is one of the most topical in energy policy research and media space now, it is still necessary to see if there is any "revolution" at all. Looking at the poor performance of the US pioneering unconventional gas companies last year due to low gas prices, one might wonder if we are now leaving the euphoric stage and entering stagnation in the sector – the latest decision of the Chesapeake to curb investment in gas drilling and go for oil could be a distinctive sign. US gas prices have been falling since the peak of monthly average of 11.42$/tmc in June 2008 and were recorded at the lowest level of 4.44$/tmc since 2002 in December 2009. The oversupply originating from the unconventional gas industry brings the prices to the level when profitability of this production becomes marginable. "Devouring its own children", the process may be resembling the revolution in the US, but one has to analyze to what extent we may project in on other regional markets and the international market. The answer will lie in the latest developments of the market that is designed to bind what used to be separate regional natural gas markets – that is international LNG market.

Whereas the US market LNG contracts are linked to the Henry Hub price and are rather flexible, allowing to divert the cargoes if there is better price in other markets, most of the international LNG contracts are still long-term and are often linked to crude oil price like the pipeline gas ones. Qatar, the largest LNG producer in the world, estimated a volume of some 5.5 mtpy or 10% of its US exports diverted from the US to mostly Asian markets in 2009. Even if that amount would be diverted to the European markets, that would be less than 0,1% of the European LNG imports from Qatar. In total, all the US LNG imports are less than 20% of the European and LNG accounts only for 15% of European gas imports. 5.5 mtpy of diverted US imports would then equal to 0,002% of total European natural gas imports – hardly a game-changer. Despite that, the US gas market developments are important in the sense they will be pushing both European and Asian markets for a more flexible side and we already see it in the re-negotiation of the Gazprom's long-term contracts, when some 15% of the contracted gas volume becomes unbound of the oil prices and linked to a spot market, with simultaneous facilitating of take-or-pay rules. Although there may be doubts about the real influence of the LNG flows diverted from the US market to the European, one should carefully assess the ideas of turning some LNG capacities that are under construction in the USA now into the exporting ones, instead of importing as they were initially meant to be.

The prospects of unconventional gas in Europe are still too unclear, with a failed Hungarian MOL project and other, particularly Polish, that are due to testify later this year. The environmental dimension of the unconventional gas production – be it consequences of hydraulic fractioning in case of shale gas or de-watering in the CBM production will have a much bigger footprint in Europe than in the USA. Not only any "Halliburton loophole" is unlikely to pass unnoticed in Europe, but also such indirect issues as an intensified lorry traffic will be vigorously opposed by local communities. Shall any unconventional gas production be possible in these circumstances in Europe, it will have a price tag incomparable to the US one. In any case, European unconventional gas production will not be the game changer for another decade or even two. It would be a mistake to think of unconventional gas as a panacea for the problem of the European energy security. A full-fledged European gas market and strong infrastructure coupled with the growing LNG imports will be a much wiser option to pursue.

The European direction of the Russian energy policy may however be greatly influenced from the opposite side of the continent. A scant report of the latest Gazprom and CNPC negotiations on 13th of May over a prospective Russian gas prices does however clearly point at the reason for an obvious failure of the talks: CNPC was pushing for lower prices pointing at the regional market developments and own perspectives of unconventional gas production. The certified CBM resources in China are about 200 bcm and the current production rate is only 2 bcm, with a target of 20-30 bcm in 2020[1]. Coupled with the conventional LNG imports from the Middle East and unconventional from Australia it will help China double the modest share of 4% of natural gas in total consumption in this decade. Abundant LNG supply (there are three operating re-gasification plants now, four under construction and two more are planned) China gains a very strong negotiations position against the costly Russian Eastern Gas program. That would mean that not only the US market is now shut for the Russian exports (recent Gazprom contracts are of symbolic scale), but also the Chinese market – gravely undermining the whole idea of export diversification and as result bounding Russia even closer to Europe. In this case it will be much more rational for Russia to develop more flexible LNG exporting capacities in the Far East than opt for cross-border pipelines.

Another rational Russia's response to what is rather an unconventional gas-invoked evolution than revolution, would

[1] http://www.reuters.com/article/idUSTOE63F03H20100507

be re-considering planned investment projects. New market conditions make feasibility of Shtokman project highly dubious: the target US market will be unlikely to welcome LNG with an expected high price tag, the Asian and European markets will be both saturated with much cheaper Middle Eastern LNG. The outlook for the project may be even dimmer if Gazprom succeeds in the Russian CBM production, because in the middle term it might be comparable with Arctic deep-water gas production in terms of costs and benefits. An investment-hungry enormous Yamal project is the most important for Gazprom now and it deserves foremost attention at the cost of less obvious ones.

Last but hardly the least, the rise of the unconventional gas and emergence of the LNG market give Russia another very strong signal of necessity to re-think the internal energy policy. To stand up to the surging competition Russia will have but to greatly improve the efficiency of the energy industry and gas industry in particular. Oil producers, flaring associated gas and independent gas producers, constrained with the current TPA gas infrastructure regime could add substantially to the gas production, answering the domestic demand that is destined to grow and allowing to catch up with other gas-exporting countries, which are more and more vocal in the markets. After all, there is enormous potential for energy-saving in Russia and it still looks to be a missing element for a perfect combination of the EU-Russia energy dialogue: the EU will not allow Russia to take a greater share in its energy imports, but a much more positive and beneficial cooperation field lies in front of us, rather untouched. For the sake of launching intensive cooperation in this field, one may well continue coining the ongoing unconventional gas developments “a revolution”.

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On energy dependence and service security

By Bo Österlund

In the global data society of the 21 st century a message is sent to the recipient by pushing a button. Even monetary transactions are exercised in a fraction of a second by means of connections based on the same principle. Commodity orders via Internet can be accomplished in a few seconds. The materialization of the processes described above, i.e. the delivery of goods to the recipient or passenger conveyance from one place to another always requires a physical item of transportation and the availability of the energy form needed for such activity. Sea transports are the most profitable means of conveyance as for the cost/efficiency, and in certain cases even the only possible.

Sea traffic has through history been a very intriguing, legendary, and challenging source of livelihood. Ever since the first cargoes were transported overseas in order to earn money more than 5000 years ago, shipping has held a place in the front rank of development, and, invariably, as one of the medalists. More than 90 per cent of global trade is today carried on by sea despite the recession. According to the statistics of the year 2008 more than 8 150 million metric tons of cargo were transported by sea.

The 27 member states of the European Union maintain a traffic net comprising 1200 commercial ports along a coast of appr.100000 kilometers. About 90 per cent of the EU27 trade to third countries and more than 40 per cent of the trade between the EU countries is carried on via these harbors.

The share of crude oil of the total amount of goods transported is as much as 2800 million metric tons, i.e. more than 35 per cent. This corresponds to a production of 56 million bbl crude oil per day through a simple calculation conversion. The world consumes 250 liters of oil per second, 24 hours a day, and 365 days a year. Roughly 50 per cent of the global oil production is today transported by sea.

At the beginning of March this year, 72 years had passed since the onset of commercial crude oil production in Saudi Arabia. The prerequisites of the production had in fact been created as early as in 1859, when Edwin Drake from Texas with his salt water drill hit at the depth of 20 meter an oil vein which gushed forth barrels of “black gold”

Oil has become the high and mighty factor of our market economy. Oil provides energy but stands also for power, money, welfare, conflicts, and war. The political tugs of war of last century were settled by the availability of oil. In the battlefields of the First World War oil replaced horsepower and the coal-operated steam engines. It is said that Winston Churchill, after a well slept night, made a decision which was crucial as for the outcome of the naval war: The British navy proceeded from coal to oil, even if there were many who thought that the process from using domestic coal to importing oil from the Persian Gulf and becoming dependent on that was not well-argumented as far as energy security was concerned. American oil covered more than 80 per cent of the needs of the Western Powers during the war. According to certain suggestions American oil became a factor of crucial importance even for the Second World War with the exhaustion of German and Japanese oil resources. Hitler battled for an access to the oilfields in the Caucasus and the Middle East, and Japan made the attack against the American naval base at Pearl Harbor only after the strangulation of Japan’s oil supplies by the United States.

Getting through the consequences of the Second World War and the subsequent reconstruction work became possible when the economy of Western Europe began to use oil as a propellant. By 1972 the oil consumption of the world had grown fifteen fold from the pre-war level.

Without shipping half of the population of the world would starve, and the other half would freeze’ is a statement still current among marine experts, and it seems to hold good even today. Furthermore, this may be augmented by adding that world the would stop without fuel transports. The Swedish Professor Olof Wärneryd who works as a cultural geographer in Lund points out that at the beginning of last century people moved, on an average, 500 meters per day, at present, in the 21st century this distance has grown into 50 kilometers.

The significance of the above statement seems to increase with the growing difficulties or at least hardships in acquiring the natural resources available. According to an American research we people consume, at this very moment, more than 1,2 times what the earth yields. If we all consumed proportionally as much as the Americans do, we would need the production of five earths to meet our needs.

In the last 15 years, our global consumption has grown considerably more than 20 per cent. Our oil consumption is estimated to have grown as much as two percentage points annually for the last 50 years.

The commercial shipping routes crisscrossing on the earth are compelled to pass through several narrow straits of critical energy security.

According to the statistics of the year 2008, 16-17 million barrels per day (bbl/d), equaling to appr. 850 million metric tons of oil per year (1million bbl/d equals to 50 million metric tons annually) were transported via the narrow Strait of Hormuz (slightly more than 30 kilometer in width).This amount equals to the total quantity of cargo transported annually in the Baltic. In terms of vessels this means about 15 average-sized ocean tankers per day. Most of the oil travelling through the strait is transported to Asia, the United States, and Western Europe. As much as 75 per cent of the crude oil needed by Japan goes via this strait.

The Strait of Malacca joins the Indian Ocean, the South China Sea and the Pacific Ocean. It provides the shortest route from the oilfields of the Persian Gulf to the big consumers China and Japan. The most populous countries in the world, Indonesia and China lie in its sphere of influence. According to the statistics of the year 2008, 15 million bbl/d of crude oil travelled via the Strait of Malacca. This amount equals to more than 40 per cent of the total volume of oil cargoes transported by sea in the world.

Approximately 4,5 million bbl/d are transported via the Suez Canal linking the Red Sea and the Mediterranean. Roughly 3000 oil tankers pass the canal annually, i.e. slightly less than 10 tankers a day. The strait of Bab-el-Mandeb makes a strategic link between the Horn of Africa and the Middle East and connects the Mediterranean and the Indian Ocean. Roughly 3,3 million bbl/d of crude oil are transported through the strait to Europe, the United States and Asia. Most of the oil transports (2,2 million bbl/d) head for the Mediterranean. More than 16 000 vessels sail in the Gulf of Aden opening at the southern tip of the straits. This number includes also the coastal fishing fleet. The density of traffic has certainly contributed to the increasing number of criminal gangs, and the region is one of the focal points of Somalia pirates today.

The Straits of Bosporus which separate Europe from Asia are a significant crude oil traffic route from The Black Sea. The narrowest point of the strait is less than 800 m in

width and represents one of the most difficult navigable routes for tankers of more than 200 meters in length, there are about 5500 such tankers per year transporting more than 2,5 million bbl/d of crude oil coming from Russian oilfields. The amount transferred through the straits has been slightly diminishing in recent years. The reduction in transportation seems to have been shifted to the Baltic.

Only slightly more than 0,5 million bbl/d of crude oil is transported through the Panama Canal linking the Pacific Ocean and the Caribbean Sea. Passing through the canal is possible for vessels of no more than 80 000 Dwt. open sea tankers do, unfortunately, seldom meet these dimensions. Due to these physical restrictions the oil imported to the United States is no more transported through the canal.

The insurance costs for the cargoes trafficking through strategic straits and regions exposed to piracy have gone up. In 2008 the insurance premium for a cargo through the Strait of Hormuz or the Strait of Bab-el-Mandeb was 500 US dollars per voyage but since the beginning of 2009 it rose twentyfold up to 20 000 US dollars. The insurance premium for transport through the Strait of Malacca has risen fiftyfold in the same space of time.

In addition to the rising premiums of insurance even the durations of voyages have been prolonged in consequence to the attempts to evade the pirate region of the Gulf of Aden. The voyage from Europe (Rotterdam) to the Persian Gulf via the Cape of Good Hope prolongs the journey more than 3500 nautical miles. This implies an extension of time with about a fortnight. With sailing around Africa it is not possible to make all the voyages demanded annually in view of the remunerativeness of transportation activities. This means that more than 20 per cent of all traffic would remain unmade.

Piracy and its prevention have also resulted in rising prices of oil products. Additional pirate expense' is perceptible, even tangible for every Nordic consumer. The crises raging in the world have global effects on the whole national economy. As a result of tanker hijacked by pirates the fuel prices tend to rise at least in the countries which are dependent on imported oil. Experts in oil business estimate that political risks are responsible for about 10 US dollars in barrel prices. Stock market adventures are responsible for another 10 dollars in the barrel price, and so is the exceptional rise in the demand for oil. This means that almost 40 per cent of the current barrel price of 75,3 US dollars at the moment (March 2010) consists of mere opinions or expectations. The dependence mechanism of energy is a very complicated network with far-reaching arms.

In shaping "total image of oil" in the world (deposits, consumption, sufficiency, demand and supply, transportation in pipelines or tankers overseas), the essence is based on the share of oil in the energy consumption of the world.

The share of crude oil takes more than 35 per cent of our total energy consumption according to British Petroleum Statistical Review of World Energy 2009. At the end of the year 2008 the global demand was expected to be on the level of 85 million bbl/d. The International Energy Agency (IEA) has estimated that this demand will reach the level of 94,4 million bbl/d by 2015, and the level of one hundred million barrels (106,4 ,million i.e. + 24 per cent) by 2030.

Globally 70 % of oil is used on trafficking, operating or conveying. The high proportion of the transport section of the total consumption is, according to experts as based on statistical data of 2009, likely to be due to the fact that compensating energy solutions are not yet available, at least not sufficiently. Even an electric car must be charged with electricity produced with some other energy.

According to "The Guardian" the oil consumption of the world has decreased only twice during the last 28 years: in 1998 and in 2008. Compensating energy forms seem, so far, to have had a merely marginal influence.

When comparing this amount of consumption in view of, say, mechanized warfare we come to the conclusion that the consumption of fuel for one American soldier has risen as much as 175 per cent since the days of the Vietnamese War. Today, an American soldier consumes even 22 gallons (more than 80 liters) of fuel a day; at this fuel consumption I could drive my own car, for instance, more than 900 kilometers.

A general estimate of total (global) oil resources has, for the top ten oil producer countries, been assessed to be roughly 1243 billion barrels, which, with expected amounts of consumption, will suffice for the next 54 years, at least.

According to the BP statistics of 2009, the crude oil consumption of the US is roughly 19,5 million bbl/d. Eight million bbl/d of this amount is produced in the home country, and the rest (11 million bbl/d) is imported chiefly from Canada, Saudi-Arabia, Venezuela, Nigeria, Mexico, Iraq, Angola, and Algeria. Despite its net import the US is also capable of exporting oil, and of using more than one million bbl/d as a tool of policy.

In 2008 the EU27 consumed, according to its own statistics, more than 14,4 million bbl/d which includes its own production (more than 3,2 million bbl/d; 15 per cent of this quantity is yielded by he Danish North Sea oil deposits). Thus, EU27 is compelled to import more than 11 million bbl/d of its total consumption. According to IEA´s "Energy Policies Review" the most important export countries are the following: Russia 29 per cent, the Middle East 19 percent, Norway 14 per cent, northern Africa 12 per cent, and others 24 per cent.

In the "oil image" of the EU27 the oil of the North Sea has for a long time maintained a share of roughly 50 per cent which, however, has been decreasing ever since the first years of the 21st century. In 2006, the percentage was already as low as 37 per cent. The share of Russian oil has risen correspondingly, and will soon transgress the level of 30 per cent. The North Sea oil production is expected to descend further to 2,7 million bbl/d by the year 2020, and in the 2030s it will be as low as one million bbl/d. The estimated reduction of the production will thus be greater than 15 per cent. As for structure, the "oil image" of the EU27 has also changed in a revolutionizing manner ever since the end of the 1990s. The consumption of diesel fuel has surpassed the consumption of petroleum and heavy combustible oil. The refining ratio of these liquid fuels has resulted in the EU27 importing diesel and exporting petroleum. A crude oil barrel of 159 liters is refined into less than 40 litres of diesel and more than 70 liters of petroleum. In 2005, 110 metric tons of petroleum were consumed, and 43 metric tons were exported while 36 million metric tons of diesel had to be imported.

India, Japan, and China depend on the net import of oil. It is true that China itself produces slightly less than 3,4 million bbl/d (roughly 50 per cent) of its total consumption but the joint import of the three countries is, however, more than 9 million bbl/d.

According to the review of 2008 of "Oil and Gas Journal" the crude oil production of Russia approaches the level of 10 million bbl/d; in 2008 it was already as massive as 9,8 million bbl/d (oil products excluded). The net export of Russia for the same year was roughly 7 million bbl/d (equaling to 350 million metric tons annually). The export consists of roughly 4,4 million bbl/d of crude oil and 2 million bbl/d of other oil products. In other words, Russia exports more than 70 per cent of its crude oil production, and only

30 per cent is refined in the home country. The refinery capacity and the high transport costs as well as defects in the infrastructure may account for this disparity.

Roughly 1,3 million bbl/d were exported via the Druzhba pipeline crossing Central Europe to Belarus, the Ukraine, Germany, Poland, and other European consumers such as Hungary, Slovakia, and the Czech Republic. The same amount (roughly 1,3 million bbl/d) were exported via Primorsk, the flagship of Russia´s export at the upper end of the Gulf of Finland, near St Petersburg. Approximately 900 000 bbl/d were exported via Black Sea ports. An amount of 450 000 bbl/d is also transported by rail or other than state-owned transit pipelines. This export includes also the 400 000 metric tons of crude oil transported to Finland by rail.

Of the oil conveyed through the BPS(Baltic Pipeline Systems) pipeline via Belarus 25 per cent is directed into consumption in the home country and 75 per cent to European consumers, chiefly in the coastal countries of the Baltic Sea. Russia sells this oil to Belarus for a special price, and exempt from taxes. Belarus re-exports 75 per cent of the imported oil, which amount is liable to taxation. Last year Belarus was allowed to import 20 million metric tons of crude oil, and as much as 14,5 million metric tons were re-exported to Europe.

When building an image of the dependence on imported oil for the Baltic countries, the starting-point should be domestic consumption and refinery facilities in the home country.

According to the statistics of the year 2008, a total of 354 000 bbl/d (17,7 million metric tons annually) of crude oil is consumed in Sweden. The import from Russia covers 35 per cent of what is needed, i.e. 125 000 bbl/d. The North Sea oil produced by Denmark and Norway continues to cover more than 50 % per cent while the share of Britain remains as low as a few per cents. On the basis of sufficiency estimates for the North Sea oil, Sweden is compelled to look to other, compensating sources in the years to come. Accosting Russia seems to be the easiest solution but simultaneous changes in energy dependence and its mutual relationships should be taken into consideration. Thanks to its five oil refineries Sweden is a net exporter: even this certainly provides one solution to correct the disparity between petroleum and diesel in Europe.

More than 90 per cent of Swedish export trade is transported by sea, in other words considerably more than what holds good of Finland. When surveying the structural pattern of foreign trade, it is also worth remembering that only less than 5 per cent of direct imports to Sweden head for harbors east of the meridian passing through Karlskrona on the coast of the Baltic. Consequently, the interests of safeguarding the Swedish foreign trade are focused on the Danish Straits and The Sound. Thus it seems rather intricate to find an immediate common regional interest shared by Finland and Sweden. On the other hand, there are common interests to be found in coastal traffic and in safeguarding distribution traffic.

According to the above statistics, Germany consumes 2,91 million bbl/d (145 million metric tons annually) of crude oil. The import from Russia covers 35 per cent of the oil demand, i.e. slightly more than one million bbl/d. Last year the oil import from Russia increased 2.9 per cent while the import from OPEC countries decreased more than 10 per cent. The significance of Russia as well as its share of energy seems to increase in the Baltic region even without the gas pipeline.

The total crude oil consumption in Poland is 502 000 bbl/d. The import from Russia covers as much as 95 per cent (21 million metric tons annually), a humble share of 5 per cent is produced in the home country.

The Baltic countries are almost entirely dependent on imported oil from Russia which covers almost 100 per cent in all the three countries. As for oil products, Estonia and Latvia are dependent on imports from abroad because of the total absence of refining capacity of their own.

In Finland, the average crude oil consumption is approximately 223 000 bbl/d, i.e. less than 12 million metric tons annually. The oil coming from Primorsk in Russia covers roughly 75 per cent of our demands. Annually the oil export via Primorsk is 74 million metric tons; 16 per cent of this amount is transported to Finnish oil harbors and 62 per cent to the Netherlands. One fourth of our oil comes from Denmark, Norway, and England but their share will diminish considerably during the next 20 years. As for oil products, Finland is a net exporter.

On the basis of the first publicized preliminary data concerning the volume of our foreign trade in 2009 it can be established that the quantity of our imported energy has remained almost unchanged despite the considerable curtailment in the total volume of our sea transportation (from 102 million in 2008 to 82,6 million metric tons in 2009). This means that our energy imports comprising oil, oil products, and coal cover today more than 25 per cent of the volume of our sea transportation. The compensation of this quantity with renewable alternative energy solutions seems to lie rather remote in the future, at least if we are to believe the expert estimates of BP or The Guardian. And why wouldn´t we?

The oil production of Iran (roughly 2,5 million bbl/d, which for the time being is still "without master" i.e. without any long-time delivery contracts, will influence the "oil image" of the world and the energy relationships of the Great Powers. If and when the availability of oil will fluctuate not to mention oil frugality,the countries dependent on oil import should ensure or at least draw up their negotiating positions required to safeguard their energy security in the oil market.

Summing up the main points of the text above:

1. In 2007 almost 90 per cent of Russian crude oil (350 million metric tons) was exported via the Baltic Sea (31 per cent), via the "Druzhba"pipeline (27 per cent), or via the Black Sea (28 per cent).
2. In 2007 more than 25 per cent (more than 2,5 million bbl/d) was pumped from Russian oil wells which by then had supplied more than 60 per cent of their exploitable resources.
3. More than 50 per cent of Russian crude oil exports are transported via the Baltic or to the Baltic countries.
4. Since the year 2000 oil transportations in the Baltic Sea have increased tenfold.
5. One third of the Russian oil exports are transported either via Primorsk by tankers (74 million metric tons) or by rail to Tallinn (20 million metric tons) and from there by sea to other destinations in the world.
6. While the North Sea crude oil production appears to decrease, an equivalent increase is perceptible in Russia; in a few years the amount shipped via Ust-Luga (Luga-joen suu) has increased by 50 million metric tons annually.
7. The "Central-European exit strategy" of Russia which aims at directing the export routes of oil and also gas via more secure waterways or through more trustworthy countries, will, when materialized, increase the tanker traffic in the Baltic Sea.
8. It is estimated that by the year 2020 the Baltic countries will have increased their exports by 46 per cent from the level of 2008 (820 million metric tons), and their imports by 36 per cent. Domestic transport activity is expected to rise as much as 54 per cent.

9. In future, the role and presence of the Russian Baltic Navy will be accentuated to safeguard the energy routes of the country; obvious signals of this have already been perceived. In November last year, along with the new doctrine Medvedev signed a law determining "the operative use of the Russian force of arms outside the borders of the country". The project (called "Mistral") of acquiring a helicopter carrier for the Russian Navy was surely accelerated by the energy co-operation with France; in planning the stationing of this type of vessels and their range of operation the security of energy routes plays a remarkable role.

10. Will France and Germany. two other associates in the pipeline enterprise, intensify the presence of their navies in the Baltic Sea (Germany even in the northern part of the Baltic), and what will be the role of the NATO naval base in Estonia?

11. The presence of foreign armed forces and their authority of action in the economic zone of a Baltic coastal state may rouse questions attached to or even inherent in our security policy.

12. The gas pipeline "Nord Stream" on the bottom of the Baltic Sea and its exploitation for data communications may open also other adjunct applications of the gas pipeline.

13. The exit strategy of decreasing energy dependence on imported oil by using other new energy solutions will involve, in the long run, development of focal points. A pessimist or a realist will, however, assess the possibilities of development from the American point of view. Alternative solutions have been worked out there for more than 3o years with massive developmental resources, yet with no conspicuous results.

14. The dwindling oil deposits of the North Sea and the growing Russian influence in the Baltic region will require greater devotion to the infrastructure of the oil export of the region to meet the requirements of today.

In the public energy debate in the morning program on TV at the end of February there was a mutual understanding in theory of the need of building seven nuclear plants to compensate the whole of our oil import, another four nuclear plants to compensate earth gas, and still another three nuclear plants to compensate our increased coal import. The compensation of fossil energy sources lies behind an extremely long development work of several decades even if the project today is purely theoretical. In Finland we keep talking and arguing about the need of building one more nuclear plant.

The Chinese proverb "if we don´t change our direction, we will end up where we are heading for" is still relevant and suggests ideas to safeguard our service certainty and thus to develop our energy security.

Bo Österlund

Commodore (ret)

Finland

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Bringing Moldova closer to the European Union

By Vlad Filat

Since September 2009 Moldova has been governed by a four-party Alliance for European Integration, which replaced a Communist government that often failed to implement EU-inspired reforms and uphold many of the democratic standards it claimed to respect. The new government is now working hard to fast-track Moldova's transformation into a state that can credibly aim at becoming an EU candidate.

Moldova has inherited a bad image – that of a corrupt, poor, dysfunctional post-Soviet country riddled with a secessionist conflict. Some of it is true, but some of it are stereotypes. Our aim is to rethink Moldova, by changing the country in order to change the stereotypes, and change its place on the mental maps of most fellow Europeans. I suggest to start with geography: Chisinau, the capital of Moldova is roughly at a similar distance from Venice, as it is from Moscow, and Vienna is considerably closer. Then I suggest to look at the map of economic interdependence: over 50% of Moldovan trade is with the EU, and roughly 17% with Russia. A forthcoming EU-Moldova deep free trade area will only accelerate these trends. Close to 70% of Moldovans also support EU integration.

These factors are not just empty numbers. They provide Moldova with a solid societal, economic and political basis to continue its transformation and European integration. Despite a difficult regional and geopolitical context, Moldova is the only post-Soviet state (the Baltics aside) where every single transition of power came as a result of elections. Moldova also has a free media. This year alone two news channels have been launched providing non-stop scrutiny of the government's actions.

The country also starts to pull itself out from the economic crisis:

in the first six months of 2010 the Moldovan economy grew by 4.7%. And despite significant belt-tightening, the country has managed to avoid the massive social unrest that endangered the stability of many European countries in the last two years. In March, Moldova was also promised €1.9 billion by the European Union, the United States, the IMF, the World Bank, and other donors to support a strategy of mid-term reforms. The country also seeks to improve the business environment and investment climate by cutting red tape and simplifying the administrative burden on foreign investors. The World Bank placed Moldova among the Top 10 reformers in the world when it comes to the costs of doing business, while according to Transparency International Moldova's place in the corruption perception index improved by 20 places in the last year alone.

Relations with the EU have also gained significant momentum. We are working on a new Association Agreement, which would anchor Moldova even deeper in the European space. We will also sign a far-reaching free-trade agreement with the EU. What matters deeply for Moldova's citizens, though, is to move towards a visa-free regime with the EU. We are already working on implementing all the necessary technical conditions. From January 1, 2011, the country will be the first Eastern partner of the EU to switch to the exclusive issuance of biometric passports. Moldova's customs officials and border guards have been working actively with an EU mission to modernize our border infrastructure. Moldova will be an increasingly safe neighbour for the EU and a good partner in managing migration flows.

A new international dynamic also augurs well for conflict settlement efforts in Transnistria. For years Moldova's secessionist conflict was dumped into the category of 'frozen conflicts' with few chances of a solution. Obviously the conflict is not 'frozen', but not because it is 'boiling', but because a solution is not unimaginable. The formula of a solution rests on internal and international dynamics.

In domestic politics, the aim is for Moldova for become a state that is more attractive for the residents of the Transnistrian region. From this perspective, every step that brings us closer to the EU, not least the existence of free-trade and the free circulation of citizens, are also steps towards resolving the conflict.

But equally important are international developments. As the US-Russian 'reset diplomacy' takes root, and the EU-Russia 'partnership for modernisation' takes shape, chances are that Moldova can become the one piece of the puzzle around which the some of the new elements of the European security architecture can be built. In June this year the German Chancellor Angela Merkel and Russian President Dmitry Medvedev announced a plan to create an EU-Russia committee at foreign ministerial level aimed at fostering better cooperation in foreign affairs and security. The point of the initiative is not just to create another forum, but to focus on concrete avenues for cooperation, and conflict settlement in Moldova is envisaged as a first priority. Such steps are a good sign that could create international momentum for the resolution of the conflict.

There is no doubt that Moldova still has a lot of challenges to overcome. Progress is significant, but the list of reforms we have yet to undertake is even longer. Our institutions are still weak, political and economic realities will have to improve a lot, the unsolved conflict in Transnistria is a threat to regional stability and in November the country will hold early elections. But what matters is that the dynamic is positive and the road map for reforms clear. Much more work has to be done, and will be done. The government will continue to build a more solid basis for Moldova's democracy, will fight corruption, will modernize the economy and will deepen cooperation with the EU.

Vlad Filat

Prime Minister

The Republic of Moldova

Endangered European security?

By Libor Rouček

When it is talked about the security in the European Union, it is meant internal security as well as international security. Nowadays the security can not be treated separately due to the globalized age and interconnected societies in which we live. Therefore the European Union has been active in both areas of the security, at home and abroad. However, we are living a serious economic crisis which can have a negative impact on the security issues. The aim of this article is to point out to some trends which could bring some sort of danger for our foreign, security and defense policies.

For being a global player in the international security the European Union has defined many instruments how to fulfill this role. I don't want to write about the milestones in the process of creation of the EU Common Foreign, Security and Defense Policy because it is widely known. The reality matters and the fact is that the European Union has been able to contribute to maintaining peace and finding solutions to many international conflicts through its civilian missions and military operations which have been conducted in many parts of the world. Moreover the updated European Security Strategy by the French Presidency of the European Union at the end of 2008 and now the Lisbon Treaty brings new tools, strengthens competences of the European institutions and emphasizes even more the importance of the security and defense issues.

Internally, Member States of the EU are equally aware of the challenges for the internal security – terrorism, organized crime, cyber-crime, drug and arms trafficking, trafficking in human beings, economic crime and corruption as well as natural and man-made disasters. All these challenges require cross-border cooperation, preparedness and response. For accomplishing these goals there have been approved several crucial programs and strategies, I can mention the latest Stockholm Programme (2010-2014) and the Internal Security Strategy for the European Union approved during the Spanish Presidency as a complement to the European Security Strategy.

The European Union has many documents and tools at its disposal. However, if we want to talk about the security and the European Union in a complex way, it is necessary not to forget NATO as another global player. NATO has been a military organization but now it is being defined New Strategic Concept of the Alliance in which the member states should answer crucial questions concerning future role of the organization for the security challenges of the 21st century. In May 2010 the Group of Experts published document *NATO 2020: Assured Security, Dynamic Engagement* with the recommendations on a New Strategic Concept. I consider one recommendation extremely important from the European point of view: full complementarity between NATO and the European Union. I can fully agree that *a truly comprehensive partnership with the EU that is cost-effective, based on principle of reciprocity and that encompasses the entire range of the institutions´ mutual activities*[1] is absolutely necessary.

The reference to a cost-effective partnership is more than important. The current economic crisis has had many negative effects and it seems it also will have one on the foreign and security issues. The main slogan of nearly all European governments now is austerity and necessity to save. However, it should be discussed whether these measures could be taken also in foreign, security and defense policy. Let me show how it could endanger our goals and strategies.

The Lisbon Treaty has introduced the European External Action Service as an instrument how to forge a genuine foreign and security policy of the European Union. On 26 of July the General Affairs Council adopted a decision establishing the External Service which means that in coming weeks there will be an interesting diplomatic game how to really build this new European diplomatic service. However, there is a risk that some Member States could fight against this service in order to maintain its own diplomatic influence in the world and also to keep money in the time of austerity for national diplomatic service leaving little for the European diplomacy.

Moreover, the European Union and its Member States are talking about other priorities for the future than the security. The economic problems can cause that future European operations could be postponed or simply not planned. The governments are cutting its security and defense budgets and it will have its repercussions for both internal and international security. The same for NATO that is facing a serious challenge (remarkably not military) – cutting NATO´s common budget by the Member States which have temptation to spend less because of the need to save money regardless of the international security problems.

In all cases, it is a wrong calculation. It is understood that austerity measures are necessary in order to stabilize public finances of the Member States but the foreign, security or defense issues should not be victims. New conflicts, terrorist attacks or disasters will continue to happen. To find solutions will be more and more difficult due to a complicated nature of the world around us. Ignoring these facts and looking inwards is risky. The same could be said for the NATO´s allies. The common budget of the Alliance and the common funding of the military capabilities combined with civilian assets is the most important link between the various Member States and its partners and it must not be weakened for the future.

Austerity measures should not be excuse for leaving the security behind. The European Union must continue to play a key role taking advantage of all common instruments that has. The Members States of the European Union and NATO should not forget that nobody is able to act alone, and especially in the time of crisis. Burden sharing, cost-effective cooperation between EU and NATO partners, international organizations which are able to deal with the complex international issues, these are priorities for the future. Spending more together should be the step in the right direction and the prevention for not endangering our security.

Libor Rouček

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[1] http://www.nato.int/cps/en/natolive/official_texts_63654.htm

Energy co-operation in the Baltic Sea region

By Maud Olofsson

A general outlook on competitiveness and green economy

The Baltic Sea region is an important region to Sweden. We are not only connected with our neighbouring countries through the sea, but through long standing trade relations between businesses as well as travel of citizens. Therefore we put the competitiveness and future development of the Baltic Sea region high on our agenda. For the future benefit of the region, I am convinced of the need to create policy and market conditions that stimulate investments, innovations and entrepreneurship. If we together can identify the regions' strengths, and use them wisely, companies and citizens will benefit greatly.

The EU strategy for the Baltic Sea region will play a crucial role for the economic development of our countries. Even if this is a strategy of the European Union it is clear that many of the issues can only be addressed in constructive cooperation with our external partners in the region, and in particular Russia. In many cases a good platform for such deliberations can be found within the framework of the Council of the Baltic Sea States. There are many ways in which the EU-strategy for the Baltic Sea region and the work within the framework of the CBSS can complement each other.

One main priority of the CBSS should be to work towards a more sustainable economic development in the Baltic Sea region.

A transition towards a more sustainable economic growth - an eco efficient economy – in the Baltic Sea region can pave the way for new enterprises and jobs. We need to develop policy and market conditions that stimulate investments, innovation and entrepreneurship to create an eco efficient economy.

Specifically on energy policy co-operation

Renewable energy and energy efficiency are at the core of such a policy for an eco efficient economy. For example we need to strengthen the grid, invest in wind, solar and other renewable power, create energy out of waste and co-operate on energy market reforms in relevant ways.

Like in the broader Baltic Sea region co-operation, the energy policy field includes a number of tools that – if used wisely – may complement each other in a good way. The Baltic Energy Market Interconnection Plan, BEMIP, has taken a holistic approach that includes both issues relating to investments in infrastructure for energy, energy market reforms, renewable energy sources and energy efficiency. BEMIP is for the European Union, but in the energy field it is quite obvious that there is a need for co-operation including all countries in the region. Therefore I am glad to see that there already is an established platform for that - the Baltic Sea region Energy Co-operation, BASREC.

We should ensure that the work within BEMIP and BASREC is mutually reinforcing rather than just overlapping. I am confident that we will find ways to do this, in fact a flexible exchange of information has already taken place on a number of occasions.

The art of finding the win-win solutions

With two major crises, climate change and the economic down turn, affecting people all over the world, measures to tackle these challenges cannot wait. Action has to be taken simultaneously by governments, individuals, researchers, business and industry. Because by doing so, we will not only fix the climate challenge, but turn the economic down and create new jobs.

As policy-makers, we should help the entrepreneurs to turn the environmental challenges into business opportunities. New forms of climate friendly and energy efficient housing, transport, services and production of energy will be needed in the eco efficient economy.

In this context, the close interrelation between climate change and energy policy is of both importance and interest, given the present share of fossil fuels in the global energy mix and the increased need of security of supply. Sometimes the policy debate on energy seems to imply that we need to focus on either security of supply or on climate related energy issues. In reality we need to think of both – and fortunately they are interrelated.

This is good news, in the sense that we don't have to make too much of a choice between measures or feel that too much focus is spent on measures that don't help us meeting the one or the other of these objectives.

How so? Well, let's look at what kind of measures we must take in order to decrease emissions – we must both use energy more efficiently and increase the share of renewable energy. By doing so, our societies will become less vulnerable for possible disruptions in our traditional energy supply.

After all, this is quite simple, since energy usage in most countries today also implies a substantial use of fossil fuels. In Sweden this is most clearly the case for energy used within the transport sector. However, less energy use and more alternative supply is relevant for us all and in all sectors.

We must realize that security of supply is not merely a question of transport routes and interconnections, but also a matter of sustainability in a broader sense. What we do to improve security of supply of energy must also take environmental concerns into consideration. Measures to improve energy efficiency and to make better use of renewable energy sources are – and must be seen as – a vital part of the solution.

In this context I am very pleased that the Baltic Energy Market Interconnection plan is based on exactly this kind of broader view. It takes into consideration the needs for improvement in the energy infrastructure in the region as a whole. But that is not all. It also highlights the need for development of the energy markets in the region; and notes the important role for energy efficiency and renewable energy sources. The same line of reasoning can be found in communiqués adopted at meetings within BASREC.

Meeting the challenges is more than formulating communiqués and plans – we need to find possible solutions and promote that they can be realized.

In the Baltic Sea region we have a number of assets that could contribute to realizing the transition to an eco efficient economy. Within our region we have lots of experience in the fields of renewable energy sources and measures to promote energy efficiency. We also have big potentials for cost efficient projects, and not least a large potential for bioenergy. There is scope for a mutually rewarding co-operation that may serve not only our own countries, but also as an example for others.

Specifically on BASREC

There clearly is a role for BASREC in this, and I am glad to note that important steps have been taken recently to develop this co-operation in a good way.

Within BASREC , the Energy ministers last year decided to create a budget framework for concrete projects making the energy co-operation stronger and more concrete.

A number of energy projects are now on the way to be implemented. They include both co-operation on wind power, regional strategies for the Post Kyoto period and much more. I look forward to the continued work and cooperation within the Baltic Sea region for the future benefit of our region, it's environment, businesses and people.

Maud Olofsson

Minister for Enterprise and Energy,
Deputy Prime Minister

Sweden

EU and Russia – why they matter for the Baltic Sea

By Carl Haglund

The Baltic Sea is today in a miserable state. Vast areas of the seabed are dead due to lack of oxygen, and enormous amounts of nutrients are stored in the top sediments. Every time these nutrients are brought to the oxygen-rich surface water by sudden influxes of fresh salt water through the Danish straits, there are extraordinary algae blooms all over the Baltic Sea. Fortunately the state of our sea is today a well know fact and the efforts to save the Baltic sea are more ambitious than ever. Despite of these strivings the amount of nutrients that countries around the Baltic Sea let out into the sea is still way too large. This is due to open sewage systems, constant runoff from e.g. agriculture, industry and private households. The results can be seen also during the summer of 2010 when the toxic blue-green algae again made swimming in the sea hazardous. The Baltic Sea is the most polluted sea in the world. From an European union point of view this not very flattering. The Baltic Sea is the only sea the union almost can call its own, when all the countries along its coast are EU member states except from Russia.

In late 2009 EU adopted its first macro-regional cooperation strategy, called the EU Strategy for the Baltic Sea region. The strategy was initiated by the European parliament and the intergroup for the Baltic Sea. The idea behind a macro-regional approach for regional cooperation within the EU is quite simple - not everyone has to be involved in everything. In order to make regional cooperation smoother, the macro-regional approach attempts to give go-ahead to member states in a particular region with projects that concern only them. The funding for the Baltic Sea Strategy was initially perceived to stem from existing funding sources such as the Regional development fund, and this is where the lion's share of the funding should come from. However, the EU's structural funds are poorly suited to fund activities that involve one or more non-EU countries, and in a Baltic Sea context, this is of course problematic.

The presence of Russia in the Baltic Sea is historically great. The city of St. Petersburg is traditionally Russia's window to the west. The city, founded in 1703 and designed by the elite of European architects, was meant to show the European powers how enlightened the Russian empire was. Current Finnish sea charts are based on the old charts of the Russian navy, and even on the demilitarised Åland islands, the great fortress of Bomarsund still reminds of the Russian presence there throughout the 19th century.

When the Soviet Union collapsed and the Baltic States quickly assumed independence after many decades of occupation, the Russian presence in the Baltic Sea diminished significantly. However, during the last 10 years this has changed. With the opening of significant ports and oil terminals in the Gulf of Finland, Russia's economic interests in the Baltic Sea have regained their historic prominence. Russia exports roughly half of its oil through the Baltic Sea, and with the NordStream gas pipeline project, linking Russia directly with Northern Germany, the strategic importance of the region for Russia is right back where it used to be, if not beyond.

This set the stage for a very interesting political situation, when the EU launched its first macro-regional strategy for a region that is strategically important for Russia. Cooperation between EU and Russia is challenging; there is still no follow-up on the Partnership and Cooperation Agreement, and the Russian approach to the EU seems to follow the old rule of "divide and conquer". At the same time, the EU is dependent of Russian energy exports while Russia is equally dependent on European money to finance modernising its ancient industrial and infrastructure park, not to mention its social and health care systems.

From an ecological point of view, Russia's role in the Baltic Sea is equally very important, although Russia doesn't like to admit it. A large part of the nutrient input, which causes the serious eutrophication of the Baltic Sea, stems from open sewage systems in St Petersburg and Kaliningrad, as well as from agriculture and farming in the areas along the Russian costs to the Baltic Sea. Meanwhile, enormous collections of toxic waste and other dumps are building up close to the coast in the Kaliningrad and Leningrad oblasts, slowly but surely seeping into the groundwater and finding its way to the sea.

Large EU-projects have funded sewage treatment plants in St Petersburg, but bureaucratic difficulties and unwillingness from the Russian side to cooperate have made progress slow and frustrating. Russia, referring to a perceived junior partner role, refused to sign a Financial Agreement with the European Commission in 2008, leaving it outside the European Neighbourhood Partnership Initiative's cross-border cooperation. This made it virtually impossible for the EU to fund any projects to help Russian authorities deal with critical problems concerning toxic waste or sewage treatment.

Non-governmental organisations like HELCOM and the Baltic Sea Action Group have emphasised these problems for a long time, warning that the damage made to the Baltic Sea may well be irreversible if nothing is done very quickly. Following an initiative by me in the European Parliament, the EU budget 2010 allocated 20 million euro for projects under the Baltic Sea Strategy involving non-EU countries. This will bring a little relief to the situation, but a long-term solution needs to be found in order to quickly address the serious environmental hazards that exist in western Russia.

In effect, the challenges facing the Baltic Sea are as serious and as important as ever. For any lasting solutions to be found, we need to bring Russia properly into the sphere of cooperation and funding. The EU and Russia must be able to agree on common principles of cooperation, and the environmental dimension must be part of a future agreement, placing equal responsibility on all parts. Everything else is an absurdity and will only lead to tension and a further degeneration of the Baltic Sea.

Carl Haglund

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European Parliament

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Fundamental changes are needed in the governance of maritime safety

By Jenni Kuronen

The risk of a large oil accident in the maritime traffic of the Gulf of Finland and of the Baltic Sea has aroused wide concern in society. Many efforts by several actors have been done to prevent an oil accident or to decrease its harmful consequences. International actors, such as EU or HELCOM, states, NGO's, researchers and the companies in the sector all seem to share the concern.

Several preventive policies have been adopted to control the sea traffic in the Gulf of Finland, for example Mandatory Ship Reporting System (GOFREP) and the deep-water (DW) route on the southern side of Suursaari. New risk control options are also under development, for example Tanker Safety Project initiated by the John Nurminen Foundation, and the development of real-time risk analysis systems (e.g. EfficienSea Project). In addition, several new suggestions have been made on how to improve maritime safety in the GoF, for example extension of the VTS center authority and requirement of a winter navigation certificate.

Although the goals of all these efforts are undoubtedly good and they might be needed in the short-term, over a longer period of time this may result to burdening the shipping industry with excessive rules and additional costs, which reduce the risks of accidents only little. The amount of maritime safety regulation is extensive already now, ranging from safety of humans, ships, cargo and environment to security issues, and from international level (International Maritime Organization IMO) to regional (e.g. European Union) and national level. Still, accidents and incidents happen at sea and it seems that there are some fundamental problems in the maritime safety policy system.

International shipping industry needs international rules. Maritime safety issues are to a great extent handled in the IMO, which is the organization of United Nations. The work of IMO is based on national representation and on the implementation of regulation by flag states. Flag states have very different standards in implementing the regulations. The system allows the existence of flags of conveniences, which in turn enable operation for obscure and uncaring shipping companies. Nation states are many times promoting their national interests in IMO instead of promoting maritime safety interests. As a result, the regulation process in IMO tends to be slow and the result is often a compromise of compromises. Incapability of IMO to provide fast and effective responses has lead to the activity of other actors to regulate maritime safety, for example of the European Union.

Traditionally maritime safety regulation focuses on technical aspects and it tends to be reactive instead of proactive: regulations are revised when a major accident has happened. Often this kind of post-accident policy is not very comprehensive and some particular technical risk gets too much attention. The shipping companies have to make expensive repairs to ships, although some technical feature may not be the risk in itself – more crucial is how that feature is taken into consideration in the operation of a ship.

Actually, it is a commonly repeated statement that over 80 % of sea accidents are caused by human error. Still majority of the maritime safety regulation addresses all the other issues except human factor – probably because human factor issues are considered difficult. Human factor issues do not only deal with the actions of a single seafarer – it also includes broader issues such as safety culture, organizational culture and safety management. Many times a human based error is only the final link of a long and complex chain of organizational and operational errors both onboard of a ship and onshore in the shipping industry and in the shipping companies. The competition and economic pressures in the shipping sector are fierce. New regulations often add, for example, to the bureaucracy and paperwork in the ships. Workloads of seafarers increase and they suffer from fatigue, which is already a remarkable risk to maritime safety.

In short, maritime safety risks stem largely from the structure, social organization and economic pressures of the shipping industry. Many of the current maritime safety regulations are more like band-aid solutions instead of actually interfering with the causes of safety problems. If maritime safety policy is wanted to be truly effective, fundamental changes in the system are needed. First, international regulation system must be built so that it doesn't allow sub-standard shipping in any part of the world. Second, the regulation processes in IMO must present interests of maritime safety and the shipping industry itself instead of national, protectionist interests. Third, and the most important from the point of view of human factor, are the spontaneous activities of companies in maritime safety issues. Command-and-control policies can improve the situation but not make the needed fundamental changes. If a shipping company acts responsibly, takes care of safety issues properly and has motivated and committed personnel, detailed maritime safety regulations are not needed to ensure maritime safety. Maritime safety is also an interest of seafarers and the shipping companies, but the circumstances have to support the safe working environment in the shipping industry. Thorough reflection is needed on how shipping companies can be encouraged to operate responsibly and how unhealthy competition in the shipping industry can be prevented.

Although for us, who live in the vicinity of the Gulf of Finland and the Baltic Sea, safety at sea is of great importance and a large oil accident would be highly undesired, we have to remember that for seafarers, the Gulf of Finland and the Baltic Sea are only part of their journeys and maritime safety is as important issue elsewhere as it is in the Baltic Sea. The development of maritime safety policy regulation requires a comprehensive point of view.

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Lithuania and euro – a second opportunity not to be missed

By Ramūnas Vilpišauskas

These days the subject of euro zone enlargement is overshadowed by the issues of the euro zone survival. The financial problems of Greece and most other EU (and euro zone) members have raised doubts among policy makers and analysts regarding the prospects of the euro zone. The excessive deficit procedures have been started against absolute majority of the EU members because of their fiscal indicators (budget deficit and state debt) exceeding the limits set by the Stability and Growth Pact. Although Greece has received most attention of the markets and EU leaders, the deterioration of the state of public finances and persistent lack of structural reforms in most of the EU member states brought to the agenda the issues of economic governance, sanctions and reinforced coordination procedures changing the picture of the EU debates in half a year more than a decade of muddling along with the implementation of Lisbon strategy.

In such a context, some people in non euro zone EU members started raising the question if it is worth to continue pursuing the goal of joining the euro zone "as soon as the criteria are met". It seems, that some Central and Eastern European countries gave up the sense of urgency to meet convergence criteria in the next several years, and seem to be inclined to wait and see what happens with the euro zone. Some in the public even go as far as to blame the single currency for the current problems in Greece and some other euro zone members.

However, it would be a mistake to blame the euro zone (or financial markets, for that matter) for the current problems which many European countries are facing. To a large extent these problems are the outcome of inability to undertake structural reforms to increase competitiveness and the lax fiscal policies, with public spending growing much faster than the growth of the economy. Membership in the euro zone probably reinforced these trends, but did not cause them. On the contrary, the convergence criteria could be seen as guidelines for sound fiscal policy, even though their set and their exact numbers could be debated. The problem was that many countries have chosen to ignore the principles of sound fiscal policy and therefore had very little room for maneuver after the start of economic decline in 2008. Economic decline further exposed the rigidities of the national markets, the lack of flexibility and the mismatch between productivity and souring wages in many of the euro zone members, which was ignored during the times of fast economic growth.

These lessons particularly hold for the Baltic States which have been among the fastest growing economies in the EU since joining it in 2004, maintaining yearly real GDP growth rates of 7-8 percent up till 2008. However, at the same time they with the exception of Estonia failed to run fiscal surpluses and to accumulate reserves which could have been used when budget receipts started to decline with the start of economic decline. Although one could debate how much the expansionary policy contributed to the pick-up inflation in the Baltics which exceeded the Maastricht criteria and prevented Lithuania and Estonia from introducing euro in 2007, it is quite certain it was mostly the political consensus on the need to accumulate a reserve during the times of economic growth which allowed Estonia to maintain relatively healthy fiscal criteria and to qualify for joining the euro zone in 2011.

All three Baltic States, however, undertook significant fiscal adjustments after the start of the economic decline in 2008. Instead of strategy to devalue their national currencies recommended by many external observers as a traditional policy instrument, they have chosen to maintain the stability of their exchange rate policies by setting the introduction of euro as a corner stone of exit from the crisis, and opted for internal adjustment of wages and prices instead. It was for the size of these adjustments that these countries have been recently called "Europe's unsung heroes" by Steve Forbes during his meeting with Lithuania's Prime Minister A. Kubilius. For example, the overall size of fiscal adjustment, mostly coming from cutting down public expenditures and some tax increases, in Lithuania in 2009-2010 comes close to 12 percent of country's GDP while adjustment of further 5 percent of GDP is planned in order to bring the budget deficit from around 8 percent planned for 2010 to 3 percent in 2012. According to the European Commission, wages have been reduced by around 8,7 percent in Lithuania in 2009.

These measures contributed to the fast recovery of market confidence in the Baltic countries with credit default swaps and credit rating returning to pre crisis levels in March 2010. In July 2010, the IMF forecasted the Lithuanian economy to return to the growth trend by reaching 2 percent of growth in 2010. Although growth will to a large extent depend on the developments in neighboring markets which are also Baltic States' main export markets, most forecasts are positive regarding economic developments in the years to come.

However, it is clear that economic recovery will not be sufficient in itself to allow reducing the budget deficit and stop the growth of state debt which is forecasted to reach around 38 percent of Lithuania's GDP in 2010 (relatively low compared to 80 percent of euro zone's average forecasted by the European Commission for 2010, but accumulated very quickly during the recent couple of years). Thus, additional fiscal adjustment measures, mostly on expenditure side, will be required in Lithuania. Although this is likely to prove increasingly difficult as the Parliamentary elections approach in 2012, the current Government has shown the determination to proceed with the plan to bring the deficit to 3 percent of GDP in 2012 which would allow joining the euro zone in 2014.

At the same time, high education reform has been started in 2009 and major reforms of energy sector to create a Baltic electricity market based on the model of Nordic exchange (Nordpool) have been initiated in 2010. Health care and social security reforms are being debated, measures to improve investment climate are also on the agenda. Although the Government had to face the fact that implementation of reforms is much tougher than initiation, in particular, when you have a fragile coalition government in place, there is a possibility to use this situation as window of opportunity for the long-term reforms and not allow crisis to be wasted.

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Current challenges of Finnish and Russian shipbuilding – collaboration in R&D and building of ice class special tonnage

By Jukka Gustafsson

At the same time when the world's shipbuilding industry is in the deepest recession ever experienced, the President of Russia Dmitry Medvedev "outlines bright future for Russian shipbuilding" in a meeting of the Russian Security Council in June 2010. In spite of the international financing crisis and the current price of oil, which hit also Russian financing possibilities, President Medvedev said *that "the fight for Arctic resources, which has been growing stronger lately, is a separate issue, adding that the challenges in the region must be given attention in a shipbuilding development programme".* In the referred meeting was present also the President of United Shipbuilding Corporation (Russian abbreviation OSK), Mr. Trotsenko, representing major part of Russian shipbuilding related companies. Russian Government´s clear strategy is to create special shipbuilding zones in several parts of Russia with special tax and customs conditions. In December 2008, OSK was added on the list of strategic enterprises entitled to government support including all other major yards and institutes. The Government has also invested in the industry 22 billion RUB (5,5 billion EUR) during the last few years. Russian Government and Navy are in discussions with French Government, STX France and other parties to purchase four Mistral class helicopter carriers. One vessel should be jointly built in France and three vessels in Russia, probably in St. Petersburg, where one French helicopter carrier visited for in November 2009.

Since private Wärtsilä and state company Valmet left shipbuilding in the late 80´s, the remaining Finnish yards have been moved to and from Norwegian owners to recent Korean owner STX, which has expanded from Korea and China to several new countries and in a short time.

In Finland it has been no understanding nor actions to maintain even a small participation in the ownership (and decision making) of one of the key industries and R&D of Finland. A comparison can be easily made e.g. to France, which maintained 36% ownership of the important shipyard in St. Nazaire (comparable in size and production with Turku) when Aker sold the majority of shares to STX. The value of Finnish shipbuilding has been and still is in it's ability to develop, design and produce special vessels for demanding customers. The world class passenger vessels, ice breakers, ice-going offshore and arctic vessels, LNG carriers and many other type of special tonnage has been created using not only own 4,000 employees, but also hundreds of companies and several thousands of employees in the Finnish maritime cluster.

The shipyards in Helsinki, Turku and Rauma have designed and built more than 1500 vessels to former Russia and former Soviet Union, but only few vessels to modern Russia. Around 300 vessels have been built to ice class. The daughter company of STX Finland, Aker Arctic Technology (AARC), is a company which continues the extensive R&D work of the former Wärtsilä, at that time Kvaerner Masa-Yards Arctic Technology Center. The new ice model testing facility is located in Helsinki and is ranked as the most modern in the world. AARC has as a co-operation partner in the Krylov Shipbuilding Research Institute (KSRI) in St. Petersburg.

Several special vessels have been jointly developed and even constructed by Finnish and Russian shipyards and institutes. As examples to be mentioned Taimyr-class nuclear ice breakers with Baltic Shipyard, Titan-class 600 tons offshore crane vessels with Caspian yard and the most recent arctic shuttle tankers between AARC and Admiralty shipyard.

According to the Ministry of Economic Development of the Russian Federation *"the demand by national ship-owners for large capacity vessels includes and " the demand for civil maritime technology in Russia"; both for the period up to 2020 comprise of close to 1500 vessels*. The list of large vessels includes 25 large LNG carriers (150 000-216 000) m3 and 39 large tankers (115 000 - 360 000) dwt. None of those can be built at any of Russian current yards. The list of ice breakers includes 6 nuclear powered and 20 diesel ice breakers. Floating nuclear power plants for north regions are listed as seven units; the first of those is currently under construction in Baltic Shipyard. The number of science research vessels is 27; the first of those is now under construction in Admiralty Shipyard in order to replace "Akademik Feodorov", built in Rauma in the 80´s. Small ice class gas carriers are listed as seven. Maritime technique for shelf exploration (oil & gas) consists of 105 - 120 units. Tankers, bulkers, universal and multi-purpose vessels, timber carriers are listed up to 230 vessels. Passenger and freight ferries up to 25-30 vessels. Fishing fleet vessels (large and middle) up to 180. Other vessels for renovation of Russian other fleet up to 750 vessels. *The number of requested vessels is incredible with respect to capacity of Russian shipyards. Foreign technology and finance participation is a clear target in the modernization and gigantic extension of Russian shipbuilding industry*.

The first Russian super yards have recently been decided to be established in the Russian Far East near the city of Vladivostok. Korean Daewoo Shipbuilding and Marine Engineering (DSME) has started with OSK a gigantic shipyard project in Primorsky territory. Another agreement has been signed with a Chinese-Singaporean Yantai Raffles in order to build a gigantic offshore yard in order to build platforms and drilling equipment. There is no doubt that foreign deliveries and joint production will be remarkable for many years due to practical reasons. Next natural step for OSK is the selection of foreign partner for the building of a new super yard in St. Petersburg area.

The main shipyards and institutes of Russia are located from historical and practical reasons in the centre of St. Petersburg. The main products are and will be for Russian Navy and the facilities of all big three: Baltic, Admiralty and Severnaya yards are for the small and mid size vessels only, without proper available area for extension. All yards have during the last few years prepared plans for large vessel construction but the cost of one new green field super shipyard is around 3 billion EUR. In June 2010 the president of OSK, Mr. Trotsenko has confirmed the rumors that "the main areas of Admiralty will be moved onto the island of Kotlin in Kronstadt". However, no decisions have been made and the minimum design and construction time for such a yard is 3 years. According to recent statement of General Director of Severnaya and Baltic shipyards Mr. Andrey Borisovich another gigantic state shipbuilding group "The United industrial Corporation" (Russian abbreviation OPK) has also plans for the reconstruction and upgrading its current facility Severnaya suitable to build large vessels.

A private owned shipyard but well connected to state organizations and companies is Vyborg Shipyard, which also has plans for a super shipyard in Primorsk (Koivisto).

However, the Primorsk plan was recently "frozen" due to the delay of Shtokman gas & condensate development project.

STX Finland is keen on any cooperation possibilities including all related technology, design and construction of "lead" vessels.

For any further development of Finnish shipbuilding industry and all related maritime cluster it is of outmost important to participate in the development of Russian north-west shipbuilding industry and shipping, especially arctic.

The key words are in close cooperation between the governments and the strongest companies.

A recent but small step forward was made in May 2010, when a cooperation agreement was signed for the development and building of a new type of oil spill combat icebreaker for Russian leading shipping company Sovcomflot. The formal signing was witnessed by the Russian prime minister Vladimir Putin and Finnish prime minister Matti Vanhanen. The political support and participation on the highest level is certainly a must in any future business. Joint ventures with Russian shipyards should be considered for the joint design and construction of all kind special vessels and new technology items like aluminum LNG tanks and even in the development and construction of new Russian yards. STX Finland and Finnish maritime cluster possesses leading technical knowhow and has good experience of working with Russian organizations.

Jukka Gustafsson

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STX Finland Oy

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The Arctic region is warming up as a result of climatic change, and the repositioning of security policy

By Bo Österlund

The Arctic region is determined in several varying manners. Geographically, the Arctic region is limited by the Northern Arctic Circle which follows the latitude 66° 33´N but the region may also be determined according to temperature, timber line, permafrost, icecap or various political agreements, the most important of which is the UN Convention on the Law of the Sea passed in the year 1982. In terms of temperature, Arctic regions comprise the regions north of the isotherm + 10°C. As determined by the tree line, the Arctic region begins in the transitionary zone between the timber belt and the northern treeless tundra. Also the border of the everlasting permafrost may be regarded as the boundary of the Arctic region. In the area of permafrost at least 90 per cent of the ground is frozen. This, in comparison with the other determinants, is due to make the Arctic region more extensive, particularly in Russia. In maritime regions the boundary of the Arctic region is determined on the basis of the duration of the wintry ice coat of the sea.

The Arctic region is generally considered to comprise the Arctic Ocean with parts of Canada, Greenland (Denmark), Russia, the United States, and the Nordic countries. Apart from Sweden and Finland all the others are coastal states of the Arctic Ocean which also share territorial demands in regions which are still an issue of negotiations.

The extent of the Arctic Ocean is 50 per cent larger than that of the land area of the United States. The length of the Arctic coastline is approximately 45 000 kilometers. Roughly 40 per cent of the Arctic region (13, 4 million square kilometers) is land and 60 per cent is sea (roughly 20 million square kilometers). In summer, the Arctic Ocean is covered by a coat of ice of roughly 8 million square kilometers, on an average. In winter the ice coating is at its most extensive from March to May, about 15 million square kilometers. At the end of the summer the ice coating is at the minimum; a few years ago its extent was only 5, 3 million kilometers. According to climatic patterns made up by certain experts the icecap of the Arctic region will diminish by about 2, 5 per cent per decade.

Almost all researchers share the opinion that the icecap continues to melt. The most drastic estimates suggest that the icecap should disappear totally in a few decades. In any case it is sure that the reduced icecap will open new opportunities to the sea routes of the whole world and, simultaneously, will provide new accesses to the exploitation of the immense natural resources in this region.

The assessment of the energy resources of the Arctic region involves several factors of suspense. The most precise estimates lack numerical information of positive deposits. The estimates of American, Canadian as well as European assessors are based on a pattern concerning economically profitable deposits while the Russian assessments are based on a pattern describing the technical exploitation possibility of the deposits only.

The United States Geological Survey (USGS) suggests that the Arctic region holds, according to a sophisticated estimate, 25 per cent of the oil and gas deposits of the earth yet to be discovered. The USGS estimates that as much as 110 billion barrels of oil might be found east of Greenland. Considering today´s consumption (more than 85 million bbl/d) such a deposit would provide for the global consumption of five years. As far as deposits west of Greenland are concerned, there are no public estimates yet.

The sea district of Norway still holds verified virgin deposits with 500 million metric tons of oil (equaling to a production of 10 million bbl/d for one year) and 800 billion cubic meters of gas.

The energy strategy of Russia expects the share of "Arctic Oil" to rise up to 20 per cent of the total production of Russia which today is roughly 10 million bbl/d. The Commander of the Russian Northern Fleet, Admiral Vladimir Vysotskij pointed out as early as in June 2007 that even then Russia obtained 90 per cent of its gas, 60 per cent of its oil, more than 90 per cent of its nickel and cobalt, roughly 60 per cent of its copper, and over 95 per cent of its platinum from its Arctic region. The statement may, naturally, carry also deliberate aspects in addition to a scaling error, or the term Arctic region may denote here something entirely different from the European definition of the area.

The gas field of Shtokman 600 kilometers north of the Kola Peninsula is estimated to hold 3,8 trillion cubic meters of gas, and, furthermore, 31 billion metric tons of gas condensate. The total cost of the investments required for the exploitation of the field is estimated to reach 20 billion US dollars. The gas field will be substantially affiliated with the double gas pipeline to be installed on the bottom of the Baltic Sea since the gas is to be conducted from this gas field. The estimated time-table concerning the launch of the economic exploitation of the field will postpone the project for years. Consequently, the gas must be supplied by other gas fields or by bereaving other consumers of their shares. The Russian plan to commence the transportation of gas condensate to the United States will, at all events, be postponed to the 2020s. According to Western estimates concerning energy transportations from the Russian Arctic region, which today equal to 10 million metric tons annually, will rise at least 50 per cent by the year 2020. The British Petroleum suggests that the Arctic region might hold even 25 - 50 per cent of the yet undiscovered oil and gas resources of the world.

The increased opportunities of sea transportation favors Russia, in particular, since its oil and gas deposits in Siberia are, in general, situated in areas with no roads or railways. The transportation possibilities along the waterways endowed by rivers are and will be increasingly significant in the future, at least during the ice-free summer seasons.

The idea of a northern sea route to East India, Japan, and China which would spare the seafarers the hardships of sailing round the Horn, has haunted the European minds ever since the early Middle Ages. Severe climatic conditions, ice blockades, and the inadequate technical level of know-how have so far constituted obstacles hampering sea traffic.

After the golden period of coal-operated steamers, globalization has integrated the continents into a more and more solid network. Despite the recession, the seas of the world are plied continuously by more than 40 000 seaworthy cargo vessels which transport annually more than 300 million containers. This system of transportation traffic conveys more than 90 per cent of the volume of global trade.

At the moment, experts discuss two main alternatives of routes or fairways through the Arctic region.

The Finnish explorer Adolf Erik Nordenskiöld was the first man in history to circumnavigate Eurasia via the Northeast Passage in 1878. This passage runs from Nordkapp eastwards north of the Kola Peninsula and then

follows the northern coast of Russia, and via the Bering Strait to the Pacific Ocean. The passage runs through the exclusive economic zone of Russia, and, in places, also through its internal territorial waters.

The passage has always been of great military importance to Russia. When the Soviet Union established the Pacific Fleet and the Northern Fleet at the beginning of the 1930s the passage provided an opportunity to unite these two power factors when required. In 1942 a Russian man-of-war sailed from the Pacific to the Barents Sea. The route was not opened to international sea traffic until July 1991 in the period of Mikhail Gorbachov, only a few months prior to the disintegration of the Soviet Union.

This passage which is utterly tempting economically would shorten the passage from Hamburg to Osaka, Japan to a third of what it is today; the route is at least 6400 kilometers shorter than any traditional alternative sea route. According to a Swedish source the route will be opened for year-round traffic in 5 - 10 years.

Roald Amundsen navigated the Northwest Passage in 1906; it runs via Greenland and Newfoundland curving round Canadian territorial waters north of Alaska to the Bering Strait and further away to the Pacific Ocean. This route will shorten the passage from the east coast of the United States to the Far East by roughly 7 000 kilometers, i.e. it will save at least two weeks of travelling time. A tanker which is too massive to pass the Panama Canal would save as much as two months of travelling time. Since the climate of the northwestern area is colder than that in the northeast, experts estimate that the opening of this route for year-round commercial sea traffic might become actual in 10 - 20 years. Difficulties in navigating the fairway as well as environmental aspects may also challenge the trafficking. The shipwreck of the tanker "Exxon Valdez" resulted in 40 000 metric tons of oil leaking into the sea in 1989. It is estimated that more than 80 000 liters of crude oil are still today to be obliterated from the wreck. The purification cost is estimated to reach roughly 2 billion Canadian dollars. The memory of this tanker catastrophe appears to pilot even today all initiatives and measures of protection. According to experts it might cost as much as 100 million Canadian dollars to prepare a nautical chart of this route.

In summer 2008, the Northeast Passage as well as the Northwest Passage was both open simultaneously for the first time in recorded history. According to the optimistic or pessimistic (depending on the angle of the assessment) estimates based on real observations of several researchers of the Arctic region, our Arctic Ocean might be ice-free as soon as in the summer months of the year 2015.

An extensive number of researchers are interested in a third future sea route, i.e. the fairway crossing the North Pole. In comparison with the two previous routes, the Northeast Passage and the Northwest passage, the polar route is obviously the shortest but it will not come true until a massive melting process of the ice takes place; according to certain estimates it will not be possible until at least 50 - 60 years from today, not even for a short summer season.

Prior to the Second World War every coastal state had only a narrow territorial waters of some 3 - 4 nautical miles in width; according to the UN Convention on the Law of the Sea it could then be widened to cover 12 nautical miles from the baseline. Finland enlarged its territorial waters to 12 nautical miles by a law passed in March 1995.

As for the rest, the sea districts remained open high seas in which the states of the world were free to exercise any kind of legal activities. Harry S. Truman, President of the United States, began with his declaration of the year 1945 a development which changed the sovereignty of the seas. According to Professor Timo Koivurova, University of Lapland, Truman´s declaration, according to which the United States possesses sovereign rights to the natural resources of its continental shelf, launched a chain reaction in which one state after another endorsed similar rights to the natural resources of their continental shelves. This arrangement became established as a part of international common law in which every coastal state is entitled to a seabed area attached to its land territory.

The problems which have emerged after the establishments of continental shelf rights have dealt mainly with the question how far outs to the open high seas the continental shelf of a coastal state can extend. According to the UN Convention on the Law of the Sea 1982 the continental shelf may principally extend out to 200 nautical miles from the baseline of the territorial sea. "The continental shelf of a coastal state covers the seabed and its contents of underwater areas extending outside the territorial waters of a coastal state as a natural prolongation of its land territory out to the continental margin´s outer edge, or 200 nautical miles from the baselines from which the width of the territorial sea is measured in case the continental margin does not extend so far ." The definition of the distance of 200 nautical miles (370 kilometers) denotes the "at most"-definition.

The UN Convention on the Law of the Sea is frequently called "the Constitution of the Sea". The Convention regulates almost everything connected with the sea from fishing to oil drilling, from environmental aspects to traffic and the sea boundaries of the states.

According to this Convention the coastal states were to lodge their submissions for claims concerning their continental shelves to the UN Committee dealing with this matter in ten years after becoming a member of the UN Convention on the Law of the Sea. The United States is the only coastal state of the Arctic Region that has not joined the treaty. As far as the other coastal states are concerned, Norway ratified the Convention in 1996, Russia in 1997, Canada in 2003, and Denmark in 2004. The two last-mentioned countries have still time to deliver their claims of continental shelves, Canada until 2013, and Denmark until 2014. Finland ratified the treaty in 1996. Russia was the first state to deliver the claim of its continental shelf to the UN in 2001 even if it had to complete this information subsequently.

The greatest disagreement in determining limits in the Arctic Region concerns the definitions of the 2 000-kilometer-long Lomonosov Ridge bisecting the Arctic Ocean and the Mendeleev Ridge extending out to the North Pole. Are they to be regarded as prolongations of the continental shelf of the coastal state and thus as grounds for an extended continental shelf, or not? Canada, Denmark, and Russia each claim that the territory belongs firmly to their own continental shelves. If these areas are determined to belong to the continental shelf of Russia, it is a matter of an area with an extent of 1, 2 square kilometers. According to the view of the United States these ridges do not belong to any country´s continental shelf but are part of the deep-seabed under the regime of the International Seabed Authority, and thus common property to all nations.

We still retain in remembrance the Russian expedition in 2007 when a miniature submarine was steered into the depth of 4 300 metres near the North Pole, leaving the Russian national flag there as a calling card. The commander of the expedition, the then Vice-Chairman of the Russian Duma and explorer Artur Tjilingarov stated after this visit: "The Arctic is ours, and we have to exhibit our presence in the region".

The Svalbard is another disputed question where Russia, in accordance with the agreement acknowledges

the Norwegian supremacy in the islands but considers that the status of demilitarization of the region has not been observed. Russia also holds the view that the international economic status of the islands is valid also in the Economic Zone of the islands.

At the end of April Russia and Norway reached, after negotiations of 40 years, an agreement concerning the defining of the sea border and the common sovereignty of the oil and gas deposits transgressing the state limits in the sea area between the Svalbard and the Novaya Zemlya. The agreement applies to an area of slightly more than 175 000 square kilometers which is now to be distributed between the two states. This agreement is not, however, a legally valid pact between Russia and Norway. It is, in fact, an endeavor officially presented, solemnized by the highest leaders of the countries, and undersigned by the Foreign Ministers to achieve such an agreement. Although it is an extremely significant intermediary etape, the agreement is not yet completed. A lot of technical polishing and refining, and, in particular, the enforcement of a conclusive agreement, will still be necessary. The final "de jure" situation which can be accepted to serve as a basis for the agreement remains still to be settled.

Russia also has expressed its disagreement concerning its sea border with the United States which has not yet been ratified.

According to Swedish sources it is apparent that the Russian policy concerning the Arctic region aims at a balance between military and economic interests. This is manifested in the interaction of the Russian Northern Fleet and the Russian oil industry. The free access of the Russian naval forces out to the Atlantic from the naval bases in the Kola Peninsula, as well as the decisive role of the Northern Fleet, are emphasized in the Russian sea strategy until the year 2020 which also accentuates the significance and accessibility of the Northeastern Passage.

The United States appears to observe the issue of the Arctic region from a distance. The primary focus of its domestic interests seems to be Alaska, while Canada is the main party in bilateral questions. Strictly speaking, the United States seems to have been left aside in the discussions of the Arctic region since it has not yet joined the Convention on the Law of the Sea.

The hands of the American clock of security policy seem to have stopped, at least for the moment, at a position where the permanent presence of the US Air Force in Iceland has ceased, the storage of combat weapon material in Norway is being reduced, and the presence of naval forces has been increased in the Indian Ocean and the Pacific Ocean. The researcher Fredrik Lindvall of FOI (Försvarets Forskningsinstitut) has assessed that this change will decrease the presence of the US armed forces supporting its European allies.

The significance of the air space of the Arctic region has remained a field of operations for the remote actions of the air forces, for intercontinental missiles, and consequently also for missile defence. Doctor of Political Science Markku Salomaa assesses, in his article "US cruise missiles to be used as a NATO shield in the Baltic area" published in the magazine "Rannikon Puolustaja" ("The Coast Defender") 1/2010, that protective missiles of the AEGIS system of the Navy will be stationed also in the Norwegian Sea as soon as from the year 2011. The surveillance of Russian missile submarines in the Arctic Ocean is likely to be continued in the same way as it was exercised during the Cold War. Mobile, rapidly conveyable components of armed forces, naval and air forces seem to maintain, if not to increase their significance in the world seas and in the air space above them.

Canada´s demand to restrict the free traffic of foreign naval forces in the Canadian territorial waters of the Northwestern Passage is under consideration. Canada wants to incorporate that part of the route in its internal territorial waters. Thoroughfare traffic (including war vessels) presupposes the coastal state´s permission of transit traffic, and also submarines are to cruise surfaced. Canada also has a territorial controversy with Denmark concerning the regime of the uninhabited island of "Hans Island". The Canadian Prime Minister flew to the island in 2005, and hoisted there the Canadian flag as a sign of the regime. With the progress of the process concerning the continental shelf it became evident that, on the basis of remapping, the island unambiguously belonged to Denmark.

For a long time Canada has shown its presence in the sparsely populated or actually uninhabited north. It has watched its territories primarily with marine guard planes (with Aurora guard planes flown from the south only a few times in a month), with a domestic radar net and in the last few years also with two frigates which, however, are not reinforced for trafficking in ice, and with submarines stationed in the north. One of those is purely operative, and is not operated under the icecap.

According to the American jurist Eric Posner the rule over the sea depends on presence, capacity, and power. As far as the Arctic Ocean is concerned, this should be augmented by the will to operate on the surface, below the surface, and in the air space above the sea. In the Arctic region Russia possesses both of these qualities, Canada possesses the capacity of presence in open waters but no power, the United States possesses power but no capacity of presence. It is worth mentioning that the US Coast Guard has only three icebreakers capable of sailing in arctic waters, and even they are under the administration of the Pacific naval board. Russia has as many as 18 icebreakers capable of trafficking in arctic circumstances, and seven of these are nuclear-powered.

Iceland has displayed great interest in the increased possibilities of sea transportation in the Arctic Ocean. Due to its site this island state might have the opportunity of providing harbour, supportive, and terminal facilities as well as transit loading possibilities to the sea traffic via the Arctic Ocean. As to the increased sea transportation in consequence of the exploitation of the natural resources of the Arctic region, Iceland appears to cherish expectations of obtaining certain contingents to be used for its own economy.

The relationships between Iceland and Norway are affected by the disagreement of drawing the borderlines of the two countries concerning the course of the continental shelf around the island of Jan Mayen, and the exploitation of the natural resources of the Svalbard. The security policy of Iceland undergoes a noticeable process of change. One of the conducting factors is the above-mentioned withdrawal of the US Air Force from the island and the air base of Keflavik in 2006. Despite the withdrawal, the defence treaty between the United States and Iceland is still in effect. It is, however, true that the treaty covers only exceptional circumstances. NATO has in consequence of this development become the cornerstone of the security policy of Iceland which as a result of the withdrawal of the US forces commenced to organize its own domestic defence. In 2008 defence was, for the first time in history, entered into the state budget of Iceland as a separate caption. This resulted in the establishment of Iceland Defence Agency (IDA) on June 1, 2008; it controls the four radar stations of the island and the air-traffic control of Keflavik. The surveillance of the air space was arranged in co-operation with NATO. Furthermore, ”the Thorwald Stoltenberg" report requested

by the Foreign Ministers of the Nordic countries suggested, as is well known, that also the Swedish and the Finnish Air Forces should participate in Air Policing. This suggestion may well be considered rather controversial in a situation where NATO is unambiguously responsible for the surveillance.

The issue of domestic military defence to be arranged along with and in addition to the Coast Guard is apparently a consequential result of the development of security policy in the first decade of the 21st century. The participation of the Icelandic coast guard personnel in the crisis management in Afghanistan and the opportunity given to Icelandic youths to do their voluntary military service in the Norwegian army appear to be the first steps towards the island´s own domestic armed forces proportionate to the size, the population, and the economic capacity of the country.

The expected warming up of the climate and the melting of the Arctic Ocean will affect and actualize several territorial and border questions in Danish Arctic policy. The increasing traffic of vessels in the neighborhood of Greenland is seen also as a catalyst in security policy. The developmental span of the self-government of Greenland is assessed by many experts of politics to result in political autonomy as soon as in roughly 20 years. The enlarged self-government (in June 2009), and the voted detachment from the EU (in 1985) are additional spices in the development. Economic lingering independence is sure to follow after a certain interval of delay, and will certainly be influenced by the growth of the opportunities of exploiting the natural resources and energy sources discovered, as well as the encouraged sea traffic. Their exploitation will take Greenland towards economic independence from its former, or, for the time being, present mother country.

According to the magazine "Defense News" published in early March this year Norway has plans to reinforce its Arctic region with one or two air bases, and possibly with one submarine base. According to the Norwegian Minister of Defence Grete Faremo these bases could be established in Evenees, Bodö, and Orland.

The assessments of the improved accessibility of the Northwestern and the Northeastern Passages in summertime and the warming climate have roused also the Chinese as well as the Bahamian and the Liberian research resources and exploration vessels instigated by the TV documentary of the issue, shown on the Canadian TV on March 18, 2010. The interest seems to be focused on China, Japan, and both the Koreas which all sit so to speak "in the same boat", and which would be well served by shorter sea routes from the Far East to the European markets. It is also worth mentioning that almost 50 per cent of the Chinese gross national income is cashed in with the help of shipping and the exports over the seas. Besides, there are no pirates who elsewhere will collect sky-high "insurance expenses". Northern alternative sea routes will endow the northern Chinese ports with opportunities to develop into new centers of logistics. The changing trends in global shipping seem to serve well particularly the Far East, and also the much-consuming western world due to the lower transport costs. At the moment the cargo cost for one container from the Far East to Europe is roughly 3 500 € per voyage while the cargo back costs only about 500 €.

The interest of Bahamas (consumption roughly 22 000 bbl/d) which is one of the greatest states in shipping business, and that of the oil state Liberia is likely to be focused, in addition to the shipping routes, also on the opportunities of exploitation of the natural resources in the area, and thus also to the geographic division of the area.

Since 1994 China has made explorations in the Arctic Ocean with the biggest non-nuclear icebreaker "Xuelong" (displacement 21 000 metric tons) which was originally bought from the Ukraine. To ensure arctic capability of operation the acquisition of a new Chinese research vessel (displacement roughly 8 000 metric tons) is being under consideration, and it is estimated to be in operative use by the year 2013. The finishing date seems to occur with the dead-lines of the lodgings of submission for the determination of the limits of the continental shelf of Denmark and Canada. In the research "China prepares for an ice-free Arctic" published by SIPRI in early March this year also the importance of military factors in addition to scientific and commercial aspects is discussed in the Arctic region."Kina inser sakta men säkert de kommersiella och strategiska möjligheter som ett isfritt Arktis skulle innebära".

(" China apprehends, slowly but surely, the commercial and strategic opportunities offered by an ice-free Arctic zone").

Senior Colonel in the Chinese People´s Army Han Xudong warns in the report of SIPRI: "The possibility of use of force cannot be ruled out in the Arctic due to complex sovereignty disputes".

The critical path in the Arctic region opened by the warming up of the climate passes through the international relationships of the coastal states, international justice, energy policy, fishing policy, and exploitation of other natural resources to the developmental alternatives in the security policy of the region.

Physical presence, will, and capability of year-round operation as well as adequate power and available resources will decide who is going to rule the sea. As far as the Arctic Ocean is concerned, capacity of operation on the surface, below the surface, and in the air space above the sea can be added to the above list.

At the moment, however, it seems evident that there is no need to resort to swords as long as the limits of the continental shelf are drawn by science.

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Russia's future security stance versus friends and foes

By Marcel de Haas

Under Vladimir Putin and Dmitry Medvedev, Russia has developed from a neglected regional power into a self-declared resurgent superpower. What is the most likely scenario for Moscow's security stance versus its Western and Eastern neighbours in the decades ahead?

An assertive Russia?

One of the likely scenarios is that of continuation of a forceful foreign security policy. In the international political field Russia seeks at least to consolidate its leading position within the CIS Collective Security Treaty Organisation (CSTO) and – together with China – also in the Shanghai Cooperation Organisation (SCO). With NATO an ambivalent relationship will be continued, varying from cooperation to confrontation, according to actions of both parties. The strong trade links with the EU will further be raised, based upon reciprocal interests. But in the security area cooperation with the EU will remain restricted to practical cooperation in areas which are of interest to Russia, such as counterterrorism, non-proliferation of mass destruction weapons and civil defence/disaster relief. In the military area emphasis will be laid in the execution of the in 2008 announced military reforms, aiming to accomplish armed forces that can be used fast and, if so desired, also abroad.

Or a failing Russia?

Another probable scenario is that the Russian Federation turns into a failing state. The domestic sphere in this setting shows a Russia which will be characterised by social disorder, by a faulty economy, and by political turmoil in the North Caucasus. The economy shows hardly any increase or even shrinks. That is the consequence of a continued one-sided economy solely depending on energy resources and with connected reducing revenues. Such a weakened socio-economic situation has also consequences for Russia's position in the dimension of international security. Owing to a lack of Russian leadership the military alliance CSTO weakens or even disintegrates. Considering these circumstances and supported by its reinforced position in the SCO, China is able to strengthen its influence in Central-Asia at the expense of Russia. If China's leverage becomes so strong that it can stretch its power into Russia's Far East, Moscow might feel obliged to align itself with the West in the field of security cooperation, in order to keep its territorial integrity in tact. In the military field, due to obstacles such as uncooperativeness of political leaders and generals, corruption, a lack of (defence and security) budget to fulfil the plans, a deficient number of volunteers, as well as shortages in military-industrial capacity to produce the requested number of modern arms, only a part of the envisaged military reforms plans will be reached.

Expect a failing and assertive Russia

A combined scenario of a failing and assertive Russia seems to be the most likely for the next decades. As to a failing Russia, this will be the result of deepening of the main existing domestic threats, of a demographic and socio-economic nature, as well as of territorial integrity. The global financial crisis of 2008 and beyond has proven how vulnerable Russia's one-sided economic dependence is on energy resources. The deteriorated economy has already caused social unrest. As to territorial integrity, Moscow seems to be loosing its grip on the North Caucasus, resulting form crime, corruption, anarchy and Islamic terrorism. Russia's Far East is also breaking-up from Moscow, by focusing on China and other Eastern countries, possibly actively encouraged by actions from Beijing. Because of contradicting national priorities and opposing views neither CSTO nor SCO are likely to obtain an integrated political-military structure, to become an intervention tool of Moscow, nor to form 'blocs' threatening the West. Moreover, if their economic strength is further enhanced, China and India will act more independently from Moscow and will undermine its international stature. With regard to an assertive Russia, such perilous circumstances of loosing power at home and abroad might induce the Kremlin to use military action, in which, by a fast victory abroad, domestic support can be gained. Thus, the West could be confronted with a resurgent Russia with limited capabilities of power projection, in which 'Georgia 2008' type of Russian military action can be expected, most likely only in the CIS area.

Western policy options in response

How might the West respond to a failing and assertive Russia with a limited capability of power projection? A dual Western policy towards Russia could be the right approach, of the traditional type of 'carrot and stick'. On the one hand the stick, a policy of a tough stance. By pointing out to Russia what is acceptable, and by taking the initiative in stead of reacting to Moscow's endeavours. On the other hand the carrot, a policy of encouraging cooperation with Russia. Moscow and the West should focus on mutual beneficial and practical projects. The recent US-Russian strategic nuclear arms agreement is a good example of this, from which talks on other arms control issues may follow. Another option is joint Western-Russian political action in international security, for instance towards (the nuclear ambitions of) Iran and North Korea. Moreover, the good experiences of joint military operations could be reinforced. In addition to cooperating in or on Afghanistan, other foreseeable options in joint operations could be regarding the piracy near Somalia, and Russian contingents in EU operations, such as recently in Chad, which explicitly are of mutual interest. Differences between Russia and the West are likely to stay. Hence, workable conditions have to be established, since both parties will remain important players in the international arena in general and in Europe in particular.

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Changing Baltic Sea military threats

By Seppo Ruohonen

Cold war era in the Baltic Sea was militarily quite predictable and considerably calm under the global reassurance-deterrence balance and military equilibrium of military forces. Occasionally global crises on each decennium between two big powers Nato and Warsaw Pact reflected tension to the Baltic Sea. Both allies were actively surveying and spying the territorial waters of Finland and Sweden sometimes up to the Gulf of Bothnia.

Unallied and wartime neutral Sweden had a strong naval defence with few hundreds warplanes and submarines surveying and reconnoitring territorial and international waters. Uniquely neutral Finland had a strategic coastal defence supported by a strong mining capacity and a quite comprehensive underwater surveillance system and a reasonable air interception capacity. Finland operated in the frame of the treaty on cooperation and friendship and mutual assistance with Soviet Union and managed to avoid political crises reaching military dimensions.

