

Obstacles and slowdowns in the implementation of the circular economy (CE)

Sustainable new ways of life, business models, and social renewal for the future

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Features of Circular Economy

- ▶ "From linear to circular"
- ▶ Includes recycling, recovering, remanufacturing, repairing, re-designing and reusing
- ▶ Life cycle thinking
- ▶ Resource transformation
- ▶ Includes economic, environmental and social aspects
- ▶ Quadruple Helix as developing platform

Potential and drivers of CE

▶ Drivers:

- ▶ Climate change
- ▶ Scarcity of resources
- ▶ Urbanisation
- ▶ Biodiversity loss
- ▶ Pollution and contamination

- ▶ Waste management
- ▶ Rising environmental concern of people
- ▶ Political pressures
- ▶ Critics to existing economic model

- ▶ ETC.

Potential and drivers of CE

▶ Lot of expectations:

- ▶ perfect material flow and production cycles,
- ▶ industrial renewal,
- ▶ decoupling of economic growth from environmental damage,
- ▶ from consumers to prosumers for service co-creation,
- ▶ waste reduction,
- ▶ shift to renewable energy production,
- ▶ elimination of the use of toxic chemicals.
- ▶ ETC.