The military political centre of gravity in the Baltic Sea was in the Danish straits and the Sea constituted being a flank for the massive central European forces. Nato surveillance penetrated deeply to the Baltic Sea and Soviet navy was on call in the Danish straits. Usually during the crises the Soviet fleet was out on the high seas and regularly expansive navy exercises occupied the horizon keeping sea surveillance systems alerted. Danish Nato sea mining facilities were standing by constantly. The Baltic Sea was nearly Soviet inland sea. Despite the permanent confrontation the economical maritime traffic was very seldom disturbed.

After the Soviet Union collapsed Russian intensity decreased dramatically and fewer submarines, warships and warplanes were observed in the Baltic Sea. Nato and its Nordic allies were confused but still alerted. Nato lost her basic muse; eastern threat did not exist any longer. The organisation had to find a new concept and mission in order to convince her legitimate existence. Sweden ended to the conclusion that there will not be any military threat at least within a decade. Nordic political decision makers and leaders set a pressure to streamline armed forces. Finland followed the process a few steps behind.

While former Soviet armed forces were decaying and the navy intensity declined globally the Nordic countries commenced to streamlining their forces. Newly independent Baltic countries strived to build capabilities to control their territory. Finland, Sweden and Nato supported the Baltic countries' efforts. Sweden felt relaxed and was at the head in cutting territorial forces. Swedish coastal defence was nearly disarmed, submarine programs cooled down and army and air force suffered heavy cuttings.

In the early 90'ies new crises like in Iraq-Kuwait, Somalia and Balkans kept politicians, researchers and think tanks busy in order to find an appropriate strategic concept. UN was toothless in Bosnia and Kosovo. Late 90'ies 1998 EU Summit in St. Malo adopted a new proposal of European crises management, which was further developed in EU Summits in Berlin and Helsinki. Later on United States bought the concept. On 2001 the 911 tragedies strengthened the new crises management concept and created the war on terrorism. Nordic Nato-members and Sweden accelerated to build crises management capabilities participating thus in global responsibilities and serving their foreign policy. Crises management was found as armed forces' mission number one. Finnish defence forces' first priorities was yet and stills a national territorial defence. Traditional UN-missions and developing PfP-cooperation within Nato were in agenda as well. In the larger European picture the Baltic Sea was not militarily very challenging. Danish straits cold war function was gone. The Baltic Sea military potential decreased permanently to the lower level, as it was believed.

In the beginning of the new millennium oil price was approximate 20 USD barrel starting to increase sharply being later 2008 150 USD barrel. In the course of increasing oil price Russia intensified oil export via the Baltic Sea. The waterway gained gradually more importance for Russian economy and consequently increased the need of navy presence. The Baltic Sea region's maritime security officials were alerted and environmental authority and circles awaked to emphasise oil accident risks. The military monitored altering situation.

The Baltic Sea strategic assessments gained new dimension after Germany and Russia made 2007 an agreement on gas delivery through the pipelines on the seabed. Baltic countries and Poland reacted immediately. They stressed the environment risks but actually were more concerned of their transit trade and security. Sweden announced the project being a security political question too. Finland considered the project mainly being an environmental issue.

The Baltic Sea countries and EU realised that the sea itself and maritime sea traffic is vital for them all. The Baltic Sea strategy proposals popped up in EU parliament. The waterway has been most important for Finland and Russian economy but along with the pipeline project it is crucial for the German and EU energy policy and economy. Nato interest comes from the Baltic members' and Poland's demands and United States general interests to the Russian activities. For the Finnish economy it has mainly an environmental meaning but undoubtedly it is a burden that the pipeline puts on the use of economical maritime zone as well.

The pipeline construction works and security measures are obviously working well between the pipeline company, respective countries' officials and various international subcontractors. All the coastal countries have their own measures to control the construction works on the respective territorial waters and economical zones. It needs to forward the surveillance activities to the international waters as well. National perspective usually goes before the common interest.

Along with the high oil prices Russia made a decision to modernize 45 percent of the defense forces weaponry by the 2015 although the process has slowed down with lower oil prices and economic downswing. The pipeline project has generated a new security discussion and security thinking in the Baltic Sea Region. Russia is heralding their main effort being the pipeline protection. Early this year media reported Russia bought a new landing operation support vessel from France and Sweden is searching partners for their new submarine project. Process has increased all parties' presence in the Baltic Sea. Vladimir Putins 2007 speech in Munich, Georgian war 080808, Russian energy transit trade problems with Byelorussia, Baltic countries and Poland have all retarded confidence building process with Russia in the Baltic Sea. Latest German talks with France and Poland about a joint proposal for Russian-European "cooperation on security" have raised EU and transatlantic dialogue. United

States calls for the Nato being an essential part of the process. Certainly this will have reflects on the pipeline discussions and the Baltic Sea military situation.

Global security challenges and asymmetric threats have resulted a common information collecting and operational networking in the Baltic Sea. Unfortunately most European governments cut their defense budgets last year, which substantiated fears that the goals of the European Security and Defense policy (ESDP) will seriously weakened. This together with the inefficiencies in Afghanistan and Kosovo created by the impasse in relations between EU and Nato has raised demands of closer defense cooperation between EU and Nato.

Already for some time this initiative has been constituted in the Baltic Sea where Finland, Sweden and Nato and some international partners have had a good cooperation in exercises developing functional maritime situational awareness and surveillance systems. Closest cooperation is Finland and Sweden's deepening sea-surveillance cooperation (SUCFIS) having the objective of exchange even classified data. The Baltic sea-surveillance cooperation (SUCBAS) offered to all Baltic Sea countries and Norway is aiming to exchange maritime information. It is meant to be a node for the European Defense Agency's maritime surveillance system (MARSUR) that will enable the dialogue between 15 EU members and EU and Nato maritime actors. Evidently these strengthen situational awareness and security in the Baltic Sea but need Russia more closely to come along.

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Medvedev's fourteen points – any added value for global security?

By Nikita Lomagin

There are few things in Russia's foreign policy today that occupy as much attention worldwide as Medvedev's call for a new European security architecture and his further 'fourteen points' proposal for a European Security treaty. Medvedev's program, at least in a number of its points, resembles the program by Woodrow Wilson who had enunciated peace aims in his famous "Fourteen Points". There are at least two things in the above-mentioned programs in common in terms of tone and content. First, both documents advocate multilateralism in the security area and adherence to law. Second, they are quite idealistic and maybe even naïve in terms of the tools needed for their implementation. But, if Wilson from the very beginning put international public opinion above all else as a key instrument to influence decision-makers around the world, Medvedev will have yet to explore such an option in the future.

Throughout 2009 and first half of 2010 a large number of government officials and politicians, analysts and experts from Russia, Europe, the US and other countries played an active part in the numerous discussions held on the Russian initiative in numerous intergovernmental and non-governmental forums. Contrary to a widely shared view in the West that 'those who speak for Russia have made plain what they oppose but not what they propose instead', (Legvold, 2009) Medvedev's proposal seems to have both real substance and all the symbolic features of the major foreign policy initiative of his presidency so far.

Nevertheless, Michael Emerson in his "Russia in Europe and the West" (2010) has suggested that President Medvedev's draft European Security Treaty is not going to fly fot it may be subject to endless talks in the OSCE's Corfu process, but the bottom line is that this is neither technically nor politically a plausible proposition. Alternatevely, Volker Ruehe (former German defence minister) and General Klaus Naumann (former chief of staff of the German armed forces) published an article in Der Spiegel on 8 March, recommending that the question of NATO membership for Russia be put back on the agenda. The idea is not for a regular membership action plan, but rather that politically the perspective of future membership would be adopted as the frame through which to radically change the sense of thinking and debate about Russia's strategic security relationship with NATO and Europe. In fact, this idea is not fresh. As Jeffrey Mankoff observed, 'In the early 1990s, the hope was that Russia itself would eventually make its way into NATO. In the early twenty-first century, that prospect looks exceedingly remote: Russia's authoritarian political system disqualifies it, and few Europeans or Americans would seriously contemplate extending NATO's Article 5 collective security guarantee all the way to the Russo-Chinese frontier … For a time, Moscow hoped to use the OSCE as an alternative, only to sour on the idea when the OSCE began openly criticizing the conduct of Russian elections'. (Mankoff, 2009)

The underlying idea of President Medvedev's proposal was to formalize in international law the principle of indivisible security as a legal obligation pursuant to which no nation or international organization operating in the Euro-Atlantic region is entitled to strengthen its own security at the expense of the security of other nations or organizations. The initiative had a unifying character and was designed to harness the potential of states and international organizations to create a truly indivisible space of equal security for all the states of the Euro-Atlantic region within a framework of common 'rules of the game' and mechanisms for their application.

Medvedev's plan contained several basic principles for building such a Pan-European Security architecture. First, every Euro-Atlantic state should have a voice; second, all relevant international organisations – the European Union, NATO, the OSCE, CSTO, CIS – should be included; third, the treaty should be based on new rules binding on all; and, fourth, it deals with a wide range of trans-regional security threats in the wider Eurasian space. Medvedev proposed a new kind of cooperation in the field of hard security, to upgrade the current system of Euro-Atlantic security to become a long-lasting one based on legally binding reciprocal and common commitments.

Medvedev called for a future treaty of European security as a kind of 'Helsinki Plus' treaty, that is as a confirmation, continuation and effective implementation of the principles and instruments born out of the Helsinki process, but adapted to the end of ideological confrontation and the emergence of new subjects of international law in the twenty-first century. The proposals were based on the view that, although the world has changed, European security is still far from perfect. Inviting China to the table seems quite rational – Russia avoids choosing between its mighty neighbors and makes its best to bind Beijing in yet another political- military institution.

The entire Medvedev program might be summed up as very idealistic: one state's aspiration for greater security must stop at exactly the point where the next state might feel insecure. The Russians have invoked one of the basic Christian principles: do unto others as you would have others do unto you.

The moment of suggesting a new initiative by the Kremlin was quite appropriate, given the relative decline of hard and soft power of Western states as a result of the war in Iraq and the global economic meltdown. Moreover, it seems that the prime concerns of governments in the NATO states in these post-crisis years will be with domestic economic instability and (in the case of the United States) with meeting challenges in the Middle East -- Iran, Afghanistan, and Iraq-- where resources of other powers (first of all, China and Russia) and regional organizations (SCO and Collective Security Treaty Organization) will be in demand. On the one hand, relative revival of Russia provides chance that Russia and Russian-led regional institutions to be heard. Indeed, certain developments in post-Soviet space, such as the strengthening of Collective Security Treaty Organization and its recognition by the UN General Assembly, emergence of a customs union among Russia, Belarus and Kazakhstan, and general growth of Russia's soft power in the region embodied *inter alia* in an influx to Russia's main cities of dozens of thousands of migrants from Central Asia – all this symbolized a revival of Russia as the core within the CIS.

Also, the willingness of Russia's president to advocate a legally binding treaty stems not only from the bitter experience of his predecessors, but also from his background as a lawyer who prefers formal agreements to mere verbal agreements. According to Russia's Minister of Foreign Affairs Sergei Lavrov, 'Dmitry Medvedev's proposal for a new security pact sets a litmus test for the honesty of the West versus Moscow… The treaty was necessary to implement declarations made in the 1990s that "we are all friends, security is indivisible and nobody's security can be enhanced at the cost of others.' (Lavrov, 2010)

Finally, a survey of world opinion on general principles of world order conducted by the Council on Foreign Relation in November 2009 revealed some signs of potential support for Medvedev's Security program. ('World Opinion on General Principles', 2009) In particular, international polling indicates a strong consensus that world order should be based on a multilateral system led by the United Nations or a group of regional powers, rather than a system based on hegemony or bipolarity.

It appears that the key issue is not about keeping the status quo in terms of the security architecture in Eurasia, but rather on what a new security mechanism should look like – should it be a NATO-centric structure which means turning the North Atlantic Treaty Organization into a forum for consultation on worldwide security issues, including all rising powers such as China, India and Pakistan, or should it be a new institutional framework based upon a legally binding treaty guaranteeing equality and indivisibility of security of all states.

Medvedev's "Fourteen Point" program certainly represents continuity of Russia's security policy advanced about fifteen years ago. It represents one of the first 'positive' Russian foreign policy initiatives after the collapse of the USSR. The initiative has both real substance and all the symbolic features to be expected of the major foreign policy imitative of Medvdev's presidency so far. The program's main added value is twofold: it aims at the construction of a new security regime in Europe on new principles of the indivisibility of international security and the inclusiveness of all interested actors; one of the main objectives of Medvedev's security plan is not only to upgrade the already existing (and ineffective) system but also to expand it into the Asia-Pacific region, in order to have a common security space from Vancouver to Vladivostok.

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Arctic energy resources and security

By Peter F. Johnston

Arctic energy resources have gathered growing attention in recent years due primarily to two developments. The first is the growing global consumption of oil and gas supplies that has fuelled concerns about the sustainability of the resource. The second is the belief that climate change might melt the Arctic ice cover to the extent necessary to make mass development of Arctic oil and gas deposits financially lucrative.

Reduced ice cover and fears of dwindling fossil fuels alone are not enough to spur on Arctic exploration operations; there must also be a reasonable certainty that resources are present in amounts to make development lucrative. It is clear that there are some profitable operations already underway. Additionally, a 2008 United States Geological Survey report, *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle*, suggested that there are indeed quantities in amounts that warrant exploration. The median estimate of the report suggests that roughly 90 billion barrels or 13% of the estimated global amount of undiscovered oil might exist in the Arctic. The median estimate for gas suggests that 1,669 trillion cubic feet, or 30% of the world's undiscovered gas is present in the region. The study also indicated that approximately 84% of these reserves lie offshore on the Arctic countries' continental shelves. Interestingly, the study did not include gas hydrates which are likely more abundant in the Arctic. This could become an important energy resource in the future when technology facilitates its development.

Nationalized Oil Companies now control over 85% of global oil reserves. Similarly, Russia, Iran, and Qatar, all nationalized producer states, control just over 50% of global proved gas reserves. This has limited opportunities for International Oil Companies to expand operations. Parts of the Arctic offer these companies an opportunity to increase their reserve ownership.

Another factor that portends Arctic development is the potential shift in emphasis of global energy markets towards increased gas consumption and a slow transition away from oil. Some of the major oil companies have begun to refocus their business model from oil to gas. Exxon Mobil and BP are two of the bigger names to have done so and Shell has also made recent shale gas investments that suggest it might also be following this path. Given the preponderance of gas in the Arctic, it is possible that this transition will result in increased developments.

Arctic gas might also assist Russia to maintain its long-term contracts. Traditionally, Russia has relied heavily on gas purchased in Central Asia and resold to Europe. Turkmenistan has been one of the sources of supply however in December 2009 it opened a major gas pipeline to China signifying a dramatic shift away from Russian trade. While the infrastructure and capacity for Turkmenistan to export to Russia still exists, it is possible that the flow to China may one day increase such that Turkmen exports elsewhere will not be possible. Given this, Russia may increase its Arctic operations to offset the potential loss of Turkmen gas.

Similarly, if other Central Asian countries follow Turkmenistan's lead and shift their trade east, the proposed Nabucco pipeline project could find itself without adequate supply. This might also entice Europe to look north for its supply.

However, the technical challenges posed by operations in the Arctic environment can be prohibitive. Even with some melting ice coverage in recent years, there is still a lot of ice and a harsh climate to contend with. These characteristics shorten the drilling season, place surface and sub-surface facilities at risk, and endanger workers. The special equipment, construction, and procedures required to protect infrastructure and personnel against environmental hazards such as icebergs, ice gouging, and exceedingly cold temperatures are extremely expensive. The vast distance to market will necessitate the construction of extensive pipeline or rail networks to move the product or require a significant increase in tanker traffic. These tankers would also have to contend with the harsh environment and might experience periods where they can not transit the region.

A final environmental consideration is the fragile nature of the eco-system itself. Spill management in the region would potentially face the added burden of ice-flows. The Deepwater Horizon crisis in the Gulf of Mexico highlights the risks and might result in an increasingly stringent legislative and regulatory framework for operations. The increased protective measures and procedures add a premium to operations in the region.

While there have been suggestions that conflicts might erupt over resources located in areas where maritime boundaries are disputed, this seems extremely unlikely. The USGS study suggests that most of the undiscovered Arctic reserves lie within uncontested continental shelf areas. Approximately 31% of the undiscovered oil is estimated to lie offshore of Alaska in US territorial waters while roughly 39% of the undiscovered gas is believed to lie in Russia's Kara Sea region. Moreover, the Arctic states are already engaged in resolving boundary disputes through the United Nations Charter on the Law of the Sea. In addition to this UN approach, there is also the ongoing dialogue that takes place amongst Arctic states and other interested countries through the Arctic Council.

Indeed, there have already been many examples of cooperative development in the Arctic offshore region that portend for similar cooperation in the future. Russia and Norway signed a Memorandum of Understanding in June 2009 to explore ways to jointly develop a contested portion of the Barent's Sea. Norway and Iceland have also made an arrangement to jointly manage the Dreki offshore area that straddles their ocean boundaries in the Norwegian Sea. Canada and Greenland have consulted about planned drilling in Greenland's waters as well.

While there are likely abundant amounts of hydro-carbons in the Arctic, it seems that the prospect for large-scale, short-term development is not high. Contemporary low oil and gas prices coupled with the challenges of Arctic operations will likely encourage some companies to seek opportunities elsewhere and might impose delays on already planned projects – the Shtokman field being a case in point. Other options for gas include shale gas while for oil there are alternatives such as offshore Brazil or oil sands in Canada.

Finally, prospects for conflict over Arctic resources and territory seem remote indeed. The anticipated reserves lie primarily in uncontested areas and, given the existence of regimes and venues to resolve contested boundary claims, it seems very unlikely, in the current context that conflicts will occur in the Arctic region.

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This paper, its interpretation, and any opinions expressed herein, remain those of the author and do not necessarily represent, or otherwise reflect, any official opinion or position of DND or the Government of Canada.

How to secure the Arctic – more joint exercises, less high level declarations

By Timo Hellenberg

The Emergency Ministry Emercom of the Russian Federation hosted the annual meeting of the Emergency Prevention, Preparedness and Response (EPPR) Working Group of the Arctic Council in Vorkuta, Russia, which took place in June 2010. According to the EPPR Chair, Ms Ann Heinrich (USA), "the meeting was a success and it was very well organized by the Russian hosts". Furthermore, the Finnish Foreign Minister Alexander Stubb has recently proposed that the intergovernmental Arctic cooperation would need its special own high level meeting. The overall challenge of security and safety cooperation in the Arctic region is not a need for new declarations or ministerial level "get togethers" as proposed above, but to enhance interoperability and joint capacities at the field level.

Some of the countries sharing interest in the Arctic have been connected with extensive network of bilateral and multilateral agreements in the field of civil protection since 1960s. For instance, Finland, Sweden and Norway have detailed network of multilateral agreements on cross border cooperation in various emergencies and border crossing accidents, including forest fires, nuclear accidents and chemical explosions. Countries such as Russia have a long tradition of bilateral cooperation when it comes to intergovernmental interaction. For a country such as Russia with a tradition of preserving sovereignty at the cost of intergovernmental cooperation it is hard to request assistance from the outside. A case in point is the ongoing wave of forest fires in Russia (by 1.8.2010 770 counted), which is regarded by President Dmitry Medvedev as a major socio-economic disaster of the half the century. I haven't seen any Nordic or neighborhood initiative to provide emergency assistance, nor any signals of external aid requested.

So, how to promote the new era within the Arctic safety and security cooperation? Could EU play a more essential role? As most of the countries within the Arctic region are either members or partners of the European Union. Then could the resources and mechanisms be better used?

In the field of civil protection and emergency management, EU has several layers, both at strategic-political and tactical-operational instruments which could be used more efficiently within the Arctic cooperation. The EU Internal Security Strategy (since 2010)[1] lays out the basis for a **European security model**, which integrates actions on law enforcement and judicial cooperation, border management and civil protection. Furthermore, in July 2006 the JHA Council approved interim *Crisis Coordination Arrangements* (CCA).[2] The decision also included the organization of regular exercises in order to test the efficiency and adequacy of the CCA internal procedures. The arrangements are cross-pillar and applicable to crises within or/and outside the EU, but not for the crisis affecting individual member states. The backbone for the crisis coordination arrangements is the principle of subsidiarity. Member states carry the primary responsibility for managing emergencies in their territory and the national competences will be respected. No new permanent structures should be established but use already existing structures. The arrangements aim at enabling to develop a coherent, optimal and pragmatic response to cross-border emergencies by meeting the needs of fast-developing crisis. An other example is *The EU Joint Situation Centre (SitCen)* which could be fully beneficial in the Arctic cooperation. The Community Mechanism for civil protection which was established by the European Commission in 2001 could also be activated in the event of major natural or man made emergencies in the Arctic region. When the scale of the disaster overwhelms national response capacities, the affected country can benefit from civil protection means or teams available in other EU member states.

Besides these extensive EU capacities available, countries of the Arctic region are still counting on the bilateral and multilateral agreements instead of EU-level action. A good example is the upcoming Barents Rescue 2011 exercise in Sweden, where the backbone of the intergovernmental cooperation is still on bilateral and multilateral agreements instead of EU level action. Almost all of these instruments, legislative or operational, demonstrate and reflect the level of cooperation, integration and confidence that exists between member states. However, in order to know about the actual effectiveness, adequacy and possible gaps of these instruments something must happen. One only gets the answer post-factum of a crisis i.e. after something has happened. This of course is not sought-after. Instead the aim is to get the answers *before* something happens. The bodies, mechanisms and instruments should be *tested*. Exercises should not be done only to get successful results but to challenge the already created and approved models and processes, and to learn by doing, sometimes even from mistakes.

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[1] http://register.consilium.europa.eu/pdf/en/10/st05/st05842-re02.en10.pdf

[2] Consequently the Council's Secretariat has written internal standard operating procedures (SOPs) for the arrangements. A second revised version is dated on 23 October 2006. None of the documents are public due to the sensitivity of the information contained.

Russian perspectives on Arctic security

By Katarzyna Zysk

Uncertainties about future developments in the Arctic notwithstanding, the regional transformations deriving from climatic changes have the potential to influence world affairs in a spectrum of areas. Security implications of the expected expanding commercial activities are among spheres closely observed by many interested state and non-state actors.

For several reasons, Russia as one of the most determined key regional players will have a preponderant impact on political developments in the Arctic. With the shoreline covering nearly half of the latitudinal circle and control over the Northern Sea Route, Russia will influence many future Arctic activities. Moreover, the Russian northern regions, rich in petroleum and other natural resources, play a central role in the country's economic development plans. And finally, the Arctic continues to be a critical component of Russia's strategic thinking. Despite the persistent weaknesses and problems the Russian armed forces continue to struggle with, the country has the strongest military presence in the region of all the Arctic littoral states. Understanding Russia's approaches to security is thus clearly important to other Arctic stakeholders.

Traditional "hard" security continues to play a crucial role in Russia's thinking about the Arctic. However, transformations in the region's environment have led the Russian leadership to put a stronger emphasis on "soft" and asymmetrical security challenges in recent years.

As the main basing and operational area for the sea-based nuclear forces deployed mostly with the Northern Fleet, the region is central to Russia's nuclear deterrence. The northern seas and land territories also provide a test bed for new weapons and host a range of important military installations and defence industries. In addition, the warming of the Arctic opens up Russian sea and land territories for an increased human activity. These developments generate new mission requirements for various security structures, in particular the Navy, the Federal Security Service (FSB), and its branch the Border Guard (FPS).

The Arctic dynamics may also have an impact on the perception of symmetrical security threats. During the Cold War, the Arctic Ocean was primarily an operational front for the launch and over-flight of nuclear missiles. Surface vessel deployment was difficult because of ice-cover and thus limited. However, the opening of the polar sea channels may increase flexibility of naval deployments, making military operations easier and more versatile.

The need to provide security to operations related to diverse future economic activities in the harsh Arctic environment may give incentives for deployment of naval forces, together with coast and border guards, and similar agencies. Likewise, it cannot be excluded that economic interests of the various actors may be followed in the future by political aspirations and ambitions for a stronger military presence in the region.

In line with the military doctrine, Russia regards potential expansion of foreign military forces in proximity of the national territory, both on land and at sea, as a security concern. The likelihood of an armed confrontation in the Arctic has been assessed by Russia as low. However, neither Russia nor other Arctic actors can fully discard future, limited Arctic tensions from their defence planning as long as uncertainty about future regional developments is part of the decision-making process and security equation. Maintaining a reliable military force in the region is thus one of Russia's fundamental policy goals.

In Russia, the perceived vulnerability of the country's northern regions, comprising 11,000 km of land and almost 20,000 km of sea borders, has increased in the last few years. The need to strengthen surveillance and defence capabilities seemed not a pressing issue in 2006, when a Vorkuta-based Independent Arctic Border Detachment of the KGB, formed in 1994, was closed down. The responsibility for border security was subsequently shared between military districts and relied on existing automatic surveillance systems.

However, the Arctic transformations generate a variety of security challenges in Russia's vast northern territories, otherwise distant, often uninhabited and mostly unsurveyed. In the view of the Head of the FPS, General Vladimir Pronichev, the Arctic has become a crossroad of interests for many states. Despite the ongoing international cooperation and dialogue, Russia is concerned about what is perceived as a sharp rise in the number of individuals and organisations wishing to develop business activities in the region. Key documents adopted in recent years point at such potential threats as terrorism at sea, smuggling of narcotics and other illegal materials, as well as massive poaching and illegal export of biological resources. The FSB has reported cases of illegal migration of citizens of the Commonwealth of Independent States in the Arctic regions reportedly each month; in 2009 over 600 persons were arrested for border violations.

Consequently, as announced in the 2008 Arctic policy document, Russia has taken steps to strengthen border security. In 2009, Arctic units were re-established within the Arkhangelsk and Murmansk FPS. Russia aims at creating a comprehensive coastal defence infrastructure by 2017. The plans include development of a network of forward-based airfields and modern military towns along the Arctic coast, similar to the "Nagurskaya" compound on the Franz Josef Land archipelago opened in 2008. While Russia does not plan a radical increase in number of personnel, the priority has been given to investments in automatic systems for constant surveillance of the furthermost Arctic reaches, including stationary and mobile electro-optical and infrared systems, as well as meteorological, communication and radar satellites within the space system "Arktika". The FSB also relies on unmanned aircrafts, of which seven have been purchased from national manufacturers. Projects for a new ice-class boat for prolonged Arctic patrols and other ships for the coast guard are under development.

Russia's expressed intention to play a leading role in Arctic search and rescue, crisis management and humanitarian assistance has also been corroborated in practice. In May 2010 the FSB and the Ministry of Emergency Situations conducted their first joint exercises under severe Arctic conditions, rehearsing among others deployment of an airborne hospital.

Russia as a decisive regional player has an impact on policies of other Arctic stakeholders. The country's approaches to security are therefore important to follow and understand. The recent Russian policies have focused on improving surveillance capabilities of the FSB rather than enhancing offensive military capabilities for the Arctic. While one may expect some strengthening of the Northern Fleet in result of ongoing naval modernization programmes, a large-scale military build-up is not a plausible scenario in the near future due to a number of reasons, including financial and structural constraints, as well as a lack of existential security threats. This notwithstanding, as a vital element in the country's broader economic and military strategies, the Arctic is likely to remain of strong significance to Russia and an arena of an increased activity of the Navy and other Russian security structures.

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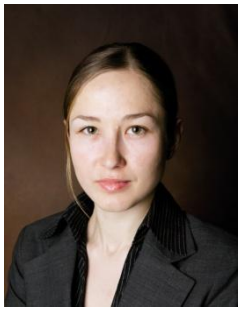

Ice melts, peace prevails. The race for resources in the Arctic?

By Teemu Palosaari

Thanks to the ongoing melting of the Arctic Ocean sea ice the Arctic natural resources have become an increasingly topical issue in international politics. Traditionally the Arctic political puzzle has contained a variety of political actors: in addition to the Arctic states there are a number of active intergovernmental, regional, indigenous, environmental, scientific and non-governmental organizations. Many "non-Arctic" actors, such as China and Japan, have also shown increasing interest in Arctic activities lately.

The media often describes the situation as a "Cold Rush" or "Arctic Race" in which the coastal states US, Russia, Canada, Denmark and Norway are competing for the ownership of and control over the new oil and gas resources and the transport routes. Consequently, the conflict potential in the Arctic has been repeatedly in the headlines. The climate change is presented as a factor that results in growing political and military tensions between the Arctic states. The view has, however, usually been based on single events, such as military exercises or flag planting underneath and above the Arctic Ocean's surface.

In the academic debate there appears to be two major, and somewhat competing, interpretations as regards the near future Arctic international politics. The first of them underlines the role of states and sovereignty, whereas the second highlights international governance and cooperation. What seems to connect the views is that, in contrast to the mainstream media picture, both contain a number of issues that point to the continuity of *peaceful* development of the Arctic.

National interest and national security in the Arctic

Geopolitical transformation in the Arctic is a key point of departure in the state-centred view that focuses on national interest and national security. The map of the Arctic is redrawn as the ice melts. New transport routes are opening and new energy and mineral resources become exploitable. From the viewpoint of national sovereignty these changes inevitably impact on the way the Arctic states view their national defence, territorial integrity, and control over internal waters. Furthermore, the access to and ownership of new energy resources is typically regarded a national security issue. Yet, from the state-centred perspective, a conclusion can be drawn that the development in the Arctic is likely to remain peaceful. In a historical perspective it is clear that the previous era of antagonism between states in the Arctic has been replaced by more cooperative relations. During the Cold War the Arctic became a central stage of the arms race between the superpowers, but after that states have managed to create stability in the region, and it is in their interests to keep it that way. For instance, when it comes to territorial claims in the Arctic, the rules of international law as well as the procedures of the UN Conclusion of the Law of the Sea have been followed by all. As political instability and conflicts continue in many of the traditional oil production areas around the globe, the Arctic is seen as a welcome exception in this respect. Additionally, the challenging environmental conditions in the Arctic mean that international cooperation is often needed in making possible the exploitation of the undersea natural resources.

Arctic governance and cooperation

Since the 1990s various international and regional organizations have emerged in the Arctic region. Environmental regimes, wide security agenda, and cross-border cooperation have gained a recognized role in the Arctic politics. Thus the mechanisms of Arctic governance are already in place. From the viewpoint of international governance, polar ice melt and other environmental impacts of the climate change can be perceived as a common, global threat which calls for cooperation between all Arctic actors. Thus, rather than causing tensions between the states, climate change can give a boost to international cooperation and further strengthen the institutions of multilevel Arctic governance. This also challenges the narrow views on national sovereignty, interest and presents a broader view on security. The global attention on the melting of the North Pole and Greenland's glaciers will also bring the Arctic issues into the international agenda defined as environmental and human security issues, rather than as traditional national security issues.

Summing up, it can be stated that although often reported otherwise, the scramble for the Arctic's minerals is unlikely to lead to conflicts that would threaten the peaceful development in the region.

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Northern economies in a time of change

By Joan Nymand Larsen

Economies in the Arctic region are feeling the pressures of global change. Rapid change - both physical and social - challenges Arctic communities. Arctic societies are facing an unprecedented combination of rapid and stressful changes involving environmental processes, economic changes, and industrial developments with the growing role of multinational corporations engaged in the extraction of natural resources. While climate change is perhaps the most obvious and widely acknowledged influence on the future of northern societies, other factors may play a more immediate role in the lives of large segments of the Arctic population. Because of the unique character of the Arctic region the consequences of change in terms of its impact on culture, society and economy are relatively more pronounced. Much of the major threats to the ecology of the Arctic are the result of social conditions arising from human activity and interactions with the environment in local, regional and global contexts.

The economies of the high North have a number of common characteristics that set them apart from economies outside the region. While the formal economy of the North is characterised by resource extraction, the local economy can be described as a mixed economy where market and non-market activities all play an important role in supporting community livelihoods. Wage employment, traditional pursuits, and transfer income from government all provide important sources of income, with the relative size and importance of the market, non-market, and transfer sector varying throughout the North. The formal and market-based economy is characterised by the role and presence of the large-scale capital and skill-intensive nature of industrial resource production, whereas the informal, subsistence based – non-market – economy is characterised by traditional pursuits of hunting, trapping, gathering, but increasingly with connections to the local market economy. Economies within the North also vary significantly; by type, quality, and quantity of industrial resources produced; by the importance of the indigenous population and the local economy; and by the different national economic and political systems. Viability of modern communities increasingly requires the maintenance of economic relations with the outside. Yet, the strength of these economic relations and the linkages between different sectors differ significantly due to broad variations in physical, natural, financial and human resources. The commonalities as well as sharp contrasts observed in the North makes the need of tracking and measuring change a daunting task. Significant data challenges however have complicated the task of devising indicators and measuring change in quality of life, including Arctic specific measures of economic wellbeing.

Local and regional economies are increasingly experiencing the effects of global change processes and the changes occurring in global markets in far distant places. The Arctic region faces several distinct challenges related to economic development and the, primarily, large-scale resource extraction activities upon which it is based. Among these challenges are permafrost and sea ice, remoteness and lack of accessibility, the high cost of production in the North, the availability of human resources for large-scale industrial projects, a fragile eco-system, environmental impacts, and the negative spill-over effects of industrial activity for local and indigenous communities. At the same time, many of the region´s resources are of critical geopolitical importance both nationally and globally. With rising global demand, and a growing desire for stable and secure resource supplies in world markets, industrial resource extraction activities in the Arctic will likely continue to expand despite any observed and expected physical, environmental and human costs.

The vast majority of Arctic natural resources are destined for world markets, and this places the circumpolar north firmly in the world system. The economic future of the Arctic depends on global and economic processes, making the Arctic regions vulnerable to the volatility of world markets and decisions made in far distant places.

Future challenges related to climate change and globalisation can be expected to play a growing role in decisions regarding resource allocation, resource use, ownership and control, with important consequences for Arctic economies and their economic sustainability.

Life in the Arctic is increasingly shaped or influenced by events, decisions and activities happening elsewhere. Strategies for sustainable development and Arctic environmental protection need to take into consideration the economic, social and environmental linkages between the Arctic and other regions of the globe, and processes of globalization. The future of the Arctic will be linked or influenced by other, non-Arctic regional, social, political and economic interests, and analysis of the future of the Arctic economy must include the growing multinational connections and their interlinkages, and move beyond the traditional theoretical frameworks of core-periphery relations.

Rapid change in Arctic has increased the emphasis placed on devising indicators for monitoring and measuring change in human development and quality of life. Indicators of living conditions are useful in monitoring social change, and some indicators are common for worldwide comparisons. Standard and globally accepted measures such as educational attainment and gross domestic product are important in evaluating human capacities. Knowledge about indicators such as these is important in understanding the character, direction and prospects of changes taking place in the North. In addition to this, however, differences between the Arctic and the surrounding world is reflected in a set of unique attributes of human development which have not been captured adequately by universal standard indicators. The Arctic Social Indicators (ASI) project is a circumpolar project that is working on constructing indicators that reflect these unique aspects – what residents of the north view as prominent features of human development - to help facilitate the long term monitoring of human development in the Arctic. Arctic residents have indicated that the viability of their communities relies on having control over their own fate, sustaining contact with nature, and retaining their cultural identity. The construction of Arctic social indicators is based on these three domain areas articulated by residents of the north as being particularly prominent features of human development. In addition, indicators are also constructed for the more standard domains of demography, material wellbeing and education.

The challenge of devising such indicators has been demonstrated for example in the work on material wellbeing indicators. Arctic specific measures of the Arctic economy – viewed in terms of material wellbeing – is considered by ASI in terms of the contributions made by all three major parts of the Arctic economy; market, non-market, and the transfer sector. In devising an indicator of economic or material wellbeing, the application of the standard measure of GDP has proven to be inadequate for the Arctic because of a number of serious weaknesses including the non-inclusion of the traditional, subsistence economy, and the flow of resource rents. The inability to fully capture all major contributions to Arctic material wellbeing in a single indicator presents us with an indicator of minimum material wellbeing. Such a “minimum” indicator is represented e.g. by per capita household income. Devising and measuring more complete indicators will be both costly and challenging, and until more data become available, including new approaches to primary data collection, the task of measuring and tracking material wellbeing in the Arctic most be viewed as incomplete. Still, the urgency to track and monitor change is growing, which places pressure on Arctic nations to find solutions to identified data challenges including issues of data availability, access to data, and questions of data management.

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Who should be governing the Arctic?

By Timo Koivurova

One thing we know from international politics is that when the actors start to use legal arguments to defend their positions, we are likely witnessing a regime change. Regime change means a transformation from one system of governance to another. This may be what is currently taking place in the Arctic.

For a long time, the Arctic as a region did not attract much attention from the policy perspective. The soft Arctic Council co-operation in the fields of environmental protection and sustainable development between the eight Arctic States (the five Nordic States, The United States, Canada and the Russian Federation) has been fairly low-key. This has been reflected in that the Council cannot make legally binding decisions, that there is no stable funding mechanism for the Council activities, etc. Unique has been the role the Arctic Council has accorded to the regions indigenous peoples. Their international organisations are permanent participants, which the member States have to consult before any decision-making. Their status in the Council is even better than the observer status given to some of the major nation-States (e.g. Germany, the UK, etc.).

Yet, this image of the region has changed fairly dramatically, in particular with the process of making the Arctic Council sponsored Arctic Climate Impact Assessment (ACIA), the results which were released in 2004. It was this assessment that established the region as an early warning region of climate change, the consequences which have been, are and will be twice the intense as those of the rest of the world. It also changed the political image of the region from a frozen desert to one of dynamically changing region, the change driven by climate change and economic globalisation.

The "legalisation" of the Arctic debate has come mainly from the realisation that the melting seas of the Arctic can be made use of economically, whether this means saving expenses by using short-cut routes for transportation of goods, increasing the amount of tourist visits to the region or making use of the plentiful natural resources of the Arctic (various species of fish and offshore oil and gas). Much of the hype around these issues has involved misconceptions. The idea that the Arctic states are scrambling over the offshore oil and gas resources by staking out continental shelf claims has been misunderstood as a power game when it has, in effect, been an orderly process, with the littoral states acting in line with the law of the sea. Yet, in international politics and law, it is also important how things are perceived to be, not only how they really unfold.

This was well illustrated when the five coastal states of the region (the United States, the Russian Federation, Canada, Denmark-Greenland and Norway) organised a meeting in Ilulissat Greenland in May 2008 to tell to the rest of the world that there is no scramble for resources in the Arctic. But since they also told that they possess maritime sovereignty in the Arctic, and that they will start co-operating with each other in other areas of policy, this had the effect of "legalising" the discussion, various actors at least making sure that if Arctic governance is to change, they will have a place in it. Here are two examples:

1. The Inuit Circumpolar Council ICC (representing Inuit in Denmark-Greenland, Canada, USA and Russia and is one of the permanent participants in the Arctic Council) adopted its own Circumpolar Inuit Declaration on Arctic Sovereignty. In the declaration, the ICC declared that it needs to be involved in Arctic governance, given that the Inuit have self-determination as guaranteed in international law.
2. The European Parliament asserted the EU agency in Arctic affairs and proposed that international treaty negotiations should be commenced on the basis of the model provided by the Madrid Protocol of the Antarctic Treaty.

Since Finland, Sweden and Iceland – together with the indigenous peoples' organisations - were left out of this May 2008 Greenland meeting by the coastal states, this caused concern as to whether the coastal states were envisaging a type of "inner core" co-operation. This interpretation was given further impetus by the second meeting between the coastal states in Canada that took place on 29 March 2010 – a meeting, which most experts thought would never happen.

It is difficult to say where Arctic governance is moving since so much is taking place at an ever-increasing speed. It does seem likely that with the melting sea ice, the coastal state co-operation will gradually become the arena where more ambitious Arctic governance issues are discussed and perhaps even resolved. This will involve high-profile issues such as delineating the outer limits of their continental shelves and, in case of overlapping entitlements, commencing negotiations for settling the location of the borders as well as controlling the gradually increasing risks from navigation in general and ship-based pollution in particular.

Yet, it is difficult for the five coastal States in the long run to govern the emerging Arctic Ocean. It is clear that region's indigenous peoples need to be involved in any future governance arrangement, as region's original occupants. But outside actors should also be involved. The reason for this is straightforward. All States of the world and their commercial fleets have legally guaranteed access to most waters of the Arctic when these become ice-free, including fisheries access to the vast high seas portion of the Arctic Ocean. This scenario should inform the coastal state meetings as soon as possible. If they do want safe navigation in their "backyard" and sustainable high seas fishing, they should act now and try to involve larger group of countries in governing the Arctic. It is much more difficult to involve other States later, when the Arctic Ocean is seasonally ice-free, given that law of the sea guarantees them all the navigational rights. Now, when the ice is still there and blocking the use of the Arctic Ocean, there are possibilities to come up with innovative international governance mechanisms.

The author has conducted, together with professor Erik Molenaar from the Netherlands Institute for the Law of the Sea, a three-part analysis for WWF Arctic International. The first report studies the legal and governance gaps, the second the options for addressing identified gaps and the third proposes one possible international governance mechanism for the region. The reports can be downloaded from <http://arcticgovernance.custompublish.com/international-governance-and-regulation-of-the-marine-arctic-overview-and-gap-analysis.4640536-142902.html> and the last report was published on 26 April 2010 in a press conference in Copenhagen.

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Russia in the Arctic area - more issues than it seems?

By Tatiana Romanova

Two images spring in mind at any talk about Russia in the Arctic area: one is planting a flag 4 km under the North Pole in August 2007; another one is oil and natural gas bonanza. While both things are true, other issues should not be overlooked.

Separating Real Barrels from Paper Ones

Speculations about oil and gas reserves in the Arctic are numerous. Russian figures vary from 13 to 95 bln tones for oil and from 20 to 320 tln. bcm for natural gas. US researchers have assessed Arctic resources as 90 bln. barrels of oil and 47 tln. bcm of gas, with oil mostly located in the "US zone" and natural gas concentrated in the "Russian part". However, no figure has been supported by sufficient exploratory drilling and tests.

Secondly, the deposits of both oil and gas are located deeply under water and ice. Therefore, technically, most of the resources can either not be extracted at the moment or do not make much commercial sense[1] . On top of that they are located in severe weather conditions, away from existing infrastructure.

Thirdly, Russian companies, which are in charge of shelf exploration (Gazprom and Rosneft), do not possess necessary technologies. They are also short of money (some estimations show that it will cost some 2.5 tln. USD between now and 2050). Therefore, Russia has to strike a balance between preserving majority shares in Arctic projects and attracting foreign investors, who can bring much needed expertise and financial resources.

Lastly, there are growing environmental concerns about shelf oil and gas exploration, especially following the catastrophe in the Gulf of Mexico. According to ecologists, the consequences of a similar leak in the Arctic would be much more severe because of the permafrost.

Therefore, at best, Arctic shelf carbohydrates can be brought into commercial use in the long-run. They can alleviate the problem of depleted Russian oil and gas resources, provided world energy prices increase. They will still require cooperation with foreign companies and technological developments, which would make Arctic exploration sounder, both commercially and environmentally.

More Tangible Economic Prospects

The Arctic area is also rich in many other resources, like nonferrous and rare metals, diamonds. Some of them are already explored; others are still to be brought into production. The Arctic also contains substantial fish stocks and other marine resources, which are used in food and pharmaceutical production. These industries are less "sexy" than oil and gas; yet, they currently constitute the majority of the Russia's Arctic economy and will remain so in the foreseeable future.

Furthermore, the Arctic is home to another ambitious mid-term project, the North Transportation route. It will provide a shorter (hence, cheaper) link between Europe and Asia via the Northern seas. Its commercial use will relieve the congestion of the Suez and Panama straits and will contribute to the reduction of the CO2 emissions. On top of that, it is free of piracy plague, which contaminates all routes in the vicinity of Africa.

The project is not new; it was discussed already during the Second World War but at the time it was judged too expensive. Today's global warming and ice-melting, however, change the whole story.

It is frequently argued that Russia will gain little from this route because it will be open for navigation to all countries. However, Russian main gain from this route will be not from transportation but from providing port facilities, navigation, insurance, rescue operations, and other services. Furthermore, new environmentally friendly technologies for the fragile Arctic ecosystems will have to be developed.

All these activities will contribute to shifting Russian economy from being natural resources oriented to the one, based on contemporary services and innovation growth. They are also much more real and short-term compared to the hydrocarbon exploration.

The route is not unproblematic, however. It is conditioned on Russian ability to provide for necessary safety and security, and to ensure that it is not used for illegal activities like smuggling, drug transit, or people trafficking.

Overlooked Political Issues

Finally, there are significant political issues, linked to the Arctic area. One is that of identity. Russia is used to positioning itself as a northern country, located in harsh climate conditions, and yet mastering them. For this very reason, development of Arctic territories is an issue of self-confidence. This aspect, in fact, permeates Russia's 2008 Arctic Strategy. It was also a rationale behind planting a flag under the North Pole.

Furthermore, the issue of governance is of paramount importance. It is currently based on two pillars: the Arctic Council and the 1982 UN Sea Convention. The first one is a loose international organization comprising eight permanent members, of which five border the Arctic area (Russia, US, Canada, Greenland / Denmark, and Norway) and three are in the immediate vicinity (Finland, Sweden, Iceland). The Council provides a framework for a very soft non-binding cooperation.

UN Sea Convention spells out guidelines for setting the borders in the region. Article 76 states that no state can control the Arctic but neigbouring countries can establish their exclusive economic zone (200 nautical miles, extendable by another 150 miles, if proved that the shelf in question is the continuation of their continental territory).

Russia ratified the convention in 1997 and presented its first Arctic claim in 2001. However, the evidence, which accompanied Moscow claims, was deemed insufficient. Currently Russia collects additional proves with the aim to have the claim recognized by 2012-2013.

Russia's participation in both the Arctic Council and in the UN Sea convention demonstrates its determination to be a good student of international law, to apply the legitimate legal framework (despite its not being perfect). This is in stark contrast to Canada, fixing in its internal legislation sector division of the Arctic area, and the US, which to date have not ratified the Sea convention.

Finally, there is a growing understanding in Russia that its Arctic policy will have an impact on the dialogue with major players, like the EU, China, or the NATO. Russia pursues the strategy of transparent Arctic governance with decision-making being confined to the littoral states and relevant international bodies.

However, there is a good understanding in Moscow that other players will strive to improve their positions in the region. The EU will use environmental rhetoric; therefore, Russia works on the development of this part of its image. The NATO will play a security card; thus, Moscow will attempt to demonstrate that it can guarantee safety and the rule of law in the region, and at the same maintain its tangible military presence. Finally, the Chinese position mainly draws on commercial motivation; in the long run it will require a more balanced public-private partnership in Russia.

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[1] Some Russian calculations show that a ton of oil in Western Siberia costs about USD 30, in Eastern Siberia – USD80 while that in the Arctic amounts to USD 700.

Putting Russia's Arctic policy into perspective

By Roderick Kefferpütz

The Arctic is in flux as climatic change is unlocking the hitherto mythical region. Vast new opportunities and challenges, ranging from new oil and gas deposits, fishing stocks as well as shorter sea routes are opening up. In this context, the High North has been getting a lot busier. All riparian states (Russia, Canada, United States, Norway and Denmark/Greenland) are keen to advance their sovereignty over Arctic waters by extending their Exclusive Economic Zones and push for their claims and interests in the region. Disagreements are therefore not uncommon with a range of sovereignty disputes existing between most of these circumpolar states. New actors and organisations, such as the European Union, China and the North Atlantic Treaty Organisation (NATO), are also quickly emerging in this arena, forming a new constellation of players.

The panoply of major actors, interests, and emotions mixed with a patchy legal and institutional framework for the region often leads to a geopolitical vision of a future scramble for the High North.

The Russian Federation, home to the longest Arctic border, in particular is commonly singled out by commentators as the sole culprit responsible for creating such a rush for the Arctic, which is endangering the region's peace and stability. Russia's actions in the High North have frequently been decried as jingoistic, if not outright belligerent, by experts, foreign governments and the media.

The primary milestone often mentioned is the *Arktika 2007* expedition which entailed two mini-submarines (*Mir-1* and *Mir-2*) descending over 4.2 km and planting a titanium Russian flag on the ocean floor at the North Pole. In the context of Putin's Munich speech in February 2007 and the already strained relations between the West and Russia at that point, the event was seen by many as a landmark signalling Russian belligerence in the region. It was particularly decried by Canada, with the former Canadian Foreign Minister Peter MacKay criticising the event by stating that 'this isn't the 15th century. You can't go around the world and just plant flags and say "we are claiming this territory"[1].

Some pundits are also pointing to Russia's increasing military presence in the region as a sign of a growing Russian threat in the High North. In March 2009, for example, the Security Council called for the establishment of a military unit, in line with Russia's Arctic strategy, that will safeguard the security of Russia's territory in the Arctic Ocean. Simultaneously, the head of Russia's military combat training directorate, Lt.-Gen. Vladimir Shamanov, also announced plans to bolster the operational radius of Russia's northern submarine fleet and reinforce combat readiness in the region. Military exercises are also being increasingly organised in the region.

One of the other more worrisome developments identified alongside the flag-planting exercise was the resumption of long-range bomber flights over the Arctic. These long-range strategic bomber patrols have been deemed particularly controversial by Western experts as these flights have supposedly included a mock bombing run against Norway's northern command centre at Bodo.[2]

Focusing on these aspects of Russian policy in the Arctic region alone naturally paints a negative picture. However, it is a one-sided picture that tends to not only turn a blind eye to Moscow's more co-operative measures in the Arctic but it also fails to judge Russian policy in comparison with that of the other riparian states. As a matter of fact, almost all circumpolar states are increasing their military capacities in the Arctic; it is not only a Russian phenomenon. Denmark's 2010-2014 defence plan also includes the establishment of an Arctic military command structure and task force ready for operation in the Arctic, Canada plans the construction of new armed icebreakers and a deepwater port for civilian and military use at Iqualuit, Norway is increasing its capabilities, NATO is searching for a military role in the region and has conducted several military manoeuvres in the High North, while the United States – a sleeping giant in terms of its Arctic policy – is starting to increase its presence in the region having put forth a Presidential Directive in 2009 that noted the potential vulnerability of the country to terrorist and criminal acts in the Arctic, inherently proposing an increased US Arctic capacity.

Furthermore, Russia is not the only country to have planted a flag in this area. While Russia's flag-planting caused a furore, Canada's flag-planting (albeit slightly different as it was limited to a barren inhabitable knoll called Hans Island, whose sovereignty is disputed between Canada and Denmark, rather than the Arctic seabed) gained little attention. Russian military manoeuvres should therefore not be solely treated as something extraordinary as other countries have undertaken similar manoeuvres. Norway itself has stated that Russia's activities rather reflect a 'return to a more normal level of activity for a major power with legitimate interests in the region'.[3]

Finally, Russia's Arctic strategy is a multi-vector strategy that goes beyond mere military and security policy. Moscow, for example, has been exploring the possibility of a joint sovereignty claim with Canada, is actively participating in Arctic governance, and co-operates with the European Union in the region through the Northern Dimension (ND) Programme. Most importantly, Russia has also recently struck an agreement with Norway on maritime borders in the Arctic ending a 40-year border dispute. This rapprochement in relations between the two also follows joint naval exercises testing inter-operability in various scenarios, such as search and rescue and armed attacks on installations, as well as Norwegian press reports that Norwegian F-16 fighter jets have had to scramble fewer times in 2010 to meet Russian military aircrafts than in the past.

In conclusion, it is unfortunately a common mistake to simply brand the Russian Federation an aggressor in the High North. Not only is Russia's policy far more nuanced than often depicted in Western discourse, but it is also not that very different from the other riparian states' policies.

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This article is based on an earlier CEPS Policy Brief entitled 'On Thin Ice? (Mis)interpreting Russian Policy in the High North.

[1] "Russia plants flag under North Pole", *BBC News*, 2 August 2007 (http://news.bbc.co.uk/2/hi/europe/6927395.stm).

[2] "The Arctic contest heats up", *The Economist*, 09 October 2008.

[3] Statement at NATO Seminar by Norwegian Minister of Foreign Affairs, Jonas Gahr Støre, "Current Strategic Challenges in the High North", 29 January 2009 (http://www.regjeringen.no/en/dep/ud/about.mfa/minister-offoreign-affairs-jonas-gahr-s/Speeches).

Russia's geopolitical focus has moved to the North - the development of Murmansk region in the light of three scenarios

By Yrjö Myllylä

The starting point of the article is the idea that the dissolution of the Soviet Union resulted in a shift of the geopolitical and geoeconomic focus in Russia to the north. As the main oil-producing regions of the Soviet Union, such as Kazakhstan and Turkmenistan, became independent, the relative importance of north-western Russia and Siberia increased in Russia's oil and gas production. The high prices of crude oil and natural gas products in the global market have led to the emergence of wealthy, rapidly developing pockets in remote regional economies. Oil and natural gas are Russia's main exports, brought to Europe primarily by oil and gas pipelines, an infrastructure built several decades ago. Now, however, the situation is changing.

Economic interest in northern regions has increased as the growing world economy demands more energy and the resources in existing oil and gas fields are being depleted. The Arctic region is rich in oil and natural gas. The rising prices of raw materials are making the exploitation of Arctic natural resources more profitable than before. These regions are located northeast of Finland. What role will Murmansk's northern location have in the new, rapidly developing transport system? What impact will the fact that the Murmansk Region is located relatively close to key market areas – the European Union and the increasingly important eastern coast of the United States – have on the development options for the region? How will other geographical factors, such as an ocean port that is ice-free the year round, affect the development options available to the Murmansk Region? What effect will the change have on the development of industry and logistics in the Murmansk Region and how will it affect social trends there?

The business structure of the Murmansk Region consists not only of activities related to national defence but economic activities typical to high-resource regions in general: extraction and pre-processing of natural resources, particularly mining and the related ore processing, apatite mining and the fishing industry. The mining and metal-processing industry, which is very important to the region, has found its way to a new global market, but tough competition is forcing production plants to reduce their workforces as well as modernize their technologies. The rationalization of industry has resulted in outmigration, particularly from communities relying on a single industrial

The major projects in energy production, for example, and their time schedules will impact on the development of the Murmansk Region. For example, the schedule for the opening of the Shtokman gas field and the Murmansk or Indiga oil pipeline project can be linked to the driving forces. The author has examined the development of the Murmansk region in the light of three scenarios until 2025. The scenarios are based on the Delphi method and the three Delphi panels which were Murmansk Panel, Moscow Panel and the International Panel. Scenarios 1 and 2 represent the extremes in or the limits of the most probable scenario for the development of the Murmansk Region not leading to an actual economic disaster. Shtokman gas field is in operation in Scenario 1. Scenario 3 represents an unlikely but still possible deep regression in the world economy and a slump in the oil price.

Scenario 1 – 'Market forces and democracy are strengthening and values developing'

Scenario 1 is summed up in the comment of one of the international participants in the panel, which presents the following main vision and key actions: The Barents region will be as active as the Persian Gulf, exporting oil and gas. The region will become a base for offshore operations, with global importance over the next 200 years. There will be a large amount of spin-off activity. All this, however, will require changes in Russian legislation. Exclusion of foreign actors from investments, which is currently the greatest obstacle, must be eliminated to allow free movement of capital.

Scenario 2 – 'Authoritarianism is increasing and a regulated economy prevails'

Here, the development will be slower than in the previous scenario. Taking advantage of favourable trends in the world economy, Russia will attempt to launch the Shtokman operations and other large energy projects on its own. The projects will start slowly and have less impact on the development of the region than in Scenario 1.

Scenario 3 – 'Problems are accumulating and the oil price is sinking'

In this scenario, all or some of the wild card events considered possible but unlikely by the participants in the panel will occur. The scenario is largely built on the assumption that the price of oil will fall; this will be preceded by an increasingly authoritarian trend in society. The price of oil may plummet because of a slump in the world economy, a crisis or sudden peace in the Middle East or a pandemic disease. Other wild cards may also emerge, such as an environmental disaster or youth riots, but these will be limited and can even provide an exit from a crisis.

In the vision for the most likely future operations the Shtokman field would be started up in 2020-2025 provided that international capital and technology from international enterprises, for example, would be available for the region. It is very likely that the population will be smaller than today. Materialization of investments in Shtokman will change the course of the population trend, at least locally. In a probable scenario, communities relying on large-scale mining or metal-processing industries alone will not be able to maintain their population bases at the current level, even if the volume and value of their production is higher than today.

Findings and recommended political actions - A need for innovative activities: Profitable exploitation of the natural resources in and around the Murmansk Region will require development of infrastructure and the systems for producing the resources. This highlights a need for a consensus and partnership between local and federal actors governing the infrastructure with regard to sharing the benefit from investments in the region. Finding economically lucrative solutions plays a key role in investments that will bring cost savings in transport technology, for example. Finding new, lucrative transport and production solutions for the high-cost Arctic region stresses the importance of innovation activities, particularly the creation of a network of research institutes and enterprises in the fields of transport and logistics, energy production and the mining and metal-processing clusters. Thus far, local enterprises have sought innovative solutions for transport technology and logistics in a centralized manner from abroad, e.g. from Finland.

Murmansk will form an important logistic gateway from north-western Russia to the world, enabling transport of natural resources and processed goods to the world market. The development of the logistic gateway will mostly depend on trends in the world economy as well as the prices of raw materials, such as oil and minerals.

The structure of business life in the Murmansk Region in the future can be markedly different from the present situation, even if the current structures of industries, particularly the metal-processing and mining industries, retain their central role in the region's economy. Future business will require a workforce and an infrastructure adapted to Arctic conditions and communities.

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Arctic adventures - cold shoulder or hot prospects?

By Amelia Hadfield

The Arctic used to be the domain of the unreachable. The impossible. The avoidable. No longer. The Arctic is fast becoming a new foreign policy battle ground, in which a series of new challenges vie over the most popular geopolitical issue of the new century: energy security.

Melting ice will prompt the rise of regional sea levels, increasing the likelihood of flooding, and other natural instabilities. But the breakup of icebergs, glaciers and plateaus may also kick-start new transportation routes in the High North, assisting the infrastructure needed to launch a serious exploitation of hydrocarbons. Optimistic estimates posit Arctic reserves to be a quarter of the world's remaining hydrocarbons, so there is much at stake.

In whose backyard is this new bonanza? The EU and Russia are the most vocal so far, though Canada, the US and the Scandinavian countries have clear stakes as well. Each of the key states assert their various claims, based on a variety of legal concepts (including historical claims of exploitation (Norway), the sector principle based on the convergence of lines of longitude (Canada, FSU), and national sovereignty based on 'relatively immovable ice formations' (Russia), but all of these are countered by the principle that the region may be regarded as the High Seas (Shaw, 2003: 456).

Russia's 2007 statement was the most potent of recent times, simply placing a Russian flag on the seabed, 4,200 metres below the North Pole, to solidify its claim to the Arctic (BBC, 2007). This immediately launched a debate over territorial claims of the Arctic as a region, and sovereign rights over natural resources (like subterranean hydrocarbons). In 2008, the EU then argued that it would protect and preserve the Arctic in unison with its population, promote sustainable use of its resources, and contribute to enhanced multilateral governance regarding use of the Arctic (EU Commission, 2008).

EU Legitimacy

This report – which tacitly laid claim to the Arctic - came as a surprise to some, including Russia. With three EU Member States (Sweden, Finland, and Denmark), and two EEA members (Norway and Iceland) contained within the Arctic Circle, and with interests in alleviating its own energy dependence, the EU is a "natural and legitimate player" in the Arctic, as János Herman of DG Relex. This is debateable. The EU has no legal authority over the Arctic, and in this sense is not a natural player. But it does have a degree of 'associated legitimacy'. First, by virtue of geopolitics. The Arctic may generate an additional source of hydrocarbons (oil, natural and unconventional gas) that may permit a lessening of EU energy dependence upon current Russian imports. Second, keeping its green credentials bright, the EU views the Arctic as its New Northern Neighbourhood, the neglected counterpart to its eastern and southern flank, inhabited by citizens, in need of sustainable policies regarding economic activities and environmental protection. The 1995 'Northern Dimension' is the only EU policy with a clear Arctic component. The EU may soon need to construct 'High North' annexes for a variety of extant policy areas like agriculture, research and fisheries, which transfer resources and foster cooperation outside EU borders. More particularly, the Integrated Maritime Policy which covers maritime transport, fisheries, environmental protection, energy, sea and deep sea international legislation is potentially highly relevant for the Arctic region.

The geopolitics of energy security will have to wait for entrepreneurial investors with enough backing to tackle the risks of a 'post-BP' world of deep sea energy exploration. But sustainable development cannot wait. Seen in the context of climate change, warming effects in the Arctic are faster, more dramatic and more difficult to manage than in other regions. Dealing with area must be done carefully and sensitively. Taken together, the EU feels itself justified as a 'legitimate' Arctic actor and well-placed to construct an EU Arctic policy.

A few things are missing however. First, authority. The EU currently has no capacity to make or enforce territorial claims regarding natural resources in the Arctic, on behalf of itself or its Member States. However imperative its energy security needs, EU Arctic policy may bring a degree of horizontal coherence to a variety of policy areas, but it lacks the competence to go further. Second, congruence between EU (Commission) ambition and the national interests of EU Arctic Member States in which energy security, shipping, fisheries, etc are driving forces. Not all MS have interests specifically related to the Arctic (energy dependence itself is variable, both materially and psychologically). Third, internal coherence. There is no 'Arctic unit' in the Commission, Council Secretariat or emerging EEAS, nor a well-defined constituency in the European Parliament (EP), the member states, the industry, or civil society to defend and support the real interests of the Arctic region and its inhabitants. Fourth, the absence of a genuine political 'Arctic constituency'. As pointed out by member of the Permanent Representation of Greenland, the EU needs to "qualify" as an Arctic actor by garnering the active support of Arctic inhabitants; "at present, it is unlikely to get this as the Arctic population resents EU objections to whale- and seal-hunting and its attacks on their traditional way of life".

Russian Ambitions

Whilst the EU displays only a loose interest regarding the Arctic, the region has been a priority for Russian foreign policy since the early 2000s, centrally because of Russia's rise as a self-designated energy superpower. As is well known, more than 65% of Russian energy exports goes to the European market. This trend can only increase, at least in the short-term; estimates for 2020 predict EU gas consumption to rise by 50% with Russia providing 70%+ of these same imports. There is undoubted pressure on Russia from the EU (and domestic needs) and the search is on to meet this demand via new sources.

How easy will this be? Interest in the Arctic increased after various reports suggested first that climate change would open a variety of new, less ice-bound routes into new areas, and second that the area itself may contain a high concentration of untapped hydrocarbons. Current forecasts suggest that geological prospecting and commercial development in some parts of the High North could begin by 2020. Moscow has given credence to this schedule – and geopolitical importance of an "Arctic boom" – in three ways.

First, in September 2008, President Medvedev instructed the Russian Security Council to envisage the Arctic as a Russian resource base. To do so, it would need to ascertain the borders of its continental shelf as soon as possible. To that end, Russia secondly announced its plans to resubmit a claim to expand its continental shelf with the UN Commission on the Limits of the Continental Shelf in 2010. Russia is looking to expand its continental shelf to include

1.2 million square kilometres of Arctic territory, by arguing that the Lomonosov and Mendeleev ridges are extensions of the Siberian Shelf. If these ridges are designated as Russian, this allows it to extend its territorial reach in the form of a Murmansk-Chukotka-North Pole triangle, a spot which is alleged to contain concentrated oil and gas reserves. Third, Russia's latest national security strategy, which underwrites the first two developments. While the strategy suggest that Russia will adopt "a pragmatic foreign policy, [and] without engaging in expensive confrontation, including a new arms race", it does not exclude the use of force in claiming (and possibly defending) sovereign rights over natural resources. This could be taken further, with recently published Russian plans to ultimately be "capable of guaranteeing military security under various military and political situations" and the main purposes for the military development are to "combat terrorism at sea, combat smuggling and illegal migration, and protecting aquatic biological resources".

Geopolitical spats easily arise over geographic quibbles. In 2008 the Green Party in the EP argued that the international community should construct a convention to "protect the region from the extraction of fossil fuels and minerals and other industrial activities for at least 100 years". The Russian presidential envoy suggested the following year by asking observers to "Look at the map. Who is nearby? All our northern regions are in or come out into the Arctic. All that is in our northern, Arctic regions. It is our Russia". Indeed, the region is home to a 40-year old unresolved border dispute between Russia and Norway regarding areas of the Barents.

More important will be the details of delimitation. Russia ratified the 1982 UN Convention on the Law of the Sea (UNCLOS) in 1997 and, along with Norway, regards it as a comprehensive multilateral regime for the Arctic Ocean. The EU has questioned whether UNCLOS provides an adequate governance framework and subsequently suggested a new Charter of Arctic Governance. The key question therefore is the emergence of new Arctic policy, by or between the key Arctic actors, and its justification on grounds of national interest, which increasingly includes energy security. To be sure, the Arctic is a multi-state neighbourhood for both Russia and the EU. The EU needs to look more proactively at its value-added assets, bringing its economic and ecological research to bear on discussions. "The will for a comprehensive understanding of the environmental challenges and good environmental practices are poorer unless the EU is informed and involved". What has gone wrong in the EU-Russia Energy Dialogue may hopefully be connected by a mature diplomatic approach to the Arctic Dimension, in which a cocktail of bilateral and multilateral fora (e.g. the Barents-Euro Arctic Council or EU-Russia Roundtable of Industrialists) can begin coordinating on a sustainable Arctic policy.

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Indigenous peoples of the North in Russian politics today

By Anna Sirina

Russia regards the Russian part of the Arctic as a geopolitical region, amongst other things with regards to the shelf's hydrocarbon resources and new possibilities of a Northern sea route as a result of global warming. Minority indigenous peoples of the North, Siberia and the Russian Far East (hereafter – peoples of the North or Northern peoples) are a small, but very sensitive part of Russian Arctic politics as their problems are closely linked with the state of the environment in the region and also with observance of minority rights.

In Russia, the 40 officially recognised northern peoples make up a population of 244 thousand, living in 28 administrative districts of the Russian Federation. They are marked out by the extreme nature of the lands they inhabit; small numbers, i.e. vulnerability; and special links with the land and way of life. These circumstances unite them in an interethnic community in Russia from its western to its eastern borders. At the same time they are part of the peoples of circumpolar culture and also of the world community of indigenous peoples as a whole.

Article 69 of the Constitution of the Russian Federation guarantees the rights of these peoples in accordance with universally recognised principles and rules of international law and international agreements. At the end of the 20th and beginning of the 21st century a group of laws were passed establishing the legal status of Russia's northern peoples. Providing them with special rights, the democratic, law-governed state that Russia strives to be, gives support to these peoples in order that they conserve and develop their identity and competitive strength.

However, the situation regarding observance of the rights of the Northern peoples has not improved in recent years. Amongst them there is a high death rate and unemployment exceeds the official figures for the country as a whole 1.5 – 2 times. Federal financing of targeted programs for the socio-economic development of these peoples is insufficient. Alienation of the foundations of their existence: hunting and fishing grounds, by various industrial projects, continues. The law on territories of traditional land use has given rise to harsh criticism of the Federal centre both by the Northern peoples and their representative organs, and by mining companies, because it does not work. This provokes conflicts. Areas inhabited by peoples of the North are undergoing environmental impact. All this generates criticism on the part of the Northern peoples' representatives.

For these reasons, the problems of the Northern peoples have been noted at the highest level. In September 2008, at a meeting of the Security Council of the Russian Federation in Anadyr, President Medvedev declared that the government should pay greater attention to the development of the peoples of the North. The government was instructed to speed up the working out and passing of a Concept for the sustainable development of the Northern peoples and on February 4th 2009, a federal government order (№132-p) approved the Concept for the Sustainable Development of the Peoples North, Siberia and the Far East. This developed on regulations that are included in the document: Fundamentals of State Policy in the Arctic for the period up to 2020, approved by the Russian President, 18th September 2008.

The Concept is an attempt to synthesize existing approaches concerning the Northern peoples, establish clear principles of state policy in this area and formulate priorities. The document formulates two aims that are hard to reconcile: 1) shaping the sustainable development of minority indigenous peoples of the North on the basis of strengthening their socio-economic potential and 2) preservation of their ancestral lands, traditional way of life and cultural values.

The Concept sets ambitious tasks to improve the demographic situation and improve the quality of life, modernization of traditional economic activities, simplification of access to education and medical services, and preservation of their cultural heritage. It is impossible to address any one of these questions without a state role in all spheres of life of the Northern peoples. State support for the economic and social development of minority peoples of the North will be given in the form of subsidies from the federal and regional budgets. Other non-budget sources of funding will be involved.

The Concept should be implemented over 2009-2025 in three stages. During the first stage (till 2011) it is planned to improve the regulatory framework concerning protection of the rights of the Northern peoples. Within the framework of the Concept, changes must be made to the law "On territories of traditional land use" (2001) and the laws "On hunting" and "On fishing" with the aim of reestablishing the legal balance and provide these peoples with priority access to land and biological resources. This work is already under way in the corridors of power.

A new version of the law "On territories of traditional land use" has already been written and the draft is awaiting discussion in the State Duma. The main, fundamental, changes mean that territories of traditional land use will not have specially protected status. This would allow for the development of economic activities, other than traditional, within them. The right to use, without payment and indefinitely, lands where they traditionally live and conduct their husbandry is not confirmed in the new version of the law. In this way a considerable step has been taken away from the "protected" status of these lands towards a "market" status. This, in conditions when there is no other source of income, will push the Northern peoples towards making compromises with mining companies.

Adoption of the Concept shows that the problems of the peoples of the North are officially recognised as a priority area of action for Russian administrative authorities. This confirms Russia's geopolitical interests in the North. It is important for the authorities to be able to build a dialogue with civil society on complex, basic issues such as, for example, the project to construct the Evenkiiskii hydro-electric power station that the majority of people in Evenkiya are against.

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Russia

The uncertain future of the Shtokman gas field project in the Barents Sea

By Eini Laaksonen

The Russian Gazprom is developing the vast Shtokman gas field in the Barents Sea together with the French Total and the Norwegian Statoil. However, due to the uncertainties related to the future of the global gas business, the project's implementation has been delayed. Moreover, before making the final investment decision, it is reasonable for Total and Statoil to consider also the political risks that they might face in the Shtokman project.

The Shtokman gas field project

The Shtokman field's reserves, according to Russian measurements, account for 3.8 trillion cubic meters of gas and about 37 million tons of gas condensate. The annual production of the project is envisioned to reach 70 billion cubic meters of natural gas and 0.6 million metric tons of gas condensate, which is comparable to Norway's entire gas output. The license to explore and produce gas and gas condensate in the Shtokman field is owned by Gazprom neft shelf, which is a wholly owned subsidiary of Gazprom. Shtokman Development AG is the company established to develop the Shtokman field and to be the owner of the field's first phase infrastructure for 25 years since its commissioning. Gazprom owns 51 percent, Total 25 percent, and Statoil 24 percent of the company's shares.

The total costs of the project are expected to reach USD 30 billion, USD 15 billion being required already in the first phase. The full development of Shtokman is envisioned in three stages at four-year intervals, the first phase producing up to 24 billion cubic meters of natural gas per year. The peak production of 71 billion cubic meters per year is expected to be reached after 25 years.

Due to the uncertainties in the gas business, the Shtokman Development consortium has postponed the implementation of the project. According to the current schedule, the final investment decision is to be made before March 2011, and regarding LNG, it will be made before the end of 2011. The gas production in the field is planned to start in 2016.

Uncertainties hindering the field's implementation

At the moment, there is considerable uncertainty regarding the future development of gas prices, even though most analysts believe that the prices of oil and gas will increase over the coming years. The surge in the North American shale gas output as well as the fall in the European demand have dampened the project's export prospects.

After the recent gas crises, the EU countries are now working intensely to reduce their dependence on Russian gas, and the unconventional gas resources are now under exploration also in Europe. If the unconventional gas reserves will be found to be profitable there as well, it might, in the long-run, have serious effects on the demand and prices of the Russian gas.

Moreover, instead of Shtokman, the priority for Russian gas production is now the Yamal Peninsula due to its larger size and easier accessibility. If the implementation of Yamal fields will proceed as planned, the importance of the Shtokman field will further decrease and its implementation may not be reasonable in the near future.

Nevertheless, in April 2010, during his visit to Murmansk, Prime Minister Vladimir Putin expressed confidence that the development of the Shtokman field will begin in a year's time as scheduled. The project is important particularly for the Murmansk region's economy.

Risks of foreign investment in the Shtokman field

In addition to the economic questions, the investors have to keep in mind the problems that foreign investors such as Shell, BP and Exxon Mobil have recently faced with the Russian government, authorities and Gazprom in the Russian gas industry. Even though the political situation currently looks rather stable for the Shtokman project, many factors can change before the field will be in production, even if it proceeded in schedule. For example, the Russian state leadership may and will change at some point in the future, and this may have a significant impact on the state's FDI policy, control over the economy, and international relations.

Nevertheless, there are three reasons for which the foreign investors should not be highly concerned about political risks in the case of Shtokman. Firstly, Gazprom will not be able to implement the project without the help of foreign partners. Secondly, all the involved countries, Russia, Norway and France, are presumably willing to maintain good mutual relations, which encourages peaceful solutions in problem situations. Thirdly, and perhaps most importantly, the ownership arrangements in the Shtokman Development are seen to be favourable for Russia to start with.

Namely, Total and Statoil have not been awarded an ownership of the reserves, but of parts of the company which will develop the field. Shtokman Development AG will develop and operate about one third of the field, and the company will own the infrastructure only during the first phase, meaning for 25 years after the production has started. After these years, everything will be handed over to Gazprom. In addition, Shtokman Development is not to own the license or sell the gas – it is owned by a subsidiary of Gazprom. The legal solution for the inclusion of foreign companies in the project is rather favourable for Russia, and consequently there does not seem to be any reason for Russia to later make unilateral rearrangements in the project.

Foreign partners to develop the field for Gazprom?

Even though the project setup presumably decreases ownership-related political risk, it does not seem very favourable for the foreign investors. According to the reported plans, half of the project's costs are to be paid during the first phase, but the field's peak production is to be achieved only at some point after the first 25 years. The foreign partners are involved in the project only during the first phase. How are Total and Statoil going to be compensated for their investment?

Obviously these details remain unclear to the public, and it is possible that they are still under discussion and have to be negotiated before the implementation decision can be made. All the parties in the project are aware of the contractual relationship, and it is a matter of negotiations whether the compensation will be given in the form of dividends, shares of the gas sales, or something else. As the foreign investors do not own the gas in any phase of the project, the risk of losing the field's ownership is not a risk in this case, but instead the risk is to invest enormous sums of money into developing the field and then end up not being compensated as was expected.

Conclusion

Careful consideration is needed in this decision-making. Due to the uncertainties in the global gas markets, it is extremely difficult to predict the future development of gas prices. Moreover, the bargaining power of Total and Statoil is in test when it comes to the contractual relationship in the project. The key question at the moment is the foreign companies' compensation for developing the Shtokman field.

We shall learn more about the future of the Shtokman field project in the beginning of spring 2011, when Gazprom, Total and Statoil are to make their investment decision.

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Towards a European Energy Community - an opportunity for the Baltic

By Sami Andoura

The European Union and its 27 member states together face several major crises: an energy crisis, with human activity consuming more resources than nature can provide; an environmental crisis, with climate change calling for a radical shift in the way we produce and consume energy; and an economic and financial crisis that limits our ability to find solutions quickly. However, these crises also offer opportunities. The development of alternative, sustainable, energy sources and green technologies is the key to a new industrial revolution based on sustainable development and new technologies that will help emerge from the economic crisis and create the jobs of tomorrow.

Europe needs a common energy policy in order to guarantee access for its citizens to energy at reasonable and stable prices, to maintain its industrial competitiveness, to promote sustainable development and the transition to a low-carbon society, and to ensure security of energy supply for all Europeans.

Despite a dramatic increase in regulatory activity designed to establish a broad European energy market and fight climate change, the European Union has struggled to develop a common energy policy. Moreover, the national solutions adopted by member states large and small have proven inadequate to the task and have increased the risk of diverging and even conflicting responses to common challenges.

To overcome the many stumbling blocks and doubts about the current ability of the European Union and its member states to face these challenges together, a new approach aiming at deeper integration and solidarity is required. Because energy issues involve more than just the environment and market liberalisation, specific rules and an overarching economic, political and strategic approach are required.

The creation of a coherent and integrated single regulatory space for energy in Europe calls for a number of measures. The market liberalisation process must be accompanied by an upgrade of Europe-wide energy networks. The diversification of Europe's energy mix must be encouraged through greater support for research and development in new green technologies and by greater reliance on renewable energies. These technologies require major investments in both production and transport. This in turn means that the EU must have independent and autonomous financial resources, including the power to levy taxes on certain goods and types of production in order to finance projects of common interest.

To ensure that no third country can engage in targeted reductions of energy supplies, the European Union must present a single interface in its relations with its external partners, both producers and transit countries. This must include the ability to pool supply capacities should the need arise. In a major energy crisis, common strategic reserves must be available and distributed throughout Europe in a spirit of solidarity.

Europe has several options when it comes to meeting these crucial requirements. The most radical, but also the most promising, would be to create a European Energy Community with its own rules and methods specific to the energy field.

However, not all EU states may be ready to embark upon this route just yet. If this proves to be the case, those states wishing to move forward without delay must be able to do so. A differentiated approach of this kind is not without precedent. It has been used, in the past, to make major strides in the European project, including the Schengen area and the single currency.

In the case of the Baltic states, a European Energy Community has the potential to address major issues they face such as their isolation from the European energy markets, their huge dependence on a single supplier for imports of both oil and natural gas, their vast, under-developed potential for much needed renewable energy, their inability to properly fund R&D projects for the required alternative energy sources and last but not least, a certain lack of a common vision on energy issues, which negatively impacts the region as a whole. This sometimes leads to contradictory solutions to common challenges, as illustrated by the multiplicity of projected nuclear power plant projects, or as concerns the anachronistic national schemes for investments in offshore wind projects, not economically viable at national scale. A European Energy Community offers the possibility to turn these apparent constraints into opportunities, particularly the huge potential of the Baltic States to take advantage of renewable energy sources, especially offshore wind. What must be highlighted, however, is that the clean energy potential of the Baltic can be exploited for maximum effect only if it is done so logically and collectively.

A common energy policy will clearly not be brought about overnight, and it will take time to carry out the full debate that is needed. But Europe cannot afford to wait indefinitely. Efforts to build a coherent and effective common policy must get under way now. This can be done by developing some elements of the policy without delay.

Some of the priority actions would be, for those states wishing to go forward: developing ambitious economic instruments to finance common research and development projects on alternative energies, deepening and structuring cooperation in Europe-wide energy networks, and setting up oil and gas purchasing groups to facilitate procurement from foreign suppliers, thereby strengthening and focusing the EU's foreign policy in this field. Although these steps may appear technical and limited in scope, they will lead to decisive changes, paving the way to greater cooperation and solidarity in the energy field.

Through concrete projects, the shift towards a more collective, and by extension, European framework for energy questions will facilitate solving these and other such tangible issues for the Baltic countries. In this way, problems of isolation may be met by deeper interconnection and integration into the greater European energy market. Issues of energy dependence can be addressed in pooling risks and strengths in their relations with external supplier(s). Additionally, the huge potential for exploiting offshore wind in the Baltic which is hampered by an inability to fund these projects at a national level could instead be addressed through a common approach.

Ultimately, the specific problems of the Baltic States correspond in many ways to those that Europe faces as a whole. In this sense, the Baltic region represents a potential laboratory for the entire EU which could directly illustrate the benefits of coherent, collaborative action in energy policy. Thus, by addressing these types of concrete issues with collective solutions that advance both regional as well as European interests, the Baltic States could take on a welcome pioneering role in the larger European energy context.

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The EU gas market - doomed to Kalakh game

By Dmitry V. Vasilenko

The complicated political processes between two countries or organizations are often associated with the chess game. Such projection is sometimes correct while modern political traditions root in Byzantine Empire's court intrigues. Even being highly politicized global economic processes do not exactly fit military logic of chess. The weakness of such analogy is even more evident at the natural gas market. The global gas market is actually a fiction – eventually there is a set of highly isolated regional markets that apart from two interacting parties include groups of mediators (i.e. transit states). We can stress out that political constraints disguise economic nature of gas market relations as well as chess game disguises the most ancient economic game – Kalakh. Kalakh or the seed game reflects the essence of trade as money and goods are at the board simultaneously. Historically Kalakh was the first resource game and therefore is applicable for the gas market logic as strategy description tool.

Since 70-ies and until 2008 European gas market has been growing intensively due to low environmental characteristics of coal and potential danger of nuclear energy. The scarcity of its own gas leads the EU to the dependence on the imported fuel. Taking into account prospective Northern sea reserves depletion, Algeria and Russia (as two largest suppliers) can easily cover the deficit. At the same time political constraints of energy security shifts cooperation vector of the EU energy policy to the Central Asian, Northern African and the Gulf countries.

The gas politics can be modeled as one-board Kalakh game between producer and consumer. In this case wells are full of both USD and cubic meters. As Kalakh is a win-win game both players can get their benefits if they use wise strategy. If we need to include a transit country we add one more board. In the optimal model we will have a set of games "producer – transit state" and "producer - consumer" which means that transit country is buying gas and taking fees directly from producer. In the worst but realistic case transit state breaks the game into two parties "producer - transit state" and "transit state – consumer" which means that such mediator gets benefits from both main sides

Two major processes that dramatically change modern relatively stable order are the liberalization of the EU gas market and the integration of gas producers into gas cartel.

The EU market reforms should lead to a model when producers will be eager to fight for the right to play with one "European player" who will represent all consumers. The main liberalization goals are development of competition, security of supply and environment protection. These goals involve a number of conditions that have to be accomplished and the most important are: to create open market with high competition, to give an opportunity to gas suppliers to use gas infrastructure of the third side, to decrease contract terms. As far as major gas reserves are amassed in non-EU countries it is not clear what will force such countries to bring their gas surpluses to the market to decrease the price. It is more likely that being created deregulated the EU gas market will be immediately conquered by non-EU producers. Both long-term contracts and privacy of infrastructure are the key security factors for gas producers as far they guarantee investments stability. Realization of two latest conditions will lead to the lack of producers' investment motivation, infrastructure deterioration, production decline and thus to the cost increase. Even if practically it is impossible to liberalize the EU market completely tough speculations lead to producers integration talks. It can be much poorer situation for consumers if they will find out that they have to play with one huge producing player – a cartel. While prices were high (until 2009) cartel idea was in opposition to the economic theory because such institutions are established when prices and demand are low. Gas prices decrease gives cartel a chance.

The main gas producers' organization - Gas exporting countries forum (GECF) controls 70% of all natural gas reserves and nearly all the EU imported gas flow incl. 90% of all LNG supplies which means that GECF has good opportunities to become a world gas cartel. There are a lot of market reasons why cartel will be totally ineffective structure. But two key problems came from the inside of the GECF.

The first step towards effective cartel is control over completion of the gas fields. In this case cartel builds a line of countries and completion of the fields is done country by country in exact order and the king-of-the-hill is paying others some compensation. There are too many members in the GECF and such system creates problems both for wealthy and poor states. Countries that need new fields (Russia, Iran and Saudi Arabia) and have appropriate investment funds can face development barriers. Countries with low investment opportunities will have to skip their turn that can lead to 15-20 years of stagnation or to get into debts that will not be an easy deal as creditors will unlikely be cartel members.

The second key condition of the effective cartel creation is the swing producer's role. For years the OPEC used Saudi Arabia as swing producer: surplus oil productions allowed the Kingdom to vary prices; to punish cartel members that exceed production quotes; to block the newcomers entering the market. As far as gas projects are much more expensive than oil ones, the GECF swing producer (SP) will need not only surplus production but large empty LNG fleet, network of pipelines and huge storages. Only Qatar meets all the conditions (huge reserves, LNG fleet, access to European, Asian and American markets), though its market share will not exceed 4% until 2030 and consequently the country has no real market power. Russia and Nigeria cannot be SPs as far as gas export revenues are extremely important for the countries' social-economic development. As far as Saudi Arabia, Iran and Iraq will not enter the market until 2030 it seems that the SP role will stay vacant. The only way to create SP is to form a group of countries. It will weaken a cartel power, but in case there is no SP a cartel will not work at all.

The analysis of both liberalization and integration processes shows mid-term structure of the EU gas market: increase of gas import – 70% by long-term contracts, 30% - spot market and long-term structure – 50% by long-term contracts, 50% by spot market. The mutual dependence of the producers and consumers will be even stronger. The solution lies in the Kalakh logic - less infrastructure links and more mediators parties have, more games with less wells the parties have to play, and more money and gas both sides will loose. The sustainability and fair price can be guaranteed by the large number of joint multinational infrastructure projects.

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Russia

The Russian nuclear renaissance

By Susanne Oxenstierna

Russia has launched an ambitious nuclear energy programme with the aim of building 24 new nuclear power reactors during the coming 10 years. By 2020, 23 per cent of domestic electricity should be generated by nuclear power stations, according to the state corporation Rosatom which manages all Russian nuclear technology development, both military and civil. According to the tentative plans up to 2025, Rosatom should be running over 50 reactors by then, compared to the total of 32 in operation in 2010. In addition to this domestic expansion, Rosatom intends to build at least 10 reactors abroad.

Many questions arise around the Russian nuclear renaissance. Does Russia really need so many reactors, and can it build them in such a short time span, after a pause of over two decades in the development of the nuclear industry? Is it possible for the country to deliver about three or four reactors per year, when at the height of nuclear power development in the Soviet Union the industry only produced on average two per year? Is there capacity in the nuclear engineering industry to deliver the necessary machinery? Are there enough specialists in the pipeline to build and run the new capacities? And will Russian nuclear power be safe?

The boost currently being given to nuclear power in Russia, and elsewhere in the world, is explained by the concern to secure a sufficient energy supply for the future and to protect the environment at the same time. Hydrocarbons pollute the environment and will become scarcer and harder to extract during the coming decades. Currently, the only alternative source of energy that can replace oil and gas in sufficient volumes and produce satisfactory amounts of electricity is nuclear power. Unlike traditional fuels, nuclear power produces almost no carbon dioxide emissions.

Additionally, in Russia, there are strong economic reasons to substitute nuclear power for some oil and gas. The incomes from oil and gas exports are crucial to the Russian economy and as much as possible of these commodities should go to export. The deposits of oil and gas are situated further and further from the existing infrastructure and extraction is becoming increasingly expensive. It is clear that the Russian leaders want to satisfy the profitable foreign demand in the future without jeopardizing domestic needs. Nuclear power is an important part of the solution to this equation.

Demand for energy depends to a great extent on the growth of the economy. Scenarios before the economic crisis of 2008–2009 assumed continued high growth and continued increases in energy and electricity consumption. In 2007, RAO EES, the now dissolved Russian electricity state corporation, launched a plan for total Russian electricity generation, called GOLERO-2, which assumed a doubling of electricity consumption between 2005 and 2020. This plan was adopted by the Russian government in February 2008, but it soon became apparent that it was unrealistic. According to some critiques, the assumptions behind GOLERO-2 inflated the increase in demand for electricity by two or three times. Since the estimated rise in electricity demand determines the investment in the sector – how many nuclear power reactors need to be installed, how many hydropower stations need to be built and so on – an overstatement of investment needs becomes unnecessarily costly for the economy.

In November 2009, the Russian government adopted the *Energy Strategy of Russia up to 2030*, which states that the economy will need less electricity and only half of the increase of nuclear capacity foreseen in GOLERO-2. This means that new capacity of 14–18 million kilowatts instead of 32 million kilowatts would be needed, which makes a huge difference. The "overnight cost" (calculated as if construction were completed overnight, so that no interest is paid) of building a Russian nuclear reactor generating around 1 million kilowatts of electricity is estimated at around 2,500 US dollars per kilowatt, which is comparable to the cost of a comparable gas power plant. However, due to the long construction lead times and high risks of delay (as has happened for example at the Russian project in Kudankulam in India), the real cost of new nuclear plants is much higher – in some cases over two times the overnight cost – and at such a level nuclear power is hardly competitive with gas-generated power.

Thus, even the realism of the more moderate forecast in the *Energy Strategy* may be questioned. And, quite apart from the cost aspects, the Russian machine-building industry today does not have the capacity to build so many reactors in such a short time. There are serious bottlenecks, not least because Russia has not built any new nuclear power plants since the break-up of the USSR. Certain elements, such as turbines, are particularly difficult to build because they were largely built in Ukraine in Soviet times. On top of this, the ambitious nuclear programme has several reactor types in line. Eleven RBMK or "Chernobyl-type" reactors will be in use at least up to 2030. The main type of reactor, the Russian pressurized-water reactor VVER, exists in several models and Russia is also using fast breeder reactors. Furthermore, Russia has a fleet of nuclear ice-breakers, and has begun developing small floating nuclear heat and power plants (FPUs). The world's first FPU, the *Akademik Lomonosov*, was launched in St. Petersburg at the end of June 2010.

Despite the complex nuclear energy agenda, Russia opts for a self-sustained technology in the nuclear engineering industry. It is hard to see how the ambitious plans could be carried through on time even if Russia accepted some foreign cooperation.

Nowhere in the materials on the Russian nuclear renaissance are there any references to how the Russians are reviving education and training for the people who are going to construct these nuclear power plants and run them. Russia has a high reputation in science and engineering education, but to support the expansion described here a whole new generation of nuclear engineers will need to be attracted to the sector, and the industry will have to compete for the best manpower with other domestic and foreign employers. This was not an issue in the USSR.

Nor was the Soviet safety culture satisfactory, either in the nuclear field or in other parts of society, and the question is whether this has changed. According to an IAEA document monitoring Russia's fulfilment of the Convention on Nuclear Safety, in 2007 there were around 40,000 employees at Russian nuclear plants. What kind of safety training do they have? The major accident at the Sayano-Shushenskaya hydroelectric power station in 2009 showed that, as in the case of the Chernobyl accident, vital safety rules were broken by the highly-trained personnel in charge.

The nuclear energy expansion will hardly be as impressive as Rosatom or GOLERO-2 imagines, but it is clear that Russia will expand its nuclear power capacities substantially to meet its future electricity demand. Let us hope that the new generation of Russian nuclear engineers will put safety first.

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It is time to think more with brain than muscles in the Baltic Sea Region energy debate

By Peter Lund

Energy is the traditional fuel for political rhetoric in the Baltic Sea Region. The source for that has been for many years the Russian energy which intertwines economically not only our region but most of the Europe and the Russian Federation together. For Russia, Europe represents over half of its oil and close to three quarters of its overall gas exports, and in the European energy balance, this comes close to a quarter of all European Union's oil imports and more than 40% of the imported gas. This interdependency is expected to grow in the coming years in particular for natural gas.

In the light of these numbers energy can be easily misused in the political discussions and to polarize – phraseology such as "humiliation, power of oil, security, state muscle, etc." are common in this context and are by no means evoking confidence around the Baltic Sea. Even the recent Finnish decision to build two new nuclear reactors was strongly argued by the Government for reducing the reliance on electricity imports from Russia, which in economic terms would be less motivated than politically as Russian electricity is much cheaper than the electricity from the new reactors and has been a reliable supply source for several decades.

The level of the present political debate around Russian energy has lead to unfortunate fragmentation of interests in the Baltic Sea Region and the region's weight in outlining future energy directions in Europe is much less than it should be. Considering the North Stream gas pipeline from Russia to Germany, the new oil terminals in the Gulf of Finland, recent shale gas findings in Poland and the country's large coal deposits, Barents Sea energy reserves not to mention the huge renewable energy reserves, nuclear construction and higher than average energy use in the north along with the depletion of North Sea oil fields in the coming decade means that the Baltic Sea Region will be beyond dispute the most important piece in the European energy and climate puzzle.

Furthermore, if short-term interests dominate the thinking as it tend to do now, long-term visions which are important in the energy and climate context may become blunt. A stronger cohesive input from the Baltic Sea Region to the EU2020 strategy under preparation would be a welcomed start to reverse the prevailing situation. This new strategy relies heavily on green growth as the future direction of Europe. It combines energy, climate and competitiveness and strives to create millions of new jobs from clean and green technology. Knowledge creation and innovations will play here a key role. Speaking more generally about the long-term climate targets, around 80 percent of the present carbon emissions in industrialized countries need to be eliminated by year 2050. This would require a global energy revolution which in turn is not possible without more efficient and cleaner energy technologies and innovations.

From a Baltic Sea perspective, giving more space to smart energy thinking instead of traditional energy trade and investments with all the political mess involved and focusing more on innovations and new scientific and technological breakthroughs would well be justified in the light of the huge needs and opportunities ahead. Clearly, collaboration on new and clean energy would deserve a much higher priority on the political agenda. There is also a case here for all to win through the stronger cooperative arrangements because a single country alone is not able to provide neither the solutions needed nor the financial means. Local business would be a large winner if politicians gave more support to joint efforts and opening markets instead of isolated nationalistic thinking.

Actually, the motivation for more intensive collaboration should be derived from the tremendous business opportunities that clean and smart energy represent. Now, new renewables such as wind and solar energy represent together a $100 billion a year market growing in two-digit numbers. Green energy will be even more important as a business than the information technology– the investments needed to fulfill the carbon reduction targets in energy in the coming forty years are around $50,000 billion. So, it is quite correct to claim that those countries possessing and selling the clean technology may be the true winners, not those just producing energy commodities. For comparison, the value of all Russian energy reserves (the country holds world's largest natural gas reserves, the second largest coal reserves, and the eighth largest oil reserves) correspond to around $5,000 billion, but full harnessing of these would necessitate huge investments as well, e.g. near-term needs for energy infrastructures alone may come up to around $100 billion.

The European Union has an ambitious plan to improve its competitiveness in energy technology. The so-called Strategic Energy Technology Plan or SET-Plan intends to pull together €50 billion over 10 years in clean energy R&D from different sources including national programmes. The SET-Plan including the several energy technology platforms and joint initiatives would be a natural forum for intensified Baltic Sea collaboration. In the present situation, each country or regional organization seems to have its own agenda for the SET-Plan which leads to weak positioning in the overall strategy and subcritical resources for success.

Baltic Sea countries demonstrate high scientific capacity, political good-will for research and appreciation for innovation. But in clean energy technology only a few global success stories are found, notably the Danish wind case. It seems that the national efforts are too much based on providing local technology for local markets instead of having a global market perspective. This may be interpreted as a failure of commercializing new innovations leading to ineffective resource use. What may be required is an integrated view on technology, markets and financing simultaneously. Baltic Sea Region could provide suitable test ground networking for such efforts where all three elements are included with input from different parts of the region.

For example, eco-cities or suburbs in the region that demonstrate both high energy efficiency and local renewable energy utilization would be in this direction (e.g. Gotland). Innovation universities such as the new Aalto University in Helsinki or the Skolkovo innovation city in Moscow are examples of knowledge hubs with strong private-public partnership that could provide market close energy innovations. Energy efficiency could be a special field of common interest as there is a huge potential for energy efficiency in the region. For example in Russia alone, 40-45% of energy could be saved with simple and cost-effective measures. The built environment alone represents close to half of all energy and emissions and would deserve special attention as there are major refurbishment needs.

In the Baltic Sea Region context energy has traditionally been viewed as a tradable commodity. In the view of global development, clean and efficient energy technologies are the key to global energy and climate issues opening up huge new business opportunities. For our region, intensified collaboration in these fields with a focus of managing the whole innovation chain from knowledge to markets would be a well justified effort.

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Innovations and Finnish–Russian research co-operation

By Asta Salmi

There is a strong political will in Russia to boost innovations as reflected, for instance, in Russia's long-term policy programme (*the 2020 concept).* The programme is based on three scenarios, one of which is to turn Russia into an innovation-based society by 2020. This path is seen to be the one that can lead Russia away from its current economic problems. Innovations are thus the focus in today's Russia.

Innovations in the Russian context have also been the object of several research projects. The Academy of Finland has recently funded three academic projects in this area: International Dimension of Innovation System in Russia (led by Professor Kari Liuhto at Turku School of Economics), Innovative Integration Strategies of Finnish and Russian Companies (led by Professor Riitta Kosonen, Aalto University School of Economics) and Innovativeness in Russian High-tech industries (led by Professor Markku Tuominen, Lappeenranta University of Technology). These projects were co-funded with the Russian Foundation for the Humanities, and they were part of the Research Programme on Business Know-how (2006–2009) of the Academy of Finland.

Looking at the innovative environment in Russia and how local and foreign companies may operate in this environment, the research projects also investigate the role of international networking. The results show that great differences in innovative capabilities across different parts of Russia still prevail. There is a need to further develop an open innovation environment and, in particular, to support cross-border idea exchange and networking. Furthermore, companies need innovative ways to become integrated into the local context. Social innovations in business know-how enable them to adapt to the Russian society. These innovations are needed due to the strong political (e.g. law enforcement and corruption), economic (the grey economy and personalised business networks) and social links (availability and skills of labour and paternalism) of business. The integration practices seem to be peculiar to the Russian business context and differ from those adopted elsewhere, which poses challenges to the foreign companies. All of the studies stress the importance of international networking and linkage building within the innovation system.

Russian official plans to boost innovations have been criticised for their emphasis on top-down policies. The results of the aforementioned studies would confirm the often expressed need to enhance bottom-up networking to support the strong administrative pressure. Indeed, interactive relationships as well as diverse international co-operation are the essential characteristics of any national innovation system. The research co-operation within the Programme on Business Know-How illustrates two important areas of networking within the innovation system: international co-operation, firstly, between the funding agencies and, secondly, between the researchers.

Finland and Russia share a long tradition of scientific co-operation, of which funding research on business know-how is only one example. The Academy's international strategy identifies Russia as one of its main areas of collaboration. Research funding co-operation already exists in many fields and further co-operation is being planned. The Academy of Finland engages in close co-operation with three Russian science and research funding organisations: the Russian Academy of Sciences, the Russian Foundation for Basic Research and the Russian Foundation for the Humanities. The aim of joint research funding is to fund top-class Finnish–Russian projects that generate added value in research that focuses on the environment, well-being, society and technology.

Another important area of networking is cross-border co-operation between researchers. The three aforementioned cases are prime examples of this: close and active co-operative links between individual Finnish and Russian researchers were built and future research co-operation is being planned. The co-operation has, furthermore, been extended to involve researchers from other countries; to give just one example, a seminar on Russian innovations organised around these projects in spring 2010 attracted participants not only from Finland and Russia, but also from the United Kingdom, New Zealand and Mongolia. Thus the results of these projects pave the way for even more extensive international research.

Intensive and long-term research collaboration between individual researchers is essential in the area of innovation studies. It helps create a deep understanding of the innovation systems and practices of the respective countries and gives a basis for comparative studies. Moreover, local contacts are often the only option to gain access to the companies and other research sites to do research. The co-operation with companies is particularly important in innovation research, since companies, as both producers and users of new knowledge, are a central element in the innovation system. Given that innovation is about developing and inventing new technologies, services, business models and operational methods, it is clear that both companies and researchers benefit from close co-operation.

It seems that the ambitious plan of building a Russian innovation society can only be accomplished, if also networking and relationship building take place at various levels and between different types of actors. Joint research projects are one fruitful way to build the basis for future innovations.

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How do Russian companies innovate?

By Juha Väätänen

Russian innovation paradox

Russia has set a goal to modernise industries and to transform into knowledge based economy. After the collapse of the Soviet Union Russia has suffered from the paradox when relatively high R&D spending produces very weak results for the economy. Russia's innovation performance has been disappointing, despite the available stock of human capital and overall investment in R&D. Russia spent around 23 billion USD on R&D (public & private spending) equalling to 1.1% of GDP in 2007. Russia's R&D spending is high both absolutely and relatively in the reference group of Central and Eastern European transitional economies. For another comparison, European Union's export powerhouse Germany spent 71 billion USD for R&D in 2007.

Russia's weak innovation performance is emphasised by the World Bank data, which shows that German manufacturing worker creates ten times more value added in dollar terms than his Russian counterpart. This means that Russian R&D has either very low productivity or that there are very weak linkages between R&D and the business. A well known fact is that weak innovation performance has roots in the centrally planned economy background. The Soviet Union legacy still influences the main actors of the innovation system. The federal state is still the most important funding source of R&D. Universities are outsiders in the innovation system, only a few universities carry out research activities. Thus, overhaul of innovation system is needed and enterprise sector has a significant role in this process. Let's have a closer look at how Russian companies innovate.

Surveying Russian companies

At Lappeenranta University of Technology (LUT) we have researched the innovation capabilities of Russian companies for many years. We have conducted numerous surveys on innovation activities of Russian companies. Surveys have intended to find out which strategies Russian companies use in their R&D and innovations? How much is spent for R&D? How innovation activities are organised? What are the innovation performance measures and innovation results? How organisational capabilities such as skill levels and openness matter? What is the role of incentives and pressures in innovation process development? Over the years more than 600 enterprises have been surveyed to find answers to the above mentioned questions.

Enterprise surveys are a convenient way to access first hand information from the executives and decision makers in the companies. Traditionally the main stream of Russian innovation research is focused on the policy level and the national and regional innovation systems. However, it is extremely important to know trends in the private sector as well. The productivity gains at the company level are essential for the whole economy development. Experience from the other transitional economies has shown that especially competitive pressures force companies to develop their competences. Typically competitive pressures come from imports, foreign direct investments and domestic competitors. Finally it depends on companies' capabilities whether they are able to respond to increased competition.

Encouraging innovation performance trends

Our study results show very encouraging innovation performance trends. Russian companies spend relatively large share of their revenues for R&D even in the international comparison. More interestingly, study results show that the best performing companies have distinct characteristics. They have own R&D capabilities and they are actively looking for external knowledge. Definite success factor is the company's ability to develop high level R&D capabilities, which allow acquiring external knowledge. The external knowledge is either acquired from linkages in supply chain or from various stakeholders (customers, suppliers, shareholders, competitors, partners and intermediaries). Innovation capabilities are developed best through the international linkages. Study results show that international competitive pressures effectively increase innovation performance of a company.

It seems that Russian companies prefer domestic co-operation partners even if this co-operation produces more modest innovation results than international co-operation. This indicates that organisational capabilities and skills are to be developed further. On the other hand, companies which have good experiences of international knowledge acquisition aim to deepen their relationships with the key partners. This international co-operation often leads to better innovation performance – higher profitability, better new product development, more product and process innovations and higher number of patents. Furthermore, internationally oriented companies manage to develop their competitive advantages to a new level, which often involves radical changes in their business models, such as increased openness, value creation and value capture.

How does future look like?

Results clearly indicate that Russian companies are increasingly more and more tapping into the world technology pool and are able to absorb this knowledge. This leads to a significant innovation performance increase and indicates that Russian companies are becoming globally more competitive. International competitiveness will eventually lead to diversification of exports and economy in general. However, to facilitate this development further, government should focus on improving investment climate, transparency and openness in the economy. Traditional, centralised and tightly closed approach to innovation and R&D processes do not fit in fast changing global business environment anymore.

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It's time to step up FDI efforts

By Kristiina Helenius

As the global economy emerges from the downturn, international companies are keeping a close eye on new business opportunities in the Baltic Rim region. But they are not seeing many of them yet.

Finland boasts some 460 affiliates of American parentage. They provide an interesting bellwether for how international companies view the Baltic Rim economies as an investment destination. Traditionally, many global companies group Finland and the Baltics as one division within their organizations.

We can discern some recent trends. First, the global economic downturn of 2008 – 09 pushed many global companies into an accelerated reorganizing mode. Second, American companies, in search of efficiencies, have increasingly concentrated their Nordic presence in Stockholm and Copenhagen, cutting operations elsewhere. But clear new trends have not emerged yet. Many companies are in a holding pattern waiting for stronger signs of economic growth from their markets.

This is a rare window of opportunity to reach out to the international companies that are currently contemplating where to invest next. We at AmCham Finland, sincerely hope the Baltic rim economies share this view and offer strong investment proposals. How these nations succeed in wooing international companies with a credible message and solid business environment is crucial. It will, to a large extent, determine how connected we as a region will stay to the global economy.

Pitching the Baltic Rim as one economic region is key to attracting global companies' attention. Any one national market is simply too insignificant for them to invest in a large scale in when we are up against the exploding Asian markets, Eastern European countries, and fast growing economies like Turkey. Finland, for example, is located at the center of a market of some fifty million consumers. It belongs to the stable Finno-Scandinavian societies with a strong democratic tradition, is in the Euro zone, and shares a border and longstanding ties with the emerging Russian market and the Baltic countries.

There are some developments we watch particularly closely. One of them is Russia's new-found emphasis on attracting foreign direct investment and creating its version of Silicon Valley. President Dmitri Medvedev spoke of his vision at the St. Petersburg International Economic Forum in June and again during his visit to the United States. This theme of "modernization" appears to enjoy wide support and enthusiasm in Russia.

Companies covering the Baltic countries and Western Russia from Finland will soon be able to start the day with a business breakfast in Helsinki and have a negotiation over lunch in St. Petersburg, while reaping the benefits of a high-efficiency cargo center in the Kotka-Hamina hub.

This will be a reality in December 2010 when Helsinki, Tallinn, and St. Petersburg become linked by the new high-speed train between Helsinki and St. Petersburg, cutting the commute to a mere three hours. The annual passenger traffic between the cities is expected to rise from 400,000 to 1,2 million.

The opening of the arctic region marks another paradigm shift for the Baltic Rim economies. National carrier Finnair's strategy positions Finland as the ideal transit hub between the Americas, Europe, and Asia, offering the shortest and fastest routes between the continents. With the melting of the Arctic Ice Cap, the same logic is starting to apply to sea routes as well. Most counties in the Northern hemisphere have ambitious arctic strategies. Finland too, outlined its own in June.

Finland's role as the gateway to Russia will be further enhanced with the Nord Stream pipeline which is considered a major milestone in EU-Russian relations. Nord Stream will transport up to 55 billion cubic meters of gas per year, which supplies more than 26 million European households. Construction of the new gas link from St. Petersburg to Germany is underway.

However, there are developments that are not helpful in making the case for a lucrative Baltic Rim economy. Russia's announcement that it plans to restrict imports on selected meat and dairy products from Finland came as an unpleasant surprise. Russian authorities informed the Finnish Food Safety Authority that the operations of several Finnish food producers fall short of Russian legal requirements.

Another unfortunate dispute straining trade relations between Finland and Russia is the custom duties on raw timber. Russia's membership in the World Trade Organization would be a major and much-needed step forward as it would provide common norms and a base for more transparent trade relations.

We, as a chamber, have a voice on both sides of the border. In fact, there are AmChams in every Baltic Rim country! Two years ago, AmCham Finland, with our 220 member companies, launched a strategic partnership with AmCham Russia which has some 850 corporate members. The power of the network to deliver business benefits is remarkable. It can be instrumental in delivering messages on behalf of the business community. So far, the partnership has not been activated for advocacy. It should.

If the Baltic Rim economies are serious about engaging these companies, as they should, AmCham Finland stands ready to act upon its role as a bridge builder between the public and private sectors. We continue our active dialogue with members to understand their needs and growth objectives so that they can fully commit to serving our markets. We are eager to identify growth potential amidst the structural change that is happening in Finland as well as the Baltic Rim region at large and support our members as they translate it into new business opportunities.

When the Baltic Rim economies prove to have viable and innovative business development ideas, AmCham Finland can assure that the message reaches the global headquarters of our member companies.

Kristiina Helenius

Managing Director

AmCham Finland

As the voice for the international business community in Finland, AmCham is central in assisting companies to launch into the global economy and in helping investments successfully enter the region. We stand at Finland's open door, ready to welcome those who share the goal of adding value through interaction and mutual support

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German investment in the Baltic States

By Ralph Hirdina and Thomas Jost

Soon after the Baltic States regained independence in August 1991 the German Government started to rebuild its international relations with Estonia, Latvia and Lithuania. In subsequent years political, economic and cultural ties of the Baltic States with Germany and the other European Union (EU) countries developed fast. Already in May 2004 the Baltic States joined the EU supported among others by the German Government.

Economic integration of the Baltic States into the EU is reflected in the strong growth of trade and capital flows. Germany is one of the main trading partners of the Baltic States. The value of trade in goods between Germany and the Baltic States amounted to €5.3 billion in 2009. Trade and business relations between Germany and Estonia date back 700 years to the Hanseatic League. After Finland, Sweden, Latvia and Russia, Germany was the fifth largest Estonian trade partner with a bilateral trade value of €1.4 billion in 2009. For Latvia, Germany was the fourth largest and for Lithuania the second-largest trade partner.

Strong political relations, EU membership and growing trade ties were the basis for increasing investments of German companies in the Baltic States. The Baltic States ambitiously implemented the legal framework of the EU and therefore gained confidence for foreign direct investments (FDI). Furthermore, the Baltic States presented themselves as modern states. For example Estonia's innovative projects "e-government", "e-learning" and "e-voting" are groundbreaking. Finally, close cultural and social relations between the Baltic States and Germany, documented by many bilateral cultural and social projects, indirectly pushed German investments.

Germany, the fourth largest outward investor worldwide, measured by the value of its outward FDI stock, strongly increased its investments in the Baltic States in the past two decades. German FDI in the Baltic States was also driven by geographic proximity and a widespread use of the German language in the Baltic States as well as by the rapid economic growth and political stability of the Baltic States in the past decade. Growing German FDI in the Baltic States was safeguarded by Bilateral Investment Treaties (BITs) that went into force with Estonia in 1993, with Latvia in 1996 and with Lithuania in 1997. Double Taxation Treaties (DTTs) were concluded with Estonia (1996), Latvia (1997) and Lithuania (1997). The German-Baltic Chamber of Commerce, located in Riga, acted as a platform for the exchange of ideas and information and promoted business contacts between German and Baltic companies.

German FDI in the Baltic States amounted to €1933 million at the end of 2008, according to the FDI stock statistics of Deutsche Bundesbank. German FDI therefore tripled within less than five years after EU accession of the Baltic States in May 2004. Lithuania received more than half (€1028 million) of German FDI in the Baltic States followed by Latvia (€ 461 million) and Estonia (€ 444 million). Total German corporate investments are higher than these figures as the FDI stock statistics of Deutsche Bundesbank cover only foreign affiliates with a balance sheet total of more than €3 million. Besides bigger German multinational enterprises (MNEs) a large number of small German firms operate in the Baltic States. The total number of firms with a German stake in the Baltic States is estimated to be around 2.000. In all three countries Germany is one of the main foreign investors (ranking on the 4th place in Lithuania, 6th in Estonia and 3rd in Latvia).

German production and service facilities have become an integral part of the economies of the Baltic States and contribute to economic growth and employment. According to the data of Deutsche Bundesbank foreign affiliates of German companies produced a value added of €2.1 billion and employed 20,000 employees in the Baltic States in 2008. German companies also contributed to capital inflows that the Baltic States needed to finance their current account deficits in the boom years after EU accession. The activities of German companies as world leaders in many high-tech products led to positive technological spill-over effects for the Baltic States.

The German economy also profits from the grown economic ties. The Baltic States offer interesting markets with a population of nearly 7 million and they belong to the Baltic Sea Region, one of the most dynamic economic regions of the world. In addition, the Baltic States are a gate to Russia. Germany's Chancellor Merkel and Russia's President Medwedew recently emphasized to strengthen economic relations between Russia and Germany. The Baltic States could benefit from intensified economic relations between Russia and Germany due to their geographical proximity to Russia and their transit function. But, investments in the transport sector in the Baltic States compete against those in Russia. In recent years, Russia built up strongly its logistic infrastructure in order to compete with the Baltic States. The building of the gas pipeline from Russia to Germany through the Baltic Sea without involvement of the Baltic States showed that the Baltic States cannot take it for granted to profit from an intensified economic relationship between Russia and Germany.

The investments of German firms in the Baltic States were mainly driven by longer-term strategic considerations and less by short-term wage and cost considerations. Despite the sharp recession of the Baltic States in 2009, which suffered from a 15% decline of their real GDP, the hardest fall in the EU, German companies did not disinvest. A recent survey of the German-Baltic Chamber of Commerce found out that 90% of the German companies would repeat their investments in the Baltic States. In spring 2010, the business situation is still problematic despite signs of a recovery. But, German firms consider their situation better than the overall situation and expect to increase their investments in the medium-term in the Baltic States.

Despite the strong importance of German companies in the Baltic States there is still potential for a growing role in the future. Investments in the future will crucially depend on how the Baltic States can cope with the economic crisis. Macroeconomic stabilization and a return to solid economic growth will attract growing German FDI. The European Commission has forecasted that the Baltic States will return to positive economic growth rates in 2010/2011. The introduction of the Euro should further stimulate FDI as it could end speculation of a depreciation of the currencies of the Baltic States. Estonia will enter the European Monetary Union (EMU) and introduce the Euro on January 1, 2011. Latvia and Lithuania are expected to join EMU in 2014. Both countries therefore have to reduce their budget deficits to fulfil the Maastricht criteria for the introduction of the Euro. In addition, both countries could improve their anti-corruption policy; currently they only rank on the 52nd (Lithuania) and 56th place (Latvia) of the ranking of Transparency International. On the other hand, all three Baltic countries improved their business conditions considerably which is reflected in their ranking among the top 30 countries of World Bank's "ease of doing business" list.

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We should know how to do business with Russia – but do we really?

By Tauno Taajamaa

Last year was horrendous for Finnish companies operating in Russia. The total value of Finnish exports to Russia decreased 47% from 2008. Finnish investments in Russia were 400 million euros negative, i.e. Finnish companies did not invest in but divested from Russia. The problems with punitive taxes for importing forest products and other regulatory challenges imposed by the Russian government (like the recent restrictions on the import of some meat and dairy products) have created a major dent in the image of Russia-related business. The market is seen to have both economic and political risks as far as long-term business opportunities are concerned. Therefore many companies are justly thinking: "Is doing business with Russia really worth it?"

Still, we all know that Russia is a land of endless opportunities. The grim export statistics from 2009 were largely due to global macroeconomics, and all of Finland's key export markets suffered. In 2010, the Russian economy is expected to grow by 4-6% (Ministry of Foreign Affairs). And even though Russia's economy is still very heavily affected by the ups and downs of oil price, its growth is much faster than the growth in e.g. the EU area. Consumer optimism and consumer purchasing power are also growing this year according to research. Due to the positive economic and legislative development of the past decade Russia continues to be a very prospective market for Finnish companies. The evolving market is still hungry for innovations and benchmarks in technology, service and business models. There are several fields of business which are growing and which do not carry a big political risk, e.g. ICT and business services. These fields offer Finnish companies significant opportunities. And the companies that are willing to invest now, at the beginning of the new growth period, will benefit the most.

However, for an individual company, business in Russia is not about macroeconomics, it's simply about answering two plain questions:

- Can I create or identify a need for my products and services in Russia?
- Can I sell and deliver my products and services in Russia?

Fintra (The Finnish Institute for International Trade) works a lot with individual companies. Unfortunately we often see that small and medium-sized Finnish companies (and, surprisingly, bigger ones too):

a) do not analyze these two key questions critically enough

b) do not identify the competences they need to build and transform in order to be successful in Russia

We see many companies who have learned the hard way the realities of doing business in Russia and have paid dearly for the mistakes leading to this learning.

We also see that the key problem for companies is that they realize but do not internalize the fact that Russia is a truly different business environment.

Companies do prepare and plan well for market entry or investing in Russia. The key challenge is that they do not internalize that it is different. They still go and try to sell and operate the way they operate in Finland or many other industrialized countries. Here, in our opinion, lies one of the key differences between successful and not so successful companies in Russian markets.

Fintra helps yearly hundreds of Finnish and Russian professionals develop the skills they need to be successful in business. These individual competencies translate directly to company-level competencies. In Russia the old cliché of a company's success depending on the skills and competence level of your employees is still very much a fact. A company can have perfect processes and six sigma systems which work beautifully in Finland but fail in Russia. The culture, general mindset and how business is done is based very much on personal interaction, quick decision-making and creativity in solving different, sometimes very strange, problems. There is very little customer understanding on processes, protocols and predictability. All this plays up the importance of the individual skills and competencies of the people selling and delivering products and services in Russia.

Fintra has done some research on the competence level of Finnish companies in Russia in regard to their ability to work with Russian clients and employees and what has made some companies successful and others less successful. Some of the key findings are:

-Be willing to invest in relationship building and relationship management.

This means investing time, money and the right (Russian-speaking) people to find the right decision makers in potential client companies and establish a personal relationship with them. The ability to manage this relationship once established is also essential. This means that your sales force should not be only experts of your products but extremely good at impressing clients and communicating in the Russian cultural context.

-Make sure you are able to retain local talent

The reasons for commitment of the best local talent are not necessarily similar to what you are used to. Since the best talent are aware of their importance to the company, they expect and demand much both in terms of monetary compensation and growth opportunities. Patience, humbleness and integrity are not big virtues in Russian business. To retain the talent, be willing to pay more and invest in training more than you would like. This has to be done because they are the key to your sales success - not your products or services. And they are very quick to move on to your competitors. They are also more committed to people than to the company. As a manager you have to form a relationship with your top talent. And it must be done face-to-face. Management by email is just not an option in Russia.

-Be very sensitive to customer segments

Due to historical reasons the Russian business environment contains different operators which may be competing in the same business segment but, as organizations, are totally different from each other. In our research we have identified several different organization types from classic Soviet-fashion state enterprises to ultra-modern global shark organizations. The game of selling to them is totally different depending on the organization. There are a lot of unwritten rules you need to know and pitfalls you need to be aware of when dealing with each customer segment, i.e. you need to have several different sales approach strategies when selling in Russia.

We are slowly waking up to the post-depression business landscape here in Finland. Many companies are realizing that the business lost during the economic downturn is lost for good. For companies looking for new business Russia currently presents a golden growth opportunity. However, being successful there demands a very different set of skills. Our hope in Fintra is that companies willing to invest in growing business in Russia are also willing to invest in learning how to do it instead of paying dearly for learning the hard way.

Tauno Taajamaa

Managing Director

FINTRA

Finland

Olympic winter games in Sochi – costs and expected benefits

By Andrei A. Tatarinov

The XXII Olympic and Paralympic Winter Games in Sochi is becoming the most significant national project in the history of modern Russia. Not long ago the very idea of hosting Winter Olympics in the country's single subtropical holiday resort seemed at least queer to the major part of the Russia's population. Now it doesn't. Nevertheless disputes on expediency and validity of such a substantial inputs of resources in a single, though global-wide, sporting event still continue to rage.

Winter Olympics: Growing Scale

In recent decades the scale of Olympic and Paralympic Winter Games (OPWG) has increased greatly. If in the French Albertville in 1992 the XVI OPWG attended nearly 1 800 athletes, while their number in Vancouver in 2010 exceeded 2 600. During that Games Vancouver hosted 6 500 members of national Olympic teams and 10 800 media representatives. An increase in number of overnight visitors to Vancouver (according to the excellent Canadian tourism statistics) at the period of OPWG in February and March 2010 was 123 thousand people, or 12% in comparison with the same period of 2009. In February- the peak period of the event - it reached 22%. Due to the expert's ("Tourism Vancouver") estimates the 2010 Olympics will generate an additional tourism inflow to Vancouver of 8% (nearly 650 thousand visitors).

All these figures look quite impressive.

Canada hosted OPWG twice. In 1988 they cost to Calgary US $525. Total cost of the Vancouver Winter Olympics is preliminarily evaluated US $5,75 billion, or 11 times higher nominally and 6,4 times in real terms.

How much will it cost in Sochi?

All the Winter Olympics, except for Sarajevo (1984), were hosted by a narrow group of advanced western nations with highly developed sporting, transport and ecological infrastructure for that time. Certainly it can be explained for many reasons, but the fact that in lower developed countries necessary amount of infrastructure investments rises greatly, is quite important. This is relevant for all the Olympics. For example, the operating costs of the 2008 Olympic Games (OG) in Beijing, as well as the costs of construction and reconstruction of sports facilities, amounted to US $3,9 billion, while investments in infrastructure - US $40,9 billion. In spite of the Beijing Government statements that these infrastructure investments were made independently of the Olympic Games, only few who doubt that 2008 OG could not be so successful in the lack of them.

Sochi Olympic construction plan is quite impressive. The total number of units to be constructed before 2014 is 242, with 72 are being constructed at the moment. The biggest investments are directed to infrastructure development.

Estimated value of the most expensive piece of infrastructure - combined (rail and motor) road from Adler to the mountain resort Krasnaya Polyana 48 kilometres length amounts to US $7,45 billion. The next expensive one is a new internal motorway doubling the main street of Sochi - Kurortny Avenue is also being constructed now. A very complicated structure with the length of 16 kilometres and cost of nearly US $3,3 billion may beat all records of value - more than US $200 thousands per 1 metre.

It is also planned to increase electricity generating capacity nearly 10 times to the existing level, what will reduce (or even, eliminate) the city's dependence on power transfer from the other side of the Caucasian mountains. This will cost another US $1,6 billion. 177 kilometres of a new natural gas pipeline is being constructed now to supply these power plants; its cost is US $820 million.

First, in 2007 the total value of the Olympic and mountain resort investment programme amounted that time to approximately US $12 billion, with US $6 billion of Federal budget funding. The latest estimate announced on June, 4, 2010 by the Ministry of Regional Development amounts to US $31,2 billion. Due to earlier estimates the share of the Federal budget may amount to 2/3 or US $21 billion. However, many experts believe the sum may finally exceed US $40 billion, and reach the level of the Beijing Olympic expenditures.

Even if as a result costs won't overstep the targeted level the planned sum is still enormous. It more than five times exceeds the 2010 Vancouver OPWG costs and more than two times scheduled 2014 OG in London expenditures which in July 2010 were estimated at the level of US $14,2 billion.

Expected benefits

It is easy to find out that to reach commercial payback of this amount of expenditures for Sochi OPWG during, say, 20 years, taking an alternative cost of capital equal to the Bank of Russia current refinance rate (7,75%) Russian economy should produce additional profits (generated by these investments) at an amount of US $3,3 billion annually.

Certainly evaluation of this kind of investment programme can not be reduced to a simple payback calculation. Besides the financial efficiency a range of short time and long time consequences should be taken into consideration. Among them it is necessary to name a strong international effect produced by the Olympics, advancement the country's international image that besides the rest is important for the attraction of FDI to Russia.

Another important heritage is a creation of the first in Russia mountain ski resort equipped and managed at the level of modern international requirements, and modernisation of the existing tourist centre in Sochi. Though it is quite doubtful that in the future of 15-20 years Krasnaya Polyana will be able to compete with the major European mountain ski resorts in prices, length of the ski season, quantity and length of ski routes, it obviously will attract tourists due to its Olympic image. It can also become a place of training for Russian and foreign sportsmen, host national and international competitions.

At the Soviet period of time since the end of 1920s Sochi as an "all-union health resort" was developed mostly on the basis of targeted investments funded by the union budget. However at that time choice of a place for summer sea-side recreation was quite limited for the soviet citizens (another option was Crimea), so there was no need for Sochi to compete with numerous holiday resorts abroad. Today it is a hard problem for Sochi. Introduction of up-to-date technologies to the domestic hospitality industry is another expected benefit of Olympics related investments.

Russian authorities emphatically highlight innovative contents of the future OPWG in Sochi, their input to the development of the international Olympic movement: this is in particular expressed in founding the International Olympic University in Sochi, as a centre of training specialists and scientific research in the sphere of Olympic theory and practice. At the same time it should be noted that success in

tourism innovation cluster formation requires first of all drastic change in business environment, and investment climate in particular, and this problem can't be resolved within this regional programme.

Nearly 400 thousands people inhabit Sochi currently, what is approximately equal to the number of population of such a significant regional centre as Nice in France. Rapid and substantial growth of infrastructure in Sochi will create prerequisites for diversification of the city's economic profile (along with tourism - transport, trade, finance, R&D, etc.), its transformation into an up-to-date economic centre which will significantly enhance Russia's geopolitical position in the Caucasian region.

Thus, the value of investments, their structure and sources of funding allows to assume that this development programme may lead to much wider consequences than only carrying out a set of Olympic events in 2014. Implementation of this programme in conditions of transformation of institutional environment and human capital development may become a strong factor of economic growth and innovation. This is the way justify huge inputs.

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Post-Cold War politics of history

By Kimmo Rentola

'Politics of history' has been a hot – or should I say cool – term in recent historical research. Tired of the eternal 'how it actually was', historians have instead turned to 'how it is presented and why', that is, to uses (and abuses) of history. This fad has spread even outside professionals; former Prime Minister of Finland, Paavo Lipponen, declared his memoirs to be "unashamed control of history".

From this perspective, it is interesting to compare the politics of history around the Baltic Sea after the Cold War. The end of an era creates a peeping hole, through which the past is looked at and interpreted, and each present will need and create its own past. Around *Ostseeraum*, there has been two very different ways of peeping through the hole: the Scandinavian way, and the Baltic way. Finland has differed from both.

In three Scandinavian kingdoms, the focus has been on the Cold War sins committed by their own governments. Several state committees have investigated secret military dealings with the western powers and the activities of security police, which practiced close cooperation with western services and kept close surveillance of own citizens because of their political views only, without suspicion of any crime. Recently, after ten years of hard work, the committee investigating the Danish security police PET delivered its report in 16 thick volumes.

Extensive investigations have confirmed that security cooperation with the West was far closer than told to the parliaments at the time, or even to all government members, and that own citizens were submitted to surveillance without proper law basis. Findings of the committees have gathered considerable attention and been subject to heated debates. Some have seen violations of democracy and human rights.

In Finland, no truth commissions were set up. Instead, research permissions were granted to individual scholars. Nobody complained when scholars found out that hundreds of thousands of citizens had been registered by the security police, most as supporters of the communist party or visitors to the Soviet Union.

When a history of the security police was published in 2009, it transpired that the Finnish security police was in fact in close cooperation with American and British services. Nobody complained that this had been done without parliamentary or even government authorization; on the contrary, these facts were mainly welcome and applauded.

Its seems that their past has made the Finns thicker-skinned than the Scandinavians. A perceptive Swedish observer described 20th century Finland as "the land of unfulfilled catastrophes", and this was no exaggeration: the fierce Civil War, narrow escape from right wing dictatorship (1930) and from communist takeover (1948), the Winter War, then the new war, and four serious postwar crises with the Soviets.

Living through almost-catastrophes, the Finns learned that questionable deeds may be committed in defence of the independence. Although Lutherans do not have rosaries, the Finns would certainly recognize the Florentine saying, quoted by Machiavelli, according to which you can't hold a state with a rosary in your hands. Hearing of a cynical act or wrongdoing by the state in security policy, the Finns have been far less inclined to moral indignation than the Scandinavians.

In Finland, the only sensitive Cold War issue is the relationship to the Soviet Union. Was the nation on its knees? Some faults have indeed been admitted – self-censorship, treatment of Soviet refugees, eager relations with KGB political officers – but even here, many people think that objectionable deeds were mostly necessary to defend the state. When a Russian radio editor asked Mauno Koivisto, what was the idea of Finland, the President had his answer ready: "Vyzhit'", to survive.

In the three Baltic republics, the politics of history has been dominated by the Soviet oppression and occupation, and by the golden age of independence in the 1920s and the 1930s. National values have been revived, flags, anthems and currencies taken out of the freezer, where they remained for half a century. Some historians' attempts to put actions of prewar statesmen in a critical light have been seen as nearly sacrilegious.

There has been elements of this atmosphere even in Finnish discussion. However, for instance the full revival of prewar ideas has its limits, because in Finland they were not preserved in a freezer. In prolonged historical discussions since the late 1950s, fundamental prewar myths were first criticized and finally destroyed by academic historians. This was possible, because Finland was not under total Soviet control nor a Bloc member; the Finns managed to fight their own corner by a combination of resistance and collaboration. Comparing their historical fate with that of Estonians, they feel relief and at the same time a shame of survivors.

The attitudes towards Russians differfrom the Baltic ones, as demonstrated during the Bronze soldier crisis in 2007, and by the 2009 bicentennial celebration of Finland's own government. The Russians are far from the most favoured nation in Finland, either, but attitudes lack the bitterness discernible in the Baltics or in Poland. The Finnish attitude reminds that of the Germans: the fatal importance of Russia is fully recognized, but it is viewed in a more relaxed way. Estonians often consider this attitude as naïve, deriving from the northern neighbour's unfamiliarity with the deepest nature of the Russians.

Some naivety there may be, but the deepest root might be the war experience: Finnish attitudes to Russians include a sharp dose of self-confidency based on the proven ability to fight. A very old man, Molotov considered it prudent that the Soviets abandoned the idea of compelling the Finns by force: that stubborn people would then have inflicted a festering wound in the Soviet body.

No wonder Finland has been a special case in post-Cold War politics of history, since it was *sui generis* in the Cold War itself. Now, however, when most of the special position is vanished, also the politics of history seems to be 'normalizing', towards the Scandinavian model. The range and constancy of this remain to be seen. We will see, if this mood will prevail, or whether the thick-skinned tradition of the priority of national interest will again rise its head.

Kimmo Rentola

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Ukraine – Finland: European rapprochement

By Mykola Azarov

When comparing the energy component of the economies of Ukraine and Finland, the first thing that catches the eye is a similarity. It is true as regards dependence on the import of energy sources, with industry holding a lion's share in their consumption. We have one and the same importer of gas and oil who is a common neighbor of our countries – the Russian Federation. And, also, the most important resource – nuclear energy – is used by our industries mostly to cover the off-peak loads of our continuous process enterprises.

Truth is, while in the Republic of Finland wood, hydropower and peat are the only local sources of energy, Ukraine, apart from its own oil and gas, has substantial deposits of coal and uranium ore. For all that, the energy dependence of our countries on the supply of organic fuel is at the level of the Finnish ratio of more than 60 percent.

And exactly at this point the distinctions are the more evident, which I cannot but point out, as had also been the case during the official visit to Helsinki in October this year. The thing is that the Finnish government has for a long time pursued a purpose-minded policy of advancing the use of renewable energy sources. Finland is a world leader in seeking methods of using renewable biomass for power generation. For example, wood and liquid waste of the woodworking enterprises covers 25 percent of the industry's needs in energy sources.

It cannot be said that Ukraine did not heed this experience. Back in 1997 we endorsed a state energy-saving program. But the cheapness of the imported fuel during the first years of independence played its role: by the end of 2009 Ukraine's wind power capacities accounted for a mere 181.5 MV (9 percent of the projections), while the production of biogas was 4.8 million cubic meters (less than 1 percent of the projections). In all, only about 1 percent of the entire energy in Ukraine was generated by renewable sources last year.

At this point I must note the indirect positive role the European Union played for us. In 2005 the EU issued a directive binding its member countries to design national plans for the reduction of energy consumption. From 2007 to 2017 each EU country has to reduce energy consumption by a minimum of 1 percent per annum.

As a result, much as there was a lack of incentives within Ukraine, the intensive development of alternate energy in the EU created preconditions for the development of the Ukrainian market of alternate solid fuel. While five years ago only a few people in Ukraine knew about fuel briquettes and pellets, the volume of this market amounted already to 300,000 tons last year. Although Ukrainian manufacturers of alternate fuel export so far over 90 percent of their products to the countries of Western and Eastern Europe, there is an upward trend in the output of such fuel.

This trend evokes confidence that once conditions similar to those in Europe will be created in Ukraine, our manufactures will be prepared to saturate the domestic market first of all. Ukraine's President Victor Yanukovich determined the development of renewable energy as the most important national priority, and the Cabinet of Ministers is actively working in this direction, having set up in July 7 this year an Interagency Commission for the Development of the Energy Sector.

Ukraine has raw materials in plenty – the annual technically achievable resources of alternate solid fuel amounts to 63 million tons. Biomass, produced in the country but not used to date, can replace at minimal costs five billion cubic meters of imported gas per annum, as calculated by the Department of Bioenergetics of the Institute of Technical Thermal Physics under the National Academy of Sciences.

Along this way the experience of Finland is difficult to overestimate for Ukraine.

For example, Christer Michelsson, Ambassador Extraordinary and Plenipotentiary of the Republic of Finland to Ukraine, during a meeting with Anatoliy Blyzniuk, governor of Donetsk oblast, the largest industrial and coal mining region of Ukraine, stated that his country is prepared to cooperate with the Donbas in energy-saving and ecofriendly technologies. I personally was impressed by the following words of the Ambassador: "We have vast experience and we want to share it with you. As a little country we cannot be the best in everything, but what we do is done as best as possible."

By way of a digression, I would like to point out that in Donetsk proper there is a Finnish-Ukrainian Youth Council that has its departments even in some rural schools of the oblast, while yet another local city of miners – Makiivka – has a Finnish-Ukrainian Club called Rodnik (Font). These little touches to the picture, just like the opening of the Visa Center of Finland in Kyiv on October 15 this year, attest to the big changes that have occurred in the growing interests of our countries in each other.

On October 19 a delegation of the Ukrainian National Committee of the International Chamber of Commerce (ICC Ukraine) completed the first stage of a working visit to Sweden and Finland. Although the negotiations with the ICC Finland and ICC Sweden addressed a broad spectrum of issues related to cooperation in rocketry and aeronautics, aircraft-, machine- and ship-building, as well as agriculture and its related sectors, I would like to specially mention to signed agreements of intent in the area of energy-saving technologies.

The Government of Ukraine is demonstrating that the time of internal political debates is over. Now is the time to repair the omissions, adapt the best practices, and – since Ukraine declared its European aspirations – get down to taking definite steps in this direction. We have already achieved agreements on opening missions of the ICC Ukraine in Helsinki and on setting up a number of joint Ukrainian-Finnish enterprises.

Negotiations have also been held with the largest ABB Company that is interested in supplying its products to Ukrainian hydropower plants.

Timo Vuori, Secretary General of ICC Finland, noted, by the way, that the preconditions of Ukrainian-Finnish cooperation are more preferable than the traditional economic relations between Finland and Russia. Ukraine is a member of the WTO – and that is quite a tangible advantage.

Ukraine is today embarking on the road which the Republic of Finland took in the 1980s when it reduced taxes for individuals and companies and opened its markets for foreign investment, thereby promoting economic upturn through liberalization. We are preparing to accept the most liberal elements in Europe's tax legislation, and we are open to investments in any area, especially the energy sector.

In 2006, when the Ukrainian government was headed by the current President Yanukovich, he gave instructions to design "energy passports" for every region in order to have a clear idea what region was the best in introducing solar, wind and bio energy technologies as well as hydroelectric power technologies for small and medium-sized rivers. Today our Cabinet of Ministers has reverted to this idea, since the objective has been set for our country to make in the next 10 years a qualitative breakthrough in ensuring its energy independence.

In this area Ukraine is placing great hopes on the mutually beneficial cooperation with Finland. To this end all preconditions are in place.

Mykola Azarov

Prime Minister of Ukraine

A look at the EU Strategy for the Baltic Sea

By Johannes Hahn

Almost one year on from the launch of the EU's first 'macro-regional' strategy in the Baltic Sea Region, European Commissioner for Regional Development, Johannes Hahn, takes a look at what has been achieved so far.

The countries bordering the Baltic Sea have always been trading partners. From the Vikings in the early middle ages to the Hanseatic League, their common heritage spans a millennium. Today, following the 2004 EU enlargement, eight of the nine Baltic countries - Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden - are members of the European Union, sharing the 8,000 km of Baltic Sea coastline with Russia. Home to nearly 100 million people, with its well-educated workforce, world-class knowledge-based industries, and a spacious and relatively unspoilt landscape, the Baltic Sea region has an undisputed wealth of potential.

Despite the Region's many assets, challenges persist. A shipping highway but all too often a dumping ground, the quality of the sea has been deteriorating for years. Pollution levels are unacceptable, fish stocks are dwindling and biodiversity is seriously under threat. And whilst environmental degradation may grab the headlines, poor transport links, barriers to trade and energy supply concerns also present major concerns in the region.

The EU Strategy for the Baltic Sea launched last year aims at tackling these challenges. Past efforts were all too often hampered by a lack of effective coordination. That's why we felt the region was ripe to pilot a new way of working across borders. And that's also where partners in the region felt the Commission had a strategic role to play as a facilitator – to look at the big picture for the region and coordinate project leaders from many fields and countries.

Stepping up the economic performance of the region as a whole is a core ambition. The Strategy will help to eradicate the unequal legacy of the past when huge economic, social and infrastructure disparities developed between countries artificially separated for decades by the Iron Curtain. The Baltic Sea Region today includes some of the wealthiest, as well as some of the least prosperous areas in Europe. These disparities in economic development hinder overall performance. Closing the development gap, and exploiting all the benefits offered by the EU internal market with its free flow of people, goods and services, is critical if we are to harness the full potential of the region

This first 'macro-regional strategy' presents a new way of working together, going far beyond existing activities – co-operation across borders but on a grand scale. Without creating new institutions or bureaucracy, the Strategy is looking to draw on the macro-region's many strengths, for the benefit of the whole community. Norway and Russia are also important partners in all of this. Both countries have expressed an interest in participating in the implementation of some of the planned projects.

Although the Strategy does not come with extra finance, substantial amounts of EU funding are already available to the region. The idea is to better use this available support (over €50 billion alone from the structural funds 2007-2013), and align existing resources to the objectives of the strategy. A better coordination of funds, people and organisations across the region will benefit everyone.

One year on, and I am happy to say that we are starting to see some real achievements. New projects are already making a contribution to reducing high levels of pollution in the sea, improving transport systems and energy networks and reinforcing protection from major emergencies at sea and on land. The action plan groups together more than 80 flagship projects under the four big goals of improving the environment, promoting prosperity, increasing accessibility, and developing higher safety and security standards.

One of the major threats to the Baltic Sea is eutrophication – excess nutrients from agriculture and untreated sewage flowing into the water. This is threatening biodiversity. Under the Strategy, farmers' organisations from across the Region have joined forces in a project "BalticDEAL" that aims at reducing agricultural discharges into the sea. New projects on clean shipping have also been developed to address another major source of pollution in this busy international shipping lane – shipping emissions.

Twenty years after the reunification of Europe transport bottlenecks are still a big problem, hampering the flow of goods between the companies in the region. The Strategy is targeting resources on "Green Corridors" to promote a more efficient and sustainable transportation of goods. Efforts to complete big infrastructure projects like Via Baltica and to upgrade harbour facilities have also been given new impetus by the Strategy.

Energy is an important issue for the region. A key goal is energy security, which means proper supply and distribution diversity. Again, the Strategy is moving to boost existing measures in a practical and concrete way, with, for example, the work underway to complete the energy connections between Lithuania and Latvia and the wider region under the Baltic Energy Market Interconnection Plan (BEMIP).

The Baltic Sea region is recognised for its strong knowledge-based economy, with small and medium sized enterprises (SMEs) playing a key role in the innovation process. To help small business get a foothold in bigger markets, the recently launched JOSEFIN project between Latvia, Estonia, Germany, Lithuania, Norway, Poland and Sweden, helps enterprises with financing as they look to expand internationally. The project is introducing a range of practical instruments designed to ensure easier access to finance, including a European counter guarantee and a new risk-sharing model.

The Baltic Sea Strategy has marked the beginning of a new way of working and cooperating across borders. The journey so far has not been all plain sailing – this strategy is the 'first of a kind' and we are trying to tackle a host of complex issues. But we can already see some really positive achievements. A number of concrete projects are already underway and yielding results, and the commitment from partners has been exceptional.

I am convinced that the Baltic Strategy can help to spread expertise and improve the way in which we use the money available. There is much at stake. 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.

Johannes Hahn

Commissioner for Regional Development

The European Commission

Germany – an important player in international Baltic Sea protection

By Norbert Röttgen

The Baltic Sea is one of the most heavily polluted marine areas in the world. There are many reasons for this, but the main threats come from fishery, the discharge of nutrients and hazardous substances, and maritime activities such as shipping. These uses have individual and cumulative adverse impacts on the Baltic Sea and lead to changes which also affect species composition and biodiversity.

It is therefore not surprising that the Baltic Sea region is high on the political agenda. The Convention on the Protection of the Marine Environment of the Baltic Sea Area, first signed by the riparian states in 1974, was revised in 1992 and signed by all the countries bordering the Baltic. The Convention is still the legal basis under international law for cooperation among the Baltic Sea states in the framework of the Helsinki Commission (HELCOM). In November 2007 the environment ministers of the Baltic Sea countries adopted the HELCOM Baltic Sea Action Plan. Based on the ecosystem approach, this plan highlights the pressures on the Baltic Sea and their causes and describes the measures, responsibilities and timeframes required in order to improve water quality and biodiversity status of biodiversity in the Baltic Sea. For decades, Germany has played an exemplary part in the Baltic Sea cooperation. The German government was involved in developing the HELCOM Baltic Sea Action Plan and considers it the foundation for marine protection policy in the Baltic Sea Region.

Since the removal of the divides within Europe, the Baltic Sea cooperation has become a model for macro-regional collaboration. In October 2009 the European Council adopted the new EU Strategy for the Baltic Sea Region – a strategy which particularly focuses on improving coordination and joint action in the area. Cooperation in the Baltic Sea region still hinges on bilateral relations. For instance, the Federal Republic of Germany supports Poland and the Baltic States in their nature conservation efforts and in pursuing ecologically sustainable climate and energy policies. We also participate in a number of transnational lighthouse projects which create leverage and raise awareness for the region among policy-makers and the public. Under the "Baltic 21 EcoRegion[1]", for example, we support the aim to make the Baltic Sea an "ecoregion" in which the economy can develop while taking environmental and resource conservation needs into consideration. In this context, the local Baltic 21 Agenda is an excellent example of transboundary cooperation on environmental issues. Other initiatives deal with the development of a transboundary climate adaptation strategy, or support the sustainable management of marine resources in the Baltic Sea Region.

Although the Baltic Sea Strategy is an EU strategy, it is clear that many projects cannot fully succeed unless all the immediate neighbouring countries are involved.

The German government furthers its goals by taking part in multilateral cooperation fora. The Baltic Sea Council, which Germany had a particular part in founding in 1992, has proven its worth as a bridge to understanding among the Baltic Sea states. The Council provides impetus for implementing the aims of the Northern Dimension of the EU, which include strengthening cooperation with the Russian Federation. Involving Russia in activities for the protection of the Baltic Sea is very important for us. Since 2006 we have supported environmental projects under the Northern Dimension Environmental Partnership (NDEP) Fund, providing credits and loans for measures to combat environmental problems in North-West Russia, including Kaliningrad. Our projects include improving the quality of wastewater treatment plants or promoting the installation of such systems where they are still needed. A nationwide wastewater treatment system which complies with technical requirements significantly helps to protect water bodies – and consequently to protect the Baltic Sea – as efficient wastewater management can substantially reduce excessive discharge of nutrients into the water. Germany also supports waste-related projects and the modernisation of municipal heat supply systems.

From an economic point of view, the Baltic Sea Region represents a European growth market of the future. Although the Baltic Sea connects the Region, a clear divide nevertheless exists between the affluent, highly innovative North and West and the still developing East and South. The differences between regions of the EU where innovation most thrives – the Nordic countries and Germany - and regions which have well-educated young people but only fragmented infrastructures - Poland and the Baltic States - are starting points for jointly working towards the introduction and use of green technologies and eco-innovations and improving the competitiveness of SMEs.

A reliable energy supply for the Baltic Sea countries is also vital for the economic development of the Region. The signing of the Memorandum of Understanding on the Baltic Energy Market Interconnection Plan (BEMIP) was a first step towards better integration of the Baltic region into the European grid. Neither energy policy targets nor politically agreed climate protection goals can be achieved at a higher level without commitment at regional level. We are helping the region to provide its own energy from with alternative sources and to develop the framework conditions needed to motivate the local population and companies to become involved. Ultimately, this will promote the expansion of decentralised supply systems, strengthen regional value added and support local management.

The joint efforts for the protection of the Baltic Sea have delivered some undeniable successes. As the very welcome economic development of the Baltic Sea Region progresses, however, the challenges will become more and more serious. The German government will use its upcoming presidency of the Baltic Sea Council to consistently forward the protection of the Baltic Sea with targeted measures. The Baltic Sea Region is proof that economic success and climate-friendly development can go hand in hand.

A safe and clean Baltic Sea, an economically strong and innovative Baltic Sea region, stable societies based on social responsibility, and a future-oriented and sustainable cooperation network which works closely with Russia: these are the ingredients for successful development of the Baltic Sea Region.

Norbert Röttgen

Dr., Federal Environment Minister

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Germany

[1] INTERREG Project"EcoRegion" led by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 2009-2011

The EU-Russia modernisation partnership – what's in it?

By Knut Fleckenstein

Modernisation has become the new buzzword since the Russian President launched his big modernisation campaign in November 2009 when publishing his article "Go Russia!" in a Russian online newspaper. He later reiterated his main ideas in his second annual state-of-the-nation address to the Federal Assembly.

Russia is looking back onto a long list of famous modernisers and reformers, the most prominent being probably Peter the Great. He initiated a radical reform agenda when he undertook to completely change his compatriots' lifestyle and turn them into Europeans. Today's Russia is not perceived as being far from its other European partners anymore. On the contrary, trade and economic relations have become so close that economic disturbances in the EU or Russia almost immediately affect the respective other partner. For the EU, Russia is the third most important trade partner, after the United States and China. Russia is also one of its main energy suppliers. As for Russia, almost half of its imports and exports are with the 27 EU member states.

When talking about the need of modernisation, the Russian President stressed the necessity of economic diversification. Due to the financial crisis and its economic repercussions, it has become more than obvious that Russia, by mainly basing its economic growth on revenues from its natural resources, has built its economic progress on an unstable ground. In order to gain more independence from developments on the oil and gas market, Russia has to diversify its economy. Other areas of interest to a comprehensive modernisation have been added quickly: technological development, financial sector reform, infrastructure investment and social policies.

At the second last EU-Russia summit in Stockholm in November 2009 the Russian President Medvedev and the President of the European Commission Barroso spontaneously agreed that the EU would lend its support to Russia's modernisation project. Maybe, the EU draw some inspiration from its recent 2020 Strategy which defines political priorities for the next decade in order to make the EU more fit for global competition but also more social towards its citizens.

As always, the devil is in the detail: When trying to agree on concrete modernisation projects which could be implemented by the EU and Russia jointly, different understandings of the term 'modernisation' appeared. While Russia seems to centre its modernisation around the economy, EU member states quickly adopted the point of view that modernisation should also touch upon the civil and social sphere.

Indeed, it seems obvious that a sustainable modernisation can only be reached by modernising not only the economy itself but also its social environment. Modernisation is an extremely comprehensive objective which cannot succeed without modernising the framework conditions for doing business. For example, the state must encourage the private sector to undertake innovation, to invest, to take entrepreneurial risks.

The challenge of modernisation does not lie in the missing political resolution which has been expressed by the Russian President at many occasions. A successfully modernised economy needs a stable and efficient framework for its activities: rule of law, control of red tape, fight against corruption, energy efficiency as well as strong human resources and free entrepreneurship.

However, modernisation is not a topic for Russia alone. Therefore the partnership for modernisation between Russia and the European Union would serve the interest of both partners. Whereas negotiations on a new cooperation agreement between the EU and Russia are currently advancing only very slowly, the partnership for modernisation would allow doing some small steps forward in the meantime.

The interest of the EU-Russia modernisation partnership lies in the fact that it is a very pragmatic tool presenting several advantages: It can help to re-establish confidence and reliability in the cooperation between the two partners and it can contribute to reaching concrete and visible results which would benefit the citizens.

Thus the modernisation partnership can be used not only for modernising one partner but also for modernising the relations between the two of them. The EU and Russia should seize this opportunity and take it as a starting point on their way away from a purely declaratory strategic partnership. If the end result of the partnership for modernisation were cooperation on concrete terms - beyond all declarations and on the basis of common interests and values - this would surely give a boost to the general relations between Russia and the EU.

Knut Fleckenstein

Member of the European Parliament

Chairman of the Delegation to the EU-Russia Parliamentary Cooperation Committee

New energy development in the Baltic

By Bruce J. Oreck

The nations of the Baltic Rim share a rich history and throughout that history the Sea has been the tying bond, channeling commerce and culture among the bordering states. But today the economic vitality of the entire region is at a crossroad. The health of the Sea itself and the viability of the communities that lie along its coastlines depend upon the choices we must now make as we reinvent our energy future.

For decades scientists have studied the consequences of our use of precious fossil fuel resources and that science is now clear and compelling. Whether considered from the effects of fertilizer run-off, the rising CO2 concentration in our atmosphere or simply the economics of imported energy, there can be no doubt that our relationship with hydrocarbon based fuel sources must be reinvented.

Now there are those who look at this great challenge and argue it is too difficult. They conclude that we must hold fast to business as usual. But the reality is that no matter how hard we grip the present, change is coming. And this change, the new energy evolution, presents the single greatest economic opportunity in our history. Moreover, this new energy paradigm will dramatically benefit the community of Baltic Rim nations.

Perhaps the easiest way to evaluate this last statement is to look at the direct cost of imported energy. Here are a few general "rules of thumb:" Eighty cents of every Euro spent on imported energy leaves the spending nation and never returns. Conversely, every Euro saved through energy efficiency or self produced renewable energy remains in the national economy with an average positive multiplier effect of five Euros. Since the Baltic Rim countries are currently spending close to 80,000,000,000€ per year importing fossil fuels, it is easy to understand just how immense the financial benefits of a successful local clean energy economy are.

The indirect benefits of the realignment of our energy portfolio are equally compelling. As the world continues to economically "flatten," nations, including those on the Baltic Rim, have experienced large scale dislocations in many of their traditional industries. Manufacturing jobs and capital have, predictably, moved towards countries with lower labor costs. And there is little to indicate that trend will slow down. Yet there is a vast new local job market associated with the clean energy economy. Whether it is from retrofitting the built environment to be more energy efficient or from large scale infrastructure projects such as building smart grids, the opportunity to redefine and revitalize domestic economies is immense. Study after study in the U.S. has demonstrated that investments in energy efficiency, sustainable business practices and renewable energy can be immensely and immediately profitable.

In the United States we have seen a return to old fashioned American ingenuity. Citizens, cities and states have aggressively and successfully embraced the new energy paradigm. Clean energy programs currently being used in the U.S. can be effectively transferred to the Baltic Rim region. And technology created through European innovation is being used to assist our own clean energy efforts. Throughout the United States there are programs underway that mirror clean energy efforts in the Baltic. The U.S. may even have a role to play in the environmental challenge to the Baltic Sea itself. Successful, cost effective environmental efforts in the U.S. that have helped to restore our Great Lakes, the Hudson River and the Chesapeake Bay may prove to be useful models for similar efforts in the Baltic.

Often times the best role the government can play is facilitator of policy and innovation; to open the doors of possibility and exploration, and to let entrepreneurs lead the way. A powerful example of this approach is President Obama's Executive Order on Sustainability – a governmental mandate that sets the course, but which empowers the individual and the business community to find the best solutions. This same entrepreneurial spirit is being unleashed throughout the Baltic economies.

Ultimately of course, or futures are tied together. The success of each of us depends on the success of all of us. Now more than ever, the opportunities of our bilateral relations are the best path towards a prosperous future. As President Obama has so often spoken about, the Atlantic Ocean does not separate us from Europe, rather like the Baltic itself, it ties us together.

Ambassador Bruce J. Oreck

Embassy of the United States of America

Helsinki, Finland

The relations between Finland and Ukraine in 2010

By Christer Michelsson

The relations of Finland, EU-member since 1995, with any third country nowadays are not only bilateral. EU-Ukraine relations are by definition a part of the relations of any EU member country with Ukraine. I shall therefore touch upon both. But first a glance at history. - Why? Because there are many similarities, but also differences, are useful in explaining the present situation.

Both Finland and Ukraine are rather young nation states, with a national awakening only in the 19th century, after having been part of one (in the case of Finland) or many (in the case of Ukraine) empires. The difference, from a Finnish point of view, lies in the 600 years of being a part of the Sweden. More than a hundred years ago also the societal structure was similar. Agriculture was the most important livelihood for both populations. Also from a language point of view one finds similarities. Finnish and Ukrainian were spoken in the countryside by the lower classes, while the cities were language-wise more varied (Swedish and Russian were spoken there in the case of Finland, Polish, Russian, Yiddish, German and other languages in the case of Ukraine). Another similarity: After the First World War Finland and Ukraine became independent, but Ukraine lost its independence very soon and only regained it after the collapse of the Soviet Union. Finally, both countries have a long border with the same neighbour, Russia.

Now Finland is an affluent EU member state since 1995, with long traditions of self-determination, with a high living standard and pretty equal diffusion of wealth. Ukraine, on the other hand, is a so-called emerging economy, with a big and varied raw-materials base and at the same time a country of huge, but for the time being still underutilized, possibilities.

Bilateral relations

On the bilateral level relations between the countries are good. The exchange of high-level visits has been on a pretty good level, with the presidential visit to Kyiv in 2009, the visit of Foreign Minister Stubb to Ukraine in the summer of 2010 and the Prime Minister of Ukraine, Mykola Azarov, to Helsinki in the beginning of October 2010. Trade has good potential. After a steady growth in trade until the world crisis hit and consequentially there was a drop in trade (by a third) as well. Finland and Ukraine are similar also in the respect that they are export-dependent countries.

Investment between the countries is low, due to many reasons. Until the end of the year investments from Finland amounted to only 72 million euro. An important area in this regard is the building material sector in a wide sense (sanitary ceramics, roof profiles and steel surfaces, paints).

EU-Ukraine relations

Then a few remarks on the EU-Ukraine-relations, which are as important as bilateral relations. From Finland's point of view this is more than clear, as integration into the central economic arrangements of the world and of Europe made all the difference for the economy of Finland.

A basic reason for Finland being successful is to be found in our history of integration and the consequences of it. After the Second World War Finland's economy has developed and diversified, because of integration: GATT in 1956, an arrangement with EFTA in 1961 and a full membership in 1986, a free trade agreement with EEC (and SEV) in 1973, membership in the European Economic Area in the late 1980ies and finally membership in the EU "after 18 months of rigorous negotiations", as our Foreign Minister put it in Kyiv, in 1995. For Finnish-Ukrainian relations this also means that many aspects of them are now resolved on the axis Brussels (not Helsinki) – Kyiv.

For Ukraine's part the prerequisites to integrate, and thus to enhance and broaden its relations with the European Union, are there. Ukraine joined the WTO in 2008, signed a free trade agreement with EFTA in 2010 and is now negotiating an Association Agreement, part of which consists of a so called "deep and comprehensive" Free Trade Agreement. The negotiations are hard and thorough, as they concern most of the key facets of economic life. We hope that progress shall be made, in order to make a signature of a FTA possible in 2011. In the EU-Ukraine negotiations the topic is, of course, that if and when Ukrainians are let into the single market, the same rules should and shall apply for all.

An important element of this integration is the enhancement of people-to-people contacts. Finland supports the goal of visa free travel from Ukraine to the Schengen countries, when the time is ripe. Now an Action plan, comprising steps which have to be taken in order to attain that goal is being discussed, for instance the passports have to be secured and borders demarcated and well guarded. Travel opens eyes. - Before visa liberalisation is possible, visa facilitation procedures are, however, a good way forward. Examples: Finland opened its Visa Application Center in Kyiv on 15 October – with the aim of making the applying of visas easier and more comfortable. Another one is that of the visas Finland issues to Ukrainians (in 2008: 12.500, in 2009, the year of the crisis: 10.700), more than a quarter are already free.

The overarching question in both trade liberalization and people to people contacts, is, of course, the adaptation and implementation of internal rules and external agreements of Ukraine to existing legislation and regulations in the EU. Timeframes for adaptation are possible to negotiate, permanent changes to the internal market rules are not.

In Foreign Minister Stubb's words in his speech at the Institute of World Politics in Kiev in July 2010: "Ukraine's path within European integration is not only theoretical, it is real. The association agreement is linking the Ukrainian state to the EU; the free trade agreement is linking the Ukrainian economy to the EU; and the visa free regime is linking the Ukrainian population to the European Union."

Conclusions

In spite of the above said there is still a plethora of possibilities, still underutilized, in many fields. I'll mention but a few:

- in the economic sphere the energy saving, as well as district heating systems and waste management
- In the political and social sphere examples like gender equality as well as local democracy are worth to study further.
- people to people contacts, in both directions. Ukrainians have already found Lapland in winter and the possibilities of the Lake District in the summer. Finns, on the other hand, have still many things to discover or re-discover, like the beauty of the Carpathians and Crimea, as well as the cultural riches of Ukrainian cities like Kiev, Lviv and Odessa.
- Ukraine has its rich black soil, Finland has its technology.

Christer Michelsson

Ambassador of Finland to Ukraine

Baltic Sea Region Task Force on organised crime

By Mikko Paatero

1. Background of BSTF

BSTF was created in 1996 by the Heads of Governments in order to establish a platform for cooperation between the law enforcement authorities of the participating states and strengthen the fight against organised crime in the Baltic Sea Region. BSTF is a supreme separate body consisting of personal representatives of Heads of Government. The mandate given by the Heads of Government to BSTF has subsequently been prolonged and is currently valid until the end of 2016.

The rotating Chairmanship has been with Sweden, Denmark, and Finland. Since 2007 the Chairmanship has been with Estonia and the following countries have agreed to take over the future Chairmanships: Lithuania (2011-2012), Norway (2013-2014) and Russia (2015-2016).

Personal representatives of the Heads of Government, forming the strategic part of BSTF, took responsibility to reinforce regional cooperation for direct and concerted action to combat organised crime. Operational measures have been the responsibility of operative meetings (OPC), serving as multidisciplinary expert committee, meeting more frequently and reporting directly to strategic level of personal representatives of Heads of Government. Operative actions have been carried out by ad hoc groups of experts on certain fields of crime.

2. Mission

The Baltic Sea Task Force (BSTF) supports the participating countries, their Governments and law enforcement authorities in delivering a coordinated overview and initiation of activities to meet both the operational and political needs in preventing and combating organised crime in Baltic Sea Region. In this role BSTF shall complement already existing cooperation-structures.

3. Goals and objectives

The BSTF cooperation should complement the work already done in other forms of and be a main regional facilitator. EU has recently enlarged a lot and is at present a union of 27 countries, countries with different histories and cultures and that is why close regional co-operation is seen to be very important and valuable.

However, the BSTF structures should never overrule or steer the way each country behave in other cooperation forms. The role of the BSTF is to focus on ensuring that such cooperation is regionally coordinated and identify and address areas where other forms of cooperation does not fully meet up with the regional priorities and demands. This does of course not prevent that the platform can be used to find and discuss a common regional approach in the work performed at the abovementioned cooperation forms.

The BSTF work have to continue striving for a closer cooperation with Russia, being very important non-EU member state of the task force in the region.

One key factor, giving the BSTF cooperation an added value in relation to many other existing structures, is the multidisciplinary approach. The BSTF structures give the possibility to join the knowledge of all crime-fighting authorities in the region, including police, customs, border guard and the judicial cooperation, thus giving it a unique opportunity to develop and discover new methods to fight organised crime.

4. Purpose of the new BSTF Strategy

The current strategy faces the ambition to update the BSTF cooperation to the institutionalised development in the region. The current focus on cooperation within the Baltic Sea region – recently reinforced also with the EU Baltic Sea Region Strategy directly linking to BSTF in implementing security measures – together with the need coming from the increased movement and internationalisation of organised criminality, motivates a continued effort to meet regional challenges at a regional level.

If the rationale for the establishment of the BSTF was the need to strengthen cooperation and the need to create a framework, today we have a situation with many different initiatives. In this aspect, the BSTF plays a vital role ensuring a common regional response to the ever changing international environment. This offers the BSTF a unique opportunity to become a flagship by building bridges between operational needs and political expectations, taking into account national and regional aspects.

5. EU Strategy for the Baltic Sea Region

The EU Baltic Sea Strategy was introduced by the European Commission and adopted by the European Council October 2009. The action plan of this strategy comprises 15 priority areas which represent the main areas where the strategy can contribute to improvements either through tackling the main challenges or through seizing the main opportunities. The priority areas are organised into four thematic pillars of which one is “to make the Baltic Sea Region a Safe and Secure Place”. Priority area 15 belongs to this pillar and is titled as “to decrease the volume of, and harm done by, cross border crime”. Co-ordinators of this priority area are Finland and Lithuania.

It is agreed by the Baltic Sea States that actions which are part of this priority area are going to be implemented by the BSTF as already existing regional and multidisciplinary body. This choice of implementation gives BSTF co-operation even more added value.

Finland has always been an active supporter of BSTF co-operation and will continue to provide the incoming chairmanships and the regional strategy all the possible support and assistance.

Mikko Paatero

National Police Commissioner, Chief of the National Police Board

Finland

The main environmental challenges of the 2010's in the Baltic Sea region

By Jacqueline McGlade

Much of the freshwater pollution and discharges from the ships end up in the sea. In particular, nutrient enrichment is a major problem in the marine environment, where it accelerates the growth of phytoplankton. It can change the composition and abundance of marine organisms living in the affected waters and ultimately leads to oxygen depletion, thus killing bottom-dwelling organisms. Oxygen depletion has escalated dramatically over the past 50 years, increasing from about ten documented cases in 1960 to at least 169 in 2007 worldwide [1]; and it is expected to become more widespread with increasing sea temperatures induced by climate change. In Europe, the problem is particularly evident in the Baltic Sea, where the current ecological status is regarded as predominantly poor to bad [2].

The marine environment is also heavily impacted by fisheries. Fish provide the primary source of income for many coastal communities, but overfishing is threatening the viability of both European and global fish stocks [1]. Despite less than in other European seas, 21 % of the assessed commercial stocks in the Baltic Sea are beyond safe biological limits. Overfishing not only reduces the total stock of commercial species, but affects the age and size distribution within fish populations, as well as the species composition of the marine ecosystem. The average size of the fish caught has decreased, and the consequences of this for the marine ecosystem are still poorly understood, but could be substantial.

Environmental policy in the European Union and its neighbours has delivered substantial improvements to the state of the environment. Reduced number of pollution hotspots is a good example from the Baltic Sea region. However, major environmental challenges remain, which will have significant consequences for Europe if left unaddressed.

What differs in 2010, compared to previous environmental assessments, is an enhanced understanding of the links between environmental challenges and the human-made systemic risks and vulnerabilities which threaten ecosystem security, and highlight the shortcomings of governance. Responses include prevailing vision of Baltic Sea as an ecosystem that requires common management and governance, recently promoted by EU Strategy for the Baltic Sea Region.

The prospects for Baltic Sea environment are mixed but there are opportunities to make the environment more resilient to future risks and changes. These include unparalleled environmental information resources and technologies, ready-to-deploy resource accounting methods and a renewed commitment to the established principles of precaution and prevention, rectifying damage at source and polluter pays.

Continuing depletion of stocks of natural capital and flows of ecosystem services will ultimately undermine economy and erode social cohesion around the Baltic Sea. Most of the negative changes are driven by growing use of natural resources to satisfy production and consumption patterns. There is a need to move from exploitation of Baltic Sea resources to learning to live with the sea and reduce significantly current environmental footprint.

The Baltic Sea is already experiencing effects of climate change. Countries around it are reducing their greenhouse gas emission and are on track to meet their commitments. However, greater efforts are needed to put in place for adaptation measures and increase resilience of societies around the sea. In particular, there is a need to address the consequences of possible weakening water exchange with the ocean, effects of rising sea water temperatures on ecology of the sea, as well as increasing coastal erosion impact and introduction of alien invasive species.

Extensive network of protected areas and programmes is established to preserve nature and biodiversity of the Baltic Sea. However, geographical and oceanographic conditions, pressure from resource use and pollution is resulting in degradation of the Baltic Sea ecosystem as a whole and eventual loss of natural capital in the Baltic region. To improve the situation we must prioritise biodiversity and ecosystems in policymaking at all scales, particularly addressing agriculture, fisheries, maritime transport as well as regional development, cohesion and spatial planning on land and sea.

Environmental regulation and ecoinnovation have increased resource efficiency in the Baltic region and waste streams are substantially curbed. However, high intensity of resource use is here combined with exceptionally fragile ecosystem of enclosed and shallow basin of the Baltic Sea. This creates extra requirements for the waste discharges in to the sea, up to near- zero emission rates as progressively applied to passenger ferries operating on the Sea. There is also a role for altering consumption patterns to reduce environmental pressures.

Water pollution have declined but not enough to achieve good ecological quality in all water bodies of the Baltic sea catchment. Widespread exposure to multiple pollutants and chemicals and often unknown combined effects raise concerns about long-term damage to human health require the use of precautionary approaches.

The notion of dedicated management of natural capital and ecosystem services is a compelling integrating concept for dealing with environmental pressures from multiple sectors. Spatial planning, resource accounting and coherence among sectoral policies implemented at all scales can help balance between the need to preserve natural capital and use it to fuel the economy. A more integrated approach of this sort would also provide a framework for measuring progress in restoring the health of the entire Baltic Sea ecosystem.

Increased resource efficiency and security can be achieved, for example using extended life cycle approaches to reflect the full environmental impacts of products and activities. This can encourage sustainable use of local resources and promote innovation. Pricing that takes full account of resource use impacts will be important for steering business and consumer behaviour towards enhanced resource efficiency.

Promoting transboundary cooperation and clustering sectoral policies according to their resource needs and environmental pressures would improve coherence, address shared challenges efficiently, maximise economic and social benefits and help avoid unintended consequences. There is a role for shared information and surveillance systems that target safety across the whole Baltic Sea.

Implementing environmental policies and strengthening environmental governance will continue to provide benefits, as already demonstrated by the Helsinki Convention on the protection of the Baltic Sea. Better implementation of sectoral and environmental policies will help ensure that goals are achieved and provide regulatory stability for businesses.

A broader commitment to environmental monitoring and up-to-date reporting of environmental pollutants and wastes, using the best available information and technologies, will make environmental governance more effective at all administration levels. This includes reducing long-term remediation costs through early action.

Transformation towards a greener economy will ensure the long-term environmental sustainability of Baltic sea region as part of Europe and its neighbourhood. In this context, shifts in attitudes will be important. Together, regulators, businesses and citizens could participate more widely in managing natural capital and ecosystem services, creating new and innovative ways to use resources efficiently and designing equitable fiscal reforms.

Using education and various social media, citizens can be engaged in tackling common issues such as restoring the Baltic Sea ecosystem to a good environmental status.

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Economic Forum in Krynica, Poland – 20 years of rethinking the world and boosting the region

By Zygmunt Berdychowski

20 years that have passed since the Economic Forum in Krynica has been initiated. Held annually at the beginning of September, it became a highly recognized event in Central and Eastern Europe. Throughout the years it has reflected dynamic transformations that have taken place in this part of Europe. At the beginning, it was a small conference dealing with regional issues. Then, as Poland was making its way to the European Union structures, more and more executives and experts appreciated the role of the Economic Forum. It appeared that some regional topics need a deeper insight, that there is a strong need for meetings and networking between decision-makers in the region. We, the organizers, believe that the effective state and local government administration is essential for the reforms' implementation in the countries in transformation. In order to achieve the strength, one needs to understand the importance of cross-sectoral and cross-disciplinary dialog.

Nowadays the agenda of the Economic Forum in Krynica consists of nearly 120 debates, divided into 10 topical blocks such as: Macroeconomics, Business and Management, Energy Forum, New Economy, International Policy and Security, State and Reforms, the EU and its Neighbours, Forum of Regions, Society, Education and Culture. Besides debates, the Forum agenda also includes an attractive cultural programme and a range of recreational events.

The Forum's mission is to create a favourable climate for the development of political, economic and academic cooperation between the EU and its neighbours. While fulfilling its mission, the Forum remains independent and impartial. Over 2000 guests from 60 countries, including representatives of states, governments, parliaments, EU institutions, heads of central banks, stock exchanges and government agencies, intellectuals, scientists and business people, arrive to the hilly resort in the south of Poland.

Krynica emerges as a voice in the debate on the future of Europe. The meeting concept was extremely successful, and proved that multilateral discussions between people from different spheres of activity are essential for the social development. In fact, the most important decisions are influenced not only by political and economic leaders, but also by intellectuals, social activists and, last but not least, journalists. The continuing development of the Forum in terms of both the increasing number of participants and the scope of the agenda provides the best answer to the question about the measurable effects of the meetings organized so far.

This years's Forum was opened by the discussion dedicated to the Treaty of Lisbon. The session hosted by Jerzy Buzek, the President of the European Parliament, presented the views of politicians: Jose Manuel Barosso, President of the European Comission; President of Poland, Mr Bronislaw Komorowski; President of Estonia, Toomas Hendrik Ilves; Thomas de Maiziere, Federal Minister of Internal Affairs, Germany, and businessmen: Esko Aho, Vice-President, Nokia Corporation; Juergen Fitschen, Deutsche Bank and Filip Thon, RWE Polska.

The financial crisis showed us how much we have to depend on each other in Europe and worldwide – said Barroso. – The debt of one country can have an influence on whole Europe. We have to think globally – added Mr Barroso. He also emphasized that the Treaty combined many policies at one time. – This means that we need more significant combination of different policies, e.g. fiscal consolidation and structural reforms – he said, adding that Europe needs new growth stimulus. – The EU economic strategy for the next 10 years – EU 2020 – is more flexible and complex than the previous (Lisbon) one; it combines the macroeconomical reforms and the extention of the external market – said Jose Manuel Barroso. He stated that no one in EU had any doubts about the level of the member states' economic independence. – Currently, we are more conscious about the needs in order to act in the European and global manner. It was different in 2000 when the Lisbon strategy was being developed – underlined the President of European Comission.

Another important aspect that was addressed during the session related to solidarity.

– We believe that solidarity as a foundation of the European Union's values (…) in the future may lead to finding the answers for the new challenges, but in the spirit of the joint responsibility – said Bronisław Komorowski, President of Poland.

Diversity, rank and the record-braking number of guests this year prove that the meeting concept we chose has been successful.

www.economic-forum.eu

Zygmunt Berdychowski

Chairman

Economic Forum Programme Council

The EU Strategy – keep focus on green and smart growth in the Baltic Sea Region

By Hans Brask

From Strategy to Action: Fleshing-out a growth agenda

By launching the Strategy for the Baltic Sea Region, the EU and the EU countries of the Baltic Sea region are addressing the many problems and opportunities of the region. Very impressively, more than 75 flagship projects are part of the new macro-regional approach covering almost all sectors.

Critical questions have, however, been raised as regards the need to have more *focus* on the areas that will offer the highest economic return on investment from cross border cooperation and thereby reduce the number of priority areas. The engagement of the private sector is regarded as another critical issue for economic success and development of the region. Therefore a further crucial question is how the EU-Strategy can be fleshed-out to achieve benefits for industry and business in particular?

Baltic Development Forum (BDF) has tried to answer these questions by presenting the report 'Going for Green Growth in the Baltic Sea Region - Policy Recommendations for Regional Co-operation'. Commissioned by BDF and sponsored by Danish Industry Foundation, the consultancy company Copenhagen Economics has compiled a number of recommendations on how to revitalize the economy and the drivers of competitiveness. In a concise manner, the report points to the areas on which decisions-makers need to focus in order to promote growth that is both green and smart, without putting further pressure on public sector spending. The intention is not to disregard the thorough elaboration process of the EU strategy but to increase focus.

Stakeholders input

As always, BDF has worked together with different stakeholder groups of the region – business, politics and academia – in order to bring about the relevant policy recommendations. Several roundtable discussions have been carried out. The report builds on the outcome of these discussions and on the many analyses on the region that already exist.

The policy recommendations were presented at the BDF Summit in Vilnius 1-2 June 2010 which invited the political and industrial elites of the region: all the Heads of Governments of the Region and the Nordic and Baltic confederation of industries and the employers' organizations participated as well as President of the European Commission, José Barroso. The main theme of the discussion was the link between the EU strategy and the new Europe 2020 guidelines for green, smart and inclusive growth. The EU strategy could develop into a regional version of the Europe 2020 because the Baltic Sea region has a fair chance to be a EU-frontrunner in the future growth markets.

The Summit had a useful discussion on the policy recommendations, and the many CEOs of the business organizations in the region underlined the importance of the regional initiatives and of the EU strategy. This was an important achievement but further work is needed in order to get the private sector more involved.

Recommendations

Further improvement or deepening of the EU's internal market in a regional context was at the centre of the discussion at the Summit. Four priority areas were identified in the report where the Baltic Sea Region could benefit from joint regional initiatives in order to boost sustainable growth.

Innovation. Fragmented and nationally-focused research institutions and networks should join forces in order to create critical mass by pooling researchers and competences and to provide the conditions for international competition for funding. The region and its business has competitive advantages in energy, life sciences and environmentally smart technologies and these areas therefore need to be prioritized with a particular focus on research, investment and cross-border cooperation. Measures to ease the free movement of talents, student grants and tuition costs for students travelling abroad would speed up knowledge transfer, create a competence pool and improve international competition.

Energy and Climate. In the years to come energy policy will be the main driver for further European and regional integration. The Baltic Sea region has favorable preconditions to be at the forefront and to benefit from this development. Improvements in energy politics can provide better prerequisites for greener growth. Regional actors need to specialize and choose the lowest cost approach to ensure savings and optimization for the whole region. Moreover, co-operation on the regulation of electricity and gas markets would also benefit the region.

Sustainable Transport. Due to geographical preconditions, the industry of the Baltic Sea Region has higher transport costs because they have to cover longer distances to customers and suppliers on larger markets, and consequently they have higher CO2 emissions. Forecasts predicting an increase in freight flows accentuate the need for solutions that are in line with green growth targets. Focus should be on improving the efficiency and flexibility of the transport system, including green corridors.

A Digital Internal Market. An internal market without hindrances in the EU is essential for the small economies of the region and therefore pressure should be put on making constant improvements. One area to focus on should be a well-established internal market for digital services. The region has strong competences in this sphere and would gain a competitive advantage from a deepening of this area. Enlargement and enforcement of the digital market could provide the region with a more stable position from which to compete with other global leaders.

To sum up, the EU strategy would profit from an integrated approach with the Europe 2020 development. The region has a lot to gain from advancing the future oriented growth areas. The strategy needs a clear private sector orientation in order to achieve these advantages. Additional benefits would be a better dialogue with the business sector. Last but not least we need to keep a clear focus on the growth agenda and common goods. Thereby the EU strategy will become a long lasting document relevant for all stakeholders. For reading the entire report – which also underlines the economic importance of Russia – see www.bdforum.org.

Hans Brask

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European imbalances and Baltic region growth potential

By Jaakko Kiander

The global financial crisis which broke out after the fall of Lehman Brothers in September 2008 hit all European countries. Most of them suffered from output losses, and many had serious debt problems which led to banking crises. The Baltic Rim economies were not insulated from these developments. To the contrary, Russia, Finland and the three Baltic countries were hit especially badly. Output losses in the Baltic countries were the biggest in the world, close to 20 percent of pre-crisis GDP. Also in Russia and Finland GDP fell by 8 percent in 2009 – a figure that was double the average European GDP loss.

There were special reasons for the bad luck of these countries. The Baltic countries had enjoyed a period of rapid debt-financed growth before the crisis. House prices and household debt levels increased a lot and the foreign indebtedness of these countries grew to exceptionally high and clearly unsustainable levels until 2008. The current account imbalances of these countries were record high (more than 10 percent of GDP), and it was clear that some kind of adjustment was necessary. The sudden outbreak of the financial crisis meant that the adjustment was quick and drastic. In order to maintain their fixed exchange rates and currency board systems the Baltic countries were forced to adopt a harsh deflationary policy, which depressed the economies and lowered living standards in 2008-2009.

Russian economy suffered from the collapse of oil and gas revenues when the world market prices of these important export products decreased. The Finnish economy was a victim of unfavourable changes in export demand and exchange rates. Of other Baltic region economies, Sweden and Germany saw a sudden drop in their exports, and consequently suffered large output losses. It was ironic, that many countries that had nothing to do with the financial crisis which started in the Wall Street finally experienced bigger output losses than the US and UK economies. The economies located around the Baltic Sea belonged to that group.

However, the output losses of these countries do not indicate that the Baltic Rim economies were in deep trouble or that they had serious structural problems. In fact, most of them were pretty healthy in most respects: they were on the right side of the European imbalances.

Global and intra-European imbalances

It is already widely recognized that the global financial crisis was caused not only by the bankers' excesses but also by large and persistent structural imbalances in world trade. The most well-known of these was the trade between China and the USA, where China had a large surplus. However, there was also another intra-European imbalance of the same size. The European economies could be divided into deficit and surplus countries. The former group consisted of the Southern European countries (Greece, Spain, Portugal and Italy), Western islands (Ireland and Britain), the Balkan and Baltic countries (Bulgaria, Romania, Lithuania, Latvia and Estonia) and Hungary. All of these economies were running large and unsustainable current account deficits until 2008. The private sector actors of these countries were financing their investments and consumption by borrowing money from the banks, which financed the lending by using the savings of surplus countries. This build-up of debts had to stop, and these countries are now facing a long period, when they need to increase net savings. In many countries – like in Greece, Spain and Ireland – this will happen through a major fiscal tightening (i.e. higher taxes and spending cuts). These austerity measures will also slow the rate of economic growth for many years, and that is why the 2010s will be a hard time in these countries.

These is also another group of economies in Europe which can be labelled as 'surplus countries'. These form a geographically (and even culturally) unified group. It consists of Germany and its neighboring countries (the Netherlands, Austria and Switzerland), and the Nordic countries (Norway, Denmark, Sweden and Finland). Most of them have connections to Baltic Rim. The total current account surplus of these countries is spectacular, about 400 billion USD. It is much larger than the Chinese 300 billion surplus.

The Northern European current account surplus means that there is a huge spending potential. It is also an indication of good competitiveness. The Northern European economic do not suffer from a debt hangover (like the Mediterranean economies), and that is why they do not need any financial tightening. Hence it is more than likely that somehow this economic potential will transform to greater prosperity and investment in Baltic Rim countries in the 2010s. The potential of increased aggregate demand and economic growth in the Baltic Rim will be reinforced also by the strength of the Russian economy and by the fact that the Baltic countries were quick to solve their debt problems.

One can expect that the economic growth will be fastest in Russia and in the Baltic states in this decade. The more mature economies of Germanic and Nordic countries will also be able to maintain sustained growth because of their good financial balance, competitiveness and high productivity levels. It is likely that the Baltic region will see the strongest economic performance in Europe in the 2010s.

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Towards NATO's new Strategic Concept

By Klaus Wittmann

The North Atlantic Treaty of 1949, NATO's founding document, finds its concretization in the Alliance's Strategic Concept, constantly reviewed and periodically updated. The Treaty remains valid, but the 1999 Strategic Concept has for some years been overtaken by developments. In this awareness, NATO's 60th - anniversary Summit in April 2009 at last commissioned a new one and tasked the Secretary General with its preparation.

The new basic document is to be agreed at the upcoming NATO Summit meeting at Lisbon on 19/20 November this year. It should be an evidence of the Alliance's continuing relevance in a greatly transformed and dynamically changing security landscape, and convincingly explain NATO's identity, legitimacy and efficiency. In view of the demanding Afghanistan mission, divergent positions in salient areas and great financial constraints, the new Strategic Concept should *re*commit Allies to the common cause.

NATO's Secretary General, Anders Fogh Rasmussen, tackled his task in an "inclusive and participatory approach" and "interactive dialogue with the broader public". He established a Group of Experts, chaired by former Secretary of State Madeleine Albright, which, after an intense series of seminars and consultations, on 17 May 2010 presented its Report. It contained many good thoughts, but was not very innovative. That it commanded the consensus of the 12 Experts from different member states does, however, not mean unity among all 28 governments.

While the procedure chosen had the potential to "loosen the ground" as it were, to prepare consensus, to fuel public debate and interest in NATO, to get the strategic community involved, to provide transparency and to induce member states to clarify their positions and to "show the colour of their cards", this will not replace the political work governments must do in order to create or re-establish consensus on the central contentious issues.

Indeed, disunity still exists about questions such as: Is NATO a global or regional organisation? What is the right balance between collective defence (art. 5 of the Washington Treaty) and out-of-area orientation? How to achieve a common approach towards Russia? How to improve cooperation between NATO and the EU? How to make the Comprehensive Approach work? What is NATO's future nuclear policy and strategy? What lessons to draw from Afghanistan? Is a UN Security Council mandate the absolute precondition for NATO military action? And what will be NATO's contribution in countering "new" threats?

What has to be recognised: In the three phases of its history, NATO safeguarded Europe's security during the East-West conflict, helped consolidate and stabilize Central, Eastern and Southeastern Europe after the en d of the Cold War, and took on peace missions beyond its area of mutual assistance after the terrorist attacks of September 2001. But the tasks of a new phase have not simply *replaced* the old ones: Protection of member states' territory, populations and forces remains a permanent mission; much remains to be done to achieve a Europe "whole and free"; and out-of-area missions will continue to be asked of NATO, albeit not as its only action pattern for the future.

On the contentious issues mentioned above, the Strategic Concept should state the following:

- NATO's reach: The Alliance remains a regional organization, but with a global horizon. Without necessarily implying military action, much more intense consultation will take place on all security-relevant issues.
- Core function: Although out-of-areas missions are more prominent in NATO's spectrum of tasks, assured protection of all member states, manifested, *tous azimuts*, by preparations, planning and exercises, is necessary even without any concrete adversary, and a prerequisite for everything else NATO does.
- Understanding with Russia is mandatory, and the Strategic Concept should send out an offer for broad cooperation, expressing clearly that NATO takes its share of the responsibility in the worsening of the relationship over the last ten years, but also stating clear demands as to where a change of mind is necessary in Moscow. Common interests and tasks need to be underlined, and NATO will promote confidence-building, including a new departure in conventional arms control.
- NATO-EU cooperation needs a new impetus, which also means overcoming blockages resulting from national interests, in order to make it function in a complementary, synergetic way.
- The Comprehensive Approach does not require more theory but more serious implementation, including all actors: nations, international organizations and non-governmental organizations.
- Clear lessons are drawn from the Afghanistan experience and will lead to guidelines for future missions of that kind.
- NATO embraces the vision of a nuclear-free world and supports nuclear disarmament, but for the presumably long transition period it will maintain deterrence with the right mix of conventional and nuclear weapons. It will however move to a "sole-purpose" (not a "no-first-use") doctrine.
- UN mandate: NATO respects the prerogative of the UN Security Council, but does not totally exclude a Kosovo-like situation, should the Security Council be unable to reach necessary decisions.
- Particularly on the new "unconventional" security challenges such as international terrorism, cyber threats, piracy and energy issues, NATO's (limited) role needs to be explained.
- Overall, article 4 (consultation) of the Washington Treaty will be rigorously activated in order to establish thorough analysis and debate on all security-related issues worldwide.

There are more subjects, but already this list shows that consensus cannot be achieved by informal groups and seminars, and it should not be left to the negotiation process. Work on a draft cannot *create* political unity on highly controversial matters, it cannot replace tough decisions. Ideally, the Strategic Concept would *reflect* the consensus previously established among governments. (For the 1991 Strategic Concept this was achieved through so-called "Council brainstormings" on the salient issues.)

Therefore one must be concerned about the Secretary General's schedule who presented his draft to nations on 28 September. Only now will negotiations begin in earnest (where particularly the member states not represented in the Expert Group might claim their dues). A worry must be that in the short time until the Lisbon Summit disagreements will just be papered over and the process of finalization of the Strategic Concept might degenerate into something like communiqué negotiations.

Still, for the future European and Euro-Atlantic security order, and prominently Russia's place in it, November and December 2010 present important opportunities: NATO's Summit in Lisbon should send a signal of "assured protection and comprehensive cooperation", pointing to the subsequent OSCE Summit in Kazakhstan which would confirm OSCE principles, further develop the organization's capacity and tackle unsolved security problems.

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The author, Dr Klaus Wittmann, retired from the Bundeswehr as a Brigadier General at the end of 2008. He had been closely involved in the development of NATO's Strategic Concepts of 1991 and 1999. His last appointment was Director Academic Planning and Policy at the NATO Defense College in Rome. In September 2009, he published "Towards a new Strategic Concept for NATO" (Forum Paper 10. Rome: NATO Defense College 2009), and in September 2010 he presented "NATO's new Strategic Concept. An Illustrative Draft", which can be found on the Website of the non-governmental organization "NATO Watch".

Russia-NATO relations - time for a change?

By Derek Averre

Relations between Russia and NATO – central to Euroatlantic security governance, in Russian eyes at least – have slowly been recovering since the South Ossetia conflict in August 2008. The NATO-Russia Council (NRC) met for first time in political advisory format in June to exchange views on how to make it 'a more substance-based forum' and discuss transparency-building, the role of NRC in European security and on cooperation on new security challenges. NATO is soon to publish its new Strategic Concept, which will try to convince sceptics - not least in Russia - that it remains 'relevant' as the main vehicle for the West's security policy and which will fix its role in security governance for a decade or more. Russia, which is seeking a more influential international role, has pre-empted NATO by advancing proposals for a comprehensive and legally-binding European Security Treaty.

Generally, there is little appetite in Washington and Brussels to make wholesale changes to security arrangements which have provided a large measure of stability in the first two post-Cold War decades. A treaty that would accord to Russia any kind of veto on security decision-making and stop any further enlargement of NATO - even if the latter is not immediately in prospect - would be unacceptable. Initial indications are that the new Strategic Concept, other than providing ritual assurances that 'the door to cooperation with Moscow should remain open', may not hold out the promise of a substantive change in strategy which might allay Russia's deep-seated concerns. A report commissioned from a Group of Experts led by Madeleine Albright warns that 'old rivalries could resurface and that 'Russia's future policies toward NATO remain difficult to predict'; it recommends retaining its 'open door' policy and commitment to out-of- area combat operations – both policies sure to inflame Moscow; and rejects the notion 'that large countries have spheres of interest that give them license to dominate their neighbors'.

There thus remains a fundamental divergence in views between NATO, which sees itself as the linch-pin of the European security system and enlargement as guaranteeing a stability and peace on the continent, and Russia, which sees the enlargement of an unreconstructed NATO as the main threat to European stability. The Alliance's intervention in the Former Republic of Yugoslavia over Kosovo in March 1999 remains fresh in the memory of Russia's political elites. Foreign minister Sergei Lavrov recently underscored the differing perceptions of the security environment and the divisions they engender, and voiced a blunt summary of Moscow's position to an international audience: 'However, there should be no exclusivity in our common area as regards the most sensitive sphere – the military-political dimension of security. To remove the problem of the false choice between the EU/NATO and Russia, we need something inclusive, reaching beyond NATO and the NRC'. Put simply, Russia is no longer prepared to remain sidelined from European security decision-making on key issues. Russia's combative envoy to NATO, Dmitrii Rogozin, has sharply criticised the Alliance for avoiding discussions on military security issues and trying to divert Moscow's attention to 'soft' security: 'Transforming NATO into the world's policeman, something like Orwell's Big Brother, can not suit Russia'. In Russian eyes, the enlargement of NATO and the EU has reached its limits and leaves a substantial part of the wider Europe outside of the zone of peace and prosperity, which threatens containment or in the worst case confrontation with Russia. The prospect of a strategic partnership appears to be giving way to the risk of growing alienation between Russia and the West, perpetuating the impression of an unchangeable, assertive Russia better handled by a policy of *détente* – in other words, containment together with pragmatic transactions - rather than deeper engagement.

However, a growing number of policy practitioners and experts argue that the evolving threat environment in Eurasia and greater interdependence necessitates a greater role for Russia in security governance. The new NATO Secretary General, Anders Fogh Rasmussen, has led a more sober, pragmatic and constructive approach to dealing with Russia and spoken of his vision of NATO-Russian security cooperation as 'an established feature on the international security landscape'. Influential voices within the US's and Europe's political establishments have urged a more inclusive policy towards Russia and more caution as regards Western encroachment into the shared neighbourhood. In Moscow itself, experts at the Institute of Contemporary Development, headed by President Medvedev, have put forward ideas varying from deeper cooperation through an 'alliance with the Alliance' to full integration.

The potential for deeper engagement is recognised by the Group of Experts, who highlight opportunities for enhanced collaboration on nuclear nonproliferation, arms control, counter-terrorism, missile defence, crisis management, peace operations, maritime security and drugs trafficking. Russia's contribution to dealing with Iran over nuclear issues and to ISAF in Afghanistan should also not be overlooked. Security cooperation with NATO may be complemented by the much-trumpeted 'partnership for modernisation' with the EU, signalling that Russia's integration into the world economy is far and away the most important state-building task today.

A coherent strategy in response to Medvedev's proposals might consist of the following. First, focusing attention on the main issues which form the basis for strategic stability, such as the Conventional Forces in Europe Treaty, and dealing with them within specific dialogue formats; second, using the more constructive proposals of Russian foreign policy to draw Moscow into dialogue on wider aspects of regional security, including a role for the EU in the shared neighbourhood; third, taking seriously Russia's potential to contribute more fully to tackling shared security and economic challenges – where possible encouraging it to take shared ownership of key issues and making it part of the solution rather than part of the problem.

A space for fresh thinking has opened up, but the massive agenda described above needs decision-makers on both sides to exercise the kind of political will and flexibility that was present at the end of the Cold War but has been only sporadically in evidence since. NATO's new Strategic Concept should tone down the tired stereotypes and emphasise a broader platform for security cooperation. A changing Alliance, with more political direction from its member states, might ultimately then build a genuine strategic partnership with Moscow.

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Baltic Sea security - issue or non-issue?

By Riina Kaljurand

At first glance, the Baltic Sea states comprise a variegated palette: the affluent, socially developed Nordics; the Central European Power of Germany; Poland and the Baltic states, which regained independence as the Soviet Union collapsed; and Russia, which aspires to the status of her historic prominence. Yet, the fact that all of the countries surrounding the Baltic Sea with the exception of Russia are members of either the EU, NATO or both points up a common cultural and value-based space that has made possible close ties and co-operation between the Baltic Sea states since the days of Hanseatic League.

Regardless of the fact that the Baltic Sea region is today considered efficient, innovative and developed due to good co-operative relations in different areas on different levels, the region has never had a homogeneous security approach and security guarantees are still sought from different sources. As the region is peaceful with relatively low military conflict potential, the issue of regional security has not been of burning prominence for the Nordic countries or Germany. On the other hand, it has always been an issue for the Baltic states and Poland. It is argued that security policy is often event driven and evolves in accordance with the realities of the day. While the prevailing security arrangement may have satisfied the security needs of the region's countries up to the present day, the changed security situation in Northern Europe and its neighbourhood poses challenges for the individual countries as well as the EU and NATO, two primary security actors in the region. The question is whether the current regional security architecture around the Baltic Sea is sustainable; or should the countries in the region pursue a more integrated approach to regional security and defence?

Without a doubt, because of their strategic location, small size, fragile economies, high degree of energy dependency and very limited military capabilities, the most vulnerable countries in the region are the Baltic States. Political rhetoric used in the Nordic countries and Germany often give an impression that the issue of Baltic Sea security is an issue of the Baltic states' security only. However, anything that might happen to the Baltic states or Poland, also happens to the other Baltic Sea countries, the EU and NATO. In order to decrease the vulnerabilities and tackle the new potential threats a more comprehensive security and defence co-operation is needed between the Nordic and the Baltic countries as well as between NATO and the EU.

One of the factors calling for attention is Russia's increased activity in the region. Far from being the strategically most important sea for Russia, recent developments in Russia have demonstrated the country's renewed interest to the Baltic Sea. The buffer zone that was lost with NATO's eastern expansion has moved NATO closer to Russia and increased the role of NATO as a potential enemy. Without posing a direct military threat, Russia is compromising the Baltic countries' security policy freedom by imposing political and economic pressure as it considers the Baltic states to be in its sphere of influence. However, Russian military presence might also increase in relation to the establishment of US missile defence posturing *in the region.* By constructing new ports and maritime infrastructure, reforming the Baltic Fleet and laying the Nord Stream pipeline, Russia is strengthening its presence on the Baltic shores. It is in Russia's interest to keep its main transit route to Europe open and to maintain its political status and sovereignty in the region.

Another security problem for the Baltic Sea region may arise from a potential competition with the region of the High North over the strategic interests and priorities of the countries involved. The opening up of the Northern polar regions to new patterns of human activity, especially related to oil and gas production and new shipping routes between Europe and the Pacific requires the review of national policies and interests in order to exploit the emerging possibilities. Growing military activity is part of the growing interest and several coastal states have increased their military presence and bolstered their naval capacity in the High North. The reallocation of resources and the attention of particularly the Nordic countries to the High North will definitely result *in a security vacuum* in the Baltic Sea region and leave Russia considerable room for manoeuvre, both politically and militarily.

The third security concern for Baltic Sea regional security would be the weakening of NATO or the transatlantic link in connection to the USA's increasing interests in Asia or NATO's increasing focus on out-of area operations or the Barents region. In both cases, the regional security arrangements should be strengthened by additional co-operational frameworks.

Finally, the Nordic countries have cut their defence budgets since the end of 1990s, downsizing both armies and capabilities. The recent years of economic recession have also had a negative impact on the Baltic countries' defence budgets. Estonia is the only Baltic state with a defence budget of 1.82% of GDP, just .08 percentage points under the required 2%. Both Latvia and Lithuania are struggling with 1.14% and 0.8% respectively. The situation undermines the deterrence value and the concept of credible solidarity, but also hinders the fulfilment of the tasks of a NATO member.

To tackle these challenges, firstly a strong political commitment and responsibility for security in the region is required. Indeed, steps towards this end have been taken and no other region in Europe compares with the co-operational formats of the security and defence issues of the Baltic Sea region. The Nordic countries signed Memorandum of Understanding of Nordic Defence Co-operation (NORDEFCO) in 2009, aspiring to improve the co-ordination on both a strategic and an operational level. The Nordic foreign ministers asked Thorvald Stoltenberg to draw up a draft for closer foreign and security policy co-operation, and the 13 proposals were launched in 2009. The EU Baltic Sea Strategy was launched in the same year. Further, NATO is finally drawing up plans for the defence of the Baltic countries. In September 2010, the NB8 Wise Men Report was launched to advance Nordic-Baltic co-operation.

Nevertheless, co-operation within the framework of these initiatives is limited to certain areas owing to the asymmetrical commitment of the countries involved. The fear of having to compromise the transatlantic link to regional co-operation is obvious, as is the concern of having to choose between Russia and the Baltic states again. It is necessary to keep in mind; however, that Nordic Defence Co-operation is not a substitute to NATO. On the other hand NATO's contingency plans will not work without the willingness of Sweden or Finland to become involved. Interdependencies are too many to ignore the two countries. Thus, the security in the Baltic Sea region is certainly an issue but it can only be solved by increased trust, credible capabilities and deep, meaningful co-operation.

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What is the right price for nature?

By Risto Sulkava

Our current economy does not take into account the environmental price of ecosystem services. The polluter does not pay to clean up the pollution. Our economy neglects the environment. This does not need to be true. Incorporating the environment into the market and turning ecosystem services into products that we have to pay for can protect the environment. Consumers and companies may prove to be invaluable in achieving this goal.

Ecosystem services mean different kinds of materials and foodstuffs, natural controls of floods and the climate, regulation of the balance of gases in the atmosphere, the assimilation of wastes, and beautiful landscapes – services that we get mostly "free" from nature. The ecosystem acts as a producer: thousands of species that live together in a complex food-web produce essential services, such as oxygen, clean water and fertile soil. We do not really pay anything for these services. The results can be seen, for example, in the Baltic Sea, which suffers increasingly from pollution by sea traffic and agricultural runoff.

If something is free, it means that everyone can do whatever they want with it. Is it right that somebody can destroy your car? No. But when somebody does business with energy resources, we easily think that clean air and water are free. However, energy production has environmental costs. When a mire is drained for peat production, water levels in streams rise, destroying fish-stocks downstream. Solid particles and nutrients leaching into the sea cause mass growth of blue-green algae, which is a major concern every summer in the Baltic Sea region. All life in the mire itself dies out. At the same time, permanent carbon-storage from the ground is released into the air. But nobody pays anything for these disadvantages. Simply because the ecosystem services are free for everyone. The only one that pays is nature itself. The situation is the same with oil, phosphorus and thousands of other natural resources.

Due to these free ecosystem services, we are today experiencing the sixth wave of global mass-extinction. Thousands of species are becoming extinct. Our planet is becoming warmer and warmer. Problems are accumulating everywhere – the limits to growth are evident everywhere. Some more business as usual, and we destroy our – and most other species' – possibilities for survival on this planet.

What can we do? The answer is: put the right price on ecosystem services. If goods produced by nature had an appropriate cost, then the market mechanism would work and the external costs of human activities would be taken into account properly. Essential goods for life should be expensive to destroy, others a little bit cheaper and goods like views free. However, the use of natural resources should always have a price. And when the common resource becomes scarce, or when the use of resources leads to problems in other places or with other resources, it should be made more expensive to use. Market-based instruments, such as taxes, are essential to compensate for environmental degradation and to maintain ecosystem services.

Some mechanisms are available already. The price of oil and phosphorus is now higher than before, when they were more common resources. But today, end-users do not have to compensate for the greenhouse-gases that they release when they burn fossil fuels, although the same gases cost billions of Euros for people (and ecosystems) on the other side of the planet, for example in the Sahel and arctic regions. Similarly, farmers who put too much non-renewable phosphorus in their fields do not pay for cleaning up the Baltic Sea. First world consumers, for whom food is cheap, should pay more than they do at the moment for the natural resources that are produced with the help of hundreds of soil-species, i.e. ecosystem services.

What, then, would be the right price for clean ground water or lakes and seas that are kept clean enough to swim? You can estimate, for instance, how much you have to pay for workers who pollinate one hectare of blueberry forest or a strawberry field – it is expensive. But could you live without clean water? What is the proper price for a lake where you can swim?

We have the means to estimate how much some ecosystem services cost. And much is done already.[1] However, little has been done so far to achieve environmental fiscal reform.

Taxing the use of natural resources should be the main way to collect fiscal revenue. This revenue is needed to pay for the conservation of nature, to stop species from becoming extinct and to clean our environment, in other words to take care of our essential ecosystem services.

Current macro-economic policies, based on endless growth, are at odds with the finite resources and the fragile ecology that we depend on for our survival. Without a new approach, new policies and new economic thinking, our problems will be become ever worse. However, while waiting for new policies, we can take steps forward. We can pay a proper price for some of the natural resources we use.

Let's take energy production as our example. All energy production is harmful. However, some power plants are more harmful than others. Renewable energy certified with the EKOenergy label of the Finnish Association for Nature Conservation[2] is always produced with the least environmental harm.[3] A wind power plant, for example, cannot be certified as producing EKOenergy if it is located in an important bird area (an IBA area). Similarly, a hydropower plant producing EKOenergy must include fish passes that enable salmon and other migrating fish species to move between their spawning areas and the sea. Each company and every individual can do his or her share to achieve a sustainable way of life by making a consumer choice, for example by choosing impartially certified products.[4]

The electricity grid is opening up all over Europe. Soon, people will have the possibility to choose energy with the smallest possible environmental harm. One day, hopefully, certified EKOenergy will be available in all countries surrounding the Baltic Sea.

Market mechanisms do also work in the energy sector. If more people pay only for the environmentally best ways to produce energy, then these production methods will become economically most profitable for the energy companies. Ideally, all new power plants should produce EKOenergy.

We cannot wait. Consumers and companies can make a difference when politicians are too weak to change their policies.

Risto Sulkava

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[1] See for example The Economics of Ecosystem and Biodiversity (TEEB) (www.teebweb.org).
[2] For further information: http://www.sll.fi/english
[3] For further information: www.ekoenergy.org
[4] For further information: www.ekoenergy.org

Family business - does ownership matter?

By Anne Berner

The Finnish Family Firms are in the post-financial crisis facing an evolved set of challenges. Finland is gliding in the year 2010 into a phase of twenty up-coming years of a declining work-force. In the year 2020 for the first time the biggest part of the workforce will be again between 35-45 years old. Growth cannot be achieved by more working hours, higher levels of productivity are a requirement for all businesses, but no longer the only solution. At the same time the competitive position of the Finnish companies has changed. Finland is within the Euro, where as many of its close neighbors, especially in the Baltic Sea area are still working with local currencies. The change in climate and the environmental consciousness comes with a conflicting message, the downside being costs that most companies need to integrate into the planning of the future, as for instance taxes related to the environment, but at the same time there is a an enormous amount of potential for new business connected with purifying and creating new sustainable technologies to support our deteriorating environment.

Family Business is not a question of size, it is all about identity. Family Businesses come in all sizes and are active in all branches and sectors. The family businesses believe in the statement that the business is a gift from the previous generation and it is on loan from the following generation. The Businesses have a family dimension, where the family and ownership are intertwined with the business. This gives Family firms a long-term view, with sustainability and commitment that has its foundation in strong roots in the local community, the high importance of values set by the owners to the business. Family Business make up for 80 % of the Finnish companies and employ 42 % of the private sector workforce. The trust that these companies have for the future and for the local decision making process is of vital importance for the national growth of the Finnish economy.

Family Businesses differ from private equity or state owned companies in several ways. For family businesses ownership comes naturally and is mostly well experienced and highly committed. Owners are engaged in their companies and have a high knowledge of the field of business their company is in. The roots in the local community are respected and the companies carry often more than their share of responsibility in their local community. The relationship to the management is often connected with emotions and the leadership not always as analytical as should be. Top management is not as frequently evaluated. On the other side studies show that family business employ on a more profitable base than other companies. As the companies are owned on a long term base, the ownership is not based on methodical measuring and tough follow-up. Often the businesses are not trimmed on a daily base to be ready to sell at a given opportunity. Strategies most often do not yield quantum leaps forward. Corporate governance is less strict, which leads also to less professionally working boards with not as much firepower.

Keeping the above in mind and considering that as a nation Finland need sustainable and yet fast growth, we need to find incentives for two things to happen - the Finnish Family Businesses need to grow, beyond the national borders and we need to have incentives for ownership of companies within Finland.

The main incentive to support ownership in Finland comes through the fiscal structure. To reinforce ownership there has to be a focus on entrepreneurship, income from equity should be subject to single taxation, there should be a neutrality between the treatment of equity and debt, there needs to be a tax neutrality between different kinds of owners, the structure needs to support the transfer of businesses and most importantly there should be a tax neutrality between dividends and capital gains.

With such kind of a fiscal structure ownership of a business in Finland can be defended and future engagement by owners motivated. Ownership needs also to have a voice in national decision making, especially with regards to the conditions of the long-term structures that create the competitive environment of businesses.

Our second challenge is that of growth - we know that in Finland the level of risk-taking is exceptionally low. Our fiscal system has not especially created incentives to take risks and our schooling system, although highly praised and rewarded tends to school our young towards obedience, learning by heart and "making the hours". We worry about failing and will are not easily taking chances in unknown fields. Our innovation environment has once been highly stimulating, but has now since years been declining. We have still many start-ups and new businesses emerging, but only a few growing from small to middle-sized and from middle-sized to big companies. This has also created challenges for our export industries, that have had a hard time finding a strong enough supplier network within their national markets.

What we need is to find ways to make our existing companies grow beyond their national market and start exporting their products, know-how and services. Most of our medium sized companies with the fastest growth potential are family businesses. Their natural markets to grow are to the West to the Scandinavian markets, to the East to Russia and to the South to the Baltic countries and Germany. The growth and power of the Asian markets does indicate a fast track to growth that is attractive , but at the same time the risks are growing as well, not to mention the needed investments to succeed in these markets.

The Baltic Rim Economies and their Family Businesses build together a potential that has its foundations in continuity, sustainability and in the next generations. The common nominator in ownership could prove a viable bridge between nations and business interests.

Anne Berner

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Baltic Sea – Kemira at your service

By Harri Kerminen

The Baltic is truly the common backyard of all the nine countries surrounding this small and shallow sea. It is our common heritage with very unique natural value, and also a source for income and place for recreation.

What has been a well know fact for many years now is that this common heritage of ours is in dire straits. The current situation of the Baltic Sea is unacceptable – it is the most polluted sea in the world.

The reasons behind this are clear. Almost 85 million people live within the catchment area of the Baltic Sea. The nine countries around its shores all have plenty of farmland and major industries, so the waters of the sea have long been contaminated with excess nutrients, toxic chemicals and other forms of pollution.

The Baltic Sea is unique in many ways which makes it very vulnerable. It is very small and shallow, and largely enclosed. This is why the water is only exchanged very slowly - it may take even thirty years for all the water in the sea to be replaced. The Baltic Sea ecosystem is extremely vulnerable and the aquatic flora and fauna are unique. Fresh-water and saltwater species live side by side. The slow exchange of water means that nutrients and harmful chemicals such as heavy metals can remain in the Baltic Sea for long periods. This makes the animals and plants of the Baltic highly sensitive to changes in the environment.

One of the biggest problems is the eutrophication caused by the heavy nutrient loading. This has been quite visible for the people living by the Baltic Sea, on beaches and seashores. Also the vulnerable species of the sea have suffered from this. Without a controlled return to nature, the nutrients (nitrogen and phosphorus) in sludge can drift back and eutrophicate waterways, or accumulate in landfills.

Kemira, one of the leading water chemistry companies, is committed in securing a cleaner future for the Baltic Sea. Kemira's business plays a direct role in decreasing the wastewater load in the Baltic Sea. A significant share of the communities and cities within the Baltic Sea watershed clean their waste water using chemicals supplied by Kemira and we actively use our expertise in water treatment and guide our clients in implementing chemical precipitation of phosphorus in the area. This way Kemira plays a significant role in the removal of nutrients from waste water effluents from the Baltic Rim countries.

Kemira has extensive experience in water chemistry. We have been offering cost-efficient concepts and products for nutrient removal since the beginning of 1980's. Our concepts are tailored for the Baltic Region and don't require extensive investments, but are very effective in delivering visible results. One of the latest examples is the co-operation in Vyborg where Kemira together with Vyborg Water Utility, the Finnish Ministry of the Environment and the John Nurminen Foundation have launched a project to reduce the amount of phosphorus discharged from Vyborg into the Baltic Sea. By using chemical precipitation for phosphorus removal, the Vyborg wastewater treatment plant can achieve the recommended concentration of total phosphorus in wastewater, as specified by the Baltic Marine Environment Protection Commission. This will result in an annual reduction of approximately 20 tonnes in the amount of phosphorus ending up in the Gulf of Finland.

And this is really what the Baltic Sea needs - the implementation of the HELCOM Baltic Sea Action Plan. The objective of the Baltic Sea Action Plan of the Helsinki Commission is to ensure a good ecological status for the Baltic Sea by 2021. To achieve this, countries around the Baltic Sea should reduce their annual phosphorus emissions by 15,000 tonnes and their nitrogen emissions by 135,000 compared with the levels in 1997-2003.

In order to implement this action plan a cooperation that knows no boundaries is crucial - an open dialog and co-operation between governments, companies, NGO's and individual commitment. That is why for example the work of the Finnish Baltic Sea Action Group (BSAG) has had an important role in bringing all the relevant parties together to discuss the ways to save the Baltic Sea. BSAG has been very efficient in colleting concrete commitments to act, and combining the resources and opportunities that the public, private and civil sectors can provide for the rescue of the Baltic Sea.

Kemira is one of the companies who participates in the BSAG's Commitments to Act. Kemira's first commitment was introduced in August 2009 in Helsinki, Finland, at the Kemira Baltic Sea Summit. The summit focused on ongoing projects and concrete actions concerning waste water treatment in the Baltic Sea catchment area. Over 100 participants and speakers represented financial institutions and environmental authorities, including participants at ministerial level, from water works and different organizations. Our first commitment is to return phosphorus and nitrogen, which are nutrients in wastewater sludge, to the natural cycle by introducing solutions that facilitate the safe recycling of nutrients into crop farming in the Baltic Rim countries. The second Commitment to Act is linked to the toxins that flow from the coast to the sea where they accumulate for example in fish. In this Commitment to Act we are committed in developing methods to remove hazardous substances from wastewaters and we will offer tools for advanced waste water treatment and oxidation.

The state of the Baltic Sea is alarming and all concrete actions are needed. This is a continuous process that needs cross-sectoral discussion and co-operation between governments, business and NGO's. All the nine countries around the Baltic Rim have a shared responsibility for taking actions to improve the situation. Kemira is committed to this responsibility and we aim to be a key participant contributing to a cleaner future for the Baltic Sea.

Harri Kerminen

President & CEO

Kemira Oyj

Finland

Kemira is a global two billion euro chemicals company that is focused on serving customers in water-intensive industries. The company offers water quality and quantity management that improves customers' energy, water, and raw material efficiency. Kemira's vision is to be a leading water chemistry company.

Russia - affordable Internet access across the country

By Aimo Eloholma

In the 20th century Soviet Union was lagging badly behind the Western countries in the development of telecommunications services. It didn't help although Lenin stated in 1920's: "Socialism without post, telegraph and telephone is nothing but a phrase." It is obvious that efforts were made during the Soviet times for high quality telecommunications between authorities; however in public telecommunications services for common people Soviet Union walked a few steps behind Western countries.

From emergence to saturation

The breakthrough of mobile communications has raised the Russian telecommunications back to a level which is proper for a nation with such forerun intelligence. For example in 1895 Mr. Alexander Popov invented and also the very first time in the world demonstrated to the public the use of radio waves for communications. Anyhow the breakthrough of GSM technology was reality in Russia only at the turn of the millennium. After that the development has materialised at an incredible rate. In 10 years Russia has developed from the emergence of mobile communications to the level of saturation and to one of the largest mobile markets in the world. Today Russia with it's more than 200 million subscribers is TOP4 country after China, India and USA in mobile. When the commercial launch of new 3G technology was made in 2007-2008, Russia was anymore 2-3 years behind the most developed Western countries. The very rapidly expanded 3G network coverage in Russia has resulted in an enormous growth of mobile data communications (mostly use of Internet services); the growth in data volumes in biggest mobile networks has been 6 fold during the last 12 months.

But there is no great success without heavy efforts and investments made. Three biggest mobile operators in Russia, BIG3 (MTS, Vimpelcom and MegaFon) have invested 35 000 million USD to build up mobile network infrastructures to Russia's vast territory. In addition, this success has created a ground to the Government to set up a national goal for "affordable Internet access across the country". The Government has repeatedly said to ensure the chances to make the goal.

Diversification of economy

The implementation of the goal is utmost important to the Government. Russia is today unbalanced gas- and oil-producer and necessarily needs diversification of its economy and industry. Innovations will be in a big role in this diversification. A tool to boost innovation capabilities is to let information flow and to combine it in non-prejudice way. Internet is a perfect tool for this purpose. Also several researchers say that there is a clear correlation between broadband data services provided (used in Internet) and GDP growth rate.

At the moment Russia's PC as well as Internet access penetrations are lagging behind the countries where a well developed telecom infrastructure has been in place already for a long time. For example in USA and in several European countries the penetrations are in the range of 70-80%, but in Russia the penetrations don't even reach the level of 40%. There are assumptions that Russia will pass over the current penetration level of European countries in five years. This will not allow any failure in the goal of nationwide Internet access expansion. Capable mobile networks will support reaching the goal because the alternative solution, wire-line infrastructure is partly badly outdated originating from the Soviet times. There are high quality broadband services available in Moscow and in some other larger cities but it is difficult or even impossible to build nationwide high quality wire-line networks due to the vast rural areas.

The flexibility of mobile networks creates solution for the vast territory. However, the original GSM voice communications technology is not suitable for good quality Internet access because of data transmission speed limitations. 3G technologies increases the speed considerably, enabling down loading speeds up to few tens of Mbit/s.

New LTE technology

User demands will still develop furthermore. Speed- and response time requirements in using Internet based services are challenging. In addition, also new demands for uplink speeds are obvious, e.g. user demands to send live video from his/her own mobile terminal. New services can be implemented in mobile networks by using 4G technology i.e. LTE (Long Term Evolution), providing Internet access speeds up to 100 Mbit/s. There is a clear desire in Russia to implement this new technology simultaneously with European countries. President Medvedev announced in his annual address to Parliament in November 2009 that 4G should be provided across the whole Russia in five years. LTE presents a good opportunity to make Internet access available at a moderate price to a large base of users.

Non-transparency in processes

There are always many different interests in a big country like Russia. LTE technology needs new radiofrequencies. The difficulty to distribute radio spectrum effectively is rooted to the fact that the military initially controlled nearly all the frequencies. Therefore the Government has not yet been able to give licences to utilise frequency spectrum to such operators who would have financial and competent resources enough to implement the new technology rapidly and in an extensive way. Mixing politics with granting the licences may risk the rapid implementation and cause a delay of several years to the commercial launch of new LTE technology. As a consequence the aforementioned big goal "affordable Internet access across the country" might in the course of time run away from control.

The delay in granting licences has brought again to light one of the weaknesses of procedures in Russian Government; the licence processes are not clear, nor transparent. Non-transparency gives always room for different interest groups to play. Therefore, and connected to this frequency distribution issue, Russia's BIG3 mobile operators have approached the Government, up to President Medvedev with an evident request that the licence and frequency spectrum processes should be clear and transparent. The importance of this request concerning the regulation and competition in Russia's telecommunications market extends far beyond the borders of specific industry and it applies partially to the development of entire economy of Russia.

Aimo Eloholma

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Rail services connecting Finland and Russia

By Mikael Aro

Rail services between Finland and Russia will soon enter a new phase, with a significant, wider impact on relations between the two countries. High-speed Allegro rail services between Helsinki and St. Petersburg are starting in December 2010, cutting the travel time between the two cities by two hours to three and a half hours. This can justifiably be considered a historic event, for high-speed trains will now start operating for the first time across the border of the European Union area.

The Allegro service is one example of cooperation between Finland and Russia in the railway sector. Finland has the same rail gauge as Russia and the other CIS countries, which means that the railway connects the Baltic Sea directly with the Pacific Ocean in the Russian Far East. The railway sector in this area has numerous common interests and business opportunities.

VR Group sees the high-speed passenger services between Finland and Russia as a very promising logistics venture. The most densely populated areas of Finland and the 7.5 million inhabitants of the St. Petersburg area are in the close proximity of the Helsinki-St. Petersburg line.

The reduction in travel time is due to new trains with modern technology, faster border and customs formalities, and the upgraded line. This has required close co-operation between many parties.

Passenger volumes expected to triple

It has been estimated that the high-speed connection could even triple passenger volumes from their current level, to 750,000 passengers a year. By summer 2011 it is planned to double the frequency of the trains, to four daily return services between Helsinki and St. Petersburg.

At present, VR Group and RZD (Russian Railways) operate two daily return services between Helsinki and St. Petersburg. The Finnish Sibelius and Russian Repin trains will no longer operate on this line once the Allegro services start in December. The Russian overnight train Tolstoi will continue to run between Helsinki and Moscow. In 2009, these routes carried 340,000 passengers.

The Allegro is a joint venture between VR Group and RZD. The companies are responsible for onboard services, timetables and ticket sales. The trainsets are owned by their joint rolling stock company, Karelian Trains. The company has acquired four tilting electric train sets from Alstom.

Common rail gauge, a basis for functional services

The Finnish-Russian border is the longest between a European Union member state and Russia. VR considers this border to be a great opportunity for co-operation and engaging in business with Russia. The 1520 mm gauge railway area extends from east to west for over 10,000 kilometres. The common rail gauge enables cross-border railway services to be quick and efficient.

Rail freight between Finland and Russia and other CIS countries consists of imports, exports and transit freight passing through Finland. Imports to Finland comprise mainly raw materials and semi-finished products for Finnish industrial companies. Finnish exports, in turn, are mainly finished industrial and consumer goods, building materials and various project deliveries.

In 2009 transit traffic through Finland amounted to 4.4 million tonnes of freight. The Finnish transit route operates in a highly competitive environment where there are several other route options. However, the main reasons for using the Finnish route to Russia - quality, accuracy, punctuality and a stable price level - remain unchanged. The same factors are also valid for transit carryings in the opposite direction. These transport services consist primarily of machinery and project deliveries.

Improving transport

More then 90% of the transit carryings through Finland to Russia currently go by road. VR Group is working with RZD to develop rail alternatives to road transport.

Rail companies are eager to win a larger market share in container deliveries between Finland and Russia. In 2007, VR and TransContainer, the container transport company of Russian Railways, established a joint stock company ContainerTrans Scandinavia, to offer container service packages to customers, including forwarding companies. At present a weekly container train service operates to Shushary railway station in St. Petersburg. A container train connection from Finland to Moscow is also technically feasible.

More recently, in 2009 VR Group and JSC Freight One established a joint venture called Freight One Scandinavia, a logistics company specializing in rail transportation between Finland, Russia and the CIS countries. Freight One Scandinavia provides comprehensive export, import and transit transportation services.

From Baltic Sea to Pacific Ocean

A direct land route between Finland and the Far East runs via the Trans-Siberian railway, which forms a natural geographical link and land-based transportation corridor between Europe and Asia. The Pacific ports of Nakhodka and Vladivostok in Russia provide shipping connections to South Korea, Japan and China. Compared with direct shipping from Europe to the Far East by sea, the Trans-Siberian route cuts two to three weeks off delivery times.

During the early 2000s, TSR traffic grew strongly in Finland, reaching a level of 100,000 TEUs in 2005. Unfortunately, volumes then fell sharply for several years. Now in 2010, customers seem to be showing new interest in this route and there have been some trial runs with containers.

At the moment, expectations are very high concerning the enormous potential offered by services between Finland and China via Russia, using the Russian-Chinese border crossing at Zabaikalsk–Manchouli. This land-based route also opens up great opportunities for direct deliveries between Asia and Europe. In the future, other transit routes via Russia by rail will offer an attractive alternative to sea transport.

Glance at the future

All in all, VR Group considers the 1520 mm railway area to be a strong synergy benefit. We want to be actively involved in developing strategic co-operation in the rail sector and utilizing new business concepts that offer benefits to all participants.

By investing in high quality and environmentally friendly transport services, the railways can support economic growth in the EU and in Russia and other CIS countries, and thus serve the needs of expanding foreign trade and increasing international travel.

Mikael Aro

President and CEO

VR Group

Finland

Take the A Train

By Matti Miettunen

The European Union is promoting both the South – North corridor and multimodal-transports with a new project: SCANDRIA. The aim is to link the Adriatic Sea with Scandinavia using the already existing infrastructure in former East Germany. The partner from Finland is Jykes, the development organisation of the Jyväskylä region.

By definition the intermodal transports or combined transports involve the transportation of freight in an intermodal container or vehicle, using multiple modes of transportation (rail, ship, and truck), without any handling of the freight itself when changing modes.

The introduction of intermodal transports in Finland has been slow. The only existing route is Helsinki – Oulu, where roughly 8.000 units are loaded per year. According to Finnish State Railways even this route is still running at a loss. The critical mass would be 12.000 units per year.

The motorways in Central Europe are congested and there is a strong political will for moving transport units from the motorways to railways. Projects like Marco Polo are targeting this problem and are providing economical subsidies for those willing to think "outside the box" and use the railways.

Delta Freight Ltd has worked as a consultant for Jykes in the Scandria-project. Our aim is to link Jyväskylä's Innoroad Park (road transports and logistics) with a well functioning railway connection to and from Helsinki, Turku and later Kotka-Hamina region. The critical mass for Finnish State Railways is 8.000 units per year.

By moving cargo from road to railways, we can achieve safer road traffic; reduce carbon dioxide (Co2) emissions and work towards more efficient and greener logistics. What are the pros and cons of such a project?

From the railway operators' side the key challenges are the amount of transported units, required frequency and possible need of special transport units like tailored wagons. The State Railways pay a fee for the owner of the infrastructure (Ratahallintokeskus) for every transported unit. When truckers use the road network, they are not paying any "rent" for the use of the road. This system favours the road transports.

The cargo terminals handling for the arriving and departing units need a sufficient volume, a critical mass. The workload can be a problem if the units arrive and depart during a small time window. The terminal workers are working 8-hour shifts and in case trains arrive early in the morning and depart late in the evening, a minimum of two shifts per day will be needed. The terminals would therefore need additional work during the quiet hours. Such work could be provided by maintenance and service of the transport units, discharging and loading of containers and splitting full loads into smaller shipments. Co-ordination of the traffic flows will provide some information intensive work at these "hubs".

Shippers and receivers of the cargo are interested in supporting safer and greener logistics, if... the frequency of shipments is sufficient, the transit time is same or faster and the costs same or lower than in the conventional road traffic. Some bigger container lines are committed to decreasing carbon dioxide emissions. These operators are willing to pay slightly more for the transport, if the transport mode is environmentally friendly.

One of the points that the shipping lines brought up, was the number of ports served directly in Finland. They feel we are trying to serve too many ports with direct vessels. They would prefer to concentrate the cargo flow to few, large and efficient ports and utilise the railway network for other areas. Amount of containers kept in storage at the ports would decrease and eliminating empty haulage between the ports and the industrial sites could bring down the amount of empty kilometres.

According to the Finnish Port association the Finnish ports play an important role in Finnish business. Almost 90% of Finland's foreign trade passes through our ports. In this sense, Finland could be compared to an island, as the ports located on its approximately 1,000 kilometres of coast function as links in the commercial transport of goods and passengers to and from foreign countries. Most Finnish ports are kept open to serve shipping all year long, in spite of the winter.

In the future we might need to question the amount of ports kept open all year around. What are the costs compared with a more concentrated port structure? Fewer ports with daily sailings might benefit the Finnish industry more than "own" port for every industrial site.

In the Continental Europe we have made considerable progress in moving road cargo on the railways. By having an open mind, a closer co-operation and a totally transparent cost-structure, we can do the same in Finland. The Finnish industry is competing with companies that are already close to the end user of the products. By supporting the railway system with more volumes, we can increase the service frequency, decrease the costs and benefit from environmentally cleaner logistics.

Quoting Duke Ellington and Ella Fitzgerald: would it be the time to take at the A Train?

Matti Miettunen

M.Sc. (Econ. & Bus. Adm.)

Managing Director

Delta Freight Ltd.

Finland

Lithuania - a narrow corridor for heavy transit freight

By Darius Brekys

Last year Lithuania celebrated the anniversary of 1000 years since the first reference of the name of Lithuania in written sources. This year we celebrated the anniversary of 600 years since the victory in the Battle of Grunwald, where the Teutonic Knights were defeated and we escaped the destiny of our neighbor Prussia, which has disappeared from the current global map. Around that time, Lithuania started integrating into Western culture. Thus, currently our population is 3.3 million located on an area of 65,000 square kilometers. We are struggling to prove to ourselves and to the world that "all" roads lead not to Rome but via Lithuania. At least, freight roads.

Logistics: not for the sake of war but for peace

In 1990, Lithuania once more re-established its sovereignty, and the things that have been going on in the last two decades seem like a fast-paced movie. The escape from socialism to capitalism took considerably less time than the way to the traditional European market to reach a free market leaving socialist “charms” behind. Prestigious buildings and skyscrapers skyrocketed in our city faster than the public's economic consciousness. Nowadays, when the hardships of the year 2009 are over, we are starting to evolve again. Corporate survival strategy is being replaced by the renewed battle for market share. One of the weapons is logistics. However, the concept of logistics, which was once used in the military area, is currently being used in the opposite direction. The goal of contemporary logistics is to integrate as much as possible freight movement processes, eliminating any ethnic, geographical, mental and technical differences. Now, all the countries want to identify themselves as "bridges", "gateways" and “corridors ". The ongoing "war" is focused not on how to close ourselves, but on how to open up as widely as possible to neighbors and to the world. We, Lithuanians, are also awake and are opening up slowly, although we loudly invite cooperation via the port of Klaipeda, which is the northernmost ice-free port of the Baltic Sea (as we declare in our leaflets), via the IXth international railway corridor connecting the Baltic Sea Region with Belarus, Russia, Ukraine, Kazakhstan and other CIS countries by a railway line measuring 1520 mm in width. Step by step, we are trying to break the ice and open up to Europe via the project Rail Baltica, which shall connect us by European guage railway (1435 mm) with the EU countries via Warsaw and shall stretch to the North via Riga, Tallinn, up to Helsinki. We are also “usurping” Europe on the highways: recognized Lithuanian carriers drive 14,500 freight vehicles all over Europe transporting international freights. In comparison, Belarusians have only 8,000 vehicles, Latvians –11,000, Estonians – only 4,000. Motor vehicles have adapted to market conditions better than any other means of transportation, and their “invasion” is felt beyond the borders of the Republic of Lithuania. In particular, there is a considerable pressure from Russia and the Poland, which are trying to limit the activities of the Lithuanian carriers via administrative means rather than the market (however, similar things happen not only in Europe; there is no peace between the U.S. and Mexican carriers either).

Not long ago, another project arose which is similar to the previously mentioned project in terms of its resonance. This is the East-West Transport Corridor. It is a “fresh product”, which aims to connect Northern Germany, Southern Sweden, Denmark, on the one side, and the mainland of Asia, on the other side, by railway (1520) via the CIS countries and Lithuania. The goal is to have an alternative to ship transportation from China to Europe.

Life is coming to the boil in the strictest sense, the projects are moving from paper to the stage of execution: the rails and highways are being laid, huge cargo planes are starting to arrive, the first public logistics center has been set up. It is important to note that this center is being built outside the traditional main cities of Vilnius, Kaunas and Klaipeda. The first public logistics center has been established in Siauliai - the fourth most populated city of the Republic of Lithuania. This is the first PLC, resulting from 10 years of discussions concerning public logistics centers. Of course, it is necessary to thank private initiative, which brought together the interests of business and the city. It is important that the state of Lithuania is developing gradually in the geographical sense and is more balanced than other states whose capital, port and everything else are concentrated in one big city.

The country of transit or logistics: a chicken or an egg?

The protection of the homeland's interests was flagged in the year 2009 due to the general depressed atmosphere across the continent, but it has been almost a year since the recovery of freight traffic, which has returned the profession of logistician into fashion. It is so in Lithuania as well as anywhere else in the world. Logistics is a favorable subject for discussions in ministries, associations, conferences, exhibitions, by a cup of coffee and even beer. University professors develop theoretical business platforms and look for European money. The representatives of state structures draw the future maps of transportation and develop programs on the basis of their own and European money. Business practitioners, overwhelmed by the economic crisis in 2009, are beginning to recover and seek not only to do their daily business but also to try to realize the intercontinental, multimodal, intermodal, transit corridors and bridges developed by the theorists.

It is necessary to be cautious with terminology during intellectual debates in the logistics community. For example, it is bad to say in Lithuania that Lithuania is a transit country. It must be said that we are a logistics country! In this way, you will look more sophisticated and no one will accuse you of being a “narrow thinker”. In my opinion, the doubts that Lithuania should not be a transit country but a logistics country are a waste of time. The essential thing is the freight streams. We can share if there is something to share; therefore, it is pointless to be afraid that Lithuania is becoming a transit country. I cannot imagine my country’s logistics without transit streams. And so, everyone is discussing logistics: representatives of warehousing and transportation, education and industry, ministries and local governments, etc. All of them (us) are united by two common interests: first, to "help" Lithuania become a logistics country and second, "to help absorb” European Union and national funds! At this point, let’s, perhaps, draw a veil over which interest takes priority.

All the mentioned self-irony not only refers to our sins but also to our strengths. Whenever there is a formula “idea + funding "(or "funding + idea") functioning, we can assume that sooner or later the results will appear. Our country needs them very much. And we need them urgently because Lithuania is a small heavy-transit country. The year of 2009 clearly showed that only those logistics companies could stay viable that were dealing with foreign clients, whereas the companies that were oriented only towards the local market faced severe business difficulties last year and in the first half of this year. Even within logistics companies whose business was diversified, the trends of cash flows were clearly different depending on the type of business: freight forwarders suffered the least. Warehouses suffered the most because they are often focused on the local client.

In the year 2009, the Lithuanian GDP dropped by 16%. The estimates for the year 2010 are still very reserved. Domestic demand (in particular, household consumption) shall remain in a deplorable situation. The situation on the real estate, public finance and labor markets remains uncertain as well. Recent crises have demonstrated that the recovery of our country does not come from inside but from external economic improvement. Naturally, the year of 2010 and the following years shall depend on how well we keep our backyard in order, and most importantly, how well we manage to open up to the import, export and transit cargo business by sea, road, air and rail. From my point of view, forwarding companies shall have an exceptional mission in this area.

Forwarding companies – the heart of freight streams

As elsewhere, the origin of the forwarding companies in Lithuania is national capital, foreign capital and hybrid capital. Why do I mention these things? Well, the companies of different capital sometimes have different objectives in our country and with respect to international freight distribution. There are a lot of international logistics companies which deal only with the Lithuanian freight market, i.e. only import/export to/from Lithuania. The majority of famous international forwarding companies have their “telephone

book", which is not only a tool of local corporate synergy but also a "repressive tool" restricting sales limits. For example, the employees in a Vilnius office are allowed to communicate only with clients from the Lithuanian market because the clients in Latvia belong to the representative in Riga. It should be very difficult for such a local unit to develop a transportation business because it is practically closed within the boundaries of the local market. We should feel sorry for the heads of the foreign representatives (Country Managers) who are authorized to work only with the Lithuanian clients because they have faced the crisis at its full strength (as I have mentioned, the local market in Lithuania is still floundering). Imagine yourself working in a freight transportation market with a population of 3.3 million. No one denies that well-established global logistics companies are building high-quality supply chains to/from the Lithuanian market, but this is not sufficient for the national interest. I am more impressed by another group of international logistics companies. These are the companies that allow for the units located in Lithuania "to cover" not only the market of Lithuania, but also that of Latvia and Estonia (in total, a population of 6 million) and to develop transit freight transportation to the former CIS countries. And that is a few hundred million people! I would call such companies non-local progressive companies on our market as they encourage transit via our country. Being located somewhere in Western Europe, such a parent company of logistics provides a high degree of freedom in the activities of its units located in foreign countries. And this is good for everyone.

However, the managers of the forwarding companies who are free to communicate with "whomever they want" in the West, East and around the world have the most creative mission. Usually, these are relatively small local capital logistics companies, whose maximum added value is created by transit services: freight transportation, warehousing, customs mediation. Namely these companies have the greatest interest in freight streams from any corner of the world "dropping in" at consolidated warehouses in Lithuania, Baltic States and CIS. Freight corridors, bridges, and gateways are only the veins, whereas the heart of freight streams are economic subjects that attract freights. In Lithuania, logisticians-forwarders are united by the Lithuanian National Freight Forwarders Association Lineka, which so far has only 50 members. Provided that on the market there are several hundreds of active freight-forwarding companies, the number of the members of Lineka should grow significantly with the recovery of the economy. At the same time, I would like to add that our domestic functionaries have resisted lobbying pressure from some companies to introduce some financial restrictions with respect to new forwarding companies. The logistics and carriage companies which are already established in the market have a secret desire to limit in the territory of Lithuania the number of logisticians involved. The most commonly used argument is that new small forwarding companies are insolvent. Instead of organizing the prevention of debts inside the company, the "old" players present restrictions to future businesses irrespective of the fact that the future of logistics is to open up, not to close. Or, maybe they just ignore reality and due to language or other barriers do not want their business to adapt to the global market?

I will repeat that in our country the geographical dislocations of the activities of the forwarders (logisticians) that want to survive have transgressed the boundaries of Lithuania as well as the Baltic States and the CIS countries. Freights and services from Eurasia and other continents "pass" through our ports and warehouses, simultaneously creating some additional value (transportation, warehousing, customs clearance, etc.). Not all of the freight roads lead only via the global hubs. The latest proof of that is IL 09.21 96-400T, which landed at Kaunas airport carrying 66 tons of electronic goods. The final destination of these goods is Western Europe. It is planned that a Boeing 747-400 will arrive in the following year.

Railway and port: a slow, very big and very important duet

This year, we received very convincing evidence that the Lithuanian transport link with foreign countries does not have enough alternatives. The "Icelandic volcano" lessons have shown us that when the sky closes and we rush anxiously to the railway, bus stations and ports, it becomes very difficult to reach our homeland even from EU countries. I myself was forced to find a way home from Amsterdam to Vilnius due to the volcano's tricks. Having passed the segment Amsterdam- Berlin in a comfortable carriage quickly, I had to use the services of a car because Vilnius is very far from Europe when we talk about the possibilities of using the railway (the Polish and Lithuanian rails have different guages). Historically, in Lithuania the Russian type of rails has remained, therefore the Rail Baltica project is the only possibility to have European rails and the Russian intersection, making it is our future railway hope. According to the plan, in 2013 the European rail should reach Kaunas, where different types of railway standards will clash (1435 mm and 1520 mm). The East-West Transport Corridor Association was established just on time two months ago.

The corridor's benefits are standard: 1. a shorter transit time from China to the European Union countries; 2. Chinese freights shall no longer linger from the mainland of the Chinese provinces to the ports. Currently, freight vehicle queues may take up 2 weeks. The idea is to create the conditions for the movement of freight from China via the Trans-Siberian railway, the Lithuanian railways and the port of Klaipeda to Southern Sweden, Denmark and Northern Germany, which is more than satisfactory (especially to the Lithuanians).

The greatest number of tons (29.8 million) was reloaded in the port of Klaipeda in the year 2008. During the first half of this year, 15 million tons was reloaded. In addition, the relative amount of expensive goods is increasing. There are clear signs of recovery. First, the land bridge (EWTC) connecting Asia and Europe via the Southern Baltic Sea Region, which is currently under construction, could become a strategic factor for the port. Secondly, the port of Klaipeda is the freight artery in Lithuania, but we should not forget that Belarusian imports via the Baltic Sea are higher than via the Black Sea. And this is a state which may expect significant investment (all we have to do is to speed up the democratic processes there). Third, the Government of the Republic of Lithuania mentioned the port in the priorities of the activities for 2010. I quote: "To develop the East-West transport corridor in order to connect to the Trans-European and emerging Euro-Asian transport infrastructure networks, to choose the model and place of the deep-water seaport, to form multifunctional clusters (nuclei) and to establish public logistics centers."

Thus, the port was referred to in all of its aspects. What else do we need? Good management.

Epilogue. Ode to the Government

It is unusual and even "impolite" for us, Lithuanians, to praise the government of Lithuania, but we can trace positive things happening in our country among the Ministry of Transport and Communications, interested associations and the private logistics sector. There is a growing chance that a narrow transit (and logistics!) corridor of a small country could become an important artery for the freights of various continents of the world. By way of opening up to the world through financial injections into the Baltic Sea Port of Klaipeda, airports in Vilnius, Kaunas and Palanga, connecting to Western, Southern and Northern Europe via the Rail Baltica, modernizing of the Via Baltica and local highways, our state is coming back onto the global map not only as an elite basketball country but also as a transit (logistics) country.

As one of our humorists says: "There will be cakes, and we shall need no bread."

Darius Brekys

The Board Member

Lithuanian National Freight Association LINEKA

Lithuania

Simplified customs procedures on EU territory in international transport of goods by sea

By Miroslawa Ponczek

At the end of 1992 the European Committee started to promote shipping in European sea areas, giving it a definition that suits both the economic interests of EEA and the activity itself. The range and form of short-distance shipping was defined in the report published in 1999 as: sea shipping between ports located on the European continent or sea shipping between these ports and non-European ports whose coastline is located along seas bordering Europe. Later this range was extended to include Europe's internal waters and certain parts of the Atlantic Ocean. Thus it may be defined as both domestic and international transport, coastal and feeder transport between islands, lakes and rivers alike. On an international scale it constitutes transport between European Community countries and Russia, Norway, countries of the Black Sea and of the Mediterranean Sea basins. This changed the traditional understanding of the term.

Globalization processes, EU expansion and increased economic activity directly boosted cargo transport in all directions. Consequently new legislation and innovative solutions must be introduced to facilitate smooth administrative and customs procedures in transport between countries of the European Community, while taking all necessary measures to protect EEA interests.

Efforts are being made to establish a European area of barrier-free sea transport intended to introduce a series of improvements facilitating administrative and customs formalities, especially in the case of European Community goods and ships navigating between EU ports only. It is planned to introduce customs regulations requiring all goods transported on such routes to have an appropriate customs status, thus eliminating the need to present special certificates. This directly influences shipping activity as well as all economic entities connected with sea transport, such as ports, transshipment terminals, forwarding and transport companies. Apart from the conveniences already available, it is planned to expand the internal market to include sea transport within the European Community, creating a cohesive, efficient, investment-attractive and competitive common market of the European Union.

From the point of view of forwarding, all EU regulations intended to facilitate the transport of goods should be immediately adopted and followed within company structures. Noteworthy among the conveniences already available are: Authorized Economic Operator (AEO) status, Single Authorization for Simplified Procedure (SASP) and fiscal representation which, though directly related to the European area of barrier-free sea transport, have a much wider application.

The reason why EU introduced AEO was to boost the dynamics and efficiency of delivery chains involved in the international trade of goods. It is directed at every economic entity whose headquarters is located on European Community territory and whose business activity is governed by customs regulations. Upon fulfilling the requirements of the Community Customs Code, one gains access to all the privileges of Authorized Economic Operator status. As holders of AEO for almost two years, we enjoy many privileges such as easier access to simplified customs procedures, less physical inspections and document control, priority treatment if selected for control and the ability to request a specific place for such a control. As this status becomes more widespread, the execution of its privileges becomes more efficient.

A new type of single authorization for simplified procedure, SASP is granted to the economic entity by the customs administrations of two EU countries. The authorization request is made in the country where accounting is conducted while the procedure itself is carried out in another country where, for example, the company's branch is located. Customs duty and tax are calculated as follows: VAT is settled in the country where the company's accounting is conducted while customs fees— in the country where the customs declaration takes place. The main advantage is the reduction of administration and accounting costs and fees required by the customs administration issuing the authorization even though the actual physical inspection and release of goods will take place in another EU country.

Thanks to the fiscal representation in Germany, Belgium and Denmark, we are able to follow convenient procedures when importing from non-EU countries. What makes this possible is the option to complete all customs formalities involved in introducing goods onto EU territory, which goods will then be brought to Poland as EU commodities. In Hamburg, Antwerp and Rotterdam only the customs duty is liable to be settled whereas VAT may be reduced to as low as 0% at the moment of customs clearance. The tax is not payable until the 15th day of the month following the end of the month when the goods were delivered, so the company receives a tax respite. Fiscal representation, therefore, allows to freely manage one's capital without freezing it on customs administration accounts.

It should be pointed out that by operating in micro-scale, the enterprises themselves introduce solutions which serve to improve the efficiency of the legislative initiatives of national governments and EU authorities. Companies use additional transport insurance, new quality control systems which manage the choice of efficient subcontractors, security systems, shipment tracking, fleet management and high-end, comprehensive ICT systems.

Crucial for the future expansion of the European area of sea transport is the choice of both the right strategy for cooperation between European countries as well as the forms of cooperation in mutual relations. However, this is not possible without consulting the economic entities involved in the transport chain. It is necessary to successively identify and eradicate administrative burdens and barriers, introducing efficient solutions and tools that will boost the development of EU economies.

Miroslawa Ponczek

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Russian Maritime sector in 2010

By Nikolay Shavrov

The leadership of Russia has identified several priority areas of industrial development and modernization of the county, shipbuilding/maritime industry being among them. The issues of the development of the industry were discussed on the highest level in Russia several times since 2007 and both leaders of the country recently had often visited shipyards and offshore installations.

Structure of Russian shipbuilding production today is dominated by products for navy (75%), while usage of the production capacity is approximately 50%. Its share in the total output of the defence industry and in defence export is more than a quarter.

Offshore demands

Two key definitions characterising commercial development of Russian maritime industry today are – Harsh (Arctic) environment and Hydrocarbons production and transportation. Practically all major current projects are connected to these two.

As of today, offshore production of hydrocarbons in Russia is rather small – less than 3%, but according to the assessments of major companies – Gazprom, Rosneft and Lukoil – it will increase by 2030 up to 23% of all Russian oil and up to 27% of gas. All areas, where these developments are planned, have harsh environmental conditions, which demand very specialized equipment.

The total demand for platforms, rigs and ships to perform the predicted amount of work in the period to 2030 to explore, produce and transport offshore hydrocarbons in Russia is estimated as 55 platform and rigs (40 oil and 15 gas), 85 specialized transport vessels (55 tankers and 20 gas carries) and 140 supply/support ships and icebreakers, all ice class. Total investment volume is more than 50 bln USD.

It should be noted, though, that mentioned figures are depending on the fulfilment of planned offshore development projects and, probably, should be considered as optimistic ones, as history of the last 15 years has shown that offshore projects have tendency to be delayed and postponed in Russia.

Industry location, projects and development plans

There are 3 Russian shipbuilding/shiprepair clusters – North-Western (St.Petersburg, Severodvinsk and Kaliningrad), Volga-Caspian (Nizhny Novgorod, Volgograd and Astrakhan) and Pacific (Komsomolsk, Vladivostok/Nakhodka and Bolshoy Kamen).

North-Western cluster

Admiralty Shipyard (St.Petersburg) during 2010 has commissioned 2 Arctic shuttle tankers with 70.000 dwt to major Russian ship-owner Sovcomflot. The company is building scientific research ship, plans to participate in the tender for 25 MWt diesel icebreaker and considers building supply ships, gas carriers and tug boats. During 2011-16 the shipyard is planned to be moved outside of St.Petersburg with total modernisation of production facilities.

Severnaya Verf and Baltiysky Zavod (St.Petersburg) are belonging to the United Industrial Corporation. In June 2010 Baltiysky Zavod has launched floating nuclear power plant – a barge of 21000 tons displacement with two nuclear reactors 35 MWt each, which will be commissioned by 2012. Rosatom is planning to order 7 of such ships by 2015. Other potential project – gas carriers up to 75 th.cub m for Sovcomflot.

Severnaya Verf is currently building supply ships for Norwegian owner, the first one was delivered in August 2010, the second is planned to be delivered in 1st quarter of 2011. Shipyard is considered to the leader in the coming tender for building of supply ships for Gazflot. Among other projects, which may start in the coming years – templates and manifolds for subsea production and superstructure modules for Shtokman FPU. Substantial modernization is planned by 2015.

Vyborg Shipyard traditionally was engaged in building of offshore rigs. Most recent projects are 2 semi-submersible rigs for Gazflot. Rigs will be outfitted at Samsung HI and delivered to the customer in the beginning of 2011. Originally rigs were supposed to work at Shtokman project, but as it is postponed, rigs will be used at Sakhalin projects of Gazprom. Not much is known of the yard's portfolio after the commissioning of those rigs.

Sevmash (Severodvinsk), the largest Russian shipyard, is working on the ice-resistant platform for Prirazlomnoe oil field. The plan is to transport the platform to Murmansk for cement ballasting by the end of 2010 and deliver it to the field in 2011. This will probably finalise the decade-old project. Potentially Sevmash can be involved in the Shtokman project, for example in building of FPU, but the cooperation with foreign partners might be hampered by continuing legal dispute with Norwegian shipowner Odfjell.

Today's most important project of Zvezdochka Shipyard (Severodvinsk) is building of Arkticheskaya jack-up rig for Gazflot, planned to be commissioned by 2011.

Volga-Caspian cluster

Caspian Energy Group (Astrakhan) is the only Russian EPCI integrated offshore construction company. In 2009 has delivered ice resistant platform for Lukoil (Yury Korchagin field) and trenching barge for Saipem. Current and coming projects include process and HVAC modules for Rosneft Vankor project (2010), supply crane ship for Dragon Oil Turkmenistan (2011), jack-up drilling rig for Petroresurs (2011), fixed drilling platform and living quarters for Dragon (2012). The company is likely to participate in building of platforms and infrastructure for Filanovsky project (Lukoil).

Pacific cluster

Although there are several large shipyards on the Pacific coast of Russia - Amur Shipyard (Komsomolsk) and Zvezda Shipyard (Bolshoy Kamen) to name a few, the volume of commercial orders at the yards for different reasons is very small. The situation, however, can rapidly change due to ambitious projects of modernization of existing as well as building of new shipyards in cooperation with foreign companies.

Two major projects include building of 2 new huge shipyards, both joint ventures, one between Zvezda Shipyard and Daewoo Shipbuilding and Marine Engineering (Korea), another - between United Shipbuilding Corporation and Yantai-Raffles (Singapore). Construction of both shipyards have started in 2010

Zvezda-DSME shipyard will build Aframax tankers and gas carriers. Russian investments are planned to be 400 mln USD. Completion of yard is scheduled for 2012. Besides, Zvezda Shipyard in December 2009 had started construction of semi-submersible ice resistant rig for Rosneft with delivery in 2014. Rosneft plans to order two more such platforms by 2018.

Vostok-Raffles will be placed at Chazhma Bay relatively close to Bolshoy Kamen and will be building oil platforms, drilling and technological equipment The investments in the project will total 100-200 million dollars and construction is planned to be finalised by 2012.

More information about current developments in Russia can be found in monthly bulletin "Russian Maritime and Offshore Newsletter", which can be subscribed from Innovation Norway office in St.Petersburg

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Russia

Maritime issues in Russia's energy politics in the Baltic Sea Region

By Nikolay Dobronravin

In accordance with the Maritime Doctrine of the Russian Federation approved in 2001, Russia "will strongly and firmly strengthen its position among the leading maritime nations".[1] At the same time, Russia is and will most probably remain a strikingly continental country. Major old and new Russian ports are still mainly situated on the Baltic and Black Seas, far from the open oceans.

It is interesting here to compare the positions of Russia and Finland. While working on the provisions of the 1982 United Nations Convention on the Law of the Sea (UNCLOS III), Finland joined the Group of Land-locked and Geographically Disadvantaged States. One can argue that the position of the Russian Federation is similarly disadvantaged except for the Pacific and Arctic seas.

This disadvantage is felt in many aspects, but the major problem is related to the very essence of Russia's economy and foreign trade. The Russian Federation is first of all an energy exporter. Oil, natural gas and coal from Russia are exported mostly to Europe. The European Union as a customer is not too far from the western borders of Russia. However, the main centres of mineral resource extraction are situated in Siberia and on the continental shelf in the Arctic and in the Far East. This means that Russia has to exploit more and more hard-to-reach resources and develop an extensive transportation network .

The Arctic continental shelf, historically seen as divided into Russia's and other sectors, is now a subject of international boundary discussion. The presence of large hydrocarbon resources can only add to the difficulties of maritime area delimitation in the region. On the other hand, the common interest in this field has helped Russia and Norway to find a solution in the Arctic after many years of confrontation and debate.

The major disadvantages of Russia as a petro-state or "an energy super-power" are listed in "The Energy Strategy of Russia for the Period up to 2030", approved on 13 November 2009. According to this document, "The strategic objective of the foreign energy policy is the maximum efficient use of the Russian energy potential for full-scale integration into the world energy market, enhancement of positions thereon and gaining the highest possible profit for the national economy".[2] In practical terms, it will mean more and more pipeline and port terminal construction.

Russia's new Energy Strategy and the country's Maritime Doctrine also illustrate some sort of persistent "mainland mentality". In the Far East, the first phase of the Eastern Siberia – Pacific ocean oil pipeline has been completed. Oil exports to both China and the USA have been growing. Gas exports from the new LNG plant built on the island of Sakhalin have reached Japan, Korea and as far as India. Meanwhile, neither document did mention that several issues have not been resolved, and especially that of territorial sea and Exclusive Economic Zone boundaries in the Pacific, leading to eventual confrontation over energy transit and trans-boundary oil and gas fields. In this aspect, the situation in the Baltic Sea where most Exclusive Economic Zones are generally recognized and uncontroversial, may be better positioned for future conflict resolution.

Nord Stream: A long way to understanding the realities of the Baltic Sea

The initial stages of the discussion over the "Severniy Potok" (Nord Stream) project outlined a kind of "bypass-your-neighbour" approach. In order to explain the importance of the project to the public opinion in Russia and abroad, it was stressed that Russian gas would be delivered directly to the European market without crossing the territories of other countries.

The tendency to bypass the transit states such as Belarus and Ukraine became pronounced in the mid-2000s. The use of the adjacent Baltic and Black Seas was then seen in Moscow as a panacea against current and eventual "transit jams" and resulting conflicts with the European customers. However, the very concept of bypassing was based on a very outdated view of the seas, maybe dating back to the times when the Russian court was not able to grasp the idea of "dominium maris baltici". It apparently came as a surprise for the Russian government and Gazprom, that there were no unclaimed waters or undersea areas in the Baltic and Black Sea.

The story of Nord Stream shows how difficult it was to understand that the Baltic Sea had already been divided into Exclusive Economic Zones (EEZ). The EEZ limits could be even more dangerous for Russia's energy exports, if for example Estonia and Finland would have agreed to change them and "close up the Gulf of Finland".

The ecological concerns of the neighbours around the Baltic Sea were often perceived in Russia as "political hypocrisy". Besides the Gulf of Finland, Russia has only one small EEZ in the Baltic Sea near Kaliningrad. Offshore oil extraction in this enclave by LUKOIL was not greeted by the adjacent states, despite the declared zero discharge policy of LUKOIL.

Ecology-driven discourse in the Baltic Sea region also played a significant role in the changes of the Nord Stream route and meant significant additional expenses. Maybe the positive result of this is the experience never found before in Russia's pipeline projects. It is still to be seen how this experience will be applied to the South Stream project. The pipeline crossing the Black Sea, where most EEZ limits remain undefined, may present a more difficult problem than the existing transit routes through Ukraine.

The Baltic Sea in Russia's Maritime Doctrine: no energy issues explicitly mentioned

The Maritime Doctrine of Russia includes a special set of provisions related to the Baltic Sea:

- development of coastal port infrastructure, the upgrade of maritime trade and the mixed (river-sea) navigation;
- creating the conditions for sustained economic cooperation with the countries of the Baltic region, the rational joint management of marine natural resources, making comprehensive confidence-building measures in all fields of maritime activities;
- settlement of issues related to the delimitation of maritime areas and continental shelf between the Russian Federation, opposite and adjacent States;

[1] Maritime Doctrine of Russian Federation 2020. Moscow, 27 July 2001, *Regional trends: the Baltic Sea* at http://www.oceanlaw.org/downloads/arctic/Russian_Maritime_Policy_2020.pdfMEMORANDUM (unofficial translation).

[2] Energy Strategy of Russia for the Period up to 2030 approved by Decree N° 1715-r of the Government of the Russian Federation dated 13 November 2009. Moscow: Institute of Energy Strategy, 2010, at http://energystrategy.ru/projects/docs/ES-2030_%28Eng%29.pdf.

- economic and military security of the Kaliningrad region of the Russian Federation, the development of maritime transportation;
- creation of conditions, including those with the capacity of the region for the base creation and use of marine capabilities, ensuring the protection of sovereignty, sovereign and international rights of the Russian Federation on the Baltic Sea.

The doctrine is focused on the issues of sovereignty and national security. Within this securitization approach, no energy issues are explicitly mentioned. However, practically all the references to economy in the Baltic region are apparently (and primarily) related to Russian energy export.

The construction of Nord Stream across the Baltic Sea, ignored by the Maritime Doctrine, will not mean the end of the problem for Russia's energy policy in the region. A much bigger major problem is awaiting us in the near future. It will be necessary to further develop trans-boundary cooperation (and maybe maritime doctrine comparison and agreement) in order to avoid an Exxon Valdez/Gulf of Mexico-type oil spill or some other ecological disasters, while the Russian energy export will be growing. Securitization discourse in Russia's politics will hardly help to resolve the eventual ecological conflicts between the Russian Federation and the member states of the European Union in the Baltic Sea region.

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Russia

DHL Express Denmark – competing for a great future

By Claus Lassen

Earlier deliveries and later pick-up times is the direct outcome of DHL Express Denmarks recently heavy investments in Denmark.

The new direct flight, which follows extensive investments in both new facilities in Taulov in Juttland, Denmark and re-build of a facility near Aarhus, is one of the many initiatives from DHL Express Denmark to improve the strong DHL Express network covering more than 220 countries.

DHL Express Denmark implemented in April a flight into Billund Airport in Juttland which complemented the flight into Copenhagen, and moved into a brand new distribution facility in Taulov in August.

The industry in Western Denmark has with DHL´s huge investments been offered massively improved service windows and improved competitive possibilities with a direct connection to the rest of the world.

Especially the pre-9, pre-12 capabilities has been enhanced as well as ability to deliver later cut-offs for customers. The new capabilities following the investments give DHL a unique position in the market. In some areas it will be superior to the competition, in other areas it will be on par with the competition

We have invested in the Billund-flight and upgraded buildings and the entire network in Juttland, all designed around our First Choice methodology which focuses on Voice-of-customers. DHL Express will be the only integrator capable of Pre-9 in West Denmark, and we will have the latest Pick Ups and best Pre-12 coverage.

The new setup with only 2 distributions centers in Juttland has already proven a great success.

DHL has been invited to more tenders from major players in the region, and many small companies has embraced the new capabilities from DHL and moved from the competition. The service has reached an all-time high with an End-to-end performance (from Pick-up in DK to delivery to the end user) well above 97% every week. The flying into Billund has meant that the road-blocks and queues on the A45 motorway from Copenhagen to Aarhus havs been avoided, and that has a big impact on the stability of the performance.

The Danish marked is rising again – Here is the visible proof

During the last 2 years, DHL Express Denmark has experienced less volume from their customers, and a declining import but this trend is now turning.

In the first 6 month of 2010 DHL Express Denmark has had a volume growth of 9%, which is even a few percent above the rest of the market. This has meant, that the Boing 757 from Copenhagen is now too small, and a much bigger Airbus 300 will be implemented Oct 1st , 2010.

It is encouraging to see volume growth in the numbers, but when one stands at the airport and looks at the physical proof of growth in form of a much bigger plane, these numbers really materializes.

We have not yet harvested the full potential of the Billund flight, but my hope is that the B757 in Billund soon will need a replacement with a bigger plane like we have seen in Copenhagen.

Motivated employees

In order to keep our high level of service and quality we are implementing a training program this fall for all our staff. The program is aiming at bringing the core business and values in focus.

This is an indication of which we value and appreciate not only our management and staff but the most important thing for our business – our customers.

We are very focused on giving our customers the best service and quality in Denmark therefore we are making sure that our staff has a general and basic knowledge of the business.

Our philosophy is, that through active leadership we get engaged employees. With engaged and motivated employees we as a business provide our customers a great service and high quality – and therefore get happy and satisfied customers.

Through our Employee Opinion Survey which is performed every year, we get very valuable input from our managers and employees on how our workplace is going and what we can do to continuously develop our workplace and stay an attractive employer.

Running that extra mile

For the 26th year in a row, the DHL-Stafetten (the Danish word for Relay Race) is took place in Denmark. DHL stafetten is the largest relay race in the world. DHL Denmark is sponsoring the event, which is well-known throughout the country. It is a brilliant metaphor for DHL's daily business: handing over shipments in a chain from A to B and in due time, DHL-Stafetten signals one of the DHL values – to deliver excellent quality!

DHL-Stafetten is an event designed for companies where teams of five runners each run 5 kilometers and at the finish/start point hand over a DHL-branded baton to the next person on the team to continue the relay.

This year more than 200,000 runners are participating in the race. Around half the employees in Denmark are expected to participate as either a runner or supporter. The event also attracts thousands of visitors, colleagues and family members of company employees, coming together to applaud the runners from their company.

Focus 2010

A profitable network, loyal customers, great service quality and motivated employees – these are the goals of FOCUS 2010. After restructuring the business of the Express division in 2008 and 2009, it is now time to show a sustainable return. Uniting around the theme of "everyone is a salesman", the whole company is to be involved in the drive for an ambitious market share and a boost in profitability. The four pillars of FOCUS 2010 is listed below

1. Profitable Network
2. Customer Service
3. Operational Excellence
4. Motivating employees

Investing in our business, the new terminals and the flights and investing in our employees, education, Employee Opinion Survey and health initiatives have brought us back on a very good path in Denmark.

We now have some very strong pillars and foundation for driving a strong and successful business and we will keep investing till we have reached our goal of becoming investment of choice, provider of choice and employer of choice in Denmark.

Claus Lassen

Managing Director

DHL Express Denmark

Denmark

What do Finnish investment in Russia tell us?

By Kai Mykkänen

Is Finnish investment in Russia underestimated?

A recent estimate by the Bank of Finland put the total stock of Finnish foreign direct investment (FDI) in Russia at about €2.2 bln as of end-2009. We know this figure underestimates the true amount of investment as it omits three substantial aspects of Finnish investment in Russia. First, acquisitions of Russian assets are often structured in such a way that a Finnish company buys shares of an off-shore holding company and/or ownership of the Russian assets is transferred to a subsidiary of a Finnish corporation in a third country. Such transactions never make it into the bilateral statistics for Finnish FDI inflows to Russia. Second, FDI, as defined, does not include loans − the primary means by which many Finnish corporations finance their Russian subsidiaries. Third, holdings of less than 10 % in a company are treated as portfolio investment and not included to FDI columns.

The Bank of Finland estimates that the stock of Finnish portfolio investment in Russian companies (i.e. stakes of less than 10%) as of end-2009 amounted to about €1.7 bln. "Other investment" in Russia, primarily loans, was put at around €2.5 bln. Adding these amounts to the FDI figure gives us €6.4 bln. Unfortunately, this number now includes all fund investment (as part of portfolio investment), so we still do not have a precise figure for corporate investment.

An alternative approach to estimating investment of Finnish corporations is to use company-level data instead of customs data. At East Office of Finnish Industries, we have collected data about investments in Russia by our shareholders (19 leading Finnish corporations active in Russia). Our most recent data put the cumulative stock of our shareholders' investment in Russia at about €5.8 bln as of end-June 2010. This estimate for the most part includes all the types of investment mentioned above.

Using publicly available information, we roughly estimate that other companies listed on the Helsinki stock exchange have invested about €1.5-2.5 bln in Russia, while non-traded Finnish companies have invested some €100-300 mln. Using this method, we conclude that the cumulative sum of significant Finnish investments in Russia must be in the range of €7-8 bln. This amount exceeds that of previous authoritative estimates.

Part of the difference between earlier estimates and our new estimate may reflect the fact that previous company-level estimates have usually been based on the balance-sheet values of Russian assets. Here, our shareholders provide us with estimates of the *cumulative* sum of their investments. Balance-sheet valuation measures somewhat different things than cumulative investment. Balance-sheet values are typically revised to accommodate fluctuations in values of underlying assets. To clarify the picture, we asked our shareholders also to estimate the balance-sheet valuations of their investments in Russia. The aggregate amount of these estimates was about 10% lower than assessments of cumulative investment.

Why are manufacturers avoiding Russia?

The structure of Finnish investments to Russia differs sharply from the structure of foreign investments of Finnish corporations in other large markets. Manufacturers (e.g. pulp & paper, electronics, machine-building) dominate Finnish investment in Asia, the Americas and western Europe (even Sweden), yet Finnish companies have been loathe to build manufacturing facilities in Russia. Apart from Nokian Tyres, which operates a successful large car-tyre plant near St. Petersburg, the list of large Finnish investors in Russia is devoid of manufacturers.

The lion's share of Finnish investment in Russia focuses on businesses that don't compete directly with imports ("closed sectors"). Most notably, the electricity sector has captured the largest sectoral share of Finnish investment in Russia. The investment of Finnish energy giant Fortum in electrical power and heat production in the Urals region alone amounts to almost €3 bln. Construction and real estate have also attracted more than €1 bln; mainly investments by YIT, SRV, Lemminkäinen and Sponda. More than €500 mln has gone to retail, where Finland's two largest players, SOK and Kesko, are both active. There has also been significant investment in logistics (mainly Itella, nowadays a leading provider of warehouse logistics services in Russia) and print media (mainly Sanoma).

The wary attitude of manufacturers can largely be explained by the fact that they have the option of choosing between exporting to a target country or building local production facilities in the target country. In choosing the latter route, an investor requires assurances that the target country will provide a competitive environment for production relative to production situated outside the target country. Russia has traditionally not offered this competitive advantage, even in such cases where production in Russia could in principle be established and quality standards met.

Unit costs for manufacturing in Russia are still competitive at least with the EU in most branches. This advantage, however, may evaporate as costs rise much faster than in the West due to significantly higher growth in producer prices. At the same time, productivity gains in Russia have been getting smaller in recent years , meaning that the country is no longer making big strides in catching up with Europe. In other words, imports, appear to be extending their advantage over local Russian production. Economists refer this situation to a resource curse. In result of this curse policymakers find it hard to diversify the economy away from the prevailing model of exporting raw materials and importing manufactured goods.

Bureaucratic red tape and uncertainty over property rights only make it more understandable as to why western manufacturers are hesitant about investing in Russia. In recent years, Russia has intensified the use of protectionist trade policies to favour Russian production. This approach has benefited some Russian manufacturing branches (e.g. car-making), but on the whole trade policy and president Medvedev's "modernization" program have done little to reverse the larger trend of diminishing attractiveness of Russia to large global investors. In particular, I would note the downgrading of the consensus on Russia's long-term growth outlook, increased risk aversion towards investments in non-WTO countries generally and better recognition on the part of investors for the fluctuation-prone nature of the Russian economy, which was highlighted by the severity of the last year crises in Russia.

If, and when, growth of the Russian economy again outpaces growth in developed countries, the investment climate will surely improve. Even so, it is unlikely to recover to the peak levels of 2006-2007 (and even then foreign invest in Russia lagged far behind investment in the other BRIC countries). This view is supported by a recent survey of CEOs of East Office shareholders: enthusiasm for investing in Russia has increased from the global financial

crisis last year, but still is much dampened from what might have been anticipated if only the sharp recoveries in sales to Russia by the surveyed companies were considered.

Missing out on a services play?

Russia continues to offer promising investment opportunities in the service sector, most notably retail and construction. As long as the dollar-price of oil continues to appreciate, the Russian economy will experience higher consumption growth than in most developed nations. The Soviet Union ignored development of the service sector, and today many gaps in this oversight are still waiting to be filled by foreign investors willing to offer superior business models. The Russian state still does not regard services as a strategic function to be kept exclusively under its control, and instead appears quite ready to accept foreign dominance. Perhaps most importantly, services, retail and construction do not face competition from imports. Thus, one can incorporate high input price growth into sales prices without worrying about clients switching to imports.

In conclusion, we note that the current structure of the stock of Finnish investments in Russia corresponds well to the overall macroeconomic considerations for competitiveness in individual branches.

Kai Mykkänen

Economist

East Office of Finnish Industries Oy

Finland

Russia – not such a mystery after all

By Kalle Euro

"I cannot forecast to you the action of Russia. It is a riddle, wrapped in a mystery, inside an enigma; but perhaps there is a key. That key is Russian national interest", said Winston Churchill in a radio broadcast in October 1939. This historical quotation tells us much about the present day geopolitical configuration, too. From the points of view of Western Europe, Russia is still considered to be in opposition. “We” are cooperating with “them” in wide scale of things but still we can not quite figure out their way of thinking.

Could it be that “we” have not tried to approach “them” the right way yet? We know that mister Churchill had his reasons to feel suspicious of Kremlin, but nowadays the Russians live in completely different society. Why the “riddle wrapped in a mystery” has not been solved?

One reason might be, that Kremlin yet today takes care of its national interests in pretty harsh manners. On the other hand so does the United States. Many Europeans can not approve their methods of foreign policy, still those methods are not allowed to disturb the international development of business. “But Russia is protecting its economy by trade barriers”, criticizes some sceptics. So have the Americans and many other WTO members. Why are we trying to make up reasons for not cooperating with Russia?

Russia’s market has already showed us, that determined companies with realistic long term development strategies and well organized network of partners can open up possibilities for significant trading profits. That is why Turku Region Development Centre is encouraging local businesses to find their places in the processes of internationalization. And we are not only encouraging. There are many concrete projects going on right now.

Our Russian ”twin city” St. Petersburg will be closer to us than ever, when our representative office will be fully operational during this autumn. The recruitment process is going on right now. Our representatives will take care of supporting both Finnish and Russian businesses in many fields: internationalization, finding contacts and financing, starting projects, strengthening their profiles through marketing and communication and so on. Besides the business interests, Turku office will maintain excellent administrative contacts with the St. Petersburg region. We have been gathering highly appreciated experience on the adminis-trative level and we are very proud of that. This particular experience will help us to support internationalization of companies in other Russian regions.

One example of the near future project in St. Petersburg region is boosting the contact making between small and medium businesses. There lies probably the biggest potential for steady growth. We have already made the first proposals for starting the collaboration in those fields of businesses, which are the most internationally competitive. In case of Turku region those fields are biotechnology, ICT, maritime, logistics and tourism.

Turku office will also be responsible for media connections and communication. This is ex-tremely important task because of the fact that in Finland there is still too little understanding for modern Russian everyday life. This is the basis on which the old stereotypical conceptions about Russia are still forming our mental impressions and therefore influencing negatively to our decision making.

Turku Region has lots of experience in Russian market. Our companies have been very suc-cessful with our Eastern neighbour, even though we are not located right next to the border. One reason for that are the well developed logistical systems. The other obvious reason is the high level of education in our region. The local universities and polytechnics have year after year been able to educate a big quantity of young professionals for our companies.

Besides the St. Petersburg region, there are other rapidly developing regions in Russia, too. Turku has already established administrative relations with Sverdlovsk region that has enor-mous potential for example in the field of innovations. During the golden years of Soviet era the city of Sverdlovsk – nowadays Yekaterinburg – was highly restricted area because of the military technology. The scientific know-how can still be found in the local universities. That is why the Kremlin believes that Yekaterinburg is the right promoter for nanotechnology.

This belief is well justified. The first look at the city tells you that investments have been made in right places. The streets and parks are very beautiful and clean, public transportation works without hiccups, public services are on high level, young people are well educated and they know several languages even better than their age mates in St. Petersburg and Moscow and so on. But the best thing is that the competition on market shares is not so tough than in those two other cities. Yekaterinburg has 1,4 million inhabitants and it’s capable to offer many interesting prospects for internationalization, but so far with smaller risks.

The possibilities are there to reach. All we need is some more mutual understanding, more specialists to open the channels for cooperation and some more courage and professional planning to carry out the plans.

Kalle Euro

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City of Turku

Director of Turku Region Development Centre

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Unconventional gas and Russia

By Alexander Karlik and Olga Garanina

Massive exploitation of unconventional gas has recently started in the US due to innovative drilling techniques. The shale gas bonanza has resulted in the region becoming a net exporter of gas, instead of importer as projected before. Now shale gas provides about 15-20 per cent of the total US gas production and will quadruple in coming years. The US can therefore expect not only to be self-sufficient in gas for a hundred years, but also to become a net exporter of liquefied natural gas (LNG).[1]

The saturation of the North American market implied the re-routing of LNG (initially destined to the US market) towards Europe, causing a significant glut in European gas markets with correspondingly low prices and oversupply, and upsetting existing market structures. In particular, inflow of LNG to Europe, in the context of economic crisis and depressed demand, created serious competition to the Russian gas delivered under traditional long term contracts with oil-linked prices and take-or-pay formulae. As a result, by mid 2009, spot prices were about 50% to the long-term contractual Gazprom prices. Such market shift from seller's market towards consumer's market makes it necessary to reconsider the EU-Russia gas relations. The aim of this brief comment is to overview the major challenges posed by the surge of unconventional gas to the Russian gas export strategy.

Reserves and production of shale gas: the Russian view

The world shale gas resources are estimated at about 456 tcm, compared to 187 tcm for conventional gas. Nearly 40% of the shale gas endowment would be economically recoverable.[2] Thus the natural gas industry may see significant changes on the global scale in the near future.

The resources are unevenly distributed. According to today's estimates, the US and the CIS together stand for more than 60% of the total endowment; Europe slightly overpasses 7% of the world total, while China and India hardly reach a 2% share each.[3] However, resource and reserve estimates could be subject to substantial changes as exploration progresses; it will also depend on the evolution of the technological, economic and regulatory factors.

Despite a significant potential of unconventional gas in Russia, its production is currently not economical.[4] The costs related to unconventional gas are higher compared conventional gas. However, in 2010 Gazprom launched the production of coalbed methane in Kuzbass which is the world's largest coalbed methane basin. The production in the basin could reach up to 20 bcmpa after 2020.[5] Such projects are especially important for providing energy supplies in remote areas situated far from existing production zones.

Global long term production prospects of shale gas are uncertain. In Europe, the estimates of shale gas resources are quite divergent. Several exploration projects are ongoing and it seems that Europe may see increases to its shale gas resources. If the exploitation is economically viable, Europe would be interested to boost the shale gas production. In fact, gas has a modest carbon footprint in comparison to the other fossil fuels and complies well with the EU's renewable energy agenda. It can provide the required capacities to deal with the intermittency of renewable supplies. Moreover, the shale gas would become a serious card in the EU-Russia energy security play. In turn, Russia's gas exports towards Europe would decrease thus undermining the financial equilibrium of Gazprom and Russian state.

However, several obstacles have to be surpassed so as to kick off the shale gas revolution in Europe.[6] In particular, the EU faces equipment shortages, higher costs; it lacks experienced drilling workforce in shale gas sector, as compared to the US. Moreover, Europe is more densely-populated which means that environmental drawbacks would meet stronger resistance from the population. Finally, in Europe the mineral rights are owned by the state as opposed to local residents, and the shale potential is pursued by major energy companies, implying a lengthy decision-making processes and a generally risk-averse investment behaviour. While technological challenges could be resolved, the institutional adjustments can become a long process.

In consequence, in mid-term, shale gas is unlikely to revolutionise the European energy markets. Therefore, Russia is likely to remain a major supplier of natural gas to Europe for years. Nevertheless, the architecture of the EU-Russia gas relations could evolve due to the new market conditions.

What are the implications for the Russian gas strategy?

First of all, the reversal of market situation in Europe reinforced the credibility of spot markets. Today Gazprom is challenged by renegotiating its traditional long term contracts in order to increase flexibility of supplies.

The increasing weight of spot sales in Europe means greater uncertainty and stronger investment risk. From a producer's point of view, volatility of natural gas demand and prices implies higher risks of creating excessive production capacities. In particular, it explains the delays in putting into production of Yamal and Shtokman fields announced by Gazprom.

If the "low price low demand" scenario in Europe lasts, Russia may have to review its marketing strategy. In this case, the major options would be:

- concentration on internal market which accounts for about 440 bcm, as compared to 180 bcm delivered to Europe (in 2008). However, the major question is Russia's internal prices dynamics and the price indexation path;
- developing the Eastern dimension, in particular gas exports towards China. The price negotiations are currently ongoing with start of deliveries forecasted to 2015.

However, both of these options can be realised only in middle and long term.

At the same time, ramping up shale gas production at a global scale leads to downward pressure on gas prices. Therefore one can expect an incremental gas demand and possible shift in energy utilization from coal to gas in power generation, as well as increased use of gas in transportation. The surge of shale gas could therefore lead to readjusting the price/volume arbitrage played by producing countries.

Finally, the emergence of unconventional gas will have serious strategic implications for energy geopolitics. Even if Russia maintains its role of leading gas producer and exporter in the world, the emergence of new production areas in different countries will restrain Russia's ambitions to become an energy bridge between European and Asian markets, especially if the "shale revolution" spreads throughout the world.

On the contrary, if the shale gas "revolution" turns the shale "bubble", energy markets would become more prone to price shocks. Investment delays could lead to a lack of capacities in gas production and transportation in future periods, while highly competitive spot markets would perfectly mediate the price hikes.

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[1] WEC (2010), *Survey of Energy Resources: Focus on Shale Gas*, World Energy Council, 2010.
[2] *Idem, p. 3.*
[3] *Idem, p. 3-4.*
[4] According to Gazprom spokesman S. Kuprianov, <http://www.rusnovosti.ru/news/86260/> (accessed Sept. 27, 2010).
[5] <www.gazprom.ru> (accessed Sept. 26, 2010).
[6] Kefferpütz R., *Shale Gas: The EU's Energy Wunderwaffe?* Centre for European Policy Studies; EU Energy Policy Blog, August 27th, 2010.

Europe's lethargy - Russia's opening

By Matthew Hulbert

On the face of it, European energy policy is working. Capacity margins are high, supply is plentiful, prices are cheap, and emissions have been dropping of late. Fantastic; or is it? The big problem is that much of this has been due to the economic crisis, not properly aligned policy making in Brussels. If anything, Europe is sleep walking its way into far greater dependency on Russian gas by failing to take proactive measures to diversify supply when times are 'good'. External energy relations are still predicated on a bilateral basis towards Russia; this works well for some, but extremely badly for others. Politicized pipelines will undoubtedly come with political costs down the line for Europe, not least because Russia's strategy remains as clear as it is rational: exert maximum economic and political leverage from its energy assets, and limit alternative competitive supplies to European markets to enhance rents. It makes perfect sense.

The two key pipelines designed to do this are North Stream and South Stream. As the names suggest, the routes have diametrically opposed geographical routes, but share an identical strategic intent: tighten Russia's grip over supplies. It's also comes as no surprise that transit states are being handpicked for political ends rather than energy means at this stage. As construction gets underway for the 55bcm Nord Stream link, Moscow and Berlin have gone to great lengths to bypass a single inch of Polish, Czech or Lithuanian territory. The preferred political 'option' was to route it under the Baltic Sea once Sweden and Finland buckled to German pressure. Despite feeble claims from Stockholm and Helsinki that it will have very 'limited' geopolitical impact, the reality will prove to be profoundly different. Moscow will use it as leverage over former Soviet states, including Ukraine (depending on the hue of Orange at the time), either to exact higher gas prices or greater political influence. Russia will be banking on EU members to look after their own bilateral energy security interests rather than safeguarding the autonomy of post-Soviet states. This is exactly what happened in 2006 and 2009; it will happen again in countries where Russian cuts can be made without affecting broader European supplies. The upshot is that a key geopolitical artery linking Europe to post-Soviet space has been severed, and severed largely at German connivance. This is a strategic reality the EU, and more importantly individual Member States must face up to. Yet the current pre-occupation across Western European states is not how to salvage CEE countries from Russian energy pressures, but how to secure downstream stakes in Nord Stream. France, Holland, and the UK are all in the queue.

Further South things don't look all that much better. Since 2002 South East European states have looked to Brussels to provide political and financial support for the EU inspired Nabucco pipeline. The idea was a good one; open up supplies from Central Asia and the Middle East to increase elasticity of supply and reduce Russian dependence. Moscow would have little choice but to stay on the straight and narrow on price. Alas, the execution has been lousy. Europe has failed to secure any serious reserves from either region; and even if it got its hands on upstream stakes, it would have transit highly sensitive routes via Georgia (or more tangentially the legally contested Caspian Sea). Settling transit terms and fees are no less sensitive; Turkey would inevitably leverage its position as an energy hub between the Middle East and Central Asia to European supplies, a factor that has already ruffled Azeri feathers. This is before we consider a chronic lack of funding for physical infrastructure further downstream in places like Romania and Bulgaria. The EU has basically failed to grasp that if Nabucco is to work, they have to turn pipeline economics on its head: build the pipe to the gas, not the gas to the pipe.

This has left the door wide open for the competing Russian South Stream pipeline. Despite only being launched in 2007 as a counterweight to Nabucco, Moscow has made considerable progress signing up Austria, Hungary, Bulgaria, Serbia and Greece. France has also come onboard with EDF striking a memorandum of understanding with Gazprom and Eni to purchase a 20% stake in the project. Many of the same states are of course putting a 'spread bet' on the Nabucco pipeline to cover both bases. The same scenario applies upstream where Azerbaijan has notionally struck supply deals with Russia *and* Europe. Turkmenistan has gone 'two better' adding China and Iran to its export mix. Turning potential reserves into actual output has always been a tricky business, but what's not is not in doubt is that Russia can also draw on its own reserves to fill the prospective 66bcm pipeline. In the long term this gives South Stream the critical advantage. Even RWE, the main utility backing the Nabucco pipeline knows this. They have yet to reject an offer from Gazprom to ditch Nabucco and join the South Stream ranks. The writing is thus slowly appearing on the wall. If Nabucco fails, Russian pricing power will inevitably increase.

Many analysts argue this is all a bit melodramatic. Demand is down, LNG will give Brussels ample elasticity of supply, and shale gas could take off in Europe, just as it has in the US. If anything, Russia is on the ropes. Wholesale gas prices are tumbling, oil indexation is being broken up, and competing Atlantic and Pacific Basin markets are playing 'arbitrage' with Moscow to drive down prices further. Stop worrying about Russian gas dependency; that's old school.

Much of this is of course true, at least for now. But being sanguine about supply dependency when times are good would be a major mistake. Europe's 'four corridors' strategy to tap into Russian, Scandinavian, MENA and Central Asian reserves was always politically shaky, but a physical lack of demand presents formidable problems on two levels. The first is that producers will inevitably hold back on upstream investments until fundamentals tighten. Russia is pulling back on Yamal and Shtotkman; Qatar is holding fire on developing any more LNG. Algeria is extremely nervous about squandering precious reserves in a buyer's market while politics (for differing reasons) is unlikely to see Iraqi or Iranian gas production increase any time soon. The second problem is that producers are diversifying export routes away from Europe towards Asia-Pacific where demand remains reasonably firm.

This has a direct resonance to Russia. Major capital investment decisions need to be made on liquefaction and new pipelines, not only to western, but eastern markets, and made quite soon. The penny might have finally dropped in Europe that Moscow really has no interest in signing the Energy Charter, but it hasn't woken up to the reality that Russia has half an eye on perfecting its arbitrage potential between East and West. It should have done; increasing energy supplies to Asia is official state policy. The good news for Europe is that the sheer geographical size and infrastructure deficiencies make it close to impossible for Russia to switch gas flows between West and East, and

rather like North Africa supplies, Moscow's pipelines are hardwired towards European consumers through historical design and political practice. But the bad news is that Gazprom's ability to influence the lion's share of European gas supplies through price instruments and internationalisation strategies is increasing. It's certainly an easy sell in places like Algeria, where falling gas prices prompted Sonatrach to call for supply restraints on spot and traded markets. Central Asia and West African producers are sympathetic to such concerns where Gazprom's presence has been growing. MENA and Latin American players are considering their options. Now admittedly, this is hardly the stuff of gas cartels just yet, but the prospect of 'gas on gas' competition could be the glue needed to stark sticking bilateral price collusion together for European suppliers.

Whether or not this scenario materialises remains to be seen; the logic is certainly there should gas prices continue to set their own benchmark prices independent of oil, but the real concern for Europe is its inability to make the right moves now in the midst of a lax gas market. Investment in storage is low; liberalisation to reduce future pricing pressures is tepid, integration of grids remains at best, regional, if not localised. Brussels hasn't even been able to apply strong third party clause to stop Gazprom getting into downstream transmission. The holy grail of vertical integration could still beckon for Moscow should swap agreements for upstream assets entice European utilities to cut such deals. Obviously none of this looks particularly concerning right now, but if we imagine a scenario of rising Asian demand, economic recovery in Europe, creeping supply side constraints, unconventional gas flopping, and environmental imperatives favouring gas consumption over coal, then gas markets will assuredly tighten, and tighten very quickly. If Russia has managed to increase its share of European and Asia gas supplies in the interim, then it will not just be the unfortunate losers from Nord Stream and South Stream littering Central and Eastern Europe that feel the pinch, but European consumers as a whole.

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Successful scientific and technological 'Modernizatsia' in Russia requires institutional and economic changes

By Eric Brunat

Since the financial collapse of 1998 and up to the present world economic crisis, the Russian economy had made a lively recovery in spite of structural weaknesses. In constant dollars, the gross domestic product has multiplied by a factor of 10 in ten years.

This result is remarkable but it must be put into perspective. The Russian economy constitutes less that 3% of the world economy; the GDP per inhabitant represents 28% and 35% of the GDP per inhabitant of the United-States and of Europe of the 27 respectively. It will be very difficult for Russia to attain its declared objective of 50% of the American GDP per inhabitant in 2020. To get even close to this ambitious objective, it will be necessary in the coming ten years to restore confidence and to boost both domestic and international investment. The principal motors of growth will come from the resilience of the private sector but articulated around a modern and healthy public sector, in education and research, with a restored social sphere and health provision, with modernisation of infrastructures and international cooperation. Apart from the effects of the world crisis, these are all fields of activity suffering adverse effects from the hardening attitudes of the authorities who have not succeeded in stabilising a clear legal framework understood and respected by all or in effectively liberating the economy and society through the democratic give-and-take of true political and industrial competition. The mechanisms of a 'western-type liberal market economy' have been at least partially deployed in a poorly-prepared framework with the ideological conviction that assuming the 'interplay of universal values' would be enough to modify the framework.

In such a context, the weight of natural resources in the economy often has a harmful effect. It has distorted investment flows and not contributed to a sufficient diversification of investment effort. It has led to a concentration of powers in a counter-productive fashion as well as to inefficient product distribution. The adaptation of market mechanisms has been brutal, unequal, and above all has contributed to an effacement of the specific solidarity reflexes of Russian society, modifying in a violent fashion attitudes to money and to work. The result is very negative, pointing to a society consumed by doubt and which is henceforth prone to retreat into nationalist reflexes which are worrying. For all these reasons, one of the primary motors of growth, which is the end consumption of households, can be effectively curbed, calling into question both the recovery from the present crisis but, more seriously, the sustainable character of growth and its transformation in human development terms. To re-launch the process of a modern economic and social transformation based on the positive and specific values of Russian society, the following should be considered:

- The principal problem of the country is its endemic problem of corruption. Many segments of public and private administration are concerned at all levels. Among the countries which are advanced on the technological level but with medium incomes – in the World Bank definition – Russia is among the most corrupt in the world, according to *Transparency International (Russia is ranked 146 out of 180 countries in 2009).* Moreover, government insiders and private owners (often under the influence of political and economic advisers –including international-) used private, state and hybrid (composite) institutions as vehicles for personal enrichment, instead of maximizing institutional and social welfare. The legal framework as well as the institutions of the economy (the relations based on respected contacts between the economic agents for example), the social sphere and a certain gradualism in the rhythm of reform process, have been neglected by the promoters of the 'shock therapy' through the 90s.
- Russia needs to lower the transaction costs and raise its global productivity in order to offset speculative trading as well as accept integration into a more diversified world economy. This integration process is indispensable to facilitate modernisation and the management of technological or financial complexities. So far, the protectionist climate, in particular in the numerous industrial sectors considered as 'strategic', but also in agriculture or finance, jeopardizes a rapid entry to membership of the World Trade Organisation which would be a catalyst for structural and institutional reform and a supplementary source for growth which the World Bank estimates at between 0.5 and 1% per year. However this sustainable opening to the outside world must be accomplished with proper respect for individuals, for social balance and for preserving Russian identities.
- A monopolistic State capitalism in Russia now exists alongside a concentrated private capitalism. The share of private and public capital contributes 50% each to the GDP. The competitive mechanisms are not functioning and this contributes to maintaining a level of inflation which is superior to 10% in recent years. Thus, this quasi-absence of competition, high transaction costs, monetary policy and the Ruble exchange-rate policy all have a negative effect on the general level of price increases. In addition, the flight of capital in the periods of declining confidence and the insufficiency of domestic and international investment (even if the latter have increased considerably from 2005 onwards) have contributed to moderate the structural inflation which is therefore not fully reflected in the levels recorded in recent years.
- In 2009, the percentage of investment was below 20% of the GDP in Russia and the overall level of investment still remains far below the level reached in 1990. This crucial point could jeopardize the pro-active policy of modernisation and research and development policy announced by the central political power. In comparison, the principal developing countries of South-East Asia and the most successful transition economies have levels of investment superior to 30% of their GDP.
- The infrastructure of transport and communication must become a priority in order to improve competitiveness and reduce the transaction costs. This implies a capacity to develop major projects attracting heavy financial investments and skills (including international cooperation and investors).
- A significant investment and a political commitment are necessary in the sectors of health, education, research and development towards a knowledge-based economy and society. The industrial surpluses in the private sector must also be in part oriented towards these strategic areas for development. Incentives to the private sector

including fiscal ones could strengthen a social and desirable industrial policy.

- The banking system is dominated by several large State banks, which have played a positive role during the world financial crisis by mastering the mechanisms of the public and private finances of an advanced economy. On the other hand, the current system generates high costs and some private competition could prove to increase efficiency in the context of a modern economy.
- The external accounts, registering a surplus, are very dependent on the export of natural resources and on the world oil and gas prices. The structural competitiveness of the economy is not assured. The pressure exercised on short-term resources favours a « rent economy » (the future of which can only be fluctuating and inhibitive to growth), which distorts financial, technological and human investment flows, directing them to the prospection and exploitation of natural resources to the detriment of other branches and sectors of the economy *('Dutch disease').* Moreover, performances based on energy saving and the environment are not an effective priority. Having for a long time been used to the illusion of virtually free energy, both private and public economic agents must now modify their behaviour towards a greater sense of responsibility for the individuals, the society and the environment.

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Dmitry Medvedev's modernisation from above

By Viatcheslav Morozov

As argued by some observers, the fires that devastated many areas in central Russia in the summer of 2010 have put in question the entire political system that has been built over the last decade. The famous "vertical of power" has not been able to prevent the fires or to deal with their destructive consequences. The latter include not just the destruction as such, but also its social and political effects. Local officials, who have learned all too well that they need to stick to the letter of the law, do not rush to deliver on the populist promises made by top political leaders. Compassion to people whose property was destroyed or even to those whose relatives perished in the fires will not be a valid argument in one's defence if one happens to violate any of the numerous and contradictory directives that regulate the ways of spending public money. The economy, the public finances and, in the end, the political institutions have to carry the extra weight of growing food prices. The most logical response of the current centralized system in which the central authorities are responsible for everything, is to introduce price controls. This is an extreme example of a short-term solution that is likely to produce shortages on the market and lead to even greater instability.

These developments bring to light the problems haunting the pet project of the current presidency – modernisation of Russian society and economy. In all his recent statements on the subject, President Dmitry Medvedev has been keen to present the image of Russia as a dynamic society firmly on track towards modernisation, making significant progress in a matter of months, not years or decades. Some would argue that this image is in sharp contrast with the reality of widespread corruption, dysfunctional institutions and semi-authoritarian political system. It is not for this short article to try and assess the relative successes and failures of the modernisation project. What I will try instead is highlighting certain ideological flaws in the political thinking behind the whole project that are likely to be fatal in the longer run, unless they are addressed now. I do not share the pessimism of those who discard the whole idea of modernisation as pure rhetoric and propaganda. On the contrary, I believe that there are chances to change the situation to the better, but one thing that is needed for that is international involvement at a qualitatively new level.

Russian president loves to talk about democracy – indeed, it was obviously his decision to designate the criteria for democracy a key topic of this year's Global Political Forum in Yaroslavl. However, it is evident both from his speeches and from the actions that his administration takes that democracy is understood in the Kremlin in an extremely paternalistic way. The vertical of power remains the key instrument for modernisation: it seems that Russia's top leadership is still daunted by the ghost of the 1990s when both society and the economy were in disarray, while the political process reminded of the Hobbesian war of all against all. To avoid a repetition of this scenario, the Kremlin prefers to keep the "constructive" opposition on a short leash and the "radicals" suppressed, civil society and the media in check, the "strategic" industries and natural resources in state ownership, and the regional and local authorities firmly integrated into the bureaucratic hierarchy. Even when this system does react to the pressures from below, this usually takes place of a single-handed decision by the "first person", such as Vladimir Putin's order to remove the projected oil pipeline away from the Baikal Lake in 2006 or Dmitry Medvedev's suspension of the construction of a new road through the Khimki forest outside Moscow in 2010. The recent departure of the notorious Moscow Mayor Yuri Luzhkov followed the pattern: he was fired by Medvedev's decree after an orchestrated media campaign exposing alleged corruption in the city government.

Unfortunately, it seems that this top-down approach is an innate fault of the modernisation project, integrated its entire philosophy. Despite his frequent declaration to the contrary, Dmitry Medvedev's approach to modernisation is fraught with paternalistic attitude. This was evident, for instance, in his speech at the Yaroslavl forum, in which he highlighted the state's efficient exercise of policing functions as a key criterion of democracy. Protecting citizens from crimes is a function of any state, and it can be performed in many different ways, including the most authori¬tarian ones. It cannot therefore be presented as a definitional feature of a democratic society.

This emphasis on security in fact reflects the obsession with control which was one of the distinctive traits of Putin's presidency and which survives into this day. The Russian authorities do not trust any grassroots initiatives and would strongly prefer protecting the citizens from all kinds of social evils rather than letting the citizens protect themselves. This paternalistic attitude is also evident in Medvedev's argument that one of the key tasks in the process of democratic development is to promote high culture, including "political and legal culture, the culture of social behaviour, the culture of civic dialogue". The "low level of culture", on the contrary, goes together with "intolerance, lack of responsibility, aggression", which "destroy democracy".

Here, the references to "culture" are used to legitimize state control over society. The people of high culture, according to Medvedev, would use the freedom of speech and the freedom of assembly in a wise way, whereas the abuse of these freedoms is a sign of barbarianism. The implication is, of course, that it is up to the authorities to differentiate between the civilized and non-civilized forms of political activity, and thus to decide which of them are to be supported and which must be suppressed. Moreover, "the citizens, who acquire a greater range of opportunities and more freedom, must attain greater responsibility". People of high culture are those who behave according to the rules, while everyone who, for instance, stages unauthorized protest, is classified as a barbarian.

I would argue that this mistrust of grassroots initiatives is the main obstacle on the way towards modernisation, much more serious than corruption or technological backwardness. However, so far the situation is not hopeless. It seems that at least some people in the Russian government, including President Medvedev himself, are genuinely interested in using the resources of the West in transforming Russian society, and, moreover, they do take western emphasis on liberal democracy seriously. What they do not like is Russia becoming an object of democracy promotion, but at the same time, they seem to be ready for an open dialogue about the meaning of democracy, in which every voice would be treated with equal respect. This is where international involvement in Russia's modernisation can potentially prove fruitful. Even if there is a degree of cynicism and propaganda involved in the Kremlin's democratic rhetoric, it would still be unwise to ignore this invitation for dialogue – if only because this would be inevitably interpreted to the effect that *no one* is serious and sincere in their advocacy of democratic values.

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Economies in transition and transition economics

By Stefan Hedlund

How long can an economy remain in "transition," and what is the usefulness of "transition economics?" These may at first appear as purely rhetorical questions. Given that some of the "transition economies" are presently in much better shape than the economies of some of the old European Union member states, it should be obvious that the classification has outlived its usefulness, and the great discrepancy in outcomes should in turn convey the same message regarding the discipline of "transition economics."

On second consideration we may find, however, that we are faced here with rather serious issues concerning our understanding of post-communist economic *transformation*, as opposed to *transition*. The reasons may be led back to the chaotic conditions that prevailed at the time of the collapse of the Soviet order in Europe, and to the fact that a small group of well placed actors succeeded in setting a radically new agenda for policy discussion.

Looking back at the two decades that have passed since then, we may find that the former communist economies have diverged substantially in their respective paths of development. There is nothing at all strange in this. Given that the task of undertaking a "triple transition," including simultaneous reforms of economic, political and legal systems, represented a task of institutional transformation that had never previously been approached, wide variation was bound to emerge. This, moreover, applied to ambitions as well as to performance.

The main problem with the introduction of the notion of "transition" as such was that it was a purely ideological construction, based on a normative understanding that all formerly communist and centrally planned economies were ready, able and indeed willing to embrace and emulate the very same role model, i.e. free market capitalism. As is bound to be the case with ideological constructs, the understanding of "transition" was tacitly based on assumptions of homogeneity, i.e. that all countries were the same, and on predetermination, i.e. that all countries would succeed. *Ex post* it has also, quite logically, been widely claimed that the outcome was indeed a success.

The main cause behind the variation in outcomes was that the sudden collapse of the Soviet order also represented a sudden breakdown of an ingrained social order. As individual actors were called upon to develop new rationalizations, and to formulate new strategies, this was bound to wreak havoc on expectations, beliefs, values and norms. The effect was to call to the fore deeply rooted differences between countries in matters ranging from cultural heritage to preferred role models. As the tacit understandings of homogeneity and of predetermined success blinded the policy community to the crucial importance of such factors, both analysis and prescription were bound to be faulty.

Returning to the first part of our initial question, we may ask what it is that unites the present-day economies of, say, Estonia, Moldova and Turkmenistan. Apart from the fact that they were once Soviet republics, there is little indeed to suggest that they may in any sense be usefully grouped together as "transition economies," or perhaps even as market economies. Once Estonia has joined to euro zone, it will be hard indeed to claim that there is anything left for that country to be completed in terms of transition, and it would be even harder to suggest that the economy of Turkmenistan remains in transition to anything even remotely resembling the original vision of rules-based market economy.

This said, one should not discount the staying power of vested interests and of sheer organizational inertia. It is after all a fact that up until April 1946, the League of Nations, once created to avert a second world war, was still busy playing tennis in Geneva, seemingly oblivious of the fact that WWII had come and gone. Given that the process of academic and organizational institution building was the only dimension of post-communist adaptation that was truly successful, including special purpose conferences, journals, and indeed research institutes, it is only to be expected that dismantling will be slow, and perhaps it does not matter much.

Far greater importance must be assigned to the second part of our initial question, namely whether the emergence of a separate discipline of "transition economics," designed to study and pave the way for successful post-communist transformation, could be viewed as a useful addition to the family of social sciences. The essential litmus test, which it failed to pass, was whether it would be able to capture such differences in initial conditions that served as determinants of degrees of success in transformation. The reason for this failure was simple.

Once it is shorn of purely ideological pronouncements on the superiority of markets and of private property, "transition economics" may be reduced to an exercise in macroeconomic stabilization, coupled with theorizing around property rights. While there was nothing inherently wrong with any of this, it was a far cry from a new departure, from the introduction of a new science created to study the complex problems of broad and sudden institutional transformation under conditions of great uncertainty.

Whether the process of "transition" will ever be proclaimed to have been ended – in success or in failure – is an essentially political question that need not occupy us here. Whether economics was ready and able to meet the challenges entailed in post-communist transformation is far more daunting. The emergence of transition economics suggests a negative answer, and in consequence also a need to reconsider how the discipline as such has blinded itself to the importance of cultural and historical factors, and to the impact of beliefs, values and norms on economic behavior. This surely must be the main lesson of two decades of debate on "transition."

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Common understanding of quality as a basis for the development of cooperation in higher education between Finland and Russia

By Riitta Pyykkö

Finland has traditionally been considered an expert on Russia, and Finnish and Russian universities have a substantial number of cooperating relationships. Unfortunately some of them function only partially. There are problems in student as well as teacher and researcher mobility; cultural differences and poor knowledge of the educational system of the other country also cause problems.

Finland and Russia are both involved in developing the European Higher Education Area, the Bologna process, together with 47 European countries. Finland signed the Declaration in 1999, four years ahead of Russia. What is noteworthy is that the Bologna process is a pan-European process which is not limited to the European Union. What is also noteworthy is that the purpose of the process is not to harmonize higher education, but rather to create a framework for different national systems to develop along the same lines in a coordinated way. In order to be comparable, some countries have had to make substantial changes to their educational systems, while others only needed to slightly adjust their existing structures.

In all participating countries, quality assurance of higher education is developed as part of the Bologna process, and all countries are describing the core competences of their degrees according to European qualifications frameworks. The Russian degree structure differs somewhat from the Finnish system, but there are also similar differences between other Bologna countries. Admission to higher education is a big issue in both countries today. The Russian system was formerly based on the certificate of secondary education and entrance exams, but has now moved to an admission based on the Uniform State Examination, comparable to the Finnish Matriculation examination. In Finland, the Ministry of Education and Culture is pushing the universities to increasing use the matriculation examinations instead of separate entrance exams. Discussion in both countries on this issue is lively. The current situation offers an excellent opportunity for improving the comparability of higher education and degrees in Finland and Russia.

Although both Finland and Russia are Bologna countries, and national quality assurance agencies of both countries are full members of the European Association for Quality Assurance in Higher Education ENQA (which means that they both follow the European standards and guidelines for quality assurance), there are differences in the quality assurance of higher education.

In Finland, the higher education institutions bear by law the main responsibility for the quality of their operations, and they are by law required to take part in external evaluations and to publish the results. The main principle of evaluations conducted by the national quality assurance agency FINHEEC is enhancement-led, development-oriented evaluation. The aim of evaluations is not to control but to assist the institutions when they themselves develop their operations.

To understand the Russian system of quality assurance it is important to be aware of the great changes in the higher education sector which took place in the 1990s. There has been a growing number of higher education institutions and increased heterogeneity, which has led to a growing concern for quality. There are different types of institutions, private and state, smallish and multi-faculty institutions, with or without study fees. A significant reform project during the last two years has been a new 'gradation' of universities into two 'unique' institutions (Moscow and St. Petersburg State universities), 14 national research universities and 7 federal universities. The higher the institution stands in the hierarchy, the more independence it has, for example, in curriculum decision making. The final aim of the reform is also to decrease the number of weak institutions. Rankings attract more and more attention in Russia, but also in Finland.

The students' role in the development work in Russia is much smaller than in Finland, and the State Educational Standards (the third generation standards accepted this year) play a fundamental role in the quality assurance of higher education. Studies are conducted according to these Standards, while in Finland the institutions have extensive autonomy in curriculum development. The new Russian standards are written in a competence-based form, emphasising the role of the learner, and they also give more freedom to the institutions to decide on the content of curricula. There are some cultural differences in the conception of academic honesty among Finnish and Russian students, which may cause problems in cross-border education. Corruption, or 'shadow economic relation' can take various forms in Russian higher education, including, for example, enrolling in a HEI or passing an exam by paying or by purchasing a final thesis.

Although both Finland and Russia are a part of the European Higher Education Area, there are differences in the higher education systems, both in structures and in concepts of the quality of education. The current situation creates a demand and offers an excellent opportunity for improving the comparability and recognition of higher education and degrees in Finland and Russia. To my mind, there are perspectives for increasing student and teacher/researcher mobility both in fields with similar curricula and fields that complement the education offered in the other country. The Bologna process is founded on mutual confidence in the quality of higher education. The more we know about each other's educational system, the more confidence we can have in it, in spite of the differences.

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Trade, trade, trade - Russia from a French perspective in 2010

By Louis Clerc

One wonders whether, during his visit to Paris in March 2010, maybe while crossing the bridge Alexander III, Russian President Dimitri Medvedev made the parallel between the present days and the irenic era of pre-World War I Franco-Russian cooperation. Supposing for a minute that he did, he would not fail to acknowledge the domination of commercial and economic matters in nowadays Franco-Russian relations.

True to form and in the same way as in 1892-1914, when France and Russia were linked by a military alliance, the domestic debates regarding the nature of the Russian regime have hardly influenced the main trend of French official relations with Russia. The French civil society, press and commentators have not spared Russia and have regularly criticized the demagogy and authoritarianism of the Russian leadership since the advent of Vladimir Putin as Boris Yeltsin's successor. But it has done little to influence official relations with a country that, in the same way as China, France cannot seriously ignore or ostracize despite the unsavory nature of its regime.

The personality of the leaders has been an important aspect in relations between countries that have traditionally been top-heavy in their management of foreign affairs, and where the link between big companies and political leadership has been strong.

Elected president in 2007, Nicolas Sarkozy had worked during his campaign to separate himself from his predecessor Jacques Chirac's overtly cordial relations with the Russian leaders, delivering a few critical declarations for example on Moscow's policy in Chechnya. But the pragmatic volte-face came and relations warmed up quickly.

The reason of this evolution is, of course, economy and trade. France's foreign trade structure is heavily loaded towards its neighbors and especially towards the EU 27 zone. Russia remains a comparatively small partner for French foreign trade, and especially for the big industrial and infrastructures companies whose leadership forms the inner circle of Sarkozy's France. The modest place of France in the Russian trade was recognized already in 2004-2006, when the French authorities started a program aimed at improving trade relations with a group of 5 target-countries including Russia. Since then, France has moved up the ladder amongst Russia's trade partners, this improvement in trade relations being marked by a few big items publicized both in France and in Russia.

After years of negotiations, the French company Total was for example chosen in July 2007 as Gasprom's partner in the exploitation of the Chtokman gas field. Sarkozy explicitly supported the project. The Franco-Russian trade, dominated on the one hand by energy and on the other hand by luxury goods and alimentation, saw after that an increasing amount of industrial contracts for French companies in Russia. Energy companies EDF and GDF Suez are now participating in the North Stream and South Stream pipelines projects, Air France and Aeroflot are strengthening their partnership, while Alstom gears up to buy 25 % of the Russian Transmashholding, ahead of a renovation of the Russian rail network.

Relations have also improved in such sensitive domains as armaments and atomic energy. Medvedev's March 2010 visit was the occasion to conclude a deal on the sale of two Mistral-type command and landing vessels to Russia, along with a contract involving the production of more such vessels in Russia and in France. In Russia, the boats will be built in the dockyards of Sergueï Pougatchev, whose son Alexander owns the French daily *France-Soir*. EDF's Henri Proglio also met in March with the leadership of Rosatom to talk about cooperation in the civilian nuclear sector. The French remains behind the Germans and even the Italians in Russia, but the political leadership works actively to improve the situation.

If inevitable in relation to Russia, the energy question seems to be less of sensitive issue for France than it is for example for Germany. 80% of France's imports from Russia in 2010 are energy and raw materials. France's nuclear energy sector, however, produces next to 80% of its electricity, and the country's geographical situation and historical links with Northern Africa give it the possibility to diversify its resources.

Diplomatically, Franco-Russian relations are infused with Moscow's distaste for European-wide discussions and preference for bilateral bargaining, and by France's traditional policy of balance between its partners, the United States, Europe, and Russia. But it is impossible to consider these relations in a vacuum. Much depends of a wider context dominated by Russia's relations with the United States. Inside the EU as well, Moscow has other partners than France, with which the Russians can easily balance their relations with Paris. It has thus been difficult to capitalize on Sarkozy's August 2008 mediation during the Georgian war, mostly because the result "obtained" here was the only possible in front of a Russian leadership completely in command of the situation. As well, France has been reluctant at best to side with EU members overtly critical of Russia' policy such as Poland.

Despite the often difficult attitude of the Russian leadership regarding international affairs, both the United States and the EU need Russia's, if not direct help, at least quiet benevolence in treating some of the world's diplomatic and strategic problems. In that respect, France is no different. The real question is Russia itself, not so much the French will to collaborate. Far from being the main concern of the French leadership, Russia is seen from a relatively safe distance as a promising market, a source of raw materials, and a possible support on a wide range of issues.

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Do we need better "institutional marketing" in Russian trade?

By Ilmari Larjavaara

According to one informal estimate, in decisions to buy in Russia, 75% of the weight is on personal relations, and 25% of the weight is on product-related factors. Russia does not function alone, if so much, by markets and by the law, but there is also in operation and even more a variety of other practices. A basic question is then, what structures and practices in Russia are present, if not so much markets and laws? It is important to understand how Russia really works - and ponder this question for business success.

In Russia, structures of society consist of at least following institutions: (i) persons and networks, (ii) hierarchies, power and power structures, (iii) managers, decision makers and gray eminences and (iv) groupings, clans, fiefdoms and mafias, etc. Decision makers and situations are, of course, changing constantly as the power struggle is going on. It is well known fact that a change of a company director opens new opportunities for business partnerships.

As other structures are still weak in Russia systems are dependent on individuals. Consequences of this feature include strong managers, hierarchical structures and concentration of power. It also follows of this feature that decision-making is inherently irrational, and to some extent, the key is, what are the personal benefits of a commercial exchange to the trading persons.

It is known to be essential in b-to-b marketing in Russia to find the actual persons who can decide. There may be gray eminences, whose names change, in the background of the formal decision-making structures. We know this, but should and could we know institutions in marketing in Russia still significantly better and deeper?

An interesting question in Russia is for a marketing point of view, what are "utility" and "rationality" in Russia. Only a good price and a good quality (etc.) do not provide best sales results in Russia (of course, these are needed as one factor). Also it is described that a simple sell + buy export to Russia does not work very well. It could be valuable to understand business in Russia in a more comprehensive and institutional way.

In Russia, purchasing decisions can be a difficult combination of rational (market) and irrational (who benefit personally from the exchange with whom) factors. Purchasing decisions at least in public procurement in Russia are a multi-layered combination of politics, bureaucracy, technology, economy (more than in one sense), corruption (or of a genuine attempt to get development) and personal chemistry of people.

Should we understand more about why the importers buy (or not buy) from Finnish companies? What factors determine purchasing decisions and how should we sell to Russia?

A FINTRA's study published in 2009 "Competence Assessment of Finnish Companies in Russia" confirmed that Finnish companies still do not sufficiently manage personal relations when doing business in Russia. At least a novice Finnish salesman still continues to believe that products sell in Russia by a good quality and price. In fact, the quality of technology is important, but in most cases it seems clearly secondary to the right relations and partnerships.

In generally, therefore, a challenge may be that the Finns are not able to take advantage of Russia's special features and are performing below potential. This applies particularly to government and education units in Finland that are not working with regular contact with daily life in Russia.

Typical for the Finns is that Russia-specific institutions are seen largely as threats only (corruption, theft, corporate takeovers etc.). Institutions are not seen as business opportunities and challenges. The specific social structures and practices in Russia do not only mean risk and uncertainty. Better knowledge of them could be a potential advantage for companies.

One problem concerning institutions in Russia is that it is not in a best way understood how to examine and make models them, and therefore, is thought to be not possible to systematically investigate, educate and take advantage of them. Factors of success in Russia are known by a folkloric, but systematic mapping, analysis and training is not abundant. Businesses learn how to make success in Russia still largely empirically without formal training, formal promotion and research support. In Finland, Russia's institutions could need a systematic understanding and training.

There have not been many service providers for Finnish companies in the field of lobbying in Russia. Finland currently has no official state lobbying unit providing lobbying services in Russia. Finnish companies might have been forced to resort to services of foreign lobbying services providers (AmCham or like).

Concept of marketing could be expanded including not only the economic and communication factors but as well politics and government in Russia and personal exchanges between individuals. In many cases, companies in Russia do not act economically rational in a meaning in which firms are rational in circumstances where the marketing theories have been created.

Structures in Russia have been studied quite enthusiastically in general level (such as networks have been studied a lot), but this expertise does not in the best way provide necessary assistance for companies. There could be some new forms of research and training that could combine marketing and peculiar institutions in Russia. Marketing could be considered in conjunction with items such as networks, decision-making, power structures and clans in Russia.

Some sort of "institutional marketing" -concept could raise Russian studies to a new systematic and innovative level. Such approach could (i) help to analyze most core structures and the success factors in Russia. (ii) This concept would guide research to the very essential fields (b-to-b marketing). (iii) High-quality (scientific) analysis could be combined with very practical application areas. (iv) Traditional and diffuse knowledge of business success strategies of well established companies could be collected and converted into research and education of new generation businesspeople.

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Pskov State Pedagogical University on the way to the European higher education area

By Alexander Gogolevskiy

Pskov is one of Russian ancient cities. Pskov State Pedagogical University has 100 year history. Pskov is a unique city in its geographical position and history. Pskov region is a part of North-Western Federal district of the Russian Federation. Total area is 55,3 thousand square kilometers. The length from North to South is 380 km, from East to West – 260 km. Pskov region is the only region of the Russian Federation, which borders on three states: Estonia, Latvia and Belarus. The length of external border with Estonia is 270, with Latvia – 214 km, Belarus Republic – 305 km. Pskov region borders on Leningrad, Novgorod , Tver and Smolensk regions as well. The distance from Pskov to Moscow is 689 km, from Pskov to St.-Petersburg 280 km.

Proceeding from geopolitical location and settled relations with Baltic universities, Pskov State Pedagogical University considers Baltic region as the priority direction for establishing international relations. For the last 2 years (2009-2010) our university signed bilateral agreements with the following universities:

Daugavpils University, Latvia – January, 2009
Estonian Business School, Estonia – February, 2009
Siauliai University, Lithuania – March, 2009
Vilnius pedagogical university, Lithuania – May, 2009
Gotland University, Sweden – June, 2009
Daugavpils University, Latvia – January, 2009
Tartu University, Estonia - 2009

Major tasks for the relations with the universities of European Union and Baltic region are:

- Support and development of relations with universities of Baltic States
- Experience exchange
- Academic exchange
- Harmonization of academic curriculum and programs
- Participation in international conferences
- Joint research work
- Participation in grants and projects

During this time period the following events took place in Pskov State Pedagogical University: students' of Gotland University practice on cross-cultural communication as an example of Bologna process realization, international theoretical and practical conference "Theory and practice of endowment funds' functioning in Russia", international educational seminar within the bounds of the project "Integrated control of water resources in the Russian Federation", etc.

Good relations are established between the faculties as well. In 2009-2010 the relations with Narva college of Tartu University became closer. In the Narva College there was a seminar held for the deans of Pskov State Pedagogical University to study the experience of Estonia on their way to Bologna Declaration realization, January, 27-28 there was seminar "Estonian experience in realization of Bologna convention", April, 16-18, 2010 students and lecturers of the Faculty of Foreign languages took part in X International Student conference and presented their reports on the suggested topics. May 13-15, 2010 academic staff participated in International research conference "Innovative methods in cross-cultural education". Moreover, there was an academic exchange within the bounds of pedagogical practice on Methodology of teaching Russian language as a native language. For this purpose there came a group of students of 4 and 5 courses from Narva college (Tartu University). There was a group of the students from Pskov State Pedagogical University in Narva for the course "Basics of project management" in April, 2010.

On the way for entering Bologna area our University has something to suggest to the foreign partners as well. This year two conferences are planned to be led during the beginning of this school year. There will be international practical conference "Youth in modern society: problems and solutions" on the faculty of Psychology September,30 – October, 2, 2010 and conference devoted to the problems of cognitive linguistics and cross-cultural communication on the faculty of foreign languages November, 10-12, 2010. Faculties of Pskov State Pedagogical University have established long lasting contacts with European higher institutions of learning with the purpose of development joint educational and research projects for academic process, professional level of academic staff and international image of the university will improve thanks to such relations.

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Russia

The Russia-Belarus energy relationship – a reluctantly continuing affair

By Jesper Roine

Looking back, 2006-2007 looks like a turning point in Belarus-Russia relations with respect to the crucial oil and gas trade. In an agreement from January 2007 it was made clear that the previously heavily subsidized gas imports from Russia would double in price that year and then gradually continue increasing so as to reach a "market price" level by 2011. Roughly this meant an increase by a factor five (in real terms) compared to the 2006 situation. At the same time a gradual increase in export customs' duty rates on Russian oil was announced making this trade less favorable for Belarus. Now, almost three years on, it appears that the direction set out in the 2007 agreement has been followed and Belarus is increasingly being treated like any other country in its energy relations with Russia.

As is well known, energy related aspects of the economy are especially important for Belarus. The country is one of the largest natural gas consumers per capita in the world (in 2006, per capita consumption was about 20 % higher than in Ukraine which is typically used as an extreme case in itself). Much of the industry is also – largely as a function of cheap gas – still very energy intensive and the low cost of energy has constituted an important competitive advantage for Belarus. In particular this is true for much of metallurgy and chemical industry, the production of which jointly make up about a quarter of Belarusian exports. Another cornerstone in Belarus industry is its oil refinery activity. Approximately three quarter of all imported oil is processed in Belarusian refineries and then re-exported, much of it to the West, as petroleum products. These constitute about 35 % of total exports. Parts of the gains from this activity come from genuine value added, but much also stems from various tariff agreements and from paying a relatively low average price on the oil imported from Russia. Crudely speaking much of the transactions relating to oil serves as a way for Belarus and Russia to split the total gains from selling Russian oil, refined in Belarus, to external parties.

Given the importance of oil and gas in Belarus, the "new policy" from the Russian side has constituted a terms-of trade shock to the economy. The short run answer was and has continued to be to borrow money and to sell government assets and to attract FDIs (the two latter often showing up in similar ways in the statistics). An already problematic situation was of course made worse by the global crisis in 2008 that eventually led to a devaluation of the currency and an IMF program. Even though the crises clearly did not make anything easier for the Belarus government it did serve the purpose of mixing the previous internal unbalances with the externally induced shock making previously unthinkable measures possible.

The most recent major development is the new oil deal signed in January this year. It is worth mentioning this not only because it is yet another step in the trend started in 2007, but also because of the sheer magnitude of the losses to Belarus from this agreement. A rough approximation of the different consequences suggest that this is yet another shock to the Belarus economy;

Loss of volume. In 2010 Belarusian factories are planning to refine 15.8 million tonnes of crude oil. This is about 5.7 million tonnes less than in 2008 and 2009. This translates into Belarus losing about $1.05 billion (5.7 million tonnes x (export price $553 per tonne – import price $368 per tonne) = $1.05 billion) on volume.

Loss on duties. If Belarus processes 15.8 million tonnes of crude oil in 2010, it will import 6.3 million tonnes of Russian duty-free oil, 4 million tonnes from Venezuela (according to the plan) and for the remaining 5.5 million tonnes imported from Russia Belarus will pay the full amount of the duties. Suppose the rate of export duty levied on the crude oil remains $275 per tonne throughout the year then Belarus is losing $1.513 billion (5.5 million tonnes x $275 = $1.513 billion) on the duties imposed.

Cost of Venezuelan oil. One can only speculate about the price of oil to be imported from Venezuela. Assuming a very positive scenario, Belarus pays nothing for the 4 million tonnes of oil. Even in this case there are transport and transit costs associated with this. A lower bound would be based on that Ukraine has declared that it will earn $120 - $130 million on transit of the Venezuelan oil through its territory.

Taking the IMF forecast of 2.4% GDP growth rate in 2010 implies a nominal value of $50.2 billion, which would mean that the total losses from the new oil situation would be about 5.4% of the GDP (($1.05 + $1.513 + $0.125)/$50.2 = 5.4%).

Given the steadily deteriorating oil and gas situation vis-à-vis Russia it is not surprising that Belarus has started to look for alternatives. The challenges are somewhat different for oil and gas respectively.

The oil dependence is mainly economic meaning that favorable conditions have made oil trade an important source of income but in principal oil is traded in a world market and can be bought from anyone. Consequently, if Belarus manages to strike favorable deals with other countries the tougher attitude from Russia need not be a major problem. One example of trying to find such "new partners" is the agreements with Venezuela about "cooperation in petrochemistry, industry, construction, energy and science" signed earlier this year. According to these, Venezuela is to deliver up to 4 million tons of crude oil to Belarus, and the two countries plan to set up a joint oil supply company in which Venezuela will hold 75% of the stake and Belarus 25%. The basic plan is to transport crude oil via the port of Odessa (Ukraine) for the further processing in Belarus and export to Europe. There has also been talks with Iran about similar cooperation.

The gas dependence is more complicated because it also has an important physical aspect in the pipeline network, which makes diversification slower and more costly. Nonetheless there are several initiatives in the recent past that can only be seen as attempts to diversify away from Russian gas. One example is the Belarusian plan to build nuclear reactors. This would clearly serve the purpose of becoming less dependent on gas a source of energy but also holds a strategic component in terms of potentially becoming an energy exporter in the region. Other countries are also facing increased gas prices and some have been forced to close down their own nuclear plants to follow EU directives (the closing of Ignalina in neighboring Lithuania being an example) and this means that demand close to Belarus may increase in the near future. Yet another very recent initiative is the talks this summer between the Belarusian President and the Lithuanian prime minister about the joint construction a LNG (liquefied natural gas) terminal in Lithuania. Despite the high fixed costs, including new pipeline routes connecting it to Belarusian territory, it may still be a worthwhile project to consider.

So what should one conclude about the situation going forward? First, it seems that no matter how hard Belarus tries to diversify away from the dependence on Russian gas, it will remain important for the economy in many years to come. Second, even if alternatives are created this will take time and it will not be a return to the extremely favorable conditions that Belarus had before 2007. This in turn means that, even if short-term solutions can delay adjustments, real reform of the Belarus economy is the only way to adapt in the longer run.

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Belarus - a Baltic Sea country?

By Gabriele Kötschau

As the "non-Baltic-Sea-country" being geographically the closest to the Baltic Sea shore and taking into consideration that nearly 50% of fresh water entering the Baltic Sea, originates or passes through Belarus, and that 60% of Belarusian trade is carried out with the countries in the Baltic Sea Region, it is obvious that there are many issues of common concern and joint interest making close cooperation valuable for both sides.

Geographically in central Europe, with close historic and cultural links with the states in the Baltic Sea Region, Belarus still has to struggle to be accepted and included in the established and enhancing multinational network. This however has been significantly improving over the past few years. What is the state of play, and what is the expected added value of a closer cooperation for Belarus, but also for the region as a whole?

Cooperation of Belarus with Regional Organisations

Belarus attaches great importance to the cooperation with the regional organisations in the Baltic Sea Region, such as the Council of the Baltic Sea States (CBSS), the Baltic Sea Parliamentary Conference (BSPC), and further actors and stakeholders in the region.

As a neighbour country to the Ukraine and to the Baltic Sea countries Poland, Lithuania, Latvia and the Russian Federation, the Republic of Belarus has already concluded some bi- and trilateral agreements with her neighbours in 2010, encompassing visa-free or simplified border crossing for people residing in the frontier areas (30–50 km zone). Such an agreement between Poland and Belarus was recently signed in Warsaw; lately the Ministers of Foreign Affairs of Belarus and Lithuania agreed that the issue of facilitation of travels for the residents of border areas had to be solved in the nearest future. One such deal was signed with Latvia in Riga simplifying the visa regime between the two countries.

After a fact-finding mission of the CBSS Secretariat to Minsk in May 2007 with Belarusian experts and networks, including line ministries, universities, NGOs and the Academy of Science aiming at exploring possibilities for initiating new or for enhancing existing cooperation the activities of Belarus in the Council's working structures have significantly increased. Since then Belarusian experts have been actively participating in expert groups and projects and contributing to improvements in this region. Since 1 July 2009 Belarus has been accepted as CBSS Observer State.

Civil Security

Combating illegal migration and trafficking of people are main fields of enhanced cooperation with the networks in the Baltic Sea Region. Besides common activities with the International Organisation for Migration (IOM), also the CBSS Task Force against Trafficking in Human Beings (TF-THB) and the Expert Group on Children at Risk have been participating as trainers at the "International Training Centre on Migration and Combating Trafficking in Human Beings" (ITC). Belarusian experts - governmental experts, NGOs and universities - are increasingly contributing to conferences and seminars in the region.

The Baltic Sea Border Control Cooperation (BSRBCC), a flexible tool for daily inter-agency (Police, Customs, Coast Guard and Border Guards) interaction to combat cross-border crime and environmental protection of the maritime areas, accepted Belarus in November 2009 with full observer status including the country into the actual work in expert groups and in multinational training.

On the background of nuclear and radiation threats, originating from Nuclear Power Plants, terrorist attacks, and other challenges, a close cooperation in the region has been established throughout the years. For several years Belarus, also a member of the International Atomic Energy Agency (IAEA) since 1957, has been invited to the activities of the CBSS Expert Group on Nuclear and Radiation Safety (EGNRS), and there are ongoing discussions whether Belarus will become a part of the "Agreement on the Exchange of Radiation Monitoring Data" all countries in the Baltic Sea Region have joined. All parties having signed the Agreement commit themselves to communicate their own monitored data through a special system and thus making them transparent and subject to controlling.

Marine Environment

Although not a country directly situated at the Baltic Sea Belarus is a Party to the "Convention on the Protection of the Marine Environment in the Baltic Sea" in the framework of the Helsinki Commission (HELCOM). Beyond that, the country has been included in urban and rural development, ecological tourism, and in bio energy promotion projects. In this field Belarus has increased cooperation especially with the CBSS Expert Group for Sustainable Development/ Baltic 21.

Health and research

Besides long-term bilateral cooperation between hospitals, and in the health-research sector, Belarusian experts have actively participated in the work of the Northern Dimension Partnership in Public Health and Social Wellbeing (NDPHS), focusing on the improvement of the primary health care system, combating HIV/AIDS, and Prison Health, contributing to the work and hosting meetings of expert groups.

Civil Society, Culture and Education

While Belarusian NGOs have participated actively in the Baltic Sea NGO Forum for many years there has not been any connection to education activities. However faculties of the Belarusian State University and other higher education institutes are involved in the Baltic University Programme (BUP). Contacts to ARS BALTICA, the network connecting the Baltic Sea States in a cultural collaboration, could be enhanced; as well as in the field of Cultural Heritage Belarus could relevantly contribute to.

Conclusions and Perspectives

The inclusion of Belarus into the networks of the Baltic Sea Region has opened a new dimension of multinational cooperation for the country. Already in 2001 the Grodno and Vitebsk regions of Belarus had obtained observer status in the Baltic Sea States Subregional Cooperation (BSSSC). The Baltic Sea Parliamentary Conference has invited a member of the Belarusian Parliament to the Annual Conferences since 2009; in October 2009 the Nordic Council agreed to open an information office in Minsk, and in June 2009 the Council of Europe opened an Information Point in Minsk.

Taking into consideration that 50% of fresh water entering the Baltic Sea comes from or passes through Belarus stopping pollution and cleaning of the Baltic Sea will not be possible without the active cooperation with Belarus. In addition to the aforementioned fields, energy, for example, is an area where the country should seek for closer cooperation, benefiting from long-term experiences especially of Germany and the Nordic countries. Belarus has the potential for modern energy planning encompassing energy saving, energy efficiency, and renewable energies.

The development of the cooperation between Belarus and her neighbour countries is promising, and every improvement contributes to establishing mutual trust and confidence between our countries to promoting our common region and - not at the least - the elaboration of common values.

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Two neighbours

By Juhani Salokannel

Finland and Estonia are neighboring countries, with only 80 kilometers between their capital cities, Helsinki and Tallinn. Finnish and Estonian are closely related languages, much like Swedish and Norwegian or German and Dutch. Europe is full of such neighbors.

However, the relationship between Finns and Estonians differs from the relationships that most European peoples have. We know what kind of attitude the Basques and the Catalans have toward the Spanish and the French, the Irish toward the English, and the Polish toward the Germans and Russians.

On the north and south shore of the Gulf of Finland, however, attitudes are different. This can be exemplified by a small, but striking detail: I, a Finn, can tell numerous jokes about my eastern and western neighbors, the Swedes and the Russians, but I do not know a single joke about the Estonians. They simply do not exist.

There are reasons for this. Even though a millennium ago Finns and Estonians practically spoke the same language, these two neighbors have been divided by barriers set by both man and nature. Due to this, instead of a relationship based on disparagement and resentfulness, the relationship between the neighbors is more one of mutual longing.

The first barrier was created by nature itself in the form of a sea, the Gulf of Finland. The sea often unites the nations, but it can also separate, as was especially the case during the Second World War, when it was sown full of mines, with the Iron Curtain continuing where the mines left off.

Man-made barriers, on the other hand, have been created by the people in power in both countries and their different forms of government. Finland and Estonia are located in the northeastern corner of Europe, far from the centers of the continent, but yet they are part of Western Europe. However, Western culture and social order entered the north through different routes, and this has had a significant effect on the countries.

Christianity was brought to Estonia from Germany, and along with it came a feudal aristocratic regime. Finland, on the hand, was made part of the Swedish Empire, where the land owning conditions were different and the peasants were never subjected to serfdom. When nationalism swept through the entire continent in the 1800s, it combined with industrialism to ignite rapid progress, making it possible for Finns to make use their natural resources and develop the institutions of society. Foreign rulers, on the other hand, slowed down Estonia's development throughout the century.

Both Finland and Estonia gained independence after the First World War. Nevertheless, the countries had different fates, the major difference being that while Finland succeeded in holding on to its independence, Estonia became part of the Soviet Union.

What, then, are the interactions of these two nations like today, with both being members of the European Union, and as of 2011, sharing the same currency? Superficially everything seems to be working fine. The younger generation of businesspeople negotiates business deals in English, and the staff of Estonian hotels and spas have learned enough Finnish to help Finnish pensioners visiting the country.

However, this does not result in deeper understanding of one another, which is necessary when dealing not only with mutual issues, but with broader international issues as well, the most topical of which is the conservation of the Baltic Sea. This sea is the Mediterranean of northern Europe, and now its delicate ecological balance is under threat from pollution caused by humans. Other challenges – and possibilities – for the two neighbors are created by the proximity of Russia and by high technology, for example. Russia is a huge market for both the products and transit traffic of Finland and Estonia, and in information technology both countries are larger than their size suggests – Finland is the home of Nokia and Skype was created in Estonia.

A good way to understand a business or organizational partner has already been discovered, when Americans have met with Asians or Germans with Arabs – one needs to learn the other country's culture. Through cultural knowledge, one will understand foreign thinking patterns and attitudes as well as be familiar with customs and traditions.

Estonians are familiar with Finnish culture for two reasons. For one, Finnish literature has been translated into Estonian, and it has even been included in the school syllabus for decades. Secondly, as Finnish television broadcasts could be seen in northern Estonia during the Soviet era, they were a unique window through the Iron Curtain for Estonians.

Finns, on the other hand, know little of Estonian culture, although they often go on shopping trips to Estonia. Therefore, interest in Estonian culture ought to be promoted on the northern shore of the Gulf of Finland. The best way to implement this is through keen civic activity. This interest and initiative has created the Tuglas Society – the national organization for the friends of Estonia – and other associations. The Tuglas Society organizes lectures and seminars, artist visits to Finland, and excursions to Estonia. The Society's library in Helsinki is the world's largest Estica collection outside Estonia.

Indeed, Finns have learned to listen to the music of Arvo Pärt, a world renowned composer, and appreciate its deep spirituality. Another introspective character in Estonian culture is poet Jaan Kaplinski, whose name is often brought up as a nominee for the Nobel Prize in Literature

The differences between Finnish and Estonian mentalities are illustrated by the countries' literary classics – Finland's Väinö Linna and Estonia's A.H. Tammsaare. However, a true lesson in what it means to be Estonian is provided by the works of Jaan Kross. They depict the history of Estonia over a period of almost 500 years and show especially well what the Finns have been spared from – the era of Soviet occupation. In this way, Jaan Kross – an Estonian intellectual banished to Siberia in his time – acts as a guide to the experiences of the entire Eastern Europe.

Juhani Salokannel

Executive Manager

Tuglas Society

Finland

Photograph Tiina Pyrylä

Tuglas Society is the traditional Finnish-Estonian association working mainly in the field of cultural change and connections.

ICT use and ageing populations in Baltic area

By Pekka Räsänen

Academic researchers and policy-makers alike share the view that the new communication and information technologies (ICTs) are in many ways crucial for the future of the advanced societies. In this sense, the role of the Internet is central, especially among general population. The Internet offers increased opportunities for information retrieval, gaming, social interaction, and consumer spending. It can also provide possibilities for acquiring new skills, such as learning languages or finding novel past-time activities. In addition, the Internet is also considered as a vital tool in improving the services offered by the public sector organizations. For example, it is believed that the Internet-based systems will soon offer the primary way to receive professional support on health issues and daily advice on local occasions. In this respect, *eGovernence* and *ePublic services* are perhaps the most widely discussed topics among social and public policy researchers.

While the Internet and other new communication technologies are in many ways useful, their proliferation can also connect with the already existing inequalities. In this context, such conceptions as 'digital divides', and 'information haves' and 'information have-nots' have been referred to. These conceptions basically mean that the new technologies are creating social problems simply because some individuals are less likely than others to use the new technology. It follows that technology gaps between those who have access to the new resources and those who have not are being established. At present, the divergence of ICT use occurs both between population groups and between countries.

A constant finding reported in research literature is that young, highly educated and well-off individuals are often the most frequent Internet users. Age in particular should be considered a relevant factor in the light of prevailing demographic structures. While the populations are ageing, the knowledge of new technologies continues to be strongly connected with youth. It is often assumed that low ICT use frequencies among older people are often connected with the difficulties of learning computer skills. Therefore, the most challenging question is whether the expansion of new technologies may further impair the existing social disparities.

The recent development of the ICT infrastructure has been largely identical across the three Baltic countries. Some differences could naturally be observed, typically so that changes took place first in Estonia. Latvia and Lithuania followed soon behind. For instance, broadband Internet access continues to be provided by a monopoly company in Lithuania. But in general, whereas before the early 2000s there where either monopolies or only a few operators in each country, ten years later there were already many licensed players within telecommunications, several network operators and Internet service providers. Together with the vigorous economic growth during the late 1990s and early 2000s these changes have resulted in a rapid increase in the supply of ICT services. After that, Internet user rates have blossomed in these countries. We can observe this by looking at the statistics on the penetration of Internet access around the world.

According to the Internet World Statistics database, 75 per cent of the Estonians were Internet users in 2009. Latvia and Lithuania showed Internet usage rates of 68 and 59 per cent, respectively. Also the percentage of the enterprises having an Internet connection is relatively high in each country. It is thus obvious that Baltic countries are becoming among the most active information societies in Europe. The leading countries, Denmark, Finland and Sweden, show penetration rates between 80 to 85 per cent. Many other countries are already lagging behind. Portugal and Greece, for example, show internet usage rates below 50 per cent. In Russia, on the other hand, just over 40 per cent of individuals used the Internet in 2009.

While there are obvious differences in today's Internet penetration rates, the magnitude of user growth during the past few years shows dramatic differences between different countries. In some of the older information societies, such as Sweden, the proportion of Internet users has increased by 100 per cent during the last decade. Across the Baltic countries, however, the increase during this time period has been at least twice as fast. Latvia and Lithuania have witnessed a growth of over 800 per cent since the year 2000. But what is more important here is the fact that Internet access rates vary considerably between age groups and educational categories. Moreover, disparities by age groups are clearly stronger in Baltic countries when compared to age disparities in most other European countries. Older age groups, particularly those who are aged over 60, are less likely to access the Internet at all.

Now, statistics indicate relatively unambiguously that the Internet – and therefore communication, entertainment and information processing based on its use – has entered rather effectively into people's everyday life within Baltic countries. This underlines the notion that the Baltic States are quickly developing into advanced information societies. Simultaneously, however, it is also reasonable to stress that the Internet has not proliferated evenly across the different population groups. Those citizens with low educational qualifications and aged in particular are clearly underrepresented among the users. The disparities by age and education can become a central issue in everyday life when the Internet-based applications open the principal way for commercial and public sector utilization. Even today, online services are often the most efficient and also cheapest method, for instance, to pay a bank bill, or to make library and package tour bookings.

The availability of the new ICTs does not result in equal distribution of use between age groups. On the contrary, new technologies tend to create social inequalities, which are often interrelated with the already existing inequalities. In this sense it is feasible to consider whether the use of the new ICTs is developing a similar source of social inequality as we have witnessed earlier in connection with literacy and illiteracy. It is reasonable to argue that the differences in the Internet access by age may become crucially important in the future, since the populations are ageing across the Baltic countries, and across whole Europe.

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Baltic success story – but what next?

By Marko Lehti

The Baltic Sea Area (BSA) has today been anchored so strongly in our consciousness that it is hard to remember that it was in practice a non-existing entity just a little over two decades ago. Or, it was just empty notion that belongs to the past describing either German dominance in the area or the clash between the East and the West, or quite frequently, both. If the BSA had any meaning for contemporaries of the Cold War era it was used for describing one sub-sphere of great power tensions. Today the BSA is widely known and recognized among the regions of Europe and is seen among them as a model case. The EU's Strategy for the Baltic Sea Region has even been presented as a pilot for following regional strategies within the EU.

The Baltic Sea Area has been sometimes described as a "test case" for European regionalisation and if that is the case we have a prime example of successful regionalisation or I would say region-building process. It is hard to find a similar region to compare that has arisen from nowhere to constitute a self-evident flourishing sphere of regional doing and which in a similar manner combines a diversity of countries, regions and other actors under one regional umbrella. Geographer Anssi Paasi describes 'new regionalism' of being multidimensional, complex, fluid and non-conforming and it involves a variety of state and non-state actors that often come together in rather informal ways. This definition could not fit better to describe BSA.

Thus, it is obvious that two decades of the BSA can and should be presented as a true success story and a model case that others can admire and follow. Nonetheless, it looks to me that this uniqueness is too often forgotten and hidden. The BSA is quite often branded as high-tech region, knowledge-based society and the most competitive region. Even these features perhaps in certain terms characterize the BSA, they are too vague conceptualisations and merely can be regarded as neo-liberal marketing strategy of selling the BSA to Brussels (that has also been success) but also to convince actors and people around the Baltic Rim about their own superiority. This image is however at least partly based on statistical blustering in which figures of each Baltic Sea country are just added together without asking if there is really regional dynamism existing. What is lacking is to describe regional processes and regional ways of doing things.

What has been characteristic to the BSA is diversity – diversity of actors and diversity of spheres participating to regional-doing. In the very beginning it was an initiative from below but since the foundation of the Council of Baltic Sea States (1992), states have tried to hijack cooperation or at least take a lead. For awhile summits of foreign ministers and then head of states dominated headlines in the 1990s but beyond that intensive networking and institutionalisation among NGOs and local actors continued. When till the end of 1990s the politicians lost their interests to the BSA and it disappeared from political agenda the networks and institutions created below saved the BSA. Because of the large spectrum of networks the BSA had turned out to be resilient and protean in the front of changes.

In the first place, the BSA can be regarded as a brave vision of an alternative future combining areas from both sides of the former Iron Curtain and helping to cope with uncertainties that the end of the Cold War brought. Before the northern enlargement of the European Union, in 1995, the BSA also offered an alternative form of regionalisation and contribution to a Europe of regions. Through the BSA it was also easier to find common elements between Nordics and Balts and by looking at a common past it was legitimate to envision a common future. When the post-Cold War transition era slowly gave away these functions lost their meaning and thus the BSA lost its political driving force but also its future-orientated gaze. That was serious because new regions are entities that are perpetually 'becoming' instead of just 'being'. That is why a future is needed to legitimise their existence.

By the eastern enlargement of the EU, the BSA has been changing from a dynamic region to the EU's boring inland sea. Therefore, I am regarding the EU's Strategy for the Baltic Sea Region as a new momentum for the BSA. Political initiatives preceding strategy and intensive negotiations and hearings in preparation for the Strategy brought the BSA back to centre of political life but in the changed mode. The Sea itself is now in the spotlight and common care of the Sea is seen as regional glue to bring different sides of the BSA together. After launching the new Action Plan in just last year it might be too early to argue anything permanent about success of the Strategy but what we could do is critically observe the visibility of the Strategy but also contextualize the Strategy with two decades of preceding cooperation.

I am arguing in this essay that even if the EU's Strategy for the Baltic Sea Region, on the one hand, represents a new momentum for BSA and it simultaneously marks a threat that the BSA would be banalized and thus lost its future-orientated visionary function. Simultaneously what has previously been characteristic of the BSA – diversity and regional-doing – are in danger to be lost.

The Northern Dimension (ND) policy offers an interesting example how a programme can disappear even if it is officially still in existence. The ND was (and still is) an umbrella policy without its own budget line gathering different projects under one label. Still the ND has disappeared as a label from regional policies because it is not anymore seen significant from a local point of view and when it is changed a policy governed from the Brussels. The Strategy with its 80 flagship projects does not have same threat at moment but it also disappearing from political debates to fragmented and specific projects. After setting down action plan there is a threat further activity is just concentrating to implementation of the action plans and evaluation of single projects without continuously critically debating on overall goals.

There need to be overwhelming reminding of importance of the Baltic Sea label and its significance for common future. Thus what seemingly is already now disappearing is a spokesman for the BSA. The Strategy lack regional meeting place or centre but, in practice, the Commission and Parliament hold the regulating power. Therefore, I would even argue that by its fragmented structure the Strategy lacks regional ownership even if its objectives are executed by local projects.

The diversity of actors and issues characteristic to earlier Baltic Sea cooperation is seemingly also changing. Environmental questions dominate the field and as important as they are, there is not much room other kind of regional doing.

From the very beginning the BSA was also the only European regional projects combining Russia and EU countries. The strategy the BSA introduced as EU's policy and even if the ND is reserved for EU-Russia relations in the North the Strategy is transforming the BSA from inclusive to exclusive entity. Earlier the BSA was open project building one uniform Europe in the North and it was open was for all who find it relevant for them. Even though there is still a variety of other regional networks created in the 1990s, the Strategy has been given the status of being THE project and it is unambiguously EU's internal policy. Simultaneously, there is even an increasing demand for trust-building between Russian and the Baltic States and thus another function the BSA available.

Therefore, I would conclude my essay to three arguments:

1. We should be more proud of our recent regional achievements and present the Baltic as a success story. This would introduce also more realistic image of the BSA and help us appreciate diversity and resilient nature of the BSA.
2. For achieving back regional ownership of the BSA we need again region-builders and visible centres of meeting.
3. The BSA also needs new visions where the future of the BSA can be envisioned separate from the EU and its regional governance.

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"To Be or Not To Be" business relations between the Baltic States and China, example of Estonia

By Xiaotian Zhang

Since the "reform and opening-up" on 1978, Chinese economy has changed dramatically. Nowadays, China is one of the fastest growing countries in the world and it is also known as one of the world's leading foreign direct investment recipients. According to IMF, China is the second largest trading nation in the world i.e. the largest exporter and second largest importer of goods. Meanwhile, the Baltic States (Estonia, Latvia and Lithuania) are also among the fastest growing economies within the European Union. With their favorable geographic position, good infrastructure, advanced scientific and technical potential, the Baltic States have their own economic/trading advantages.

However, when comparing the economic scope of these two regions, it is not hard to see the wide gap between them. Especially due to their limited population and size, the Baltic States are considered as "forgotten land" by most of the Chinese people. Even though the positive results may be limited, the governments of both of these two regions have never abandoned their efforts to build up their economic relations during the past few decades. Recently, Chinese investors have started to display stronger interest in the Baltic States, with the focus on international logistics; and the Baltic States are also trying to present themselves with the help of 2010 Shanghai World EXPO. Few months ago, the "China Investment Forum" was held in Shanghai EXPO. Nine Central and Eastern European countries attended. The purpose of this seminar was to introduce investment opportunities in the countries of Central and Eastern Europe and provide examples of success stories of Chinese companies that have already made investments. The commissioner of the Estonian pavilion said at the seminar, "Estonia will make the changeover to the euro from the new year, attesting to confidence in the Estonian economy. In addition, Estonia is geographically the closest EU member state to China." This is considered one of the most important pieces of information for the entrepreneurs who visited the Estonian pavilion.

Governmental Level Cooperation

The Republic of Estonia and the People's Republic of China established diplomatic relations on 11 September 1991 during the visit of China's Vice Minister of Foreign Affairs Tian Zengpei to Estonia. Since 1992, Estonia and China have good and stable economic relations, most of the main economic agreements have been signed, and the emphasis is being placed on expanding co-operation at the local level and on the creation of business contacts.

China's has interests toward Estonia foremost due to latter's favorable geographic position, its good transport infrastructure and strong scientific and technical potential. Potential co-operation areas include textile, customs technology, timber and food processing, information technology, biotechnology and oil shale processing. Recently, Chinese people are primarily interested in Estonia's accession to the European Monetary Union and in the country's IT sector. The business people were briefed on various Estonian e-solutions, ranging from the electronic version of the Police Board to e-school and digital prescriptions.

Estonia seeks to attract further Chinese investments, and hopes to increase the use of Estonian port and transit facilities by Chinese companies. China is interested in the modern infrastructure of Estonia's transportation network that would allow it to use Estonia as a transshipment point for goods on the way to Western Europe and Nordic countries. In order to carry this project out, Estonian Railway and Shanghai Railway signed a co-operation protocol. In addition, Estonia is interested in developing co-operation in the field of sea transport.

It is necessary to mention that Estonia plays an important role with its transportation infrastructure in relations with China. As having potentially one of the largest cargo volumes and acting as a necessary base for developing distribution and logistics, the Tallinn Harbor project has been widely discussed. Estonia welcomes China to make investments in the construction of Tallinn Harbor. The proposal made by China's Ningbo Port is considered reasonable by the Estonian side, by this proposal, Ningbo Port is viewed as a reliable partner for the perspective of long-term co-operation, since this project will enhance Tallinn Harbor's handling capacity and transport ability. Thus, with the words of the minister of Economic Affairs and Communication of Estonia, the Estonian government will provide practical support to the cooperation between two ports and international logistic enterprises of the two countries, in order to enable the both sides to turn their resolve for cooperation into reality as soon as possible. Estonian team has visited Ningbo and few other coastal cities in China and in return Chinese officials and experts have also visited Tallinn for the in-deep discussion of the port construction. The positive example of Tallinn Harbor will increase two countries trading performance; it will also bring new opportunities to the Baltic Region.

Firm Level Cooperation

The geographic distance and the size difference between the two countries is impeding co-operation. Few years ago, small amount of Chinese enterprises have been registered in Estonia with limited capital, they are mainly engaged in commodities wholesale and retail sales, entertainment (restaurants) and most of these businesses are being conducted individually or through individual contacts.

Recently, with the influence of 2010 Shanghai World EXPO, more and more Estonian entrepreneurs have started to show their interest toward China. In order to encourage potential cooperation with China, the Estonian government has organized few business visits to China. The Enterprise Estonia (EAS) has also established a representative office in Shanghai to help Estonian companies enter the Chinese market. Few Chinese PhD students from Estonian universities have also founded a research and trade service company "Raatuse International Trade (RIT)" which is specialized in helping Estonian firms to import/export from/to China. On June 2010, the first non-governmental business forum "2010 Baltic-China Annual Business Conference (BCABC)" was held in Tartu, Estonia; more than 400 Estonian entrepreneurs joined the conference to learn more about cooperation opportunities with Chinese enterprises.

According to the results of BCABC's and RIT's research which included more than 1000 firms:

1. Import from China is still the main activity when considering the business cooperation of these two countries;
2. More and more Estonian firms are willing to export their products to China and some of them (such as IT and forest industry) have already started with the implementation of these plans.

However, following factors are the main barriers of their performance:

1. Geographic distance and culture differences.

China is considered a far away market for the Estonian firms, most of Estonian firms are internationalized according to the traditional Uppsala model, according to which it is preferable to go to neighboring countries first, due to lower risks;

2. Lack of information.

Both the Estonian and Chinese firms have limited knowledge of each other. For a Estonian firm, the Chinese market seems to be too big to enter and easy to get lost in; meanwhile for a Chinese firm, Estonian market is too small to notice.

3. Difference of scope and quantity.

Due to Estonia's population and small quantities of Estonian import orders, it is usually very hard to attract Chinese manufacturers and also to lower the prices.

In fact, both markets have their own advantages. For the Estonian firms, it is necessary to know more about the Chinese market via formal and informal approaches; better understanding will bring better results; choosing right products such as high-tech products and raw materials will have more advantages to gain success in China, and it would also be a good idea for the Estonian firms to enter the Chinese market together with other firms from the Baltic States and Nordic countries. On the other hand, Chinese firms should see Estonia more as a gate to the European Union rather than as a single small country; Estonia's favorable geographic position, its good transport infrastructure and strong scientific and technical potential will help Chinese firms to build up better trading relations within the European Union.

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Black Sea economic cooperation – how good example it is for the Baltic Region?

By Venelin Tsachevsky

The Black Sea Economic Cooperation (BSEC) was launched in June 1992 in Istanbul with the adoption of **the Summit Declaration on Black Sea Economic Cooperation.** It represents a rather unusual composition of countries with heterogeneous background from Europe and Asia, some with no access to the Black Sea. Nonetheless, the underlying principle is the common economic and environmental interests of the participants. In the Declaration the BSEC was recognized as a contribution to the OSCE process and the establishment of a Europe-wide area and a higher degree of integration into the world economy. The BSEC has further grown to be a forum which proves instrumental in fostering the good-neighbourly relations and confirming the peace and stability in the Black Sea region. Currently the BSEC is composed of a total of 12 states occupying 19.3 million km^2, having a population of nearly 335 million people and an overall GDP amounting to $ 4 220 billion (PPP). The Black Sea region is the second richest area in oil and natural gas fields after the Persian Gulf. Its strategic position as a transit energy and transport corridor between Asia and Europe will be additionally appreciated upon the start of Nabucco and South Stream gas pipelines, as well as the implementation of other major infrastructure projects.

The Charter of the organization of the BSEC, signed in Yalta in June 1998 and officially put into effect in May 1999, has transformed the BSEC into an international organization. The Charter laid down a framework and a mechanism which comply with the existing heterogeneity of the region in political, economic and cultural terms, paying due respect to the specific conditions, interests and affiliations of the Member Countries to other international structures. A sustainable trend within the BSEC is the expanding multilateral cooperation which presently covers 18 areas, including economy, environment, transport and energy sectors, culture, education, R&D, emergency assistance, combat against organized crime and illegal migration, trafficking of arms, drugs and radioactive substances, etc. In 1993 was established the Parliamentary Assembly of BSEC, followed by a set of related bodies and affiliated centres – Black Sea Trade and Development Bank (1997), International Centre for Black Sea Studies (2004), BSEC Business Council (2005) and others. A whole 21 countries and about 15 international organizations enjoy observer status or act as sectoral dialogue partners. The BSEC itself has observer status at the UN General Assembly and cooperates in a number of international programmes and institutions.

Of paramount significance is its partnership with the EU which is involved in the Black Sea region through its complementing policies. **The European Neighbourhood Policy** was introduced in May 2004 with the participation of Ukraine, Moldova, Armenia, Azerbaijan and Georgia. **The Eastern Partnership** followed up in May 2009. The strategic partnership with Russia is another key element of the EU policy. As a result of Bulgaria and Romania's EU accession in 2007 the Union received access to the Black Sea. The EU policy entered a new stage with **the Black Sea Synergy** that was officially launched in February 2008. **The Environmental Partnership of the Black Sea Synergy** (March 2010) aims at finding cooperative approaches to the common challenges the wider Black Sea region is faced up with.

Despite the achieved progress, the BSEC still doesn't make the most of the accumulated potential for multilateral cooperation. In **the Declaration on the occasion of the Fifteenth Anniversary Summit of the BSEC** adopted in June 2007 the emphasis was put on the need of the organization's adaptation to the changes in the world, deepening the cooperation in the priority areas of common interest with special prominence given to energy, trade and transport, as well as enlarging the contractual foundation of the BSEC. A wish was declared that the BSEC would become a project-oriented organization. That goal has not been fulfilled yet. The lingering conflicts in the wider Black Sea region and the diverging political and economic aspirations of the Member States leave in limbo the coordination of policies and realization of common initiatives.

The financial and economic crisis in 2009-2010 has taken its toll in this respect. Among the few good instances of regional cooperation are **the Memoranda of Understanding for the Coordinated Development of the Black Sea Ring Highway and of the Motorways of the Sea at the BSEC Region** signed in Belgrade in April 2007. Those projects were described as a regional contribution to the extension of Trans-European networks and the development of Euro-Asian transport links. The headway of their implementation is however slow. Apart from that, much can be done in the field of environmental protection as well. The execution of **the Convention on the Protection of the Black Sea against Pollution** endorsed back in 1992 is not satisfactory. That is the reason why Greece has promoted **"Black Sea Turns Green"** as a motto of its rotational presidency of the BSEC (June – December 2010).

The model and the priorities of the BSEC are similar to those of the Council of the Baltic Sea States (CBSS). The BSEC activities deserve attention as the Baltic Sea region represents also a non-homogeneous area in political and economic respect. Unfortunately, so far there has been established no institutional cooperation between the two organizations – the CBSS has no observer status, nor is it a sectoral partner of the BSEC. The expectations are that in the short term things will change for the better, since there is a growing need of concerted policy by the BSEC and CBSS on issues whose resolution proves of interest not only for them but for the other European countries as well. Of particular relevance is the building of the pan-European infrastructure system, the upgrading of the transport links in the Euro-Asian region and the guarantee of energy security for the whole of Europe. The Black Sea region plays a key role as a transit transport and energy corridor but the successful implementation of large projects requires a more vigorous foreign support, including that of the CBSS.

The overall potential of the two institutions is immense – there are 42 countries and 29 international organizations participating one way or another in their activities. Ten of these states are members, partners or have observer status in both the BSEC and CBSS. The key beneficial factor is the regional involvement of the EU. The EU enlargement to the East has created new opportunities for carrying out its policy in the Baltic and, though not so prominently, in the Black Sea region. When the CBSS and BSEC were founded in 1992 as few as three of the participating countries were EU member states, compared to nowadays, when they are already 11 and more will follow suit. By and large, this provides a sound basis for the future role of the EU in boosting the cooperation within and between the BSEC and CBSS.

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Turkey as an energy import corridor

By Zeki Kütük

Turkey is increasingly at the crossroads of the energy transportation from north to south and from east to west. In accordance with its new foreign policy strategy, Turkey has been implementing a pipeline politics as a means of regional cooperation with the EU and other countries in need of energy, and also with the energy suppliers. The aim of Turkey is to become an energy corridor or even a hub. Within this context, the role of Russia has become surprisingly important, although initially Turkey's role was designed by the European Union (EU) to reduce European dependence on imported gas from Russia.

Turkish-Russian energy cooperation has started as early as in 1984 when Turkey and the Soviet Union signed an agreement on the supply of natural gas. The second agreement for additional gas was signed between Turkey and Russia in 1996, and the increasing demand of Turkey for more gas led the two countries to sign the Blue Stream Agreement in 1997. The terms of the agreement and the price of the gas were kept secret; therefore, Turkish governments were criticized for not protecting Turkey's interests enough. The criticisms and speculations around Blue Stream forced Turkey to explore new suppliers.

Turkey has found a new partner in Azerbaijan to reduce its dependence on Russian gas and to boost its position *vis-à-vis* Russia in energy cooperation. Turkey became a shareholder in the Baku-Tbilisi-Ceyhan (BTC) Pipeline Company in 2002 and oil started to flow to the port of Ceyhan in 2006 as symbolizing Turkey's aspiration to become a transit corridor for energy resources between the buyer in the West and the supplier in the East. The following year the Baku-Tbilisi-Erzurum (BTE) natural gas pipeline has become operational. Thus, Turkey has offered a limited alternative to break Russian energy hegemony over gas supply and pricing in Europe.

Obviously, its geostrategic location offers an advantage to Turkey to become an energy corridor and even a hub as it is positioned in a geographical region where the world's richest oil and natural gas reserves are buried. Therefore, Turkey is rich in its own alternatives and sees itself as a natural bridge between the source countries and the consumer markets, and seeks to become an energy hub. According to its five year-energy plan, Turkey has the objective of contributing to energy supply security and becoming the fourth main artery of natural gas, after Russia, Norway and Algeria.

For the purpose of becoming an energy hub, Turkey is seeking the realization of many projects at the same time, such as the Trans-Anatolian (Samsun-Ceyhan) bypass oil pipeline, the Trans-Caspian Natural Gas Pipeline Project, the Southern Europe Gas Ring Project, the Arab Natural Gas Pipeline, and the Nabucco Natural Gas Pipeline.

All these projects will pass through Turkey. The Nabucco project is designed to carry natural gas from Caspian and Middle Eastern sources via Turkey and the Balkans to Austria. During the 2000s, Turkey has sought to become a serious alternative route for gas deliveries to reduce its own and Europe's increasing dependence on Russia. Therefore, Nabucco is the pipeline project most supported by the EU for the diversification of Europe's gas supplies. In addition, Turkey, a staunch ally of the West, has been one of the leading lobbying country for the supply of Caspian and Middle Eastern gas, including Iranian gas, to Nabucco.

Turkey's Changed Energy Policy

Turkey surprised and confused the supporters of Nabucco when it granted Russian Gazprom to carry out feasibility and seismic studies for the South Stream project of Russia in Turkish territorial waters in the Black sea. In exchange, firstly, Gazprom has agreed to build the pipeline between Samsun and Ceyhan. Secondly, Turkey has advanced its aim to reduce tanker traffic in the Straits in which growing shipping has become very dangerous and no longer sustainable. Despite the fact that this deal means that Turkey's aim to become an energy corridor or even a hub advanced, the Nabucco has faced a backlash because South Stream is a rival to Nabucco. South Stream, too, is designed to bring gas from Central Asia and the Caspian to Europe, but in contrast to Nabucco's aim, it is meant to increase Europe's dependency on Russian gas.

Frustrated by the EU leaders to its EU membership bid, Turkey has changed its traditional foreign policy since around 2005 and started to follow an active and multifaceted one. In accordance with its multifaceted foreign policy, Turkey was not satisfied with its role to act as a bridge or corridor anymore and decided to play a great energy game in order to gain more. While the supporters of Nabucco and South Stream accused each other of not having sufficient gas to transport via their pipelines, Turkey decided to ride with two horses simultaneously. Turkey which is the key country in Nabucco, started to support also South Stream in 2009 in order to strengthen its position in the energy market.

Despite the fact that both Russia and Turkey underline that neither Nabucco nor South Stream will have a negative impact on each other, ambiguities over gas sources and financiers present problems for realizing these two projects. As a result of Turkey's decision to support both the projects, it might become necessary to put Nabucco and South Stream and possibly other projects into a larger "southern energy corridor" in order to create Western-Russian cooperation as the United States has already proposed.

In conclusion, it can be said that Turkey has managed to play its cards well by following a pragmatic policy in the great energy game, and the old rivals Turkey and Russia have found new common ground. Russia has become Turkey's biggest trade partner in 2008 and the interests of the EU do not have priority in Turkey's self-confident foreign policy anymore. Although Turkey has increasingly become over-dependent on Russian natural gas imports in the 2000s, the agreements signed by the two parties are part of a "give and take" package which made the old rivals strategic partners. Therefore, Turkish-Russian energy cooperation rises the crucial question whether the EU can trust Turkey in energy security anymore, especially at a time when the EU wants to reduce its dependence on Russian gas.

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Ukraine and its future role in the EU-Russia gas transit

By Andriy Chubyk

After independence in 1991, Ukraine inherited from the Soviet Union a powerful of hydrocarbons' transportation system, which made it one of the key oil and gas transit route to European countries. However, the key energy sectors didn't become the subject of separate agreements in bilateral relations between Ukraine and the EU. Gas sector remained the most unresolved sphere. After assignment of a number of direct contracts between the Russian Gazprom and European oil and gas companies, according to which the Russian company assumed responsibility for delivery of natural gas to the eastern borders of the EU, Ukraine was excluded from international energy relations in Europe, despite the fact that for a long time it retained the right to re-export Russian gas to the EU. Instead, relations in gas sphere were interpreted as bilateral relations between Russia and Ukraine.

Becoming a regional field of activities and attainment of enormous profits for a limited group of people from both countries, energy relations have ceased to be transparent, conform to the principles of protection of state interests and made Ukraine largely a passive player in matters of improving energy security in Europe. The reason was the absence or ineffectiveness of Ukraine's involvement into European energy relations under conditions of appropriate EU legislation. By focusing on maintaining by any means existing price preferences for natural gas, Ukraine has also left aside the issue of energy efficiency, creation of transparent energy market and its modernization according to European standards.

Preserving the existing status can result in loss of attractiveness of transit facilities for European partners, their reorientation on alternative sources and ways of energy supply and eventually complete elimination of the Ukraine from energy relations in Europe. At the same time, implementation of European norms and standards, internal reformation and accession to the European energy market can increase the importance of Ukraine in ensuring energy security of Europe, including the use of underground gas storage facilities to balance gas consumption in peak periods.

Gas crisis brought to light one of the most sensitive areas, where manipulation provided reasons for the conflicts. In the case of Ukraine, it is the hydrocarbons' transportation system, especially natural gas transit pipelines. On March 23, 2009 in Brussels the Joint Statement on the outcomes of the International Investment Conference on Modernization of Gas Transport System of Ukraine was signed. The EU expressed its readiness to participate in improving the technical state of pipelines in order to increase energy security in Europe. However, further practical steps in this direction were hindered by negative assessment of the signed document by Russia and the slowness of reforms in the energy sector of Ukraine. Even assessment of investments differs. So, in 2009 according to estimations, made by the joint working group from the EU and Ukraine representatives, it should be around $ 2,5-3 billion. Recently the Ministry of Fuel and Energy of Ukraine announced that $ 6.5 billion are needed for modernization of Ukrainian GTS. These funds should be used for the reconstruction of transit gas pipelines, reconstruction and technical re-equipment of compressor, gas distribution and gas metering stations, as well as technical upgrading of underground gas storage facilities. Such difference can hardly help to conduct an effective dialogue.

The law "On principles of the functioning of the natural gas market" aims to be a step toward the beginning of modernization of Ukrainian GTS, but some provisions (absence of the principle of companies mining, transportation and distribution sectors separation, NERC broad powers to regulate prices and tariffs) are not corresponding to its desire of the full compliance with the Directive 2003/55/EC.

On September 24, 2010 a Protocol on Ukraine's accession to the European Energy Community was signed. As expected, after its ratification by the Verkhovna Rada the process of Naftogaz of Ukraine reformation and separation of an independent GTS operator will start. This can be an important step towards integration of Ukraine into the European energy market and open access to work with European companies according to European standards. Among other things, it can help to establish direct contractual relationship with the European importers of Russian gas concerning purchase of natural gas on the eastern border of Ukraine. It will increase the filling-in of Ukrainian GTS as well as profits of the operator. Accordingly, the independent GTS operator will be able to secure a loan for the necessary modernization without creating an international consortium or other associations that do not correspond with current EU legislation in the context of vertically integrated oil companies functioning in the domestic energy market.

Creation of an independent GTS operator and its work within European standards (uniform tariffs, equal access, openness of information regarding GTS and gas storage facilities in the current, quarterly and annual formats) also will increase Ukraine's role in ensuring energy security in Europe, especially in the most energy dependent countries of Central and Eastern Europe, which currently do not have necessary infrastructure for the collection and storage of natural gas.

Naftogaz of Ukraine reformation according to EU requirements is significantly hindered by Russia's interest to get control over the Ukrainian GTS, which is and will remain high. Ukrainian GTS is a key element for ensuring full-fledged role of the main gas flows' supervising point of the EU in the east-west direction during the whole year, particularly in periods of greatest growth and decline in gas demands in winter and summer periods, which can not be provided by any of the proposed bypassing pipeline routes.

Based on the defined situation, the role of Ukraine in the transit of Russian gas to Europe could be as follows:

1. Decisive position of Ukraine in the implementation of European legislation and fulfilment of its commitments will create a transparent transit corridor between Russia and the EU.

2. Delay in appropriate reforms will lead to deterioration of the image of Ukraine as a reliable transit country and the re-orientation of EU member states on alternative hydrocarbons' transit routes and sources.

3. Reversal of reforms and Ukraine's entry into Russia's power structures, such as a merger of Gazprom and Naftogaz of Ukraine will lead to the formation of Europe's largest energy company, which is governed by another than European standards of market relations and often used as an instrument for achieving goals of geopolitical domination over unilaterally defined "spheres of influence".

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Ukraine

Entering Russian markets – a point of view of a Finnish SME

By Petteri Hannonen

Russia is seen as a huge business opportunity all around the world. We Finns are in a unique position, because these mass markets are right next to us. Despite of this closeness, it can be questioned, are Finns really utilizing these opportunities as well, as they could be utilized? For example, right next to Finland there is a real metropolis, St. Petersburg, with some five million inhabitants. After living some time in the city, as well as visiting it more than dozen times, I still think that the presence of Finland in St. Petersburg is rather small..

In case there is a “gold mine” close, it is worth of asking why Finnish businesses are not “running” towards it? Even though business aspects to enter Russian markets would be in order, one of the biggest reasons for hesitation is the uniqueness of Russian culture. Finnish business culture as well as Finnish business environment is more or less fact-based – in case a company has a solid business idea with a good quality product/service, usually a company is able to enter markets successfully. In Russia that is not possible – having “just” a good product/service with a solid business idea is not enough to succeed. On top of adaptation (which even McDonald's has done for Russian markets) there are few other essential elements, so that succeeding in Russia is possible:

1. Understanding Russian culture
2. Right kind of personal contacts
3. Local presence
4. Language skills

While living in St. Petersburg, I had the opportunity to meet a real Russian business veteran from Finland. He had been working in Russia already much more than a decade. He told me a story, how once he had to fire his Finnish employee, even though the Russian language skills of that particular person were excellent, almost on native level. Unfortunately that person did not have any cultural understanding whatsoever and could not get along with customers in Russian business environment. That story was a real wakening call for me.

After having some understanding of Russian culture, establishing personal contacts will become significantly easier. For example, trying to get in touch with a Russian director will suddenly become almost like calling to a friend, in case there has been a possibility to have some activities outside business hours (having a lunch/dinner, meeting in a hobby, meeting at a party/birthday/wedding, visiting one's home...). If possible, living in Russia with Russians is definitely the best way to acquire cultural understanding. Then there is a possibility that a person can little by little start to understand 'Русская душа' (the Russian soul).

There are two important elements connected to personal contacts. Firstly, personal contacts should be so called 'right kind'. For example, employees and managers rarely have real power in decision-making. Secondly, connected to personal contacts, maintaining them is at least as important as establishing them. For instance, unlike for many Finns, an e-mail is not a proper way to maintain contacts, but phone/Skype call (with video) and face-to-face meetings are. Every now and then remembering the other one with a small gift is a must in a longer run. Here the issue is not bribes, but a small gift, which shows the courtesy and respect towards the other person.

As the matters presented above already give an indication, successful business operations in Russia are not possible without strong local presence. For a foreigner it is impossible to deeply understand another culture (as own culture is known) as well as local language. That is the reason, why local presence with at least partially local personnel is essential. In the end, locals always know “those unwritten rules”, which are crucial to be able to succeed. When managing Russian personnel, the exact same ways of behaving, as for maintaining personal contacts, are applied – e-mail is not a proper way to be in contact, but phone/Skype calls (with video) and face-to-face meetings are.

Even though Russian personnel would speak good English (or Finnish), being able to communicate also in Russian language is important. Managing own personnel at least partially also in Russian is impressive for Russians (who think that their language is difficult) and will prevent unnecessary misunderstandings and conflicts, which language barriers easily create. Furthermore, direct translation can change a whole meaning of a sentence so significantly that a foreigner might understand a situation in a totally wrong way.

Connecting all four essential elements, for the biggest sales and partner negotiations, presence of top management is needed. In those cases not knowing Russian (well enough) might become expensive and mean a loss of deals. As business in Russia goes down to personal relationships, often the biggest decisions are not being made in business meetings but while having a dinner, in banya (sauna) or at a party. In those occasions the importance of being able to communicate with locals becomes very important – Russians are talkative and social people and communicating in their language and participating actively to an event is respected. One should also not forget that an invitation to someone's home is a great honor.

As seen, Russia requires a lot, especially, in case an SME with its limited resources decides to enter Russian markets. However, the matters described above are not rocket science – they are things, which can be learned and understood. After all, from the perspective of Joensuu, St. Petersburg with some five million inhabitants is geographically as close as Helsinki area with one million inhabitants. However, after establishing a solid foundation to do business in St. Petersburg, Russian markets do not end there – there is still Moscow, the business capital of the country, and ten other cities with more than one million inhabitants waiting to be conquered.

Ampparit Oy is a SME/start-up company from Finland, which is entering Russian markets with its Witpik Media Monitoring. On top of Finnish online media, Witpik Media Monitoring also monitors online media in Russia.

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Finnish press presents an image of a nauseous Baltic Sea

By Timo Painilainen

"Today, some of the richest and most environmentally conscious countries on Earth live on the shores of one of the world's most polluted seas. Isn't that a tragedy?" Tarja Halonen, the President of Finland (18.2.2010).

As we know, the Baltic Sea of the 21st century is in the middle of innumerable possibilities and, at the same time, threats that are more versatile and, perhaps even more so, more complicated than ever before. In particular, the state of its environment is continuously a target of wide ranging public debate. In recent years in Finland, for instance, many experts, business and NGO representatives as well as politicians from members of municipal councils to President Tarja Halonen have spoken out of their concerns over the eutrophication problem of the catchment area's marine environment and, as a more recent example, over the shortcomings of the Nord Stream gas pipeline project.

These days, media in all brings up an increasingly wide variety of themes and perspectives in relation to the Baltic Sea. Especially, the press' constantly diversifying talk about the state its marine environment creates and upkeeps the reality basis from whereabouts the citizen's well-known dichotomical environmental information and even conflict-sensitive attitudes are formed. An increase in general environmental awareness contributes, in turn, to environmental protection all the way from grass root level to the top of international politics. At the same time, the flood of information certainly has its downside as well: in peoples' minds, the blue-green algae blooms are slowly but surely normalizing as a typical part of the summerly cycle of nature.

This article is based on my Master's thesis, in which I tried to examine what sort of an impression one might have gotten about the current state of the Baltic Sea's natural environment by following the writings of two daily Finnish newspapers (Helsingin Sanomat and Turun Sanomat) during the years 1999 to 2009. My researches on the subject matter are currently expanding into a dissertation project. The research material was collected from the papers' Internet archives by means of specific search words and other restrictions and consisted, in all, of 2337 articles, which I analyzed using both quantitative and qualitative methods. A vast majority of the material comprises of usual news reports and stories, but, for example, a total of more than 550 editorials, expert articles and opinion texts were included.

On the basis of my research material, it can be said that the Baltic Sea themed news coverage has evolved as a part of a more general societal greening, both quantitatively and qualitatively. Put differently, media has, in a relatively short period of time, moved from narrowish reporting about accidents and the likes of the white-tailed eagle's extinction threat to a significantly diverse and even regionally extensive processing of environmental topics. In addition, an increasing number of agents from politicians to laymen and from experts to sceptics have been able to make their voices heard.

All in all, the amount of published Baltic Sea themed writings doubled annually during the review period, which complies well with the exponential general growth trend of news coverage on environmental issues. Monthly, the publication of texts concentrated on summer, in other words, on the ecologically most active time of year in the northern hemisphere. Additionally, the multiple risks of wintertime shipping caused a separate publication peak timed on the ice-capped season.

Scientists identified and defined the environmental problems of the Baltic Sea comprehensively throughout the review period, which also complies with previous research results. Indeed, an expert of some sort was the main agent in more than a quarter of the articles in both newspapers, even though the findings, otherwise, were distributed surprisingly evenly. Anyhow, according to measured frequencies, secretary-general of the Nordic Council Jan-Erik Enestam, WWF's marine biologist Anita Mäkinen and oil spill clean-up expert Kalervo Jolma from the Finnish Environment Institute were the three persons that were mentioned most often.

Geographically the texts covered the whole scale from local to global with emphasis on the latter. The word Baltic Sea was mentioned nearly 8,000 times, a sum out of which about 600 were headers. With approximately one-third's share the Archipelago Sea was, quite predictably, highlighted by Turun Sanomat (a newspaper located in the southwestern Finland) whereas the Gulf of Finland was dominated in Helsingin Sanomat (a newspaper located in the capital of Finland). An interesting observation was affiliated with the European Union: the Baltic Sea became, in practice, an internal sea of the EU in the middle of the research period, which was reflected well in the debate.

One of the most surprising findings was that climate change got very little direct attention in the articles even though the environmental debate is, nowadays, almost exclusively prevailed by it and its ramifications. Instead, the worst environmental problem of the Baltic maritime area, eutrophication, was quantitatively the most important issue. This is at least partly explained by the familiarity of the blue-green algae phenomenon. The main differences between the newspapers were that Helsingin Sanomat focused primarily in oil transportation-related energy subjects, while Turun Sanomat highlighted the elevated concentrations of harmful substances and environmental toxin, which are found in Baltic herring populations for instance. Fishing, in all, was present in significant numbers.

According to my editorials based qualitative analysis, Finland is often constructed as a textbook example country of national environmental protection. Moreover, even as a member of the EU, Finland is said to be unable to do much to improve the state of the Baltic Sea, if other countries do not commit, with same intensity, to the same goals. This could be related to the fact, that the societal environmental issues concerning sea areas are increasingly international by nature.

My researches showed that, in two major Finnish newspapers, there is a broad consensus about the nauseous state of the Baltic Sea marine environment and, perhaps even more so, about the variety of the risks threatening its future. Helsingin Sanomat and Turun Sanomat are, in addition, so widely circulated in Finland that the results can, at least to some extent, be assumed to apply also to other domestic newspapers. Although I decided not to evaluate neither convicted culprits nor possible means of solutions in this particular research, it can be said on a side note, that no absolute divide between, for example, nature's well-being and economic welfare can be depicted.

In the articles, the Baltic Sea was constructed increasingly as the interactive sum of its components. What was interesting was that, instead of just one or two overwhelming themes, the whole scale of its environmental problems was presented and treated in almost equal manner. In the light of my examinations, it seems legitimate to argue that the major Finnish newspaper press has fairly strongly, for its part, created and maintained the vision of a nauseous Baltic Sea. The image is supported, above all, by experts according to whom a wide range of uncontrollable environmental risk factors, from the so-called vicious circle of internal nutrient load to the conflicts caused by great cormorants, threatens its very existence.

Regardless of the amoebic and kaleidoscopic protection agenda which has its roots in the 1970's, it is fairly easy to say, after scrutinizing the articles published between 1999–2009, that the Baltic Sea still appears to be world's most polluted sea area. Thus, it is to be hoped for that the environmental journalism will remain impartially up to its ever more demanding tasks in the future and strives to provide the readers with a comprehensive picture of the Baltic Sea and its sustainable development. Based on both my research material basis and common scientific understanding as well as, for example, on the recent Baltic Sea Action Summit Conference organized in Helsinki no less environmental, journalistical or political challenges are decreasing at all.

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The future of Europe and Turkey on the basis of the report of the EU reflection group

By Egemen Bağış

The independent working group established by the European Council of December 2007, comprising 12 prominent Europeans from diverse backgrounds, namely the "EU Reflection Group" issued their report entitled "European Project 2030, The Threats and Opportunities" in May 2010. The Report identified the challenges the Union may encounter in the long term, together with the measures to be adopted to address those challenges.

The analysis of the current situation with forecasts for the future in case the necessary measures are not adopted are striking. For the firm believers of the European project the findings of the Report are not very encouraging; since the Report identifies numerous challenges that Europe has to face with within the next two decades. The Report is a wake-up call for Europe. It draws attention to the danger of marginalisation of Europe in the international arena.

Fortunately however, EU is capable of transforming itself and finding solutions to the problems outlined in the Report ranging from becoming a stronger and credible global actor to securing energy supplies and routes, from remedying the unfavorable demographic trends to combating illegal immigration and organized crime, from dealing with the climate change to remaining as one of the leading global economic players.

In that regard, the Report underlines the importance of the EU enlargement as an element to overcome those challenges and maximize the opportunities in favor of a more peaceful, secure, prosperous Europe contributing to a more stable, fair and secure global order.

For many, the major value of the EU is its being a reference point that brings prosperity and peace for its citizens, an alternative model in respect to traditional inter-state relations and a transnational community of law. EU must become a hub by using inclusive and transformative strategies, which have been used successfully in the previous enlargements. Enlargement remains the most effective foreign policy tool for the EU.

In order to attain its objectives, Europe should play a more assertive role in the international arena. However, to achieve this, EU must always be open to new members and must assess each candidate country on its own merits and its progress as regards compliance with membership criteria. The Union should show that it is a credible actor which remains faithful to its commitments towards all the candidate countries. In fact, this is what is meant by "true limits of Europe".

The Report of the Reflection Group agrees that the boundaries of the Union can only be drawn by objective criteria, reflecting compliance with EU values, norms and standards, rather than by subjective elements.

I would like to point out that a value-based Union is the Union that Turkey wishes to join, since the same values are also embraced by the Turkish people. Once it becomes a member, Turkey will be a driving force to promote those values both within and beyond the Union.

Reminding the EU leaders the principle of *pacta sunt servanda*, the Report suggests the continuation of the negotiation process with Turkey. In the Report, it has been emphasized that the commitment given to Turkey and other official candidate countries must be honored and accession negotiations must be continued accordingly.

Turkey is one of the few countries which the Report refers to by name. This can only be construed as an indicator of the significance of Turkey both for the EU and also for the world in general, in political, economic, cultural and social terms.

The Report states it implicitly; but let me say it explicitly: Turkey is one of the essential keys to Europe's future and the solution to its current and future problems. Turkey will be the driving force for shaping the policies in order to tackle the challenges of the next decades for the Union due to its significant traits, such as its size, geographical location, economic and political strength, dynamic societal structure, cultural and historical characteristics, active foreign policy and strategic outlook. It has become one of the world's most dynamic and resilient economies and also one of the most influential and credible countries in regional and global politics.

The EU accession process definitely has its share in this transformation. For Turkey, the accession process has always been an incentive for political, economic, social and legal reforms. The accession process is considered as the most important modernisation project of Turkey since the founding of the Republic. In that context, Turkey's objective of membership to the European Union stems from our aspiration for the modernization and transformation of our country.

We want to realize this transformation to provide the highest standards in every field for our citizens. I have no doubt that Turkey, a senior member of all European organizations, will successfully accomplish its EU membership process.

Turkey wants to make the most out of the accession process. Indeed, the challenges and difficulties of Turkey's road to accession require patience, hard work and devotion from both sides. It certainly requires dedication and hard work on the part of Turkey. It, however, also requires sincere commitment, fairness and adherence to the principle of *pacta sunt servanda* from the EU side as emphasized in the Reflection Group Report.

EU member states have taken unanimous decisions in 1999 when declaring the official candidacy status of Turkey, in December 2004 when taking the decision to start the accession negotiations and in October 2005 for the actual opening of the negotiations. Turkey is a country destined to join the European Union at the end of the accession process.

We do not ask any favors from the European Union. What we expect from the European Union is to be fair and have an objective vision. We are committed to continuing this process as long as it is kept on a realistic and fair basis.

This process is an opportunity for both sides; for Turkey it is an opportunity to use its immense dynamics for the transformation of the country and for the EU it is an opportunity to improve its political and economic power in a more complex global system. Accession might be a difficult process but it is also an irreversible process at the end of which both Turkey and EU will win.

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Post-crisis Lithuania - lessons and recovery

By Dainius Kreivys

Global financial crisis has changed the course of the Lithuanian economy. It has been a massive challenge but also a possibility to revise and restructure the country's competitiveness turning course from low value added economy to high value added services and goods.

International financial crisis and new prospects for the future has changed economic policy setting rules in many countries. Policy changes have been caused by the changes in economic life.

The global financial crisis has made its' devastating job in terms of both the developed and the emerging economies.

Contagion from financial and insurance industries in the US and EU was transmitted to significant reduction in consumption, manufacturing, lending and international trade volumes. The tiny Baltic economies – Estonia, Latvia and Lithuania - could not avoid these negative effects due to significant reduction in exports. While in the pre-crisis period they demonstrated high capacity to borrow, invest, build and consume, during the crisis their task was to rebuild their competitiveness and learn to consume less.

The current Government of Lithuania took office in December 2008 when the crisis was looming and the GDP acquired „freefall" speed. The government, chaired by Andrius Kubilius, faced very difficult tasks to be implemented: drastic public and social spending cuts, tax raises and structural reforms in the education and health system. Hard decisions that many European countries will be forced to take in 2011.

Why we succeeded to recover

Back to the beginning of 2009, while the Ministry of Finance had to master cash flows in public finance trying to reduce deficits, the Ministry of Economy had to unfurl a parachute for a free fall of the economy and manage it successfully.

Economic stimulus package was like a parachute necessary to avoid hard economy landing. Expanding of business financing facilities, export and investments, improving business environment, using EU structural funds more efficiently were the main managing straps in this parachute.

Expanding of business financing facilities was extremely important in the situation when the banks started to withdraw money from enterprises and could not let companies finish their investment projects. High Interest rates were disincentive to borrow. Therefore, a decision was made to raise funds from external resources (excluding Lithuanian banks) and lend them to business at a reasonable price. State guarantees were issued in order to compensate interests charged for loans. More than 1/6 of all enterprises used economic stimulus package facilities which allowed them survive, save jobs and reputation.

Building fundamentals for export and investments

Building fundamentals for export expansion and investments attraction are also extremely important. Firstly, tiny economies like Lithuania should rely on export because domestic demand is very limited. Secondly, attracting of foreign investments is one of the key issues in improving competitiveness, economic life and increasing welfare.

A government agency LDA was restructured into 2 institutions. "Enterprise Lithiania" was established to help companies to increase exports. Agency "Invest Lithuania" devotes its resources to attract foreign direct investments.

Powerful financial and non-financial measures were introduced to increase exports. Testing competitiveness of products and services, assistance in preparing export plans, strategic analysis, finding of new foreign partners are among non financial measures, focused to increase exports. These measures coincided with the strong will of exporting companies to find new markets and helped to increase exports in the second half of 2009 and avoid harder landing. Export became the driving force of the economy and so it remains in 2010.

The government efforts to attract foreign investors by improving business environment, creating specific financial packages for investors, suggesting pool of qualified labour force are the most important ones.

FDIMarkets.com data shows that Lithuania has attracted 28 foreign investors that invested LTL 3,5 billion and created jobs for 3500 employees. Barclays and SEB established IT centers, Western Union invested in financial service center, IBM decided to create global research center. These are just several names that lie behind solid FDI figures. Such results during the crisis period are the best examples that impressed other foreign investors we are dealing with at the moment.

Out of bureaucratic frames

Improving of business environment was one of the key items in the crisis management agenda. Although there were many debates at the institution level, more than 50 significant proposals that help business to save time and money became official laws and rules. Simplified establishment of a new enterprise and license issue, easier tax paying procedures are just several of the proposals that were implemented. These actions let companies „to breath" more easier and raised Lithuania in World Bank „Doing business 2010" rating by three positions.

Public finance consolidation – out of the comfort zone now in order to be back in future

The leading role in deficit cutting competition among the EU countries with 12 % of GDP fiscal consolidation in 2009 brought clear benefits. First, there was no need to turn to international financial institutions and lose economic policy control. Second, we could borrow in international financial markets. Third, our determination to reduce public spending considerably reduced our borrowing costs, country risk premium and interbank rates.

Strategic objective of the medium-term policy is further public finances consolidation and essential improvement of the situation in the areas that can ensure economic breakthrough. Within the framework of the Convergence Programme Lithuania sets general government deficit targets: for 2010 – 8.1 % of GDP, for 2011 – 5.8 % of GDP, for 2012 – 3 % of GDP. The Government plans to balance the state budget and decrease borrowing significantly. Lithuania also expects to introduce euro in 2010.

The way we are moving forward

Being more industrial yard (export of goods comprises 80% of total exports) at the moment we, like other economies in the Central and Eastern Europe, also try to address problems of how to reduce energy and commodity prices and their impact on competitiveness.

Increasing employment and entrepreneurship are also drivers of faster growth. However, the small size in economic terms does not prevent Lithuania from being the most dynamic country in the Baltic Sea Region and active in EU policy setting rules in post-crisis growth agenda.

For the last couple of years we have been observing interesting tendencies in global economy. We can clearly see that the global market is becoming more and more segmented and specialised in certain fields. For many years, we have known China as the world's biggest industrial yard. India, the world's most increasing influential economy, is gaining a position of a huge service hub.

Similarly, Central Europe has been known as Europe's industrial yard, while Northern European countries differentiated themselves as service economies.

Services currently make only 15% of cross-border trade, so there is huge potential for developing service yards all throughout Europe. The global crisis the world faced two years ago brought massive cost cutting and optimization in all the companies of the world.

Global enterprises were forced to examine their expenditures and find ways to optimize them. This led to looking for possibilities to outsource operations at attractive costs, however, not compromising on provided quality or competences. Lithuania is the country that wants to derive maximum benefits from this.

Lithuania is a part of the Baltic-Nordic region, which is renowned for its outstanding achievements in high value added services and innovations. Being part of this region has naturally set us a strategic goal to become the Baltic-Nordic Service Hub by 2015. It is not the goods, it is the knowledge we are going to export.

Our country is ready to provide services, like B2B, Medical or logistic services. Why services ? The answer is simple. First of all, because of the competences and talents the Lithuanians have. Lithuanians are among the EU's most educated people. They are the country's greatest "gold and oil". Talents are the first to be mentioned among other reasons when investors like Barclays, IBM or Western Union talk about their decision making. Just a few facts:

- 40 percent of the population have higher education
- 90 percent speak at least one foreign language
- 50 percent speak two foreign languages
- 40 percent of talent comes from science and technology

The second reason why Lithuania is becoming an attractive location for investors is our well developed infrastructure. We are the world's 2nd and Europe's first with fiber broadband penetration and have well developed high-speed wireless broadband services, including 4G.

Europe's densest network of public Internet access points. 3 integrated science, studies and business centres – the so called knowledge triangles - are under development with the commitment and dedicated support of the Lithuanian Government

Lithuania is also aiming to significantly increase the export of medical services, especially in cardiovascular, oncology and odontology fields.

These advantages make Baltic-Nordic service hub not a vision, but an action plan already set in motion.

Dainius Kreivys

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Education in times of recession and at the age of innovation

By Hannu Takkula and Vesa Kangaslahti

The latest recession has been severe for the European economy as well as the rest of the world. The lives of many European citizens have been affected in ways that have been impossible to foresee. The scale of problems has been vast, even in countries long perceived as being stable. Job or budget-related cuts have been among the saddest and most visible indicators that 'times' are not good. The unemployment rate, especially among the young, is another example of a statistic that frequently catches the eye. For every positive sign indicating movement towards recovery there has been a number of worrying revelations, including those emerging recently from Ireland, Portugal, Greece and Spain.

One does not need to read much beyond the titles of various strategy and policy documents coming from Brussels to conclude that *innovation* is widely perceived as 'the way' out of bad times. Innovation seems to be, quite simply, the central solution to Europe's future success. It is the key to new "smart, sustainable and inclusive" growth, and to anything from better industrial policy to employment opportunities; from tackling climate change to improving energy efficiency or European research output. New, innovative financial instruments have also been discussed, designed and developed.

Since we are arguably in the midst of the most difficult economic times in over 50 years, in this short article we want to briefly consider an angle less discussed; a perspective we believe should be more widely debated in times of recession. Rahm Emanuel, U.S. President Obama's former Chief-of-Staff, famously commented upon entering office that "you never want a serious crisis go to waste". We do not intend to be that ruthless, but we do aim to highlight the idea of being a little more creative while much destruction is taking place -- as Joseph Schumpeter wrote some 70 years ago. For Schumpeter, the innovative input of entrepreneurs was key to sustainable economic growth, even were the value of established institutions that had enjoyed a degree of monopoly (due to existing technological, regulatory or economic models) to be eroded in the process. Hence Schumpeter's much quoted idea: "the gale of creative destruction". While one could argue that the destruction we are currently experiencing has been precisely due to the (overly) greedy, entrepreneurial behavior of financiers, bankers and real estate developers alike, we believe that new models and ways of thinking are needed. After all, a rather famous scientist once claimed that no problem can be solved from the same level of consciousness that created it.

When looking ahead and planning for recovery, one should not underestimate the importance of economists, statisticians and various financial professionals. Budget planning and financial "package"-related issues have been dominating the news in recent months, and the odds are that they will keep on doing so for some time to come. Much hard work and many innovations are also required in this area. For instance, some financial institutions have designed schemes in which their senior staff will be compensated over performance periods of several years, and in cases of mismanagement, they may even have to repay the organization. Another good example comes from the actions of George Soros, the businessman and philanthropist, who last year donated millions to establish the Institute for New Economic Thinking, dedicated to the idea of solving inadequacies within our current economic system by offering grants and scholarships for researchers.

Research and innovation involve an element of healthy risk-taking, which is also common to entrepreneurship. Although it may sound contradictory given the times, in some ways decision-makers must become more entrepreneurial and have the courage not to cut back too much on essentials, and not to over-emphasize risk-adverse action. Warren Buffett, who has pledged to donate much of his wealth to the Bill and Melinda Gates Foundation (which is dedicated to bringing innovations in health, development, and learning to the global community) has said of the foundation, "if we succeed all the time, we are failing" - referring to the foundation's risk taking capabilities and simultaneously sending a clear signal for what type of research gets funded. As the European Commission is taking steps towards building an "Innovation Union", it is vital to listen to the unified front of European universities, scientists, and research / funding agencies, who claim that too much EU research funding is currently complex and bureaucratic due to overly strict financial regulations. It is no surprise, therefore, that the President of the Finnish Academy recently called for simplification of the financial and administrative provisions related to European funding instruments. He, as do others in the field, would also like to see the research budget for the next EU Framework Programme increased.

Ideas for recovery generated by those of us more involved in education and related policy areas are often viewed as being less important. Nevertheless, we must keep on promoting our ideals. We must remind decision-makers all over Europe to keep on viewing budgets for education, culture and research, not as costs, but as investments in the future. We must encourage others to view the world beyond the next election, or beyond the next financial 'quarter', and urge politicians and other leaders to genuinely consider the long-term. Gillian Tett, an anthropologist writing for the *Financial Times*, recently argued that the beauty behind the work of economists, statisticians or number-crunchers is that they produce data, reports and strategies that appear delightfully accurate, and as such, hard to argue against. Yet very few economists were able to predict the current crisis. Herein, we believe, lies the key point often forgotten: in education, as in research (or innovation activities), when a project of some kind is initiated, it is easy to calculate costs in advance, but extremely difficult - if not impossible - to quantify its *results* in advance. Nevertheless, most people would agree that an individual's education greatly influences her / his future life opportunities and is therefore one of the most crucial factors for any society. Most people would equally agree that advances in science have changed our lives for the better. We must also remind ourselves, as the United Kingdom Royal Society's report does, that "we cannot predict this century's counterparts of quantum theory, the double-helix and the computer - nor where the next generation of innovators will be trained and inspired."

For those of us who are more involved, on a daily basis, in less easily quantified policy areas, it remains our responsibility to remind others of the importance of making investments into the future. Even in times of necessary fiscal austerity, funding for education, research and related policy areas that are certain to help our societies recover, must be continued and perhaps even increased. This requires political vision that goes well beyond the next several election cycles.

Over the years Finland has been an excellent example of a nation which has invested in education and research. The rewards Finland has reaped in recent years owe much to decisions made ten, twenty or thirty years ago. In fact, it was in the midst of the recession in the early 90's that Finland last devised a bold innovation strategy; this strategy transformed the nation technologically and has since been admired the world over. The question is: what will the EU, Finland included, do now that we are yet again in the midst of difficult times?

There is no doubt that these are complex issues. Although it would perhaps be safer to live and operate -- politically as well as otherwise -- in better economic times, downturns in the economy force us to prioritize and rethink the future.

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Russia's modernization - a progress report

By Igor Yurgens

For contemporary Russia, the necessity of modernization has long been a topic of discussion. However, no consensus has been reached yet with regard to the tempo, breadth, means and methods of this modernization.

A year ago 'vertical' modernization was launched in the economic sectors determined to have the greatest innovation potential for Russia. At that time, the following key priorities were declared: energy efficiency, nuclear and space technology, medicine and pharmaceuticals, and information technologies.

Since then Russian authorities have on numerous occasions indicated an understanding of the fact that such focused and regulated modernization is not sufficient to achieve the far-reaching goals set out before the state. Real renewal of the economy can only be achieved through 'horizontal' modernization: a 'rebooting' of regulatory institutions, improvement of economic conditions across the board and total 'de-bureaucratization'.

Both among experts and in society at large there is growing recognition of the fact that a third level of modernization is also necessary. All efforts, even the most inclusive and targeted measures, aimed at renewing the economy will be impotent if not accompanied by a similar all-encompassing and targeted renewal of public and state institutions. Horizontal modernization must develop in an environment of general and integrated modernization of the political culture and social relations, accompanied by a renewal of society and the individuals of this society in accordance to the demands of the contemporary world.

The implementation of information and communication technologies (ICT – which figures as one of the short-listed priorities mentioned above) is a key link capable of lifting Russia's modernization to qualitatively higher levels. It has long been understood that the use of ICT in government, the social sphere and business implies not only the automation of certain functions and process but also the radical reconstruction of the institutions themselves on a new technological foundation. The end result of the implementation of ICT is not the number of computers or programs but rather the new quality of the provision of state and social services, the development of new forms of democracy and innovative ways of doing business.

Furthermore, the realities of an information society represent an important component of the modernization environment. This environment, which serves as a guarantee for the creation of a societal foundation for modernization, allows people to get a sense of what modernization entails and to assess the potential advantages stemming from it.

Both global and Russian experience shows that truly widespread results can only be achieved with the participation of the state, as one of the initiators and regulators of ICT assimilation processes.

There are plenty of examples in Russia of truly effective work in the implementation of ICT, both at the ministerial level and in the regions. However, due to insufficient intergovernmental coordination, a lack of cooperation between regions in the preparation and realization of local projects, the dearth of opportunities for experts to influence state bodies as well as bureaucratic sabotage, examples of ineffective ICT implementation are predominant.

The 'digital rift' between Russia's regions remains. According to the recently published Index of Information Society Preparedness of Russian Regions indicates that the number of computers per person in the outsider-region (Chechnya) lags behind the leader (Chukotka) by more than 40-fold. As it turns out the digital rift also remains critically high in local government (the provision of personal computers in local government offices is three times higher in the Murmansk region than in the Kemerovo region), in business (the share of businesses using the Internet to accept orders in Moscow, St. Petersburg and the Vladimir region has reached 30% – which is double the EU average, while in Kalmykia only 3% of businesses use the Internet for such purposes), and in society in general (in Chukotka there are 87 computers for every 100 households while in the Trans-Baikal region there are only 19 per 100 households; more than 50% of households in the Russian capital and oil and gas regions of Northern Russia have Internet access while only 5.8% in the Smolensk region, 2.5% in Tuva and 0.2% in Ingushetia have Internet access).

In order change this situation, coordinate state efforts in this area and provide a substantial impulse, two years ago President Dmitry Medvedev signed an decree creating the Presidential Council for Development of Information Society, a sort of higher body for the implementation of information technologies, bringing together the heads of government ministries and departments and leading Russian experts in this field.

In the relatively short period of its existence, the council's efforts have already produced real results. Russia now has a consolidated IT budget in which expenses at various levels of government are tallied. New regional strategies today are much better developed and more serious than the amateurish attempts of the past. The 'Council Factor' has made a substantial contribution to the implementation of unified information systems in medicine and education.

In late September the Information Society Program for 2011-2020 was approved. This state program includes six core focus areas: e-government, improvement of the quality of life and conditions for business, overcoming digital inequality, information security, development of the ICT market, and preservation of cultural heritage. In terms of quantifying the results of this program's implementation, specific targets have been set: the transfer of all state services to an electronic format; the provision of 85% of the population with Internet access at 50 Mb per second; and increasing the share of ICT in the GDP by 2-2.5 times.

The Law on Organization of State and Municipal Services has come into effect. This law for the first time in Russian practice introduces the term "state and municipal services in an electronic format". The legislation foresees the use of such an instrument as a universal electronic card. This card will have federal electronic applications, allowing for identification of the user and access to state services in the system of state medical insurance and pension program, as well as an electronic bank application, as a part of the national payment system.

Will the strong impulse of state efforts to facilitate the implementation of information and communication technologies in Russia continue in the future? Of course, to a certain degree this impulse has a certain "human factor". However, I believe that regardless of who is personally advocating these modernization efforts, this process, at one speed or another, is sure to continue.

Igor Yurgens

Chairman of the Management Board

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Russia

Modernization of Russia

By Jaakko Iloniemi

The theme – modernization of Russia – is not new. Many of Russia´s leaders have had that aim and some of them have been successful in their endeavors . In some cases the-method has been to emulate other socially and economically more advanced countries. During the years of Communist rule there was much faith in finding a specific, different Russian form of modernization. Today, modernization is once again the watchword that is repeated in most major political speeches.

What is exactly meant by modernization in the present context is less than clear. Some of the Russian leaders would like to confine it to the economy while others, including President Dmitri Medvedev, see modernization as a wider task. In a recent speech he has emphasized strongly that modernization has also a social and an educational dimension.

It is obvious that in Russia the phenomenon known as "resource scourge " is part of the problem. The sustained, high price of energy, notably gas and oil, has made it easy for the government to replenish it´s coffers. The recent developments with decreasing demand for natural gas and an increasing awareness of the finality of oil resources have convinced the government that the days of a resource based economy cannot last forever.

A matter of political choice has been the question should the economy be modernized by entrepreneurs themselves accepting the free play of market forces or should that process take place under strict government management. Some sort of combination of these two methods seems to be more likely than either or. However, the main strategic decisions will be made centrally.

The ongoing campaign to modernize the Russian economy and the society has it´s origins in the article that President Medvedev published in September 2009 called "Go Russia". In the strongest of words he condemned "centuries of corruption" and "paternalistic attitudes". He did acknowledge that "..an innovative economy cannot be established immediately. It is a culture based on humanistic values", he observed. All in all in that speech he showed that he was aware of the many dimensions of a truly modernized society and the complexity of it´s workings.

The developments since September 2009 show that the issue of modernization is still very much part of the policies of President Medvedev and Prime Minister Putin. Some concrete steps are about to be taken to implement the announced policies. One of them is the plan to create a "Russian silicon valley" in Skolkovo, nearby Moscow.

President Medvedev has said that he is well aware of the fact that the Californian Silicon valley cannot be copied. He says that "Skolkovo should turn into a certain system, which attracts people…and this cannot be reached through decree". A number of major international companies have indicated their interest to locate their facilities in Skolkovo. Such co-operation has been very much the desire of the Russian leadership. Much attention has been given to co-operation with the European Union and , in particular, with Germany. Germany has been traditionally the Western society that has much to offer to Russia. Chancellor Angela Merkel has already indicated that her government is prepared to cooperate. No wonder because German enterprises are keenly interested in exporting machinery and instruments to the emerging new industries in Russia.

In spite of the participation of the private sector, Skolkovo is still a top-down form of modernizing Russia. As president Medvedev very correctly pointed out modernization cannot be reached by decree, since it is " a culture based on humanistic values." Among such humanistic values is also the rule of law. Most Russians agree that this is a very weak point in their plans. As long as matters, such as intellectual property, or physical investments are not well protected, Western participation in projects of modernization will be half-hearted, at best.

Some observers say that China has succeeded without creating a society based on the rule of law and it prospers without democracy. Therefore it would be a fallacy to believe that these characteristics are a necessity .The beginnings of the Chinese process of modernization are, however, radically different from the Russian case. In the case of China the modernization has been introduced by adapting the economy to co-operate with foreign enterprises by manufacturing products developed elsewhere. Indigenous Chinese products are only now entering the world market. To absorb know-how and business practices from others has been the stepping stone in the Chinese transformation. In Russia their effort is to make a quantum-leap from an extracting economy into a high-tech economy, a leap that is extremely demanding.

No wonder that there are many skeptics who are pessimistic about the likelihood of the chosen approach. They maintain – as does the Russian born Nobel laureate Andre Geim that "this charge requires several generations". It is going to progress very slowly and swim through trickles", he says. There are plenty of others who, while endorsing the goals of the policy, have serious doubts about the way it is executed. Some 2200 Russian scientists have written a letter to President Medvedev saying that his plan for economic innovation is doomed if Russia fails to attract foreign students and teachers into science.

Here is another important difference between the Russian and the Chinese way of modernization. China has benefited enormously from the contribution made by the tens of millions of Chinese living abroad and dedicating their capital and their skills to the Chinese process of transformation. Russia has no similar source to draw upon. China has also been very open in attracting foreign expertise to their institutes of research and higher education. The Russians scientists are aware of this component in the Chinese success story.

It is much too early to tell what the prospects are for a successful modernization of the Russian economy and the society as a whole. If matters such as lack of rule of law and corruption are not weeded out, the prospects are not too good. If truly representative government and full civil rights are not guaranteed the prospects for success are likely to be modest. If the Russian leadership believes in it´s own clearly stated goals, these things are going to be put right. The earlier the better!

Jaakko Iloniemi

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ICT competence and HRD in public administration sector of Russian Federation

By Alexander V. Khoroshilov

The first decade of the 21-th Century has defined finally a main trend in the world community development – a creation of Knowledge Society. The most of the current economic and social forces of human society are mobilized around knowledge intensive fields including education. Today the corresponding "hottest" terms besides globalization are: ICT, knowledge, social responsibility, competitiveness, employability, intellectualization of economy, educational, social and industrial innovations and, of course, competencies. And the most popular prefix is "e-". The same time despite the ubiquitous ICT and "e-" intrusion a human factor priority become the main feature of Knowledge Society because only a Human being is the principal carrier, generator and user of knowledge.

The dynamics of Knowledge Society development depends from many factors but one of the critical is the level of its key competencies – professional (or "hard" relates to a concrete field of the activity of a worker or a servant), social (or "soft" relates to intercultural and multilingual communications, tolerance, conflict and stress management, self presentation techniques, psychological stability and etc.) and ICT (or "hard-soft" related to a wide range of digital and informational knowledge and skills) ones. As in any developing society professional and social competencies are very important but in Knowledge Society an ICT competency are the most critical. Moreover in Knowledge Society namely the ICT competency serves as a general base for creation and development of other competencies and at the same time as a chain between professional and social ones bridging them and providing a sustainable synergetic effect. So that in many countries multiple research and development activities and projects concerned with ICT competency Knowledge Society key competencies successfully have been accomplished during last years. As a result there are a number of ICT competency models exist but there are no universal Knowledge Society ICT competency model oriented to civil servants which can be applied to a public administration sector of any country directly without a corresponded adaptation.

Furthermore the lack of such kind of universal Knowledge Society ICT competency model jointly with their traditional "technological" inertness and "innovation" passivity of civil servants is one of the main barriers for an effective e-government development which leads to a "competency difference" and a "digital divide" between real sectors of economy and social sphere from the one side and public administration sector from the other one. And this is a real big and actual problem of a global level for many countries walking on the road towards a Knowledge Society including Russian Federation. In the same time even under these circumstances a number of regular training, retraining and in-service training courses take place in the public administration sector of Russian Federation under requirements of the corresponded Russian legislation for government civil service. However all of them are not based on any approved Knowledge Society key competencies model. Of course there are a several ICT competency model prototypes oriented to civil servants exist in Russian Federation but it is a very hard to find a corresponding effective technological tool kit supported all processes for creation, development and evaluation of Knowledge Society key competencies in public administration sector including official assessment procedures.

One of the possible ways to tackling these issues is connected with a possibility to use in public administration sector the basic components of the Human Resources Development theory and practical experience of its implementation in business area and social sphere.

It well known that nowadays both large multi-national companies as well as national and local companies employ a multitude of training staff. Besides, various training organisations employ numerous consultants in the field of training and development.

Many of these organisations realise that the current economic conditions require rapid learning. In order to prevent to be out of business soon, organisations analyse their corporate strategies and learn from their previous mistakes. Organisational learning never had that sense of urgency before.

Contemporary organisations in business and industry implement their ideas on learning via competence management and competence development. This is a strategy that enables vertical and horizontal alignments of corporate policy processes and instruments. This alignment is necessary for establishing effective and efficient learning and training practices. In this context the concept of Human Resources Development plays a major role.

Human Resources Development (HRD) means the process of changing an organisation, stakeholders outside it, groups inside it, and people employed by it, through planned learning and training so they possess the knowledge and skills needed in the future.

The basics of HRD consist of three components: (a) Training - for performance improvement, (b) Education - for career development, and (c) Development - for organisational change. In other words: it is recognised that HRD plays a crucial position in all sectors of business and industry where it is closely linked to strategic organisational and personnel policy in terms of corporate vision, mission, and management. In this context HRD strongly focuses on creating facilities and frameworks for training and organisational development in companies and organisations, being learning organisations. Next to individual competence development and career development, this will lead to organisational effectiveness and efficiency, influencing positively all levels of the corporate setting.

The most of these principles can be adapted and applied for the public administration sector of Russian Federation and jointly with an aplication of elaborated prototypes of ICT competence models and corresponded HRD technological tool kits should foster Russian government civil cervants to improve their competencies corresponded to requirements of Knowledge Society.

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Economic prospects for Russia and its implications for the Baltic Rim region after the global crisis

By Seppo Honkapohja

The financial crisis that started in August 2007 in the Western world led in 2008-2009 to a major recession in the real economy in the Baltic Rim countries. Gross National Product fell in these countries, with Poland standing out as the exception. The deepest declines happened in Latvia, Lithuania and Estonia, where GDP fell 14 to 18 percent from business-cycle peak to through. The recession was also severe in the other countries of the region.

Luckily, the recession was relatively short-lived and the recovery process started during 2009. The macroeconomic outlook for the advanced Baltic Rim countries, i.e., Denmark, Finland, Germany and Sweden is one of positive economic growth. Forecasts for the individual countries vary from 1.5 to 3.5 percent in the next few years according to the IMF. For the other Baltic Rim countries growth is forecasted to be somewhat faster, but the rate of growth is likely to slower than before the global crisis. However, the Baltic rim economies are likely to have somewhat faster growth than the rest of Europe, for example see IMF World Economic Outlook.

It is of particular interest to consider economic prospects of Russia for the coming years and its significance for the other Baltic rim countries. Russia is a big country, so that it has important potential for the other economies in the Baltic region. The Russian market as destination of exports from other countries is a major dimension of this potential. In the period 2000-2008 exports to Russia indeed grew fast before the current crisis. This growth was especially pronounced for the Baltic countries Estonia, Latvia and Lithuania and also for Finland. Growth of exports to Russia was also significant for Poland, Germany and Sweden even if it was not so fast and the share of the latter exports is noticeably smaller than in the first group of countries. Exports to Russia do not play a large role for the Danish economy. In 2008-2009 the exports to Russia of all these countries fell significantly. This decline has now ended and some growth is now visible.

It should be noted that despite the growth mentioned above, the exports of Baltic rim countries to Russia have somewhat lost their share in total imports to Russia. Currently, the Baltic rim share is about twenty eight percent of total exports to Russia. In contrast, imports to Russia from other EU countries have raised their share somewhat and currently this share is about twenty six percent of total exports to Russia, which is only a little bit lower than the corresponding share for the Baltic rim countries. Moreover, China has become the biggest importer to Russia in 2010. Clearly, the Russian market is competitive and success there requires considerable efforts.

While trade of goods and services is perhaps the most important economic activity between different economies, it is not the sole form of economic relationships. Mobility of productive factors, movement of capital and establishment of business from one country to another in particular, are increasingly important in the modern globalized world. I now consider the role of foreign direct investments (FDI) in the Baltic rim countries.

A typical feature of FDI is that advanced market economies are net exporters of capital whereas emerging economies are importers of foreign capital. This feature is largely borne out in the data for the Baltic rim countries. Denmark, Germany and Sweden have indeed been net exporters of capital for most of the years 2000-2008, though there are some exceptions especially in the early part of the period. For Finland the picture is not clear-cut as it was a net exporter of capital in 2000-2001 and again for 2008, but an importer in the other years. Looking at Poland and the Baltic countries, these countries indeed conform to the expected patters as all of them had sizeable capital imports in the years 2000-2008. For Russia the net flow of capital has largely been close to zero, though in the period 2006-2008 it was a net importer of capital. However, the numbers are small and also gross flows of foreign direct investments have also been relatively small even if they have increased in the most recent years.

Capital investment is a central element in the economic growth process. If one looks at investment rates in the Baltic rim countries, a first and anticipated feature is that investment rates tend to be lower in advanced economies than in emerging countries. Investment rates in Denmark, Finland, Germany and Sweden are mostly under but near twenty percent of GDP. Looking at the other Baltic rim economies, Estonia, Latvia and Lithuania stand out from the data. Their investment rates were mostly above twenty percent in the period 2000-2009 and, moreover, these rates were strongly increasing until 2008. In Poland the investment rate has fluctuated between eighteen to twenty four percent of GDP.

In Russia the investment rate has mostly been below twenty percent, though it increased to about 21-22 percent in the upswing in 2007-2008. The rate appears to be somewhat below those in countries that are at comparable stage of economic development. It should be added that investment in Russia is strongly oriented to the energy and state controlled sectors. Though a closer examination would be worth doing, it can be argued from the preceding data that the Russia has scope to broaden other sectors in its economy and probably this kind of activity has significant economic potential for the future.

Finally, I want to examine the business environments in the Baltic rim economies using the 2009 and 2010 Doing Business Reports from the World Bank. This survey covers 183 countries globally. Looking first at the overall rankings, it can be seen that the advanced economies Denmark, Finland, Germany and Sweden do rather well in the rankings. This is unsurprising. More interesting is the fact that the Baltic countries Estonia, Latvia and Lithuania do nearly as well as the advanced countries and in particular they are not far behind Germany in this respect. All these countries are among the best 30 out of the 183 countries in the reports. The results also show that Poland and Russia have clearly less favorable business environments, as Poland is ranked at place 72 and Russia at places 118 and 120 out of the 183 countries.

Different aspects of the business environment are behind the overall scores. I will not go into full details, but it can be noted that in most dimensions the advanced economies and the Baltic countries do reasonably well in the rankings. There are a few exceptions, notably in aspects of employing workers and to some extent in investor protection. Looking at Poland and Russia, difficulties for business seem to be in starting businesses, in dealing with construction permits, and in payment of taxes.

My discussion suggests that the Baltic Rim region has clear potential to improve both trade among the countries in the rim and also mobility of capital and business activities. The countries will need to think through their strategies for growth and prosperity. Making use of the European internal market and also of the possibilities for trade among the neighboring countries are evidently main ways forward for the Baltic rim countries that are members of the European Union. For Russia the choices seem to be more challenging. The recent focus on modernization and innovation activity is clearly a possible way forward. R&D spending in Russia has been in the range from one to one and half percent of GDP, which is already a reasonable level, but a large part of this is public innovation. More generally, improvements that facilitate the market economy and creation of better conditions for private business would probably be conducive for economic growth.

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Russian banking sector after global financial crisis

By Gennady G. Melikiyan

1. The situation in Russia is gradually stabilising after the severe and drawn-out crisis that hit its economy in the second half of 2008 and during 2009. It applies to the banking sector and to the economy as a whole.

Specifically, in the first nine months of this year Russia's GDP grew by 3.6% (preliminary data) compared to the same period of last year. In 2009, GDP had contracted by 7.9% year on year. Industrial output increased by 8.9% in the first nine months of this year, power, gas and water consumption rise by 8.5%.

This year also saw some improvements in the population's living standards. In the first nine months of 2010, real disposable monetary incomes grew 4.8% compared to the same period of last year. Retail trade turnover expanded by 4.4% in January-September 2010 compared with the same period of 2009. The public propensity for saving has increased noticeably, while consumer demand remains low.

2. The Russian banking sector grew rapidly in the 2000s. Its key performance indicators, such as capital, assets, and credit increased at an annual rate of 35-55% in nominal terms. The high growth rates were accompanied by significant qualitative changes in the banking system, largely owing to the establishment of a deposit insurance system and the selection of banks for participation in this system in 2004-2006. As a result, the ownership structure of banks has become more transparent. Banks have paid special attention to risk assessment and risks management. The role and effectiveness of internal controls have increased, and the quality of corporate governance has improved. However, the banking sector's rapid growth, especially in lending, inevitably raised concerns over the accumulation of risks.

On the eve of the crisis, Russian banks had virtually no toxic assets such as financial derivatives, including those connected with mortgage loans. Moreover, mortgage loans accounted for less than 4% of total banking sector assets. Therefore, many Russian and foreign analysts and policymakers believed that the crisis would leave Russia unaffected. This was not the case. Starting from August-September 2008, the crisis unfolded in Russia, mainly under the influence of adverse externalities.

As global financial turmoil gathered pace, the prices of oil and other major Russian export commodities plummeted. This not only led to a fall in budget revenue and oil company profits, but also affected the entire economy. The financial situations of many companies deteriorated, unemployment increased, and incomes of most population groups fell. On the whole, solvent demand in the economy declined.

The global crisis made it increasingly difficult for Russian banks and companies to borrow abroad at a time when they greatly needed foreign loans - firstly because they had accumulated large debts (by the middle of 2008, Russian banks' debts to foreign creditors had reached about $200 billion, while the non-financial sector's debt stood at nearly $300 billion). Secondly, most borrowers hoped to be able to refinance outstanding debts. The opportunity to do it in Russia was very limited especially concerning sources of long-term money. That is why many companies-debtors came across severe difficulties.

The abrupt change in the direction of capital flow had a strong impact on the situation in Russia. While in the pre-crisis period Russia registered a large inflow of capital (2007 for example, saw a net inflow of capital of $81.2 billion), in the autumn of 2008 the situation changed dramatically. In the fourth quarter of that year alone, the net outflow of capital from Russia totalled $130.6 billion. This created a lack of liquidity on the domestic market, and even certain systemically important banks defaulted on their obligations. As a result, the crisis of confidence paralysed the interbank market, and banks started to close limits for other banks. Even banks with liquidity reserves stopped lending for fear of losing money, and this further exacerbated the liquidity deficiency.

Admittedly, there were internal factors that contributed to the turbulence in Russia. The most prominent among these were the low level of diversification of the Russian economy, its orientation towards energy and commodity exports, the shortage of internal sources of long-term funding, and the relative weakness of the banking system in terms of its scale, capitalisation, and availability of funds to meet the needs of the economy.

3. To rescue the financial system and banking sector, the Russian Government and Bank of Russia carried out a series of anti-crisis measures through a government aid package, which included:

- expanding significantly the refinancing of banks, especially by the Bank of Russia;
- providing financial assistance to help banks boost their capital by extending subordinated loans to them;
- rehabilitating systemically important banks in distress;
- temporary changes in banking regulation - in particular, concerning requirements for reserves under restructured loans and for participation in the deposit insurance system.

These measures made it possible to mitigate the shock caused by the crisis, not only for banks, but also for corporate borrowers. Funds allocated by the Government and Bank of Russia helped to overcome the liquidity shortage on the market, and to a significant extent provided a substitute for foreign loans made inaccessible by the crisis. For example, on July 1 2008, funds raised from the Bank of Russia accounted for 0.3% of total liabilities of the banking sector; on December 1 2008 their share was 10%; and on February 1 2009 it reached 15%, of which more than a half were unsecured loans.

To maintain the stability of the banking sector, 20 systemically important banks were rehabilitated, and their ownership structure was changed.

Nevertheless, the crisis dealt a heavy blow on Russian banks. Firstly, it led to a significant deterioration of the quality of bank loan portfolios. For example, at the height of the crisis, growth in overdue debts (measured according to Russian accounting standards) and bad loans reached 20% in certain months. Bad loans are those assigned to the worst quality categories 4 and 5.

Banks had to increase provisions for problem loans, and this had a negative impact on their returns and capital, and made it increasingly difficult for them to extend loans and conduct other active operations.

Analysis of the situation in banks that were unsound, rehabilitated or had their licences revoked during the crisis showed that the principal cause of financial instability were high risk concentration associated with the owners of banks and related parties.

4. Beginning from March 2010, after a brief period of stagnation, the situation began to change for the better. In the second and third quarters, banking sector assets grew by 8.3%, and loans extended to non-financial organisations

increased by 9.7%. The period of significant decline in lending to households, which lasted throughout 2009, came to an end. In the second and third quarters, loans to households increased by 9.5%, whereas in the same period of last year they contracted by 6.5%. The share of overdue debt in the total banking sector loan portfolio remained virtually unchanged at 5.4-5.6%, in September-October it even shrank to 5.1-5.2%. The share of bad loans in the total loan portfolio in the third quarter stabilised at 9.2%.

Despite some progress, bad loans remain a serious problem for the Russian banking sector, although certain improvements have been made in this area. In the past few months of this year, the value of loan loss provisions has entirely covered the value of banking sector bad debt and this has allowed banks to stop building up loss provisions and lessened the pressure of high-risk loans on banks' returns. As a result, profit made by the banking sector in the first nine months of this year was 12 times higher than its profit in the same period of last year. Calculations show that the Russian banking sector's profits in 2010 will come close to the pre-crisis level.

It should be noted here that while banks' profits are increasing significantly, there remains a large proportion of loss-making banks, estimated at more than 10% of the total number of credit institutions, which shows that Russian banks differ considerably in terms of their financial standing. Some of these loss-making banks are unlikely to resolve their financial problems and face bankruptcy. There is therefore cause to believe that the number of credit institutions in Russia will decrease in the near future as a result of the growing number of mergers, acquisitions, and licence revocations.

5. The average banking sector capital adequacy ratio is high today, standing at 19%, whereas the required ratio is 10%. However, banks differ significantly in terms of capital adequacy ratio. The highest capital adequacy ratios are generally registered in banks with a government interest, which received significant capital injections during the crisis, and certain small regional banks that offer a narrow range of banking services. However, a number of large private banks have small reserves in terms of capital adequacy ratio. Some of these have limited opportunities for expanding active operations, particularly lending, as they lack spare funds and a have a relatively large proportion of bad debt in their loan portfolios. The problem of capital and its adequacy therefore remains a focus of attention both for owners and managers of banks and for supervisors.

6. The banking sector's gradual recovery from the recession allowed the authorities to wind down anti-crisis measures and return to normal regulation of the banking business. On July 1 2010, the Bank of Russia cancelled the reduced provisioning requirements for restructured loans. The government has stopped extending subordinated loans in order to boost the capitalisation of banks. As there was no longer a systemic threat to the banking sector, it has now been over a year since any banks became candidates for rehabilitation with the help of government funds.

Bank's need for refinancing by the Bank of Russia has decreased significantly since crisis. At present, funds raised by banks from the Bank of Russia account for about 1.5% of banking sector liabilities. The practice of extending unsecured loans is being gradually wound down, and next year this anti-crisis instrument will not be used at all. In addition, the volume of other refinancing instruments is being reduced.

7. We support the principal proposals for upgrading banking regulation put forward by the IMF, Basel Committee on Banking Supervision, Financial Stability Board, and other international organisations. At the same time, we believe that it is important to assess carefully the extent of these measures. Proposals aimed at tightening regulation must not impede the development of the banks. This is especially important for emerging economies, whose banking systems cannot yet fully meet the needs of the economy. We will therefore aim for a balanced approach to regulation and supervision of the banking sector, to ensure its financial stability while at the same time stimulating its development in the interests of the economy and the public.

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How to develop civic society in Eastern Europe? From an academic institute to a civic think tank. The example of activity of the Polish Gdańsk Institute for Market Economics.

By Stefan Widomski

Contemporary media use many communication channels: press, television, internet portals. The myriad of messages makes us think we know everything that is happening in the world. This is just an illusion. The media distort information, reducing their message only to events, in most cases sensational ones. The knowledge about other countries and problems their inhabitants face is often completely inadequate to the issues that matter to a given society.

The limitations often result from media representatives or correspondents not being able to get to places where something really important is happening or to meet people who make important contributions to a given society's development.

As conscious consumers of media transmissions, we can look beyond the media message, add information, and create an image (though only a very limited one) of what is going on around us, but the image becomes very rapidly blurred and inadequate the further we are from the place, event or person about which we receive information.

An example of activities about which one can hardly hear in the media and which, according to this writer, are a considerable contribution to mobilizing broad circles of the public to determine the desired and possible model of their own society and state is the Gdańsk Institute for Market Economics, operating in Poland, which Institute has only its registered office in the city of Gdańsk, while its operations cover the whole country.

For 20 years now, this unconventional civic think tank has been mobilizing people with different ideological and political beliefs and with different views on the direction for Poland's economy to participate in its activities. The forum for exchanging ideas is the seminars and congresses GIFME organizes and its publications.

Although the main goal of the institute's activity is the matters pervading the Polish society, the very participation in its activities is an excellent lesson showing how a civil society can function.

In the 20 years of its existence, the Gdańsk Institute for Market Economics has gone a very interesting path of development, which reflects not only Poland's changing economic and social situation, but also changing perception of current issues and development problems.

The institute was created in Gdańsk, by people actively involved in opposition, and its roots can be traced back to the University of Gdańsk, "Solidarity" movement in the 1980s and the circle of Gdańsk liberals. The direct initiative to establish the Institute (which was formed as a foundation in December 1989) came from the current President of the Institute, Jan Szomburg, Ph. D., and from Janusz Lewandowski, the current EU commissioner for budgets. Originally, the Institute was meant to be a non-public, independent academic and research institute. As its history showed, the assumptions concerning the scope and subjects in which the Institute operated were constantly adjusted.

At the beginning, the Institute looked for answers to the question how to determine the strategy of ownership transformations in economies termed as socialist ones. As Jan Szomburg later described, it was a search for an answer to an anecdotal question formulated later: "How to make eggs from scrambled eggs?" This led to a search for answers to the following questions: what socio-economic system and what regulatory framework will best serve Poland, how to privatize the economy so that dynamic business actors appear and a real market with real prices emerges? At that time, the Institute presented the opinion that the crucial thing was a system based on private ownership and the market, that it would be a kind of engine driving the whole development.

In later activities of the Institute, the understanding of what was the most important thing for Poland at the given time changed radically. Greater weight started to be attached to issues of steering, that is, issues of current public and economic policy, social policy and budget policy. This field of interest remains valid until now.

The experiences of nearly twenty years of transformations and modernization changes were the grounds for reflections that the system alone, that is, the rules of the game, and the current socio-economic policy are unable to effectively stimulate complex processes of modernization and development. A completely new field of interest appeared: the cultural foundations of development. The basis for the new direction in thinking was the conviction that institutions and regulations do not hang in the air, but in a certain cultural environment, and depending on that environment their operation can have positive just as well as negative results. Indiscriminate transfers of institutions and regulations from one cultural environment to another might result in their distorted and unintended functioning.

A further step on the path of development of the Institute's activities was the new idea that scientific knowledge and experts' opinions, however useful and necessary, are not sufficient for correct formulation of diagnoses and conclusions concerning socio-economic policies. An idea appeared that one should also consider the opinions, interests and preferences of various actors from the sphere of public policy. For the Institute this meant going beyond quantitatively measurable results of surveys, various kinds of statistics and reports. It also meant the need to organize channels for multilateral communication and flow of information and opinions from various circles.

Upon initiative of GIFME, in cooperation with economists, academics and outstanding individuals interested in raising the quality of public life in Poland, the Polish Civic Forum was formed.

This is a long-term civic project formed, because of its open character, for all those interested in development of civic initiatives. The basic goals of the project include: 1/stimulating *modernization and development reflections*, with the aim of jointly shaping the future of Poland; 2/ fostering Poles' *community spirit* and *enhancing social capital* in Poland; 3/ improving the quality of the market of ideas, emotions and visions and of the conception of public debate, information exchange beyond the limits of debate between experts or politicians

As mentioned above, GIFMR started as a non-public academic and research institute to develop, in the subsequent years of its existence, a vision of a think tank based on the knowledge of experts and addressing its "products" to policymakers, i.e. those responsible for Poland's socio-economic policy.

According to the Institute's representatives themselves, as well as their collaborators, the Institute has become a multi-function organization whose activities combine academic research, recommendations concerning socio-economic policy and organization of public debates. The President calls the Institute headed by him simply a "civic think-tank".

In its activities, the Institute strives to create bonds through the meetings, discussions, seminars and congresses it organizes, so that they are used more often to look for what brings together and unites in action various actors of the socio-political and economic scenes. This is also about building a Polish collective "self", which itself will signify the existence of a civic society.

Stefan Widomski

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Quo vadis, Evropa? - A look at the future of European energy production

By Niklas Mannfolk

Currently the scientists claiming that climate change exists seem to be prevailing over the sceptics, as they seem to have more plausible scientific data to back up their arguments. Be that as it may, the fact remains that energy consumption and production as we know it has to change. The Earth does not contain unlimited amounts of fossil fuels, which means that we, in the future, will run out of oil and gas.

Reports from the EU Commission note that some 54% of the EU's energy supplies come from imports. Most of those imports consist of Russian oil and gas. Imported uranium which is used in the production of nuclear power is not included in this figure. In other words, the EU is heavily dependent on Russia for energy. As the incident in January 2009 showed, Russia is not afraid to use this dependency for its own good. The European Commission has tried to stay neutral concerning this issue, as the main problem is opacity rather than political mischief. Especially in the Ukraine-Russia energy relations, where the disputes have been resurfacing since 2005, there are many links in the supply chain which are far from transparent - hence the uncertainty. My claim, however, is that Russia is equally, if not more, dependent on the EU for trade purposes, which combined with the above makes for an interesting political setting.

Russia and the EU have now come to an agreement concerning Russia's entry into the World Trade Organisation. Word has it that the Russians could join as early as 2011. Talks concerning the gradual reduction of timber tariffs after Russia's entry are also underway, although any parties expecting an overnight solution risk being sorely disappointed. An interesting fact is that without the now possible WTO membership, Russia would fall on very hard times indeed if and when their reserves of oil and gas run out. Some of the more enthusiastic experts have set the ultimatum as close as 20 years from now.

Despite Russia's continuous attempts to enter the Organisation since 1993, the recent customs union agreement with Kazakhstan and Belarus temporarily gave the impression that Russia is no longer interested in a WTO membership. Recent events speak of a different reality. The fact remains that once its reserves of energy run out, Russia's trade to the West becomes extremely vulnerable, if not non-existent. Very few Russian-made products today make it out onto the western market, and while the Kazakhstan – Belarus -agreement tried to ease the pressure, the trade volumes are far too low to make a significant difference. While Russia does look for new markets both in Asia and Africa, trade there has not emerged as a significant saviour either.

The EU needs to concentrate on becoming self-sufficient in energy rather than relying on imported energy. Renewable energy such as sun, wind, water and wave are the way to go in the future, but as long as those forms are insufficient for providing energy for heavy industry as well as basic housing, the Union needs to find alternative sources. An increasing number of member states have come to realise that, despite the unsolved issues concerning end-storage, nuclear power is a competitive and long-term way of producing electricity without affecting the climate. While it is true that the uranium used today is imported from outside the EU, the financial cost of these imports is relatively low, and the EU has the industrial capacity to carry out every other aspect of the production of nuclear power. Furthermore, both the Commission and member states consider nuclear energy as contributing positively to the energy security in the case of supply disruptions or energy crisis because of the small volume of uranium ore involved and the possibility of storage.

In 2008, Europe agreed on a forward-looking political agenda to achieve its core energy objectives of sustainability, competitiveness and security of supply. The Commission has proposed a wide-ranging energy package which commits to reducing greenhouse gas emissions and increasing energy efficiency by 20 % by 2020, as well as increasing the share of renewable energy to 20 % of final energy consumption. To meet these goals, around 200 Billion Euro will be invested in gas pipelines and power grids. It is estimated that only part of this will come from the private sector, leaving a financial gap of 100 Billion Euro. What effect this decision ultimately will have on Europe's future business opportunities in a global economy where the USA and China refuse to comply with similar objectives, remains to be seen.

Internally the EU already does plenty for what the press terms 'energy solidarity', i.e. a future consensus on energy security issues. Unfortunately, the recession that hit the Union in the summer of 2008 has put a strain on the union's economy, making fiscal solidarity in energy issues complicated, as the Union currently focuses its financial efforts on aiding the various failing EMU-nations. On the other hand, the issue is definitely not only a financial matter. The fact remains that certain member states have openly decreed energy suppliers to divert all imports in order to supply only their respective countries, rather than the entire EU.

So how do we solve the problem of imported, politically risky energy? Instead of oil and gas from Russia, the EU should look for sustainable energy from alternate sources, such as Africa. Instead of non-earmarked development aid, both parties would benefit from direct investments into the energy sector. Introduction of solar panels into the sun-abused areas of Sahara, are an excellent alternative. While energy produced in Africa is also imported energy, the political risk is far lower. Added benefits are not only the renewability of the sources, but also the positive effect the investments will have on the target countries. The negative issue here is that the EU may already be too late for such a solution, as China already has bought vast expanses of African farmland for causes yet to be revealed.

My conclusion is that the EU should reallocate the planned pipeline investments into R&D of sustainable solutions energy technology, most of which today is inefficient. Those solutions should then be applied not only internally in the EU, but also in developing areas outside the Union. While this research is underway, I still maintain that the EU would benefit environmentally, politically and economically from shifting its energy production from oil and gas to nuclear power.

Niklas Mannfolk

University of Turku
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Turku 2011 European Capital of Culture in local and regional development

By Cay Sevón

The European Capital of Culture (ECoC) initiative celebrated its 25 years in March 2010 in Brussels. The event demonstrated the importance that the Union assigns to the ECoC. The first European Cities of Culture, in 1985 Athens, followed by Florence, already by their image signalled World Cultural Heritage. They did not need any boost, but aspired recognition of their excellence in culture. The first European Cities of Culture actions where therefore built on existing events. They where summer festivals, with an extra touch of internationality.

Since, the concept has undergone a metamorphosis. It is the highlight of the Union's cultural policy. The success – or the identified failure - of the ECOC is a European business.

The present directive on the ECoC is in force until 2020. The decisions on which countries will have the title are made for 2019 and the cities are chosen up to 2015. Preparations are under way in the Commission to prepare for the time from 2020 and on.

The programme of the ECoC is the core of the year. It is supported by various measures. The ECoC, according to the directive, should be designed to bring the peoples of Europe together. It is considered that the title, as its best, has a remarkable cultural and socio-economic impact. The programme should be specially designed for the year. It is not a collection of events that take place regularly, independently of the title of ECoC. It is also not the running activities of existing cultural institutions. The directive explicitly states that the programme shall be forward-looking, without neglecting the history of the city, it shall be innovative, with an emphasis on contemporary cultural forms. Its European dimension must be marked, as well in themes, as in involving both local and European artists. All in all: the programme shall express cultural dynamism; it must be inclusive and sustainable.

In late 2007, the EU Cultural Ministers' Council nominated Turku in Finland and Tallinn in Estonia as European Capitals of Culture in 2011. For the first time, two cities with close ties and natural common interests where assigned to be ECoC the same year. It is logical that the two cities have several common cultural projects for the year, as well as cooperation in tourism marketing, communication, and exchange of experiences.

The programme of Turku 2011 is in place. It is constructed of some 150 productions, which means thousands of events and activities. Most productions stem from an open call for proposals in 2008. With a few exceptions, all productions are outsources to judicial persons. Some major events are produced by the Foundation Turku 2011, founded by the city of Turku to organise the ECoC programme, its communication and marketing, and long-term national and international activities in relation to the ECoC year.

If Turku 2011 is characterised in a few words, these might read: Culture means well-being. Culture nurtures the soul and the body of the individual, strengthens communities and enforces the economy of the city and the region. The 2011 programme and support activities go deep into the workings of the local community: the cultural, municipal, private and the third sector. Culture in Turku 2011 is every-where and everyday. It engages the senior citizens' housing, the kindergartens and schools, the prisons and hospitals – and surely the music halls, the theatre stages, the universities and the business premises.

At its best, the ECoC is a vehicle of change. The cultural year changed Glasgow profoundly in 1990, from run-down former industrial city to a Mecca for congresses and cultural events. In Weimar 1999, tourism rouse by over fifty percent and stabilised on a plus twenty percent level. Lille 2004 is still alive as long-term strategies. Liverpool 2008 claims to have been able to redo the Glasgow experience. Many others profess success, as some are modest or even self-critical. The informal network of ECoC and the external evaluations commissioned by the EU are a valuable resource for the ECoC to come.

A central criterion for measuring the success of an ECoC is, obviously, the long-term effects of the year. So what are Turku's ambitions as to the heritage of 2011? We believe that the Turku 2011 programme, its cultural and research projects will be remembered especially for the strong emphasis on the connection between culture and well-being. There are some sixty explicit wellness projects. But Turku 2011 stands for well-being as a whole. This will be one of the best practises that Turku will forward to Europe.

Wellness takes many forms in Turku 2011. Some 5400 tickets to cultural productions are reserved to be distributed by the municipal health care centres. A professorship uniting well-being and culture has been established at Turku University. The Foundation Turku 2011 offers accompanying service for handicapped to and from cultural events. The Association of Handicapped in Finland produces a Euro-pean festival of handicapped people's arts, etc.

The deep interaction between science and the arts should be another heritage. The programme includes a dozen research projects, plus an external evaluation programme, led by Turku University and spanning from 2009 to 2016. The research projects, except the evaluation, have a development function in relation to the programme's cultural projects. The researchers bring their insights and methods into the arts and cultural work, and both sides gain.

A third factor where Turku 2011 hopes to excel is means to the creative economy in the city and the region. The Turku 2011 Foundation has a support team for cultural producers. The aim is to strengthen the professional skills of producers and thereby enhance their business opportunities. One major re-search and development project studies the existing infrastructure for creative industries in the Turku region, and proposes development measures. The sixteen corporate partners of Turku 2011 network with artists and producers. Last but not least: a huge red brick building, former machine workshop of the State Railways, will be transformed into Logomo, a centre for creative economy.

In 2011, Logomo will host year-long exhibitions and major performances. The venue will be one of the key attractions and experiences of Turku 2011 and will thereby get a flying start. Logomo is open to visitors daily from Juauary16th to December18th, 2011. Logomo is owned by a private construction company, but the city has decided to go in as a minority owner.

Turku has, separately and in several cases together with Tallinn, already received unprecedented inter-national media attention. The media spending focus of the Foundation is on the Baltic See Rim. With the assistance of the Finnish Foreign Ministry, promotional events take place all over Europe. The corporate partners are vital in marketing, besides other close cooperation.

The majority of the Turku 2011 Foundation's Board is nominated by the City, among these the Mayor. Other nominators are Ministries (Education & Culture, Foreign Affairs, Employment & the Economy); the Arts Council of Finland; the Confederation of Finnish Industries; and the Regional Council of South West Finland.

The Finnish Government and the City of Turku finance the ECoC year by 18 mill. euros each. Corporate cooperation stands for some 2,5 mill., the EU Melina Mercoury prize is 1,5 mill. euros. It is estimated that the outcome of the year will amount to some 50 mill. euros, including the self-financing of the projects. This is obviously the greatest investment for decades in Finland in a singular cultural non-infrastructural initiative.

Cay Sevón

Dr. Soc.Sc., CEO

Turku 2011 Foundation

Finland

Best practices to improve water quality in the Gulf of Finland as exemplified by Vodokanal of St. Petersburg

By F.V. Karmazinov

St. Petersburg by its population is the biggest city of the Baltic region. And in its work "Vodokanal of St. Petersburg" takes into account not only the interests of the city and its residents, but also the entire Baltic Sea region. This, above all, is about the ecology of the Baltic Sea. And this issue is directly related to the quality of wastewater treatment.

Until 1978, all wastewater of then still Leningrad - about 3.2 million cubic meters per day - was discharged into the Neva River and other urban water bodies without treatment. At that time there was a theory that such a full-flowing river as Neva can deal with any contamination. But over time it became apparent - the ability of the Neva to cleanse itself is not infinite. And in 1978 in Leningrad was launched the first stage of the Central Wastewater Treatment Plant. That allowed treating about 27 percent of all wastewater.

In 2010, about 92 percent of the wastewater is treated in St. Petersburg. Moreover, the treatment process includes sludge utilization - Vodokanal has three sludge incineration plants.

To achieve such a result, "Vodokanal of St. Petersburg", with the support of foreign (and above all - Finnish) partners did a great job.

Today St. Petersburg has 20 wastewater treatment plants. The biggest of them are Central Wastewater Treatment Plant, Northern Wastewater Treatment Plant and South-West Wastewater Treatment Plant (SWWTP).

A new phase in the struggle for the purity of the Baltic Sea began with the launch of the South-West Wastewater Treatment Plant. And not only due to the fact that SWWTP is one of the most modern Wastewater Treatment Plant in Europe. The very construction of this facility was unique international project, in which were used 15 sources of financing, including - funds of the five major international lending institutions. During the construction of the South-West Wastewater Treatment Plant for the first time in Russia was used the mechanism of public-private partnership.

Launch of SWWTP took place in 2005, and the opening of new facility was attended by presidents of Russia and Finland, as well as Prime Minister of Sweden.

At the same time began a large-scale work of Vodokanal with its Finnish colleagues for the implementation of technology of deep removal of nitrogen and phosphorus - nutrients responsible for eutrophication (bloom of blue-green algae) of the Baltic Sea, at St. Petersburg's wastewater treatment plants. This is necessary to implement the requirements of the Helsinki Commission for the Baltic Sea Marine Environment Protection (HELCOM) and connected with the international obligations of Russia as a country that signed the Helsinki Convention.

However, when the main now working treatment facilities were designed, no one in our country thought much about the need to remove nitrogen and phosphorus from wastewater. Cleaning technology involved two main components - mechanical and biological treatment. This combination did not allow deep removal of nitrogen and phosphorus. To reach a new level of wastewater treatment, "Vodokanal of St. Petersburg" has begun to integrate chemical and biological treatment of wastewater, which combines advanced nutrients removal by biological treatment and chemical precipitation of phosphorus.

As a result, today most of our wastewater treatment plants operate in accordance with the requirements of HELCOM. In 2011 Vodokanal plans to implement new, more stringent recommendations: the phosphorus content in treated wastewater - not more than 0.5 mg/l. By the way, at a number of wastewater treatment plants of St. Petersburg - in particular, SWWTP - these figures were achieved in 2009.

In 2011-2012, Vodokanal, with the support of the Government of St. Petersburg and foreign partners (Nordic Environment Finance Corporation NEFCO, Northern Dimension Environmental Partnership, and Ministry of the Environment of Finland) will reconstruct small wastewater treatment plants, including the improvement of existing technologies for nutrients removal.

Work of Vodokanal at the sphere of wastewater treatment has been highly appreciated by our foreign colleagues. So, in August 2010 at the first meeting of the "Baltic Sea Friends Club", held in Helsinki, the Finnish representatives of environmental organizations have noted that in the Baltic Sea in summer was much less of the blue-green algae. And this, according to Finnish experts, is directly connected with the efforts being made in St. Petersburg for wastewater treatment.

More than that - our experience in the implementation of technologies for the nitrogen and phosphorus removal from wastewater is extremely interesting for Vodokanals from other Russian cities. Therefore, in my opinion, we can mention creating of a kind of Russian-Finnish school for deep nutrients removal.

Providing wastewater treatment in accordance with international standards, Vodokanal, supported by the Governments of St. Petersburg and Russia, today is providing another large-scale and very important to the health of the Baltic Sea project - "Neva Untreated Wastewater Discharge Closure Project".

The most important element of this project is to complete construction of the main sewerage collector of the northern part of St. Petersburg. On this collector we gradually switch the remaining direct discharges of wastewater, which is than channeled to the Northern WWTP.

The constructed collector is unique and has no analogues in the world. This is a range of complex engineering structures: two main tunnels with a diameter of 4 m and a length of 12.2 km, laid under the ground at a depth of 40-90 meters, dozens of shafts of different diameters; kilometers of microtunnels, modern equipment, allowing adjusting of the speed of wastewater.

The first stage of the collector was launched by Vodokanal in 2008 allowing treatment of 88% of wastewater of St. Petersburg. The second - in 2009, and despite the global financial crisis, we managed to keep the pace of work. What's more - namely in 2009, an agreement with the Nordic Investment Bank, European Bank for Reconstruction and Development and European Investment Bank was reached to allocate loans for Vodokanal worth 60 million EURO in the framework of the "Neva Untreated Wastewater Discharge Closure Project ". I would especially like to note that, taking into account an impeccable credit reputation of Vodokanal, banks have decided to provide loans without any additional guarantees from St. Petersburg.

Another "portion" of switching to the collector will be held at the end of 2010, and at the end of 2011 all planned direct discharges will be switched. This will enable us to provide treatment of 95% of all wastewater of St. Petersburg that is certainly a good result for the megalopolis.

However, Vodokanal does not intend to dwell on this: in 2015 we plan to bring wastewater treatment to the level of 98%, and by 2020, once the issue with the treatment of rain and melted snow water will be solved, to get close to 100%.

As a result, the Baltic Sea will become cleaner.

F.V. Karmazinov

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Russia

NEFCO's role in improving the environmental status of the Baltic Sea

By Maija Saijonmaa and Karl-Johan Lehtinen

NEFCO's role in the protection of the Baltic Sea has, since its establishment, been that of an investor financing environmentally cost-efficient projects that have positive effects on the Baltic Sea. Since its inception, NEFCO has financed over 350 small and medium-sized projects in different sectors that include chemicals, minerals and metals, food and engineering, agriculture, water treatment, power utilities, municipal services, waste management, nuclear remediation, environmental management and environmental equipment manufacturing.

A key role for NEFCO over these years has been to act as a "think thank" for developing new ideas and concepts and supporting new innovative technologies to protect the Baltic Sea.

In general, NEFCO's activities focus on cost- effectiveness in reducing emissions. To assess the cost-effectiveness of projects, NEFCO uses a Unit Abatement Cost (UAC) approach that compares the projects' abatement costs against the Nordic shadow prices to the estimated average costs in the Nordic countries to achieve the same results. In comparison to the projects that NEFCO finances, it has been estimated that to achieve the same environmental results of reducing phosphorus, nitrogen and BOD emissions in the Nordic countries would have been 7-8 times higher than in the countries where NEFCO operates.

An example of a unique approach initiated by NEFCO to achieve the set goals to reduce eutrophication of the Baltic Sea is the concept of nutrient quota and credits trading. The current legislation and measures will fall far short of achieving the defined 'ecological objectives' to reduce eutrophication in the Baltic Sea that were laid out in the Baltic Sea Action Plan (BSAP) by HELCOM and the EU in 2005. Finland's target under the BSAP is to reduce phosphorous discharges by 150 tonnes and nitrogen discharges by 1200 tonnes by 2016. Without additional measures, the nutrient discharges may even increase in the Baltic States largely as a result of the recovery of agricultural activities in the Baltic States, particularly in Poland and Russia. A high variability in the abatement costs across the Baltic Sea states supports the idea of gaining feasible results by nutrient trading.

In 2009, NEFCO together with its sister organisation, the Nordic Investment Bank (NIB) established the Baltic Sea Action Plan (BSAP) Fund to help implement the above-mentioned 'ecological objectives' as defined by HELCOM.

The Fund provides grants for technical projects that support the implementation of the HELCOM objectives. To date one of the most promising projects implemented under the BSAP fund has been a feasibility study for a chicken manure pyrolysis project. Under this process, chicken manure from large scale hen and egg-producers in the south-western parts of Russia is converted to commercial products such as bio-oil, biogas and bio-char. This process ensures that 350 tonnes of phosphorus discharges a year do not end up in the Baltic Sea but are, instead, converted to 20 000 tonnes of tradable biochar and 16 000 tons of bio oil.

Another interesting concept that NEFCO has been involved in is the oxidation of Baltic Sea deep water- a promising approach for the protection of the polluted sea. There have, however, been fears that the deep water salinity could be affected and have an effect on cod spawning. The Baltic Sea deep water contains about 350 000 tonnes of dissolved phosphorus that cannot be ignored if the proper ecological condition of the sea is to be restored.

Recently there has been heated discussion over the Finnish Government's decree 542/2003, which compels rural households to install waste water treatment systems. According to some estimates this would cost 4.3 million € to remove a tonne of phosphorus discharges.

NEFCO has proposed a more cost-efficient way to reduce the same amount of phosphorus by removing non-commercial fish from the Baltic Sea. With a phosphorus content of 0.5 % per kg, the removal of 10 000 tonnes of non-commercial fish would result in a reduction of 50 tonnes of phosphorus at an estimated cost of 4 million euros- assuming a price of 40 € cents per kg fish and a cost of 2 million € to set up a biogas plant. Assuming that around 30 000 tonnes of non-commercial fish can be caught per year, is comparable to 90 % efficiency in cleaning rural household wastewater in two years at a cost of 12 million euros. There are, however, still many unanswered questions about how the removal of such fish could be undertaken in a rational way, and if enough fish of this kind can be caught sustainably from one year to the next.

Apart from the direct initiatives to protect the Baltic Sea, NEFCO has also been active in creating innovative climate financing instruments to mitigate the effects of global climate change more efficiently. In 2003 NEFCO established its first carbon fund, the Testing Ground Facility (TGF) to invest in greenhouse gas emission reduction projects in the Baltic States, Russia and Ukraine. Globally, TGF was the second carbon fund to be established. In 2008, a new fund, the NEFCO Carbon Fund (NeCF), was established to widen the investment area and also include post-2012 carbon credit investments, even though the post-2012 climate policies are still to date quite uncertain. Today Nordic governments and private companies in the Nordic countries have invested around 105 million to NeCF.

In 2010, together with its sister organisation, the Nordic Development Fund, NEFCO also set up two new facilities to provide technical assistance grants and specific guarantees on climate projects.

NEFCO's operational philosophy has always been that it is better to find an acceptable solution and keep the wheel rolling than look for the perfect results. In general, it can be said that NEFCO's role is to take a constructive and wide approach and to act as an innovative financial promoter for new technologies suitable for protecting the Baltic Sea.

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NEFCO is an international financial institution, which was established by the five Nordic countries in 1990. The corporation mainly finances investments and projects in Russia, Ukraine, Estonia, Latvia, Lithuania and Belarus, in order to generate positive environmental effects for the Nordic region. NEFCO prioritizes projects that reduce the release of climate gases and thus improve the ecological status of the Baltic Sea and also reduce the release of toxic pollutants.

Minimising close calls with intelligent transport systems

By Juhani Tervala

Close-call situations occur when control measures are left until the last minute or technical readiness fails. In both cases the culprit is the general attitude towards safety. It is human to expect others to react first, unless an action plan has been prepared for coping with threaten-ing situations. There have been attempts to remedy this by regulations (Rules of the Road at Sea, the ISM Code) and by means of technical requirements, supervised by the flag and port state authorities. The International Safety Management System requires internal reporting of the shipping company concerning close-call incidents. But there are no rules concerning the reporting or the registration of reports of incidents to the authorities and these are seldom voluntarily made.

Working on the navigating bridge can be compared to any kind of on-call or control work. The risks are also similar, arising from the monotony of the work. Attention can easily slacken for a moment and sudden changes in the situation sneak up on those on duty. One could call these dangerous situations, but the definition close-call situations gives a more accurate picture. Characteristic of such situations is their latency. Corrective measures are postponed to the last minute, as long as there seems to be the slightest possibility that nothing needs to be done quite yet. When the situation has passed it is often played down or simply forgotten. Close-call situations are not always as great a risk as it seems, since people respond differently, owing to their capability to solve problems and react accurately.

It is difficult for an outsider to respond to these threats. The need for change is easily ne-glected by stating that nothing happened or that it was an overreaction. Close calls on vessels are usually caused by dangerous work combinations and work cultures, neglected technical readiness and maintenance and a lack of know-how. The consequences are then seen in the rapidly changing traffic situations. Seemingly simple situations can quickly accelerate into potentially dangerous situations and accidents.

The vessel and its crew are not always to blame. In shipping there are many situations where the impact of external influences on the vessel and its course is considerable. The attitude of the shipping company towards the vessel's operation, its equipment or the environment has the greatest impact on the occurrence of human error and close-call incidents. It greatly influ-ences the crew's attitude towards safety matters in general.

During piloting, when there is an outsider on board, adequate cooperation and working meth-ods are crucial to ensure safety. In icebreaking the vessel is subject both to the forces of na-ture and those of another vessel. The risks can only be avoided by education, experience and good cooperation between the different parties.

Increasing traffic volumes bring new threats, involving challenges which are difficult to meet. The coastal states have awoken only during the last few years to the need of handling com-plex traffic situations and improving traffic safety by means of vessel traffic services (VTS). The procedures, technical possibilities of vessel traffic services and the know-how of the per-sonnel play an important part in the management of the increasingly complex traffic situation in our coastal waters.

Intelligent solutions

Sea routes with confirmed depth information i.e. the marked traffic lanes are a great aid to navigators. Confirmed electronic depth information constitutes an essential part in the use of the vessels' ECDIS System (Electronic Chart Display and Information System). This system is an excellent tool for navigators as it provides planning and checking of the route in advance and facilitates navigation. It is notable that the communication between the control centres of the different countries is emerging as a significant factor for lessening the navigators' reporting load. The reporting itself is not what is most important here, but safe navigation of the ship. Unnecessary reporting can be avoided and access to relevant information improved by employing intelligent transport systems.

Intelligent transport solutions are in a key position when safe and smooth maritime traffic is being developed. For a long time the restrictions of data transmission hindered an efficient communication between the vessel and the coast earth stations, until satellite connections provided a solution. Still, it is good to remember that efficient data connections will not be available everywhere, now or in the future.

In the coming decade the European Commission will invest in several maritime projects to promote safe and smooth maritime traffic. It will, among other things, develop the utilisation of electronic information and the information technology potential between the shipping industry and the authorities. An optimization of transports will lessen their environmental impact and increase their safety. Less internal market formalities improve the traffic flow. In the future it should be possible to submit all the reports required by the authorities from the same place via a user interface. That would require not only a functioning electronic infrastructure but also changes in the operations of the authorities.

The two-way communication for tanker safety reduces the risk of accidents

One way of assisting vessels at sea is to utilise and check their route plans when they are in the reporting or VTS area. This is done by transferring the electronic route plan of the vessel to the VTS System to be utilised by the VTS. Then the VTS operator, in the acknowledge-ment, informs the vessel about any perceived deviation from the route plan and asks the ves-sel's master to check the plan. Simultaneously the vessel receives an information pack, ac-cording to its choice from the portal, about the traffic situation and other matters related to navigation, such as information about ports, berths, the availability of tug or piloting services, icebreaker assistance and waypoints recommended by them. Significant benefits can be achieved through cooperation between vessels and the VTS Centre, as compared to the present system of communicating through speech when reporting, as the operations can be automatized and the risk of misunderstandings minimised. The vessel and its master will remain an independent entity also in the future, while these procedures facilitate navigation in difficult areas.

The tanker safety project can be implemented more extensively only when the legal aspects and responsibilities have been clarified. The main rule is that the shipmaster is responsible for navigation and the route plan. Vessel traffic services make automatic monitoring of vessel movements possible, whereby deviations can quickly be detected. The system enables a prompt reaction when any undesirable deviation has been detected. The best results are achieved through voluntary cooperation. The aim is to achieve more efficient communication by an automation of operations. The system yet needs to be approved by the IMO. There is also reason to check up other similar projects and initiate cooperation with them.

Vessel traffic services are a normal part of shipping, and it is possible to extract something new out of them that would benefit all parties. Transport safety and smooth traffic are two sides of the same coin. These aims can be achieved by utilising the potential of the intelligent transport systems, whereby disturbances can be minimised.

Juhani Tervala

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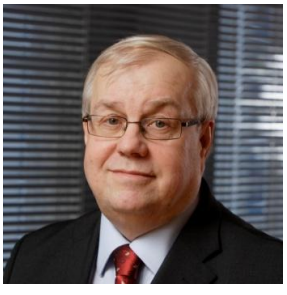
The Finnish Transport Agency

Finland



Safe shipping – the result of conserted effort

By Matti Aaltonen

In all maritime safety work it is a question of cooperation between the actors of the maritime community i.e. the maritime authorities and the mariners. Together they are steering the free-dom of the seas in a safer direction in a controlled way, by formulating common rules. The duty of the authorities is to protect the functions of society in the capacity of a flag, port or coastal state. The measures are not always in harmony with commercial goals. Therefore the duty of the authorities is also to supervise that the common regulations are implemented and to be prepared to intervene when something goes amiss. In accidents often more than one risk scenario is realised.

The work that is done to promote maritime safety aims at ensuring the continuity of the functions of society, providing reliable maritime transports and protecting the marine environment. The international maritime organisation IMO implements these global goals under the wings of the United Nations. Due to the international nature of promoting maritime safety, the work re-quires perseverance and it progresses one step at a time. However, the results are far-reaching. Measures and decisions must be planned and assessed over a long period of time. A decision by the IMO, for example, takes a minimum of two years with all its preparations.

Maritime safety work is done in many different fields

Maritime safety includes several sectors such as safeguarding of human life, cargo, vessels, transports and the environment. Above all, safety requires anticipation. By ship safety is meant the seaworthiness of the vessel or its technical condition and the qualifications and competence of the crew. By measures directed at these, the vessel's safe navigation can be ensured.

Environmental safety measures, again, concern both the operative and technical use of the vessel. These measures are designed to prevent oil spills. By employing maritime safety measures the authorities strive to enhance safe navigation.

Planning and effectuating a satellite positioning system, establishing of new vessel traffic services, hydrographic surveys and building of fairways are important long-term socioeconomic activities. Maritime safety requires commitment to a common international goal as well as resolution. The credibility of the measures also demands continuous impact assessment.

Vessel Traffic Services can diminish the risk of accidents

The risk of accidents is brought down for example by Vessel Traffic Services (VTS), building requirements for vessels and winter navigation restrictions. Developing joint traffic monitoring measures for the EU countries and the Baltic coastal states is the main objective of the decade, which calls for a continuous assessment of the impact of these measures.

Routeing measures include directing of traffic to certain routes. The international maritime organisation IMO has, on the initiative of the coastal states, established several traffic separation schemes in different sea areas to improve transport and environmental safety. The importance of routeing at sea is comparable to that of motorway markings on land. These confirmedly safe sea routes can be recommendatory, but navigation in them is strictly regulated. The Rules of the Roads at Sea lay down how one must navigate in these traffic lanes. It is incumbent on the coastal states to supervise that routeing is observed. For that purpose vessel traffic control and monitoring systems have been established both in territorial and international waters to ensure safe navigation and to prevent damage caused by vessels to the marine environment.

VTS are based on uniform procedures, appropriate technology and above all a skillful personnel. In territorial waters the operations are normally regulated by the state's legislation, whereby the measures can be made mandatory. The measures are directed at the vessel traffic, but often also at individual vessels. By employing these measures traffic congestion and incidents, such as deviations from the route, can be avoided, navigation assistance given when necessary and above all information submitted about the traffic situation and conditions in the VTS area.

In international waters the IMO authorises the reporting systems. These systems collect information about the vessels and it is also possible to pass information through these channels. This has been done in the GOFREP System in the Gulf of Finland with good results. Contacts by mariners and suggested improvements testify that there is a demand. The greatest challenges lie in improving cooperation in winter navigation, where all situations are exceptional and vessels move close to one another. In winter conditions cooperation between vessels, icebreakers and the VTS is the only way to ensure safe navigation.

Room for development in icebreaking cooperation in the Baltic Sea

All the ports in Finland are icebound every winter. This requires a functioning infrastructure so that the transports the economy demands can be ensured all year round. Finnish and Swedish icebreakers have been involved in regional cooperation for a long time. Icebreaking is part of the infrastructure and efficient shipping in the northern regions. The icebreaking operations have been coordinated by the IBNet information system for fifteen years. It assists in optimising the operations of the icebreakers and in accurately positioning the vessels requiring assistance. The Baltic winter navigation website Baltice.org provides winter navigation guidelines with contact information, a checklist of measures and real-time ice charts.

Icebreaking cooperation should also be developed with Russia and Estonia to ensure safety in the Gulf of Finland. The growing traffic volumes, especially in the Russian ports, call for winter navigation cooperation. Ice conditions are always challenging for large tankers; they need all the assistance they can get.

Shipping as well as maritime safety evolves. The greatest challenges now and in the future concern the attitudes towards safety. Monitoring helps, but real maritime safety rests on us, on the professional pride of each maritime actor and mariner. Professional pride springs from expertise and sharing it with others. By safeguarding maritime expertise, maritime safety can be ensured.

Matti Aaltonen

Director

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The biggest threat for the Gulf of Finland - oil catastrophe

By Pekka Laaksonen

Volumes of ship traffic in the Baltic Sea are continuously increasing. This is especially true in the Gulf of Finland. Over the last few years, especially the volume of oil traffic has increased considerably. In 2009, about 150 million tons of oil were carried in the Gulf of Finland, and the amount is estimated to increase to 200–250 million tons by 2013. Today, 7 % of the daily oil transportations in the world take place in the Gulf of Finland.

Growing traffic volumes equals growing risk of oil disaster. Small accidents occur in the Gulf of Finland every year, but major oil catastrophes have so far been avoided. Especially high-speed vessels that operate between Helsinki and Tallinn cause a big risk when crossing the sea lanes of slowly turning tankers. In the worstcase scenario, an oil disaster taking place in the Gulf of Finland with its dense traffic would destroy the ecosystem of the sea and sea shores for decades. Therefore, in order to prevent large-scale oil disasters, it is essential to prevent oil damage by investing in maritime safety.

One example of a high-risk situation took place in February 2007 when a Greek tanker *Propontis* grounded near Suursaari due to a navigation error. The ship was carrying 100,000 tons of crude oil but thanks to the double hull, no oil was spilled to the sea. If the personnel at the Vessel Traffic Service Center monitoring GOFREP (Gulf of Finland Reporting) had been aware of Propontis's erraneous route plan, they would have noticed the mistake. They could have then offered the vessel a corrected route plan, and the grounding would have been avoided. In maritime traffic the vessels make their route plans independently, and they are not obliged to send it to a third party for checking. The fact that route plans don't require a "second opinion" and only remain known to the bridge, poses a serious safety challenge.

John Nurminen Foundation consulted a number of maritime traffic experts to see how the risk of a major oil catastrophe could be decreased effectively. All parties involved agreed that proactive vessel traffic guidance requiring route plans from the vessels to GOFREP would be the most effective way. This was a starting point, when the Tanker Safety project was started in October 2009. The project is implemented in close cooperation with key actors in seafaring with the aim to renew navigation methods and vessel traffic control and to make the operation on the bridge easier by creating a new two-way ENSI (Enhanced Navigation Support Information) navigation service.

ENSI service enhances bidirectional exchange of information. Ships send their route plans to the service before they leave port. ENSI system checks the route. After that up-to-date and route-specific information on weather, ice, traffic, the port of destination and disturbances is available to vessels through ENSI portal. It is also possible to use and order various support services through ENSI portal. The system supervises the ship's route and Vessel Traffic Service intervenes, if any deviations from the plan are detected. It also informs the ship of unexpected risk factors.

According to experts, the adoption of the ENSI service will increase vessel traffic safety in the Gulf of Finland. The systems currently in use do not provide sufficient information on the vessel's intended movements to the GOFREP to enable proactive vessel traffic control. A service that focuses on prevention - instead of reacting only after a catastrophe has occurred - is essential for the protection of the environment. It is also thousands of times cheaper to prevent than repair the damage. In addition, the service enables oil tankers to optimise their schedules, and thereby shorten waiting times at ports, which creates savings.

ENSI service creates the preconditions for a novel approach to vessel traffic control. Route plan checking is important new measure to ensure maritime safety and exchange of information between the vessel and the on-shore official, opens up new opportunities for effective communication. When the basics for the exchange of information are in place, the ENSI service can be employed to develop an unlimited number of new services benefiting seamen and to expand the operating method to an international level.

ENSI portal is currently being planned, and the introduction of the service is intended to take place in stages so that ENSI would be preliminarily available in the Gulf of Finland during 2013. At that point the vessels will be able to send their route plans to GOFREP, and will get route-specific navigation information in return.

The Tanker Safety project is an example of a concrete project that combines the interests of the public and the private sector as well as those of the service users. The main partner in the Tanker Safety project is the Finnish Transport Agency. Other important partners are Transport Safety Agency and Neste Oil. Neste Oil has piloted the ENSI service on their tankers. Cooperation will be expanded to cover major oil companies, shipping companies and GOFREP authorities during year 2011.

All the partners in Tanker Safety project cover the costs of their own participation. This means that the Finnish Transport Agency pays for the functionality for GOFREP in Helsinki Traffic. Investments in St. Petersburg Traffic and Tallinn Traffic are similarly expected to be paid by local authorities. ENSI functionality for oil tankers requires Internet connection and minor ECDIS system modification. Modification costs are included in R & D costs of the ECDIS system providers.

Maritime traffic traditions are centuries old and hence are not easily changed. Therefore, voluntariness and cooperation are the most successful means to implement new ways of action.

Pekka Laaksonen

Director, Tanker Safety project

John Nurminen Foundation

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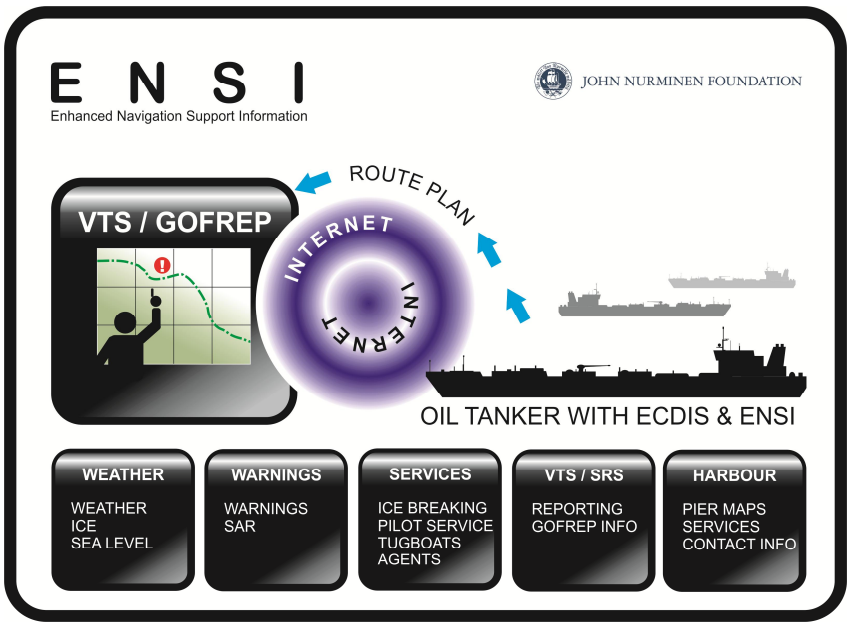

Changes in the Finnish-Russian border traffic and customs cooperation

By Tommi Kivilaakso

The most significant recent change in the traffic between Finland and Russia has been the drastic decline of heavy goods traffic in 2009 due to the global economic crisis. The number of trucks crossing the border came down by - 45 per cent and the amount of goods carried by them decreased by more than a half in the previous year. The sharpness of the change was further emphasized by the fact that the traffic volumes at Finland's eastern border were record high in the year 2008.

Less trucks, more passenger vehicles?

However, the steep fall only concerned commercial goods transports, transit traffic via Finland, and Finland's own exports to Russia. Instead, the number of passenger cars and travellers crossing the Finnish-Russian border were not significantly affected by the recession. The passenger traffic has been growing continuously, this year by about + 10-11 per cent. As to the goods traffic, the number of trucks has also gone up by + 10 per cent and the quantity in tonnes and the value of the consignments has increased as much as by + 16 per cent from the previous year. However, the initial situation in the goods traffic is much worse than in the passenger traffic due to the low volumes in 2009.

In the past decade, Finland has suffered from long truck queues that extended from the eastern border deep into inland. The traffic jams at the border were caused by the strong growth of the traffic volumes, the insufficient border and road infrastructures, the outdated customs procedures as well as the deficiencies in the activities of the Russian customs and other numerous border authorities.

At its peak, more than one third of Russia's total exports were transported via Finnish border-crossing points, compared to approximately one fourth at the moment. The route via Finland to Russia was by far the most popular in the transports of certain goods categories, such as new passenger cars.

More direct container delivery, better Russian own logistical capacity

Right now, experts think that the kind congestions that have been seen in the freight traffic at the Russian border in the last 5-6 years will not be experienced again. A number of new import warehouses have been built in Russia in the past years. Therefore, the need of intermediate storage of transit goods in Finnish terminals has decreased. As regards imports to Russia, the goods are these days to a larger extent transported in containers directly to Russian ports or through Finnish and Baltic ports. The capacity of Russia's own Baltic ports is also increasing while a new port is being constructed in Ust-Luga at the bottom of the Gulf of Finland. The port including parking areas for transit cars has already been opened.

Maybe shorter truck queues, but the smooth flow of border traffic must be ensured

Although Russia has strengthened its logistical capacity and started to favour its own transport routes, we need to prepare for an increase of traffic at the border between Finland and Russia. This need depends on the fact that Russia has an extensive foreign trade market and a growth potential that has been piling up during the economic crisis. The decrease of transit traffic will be compensated by the growth and diversification of already considerable bilateral trade between Finland and Russia, which will be reflected, in particular, in that the imports from Russia will consist more on semi-finished and refined products instead of raw materials and bulk goods.

Better border infrastructure and facilitation

The foreseeable increase in trade and traffic at the Finnish-Russian border, as well as at all other Russian borders with the EU, requires better border-station and road infrastructure capacities on both sides of the border as well as facilitation and reduction of border crossing formalities and trade barriers. Russia's national legislation and customs union legislation as well as the practices of its authorities must be made compatible with EU provisions. Furthermore, the project involving electronic transfer of customs clearance data that has been initiated with Russia must be continued.

Improving the border infrastructure is urgent right now due to the strong growth of the passenger traffic. The question of visa freedom comes up more and more often in the EU-Russia dialogue, and it can be anticipated to become a reality at the end of this decade at the latest. The border-crossing procedures of passenger traffic must be separated from those of heavy traffic due to capacity and safety reasons and in order to ensure smooth flow of traffic

EU Customs Strategy

The development areas referred to above are included in the EU Customs Strategy based on the Partnership and Cooperation Agreement (PCA) between the EU and Russia. The progress of Russia's WTO accession process is believed to play an important role in the implementation of the EU Customs Strategy. Russia's customs union with Belarus and Kazakhstan may not, after all, delay or slow down its accession to the World Trade Organisation.

In the future, there will hopefully be heavy traffic operators that have been granted a special AEO reliability status and that will thus be allowed a faster and simplified border-crossing through fast-lanes. This must be taken into account in the construction of border-crossing stations also on the Finnish side. These authorized logistics operators should electronically and according to a compatible concept submit complete customs clearance data to the customs authorities of both countries prior to arriving at the border.

Russia should join the European EC-EFTA Convention on a common transit procedure, which would enable the current laborious paper-based TIR Carnet procedure to be fully replaced by an electronic transit declaration. The Customs Union of Russia, Belarus and Kazakhstan should not prevent Russia from joining the Convention. Therefore, Russia should simplify its requirements for data on customs transit goods, for example with regard to the customs value of goods, and to create a security system administered by the Russian customs service.

Russias own Customs development consept

A radical national development programme has been launched in Russia, with the aim to transfer the final customs clearance to the vicinity of the national border. In that case, customs transit to inland terminals would not often be necessary and the goods could be transported freely to the importers' own warehouses. When implementing this reform, Russian Customs should ensure sufficient customs service at the border area and not only close down customs terminals in inland areas and in big cities. The smooth flow of border-crossing traffic must not suffer due to this concept. The prerequisite for this reform is also the advance submission of electronic customs clearance data, possibly even directly across the border from the export country.

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What makes modernization a political project?

By Katri Pynnöniemi

The roots of the current discussion on economic modernization in Russia have two very different branches. On the one hand, the discussion delves deep into the history of economic and political reforms in Russia. On the other hand, the debate rests on the very surface of daily policy-making and is driven by the internal dynamics of elite bargaining in Russia. As noted by Mark Leonard in his recent article, what is at stake here is nothing less than the remodelling of Russia's political-economic system ("What does Russia think?" *Prospect*, November 2010, 53).

In terms of the historical roots, today's call for diversification was in the 1920s and 1930s a campaign for industrialization. If we delve even further back into history, we will find Peter the Great's period of modernization, as well as Westernizers and Slavophiles arguing about Russia's relations with Europe. President Medvedev's description of Russia's economy as "primitive" and "humiliating" echoes these earlier debates. What is at stake in diversification is first and foremost Russia's prestige as a great power. Although oil and gas will provide substantial leverage for the country in its dealings with Europe and in world affairs at large, it is quite clear that without diversification the country will be in a weaker position than it may accept. But making Russia an exporter rather than an importer of advanced technologies requires it to adopt and adapt current international practices. This demands not only activation of the country's human potential, a challenging task given the scale of inertia and mistrust in the society, but also resolving the inherent problems in the current political system.

Reservations expressed towards President Medvedev's campaign for modernization stem from the understanding that far from acting as a catalyst for economic development, the Russian administrative regime is the major stumbling block on the road to a more 'innovative' and modern Russia. The crux of the criticism expressed by the liberal economists and opposition activists is that the inefficiency of the state bureaucracy, corruption and the scale of social inertia should be subject to more complex manoeuvres than politicians simply declaring them the "bad habits" of the people. In other words, thoroughgoing political reforms, strengthening the basic institutions of democracy and market economy are required to put things right.

The authorities respond to this criticism by arguing that economic modernization must start immediately, notwithstanding the existing constraints placed on it. But leaving the issue at that is not an option either, stresses Anatoly Chubais, CEO of the Russian Corporation of Nanotechnologies, RUSNANO. What he means is that economic modernization should not become the end point of the reforms. In fact, disagreement on 'how to go forward' is the key bone of contention between different factions aligning behind Putin and Medvedev.

The political elite is frustrated over the lack of 'bottom-up' demand for 'innovations' or 'modernization'. "Nobody is against [modernization], but nobody needs it either", said Chubais, encapsulating the general atmosphere (Finam.ru 14.9.2010 and Hangeslblatt 29.10.2010). It is this sceptical attitude among politicians, regional authorities and the general public towards the government-initiated action plans that stand in the way of Russia's modernization, he concludes. The argument is a rather familiar one, blaming the inefficient bureaucracy and, more generally, the low level of trust in Russian society and distrust towards politics in particular, for faults in the campaign for Russia's 'technological modernization'.

Although Chubais does not go as far as to voice it openly, he seems to be pinning his hopes on the 'revolutionary vanguard' driving the change. The task here is to win over the bureaucracy and mobilize it for the consolidation of the country's democratic institutions as well as the "creative forces" of innovation. Bearing in mind this change, Gleb Pavlovsky has recently proclaimed stability as "the value of the last decade" and the establishment of the Medvedev-Putin tandem as "the final point of the plebiscital epoch of Russia" (*Russian Democracy: from sustainability to renovation*, Yaroslavl Global Policy Forum, September 9-10, 2010). This may be an overstatement, but it nevertheless reveals how fractured the power vertical has become. Thus, the discussion on 'modernization' and 'innovation' should be viewed in the framework of the intensifying struggle within the elites on the eve of the presidential elections in 2012.

Indeed, some analysts have argued that what we are actually witnessing is the rearrangement of the rent management system originally put into place by Putin. Economists Glifford Gaddy and Barry Ickes write that the main motive for advocating the diversification of the Russian economy is that it is a way to "justify various schemes for rent distribution". In other words, the debate on modernization is a debate "by and among rent-seekers" (G. Gaddy and B. Ickes "Russia after the Global Financial Crisis", *Eurasian Geography and Economics*, Vol. 51, No.3. 2010, 292). The continuation of the rent distribution system in a new form reduces Russia's opportunities to diversify, that is, to change the country's economic structure to conform to the requirements of a post-industrial, innovation-based economy.

As a weak signal of the intensifying struggle between the political elites, in March 2010 Prime Minister Putin became head of the Government Commission on High Technology and Innovation (previously known as the Government Council on Nanotechnology). With its new powers, the Commission oversees the development of the scientific-technical complex and the innovation system and makes decisions that executive agencies (ministries, government agencies, and so on) are obliged to follow. What was thus created was a parallel structure to that of Medvedev's Commission on the Modernization and Technological Development of Russia's Economy. The mandate of the Government Commission is defined broadly enough to include practically everything Medvedev's Commission is about to do.

Since its establishment in May 2009, the Presidential Commission has been instrumental in channelling the public debate on modernization and, more concretely perhaps, the presidential instructions (*porytseniya*) directed at the government and the respective ministries. On closer inspection, the Commission's work shows that concrete instructions given by the president relate to the pharmaceutical industry, energy efficiency, actions aimed at enhancing the technology trade with foreign countries, and the building of the Skolkovo innovation city. The extent to which presidential instructions are actually implemented is rather modest by and large. This has prompted several counter-actions by the president, ranging from the public reprimand of responsible bureaucrats to a recent proposal to clarify the status of the presidential instructions, which are a mere formality nowadays.

It speaks volumes about Russia's transformation that we have on-line access to the discussions taking place during the Presidential Commission meetings. But it would be naive to think that relatively open access to information would guarantee its transparency. Instead, the above-mentioned two organs (and other similar structures) function primarily as venues for reshuffling the rents related to, and generated by, the 'campaign for modernization'. It is in this sense that the debate on modernization *is* the very battleground for Russia's future model of development.

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Decisive years in creation of the Baltic power market

By Einari Kisel

The dream of having an operational common Nordic-Baltic power market has been discussed close to 20 years by now. There have also been very cautious steps taken to start up the power market in the Baltic States, but until recently these steps have only represented the market opening on paper – in reality the consumer choice has been very limited.

In terms of volume the Baltic power market is probably the smallest power market in the world. The annual consumption in all Baltic States altogether is around 22 TWh. Just for a comparison: the volume of Finnish power market is around 90 TWh, and it is just a part of the Nordic Power market with annual consumption over 400 TWh. It also means, that the potential Baltic market players are also very small compared to the competitors in the neighbouring markets.

In the same time, the Baltic power market is becoming to be the most interconnected power market in the world. When the second power cable between Estonia and Finland, and the power link between Lithuania and Sweden will be materialised, then the total interconnection capacity of the Baltic States would enable to import more than 100% of the power needs from neighbouring states. This fact would also mean that there will be an unprecedented impact from the competitors from neighbouring markets to the Baltic power market.

It is also a fact, that the Baltic power production facilities would need replacement in coming years. From the beginning of 2010 Ignalina nuclear power plant was shut down, the oil-shale based Narva power plants need environmental upgrade before 2016. These two power producers have been producing close to 80% of electricity in recent years in the whole Baltic area.

Such preconditions have been puzzling for the people responsible for the development of this power market. How to structure the market in the way that the security of supply would be guaranteed? How to encourage investments into new power plants, if the competitors outside of the EU have clear competitive advantages? How to create a reliable power price, if you have very few players in the market? How to avoid market distortions?

All these questions were thoroughly discussed under the auspices of the Baltic Energy Market Integration Plan (BEMIP) where the Action Plan was agreed by the Prime Ministers and the President of the European Commission in June 2009 to boost the Nordic-Baltic power market. The first thing was to prepare the missing parts of the legislation in the Baltic States. In parallel the preparations for the start-up of the power exchange and planning process for new interconnections were started as well. The new interconnectors were also financially supported from the European Economic Recovery Package, which gave a very important push for their development.

And then came crucial steps: in 1. January 2010 together with the closure of Ignalina nuclear plant the power exchange Baltpool started its operations in Lithuania. In February the ownership unbundling of Estonian transmission system operations company Elering was finalised by the Government, and from 1. April 2010 NordPool Spot launched its operations in Estonia. These steps meant a start for a real liberalisation of the power markets in the Baltic States.

A specific market arrangement was introduced in Estonia: the power supplies from non-EEA countries are allowed only to be traded in the power exchange. This would mean that they can only deliver short term supplies. This regulation was set to guarantee the long-term security of supplies from the EU-based power plants. Such an approach is currently analysed also by other countries.

The first year of the operations of the power exchanges has been extremely interesting. The hourly power prices in Estonia have been somewhat lower compared to the Finnish and Lithuanian market areas. The trading volumes in NordPoolSpot Estonian market area have even exceeded the consumption volume in Estonia, because several large Latvian and Lithuanian traders have used power exchange in Estonia for cheaper deliveries. In October the intra-day trading started also in NordPool Spot Estonian market area.

However, the liberalisation of the 35% of the Estonian power market has not been taken positively by the consumers, because the power price increased for them up to 50%! Earlier cost based regulated electricity price cap in Estonia delivered very low price of electricity for consumers, but did not guaranteed the long-term security of supplies. The market price provides the long-term price reference for the market players and incentivises the new investments into power production.

Though, not everything has run smoothly as well. Power exchange in Estonia had a market failure in 24. August, when the price of power in five hours reached the technical maximum of 2000 EUR/MWh. Investigation on that case is still running, but this experience has changed quite a lot in the activities of the market participants. The measures taken after that case should avoid us from the same situation.

The power market has shown that it can deliver its results also in such a small market area, if it is well tied to the other markets and has a professional setup. Ccrucial steps for further integration would be the kick-off of the power exchange market area in Latvia. This would also open the possibility to create the NordPool Spot market area in Lithuania. Hopefully in coming months the Parliament of Latvia will make the necessary amendments in legislation and the process will move forward.

The other challenge is to guarantee the fair playing ground in the market and to guarantee the framework for long-term energy investments in the region. In this respect it is crucial to agree among the Baltic States and Finland the common principles for power supplies from outside of the EU. This would guarantee that also in the long term there will be enough producers in the Baltic region to cover the demand in any situation.

This liberalisation process has been a very interesting journey with unexpected turns, up's and downs. But now we have crossed the line, where there is no return to the old setup. And it means that another Baltic dream has come true.

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Ministry of Economic Affairs and Communications

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Gas around the Baltic Sea

By Antero Jännes

The main characteristics of the situation in the gas markets of the Baltic region are that its gas markets are dependent on a single source and are isolated from the common EU markets. The East Baltic Sea member states of Finland, Estonia, Latvia and Lithuania are the only four member states which remain isolated from the present integrated EU gas transmission system. The gas demand in these states is approximately 10 billion cubic metres (bcm) per year. Overall gas demand in the EU Member states around the Baltic Sea is around 115 bcm per year, with the majority of demand emanating from Germany. Total natural gas consumption in EU in 2009 was 484 bmc.

In June 2009 commissioner Anders Piebalgs stated: "Ending the effective isolation of the Baltic States, which still form an energy island, is an urgent task to deal with." Since then, a considerable list of infrastructure projects has been presented in the region to improve diversification and security of gas supply. This includes numerous methods: pipelines, underground gas storage and LNG projects.

The main pipeline projects in the area are Amber (Poland-Lithuania) and Balticconnector (Finland, Estonia, Latvia and Lithuania). With Poland-Lithuania pipeline the area might also benefit from Baltic Pipe (North Sea gas to Poland bypassing Germany) and InterTransGas (integration of Poland and Germany, reverse flow.)

The European Commission presented in November its energy infrastructure priorities for the next two decades. In the Communication, the Commission defines EU priority corridors for the transport of electricity, gas and oil. In the gas sector, Baltic energy market integration and connection to central and south east Europe is among the three priority corridors. Priority projects should benefit from EU financing and building permits. In planning and implementing these projects, the Commission favours regional cooperation between countries.

The geological conditions for gas storage are seen to be particularly good in Latvia, where a storage potential of several bcm has been identified. Also Lithuania, Germany and Poland may have storage possibilities In Finland, Estonia, Sweden and Norway no possibilities exist for natural gas storage. Storage does not bring in any new gas, but of course increases security of supply in the event of supply interruption in gives not alternative supply option.

Liquefied natural gas gaining share

One of the most important trends in the international natural gas market in the past few years has been the growth in the proportion of liquefied natural gas (LNG) trading. Technological developments have increased the price competitiveness of LNG and enabled shorter transport distances. The number of LNG vessels has multiplied and their size has increased. Also the grown share of indigenous natural gas production by unconventional gas (shale gas) in the USA has decreased demand of LNG.

LNG is produced and exported by countries including Qatar, Indonesia, Malaysia, Algeria, Australia and Norway. Major consumers include Japan, South Korea, Spain and France. Japan imports all the natural gas it consumes in liquefied form. China and India are also anticipated to begin imports of LNG. In the EU there are LNG import terminals in France, Spain, Italy, Greece, Belgium, Portugal and the UK. The share of LNG of the net-import of natural gas to EU member states is 13%.

So far no LNG import facilities exist in the Baltic region. However, opportunities for the utilisation of LNG in the Baltic region are being explored by Germany, Poland, Sweden, and Finland in cooperation with the Baltic States. It is important to ensure the largest market possible for any LNG terminal in order to ensure economic viability and utilisation of the LNG terminal. The relative small gas markets in Finland, Estonia, Latvia and Lithuania do not generate scope for more than one LNG terminal.

For smaller LNG terminals it is also possible to reload LNG at existing terminals in Western Europe and use smaller vessels with a size of less than 50.000 m3. A small LNG receiving terminal is under construction in Sweden, but will initially not be connected to the integrated gas network.

For Finnish markets, Gasum has invested in gas liquefaction plant in the Kilpilahti industrial area, Porvoo. The plant's production capacity is 20,000 tonnes of liqueifed natural gas (LNG). Next to the plant were also constructed 2,000 m3 containers for LNG storage to ensure security of supply.

Gasum sells LNG for research purposes and for trial runs of natural gas engines to areas in Finland not covered by the natural gas network. LNG has also been exported to Sweden and Norway on road tankers. LNG is delivered to customers by tanker trucks making it available to users outside the natural gas network.

LNG as Marine Fuel

General concern about the state of the Baltic Sea has also made shipping companies operating in the area interested in cleaner fuel alternatives. LNG is highly suitable for use as a shipping fuel because its environmental emissions are considerably lower than those of other fuels such as light fuel oil.

The emission limits applicable to shipping will become essentially more stringent over the next few years. The first set of new restrictions by International Maritime Organization (IMO) will take effect in 2015. In particular, the limits for sulphur, NOx and particle emissions will be substantially tightened.

If clean natural gas is used as a fuel in shipping on the Baltic Sea on a large scale in the future, in-house production will have to be supported by LNG imports and LNG filling facilities at several ports in the region.

Gasum is among the organizations making a commitment to improve the state of the Baltic Sea through the Baltic Sea Action Group (BSAG) The BSAG gathers concrete commitments from public authorities, enterprises and NGOs to conserve the Baltic Sea. Some commitments have a direct impact on the state of the Baltic Sea, while others provide an indirect contribution towards action to save the Baltic Sea.

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Renewable energy markets in Baltic Sea region from a perspective of a bioenergy company

By Matti Hilli

In the EU's energy and climate package the targets for renewable energy, for CO2 reduction, for energy saving and for bio fuels has been set. This challenging 20/20/20/10 target has to be achieved by 2020. Every member state has to have their National Renewable Action Plan ready by 30th of June 2010 to show how to meet the targets. The present share of renewable energy is very high in many states in the Baltic Sea region like Latvia (34,9%), Sweden (39,9%) and Finland (28,5%) and is higher than average target in EU (20%). Anyway, all the states must increase their share of renewable energy and only Poland will have smaller target (15%) than the average in EU (20%). Sweden has the highest target (49%). Additional amount of renewable energy in the region is very big and is in the range of 217-242 TWh. Poland has the biggest increase of renewable energy (85-90 TWh). Also Sweden (50-60 TWh), Finland (32 TWh) and Denmark (25-30 TWh) have to increase a lot the amount of renewable energy.

Almost all the member states have built up their National Renewable Action Plans based on their own resources of renewable energy. It is very obvious, that every country must use all sources of renewable energy to meet the targets. Finland and Sweden have large potential of forest energy. These countries have also huge resources of peat. Peat helps to achieve renewable energy targets, because it makes possible to use poor quality biomass in multi fuel power plants. Estonia has similar situation. All the other countries in the region have to rely mainly on energy crops, straw and recycled wood. Sweden has good possibility to meet the target by increasing forest biomass, wind and geothermal. Also Denmark and Estonia have good possibilities to reach the target by using biomass and wind. Latvia, Lithuania and Poland have their main possibility is agro biomass and wind. Finland is likely to meet the target by using mainly forest residue. Waste, wind and agro biomass are additional sources. Peat is very important to help using poor quality biomass in power plants.

EU targets give very good business opportunities for companies offering renewable energy solutions. The production and sales of bio energy like forest energy, energy crops, waste and pellets offer huge possibilities for large international and small local companies. Large capacity of power plants and district heating plants has to be invested during next ten years. Wind energy offers also a lot of possibilities for energy companies. New innovations like bio diesel and bio coal are coming to the market. One of main concerns in some countries has been the supply of wood for all purposes needed. Forest industry is a very big user of wood raw material especially in Finland and Sweden. At the same time the industry is a big producer and user of bio energy. The concern is, that there is not enough wood both for industry and energy sector and the price of raw material will rise due the challenging energy targets. Both in Finland and Sweden forest growth is much bigger than annual cuttings and there is space for industry and energy sector, especially when energy sector uses forest residue and wood from first thinnings, which is not suitable raw material for industry. Main question will be the sales behavior of forest owners. Are willing to sell wood enough? Renewable energy offers big potential also for forest industry. New thinking of bio refinery, which produces different products like paper, energy, chemicals and timber, is on the way to be realized. Bio diesel is a good example about excellent sustainable product for forest industry, which offers new large scale business opportunity. Another example is bio coal, which may be a really good product for replacing coal in power production.

There are some threats to the renewable strategy in the Baltic Sea Region. Subsidies and incentives are not harmonized in EU and this may lead to export to countries with highest subsidies. The level of incentives is not known so far, which makes companies planning renewable businesses, uncomfortable. Sustainable criteria may be taken in use for all bio energy and this may decrease the quantity of available amount of renewable energy. Commission will decide about the criteria during year 2012. There has been concern that European wood may not be sustainable due its long life time. It has been said, that for example stumps are not sustainable, because they decompose long time in the ground, but CO2 is released immediately, if burned. This would increase the amount of CO2 into the atmosphere. Right way of thinking is to look at forest balance of the country. If we are cutting less than annual increment, the forest is a sink and we do not have to worry about a single stump. Old forest is a carbon stock, but young, growing forest is both a carbon stock and a carbon sink. Wrong kind of thinking about sustainability would destroy the possibilities to achieve renewable targets in Nordic and Baltic countries.

There is also competition coming from outside EU. A lot of pellets come from North and South America, Africa and Russia. Raw material price is often cheap in those countries and sustainability of raw material production not always like it should be. The import will be remarkable also in future. EU has to take care, that foreign producers follow same rules as the EU producers to keep the competition fair and to guarantee that European bio energy consumption does not cause environmental problems in other countries.

Every country in the region must use all sources of renewable energy, has to build up their strategy based on their own resources and local circumstances. Some of the countries may have great difficulties in reaching the demanding targets of EU. The time span to 2020 may be too short, if investors have to wait for more years before all the uncertainties are clear and decisions can be made to invest in renewable energy production and use.

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How will Russia cope in the emerging new energy agenda?

By Pami Aalto

Russia is often considered a leading fossil fuels power and for good reasons so as it is a big producer of natural gas, oil and coal, an important transit state and also a notable consumer of these resources. Most of these features pertain significantly to Russia's role vis-à-vis Europe. At the same time it is less often discussed how Russia will manage in the emerging new energy agenda where Europe is also prominently involved. I will propose that this question will have to be examined against the backdrop of the global economic crisis and other market developments that have changed Russia's posture dramatically in its energy markets. On top of this we have questions of global climate change; shift towards renewable energy resources, energy efficiency and savings; a possible switch to unconventional gas in Europe; and the renaissance of nuclear power in Russia's major markets in Europe.

To start with the global economic crisis, we know that Russia suffered greatly from the economic slowdown of 2009 which brought with it a drop in energy demand in the European markets where most Russian energy exporters cash in their biggest profits. Russia had to cut production by 12% in 2009. 'Only' 142 billion cubic metres of natural gas was imported from Russia to the EU on the average price of 302 US dollars per 1,000 cubic metres. Even worse from the Russian perspective was the market entry of liquefied natural gas (LNG) on cheaper prices than Russian gas. Some of Russia's European customers violated their take-or-pay contracts with Gazprom, paid the due penalties and instead bought cheaper LNG from spot markets. Some experts expect the demand for Russian gas through pipelines to stay weak until 2015, some longer as excess capacity built in a tighter market era sustains the market invasion of LNG, the continuing financial crisis and sluggish growth weaken demand, and as European states develop sources of renewable energy, and introduce energy efficiency and savings measures. In short: Russia will have to revise the pricing formula of its gas to maintain competitiveness in that sector vis-à-vis LNG, improve its image as a gas and oil supplier – which means also investing to more reliable means of transit such as the Nord Stream – and fight for renewing its expiring contracts in a market where the balance is again tilting in favour of energy consumers.

As for the agenda-setting qualities of global climate change Russia is a newcomer to the game. Russia's climate change doctrine of 2009 for the first time proposed that climate change, if not combated, would reduce Russia's GDP by 2-5 per cent. President Medvedev promised in the Copenhagen climate summit of 2009 that his country could meet its target of 25 per cent emissions decrease by 2020. In January 2009, the Russian Government passed a resolution limiting the flaring of associated gas in oil fields to only 5 percent of the entire output, set to be in force from 2012. Alongside that concrete measure Russia has been a key member of the Kyoto mechanism. Gazprom Marketing and Trading, the company's London subsidiary, has been actively involved in global emissions trade since 2006 by coupling gas sales with emissions quotas and by investing to emissions reduction projects abroad to buy emissions rights. Overall, the Russian approach to climate change questions is defensive and dominated by considerations of economic rationality, but it will help to keep it in the same boat with its partners in Europe.

One measure by which Russia could contribute more to combating climate change is to develop renewable sources of energy. Russia has huge potential in possessing a wealth of resources while it is producing only about 1% of its primary energy supply from renewable sources – which in Russia mean also peat. Some additional percentage points incur from Soviet-built hydropower plants. Yet the renewable resources are highly scattered throughout the country and industrial capacity low in the sector. The potential for improving energy efficiency and savings is huge, as noted in Russia's energy strategy of 2009 which lifts the former into the group of four main priorities. These measures can partially help Russia to maintain its sales in Europe in the longer run – we know that Russia's proved oil reserves will only last for some two decades with current production rates (although more will probably be found). Regardless of its high potential it is clear that Russia in on the defensive here. The European market is the only one where Russian exports are truly threatened by renewable energy. These new energy sources represent not only a climate policy measure as part of the EU's 20-20-20 targets but also a response to the recurring problems in Russian gas transit through Ukraine (and earlier, oil through Belarus). Quite simply, several European governments aim to lessen their dependence on imported energy and are therefore unlikely in the future to want to import Russian biomass or buy Russian electricity produced from renewable sources – and in the absence of adequate grid connections between Russia and Europe could not even do that.

The European Commission together with the International Energy Agency (IEA) estimate total recoverable reserves of unconventional gas in Europe to be between 33 and 38 trillion cubic metres – more than tenfold the conventional reserves. If these could be effectively utilized, unconventional gas could compensate for an important part and even substitute Russian fossil fuels within the EU for several decades. This is not the place to dwell into the plethora of problems and long time-scale of unconventional gas in Europe – where small-scale commercial production may start perhaps around 2020 – but rather to note that the prospect adds on to the list of factors making the European market a tougher place for Russian companies. Gazprom itself plans to start pilot production of coalbed methane in Kemerovo's Kuzzbass coal basin in 2011 but most likely unconventional gas will serve Russia's domestic market and thus will not bring in any foreign currency. Yet Russia's oil industry is unaffected as long as alternative fuels are not widely used in Europe's transport sector.

Finally, the renaissance of nuclear power in Europe further highlights the turn to domestically produced energy in Europe although the uranium or the utilized nuclear fuel in most cases has to be imported from Russia or elsewhere. Nuclear power plant projects are underway in four EU member states and two others have committed to launching one. Russia is planning to build some two to three new reactors a year until 2020 and is set to test closed fuel cycle technologies, and examine fusion techniques and fast neutron technologies. This is to respond to expected higher domestic demand and again to reserve more fossil fuels for export. Rosatom also wants to participate in the beefing up of Europe's nuclear sector but faces a big information war to adjust the image of Russian energy and push away the legacy of the 1986 Chernobyl accident – although it is launching a joint venture with Siemens. But in any case, neither are Russia's oil exports affected here as we mainly speak of power generation.

The balance of threats and opportunities for Russian actors is mixed and calls for a sea change in Russian energy policies that was not fully foreseen in the country's 2009 energy strategy. Although admittedly Russia is not a trend-setter in the emerging new energy agenda, it can be more than an also-run. I would perhaps somewhat controversially propose that Russia, Russian energy companies and other actors together with their business and political partners in Europe would view this as a golden opportunity for their mutual relations. While it is clear that a lot of the present oil and gas trade will continue owing to several lock-in factors including expensive infrastructure and natural market dynamics, another track can now be opened up. This should include technology transfers in renewable energy, efficiency and savings technologies, utilization of Russia's engineering capacity to boost the same sector, trade in the nuclear power sector, climate change coalitions for international negotiations, and full exploitation of the large and growing market in Russia to boost European exports overall. Such a two-track approach for Russia-EU energy relations would also support Russia's adjustment to the new energy agenda.

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The Shale Gale – perfect storm or flitting breeze?

By Joseph Dutton

The so-called unconventional gas revolution continues to divide opinion within the energy and financial sectors in Europe, US and Asia. The rapid and near-exponential growth of this formerly niche area of the natural gas industry in North America has been the subject of many hyperbolic statements over the last eighteen months; game changing, paradigm shifting; energy market realigning, to name a few. The US is the largest importer of energy in the world, and the second largest consumer of energy, but as of early 2010 the country became self sufficient in natural gas, with unconventional gas representing 42% of the total gas production, and shale estimated to form 15% of daily gas consumption. With unconventional reserve estimates of over 8,000tcf in North America, it is somewhat difficult to not get swept away in the 'shale gale'. The benefits of domestic unconventional gas development are clear, with the principal ones being increased energy security and reduced reliance on foreign energy imports. The success of US unconventional gas development is, somewhat understandably, being used a blue print for development in other regions of the world.

The EU and unconventional gas

The disruption in supply to the EU in recent years following politico-energy disputes involving Ukraine, Belarus and Russia have forced energy supply security to the forefront for both member states and the European Commission. Among a number of renewable and efficiency proposals, and supply diversification in the form of the Nabucco gas pipeline, increased exploitation of indigenous resources has been highlighted in the '*Second Strategic Energy Review'* of 2008 and the November 2010 'Energy 2020-A strategy for competitive, sustainable and secure energy' policy document; the latter also affirming that the role "unconventional gas will play must be assessed in all objectivity" (EU Commission, 2010). Europe is estimated to have between 1,500 and 4,00tcf of unconventional gas, in the form of shale gas, coal bed methane, and underground coal gasification reserves. Unsurprisingly direct comparisons are being made between the present situation in the US, and the future potential that the European subsoil holds. With unconventional reserves between five and fourteen times greater than those of conventional gas, the strategic and security benefit for Europe is potentially enormous.

European Commission initiatives toward greater energy independence would be aided substantially by the development of indigenous unconventional gas reserves. The science of unconventional gas is not alien to the EU; during the late 1990s the EU sponsored underground coal gasification trials in Belgium and Spain, while the mining industry across Europe has long been using methane for generation power. Exploration and utilisation of shale gas however is very much at an early stage in Europe, but energy policy implications are clear. Foreign relations between the EU and Russia and North Africa are influenced by energy, and the dependency member states have upon imports of oil and gas from them. This can be seen in the European Neighbourhood Partnership, Black Sea Synergy, and Euro-Mediterranean Partnership. These programmes also apply to strategic transit states, such as the Ukraine and Belarus. Consideration of energy supply and transit security form part of the EU's holistic approach to its neighbourhood, but development of the indigenous unconventional gas reserves would of course lessen the reliance upon external energy exporters, thus altering external relations.

Poland at the eye of the storm

The northern region of Poland is currently the epicentre of shale gas development in Europe, with the country conservatively estimated to hold 48tcf of shale gas. Over sixty test drilling licences have been issued by the Polish government to a number of companies, including Chevron, Exxon Mobil and Shell. Parallels have been made between Poland and Middle Eastern oil-rich Emirates, but production will not occur until the middle of the decade at the earliest. Although such a huge gas reserve would alter EU policies, for Poland the difference could as far reaching. With Poland importing 68% of its natural gas from Russia (House of Lords European Union Committee, 2008), Warsaw has previously affirmed the desire to reduce the country's dependency upon Russian gas – memories of the gas supply disruptions to Poland following Belarus' dispute with Russia are helping to fuel the shale gas bonanza in Poland and further afield in Europe.

One size fits all?

Despite this, when the US blue-print is laid down upon the European map and energy bureaucrats in Brussels are awaken from their dreams of European energy dependency, there are some harsh realities that will prevent the shale revolution from sweeping across the region for at least the next decade, if not prevent it from occurring at all. Leaving aside more technical aspects of shale production, there are specific conditions in Europe that will inhibit the development that has been witnessed in the US. The conditions that fostered shale growth in the US are not present in Europe. There are some fundamental localised issues, such as continental Europe having only 10% of the number of land drilling rigs found in the US, and the EU having a population density over three times greater than the US. Due to the geology of shale basins, production requires hundreds of wells to be drilled over a large area – Europe neither has the number of rigs, nor the vast open spaces seen in US producing regions. Furthermore, unconventional gas wells in the majority of US producing states are subject to tax breaks and exemptions, which keep the producing wells profitable - there are no proposals for such financial conditioning in Europe, with the EU favouring a more 'Washington consensus' style of economic governance. Shale gas development in the US has benefitted from this financial assistance, during a period of high global energy prices.

There is also the question of whether there is the political desire in the EU to develop unconventional reserves. The Nord Stream, Nabucco, and South Stream projects, which have a combined patronage of thirteen member states (including some involved in both Nabucco and South Stream) and combined investment of over €30 billion, will collectively import 5.1tcf of gas to Europe by 2015. Furthermore, Poland has recently signed an agreement with Moscow to increase gas supplies by 38% by 2019, with a supply agreement that may run until 2045. This has led some analysts to claim that Warsaw has lost its appetite to invest in the uncertain future of shale gas (Euractiv, Nov 2010). Poland is also constructing an LNG terminal on the Baltic coast that will process 176bcf of gas per year by 2014 – half of total Russian imports. This leaves little room for shale gas in either the Polish market or the European gas market. The affect shale gas has had upon US energy supply and the global energy market cannot be understated. However, the role unconventional gas will play in the future of the European energy market may yet appear to have been blown out of proportion.

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University of Eastern Finland, an example of Finnish university reform

By H Kalervo Väänänen

Universities Act 2009

Finnish university system underwent a profound reform in the beginning of 2010 when the new Universities Act 2009 was launched. There was a long discussion period, actually during three different governments but still it was, however, a surprise for most professors and other personnel.

A major change in the legal status of the universities has opened both new possibilities but also a number of new challenges. The public universities are now independent legal entities. They may now undertake commitments, obtain rights in their own name and possess movable and immovable property. A university may also pursue business activities which support the performance of the mission.

According to the Universities Act "universities must arrange their activities so as to assure a high international standard in research, education and teaching in conformity with ethical principles and good scientific practices". The new act has stimulated an intensive reform in many Finnish universities since it is obvious that there will also be changes in criteria of governmental funding. In the forthcoming years this will feed a lot of changes and create several new practices.

Among the main practical aims of the new act is to improve the level of teaching and to implement the Bologna-model with bachelor degrees to the Finnish university system and to ensure shorter mean time used for the university degree. In addition, it is important to improve the level of research and especially to facilitate profiling the universities.

University of Eastern Finland

At the same time a number of universities in Finland decreased from 20 to 16 and three new universities emerged by fusions of seven old universities. One of the new universities is University of Eastern Finland (UEF) which was created by the fusion of University of Kuopio and University of Joensuu.

UEF is located at three different campuses, namely in Kuopio, Joensuu and Savonlinna. Two main campuses, Kuopio and Joensuu are 140 kms apart and host together about 14 000 students and almost 3000 staff members with a budget of 250 million Euros.

UEF is an internationally recognised research and teaching university. It aims to be among the three most important universities in Finland and among the leading 200 universities in the world in 2015. The university has a strong profile in its areas of expertise. It also takes a particular interest in promoting the regional development of eastern Finland.

Areas of expertise in research of UEF are: 1. Forests and the environment, 2. Health and well-being and 3. New technologies and materials.

The University of Eastern Finland is a national leader in research relating to forests. The extensive research carried out by the university especially on forests and the climate emphasizes the sustainable use of natural resources and constitutes an internationally unique research cluster in the field. The societal significance of this area of expertise is enhanced by research pertaining to environmental law.

In the area of health and well-being the university conducts research in molecular medicine to uncover the basic mechanisms behind various endemic diseases. Research in the field creates new prerequisites for the development of new prevention, diagnostics and treatment methods. Together with social sciences research focusing on the role of nutrition, exercise, and other lifestyle choices in maintaining health constitutes an important field of research.

Technological research based on natural sciences serves as a foundation for developing new technologies and applications in biosciences, information sciences, materials sciences and nanosciences.

In addition to above mentioned three research areas UEF targets significant strategic resources to two fields, namely broad-based expertise pertaining to Russia and teacher education.

In the broad-based expertise pertaining to Russia and cross-border cooperation UEF seeks to gain international recognition as one of the leading experts in the field. The university is strengthening its research and education pertaining to the Russian language, culture, industry and commerce. Furthermore, the university develops its cooperation with Russia especially through the expertise found in the areas of expertise in research. Cross-Border-University (CBU), including several universities both in Finland and in Russia, is now becoming even more important tool for us to develop cross-border collaboration.

A new innovation policy

The new legal status and research focused strategy calls also new type of innovation policy for the future. Technology transfer and for instance licensing of immaterial rights has been "Achille's heel" of all Finnish, as well as most other European universities. Reasons for this have been numerous, one being low interest of academic researches to start new business, another low level of funding to develop innovations further. In practice this has not been able at all in Finnish universities. Only a couple of universities have had enough funds to support their own spin-off companies.

It remains to be seen if the new legal status and especially new financing would allow universities to develop better solutions to support innovations and development of new enterprises. However, a lesson we have learned earlier is that in order to be successful you need to build up alliances that are strong enough to be competitive in the international arena. The present transition period in Finnish universities is a perfect time to form these alliances. I am positive that in the long run this will boost both Finnish research as well as economy.

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Baltic Sea Region – a globally recognised innovation hub

By Antti Valle and Pirjo Kutinlahti

Global innovation landscape is changing

Globalisation manifests itself in terms of supranational flows where ideas, competencies, technologies, products, services, and finances flow across borders and contribute to the global value networks. Collaboration in innovation is becoming increasingly international, with global knowledge communities that are formed by members located all over the world. Also companies are resorting to these networked communities in their innovation processes, conducting less research and development work in-house,

The networked paradigm is changing the global innovation landscape, activities being concentrated in regions and locations offering the best structural preconditions for innovation. Instead of national innovation systems, innovation ecosystems and nodes are becoming the centre of attention. Being locally anchored but globally networked, they combine in a fruitful manner the ideas and abilities required to address the needs of both businesses and society. The leading hubs of innovation are setting the global trends and are being closely followed by everybody in the field.

Macro-regional policy approach in innovation collaboration

Europe should aim at no less but hosting some of the leading innovation hubs in the world. This requires ability to pool resources and boost collaboration among the most dynamic companies, research institutes and other innovation actors. The EU strategies for functional macro regions could be instrumental in identifying the stakeholders, common priorities and actions towards this goal. Within a macro region, geographical proximity, historical and cultural heritage as well as structural features of the economies bring a competitive advantage to explore and learn from complementarities and diversity.

Promoting innovation collaboration has been chosen as one of the key objectives in the EU strategy for the Baltic Sea macro region. The long-term vision is to make the Baltic Sea Region one of the global nodes of innovation, hosting world class expertise in selected fields. One target of the BSR collaboration is to identify the competence areas and functions where it has the best capabilities to create competitive edge. These focus areas will be based on existing business strongholds such as ICT, cleantech and biotechnology but also on future business potentials arising from societal grand challenges such as ageing, global warming, reducing supplies of energy, clean water and food as well as pandemics and public health.

The basic elements for this strategy are already well in place: there are several strong regional clusters and advanced industries in the Region, the population is well educated and investment in R&D capacity is high. The Nordic countries have strong framework conditions regarding innovation and they also score high in various innovation performance indexes. Realising the strategy benefits from the extensive experience in promoting joint R&D projects and from the long tradition of Nordic co-operation e.g. regarding the mobility of human capital. Collaboration with regard to joint networks has steadily increased over the last 20 years. However, at business level the potential of transnational innovation collaboration has not been fully utilised.

These objectives in the EU's Baltic Sea Region strategy are realised by the BSR Stars flagship programme. It is a good example of macroregion policy approach for supporting sustainable growth and prosperity in the region. The programme is aiming at establishing the Baltic Sea Region as a functional region with an internationally competitive position in a number of selected fields such as cleantech, ageing and transport. The mission is to expand the domestic market for the SMEs, to catalyse cross-border cluster collaboration as well as to build innovation capabilities of the actors in the Region.

The focus of BSR Stars is to activate and deploy the resource base of the macro regions by linkages and increased collaboration between research environments, clusters and SME networks. It is crucial to support the networking of SMEs in order to strengthen their innovation capacity and growth. The programme is initiating mutual bridging projects that will involve SME's from different countries as well as promoting the supply of risk capital for SMEs.

Ensuring continuity of the efforts

We believe that the intensified innovation collaboration in the Baltic Sea Region can boost the dynamism of the region's innovation ecosystem and make it a more attractive hub of leading ideas worldwide. It can also generate global market opportunities for the participating businesses and other actors.

National governments and innovation agencies as well as regional actors are the key stakeholders in realising the policy towards these goals. However, pooling resources for transnational collaboration is a challenging task and here the EU can play the key role. We see a need to intensify the promotion of the transnational innovation collaboration with the EU policy instruments. It is important to sustain the allocation from the EU Structural Funds to transnational operations with a focus on innovation. The EU research funds should be allocated on competitive bases, but networked innovation collaboration could be instrumental in lowering the threshold for SMEs and other smaller actors to join in the EU research programmes.

At the EU policy level, the macro region innovation programme can serve as a platform for realising the broad-based innovation policy presented in the EU 2020 Strategy and Innovation Union initiative. It can also work the other way, feeding tested practices from the Baltic Sea Region to the rest of the EU. The BSR collaboration could provide a model for implementing the EU's macroregion strategies by coordinating regional, national and international resources for common objectives as well as by testing and demonstrating new cluster or demand-driven innovation approaches such as innovation procurements or open innovation methods, at macro regional level.

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University in innovative space region

By Ilya Romanovich Shegelman

Founded in 1940, Petrozavodsk State University (PetrSU) is one of the largest multidiscipline classical universities in the European North of Russia. Till 1956 the facility had been referred to as Karelian and Finnish State University. Today PetrSU plays the leading role in research, staffing and technological support to social and economic development of the Republic of Karelia (RK). It develops the most advanced technical and process solutions, innovations and cross-border international cooperation. In the course of 70 years the University has trained over 60000 specialists for different branches of the economy and social sphere.

PetrSU does research in 22 scientific fields and in 43 priority subject areas. Researchers of the university complete about 300 research, educational and commercial projects annually. The most significant fields are the ones related to the development of information technologies, mathematical modeling and electronics; some are connected with solving the issues of comprehensive and rational use of forest, mining, water, fish and other resources, environmental protection, including human ecology, modernization and development of education, studying languages, literature and culture of the people of the Russian North.

PetrSU is an important segment of the regional innovation system of Karelia and it implements the whole range of fundamental and applied innovations, R&D, commercialization and transfer of developments and technologies. The University has got over 60 research and training teams (schools) in different areas of natural and technical sciences and arts.

Thanks to the efforts of its employees, the University is transforming into a special training, re-search and innovation facility aiming – besides all – at implementing a complete innovation cycle dealing with creating innovations. It means that the University targets not only fundamental, exploratory and applied research, but also strives for creating innovations, their commercialization and transfer. It is very important that innovative activities are combined with training, i.e. creativity of students is enhanced by joint scientific research done by teachers and students. The findings are published in monographs, collected works, textbooks, guidebooks, articles and abstracts of reports at scientific conferences. All in all, teachers and researchers of the University produced 3574 publications including 130 monographs, 247 textbooks and workbooks, as well as 3197 articles in scientific journals in 2007-2009 only.

One of the major innovative subdivisions of PetrSU is IT-park, which employs over 330 persons. The key segments of the IT-park is the International Center of PetrSU-Metso Automation Systems, International Center Nokia-PetrSU Mobile Devices, International Center for wireless telecommuni-cation systems, International laboratory of mathematical modeling and software development for natural resource facilities, Center for software development for production control, Center for developing and introducing automated process management systems. The IT-park will to a large extent contribute to the establishment of creative capabilities in young generations. This up-to-date innova-tive division of the University is one more step towards strengthening the influence of Petrozavodsk State University not only on the development of training and research in our region but also on the development of its economic and social sector. Every year the University makes a stronger impact on the activities of the Government of the Republic of Karelia, and it is turning into an extra expert and analytical center for the whole range of issues and challenges.

We are hoping that the University innovation facility – the IT-park being a part of it – will gradually solve the key issue of innovative development, i.e. matching the interests of R&D and business. Expectations of the business sector from researchers are known on the whole, and those are considerable reduction of production costs with no damage to quality, increase of production capacities of equipment and technologies, their automation, resolving complex R&D tasks that cannot be solved by local engineering communities etc.

As of today, the innovation facility of PetrSU comprises 49 innovative and infrastructural sub-divisions including IT-park, Regional Center for transferring technologies, Regional Center for new information technologies, Center “PetrSU-Metso Automation Systems”, Budget monitoring center, International R&D Center “Plasma”, R&D Center for designing and extracting open pit mines, 3 research institutes (Karelian Research Institute of Forest Industry, Northern Fisheries Research Institute and RI of Historical and Theoretical Problems of People's Architecture), specific research cen-ters and laboratories (mathematical modeling, planning optimization, electronic database development and management for forest industry, comprehensive use of forest resources, environmental problems of the North, challenges of Scandinavian countries and Finland etc.), Center for collective use of research equipment, Karelian Medical Research Center under Northwestern Branch of the Russian Academy of Medical Science, Regional center for international cooperation in the European North, Northern European Open University, Karelian Information Center of the European Union, Karelian Center for Canadian Studies, branches of university departments at enterprises and organizations, and the students' Business Incubator established in 2010. Special attention is paid to the is-sue of protecting intellectual property. Department for Protection of Intellectual Property and Inven-tions was opened, students are trained in this sphere, and innovation contests are conducted for young people.

The enterprises established by the University in 2010 take part in innovative activities: Invest-businessconsulting, Optisoft etc. In 2010, PetrSU also founded several new innovative research and training centers, and the most promising one is Economy Security Center, which studies the ques-tions of economic security and sustainability of the whole region and some specific enterprises, covering the issues of employment, migration, people's income, budget effectiveness etc.

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Assuring safe use of engineered nanomaterials and nanotechnologies - a challenge for the future or today?

By Kai Savolainen

Nanotechnologies are enabling and rapidly growing versatile technologies that utilize material at nano-scale for different nanotechnology applications. Examples of such applications are several consumer products such as mobiles phones, computers, cosmetics, sub-block creams, sports wear, novel textiles and clothes, self-cleaning windows, strengthening of concrete in construction industry, chemical industry, and car industry including new car paints, production of semiconductors, as well as clean water and utilization of nanotechnologies in the production of energy. Industry has predicted that the turnover of industry sector utilizing technologies utilizing ENP will exceed 2.5 trillion US dollars by the end of 2014. This goal may not quite be reached, but the number of novel applications of ENM in nanotechnology products increases faster than ever before.

With the expected importance and increased number of applications of nanotechnologies, there are urgent challenges to assure the safe production of different types of ENM. The number of workers exposed to ENP today may be about 2 million globally, but will most likely at least double by 2020. The number of consumers exposed to ENP via nanotechnology-based consumer products such as cosmetics, sun-block creams, paints, waxes, and various other consumer items including nanotechnology-based novel foods will exceed several hundreds of millions by 2020. Therefore, assuring safety of the growing number of nanotechnology applications and incorporation of ENM into products, handling of nanotechnology-based products, and safety at the end of the life-cycle of these products requires immediate attention. The rapid growth of nanotechnologies has increased the number of workers exposed today to ENM, and products containing them also rapidly increases. The number of potentially exposed consumers also rapidly increases, and increased production of ENM may lead to an increased burden of the environment to these materials.

Recent observations have shown that materials at nanoscale may pose more health hazards to humans or the environment than their bulk, chemically identical, counterparts. In humans, the effects vary from pulmonary inflammation and fibrosis in the lungs to microcirculatory problems and possible carcinogenicity, especially in the lungs. Such observations have been made for titanium dioxide as well as for a certain type of carbon nanotubes (CNT). Furthermore, several types of ENM have been shown to reach the circulation through the lungs thereby having a direct access to any organ in man. Most alarming observations come from studies with carbon nanotubes, several metal oxide and metal nanoparticles such as titanium dioxide, zinc oxide, silver and gold. In addition to the entry into the body, and impacts on the lungs, circulation and possible carcinogenic effects in experimental animals they have also been found to find their way to the brains. Even though some of the observations in experimental animals and cellular systems have been alarming for some ENP, another consideration is that only few tens of ENM have been evaluated even briefly for their potential toxicity. The number of different types of ENP exceeds though hundred thousand, and for most of these particles nothing or next to nothing is known. Thus, there is not a single ENM safety and toxicity information would allow a full scale reliable risk assessment.

These and other observations have prompted several organizations to make attempts to carry out quantitative risk assessment (QRA) for ENM, but so far the toxicological, exposure and characterization data of these materials have been too limited to allow reliable QRA. More recently, National Institute for Safety and Health in the US and European organizations have initiated activities to carry out QRA for several ENM, and several draft occupational exposure limits (OEL) have been proposed especially for metal oxides and carbon nanotubes. The results of these activities are based on dose-effect analysis of toxic effects of these materials, and knowledge on their distribution in the body. Also, lung burden caused by life-time exposure is considered in these estimates. These evaluations are based on animal-to-human extrapolation, and the use of mathematical risk assessment models. An important prerequisite for the implementing of possible OELs of ENM requires appropriate measurement principles and instruments that allow estimation of potential ENM-related hazards and risks. The ultimate goal of these activities is to prevent harmful exposures to these materials that will require prevention of leaks these materials, or their distribution from the site of handling to the occupational environment.

Even though there is not information that would show that ENM had caused any health problems in humans, established safety assessment models have provided concerning information for a limited number of ENM that they may cause health hazards to humans, provided that exposure especially in the occupational environment is high enough. There thus a need to take these observations into consideration when developing new ENM and nanotechnologies already when designing these new and enabling materials and technological applications. This would remarkably shorten the gap between cutting-edge nanotechnological and material science research and attempts of regulators to assure that these materials and technologies are safe to the consumers and that their production is safe. It has become apparent that safety is an essential component in the mixture that assures the future success of ENM and their several innovative applications.

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The Russian CEOs analyse the innovation activity of their company

By Alexey Prazdnichnykh and Kari Liuhto

In terms of gross expenditure on R&D (GERD) relative to GDP, Russia is positioned in the club of such countries as Estonia, Belarus, South Africa, and Ukraine. Russia slightly exceeds India, Turkey, and Chile, but she is behind China and the Czech Republic.

The share of businesses' expenditure on research and development (BERD) in the Russian GDP is not very high (0.72%). This is more than in her CIS neighbours, and more than in Turkey, Chile or Brazil, but it is clearly less than in China. Regarding the ability to adapt technology and the present technological level, the Russian executives provide exceptionally low rankings compared to other countries. According to the World Economic Forum's Executive Opinion Survey, firms from Ukraine and Kazakhstan were more able to adapt technology, as well as had a more sophisticated technology at their disposal than enterprises from Russia.

Why is the situation so distressing for a country that was first to launch a satellite into the space? In order to find an answer to this question, we conducted a survey among 250 Russian firms. The research results can be summarised as follows.

Approximately a half (51%) of the studied Russian companies had a dedicated R&D department. Only a quarter of all the firms documented their innovation strategy either as a separate publication or a part of corporate strategy. 51% reported to have innovation strategy which was not documented, and 24% acknowledged that they do not have innovation strategy at all.

The major source of innovation for 47% companies in the sample was an own R&D department. Foreign and Russian suppliers of equipment and parts, as well as other functional departments were other three most frequently used sources of innovation.

Approximately a half of Russian middle-sized and large corporations cooperate with foreign partners in technology and innovation. The findings indicate that the most frequent reason for cooperation is upgrading of existing products. Among those companies that cooperate with some foreign partners, over half (53%) mention product innovation among the purposes of cooperation.

The Russian firms often establish partnerships with companies in Western and Central Europe. The overwhelming majority of the surveyed executives pointed out to a European country as the location of their major technology partner, whereas the USA is only 23%, while Japan is about 8%. A more detailed analysis reveals a dominating role of Germany as a technology partner for Russia (36%), which seems to confirm traditional views on the intensive Russia-Germany cooperation. The collaboration with Germany seems to be of more importance compared to technological partnership with all other European countries taken together, including France, the UK, Italy, Spain, the Nordic countries and the Central East European countries, except the CIS.

Finland holds the second place among the European countries as a technological partner for Russia. Finland is twice more often mentioned as the major technology partner for a Russian company than Sweden.

It is interesting to note that the technology cooperation between Russia and the rest of the CIS countries is less frequent than with China. And although our empirical results do not contain information about the direction of the technology transfer, most partnerships with China are certainly bi-directional i.e. the technology transfer occurs to both directions.

More efforts can be applied to streamline the international partnerships. One way is establishing associations and specialised technology trade agents in the most important countries. For example, special technological exchange offices may be set up in Düsseldorf and Munich, Boston and San Francisco, Shanghai and Beijing, Helsinki and Tampere / Turku.

In addition to foreign cooperation, the Russian state plays ever increasing role in the innovation activity of firms. 16% of companies studied indicated to have participated in some government-led innovation support programs at least once.

The most widespread type of support is providing funds for R&D-based innovation projects. 62% of those companies, which obtained support for innovation, report to have used these funds. Financing and subsidising various projects and activities, including innovation projects, purchasing of production equipment and software, construction and development of innovation infrastructure and participation in international exhibitions, are the most common forms of support, and this is in a direct correspondence to the major innovation obstacles outlined by the executives.

Other forms of support such as tax rebates or supporting connections either with universities and research institutions or with businesses are less common. Only 10-15% of executives, who obtained any government support for innovation, reported to have used such forms.

In general, the enterprises consider government science, innovation and technology policies to be ineffective. 65% of surveyed executives do not see positive results of the government intervention at all. Just 11% consider that there are positive results. Given that the government can take multiple roles and implement a multitude of approaches, and therefore, we asked what should be the direction of the governmental intervention.

According to the firms studied, tax rebates for R&D as well as co-financing and other measures of direct and indirect funding of R&D in companies are the priority instrument. This potential policy direction is supported by 57% of the executives. This is of course not surprising if we take into account that these types of funding are direct benefits for the businesses.

Among measures which do not directly presume giving money to companies, 41% consider enhancing the level and scale of education in natural sciences and engineering (at all stages of education) as something that can effectively improve innovation activity. Giving away more R&D funds for research institutes and universities is the third most popular measure with 35% of the company executives considering it as a priority. In addition, companies propose to the government to support the commercialisation via grant systems, to reform the existing system of the government research institutes to increase the R&D effectiveness, and also to pay more attention to developing intellectual property rights, industry regulation, technological standards, and the commercialisation system.

Therefore, the Russian enterprises consider R&D funding, both in private and public sectors, as well as policy steps to increase R&D effectiveness, as those measures of innovation policy which should be of the highest priority for the Russian government.

The research, which this article is based, was conducted in the framework of the project funded by the Academy of Finland (grant 118 338). To read the whole report visit the website of the Pan-European Institute (www.tse.fi/pei -> Publications: Can Russian companies innovate? - Views of some 250 Russian CEOs).

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Partnership for modernisation – incentive to revise the EU-Russia relations

By Jarosław Ćwiek-Karpowicz

The willingness to enhanced the EU-Russia relationship, declared by both sides for years, has not been transformed into political practice so far. The new document specifying the scope and institutional foundations of these relations and replacing old Partnership and Cooperation Agreement (PCA) has been under difficult negotiations for three years now. Also four "common spaces", which were established between Russia and the EU at the 2003 summit in Sankt-Petersburg have encountered many obstacles. Even in respect of the common economic space, which is relatively the most advanced, the goal of a gradual market integration remains elusive. Russia has taken a highly selective approach and cooperated only in these areas where it stands to gain (e.g. trade in steel products). Prospects for establishing common economic space were also obscured due to Russia's difficulties to become a member of the WTO. In 2009 Russia practically blocked negotiations for almost a year and resumed talks in the second half of 2010.

Serious tensions rose in the EU-Russia energy relations. The Energy Dialogue launched in 2000 produced some results such as improved exchange of information and early warning mechanism, but it also revealed severe conflicts of interests and different perspectives on the future cooperation. The EU wanted to established a regulatory framework as well as a level playing field for energy trade. In its view reciprocity should be a cornerstone of mutual relations. Yet, Russia chose its hydrocarbon potential as an instrument for regaining its political and economic prominence and started to perceive any efforts to regulate energy trade and transit through multilateral agreements as attempts to its autonomy.

The Russian-Georgian war in August 2008 and the Russian-Ukrainian gas crisis in January 2009 severely damaged the EU-Russia relationship. Both events revealed different understanding of key political questions, first of all how to deal with the post-Soviet space. A few weeks after military intervention in Georgia, new Russian President Dmitry Medvedev announced five points of Russian foreign policy, in which he underlined Russia's right to co-decide about the foreign policy and domestic situation in former Soviet countries. Recognising every country's right to decide freely about joining alliances, the EU rejected the idea of spheres of influence. Moreover, the EU launched Eastern Partnership, a new initiative to support the process of modernization in post Soviet countries. This new idea within the European Neighbourhood Policy provides the EU neighbours with an opportunity to be gradually integrated with the common market and embraced by the EU policies and programmes. It is also supposed to pave the way for transmission of good practices in the field of trade, economy and politics. Despite the fact that Russia rejected the offer of being covered by the ENP in 2003 as it sought to emphasize its special status in relations with the EU, the Eastern Partnership founding documents envisaged the possibility of Russian participation in multilateral projects.

Due to an exceptionally deep recession (GDP dropped by nearly eight per cent and imports plunged by a whopping 27 per cent in 2009) and huge foreign capital outflow (FDI plummeted by more than 45 percent in the first six months of 2009) Russia has changed its policy towards the EU and began to improve its deteriorated relations with some EU member states like Poland, Great Britain and Sweden. Russian leaders have realised that they need the EU's assistance to create a innovated economy and decrease the Russia's heavy dependency on hydrocarbon and raw materials exports. At November 2009 summit EU and Russia signed an agreement on regional cooperation to be financed largely by the European Neighbourhood and Partnership Instrument. At June 2010 summit they launched a Partnership for Modernisation for promoting reform, enhancing growth and raising competitiveness.

Polish experience of political, economic and social transformation in 1990s indicates that adoption of the European model and integration into the EU accelerated the modernization of the former communist bloc countries and effectively reduced the economic distance between Eastern and Western Europe. For Russia this kind of rapprochement with the EU not only is a chance for strengthening economic reforms, but also getting over with deficit of democracy, enhancing of rule of law and good governance. Additionally, it can amplify international position and increase attractiveness of Russia as a political and economic partner.

New EU initiatives towards Eastern Europe, namely Eastern Partnership and Partnership for Modernization, can be utilized as an incentive to revise the EU-Russia relations. They certainly need a new paradigm replacing the old-fashioned prism of geopolitical rivalry by a win-win way of thinking aimed at bridging development gaps between various parts of the continent. As it was demonstrated by Poland's experience, the fastest and most effective way for Russia to accelerate the development and catch up in terms of standard and quality of living of citizens is to adopt *acquis communautaire* to the greatest acceptable extent. Recognition of rational and mutually beneficial principles, such as mutual investment protection or joint dispute settlement mechanism, would represent a step towards restoration of trust in the EU-Russia trade relations, namely in energy sphere. It could be achieved through Russia's WTO accession and introduction of new separate chapter into the future EU-Russia agreement (PCA 2), deriving from provisions of the Energy Charter Treaty.

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Universities' innovation and entrepreneurship activities at cross-roads in Baltic Sea Region – case Pskov

By Pasi Malinen

The role of universities has changed considerably during the last decade or so. This is even more so in the case of some Baltic Sea countries. Examples thereof are: more emphasis being laid into international accreditations and rankings, diminishing public funding, and increased external (to university) funding, productivity pressures etc. External pressures to change have also been of non-financial nature, i.e. involvement in external environment and economies, additional innovation pressures (i.e. European Union strategies, national strategies), demands for practical solutions and greater emphasis on cross-disciplinary research and education. Innovation system development stresses the role of universities in the system as a provider of new scientific knowledge, educated graduates (workforce), and as a source for applied knowledge and technology. Open innovation ideology and networked activities are changing the innovation system(s) as well as, even more so, universities. Additional ingredients for that change derive from: ie. i) The Medici effect of bringing different talents together (as opposed to large concentrations of single-discipline talent), ii) The open innovation approach (networks as innovation engines), iii) The economics of smallness, especially promoted by the recent advances in mobile and internet technology, iv) The huge growth in social media and resulting challenge to IPR leading to interaction between the social and the business dimension, v) The evolution in business models and technology, creating disruptive changes, vi) The extreme complexity and dynamism of business systems that challenge the traditional ways of coping with change and risk (the present global economic crisis clearly supports this notion), vii) The traditional definition of *R&D* is also challenged. A modern, wider definition also incorporates softer elements into R&D, such as software creation, marketing, education and training, and organisational development. This new element of R&D may already be larger than the traditional one. Implications to the importance of business understanding in technology education are obvious. To sum up this discussion I use the term Third Generation University (3 GU), which has been introduced by Wissema (2009):

	First generation university	Second generation university	Third generation university
Objective	Education	Education + research	Education, research + know-how exploitation
Role	Defending the truth	Discovering nature	Creating value
Method	Scholastic	Modern science, monodisciplinary	Modern science, interdisciplinary
Creating	Professionals	Professionals plus scientists	Professionals + scientists + entrepreneurs
Orientation Language Organisation	Universal Latin Nations, faculties, colleges	National National languages Faculties	Global English University institutes
Management	Chancellor	(part-time) Academics	Professional management

The objective of 3 GU is a transfer of capabilities to society and no longer to serve the elite but society at large. In 3 GU world, entrepreneurship and innovation are in close co-operation with technology. The 3 GU University is global, rather than national – it is the centre of an international know-how carousel, attracting staff and students from all over the world, and uses English as the lingua franca. The 3 GU is an open hub and it reaches back to Renaissance values such as consilience and trans-disciplinary research. The 3GU needs a new organizational format, reducing the role of the faculties, a new approach to research funding, and a new way of teaching and mass education.

BID Business Innovation and Development Unit at the University of Turku has been running The EuroFaculty project in Pskov (2009-2011) in West of Russia, which aims at i) curriculum development (according to Bologna model) in universities in Pskov, ii) training of trainers/educators, iii) learning development, iv) creation of a quality assurance system for education, v) provision of additional language training, vi) developed access to teaching/learning materials, and vii) developing university-industry co-operation. The EuroFaculty project is a successor of various EuroFaculty projects in the Baltic Sea Region since 1993. There are 5 universities involved and receiving institutions are in Pskov Region. The funding of the project is international, Sweden being the biggest donor.

The aims of the EuroFaculty project are in line with the change in universities discussed earlier. There is a need to internationalise universities in a collaborative way. As far as the project results are concerned most of the targets have been reached. The university sector in Pskov is of good quality with limited international ties and industry collaboration. Additionally, innovation activities (ie. from science to business) and entrepreneurial activities need further development.

In order to develop the innovation and entrepreneurship activities in the Pskov region BID will introduce some of its education and development tools, which have been used in international programmes in various countries and leading universities to the Pskov universities, such as: i) Business Development Laboratory (BLD), ii) Innovation & Entrepreneurship (I&E) education model, iii) PhD+MBA programme, and iv) tools and training in university-industry co-operation. BLD is a programme, in which university students (business and law) develop a business plan for a university-based invention. I&E education model deals with new ways of developing ideas into businesses. In PhD+MBA programme, natural science PhD students are taught innovation and entrepreneurship content and skills for the use of student's industry. Finally, the university-industry collaboration will be translated into practical and applied processes used in Scandinavia (+EU project development knowledge).

The changes introduced earlier show that entrepreneurship and innovation education are interlinked, which indicates, in a way as "coming back to their entrepreneurial roots" (Schumpeter). There is an increasing demand for entrepreneurship and innovation education and development in Baltic Sea Regions. All these activities have to be carried out in international, open, and collaborative way together with society and industry.

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Finland should dare to take initiative - the strategy for the Baltic Sea region needs to be concretized

By Jari Lähteenmäki and Jarkko Heinonen

Developing co-operation between different macro areas within the EU is essential. It is especially important to countries in the Baltic Sea region. The EU Strategy for the Baltic Sea Region is a good beginning. However, this will only be significant to the economy if it will lead to more versatile and profound co-operation of businesses and authorities.

The Baltic Sea region is a fragmented market area

The central structural problem of the Baltic Sea economic zone is its fragmentation. The nine coastal states differ from each other in culture, language, economy and politics. Excluding Germany, the region consists primarily of rather small national economies. Additionally, of the Baltic Sea coastal states, Russia is always a story of its own. All this creates problems for market efficiency.

The domestic market, which is important to small businesses, offers limited preconditions for growth. Thus an expanding business must also invest in developing international trade early on, often using relatively scarce resources. The adjacent areas form a natural growth area.

A small national market easily leads to the segmentation of the market. The pressure created by competition can then remain weak, which diminishes the development of the businesses' international competitiveness. The businesses will not develop to be strong enough to become international.

Thirdly, the critical mass of business and production activities often remains small. If sufficiently large and strong cluster structures are not formed in the Baltic Sea region, the attraction of our region as a business location will diminish.

Internal market advantages develop slowly – a need for strengthening operations

A well-functioning EU internal market would be a great solution to the structural problem of the Baltic Sea economic zone. However, the reality does not correspond with the objectives, and new solutions need to be sought through regional co-operation. The Baltic Sea region should offer businesses a commodity and production input market and supranational cluster structures comparable to the domestic market. This would offer small and medium sized businesses better prerequisites for growth as well as improve the region's competitiveness.

There are many unsolved issues. They are especially connected to the practices of border crossing, customs and taxation. These difficulties are known and the knowledge required to fix them already exists. It should be taken into consideration how much businesses need to deal with the authorities of different countries and what could be dealt with more simply by mutual co-operation of the authorities. In an ideal situation it would be sufficient for a business to only deal with the closest authority.

To develop the production environment, labour mobility should be promoted by unifying labour legislation and practices as well as education. Developing the innovation environment and cluster structures should not be limited to national borders but the significance of wider co-operation between businesses should be seen. It is not enough to seek to improve national competitiveness, but we also need to build the competitiveness of the Baltic Sea region worldwide.

Estonia's euro affiliation speeds up the integration of the Baltic Sea economies

Of the Baltic Sea countries only two, Finland and Germany, have a common currency. At the turn of the year Estonia will also join the euro countries. During the current economic crisis it is hardly possible to even think that Sweden or Denmark would want to join. With one's own currency, it is easier to manage the countries' financial and monetary policy. The countries are also not bound by the euro countries' mutual – although contrary to the affiliation contract – common liability for the financial difficulties of member countries.

It is clear that getting Sweden and Denmark to join will be a challenging long-term goal. It is equally clear that the joining of these countries would be a very positive matter considering common currency and the development of the Baltic Sea region. The results of the study *Perspectives of Northern EU Integration* conducted by the Central Chamber of Commerce show that a common currency would clearly increase trade between the Nordic countries and other Baltic countries.

Creating a tighter common market is important to the small national economies of the region. As a significant national economy in the region, Finland has to take responsibility in creating this. As Dr. Esko Antola states when evaluating the study of the Central Chamber of Commerce, the countries of the Baltic Sea region now have the possibility to give their input for the future development of the whole of Europe. Minister Astrid Thors suggests in her own comment that "the Nordic countries would form a pilot area for a functioning internal market". To our own competitiveness it is important that, through mutual co-operation, we can get further into creating a common market in the Baltic Sea region than the whole EU can achieve at least within reasonable time.

The Baltic Sea common market area needs to be an important part of the EU Strategy for the Baltic Sea Region

Small, industrialized national economies such as Finland are completely depended on international trade. Additionally, expanding businesses operating in the small domestic market need to invest in export at an early stage. Even though the market is worldwide, the adjacent areas still offer the most important operating environment for businesses.

Half of Finland's export goes to the Baltic Sea region. For small and medium sized businesses and especially those just starting exporting the significance of the Baltic Sea economic zone is emphasized.

The most important goal of the economic co-operation of the Baltic Sea region is to build a tighter common market. This would offer wider growth possibilities especially to the small and medium sized businesses of the region and improve the competitiveness of the Baltic Sea region as well as its attractiveness to investors. The basis for all this is the ability to create a business environment based on established regulations and practices in the whole of the Baltic Sea region. This goal should also be visible in the EU Strategy for the Baltic Sea Region.

This will only be significant to the economy if it will lead to more versatile and profound co-operation of businesses and authorities on a practical level. The Baltic Sea region, within the EU, needs to move forward in one of the original basic goals of European economic co-operation: the Baltic Sea economic zone should be made into a common economic and trade area that is tighter than the rest of the EU. This is a great political challenge and thus it should be seized daringly. The EU Strategy for the Baltic Sea Region gives an excellent opportunity to do this.

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Way out of the crisis - privatization of Russian federal property

By Juha Stenholm

Russia has announced a new privatization plan for the coming five years. First the plan was scheduled for period 2011 – 2013 but then prolonged up to 2015. In principle the list of objects in the plan covers almost 900 companies and holdings in companies. By this action the federal government is expected to receive 1,8 trillion roubles (59 billion USD). What are the reasons for this new privatization program and what do we expect as real results? Is modernization linked with privatization?

First of all, we can start by looking the history of earlier privatization programs held in Russia. In early 1990s the privatization program was regarded as an example how in Russia the well-connected insiders could reorganize and privatize the ownership in state-owned companies by doubtful means. This time the process will be more controlled and transparent simultaneously which is a good sign also from the point of view of foreign investors. But, still there will be a question-mark for completely honestly accomplished program and tendering. As one of my friends commented this by using commonly in Russia known words of ex-Prime Minister Mr. Chernomyrdin "We intended the best in the beginning, but it ended as it does always".

On the menu there will be various companies and shares depending on the strategic status of stakes for government. Approximately a little bit more than 50% of publicly traded equity is under control of government. According to the information in the most attempting and interesting state-owned (wholly or partly) big companies like banks and oil-producers, there will be sale of minority shares of state property. The government will finalize the list in the nearfuture, but so far are openly presented companies like Sberbank, VTB-bank, Agricultural Bank, Rosneft, OAO Russian Railways. Other companies, which will be listed on menu, but will stay under state control are for instance Rushydro and Sovkomflot. In already privatized companies like Apatit, Uralkalii, Aviakompania Sibir, UAZ and Nolipetski the government is supposed to sell the rest of its shares. This gives a picture of some sort of controlled privatization with minor changes in these companies. This can be regarded as a statement that the state will keep strongly its position in these companies and will also control them in future. Will there be any options for selling also controlling stakes in these big companies – it will be seen also in the nearfuture. I think that all this tendering and selling will be under development during the process. Will there be any other additional approvals from the government side – this also will be seen later.

In Russia the coming elections, in 2011 for state duma and in 2012 for president, will also have a special effect on the privatization plans. In my opinion there are elements, which are linked to each other and the government should make some compromises in order to gain results good enough for Russian economy in order to support current political situation. Russia is lacking investments and foreign investments especially. The success of privatization program will show for foreign investors in that sense the "guide-lines" for coming years. On the other hand the modernization is linked to privatization program. I can believe that in the menu will be companies which are on sale due to poor management and ineffective production. These companies might be the hardest ones to sell for a new owner and to run a modernization, which is obviously necessary. Of course every investment is a risk, but how big and could it be under control, it depends from the buyer very much in these markets. How much this kind of objects will be on menu? I think we can only wait and look for the results of the program.

Officially is stated that the tendering will be done in competitive tenders and using real market valuations. The government is expecting quite a good success and for sure they have a different situation this time than in early 90's. According to the information published in Profil (8th of November, 2010) the government has agreed the sale of state-owned assets by the following consultants:VEB Capital, VTB Capital, Renessance Broker, Rossijskij auktsionnyi dom, Credit Suisse, Deutsche Bank, JPMorgan, Merrill Lynch, Morgan Stanley, Goldman Sachs. It is in governments hands if the list of consultant-banks will be expanded. For sure the list of consultants gives a feeling that this time there will be specialists and professionals in charge of practical sales processes and the hard work prior to tendering. A Russian specialist of one international bank operating also in Moscow was very confident for the coming results of these consultancy group.

The Russian economical performance is facing the financial post-crisis phase in which they are looking for revenues for the coming years. As a fact the balance of the budget for the next couple of years will be turned to deficit after being a decade on surplus. Economic Minister Naibullina is expecting that state assets will cover approximately 16 – 17 percent of the deficit in the coming three years. This year the gross domestic product is expected to gain 4 % and next year somewhat less than this year. Basically the tools for Russian government to balance the budget are clear: raise taxes, cut costs, privatization of state-property and use currency reserves. Each element has its strong sides and weaknesses. The success of the privatization program is closely linked to these three elements. And definitely without the privatization they have to make it with the "hard" way, which will have lot of unpleasant consequences for government, people and economy of Russia.

The past few months there have been some interesting points in Russian economy, which reflect directly or indirectly to privatization plans and the launching of the program. The capital outflow has increased the past two months from 2 to 6bn dollars which has forced the Central Bank of Russia to spend 9bn dollars in order to downgrade the outflow. As a result of unsuccessful actions to increase foreign direct investments to Russia the FDI inflow has declined about 18% in the Q3 of 2010. In 2009 the reduction was about 40%, which together with the figures of this year means that the investment attractiveness is low in Russia's real sector. One positive point is that when Russia is suffering from the role of outsider of global capital flows it has not been that much following the history of EU dept crisis.

In conclusion I would like to point out that in my opinion the privatization of federal property will have a positive contribution for the image of Russia. Hopefully this program gives results, which can extend and turn to real integration to world economy. The good start for accelerate the results could take place in form of accession to WTO. This sounds like a Christmas Eve gift.

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Game rules for foreign investments in strategic companies in Russia

By Sergey Stefanishin, Alexey Skvortsov and Yulia Tsykalo

Federal Law No. 57-FZ dated April 29, 2008 on the Procedure for Making Foreign Investments in Economic Companies Which Are of Strategic Importance for Ensuring the State Defense Capacity and State Security (*Law*) initially did not arouse interest in Russian business society and abroad. However informal state control for foreign investments in social crucial economic areas was laid open and new game rules hereupon were announced. There is no denying that this Law had lessened investment attraction of Russia especially in economic crisis of 2008-2009.

For the purposes of ensuring the state defense and security the Law establishes withdrawals of a restrictive nature for foreign investors and for groups of persons which include a foreign investor (*Foreign investor*) when they participate in charter capitals of companies which are of strategic importance for ensuring the state defense and security (*Strategic companies*) and/or when they make deals entailing imposition of control over the said companies.

***** (The brief review of the Law is outlined below.)

Foreign states, international organizations, as well as organizations controlled by them, including those established in the territory of Russia, (*Foreign state investors*) are not entitled to make deals entailing imposition of control over the Strategic companies.

Herewith deals made by Foreign state investors as a result of which they acquire the right to dispose directly/indirectly over 25% of the total number of voting Strategic companies' shares (*Shares*) or other ability to block the decisions of managerial bodies of such companies, or acquire the right to dispose directly/indirectly over 5% Shares and are engaged in geological subsoil areas of federal importance, are subject to preliminary consent with the state authorities.

Furthermore the deals and agreements made outside of Russia if they have the effects cited above are regulated under the Law. This Law shall not extend to the relations connected with foreign investments in the Strategic companies used land plots of federal importance, if Russia owns here over 50% Shares.

In order to be recognized as the Strategic company one must be included to the special list adopted by the state Government due to engagement to the strategic activity, e.g., connected with use of bacteria, subsoil of federal significance, encryption, natural monopolies, TV broadcasting, etc.

Herewith control exercised by a foreign investor means the ability of the Foreign investor to determine directly or through third persons' decisions adopted by the Strategic company by disposing of its votes at any managerial bodies of such company, by way of management company, as well as the ability to dispose directly/indirectly of over 10% Shares of such company used land plots of federal importance, or to appoint a sole executive body and/or 10% of the collective executive body of such company, or the unconditional ability to elect 10% of the board of directors, other collective executive body of such company.

Making deals which entail institution of control by the Foreign investor over the Strategic companies shall be permissible where there is a decision on preliminary consent legalized by the Federal Antimonopoly Service (*FAS*) having a specified validity term.

Deals with shares of the Strategic company (except if it uses a subsoil area of federal importance) are not subject to preliminary consent, if prior to making the said deals the Foreign investor have disposed directly/indirectly of over 50% Shares.

If control on the part of a foreign investor over the Strategic company is instituted as a result of alteration of the votes ratio resulting from acquisition by such company, transfer thereto or redemption by it of its own shares, distribution of shares possessed by such company to shareholders thereof, other reasons provided for by the Russian legislation, the Foreign investor is obliged to file a petition for coordination of the institution of control within 3 months as of the date of control institution.

On the petition's examination FAS cooperates with the Federal Security Service (*FSS*), the Ministry of Defense, other state authorities of Russia. Thus for the purpose of establishing the fact of control institution the operational units of FSS' are entitled to under-take operational search measures. Based on clarifications from the said state authorities FAS shall adopt a respective decision on threat's existence/absence. FAS' decisions/actions in connection with the petition and holding an inspection of the Strategic companies may be appealed to the court.

Further in some complex cases the petition on preliminary consent may be refer to the Government Committee on Control under the Foreign Investment in Russia (*GC*). Its decision may be appealed to the Higher Arbitration Court of Russia.

Moreover GC's decision may be issued upon condition of conclusion of an agreement made with the Foreign investor to ensure discharge of certain obligations imposed without fail upon the Foreign investor, e.g., forming managerial bodies of the Strategic company, continued supply of products (works/services), etc. Such agreement shall be valid within the period while the Strategic company is under the Foreign investor's control and must provide the obligations for its failure, in particular, forfeit payment, imposition of other civil law sanctions, compensation for losses, etc.

In the event of a refusal from FAS or GC, the Foreign investor shall be obliged within 3 months to alienate a part of shares of such Strategic company possessed so that the remaining shares did not give this Foreign investor the right to exercise control over such company. Otherwise a court shall render a decision on depriving the Foreign investor of the Shares' voting right. In this case the votes belonging to the Foreign investor shall not be taken into account determining the quorum of and counting votes at the general meeting of Strategic company's shareholders.

The deals to be preliminary agreed with FAS and GC made in violation of Law requirements shall be null and void. A court shall apply the effects of invalidity of such deals, otherwise it shall render a decision on depriving the Foreign investor of the voting right at the general meeting of Strategic company's shareholders with consequences above.

Indeed anyhow Foreign investor is obliged to present to FAS information about acquisition of 5% Shares.

It should be noted that since April 2008 122 petitions were examined by FAS and 58 one – by GC. State authorities work actively however there are a lot of administrative issues unsettled in the Law.

In this respect the Government in face of Mr. Vladimir Putin requested FAS to draw out amendments to the Law. Many seminars and meetings were holding with the representatives of foreign investors, American Trade

Chamber, embassies and of Association of European Business. Finally the following amendments were proposed to the Government:

- Banking being exempt from cryptographic activities;
- Radioactivity and bacteria use in the medical and food sector being excluded;
- Exemption of deals aimed to increase charter capital, the result of which does not increase the voting shares of the capital managed by the Foreign investor;
- Deals within group of persons shall be excluded;
- Increase of time frame for review by FAS;
- Time frame for approval process begins only after submission of complete set of documents;
- Foreign investor may apply for extension of deadline to conclude agreement on obligations imposed on him;
- etc.

Thus in order to conclude the purchase deal of 62% shares of RFS Holdings by Royal Bank of Scotland (*RBS*), the Russian subsidiary of RBS is bounded to abandon the license on cryptographic activities used in the system "bank-client". This is not the solitary case: banks are bounded to decline their licenses on cryptographic activities due to close similar deals. That one mitigates a security of banks' clients' transaction which may be challenged by them in future.

Also some complex issues were arisen within the merger of Russian company Unimilk and Danon since some bacteria are used in sour-milk production. This merger was approved by the Government Committee.

Therefore the acceptance of above amendments to the Law shall allow eliminating the uncertainty in understanding and in practice application of several Law's provisions, to obviate one un-considering the sufficient interests of the state and society, to activate the foreign investors.

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Russia

Combining the requirements of Russian Accounting Principles and IFRS – challenge for many international companies

By Heli Pellikka

Russian accounting and financial reporting principles have gone a long way since the change of the economical regime in early 90's – unfortunately, in practice the International financial reporting standards (IFRS) are still far away in many areas. This causes additional challenges for international companies operating in Russia and obliged to prepare and publish the consolidated financial statements in accordance with IFRS. The financial reporting prepared in accordance with Russian Accounting Principles (RAP) requires detailed analysis and several adjustments before it can be transformed into financial reporting corresponding to IFRS.

The international companies also face several practical challenges when organizing the IFRS reporting of the Russian entity. Identifying the transactions requiring IFRS adjustments might be difficult from the accountancy prepared on the basis of the obligatory unified chart of accounts. Finding qualified employees to financial department with strong knowledge of RAP and IFRS is challenging, not to mention knowledge of English language. In practice many Russian legal entities derive their IFRS reporting for group consolidation purposes from Russian statutory accounting with the help of manually filled electronic registers as there is lack of developed program support not requiring significant customizing. Therefore preparing the IFRS reporting is often very time-consuming and the risk of losing the audit trail of the made adjustments and clerical mistakes is high. Special attention of the parent company's financial controlling department and external auditors is definitely required to IFRS reporting of the Russian entity.

The IFRS are officially the basis of the accounting and financial reform in Russia. Russian Federation has published its first program to reform the accounting and financial reporting in alignment with IFRS already in 1998. Within the program the Ministry of Finance of the Russian Federation (MFRF) started to develop and publish the Accounting Principles (PBU) to align in practice the accounting and financial reporting in Russia with IFRS. Since then there have been several amendments to earlier published PBU's and new ones have been published – as of September 2010 there are 22 PBU's regulating the accounting and financial reporting in Russia. The second program to reform the RAP into conformity with IFRS was issued by MFRF in 2004. The program sets a middle term development plan for the implementation of the IFRS in the country during the period 2004-2010. As of today socially significant open joint-stock company's, banks and insurance companies are already obliged to prepare their consolidated financial statements in compliance with IFRS.

Thanks to made reforms, many general principles of RAP are similar to IFRS. The PBU 1 (Accounting policy of organization) even determines that the guidelines of IFRS may used by the Russian organization when developing their own accounting policies, if there is no corresponding guidelines set by the Russian accounting regulations. If the general principles and conceptual framework of RAP are in alignment with RAP – what is the problem then? Why is it difficult to trust that the presented financial statement prepared in accordance with RAP gives a true and fair view of the organizations' financial position and performance?

There are several issues making the practical implementation of IFRS challenging in Russia. The clear domination of the Russian tax legislation over RAP is one of the main factors. Even though the tax accounting and financial accounting were separated in 2003, the organizations seem to often choose the norms of the tax legislation over RAP when considering the accounting treatment of separate events in order to avoid the conflict between the tax and accounting regulations. The term "form over substance approach" is often used when describing the Russian tax regulations – this is clearly opposite to the principles of IFRS. The financial consequences of violations of Russian tax legislation are serious and keeping additional separate registers for tax accounting is laborious. On the other hand, there are almost no consequences for violation of RAP. The rare lack of control and strict practical guidelines make RAP seem almost like voluntary or recommendable guidelines for organizations – however, this is not the case. The guidelines of RAP are obligatory for the organizations.

In addition to above mention issues causing difficulties to implementation of IFRS in Russia, there are still areas not covered by RAP and conceptual differences between IFRS and RAP. To mention some examples, RAP does not give guidelines for consolidations, impairment of the assets and financial instruments. The fair value is an important IFRS principle used in assets and liabilities measurement to present a fair and true view of organizations' financial position. RAP does not use the term fair value widely and the assets and liabilities are mainly measured on their historical cost. However, RAP determines for example that the inventory is measured at the lower of historical cost or market price. In practice the inventory is almost always measured at the historical cost and the effect of obsolete inventory items is not considered when the inventory value is presented in the financial statement.

Due to difficulties in practical implementation of IFRS in Russia, and still existing differences between IFRS and RAP, the reform of the Russian accounting and financial reporting principles is hopefully not over. At the same time IFRS itself are also changing. In order to keep track of the international development, special attention should be paid to continuous development of RAP and strengthening the legislative position of IFRS in Russia. The Law on Consolidated Financial Statements issued in 2010 already determines that consolidated financial statements should be prepared in accordance with IFRS. There is a legislative proposal to replace the current quite short and limited Law on Accounting with more detailed and extensive law, including e.g. more detailed guidelines for development of the accounting standards in Russia. Also the regulations determining the transition of Russian companies to IFRS are expected to be introduced. However, it is unknown when these documents may be ratified and come into force.

Russian companies are more actively working in international market and searching for international financing – without financial statement prepared in compliance with IFRS execution of these plans is almost impossible. Also the Russian and foreign owners and investors are more interested in analyzing the financial statements presenting the fair and true view of financial position and performance of the Russian entity, rather than trying to understand the financial reporting solely prepared to fulfill the requirements of authorities.

There is ever increasing interest in Russia, and not only by the international companies operating in Russia, to complete the alignment of RAP and IFRS. The future will tell us whether the interest will be strong enough factor itself to bring Russian accounting and financial reporting principles in line with the international principles. Positioning ourselves in the future five years from now and looking back, it would be truly delighting to see that the issues pointed out in this article have become void and Russia is an active member of the international body developing the IFRS.

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Finland

It has been a year since the implementation of the EU Strategy for the Baltic Sea Region started – how is the situation today?

By Krista Taipale

In October, the European Commission published a report on the first year of the EU Baltic Sea Strategy implementation. The purpose of the Baltic Sea Strategy is to respond to the key challenges of the Baltic Sea region and to provide a macro-regional framework for improving the condition of the environment.

The Baltic Sea Strategy is relatively extensive, and it includes a detailed Action Plan with 15 priority areas and 80 flagship projects. The Action Plan has been divided into four priority focus areas according to theme: the environment, economy, safety, energy and traffic.

One of the most important tasks during the first year implementation of the Baltic Sea Strategy has been creating concrete structures for realising the operations in the priority areas. Functional structures have also been needed for starting the flagship projects. When the administrative basis of the Baltic Sea Strategy is formed, the next step is focusing on ensuring the future of the strategy.

Throughout the entire Baltic Sea Strategy process it has been evident that the continuous maintenance of political pressure and support is very important for retaining the achieved results and for expanding on them. The severe impact of the economic recession on certain Baltic countries has naturally been reflected in the implementation of the Baltic Sea Strategy – especially through nationally determined general priorities.

For instance, the following issues and areas for improvement emerged during the first year of the Baltic Sea Strategy implementation.

Internal operations and creating networks in the priority areas have proved to be challenging. Therefore, more expert feedback is needed on the methods of creating networks.

It is critical to fit the strategy to national administrative organisations. For coordinating the strategy measures, the administrative organisations in the member countries must be more accurately in line with their objectives. In addition, these organisations must be evaluated continuously.

The lack of funding makes the practical work even more difficult. The lack of a centralised and earmarked funding option can restrict the commitment to some areas and projects and make the implementation of the strategy vulnerable to administrative cuts as well as changes in political priorities and the condition of national economies.

In general, committing the funding of EU structural funding programmes to the Baltic Sea Strategy implementation has proved to be more challenging than expected. This is another issue that needs to be resolved.

Strong political support is needed. Continuous and strong political support is needed for achieving the objectives of the Baltic Sea Strategy. Regional and local political actors have critical significance.

Maintaining high-level political pressure calls for forming a forum, in which the directors of different areas can discuss the implementation and the future of the strategy in a constructive way. The combining features of the priority areas need to be identified and promoted more extensively as well. In addition, there is a need for measures committing various sources of funding to the strategy.

The results are expected. There is high pressure being placed on determining the concrete added value achieved through the Baltic Sea Strategy because the planning of the future EU structural funding season is already well underway. The Baltic Sea area is a pilot and test platform for the new, so-called EU macro-region development. This also places pressure on the implementation of the strategy. The next EU macro-region, the Danube, and in the future possibly the Black Sea, Adriatic Sea and North Sea are all following closely as to how the Baltic Sea pilot strategy succeeds.

Finally, I want to say that, in spite of all the challenges, the local and regional actors have shown significant support and enthusiasm for implementing the strategy. Without the strong support and commitment by these grassroots-level actors, the strategy would not have a chance to succeed.

Turku and Southwest Finland have also been actively involved in the development of the Baltic Sea Strategy right from the outset. The City of Turku, the Regional Council of Southwest Finland, as well as other actors in the region are systematically contributing to the success of the strategy in many different forums.

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Large towns dominant in the economy of culture in Finland

By Aku Alanen

In nearly all countries, cultural activities (as measured in economic terms) are concentrated in the largest cities and towns and usually the biggest population centre is also the main cultural centre. In Finland, the largest towns are more dominant in the economy of culture than in the country's economy as a whole. Helsinki is in a class of its own; its share of Finland's economy of culture is more than twice its contribution to the national economy. Tampere, Turku and Lahti also play a much more important role in the economy of culture than in the country's economy as a whole. At the same time, Oulu is an example of a large Finnish town where the situation is the opposite.

However, large towns are less dominant in the economy of culture than in the KIBS sector. Large towns make up almost 75 per cent of the value added of the Finnish KIBS sector, which is somewhat more than in culture. Cultural services and products are mainly directed at households while most KIBS services have enterprises as their target group. Helsinki is the only large town that has a larger share of culture than of KIBS categories. Helsinki accounts for slightly less than 40 per cent of Finland's KIBS production but generates more than 40 per cent of the country's cultural output. In other large Finnish towns the situation is the opposite. Helsinki also accounts for a substantially larger share of the value of cultural production than of persons employed in culture. In overall terms, cultural employment is also significantly more evenly divided than the value added of culture.

Cultural production is concentrated in Helsinki because in a small country like Finland, there are many cultural fields with only one important institution and these institutions are located in Helsinki (arts universities, the Finnish National Opera and the Finnish National Theatre). Most of the head offices of both public and private radio and television companies are also located in Helsinki. The contribution of Helsinki to the value added of Finnish culture has varied in recent years but has mostly remained above 42 per cent. Tampere, Finland's largest inland town, comes second. However, the cultural value added generated by it accounts for good six per cent of the national total and the proportion has been in a slow decline.

The role played by culture in the local economy varies by town

The contribution made by cultural value added is biggest in Helsinki (T2). Culture accounts for more than seven per cent of the city's economy, which is more than twice the national average. The percentage has remained at this level all through this millennium. If a small country has cultural fields with only one operator (such as the audiovisual sector) the operator is almost inevitably located in the capital. At the same time, because of the cost of the operations and the equipment needed there is also a great degree of concentration in other audiovisual sectors (such as motion picture production activities).

However, Helsinki also plays a very important role in fields with a large number of operators (such as design and architecture).

In Turku, which comes second in the comparison table, the contribution of culture as percentage of GDP has also remained above the national average. It is noteworthy that even though in absolute terms, Tampere has a substantially larger economy of culture than Turku, culture makes a larger contribution to the economy of Turku.

T2 The contribution of culture to the economies of large towns

Average for 2001 - 2007

	employment percentage	value added percentage
Espoo	4.0	1.9
Helsinki	9.5	7.2
Vantaa	4.0	3.0
Turku	6.0	4.5
Lahti	5.1	3.5
Tampere	5.9	3.8
Jyväskylä	4.6	3.7
Oulu	3.2	2.1
Finland	4.2	3.2

In Espoo, which comes last on the list, the contribution of culture to the municipal economy has averaged less than two per cent. Mainly as a result of gambling activities, the proportion has been on the increase in recent years.

Generally speaking, there is no clear trend in the annual variations of value-added contributions made by cultural activities to the economies of large towns. As there have been both increases and decreases in nearly all of them during the last few years, I have used the average for the period 2001 – 2007 as a basis for the calculations.

The employment contribution of culture is larger than its contribution to the value added

In all large towns, culture is much more important in terms of employment than as a contributor to the value added. This is understandable because most cultural fields are very labour-intensive. In this respect, Helsinki is again in a class of its own. In 2001 – 2007, culture accounted for a significantly higher proportion of employment (9.5%) than of the valued added (7.2%) in the economy of the Finnish capital. In other words, the proportion of employment was one third higher than that of the value added.

Is there any cause for concern?

Concentration of cultural activities is understandable and in my view the present situation is in keeping with general trends in society. However, there are causes for concern if the field becomes significantly more concentrated. If a large number of major towns located in more remote areas are unable to make any real contribution to cultural production, there may be more inequality and fewer economic opportunities in the regions concerned. There are, however, still cultural sectors that are characterised by more or less full regional equality. These include library services, which are divided fully in accordance with the distribution of population in Finland.

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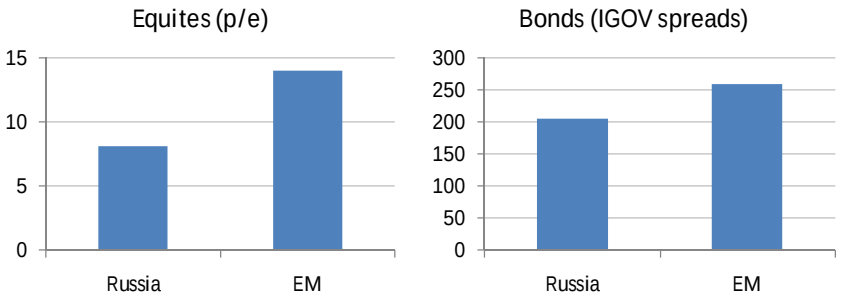
Herd mentality

By Marcus Svedberg

There is a fair amount of herd mentality in the investment community. It is not hard to detect certain themes that many investment banks and brokerage houses are pursuing quite strongly from time to time. That emerging markets have been in favor during the past year has probably not escaped anyone. Inflows to emerging markets set an all time high in 2009 and will most likely be even higher this year. But the investment flows have not been evenly distributed across the emerging market space. Asia in general and China in particular have been the clear favorites – even though those markets have not performed the best and despite potential risk of bubbles – while Brazil and Latin America in general were quite popular last. Turkey has been the darling this fall but the rest of EMEA and Russia in particular have been out of favor.

Russia is standing out as perhaps one of the most misunderstood and neglected markets in the emerging market space. The Russian equity market is currently trading at a p/e level of around 8 while the EM average is 14. Investors are reluctant because Russia was hit hard by the crisis and because the economy remains dependent on resources. Investors also complain about corruption and corporate governance problems as well as the leadership. In short, many investors stay out of Russia because they have a problem with the Russian state. This is, however, not reflect in the rating of Russian sovereign bonds as the spreads are lower than for the EM average. So, equity investors put a huge discount on the Russian state while bond investors rate it at a premium. Something is clearly wrong in this herd mentality. Looking at the underlying fundamentals may help determine who is right.



Source: Source: BofA-ML (as of Nov 19, 2010)

It is true that the crisis had a negative impact on growth and the economy contracted substantially in 2009. But the economy has recovered fast and the macro economic situation has stabilized considerably throughout 2010. The currency and the fx reserves, which dropped significantly during the crisis, are almost back at pre-crisis levels. The economy is expected to grow around 4% in 2010 and 2011 driven by a healthy mix of external (exports) and internal (consumption and investment) demand. Perhaps more importantly, the recovery is taking place in an environment where inflation and interest rates are at historically low levels, which will spur credit growth to the household sector that is almost completely unleveraged.

It is also true that the Russian economy remains dependent on natural resources in general and oil exports in particular, but the direct effect should not be exaggerated as Russia is a large economy that is more dependent on consumption than exports. But the price for oil and other commodities also have substantial indirect effects on the economy as it drives the appetite for the currency and, more generally, foreign investment into Russia. It is also important for the Russian government in terms of budget revenues. We believe the current oil price, around USD 90 per barrel, is almost ideal as it makes Russia interesting enough for investors but does not automatically lead to hot petro dollars flowing into the country, driving up inflation and the currency in an unsustainable fashion. The government should, under normal circumstances, also be able to balance the budget at the current oil price. The budget expenditures have, however, been increased during the crisis and Russia will run a deficit this year and in the coming years. The Russian government went to the international debt market in April 2010, for the first times in a decade, in order to raise money to finance the deficit. The offering was quite successful with a spread on the 5 and 10 year bonds only around 130 basis points over US Treasuries.

It is also true that corruption is a problem in Russia and that corporate governance is far from perfect, but the question is if it is so much worse than in other emerging markets to warrant such a big discount. Moreover, there are also signs that things are moving in the right direction under President Medvedev. The change of mayor in Moscow also seems to stimulate change in the capital's notoriously inefficient real estate and construction sector.

The herd mentality is not likely to disappear anytime soon although the calls will most likely change. Markets do not tend to stay undervalued for a very long time and many of the above mentioned houses have put Russia and a number of other EMEA markets on overweight recommendations. So it might be the case that investors start moving into Russia even though they dislike the sovereign. They may also be triggered by the recently announced privatization program, which is the largest since the controversial loans-for-shares program in the 90s, and the increasingly likely WTO accession. The forthcoming presidential election could also trigger the market in a positive way, if the tandem leadership were to be maintained for example, since many investors tend to expect the worst from Russian politics. Although these issues may trigger the herd to come back to Russia in 2011, we want to argue that Russia is not only interesting in the short term but, more importantly, that the medium-long term fundamental factors are supportive for investors and Russia alike.

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Gender equality in Latvia – achievements and challenges

By Irina Novikova

Gender equality is one of core goals in human development. Implementation of gender equality into the national legislation of Latvia was among prioritised areas for its harmonisation with *acquis communautaire*. Adoption of the *acquis* contained a separate sub-chapter on equal treatment for women and men focusing on equal pay, equal treatment for women and men at work and in access to employment as well as balanced distribution of work-related and family duties. For the first time, the national legislation of Latvia defined terms such as 'gender equality', 'equal treatment', 'sexual harassment', as equal rights, obligations, opportunities and responsibility of men and women in professional life, upon acquisition of education and participation in other areas of social life. The EU gender equality policies have been of enormous influence in legitimizing gender equality as a political topic in Latvia.

The EU accession process contributed to promoting gender equality onto the national policy agenda in Latvia. Together with the European Commission, the national government prepared a Joint Social Inclusion Memorandum where long-term goals for gender equality activities have been set. The European Employment Strategy has also influenced the content of national labour market policies. According to the national gender equality legislation, all state and local authorities and institutions are obliged to apply a gender equality mainstreaming strategy. Gender mainstreaming as a pro-active instrumentarium of gender equality has been introduced and a relevant pool of key institutions in the national gender equality machinery has been constituted.

The attitudes towards gender equality are changing, and really significant improvements in the field of gender equality de facto are a long-term perspective and challenge that cannot be divorced from other political, ethnic, social and economic issues and how they will be solved in Latvia A number of projects have been undertaken as an important evidence of tendencies towards pooling of civil servants, NGO activists, gender researchers involved in the projects on equal pay and equal pension for women and men, on changing the situation with reproduction of gender stereotypes in national educational programs and systems, on social inclusion and its gender dimension, etc. The development of gender research has contributed to increasing the levels of gender-awareness, gender-sensitivity, and understanding of gender equality as one of basic principles in promoting development of democracy in our country. However, gender studies remain marginalised in the curriculum transformation politics. Gender equality issues are not taught in higher education or in further training institutions preparing civil servants on a regular and nationwide basis; guidelines, handbooks and manuals on gender mainstreaming and gender equality should be widely available in the public reading market.

There are more challenges to be addressed, in particular the implementation of the commitments made during the negotiation process, and in addressing gender issues in policy areas other than labour market policies and social policies. The first and foremost question is whether gender mainstreaming in Latvia is seen as part of the expansion of an equal opportunities agenda, and whether political opportunities, mobilizing structures, and strategic framing do already exist (1) to ensure the sustainability of a gender-mainstreaming approach in various issue-areas on the national level (2) to provide for the state funding of local and municipal projects prioritising gender equality (3) to ensure gender equality policy implementation and sustainability into local/municipal/regional levels of governance (3) to ensure the principle of social/ethnic inclusion in the local and regional gender equality policies

In the Baltic dimension of the EU accession process, rather than being a comprehensive policy integrated in all areas of policy intervention, mainstreaming is mostly viewed as the latest management equality tool. The mainstreaming strategy has been devised to address the perceived needs of women and to pre-empt gender discrimination in the future labour market in European member states. However, it has been unable to expose and address the needs of women outside the labour market and outside the formal economies of the European Member States, in particular those who migrated into the low-pay sectors of western European countries or were exploited by the sex industry.

Achievements in gender equality and women' empowerment in Latvia have been seriously challenged by the international financial crisis, having affected women's livelihood in the Baltic region (vulnerable jobs, under-employment, lack of social protection, migration) taking into account that they have a limited access to political, economic and financial resources. The ILO report on Global Employment Trends for Women 2009, makes an emphasis on the fact that today women are "often in a disadvantaged position in comparison to men in labour markets around the world [and that] in most regions, the gender impact of the economic crisis in terms of unemployment rates is expected to be more detrimental for females than for males".

There have been different national policy responses to the crisis, and all stakeholders of gender equality process should urgently think of their gender-specific impacts, e.g., cuts in public expenditures, with a negative effect upon care economy. In many ways the problems that women of Latvia have been confronting during the crisis of the last two years are similar to the global trends: in Europe – women's prevalence in insecure, part-time and short-term jobs, very much because of care and household duties. Another challenge is that national gender equality policies are not accommodated to the job migration and a growing number of Latvian women migrants to other European countries as well as a pressing demographic situation in the country (low birth rates and aging of population), with its impact upon future welfare policies.

The crisis has moved all governments to think more about the productive sector and structural reforms in order to change the existing economic framework. Investing in gender equality also during times of crisis would be an important political and economic step in the build-up of a different kind of sustainable rights- and equity-based development of the nation for confronting structural inequalities. In this respect, an initiative of the ILO Director-General Juan Somavia to create an emergency global jobspact is a global response for dealing with negative effects of the crisis upon national gender equality policies in the labour market. It is expected to provide a coordinated policy response to the global jobs crisis and global social recession.

The commitment of Latvia to advancing gender equality in all spheres of our political, social and economic life should not eroded by the global economic crisis, and Latvian women's organizations have to adhere more persistently to affirmative action measures and monitoring procedures, to collaborate more intensely with women trade-unionists and empower them in the negotiation process of trade-unions with national government, to advance the principles of gender equality in knowledge-production areas of the national economy. It is also the time for women-politicians to collaborate across their party affiliations, thus, adhering to a vision of the transformed leadership of women and men and working for the principle of gender justice as a corner-stone in the democratic development of the country and Baltic region.

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Russian military transformation – work in progress

By Keir Giles

Russia's Baltic Fleet, and troops based in Kaliningrad Region, have been absorbed into an entirely new military command structure as part of the ongoing overhaul of the Russian Armed Forces. With effect from 1st September 2010, the Baltic and Northern Fleets, Kaliningrad, and the Moscow and Leningrad Military Districts have been amalgamated into a new Western Military District, with headquarters in St Petersburg.

It is now just over two years since Russia embarked on the most radical programme of military reform it had seen since the end of the Soviet Union, and in many respects since long before that. The armed conflict between Russia and Georgia in August 2008 provided the impetus for the long-overdue creation of a distinct form for the Russian military, as opposed to a continuing existence as a pale remnant of the Soviet Armed Forces. The process of transformation now under way has affected the military, and individual servicemen, at all levels from the General Staff to newly-enlisted conscripts, and the emerging form of the new Russian forces fully justifies their claim to a "new look".

The most palpable changes at an operational level so far are the abandoning of a mobilisation principle for manning the forces (with the resulting final closure of "cadre" units which were only to receive their complement of soldiers after mobilisation), and the transition within the Ground Troops from a divisional to a brigade structure – in other words, making the basic unit of organisation a much smaller one than was previously considered suitable for Russian conditions. The brigading of Russian sub-units is one of the clearest indications yet that the Russian military establishment has abandoned its preoccupation with large-scale land incursion. Previously, this would have been unthinkable, as would the recognition that mass mobilisation is no longer a viable option. Early critics of the plans for reform were apt to complain that they would destroy the country's capacity to mobilise reserve divisions for war - missing the point that that capacity was now explicitly declared redundant.

The Military Threat to Russia

The most recent large-scale military exercises, practising and refining new concepts of employment of the Russian forces, serve as an illustration of the threat perceptions guiding the military transformation. They follow the pattern noted some time ago of exercises in Russia practising offensive action in the West and defensive action in the East, and tally with the threat picture expressed during the *Ladoga-2009* exercise by Chief of the Main Staff of the Ground Troops Lt-Gen Sergey Skokov - in the west, Russia has to contend with "innovative armies with non-contact forms and methods for using the latest forces and equipment", in the south, "irregular formations... [and] guerrilla warfare", and in the east, "a multi-million troop army using traditional approaches to the conducting of combat operations... with a great concentration of manpower and firing systems". Six months after this statement, Russia's new Military Doctrine emerged, containing a carefully nuanced treatment of NATO and a studied silence on the subject of China.

Contrary to much media reporting at the time, the new Doctrine signed into law by President Medvedev in February 2010 does not describe NATO as a military threat to Russia. But specific NATO activities (in particular, the development of military infrastructure closer to the borders of Russia, and use of force globally 'in violation of international law') are noted as "military dangers" which could under certain circumstances lead to an immediate threat. At the forefront of Russian thinking in this respect are the Baltic States – within NATO but not subject to the restrictions of the unadapted Conventional Forces in Europe (CFE) Treaty - and any potential new members for NATO that could be found around the Baltic rim.

Operational Command

The new Western Military District is the first of four new amalgamated military administrations that will cover nearly all Russia's land, air and naval forces. The remaining Southern, Eastern and Central Military Districts are scheduled to be implemented on 1st December 2010. But key to the overhaul of Russia's military command and control arrangements is the creation of parallel command structures to take charge of military operations. These new bodies are variously translated as Operational Strategic Commands, Combined Strategic Commands, and Joint Strategic Commands (even official statements seem unable to decide whether they are joint, "*obyedinennyye strategicheskiye*" or operational, "*operativno-strategicheskiye*"). But all versions share the Russian acronym OSK.

The commander of the Military District is to double up as commander of the OSK – in the case of the Western Military District, this is now Colonel-General Arkadiy Bakhin, a 54-year-old senior commander born in Kaunas, Lithuania. According to the latest proposals, the Military District will remain the main organisational division in peacetime, and the OSK function will only come into effect 'during special periods', in practice during military exercises or in time of war. The activation of the OSK structure would therefore serve as a significant indicator of imminent large-scale activity by the Russian armed forces.

The Navy

Changes implemented as part of the current transformation could be interpreted as the beginning of one of the periodic major reversals in the role of the Navy in Russian military thinking. Senior naval officers are certainly alarmed at developments. Subordination of the fleets to the OSKs is seen as a surrender of the Navy as an independent force with its own priorities to the needs of the Ground Troops; so the navy risks returning (not for the first time in Russian history) to being no more than the adjunct of a continental power's land forces. Furthermore, the Navy high command is to be absorbed as a department into the General Staff, restricting still further capacity for independent maritime thinking. With the exception of a quite possibly fictitious skirmish with Georgian patrol boats, the Russian Navy's actions in August 2008 were effectively all in support of ground operations. In subordinating naval forces to a joint commander in the OSKs, the top Russian military leadership could well be cementing the Navy into this ancillary role.

In parallel with this process, the priority of re-equipping the Navy seems to be slipping back in the queue for funding. The long lead times involved in the Navy's re-equipment plans have not worked in its favour, and Deputy Minister of Defence Vladimir Popovkin has appeared to suggest that long-awaited plans for aircraft carrier groups are being shelved indefinitely. As if to drive the point home, the highest-profile purchasing plan currently under discussion for the Navy, the potential purchase of Mistral-class assault ships from France, was not originally a naval priority but is intended precisely for supporting land operations.

The fundamental reform of the Russian forces is proceeding with unprecedented speed and flexibility, as different options are trialled and then adopted or rejected - so much so that after two years of rapid and radical change, even some of those senior officers who fully back the need for reform are describing themselves as disoriented and unable to keep up with the stream of adjustments and changes of direction. Further significant developments should be expected throughout 2011, while the desired end state for the reform process continues to evolve.

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Baltic Sea sustained stability vs. Black Sea geopolitical struggle - myth or reality?

By Dominik P. Jankowski and Barbara Kirejczyk

The process of regionalization within the European Union can no longer be kept at bay. In fact, one can observe a constantly augmenting importance of the maritime regions. From the Polish perspective the main European security challenges are generated within the Baltic Sea-Black Sea geopolitical axis. Therefore, the aim of this article is to depict the security commonalities between these two regions.

The Baltic Sea Region

The end of the Cold War resulted in a substantial redefinition of the geopolitical situation of the Baltic Sea Region. With the fall of the regional division into the balanced, peaceful and offish Norden (Denmark, Finland, Iceland, Norway, Sweden) and the heavily divided, tensed as well as militarily oppressed continental part (Germany, Poland, the Baltic States) came the crisis of sub-regional identities. The so-called Nordic Balance Strategy had to be reformulated and adapted to the entirely new circumstances in the south part of the region. The triangular division of interests and dependencies into those Atlantic, West European and Soviet collapsed. European integration, tightening cooperation between united Germany and France, democratization and liberalization of Poland, Estonia, Latvia and Lithuania led the North to a fear of becoming peripheral as well as to questionioning the future of Norden cooperation and identity. Indeed, this—in combination with the advent of the Scandinavian third-way, welfare model crisis—brought about a strong need for redefinition of relations between the northern and southern Baltic regions. Isolationism and neutrality were no longer sufficient.

The Baltic Sea Region became a new cooperation project which in fact incorporated the already existing ones. It emerged from the necessity of finding a new strategy in the changed reality and to a certain extent promised satisfaction to a rich mixture of national orientations and interests. The creation of the Council of the Baltic Sea States (CBSS) in 1992 was an official recognition that the real need of consultations and institutionalised framework exists among all the Baltic Sea Region states. The later enlargement of the EU and NATO complicated the picture and forced intertwined collaboration patterns. Indeed, the cooperation under the CBSS umbrella is more decentralised and regionally focused as opposed to interstate character of NATO or the macro-regional character of the EU.

Baltic cooperation is a relatively fresh pattern. The CBSS tackles softer security issues such as nuclear and radiation safety, organised crime or trafficking in human beings. Hard security remain mostly under control of other institutions such as the Baltic Security Assistance Group, NATO and to a limited extent, the EU. The need for more EU involvement was reflected in the recently adopted EU Baltic Sea Region Strategy which recognizes and uses the region as a test for the idea of macro-regionalism in Europe.

Not only does the Baltic Sea Region remain socially and economically heterogeneous, but also many of the old political and geographical conditions remain problematic.

Firstly, energy is definitely one of the biggest issues challenging the Baltic Sea basin stability. The Russian and Norwegian hydrocarbon policies—aiming at securing their position on European energy demand market—can be put in opposition to the safety of supply of the rest of the region. Furthermore, the regional dependence on Russian oil and gas forces the governments to make economic rather than security-oriented decisions. In fact, the quest for energy hales individual states to turn to external sources which is perceived as a factor of their further differentiation.

Secondly, historical conditions shaping the relationship between Russia and its neighbouring states still have not been comprehensively dealt with. In general, the specific position of Russia in the Baltic Sea Region cooperation patterns has recently been emphasised by an array of reactions from the suspicion of conducting cyberattacks on Estonia in 2007 to the construction of the Nord Stream. The latter is an evidence that although much has been achieved in promoting stability in the region, the major security dilemma still exists. The pipeline, which was bluntly—albeit exaggeratedly—compared to the 1939 Ribbentrop-Molotov Pact by the Polish Minister of Foreign Affairs Radosław Sikorski, divides the region and calls into question the future of actual cooperation and unification of common security strategies in the Baltic Sea Region.

The Black Sea Region

When the Cold War faded away the basin of the Black Sea joined the regions, which were characterised by the existence of the "security vacuum". Initially, this situation resulted mainly from the lack of mechanisms that would coordinate regional cooperation. Presently, despite the establishment of a number of political, economic or military institutions, the Black Sea Region is no more stable and predictable than two decades ago.

What is specific of this area, as compared to its Baltic counterpart, is the exceptional change in the geostrategic perception of the Black Sea after the fall of the USSR. In the last decade of the 20th century, from the kind of *mare nostrum* (although not completely) of the communist bloc it became the crossing place of interests rooted in the revival of national states (Ukraine, Georgia), of genuine hopes for integration with Western political, economic and military structures (Bulgaria, Romania) and the existence of states which could be depicted as regional powers (Russia, Turkey).

Furthermore, in the last ten years the largest European international organizations (EU, NATO) joined this puzzle following their expansion to the East. The United States, by declaring a plan to deploy a new anti-missile defence system, SM-3, in Romania, sent a clear signal that this area remains important from the point of view of its national interests. The Black Sea has become one of the epicentres of European geopolitics. The world economic crisis has further expounded the differences in the political and economic interests of the individual actors in the region.

Regional stabilization still remains possible in the long run. Nevertheless, there are three reasons for which the Black Sea "security vacuum" is extant.

Firstly, the confidence level in the region is not sufficient. This ensues from the "frozen conflicts" that have not been solved yet (Abkhazia, South Ossetia, Nagorno-Karabakh, Transnistria) and because of which the regional political community faces the problem of "virtual states". Furthermore, the growing militarization of the Black Sea area, being the indirect upshot of the Russian-Georgian war of 2008, can further contribute to the intensification of local tensions.

Secondly, the regional powers, Russia and Turkey, strive to maintain the existing *status quo*, which is mainly expressed in the opposition to the expansion of third states and international actors in this area. Cooperation of both states, despite many differences in their strategic objectives, is getting tighter and tighter, which gives rise to common fears that the Black Sea will become a Russian-Turkey condominium.

Thirdly, there is no coherent vision of the region within the EU forum. On the one hand, European states are not capable of developing an inclusive strategy for the regional powers. On the other hand, the EU initiatives (the Black Sea Synergy, the Danube Strategy and the Eastern Partnership) are complementary only in theory and for the time being they do not create an essential synergy effect.

From the EU's perspective it is the energy dimension—including the transit of oil and natural gas from the Caspian Sea basin—that will be most instrumental to the regional stabilization. The EU, being the world largest importer of energy resources and the second energy consumer in the world, has been forced to look for methods to diversify its energy basket. Since in the coming decades the global economy will still be based on hydrocarbons, the Black Sea basin should be of key importance for Brussels. The EU must face this new geopolitical formula of the Black Sea. Therefore, it must accelerate the construction of the Nabucco pipeline and strengthen its relations with the key transit states, i.e. Turkey and Ukraine.

Myth or Reality?

Currently, a misperception is common that there is a growing geopolitical divergence between the Black Sea and the Baltic Sea. However, despite the fact that the Baltic Sea Region remains a "security consumer" while the Black Sea is a "security concern", there are fewer discrepancies that one might think. Indeed, if one takes into consideration energy security and the ambivalent Russian foreign policy in both regions a clear-cut axis of interdependency is evident. Therefore, it is high time for the EU and NATO to acknowledge that meaningful fact in their future regional strategies and activities.

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Bringing Russia into NATO - a Trojan horse in the making

By Marat Terterov

Is there any logic behind suggestions aired by senior decision makers, both past and present, that Russia could one day become a member of the North Atlantic Treaty Organisation (NATO)? At first glance, Russian membership to NATO may seem as a suggestion bordering on the absurd, given the history of relations between East (Russia/the Soviet Union) and West (the Euro-Atlantic bloc), as well as the fact that "Cold War warriors" are still in positions of power and influence on both sides of the former-Iron Curtain. That being said, the prospect of Moscow joining the NATO alliance has been implied publically by former-Russian presidents, Boris Yeltsin in 1991, Vladimir Putin in 2000, and by former-NATO Secretary-General, Lord Robertson, at a high level political conference in the Russian city of Yaroslavl just last September.

Many opinion shapers in Europe argue that "these are now different times in which we live". NATO's raison d'être as a defence umbrella protecting the European mainland from Moscow's "hard threat" is now outdated and, despite persisting moments of tension, Europeans should instead consider how to best incorporate Russia into European institutional space. This applies just as much in terms of security, the argument goes, as well as resonant discussions on EU-Russia economic relations. Recent weeks have seen a flurry of high level, diplomatic activity further perpetuating the idea of Russian-NATO integration. On October 18-19, French President Sarkozy and German Chancellor Merkel hosted Russian President Dmitry Medvedev at a tri-partite summit in the French resort town of Deauville, which some experts have described as an attempt by Paris and Berlin to "pull together to present Russia's candidacy to NATO". Deauville preceded the Lisbon NATO Summit of November 19-20, which was billed as one of the most important meetings of the Alliance in recent history. Relations with Russia, together with the vexing question of Afghanistan, were at the top of the Lisbon agenda.

Debates within the security and political establishments of the Euro-Atlantic countries as to how to further pursue relations with Russia appear highly evident at present. The Deauville Summit is itself an outcome of such debates, reflecting the position of mainstream European states such as France and Germany, which would like to see a more inclusive relationship with Moscow. The Anglo-American position, together with some of the newer EU member states and former-Moscow allies in the Warsaw Pact, advocates a more truculent policy. Within the context of the NATO relationship, they have shown far more eagerness to reach out to Georgia and Ukraine, as opposed to Moscow – to the chagrin of the latter, needless to say. However, whilst a broad-based, trans-Atlantic consensus on Russia is yet to emerge, and while discussions of closer ties between Russia and NATO once again appear to be in fashion, the likelihood of any further momentum towards Russian membership to the Alliance was put to rest in Lisbon by none other than the Russian president himself.

In a speech addressing the delegates and guests at the Lisbon Summit, in contrast to his predecessors in previous years, President Medvedev stated in surprisingly clear language that he did not believe that Russia could become a member of the Alliance at any time soon. He likewise added that Russia would only accept any joint initiatives with NATO on the basis of equal partnership and that Moscow would expect joint decision making powers in any such ventures – be they through joint instruments such as the Russia-NATO Council or collaborative initiatives relating to missile defence, Afghan security, terrorism, Somali pirates, etc. While it is fine to assume that the head of the Russian state was reflecting present-day Russia's greater confidence as an international relations actor in his remarks, Medvedev's comments also mask the fact that in strategic terms, there would be very little value for Moscow in pursuing Alliance membership. To the contrary, anything more than cooperation with NATO in the areas of security challenges which Russia and the Alliance have in common (including those mentioned above), would not only hinder Russian national interest, it would undermine Moscow's strategic position in Eurasia, as well as severely weaken NATO itself – possibly fatally. Here are four reasons why, which surfaced during a recent online debate about Russian relations with NATO between a group of Russian and international security experts and political scientists.

(1). Eurasian balance of power. NATO was originally conceived as a regional alliance promoting collective defence in wake of the military-strategic threat posed to Europe by the once mighty Soviet Union and its own defence alliance of East European vassal governments, the Warsaw Pact. This created a balance of power in Europe – a "bloc mentality" forged around two rival, well armed camps – which evaporated during the 1990s following the end of the Cold War and the decline of Russian power in the international arena. During this past decade, the configuration of Eurasian geopolitics has changed, which is not only reflected by Russia's re-emergence as an active political force in wider-Europe, but also by the rise in importance of China, India, Turkey, the Gulf and the Caspian states. Some Russian Eurasianists like to talk of the rise of RIKI (Russia, India, China [*Kitai* in Russian lang.] and Iran). This has created a new balance of power in Eurasia, underscored by Russian cooperation with China, more active engagement in the Middle East and endorsement of regimes non-aligned to Western policy in the region. Russian entry into NATO would radically change this state of affairs. With NATO's borders encompassing Russia, China could succumb to a new state of encirclement, while the Arab street, which remains attached to the idea of Russian counter-balance to US policy in the region, would conspire to the view that Moscow has switched to the camp of its foes.

(2). Russian influence in the former-Soviet Union (FSU). Russia's Permanent Representative to NATO, Dmitry Rogozin, recently stated that "Great powers do not enter alliances. They make alliances". While we could debate as to the degree that today's Russian Federation is in actuality a great power, Moscow still provides a form of leadership to inter-governmental security organisations encompassing other-former Soviet Republics, predominantly the Collective Security Treaty Organisation. There is also the Shanghai Cooperation Organisation, which is driven by both Beijing and Moscow, operating across Eurasia. Both organisations function with the mentality of some level of counter-weight to NATO, at least in Eurasia. Both serve to further deepen the Eurasian balance of power which has been emerging during the 2000s. And both organisations would fall apart were Russia to join NATO.

(3). Sovereign democracy. Russian experts readily concede that NATO is an alliance of states endorsing largely similar social and political philosophies. The Russian

Federation, by contrast, as a relatively new state which has inherited many old, Soviet institutions, is seeking consolidate upon its own form of democracy over which it is sovereign. Unlike the NATO countries, which are ready to cede part of their sovereignty for the collective good of the Alliance, Russia prefers to maintain full sovereignty over national decision making, particularly in strategic areas. Russia would be compelled to surrender (some degree of) sovereignty over its nuclear missile capability to Brussels-based NATO if it was to join the alliance, something for which Moscow is hardly ready.

(4). Fragmentation of NATO internal decision making. Despite the fact that it is often viewed as the vanquished party in the decades-long Cold War between the Soviet Union and the West, the Russian Federation has never been an easy negotiating partner for NATO. No shortage of testing moments between Moscow and the Alliance are evident in recent memory. Serbia (1999) and Georgia (2008) are just two examples. Were Russia to join NATO, these areas of structural disagreement between the two parties would be incorporated into the heart of the decision making process inside the Alliance itself. Russia would bring with it a bagful of disputes with the FSU countries and seek to turn these into problems for the alliance to resolve. The Alliance would also become a playground for further disputes between former-Warsaw Pact members who have since joined NATO in order to protect themselves from Moscow. National interests would seriously hamper any notions of "the collective good", leading to the further fragmentation of internal NATO decision making and possible collapse of the Alliance itself.

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On security management and precautions on municipal level

By Bo Österlund

Concreting and coalescing the strategy of safeguarding the essentially vital activities of society into a part of normal activities and focusing resources on a local level of municipal units

All communal activities are increasingly dependent on energy systems, data communications, and data systems. Social activities have become more technical and more complicated, which has resulted in greater damageability and increased susceptibility to disturbances in society. Systems of data technology have been webbed, and their reliability is less dependent on the user's own functional preparedness than on other people. Simultaneously we have become more and more dependent on experts of several various fields. Recent everyday disturbances have risen to affect the most crucial aspects in taking precautions in our society.

The following lists a few natural phenomena of significant dimensions, accidents, and natural disasters in the decade 2000 - 2010 with crucial consequences from our point of view.

The storm which raged in Sweden in January 2005 with its minor tornadoes and jet streams proved to be presumably the worst natural catastrophe in Sweden so far. The storm wind blowing at the velocity of more than 30 m/s felled in Sweden approximately some 75 million cubic metres of timber, equalling to what is annually cut down in Sweden industrially. In comparison: The industrial forest harvest in Finland rises to approximately 55 million cubic metres annually. The storm cut down the electricity for 730 000 customers, most of whom regained the electric current in a day or so, but as long as 20 days after the storm more than 12 000 clients were still without electricity. Part of the power cuts lasted far too long, even as much as 45 days. To compensate the power loss electric aggregates were taken into use to produce more than 3 000 megawatts of electricity. The aggregates had to be brought to Sweden from elsewhere because its own resources were inadequate. A great number of foreign electricity mechanics were hired for the repair work from the neighbouring countries including Finland. Part of the Finnish resource of mechanics were thus not available to do their work in Finland, which had a retarding effect on our forest harvesting in late winter and early spring. Repairing almost 30 000 kilometres of electric wires demanded immense effort of the electric companies since 2 700 kilometres of this amount, for instance, had to be totally rebuilt. Even the telecommunications were cut off for a long time. The storm also devastated highways and broke railway lines. Part of the population could not remain in their homes, schools and kindergartens had to be closed.

The storm then moved to the Baltic States where it caused a lot of damage; in Pärnu in Estonia, for instance, the Baltic Sea rose as much as 2,75 metres and surged in the streets of the Old Town. In Finland this January storm did not reach its top violence in full strength but even here the sea level rose to en exceptionally high level. In Helsinki the water rose 1, 51 metres; in Kauppatori Market Place a dam was erected of waste paper bales but it did not hamper the influx of the water into the market place. The force of the sea water onto the coast interfered, for instance, with the operation of the waste water purification plant in Helsinki, and 63 000 cubic metres of waste water had to be discharged into the sea unprocessed. At several harbours hundreds of new cars in storage suffered severe water damage. At my own summer cottage the shore terraces failed, and the supporting structures had to be searched up at considerably higher sites on the shore.

The water crisis in Nokia in November 2007 with its provincial companies and official executive assistance troops is still fresh in our minds; something that should never have happened - not even in theory - did happen. The tap of the branch junction designed to flush the waste water and to dilute its concentration was, purely accidentally, not closed properly. Such tap constructions were then found to exist in the systems of several other municipal waterworks. An extensive power cut with lengthy consequences in Jyväskylä cut the electricity of more than 9 000 customers for a prolonged period. The extra apertures in the pipeline system below the central railway station of Helsinki caused a flooding in November 2009, and its unpleasant consequences were being repaired even in the following year at a considerable expense. The heavy rains of this year and the rather notorious storms named Asta and Veera had profound and extensive impacts on the infrastructure of our society. The resources of the District Department of Emergency Services were overloaded and proved insufficient to meet the demands of all the rescuing and clearing operations in the disaster area. Far too many households had to manage far too long without electricity. In the above situations, natural disasters, and their consequences we must deal with massive units, figures, expenses, and damages not to mention the huge number of citizens who were forced to do without all basic services.

The distribution cut-off of the district teleheating in Turku near Christmas last year was a scrape we got out of with a mere shock. The teleheating net is a loop-like structure which does not allow the disconnection of the damaged sites or getting around them. Consequently one single leakage resulted in the disability of the entire net to act properly. To evacuate more than 150 000 people in December frost would have been rather a challenge. The traumas of the school shooting cases in Kauhajoki and Jokela are not easily appeased.

The violent breaking up of the ice coating of the River Uskelanjoki in Salo on last Easter Sunday threatened to become a really impending disaster; the situation may, however, be regarded as a "narrow escape". In case the floating ice blocks had pulled away and destroyed the bridge structures across the river we would have lost most of our westward data communications since the cables run across the river along the bridge structures mentioned above. The use of the Internet and our steady connections westwards even from Helsinki would have been hampered, at least for some time.

Duties have to be performed in all conditions. Preparedness to normal-time disturbances is based on decrees concerning the duties of various authorities. The regulations of the duties ensure a uniform basis of preparedness. The obligation of preparedness in emergency conditions is based on the Emergency Powers Act (1080/1991). The purpose of the Act is to determine the policy which will secure the health care and livelihood of the population of the country, the national economy, maintain legal order, constitutional and human rights as well as to safeguard the territorial integrity and independence of Finland. According to paragraph 40 of the Emergency Powers Act the Government, the state administrative authorities, state businesses, and other state authorities as well as **municipalities shall ensure, by means of emergency plans, prior preparation of emergency operations and other measures, that their duties will be performed with the least amount of disruption also in emergency conditions.** The Emergency Powers Act does not, however, regard communities as authorities although the community includes fields of action performing duties of authorities such as social welfare, health care and the District Department of

Emergency Services. According to the spirit of the law preparedness to *normal-time emergencies* and to emergency conditions requires prior preparations within the compass of available economic and physical resources, as well as ensuring the operation of vital activities also in *emergency conditions*. Communities exist to bring welfare to their residents in normal everyday life as well as in emergency conditions. Every event occurs within one community, and therefore It should be pointed out that the authorities and other operators mentioned in the Emergency Powers Act have not, at their disposal, sufficient means to prevent states of emergency or to avert totally the ensuing damages. Still, preparedness is wisdom and cost-saving as a prophylactic measure. The amount of the gain thus attained or to be attained is, however, utterly difficult to estimate. If the tap of the Nokia waterworks had been closed or had never been installed our society would have been spared from the expenses it had to pay. The extra apertures in the pipeline system below the Main Railway Station of Helsinki should never have been made; a huge amount of costs would have been saved.

State of Defence Act (1083/1991) can be enforced only when a serious crisis is threatening. The law determines the special authorities of the Government and officials as well as the duties of the citizens in an emergency situation. The law also increases the authority of the defensive forces of the country. The essential duties of planning and other prior preparation are included in the **Rescue Act** (468/2003) which is being updated. It obliges the authorities, communities, and private citizens to draw up plans determining the necessary measures to shelter the population and property as well as offices and institutions, and to safeguard the activity and continuance of society. Crucial aspects in preparing civil defence are: building shelters and maintaining the systems of leadership, control, and alarm as well as data communications. Duties in emergency conditions have been mentioned also in the Maintenance Security Act.

On November 27, 2003 the Government issued a Resolution including the **Strategy for Securing the Functions Vital to Society (YETTS).** The text of the strategy was adopted and updated on November 23,2006. A new updating is being adopted, and the YETTS 2010 resolution will be ready by the turn of the year. The basis of the resolution 2010 will consist of 10 risk situations threatening in normal conditions. The risk situations in emergency conditions will apparently remain unchanged. The total number of different risk situations will, according to Colonel Aapo Cederberg, rise to 13.

The strategy determines the functions vital to society and sets the *aims and lines of development* to secure them. Functions vital to society are: management of government affairs, international activity, national military defence, internal security, functioning of the economy and infrastructure, People's income security and capability to function and psychological crisis tolerance. In accordance with the goals of the Finnish Security and Defence Politics the safeguarding of YETTS will, for its part, maintain our political independence as well as the living conditions and security of our citizens.

In the resolution, preparedness is considered too concise a concept to interpret the maintaining and safeguarding the functions vital to society in all conditions. The preparedness and the duties of the authorities included in the Emergency Powers Act are one of the several methods aimed to secure the functions vital to society. The purpose of the resolution is to point out that the functions vital to society have to be secured in *all security conditions* through an effective and appropriate collaboration of various resources. This requires co-operation between the state and other authorities, communities and the private sector. Civic society, churches and other religious communities contribute to attaining these objectives in accordance to their own resources. Preparedness suggests an amalgamated, anticipating, and prophylactic activity for the welfare of our society. Prior preparation to emergency conditions is supervised, controlled, and adapted by the Government and each ministry in their respective branch of administration.

The vulnerability of our society and our ever-increasing dependence on a complicated infrastructure which often transgresses state boundaries has brought the focus of preparedness from contingency planning in emergency conditions towards serious emergencies in normal conditions. Abnormal incidents, subtler technology and greater vulnerability have turned everyday emergencies and exceptional conditions into **a part of operating in normal conditions**. In principle, and leaving out further ado, we could express the matter with a concrete example: if a bus with say 57 passengers tumbles down into the River Uskelanjoki in Salo, the essential matter is not the factor occasioning the accident, whether the vehicle was hurled down into the river as a consequence of a missile assault or a heart attack of the driver. The only thing that matters is to save the lives and find protection to the victims of the accident. This requires *preparedness and capacity* in all security conditions. The basic level of capacity is built in normal conditions and on the basis of authorized operations and resources. Since most of the communities at least in Southwest Finland take their raw water out of open ditches or drain channels, the crucial question in a case of contaminated water is not, whether the incident was caused by a terrorist deed or some other factor. Our duty is to cope with the situation and to provide the residents of the community with pure water.

In their study, published in 2009, Juntunen, Nurmi, and Stenvall have defined this prophylactic activity and preparedness covering each condition of security on community level as follows: "The *preparedness and management of security in changing structures of service"*.

The management of security in the communities involves basically in all patterns of conditions the aspects of *taking active control*, *choosing* the correct counteractions, and *leading* the operations in line with the chosen alternative activity. The community acts in collaboration with the other operators regardless of whatever the counterpart happens to be: authorities or some other public institution, association or a voluntary organization. The role of the community as the amalgamator and the consolidator of the activities within its borders is crucial and requires active measures. The community should have a proactive grasp of its environment and an anticipating role in guaranteeing the welfare of its residents. Anticipation also embraces the principle of *not admitting any chance accidents or even accepting such a possibility*.

The threats described in the strategies of 2003 and 2006 for securing the functions vital to society now give uniform and parallel arguments to be used in contingency planning all through our administrative system and society. With this strategy we have entered a totally new era and world of ideas in preparedness and anticipation of emergencies. Simultaneously we have set the threats in their appropriate proportions.

At the beginning of this century the plan or the document in itself was an absolute value in planning precautions, emergency powers, and security. The plan was a document meeting all necessary formalities and focusing on emergency conditions, drawn up by some individual person, a consult, or a workshop, and its framework was often necessitated by the authorized activities mentioned in the Emergency Powers Act and the State of Defence Act. The commanding and executive system of the plan as well as the follow-up of the arrangements was often given too little consideration or it was completely neglected not to mention training. The planning document was preserved for a rainy day or the controllers of the higher executives. The updating of the plan was

troublesome and the maintenance of being up to date was difficult. The performers, i.e. the labourers often remained rather distant from the substance as well as the execution itself due to the fact that it had been made by other people.

The planning of the measures to be taken was launched in Salo in spring 2009; this program was necessitated in *Paragraph 40 of the Emergency Powers Act* as well as in the list of the threats mentioned in YETTS (Strategy for Securing the Functions Vital to Society). The planning process is still going on. The title *"The Procedure Program for Security Managing and Preparedness"* was taken from the headline of the study made by Juntunen, Nurmi, and Stenvall, and was to be used as a guiding headline for the planning.

In the first phase, the assessment of risks and vulnerabilities based on the threat scenarios of YETTS was dealt with in a relatively extensive group of trusted persons and officers in several fields of action, as a crucial factor of security management and preparedness. **The threat scenarios in normal conditions** discussed were 1. Disruptions in the electric infrastructure including data systems, telecommunications systems, and data nets with payment transactions, 2.Environmental threats. **Emergencies in normal conditions,** more extensively than previously, were regarded as including also 1. A serious disturbance of health and livelihood within the population, 2. Nature disasters and other serious catastrophes, 3. Serious disruptions in economic activities, 4. Threat scenarios concerning traffic , and 5. Terrorism and organized or other serious criminality. **Threat scenarios in emergency conditions:** Political, economic or military pressure. The use of military power was postponed to a later planning phase.

When discussing the various threat scenarios answers to the following questions were pursued by operators in the various fields of activity: What may happen? How will it affect us? And in conclusion: How can we cope with it? The discussion dealt with: risk mapping, risk analysis, risk management, and the assessment of the effects of the event. The discussion also focused on the possibilities of diminishing or avoiding imminent risks, and deferring the effects. When discussing the matter of consciously condoned risks, the appointed representatives were given the opportunity to assess the resources of the community, and to set economic limits to devoting resources. The flood limits during and after the storm Gudrun were used as an example: measures will be taken for an emergency during which the water in the River Uskelanjoki should rise by 1,50 metres, but should the water rise more than that, the preparation measures will not be taken due to the limitations of the resources. Thus the political mechanism of decision-making committed itself to contingency planning.

After this the planning process proceeded to a mutual comparison of the reports of the various fields of operation, and then gradually to drawing up the lists of measures for the supervising and executing personnel, and finally the cards of duties. This work is at the moment in process but not yet completed. *The instruction for repelling flood* given in March prior to the debacle in the River Uskelanjoki and the accompanying detonation plan were to serve as a pattern. The instruction and the included list of measures to be taken were of great use on Easter Sunday.

The second phase comprised the possibilities of building a picture of the situation in the community. Anticipation and preparedness to repel accidents, to hamper or restrict its effects will be launched and triggered by this picture of situation. A timely picture of situation provokes a need to do something, or gives the chance of neglecting consciously the development of the situation. The absence of a picture of the situation will exclude both alternatives.

Since communities are not authorities, they will not, in pursuance of present instructions, obtain pictures of the situation gathered and delivered by authorities, nor will they receive any picture of the situation or any data of the situation from the emergency centre. The news from the Yleisradio (The Finnish Broadcasting Corporation) on August 27 this year is likely to indicate the presence of the same defect in the service level; according to this news both the police and most district rescue departments will establish situation centres of their own to maintain and supervise their own activities.

Since last year the City of Salo has had at its disposal the following adaptations of the picture of the situation to give a general picture of events: http://www.tilannehuone.fi/index.php displaying the event alarms on the map, http://www.pelastustoimi.fi/aula displaying the duties of the rescue department, and https://prontonet.fi/Pronto3/online1/OnlineTilastot.htm# displaying wing the statistics of the present, the past, and a few previous years concerning the numbers of the commissions of the rescue department.

The memorandums made in co-operation with the District Rescue Department of Southwest Finland and the Police Department of Southwest Finland in last March render it possible for society to create awareness of the situation, and to share it with the leading organs of the City of Salo. The memorandum with the Rescue Department reads: An arrangement of report and planning is to be created between the leading organs of the City of Salo and the District Rescue Department of Southwest Finland, and the system of procedures will be defined to support the leading organs of the City of Salo in coping **with disruptions in everyday situations as well as with emergency situations.**

The District Rescue Department is to distribute awareness of the situation and the picture of the situation assessed by the executive level, and to provide the community with the grounds to participate in drawing up evacuation and oil destruction measures and preliminary action in normal conditions. The District Rescue Department is to provide the community with a reactive (i.e. launched at alarm) picture of the situation, and information of what has happened or any event submitted to be reported. The memorandum points out nine groups of events, which have to be reported in the first place. The report will launch the action of the community executives to restore the situation to what it was, or to take subsequent restoring measures, we might even call it"putting out the glowing embers". In the memorandum made in co-operation with the police, the picture of the situation to be distributed to the community authorities is proactive, i.e. it will be launched on omens and the estimated development of the situation. In the co-operation with the police, regular meetings of both the parties separately make an essential point; the subjects discussed at these meetings deal with the management of security and its development. The second "quarterly" meeting this year took place at the end of September. Some of the issues discussed at this meeting were: the possibilities of immigrant integration, the fight against drug abuse, and improved traffic culture. The picture of the situation distributed by the authorities is to be completed, as far as possible, with the observations made by the community. The communications concerning the picture of the situation act like two-way flow.

The Third Phase dealt with the co-operative network of local operators, its extent, and principles of its organization. Apart from authorities, also congregations and the local organization of the Finnish Red Cross, are essential factors in the preparedness of communities and in securing the functions vital to society; other significant factors are associations working with the Education of National Defence, other relevant associations, and local units and operators of economic life participating in the service production of the local administration. Solid and constant co-operation with the authorities has, in the City of Salo, resulted in a practice where the management of security and preparedness are

always present. The community is obliged to be active in fitting together the local resources, and, if necessary, to act as the convener of the co-operating parties.

The executive assistance defined in the law on Defence Forces has not apparently opened to everybody, neither during the planning process nor in the light of the events of the last few years. When the ice blocks of the River Aurajoki in the City of Turku threatened the structures of the Myllysilta Bridge which today has already been torn down, it was suggested that the imminent danger could be escaped by asking for executive assistance from the Defence Forces. As the radio reporter asked the operator responsible for the request for help what executive assistance had been entreated, the answer was that executive assistance had been asked for, and that it would be cleared later on what sort of assistance was needed. As the request was made by the community, which in fact has no right to make such requests (communities are not authorities), it had to be withdrawn and forwarded by the District Rescue Department to the Defence Forces, with the same contents. The procedure with the executive assistance really needs more precision and adjustment to be more effective at both ends of the chain of action.

The fourth phase included discussions about the supervising, decision-making, and information systems of the community. The preparedness of the basic community is supervised by the Mayor of the Community with the Communal Administration according to the decrees of the law. The responsibilities for preparedness and operations in practice are, however, distributed more extensively as guided by alterations in the environment of operations. In communities, all significant decisions concerning strategies, ruling, and resources are always made by *boards of trustees*. In a municipality, when dealing with security management and preparedness, continuance and anticipation are accentuated in addition to practicing the management of situations; the documents attached to preparedness are always and every day on the table of the manager of the field of operation, they are always in mind and updated, if necessary. In process working, this means that preparedness is not dealt with as a separate process but always as deviations from the main processes. In association of the budget discussion the Board of Trustees obtains annually an account of changes in the community's capability of preparedness as well as of the objects and expenses requiring further resources. The resources of preparedness are created in advance within the compass of authorized activities in normal conditions.

The reachability of the members of the Board of Directors of the Community as well as the deputyship arrangements in decision-making have been settled, and the contact information between the most important authorities and operators has been exchanged. During the flood repelling operation of last Easter the Chief-on-Duty of the Rescue Management, the Police, and the Municipal Board of Directors assembled several times a day at the most crucial point of the situation. The experiences gathered from the event were dealt with immediately, and they were carried over to the documents of Security Management and Preparedness as conclusions and suggestions of improvement.

The condition of reachability and maintenance of discussion and decision-making contacts is that the contacts at the disposal of the community should always be functioning. The restrictions and the vulnerability in the use of mobile telephones were last revealed during the storms Veera and Asta. As the base stations were void of electricity the batteries operated only a few hours. The serviceability of a separate net for authorities is under consideration. The VIRVE-course ordered from the Education of the National Defence this autumn will actualize the choice of a feasible intelligence device of great operational reliability.

On the basis of the experiences obtained from the planning process concerning security management and preparedness in the town of Salo we may point out that the system proved to be reliable in dealing with the natural disasters of last year; it also brought the management in normal emergency conditions to be part of communal everyday activities to the benefit of the residents of the community. The contribution of the trustees has been striking. The planning process carried out in the town of Salo has had a great effect on the way of thinking of the participants who have helped in making lists of measures for themselves and linked preparedness to be part of the everyday routine of activities in the community. The marching will go on as we soldiers are used to saying, meaning the continuance of operations.

John Steinbeck once said that the ability to think today differently from yesterday makes the difference between wise and obstinate.

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Former Navy Commodore

Finland

Since summer 2009 the author has worked as an assisting expert of the Board of Directors of the City of Salo, and as one of the writers for the operations program of security and preparedness of the community. After leaving his post in the operations program in February 2010 he has worked in materializing the concretion and carrying out of the plan, and started a practice of co-operation memorandums with the District Rescue Department and the Police. The Chief of the Police Force in Southwest Finland has recommended the expansion of this practice but in adequately large entities.

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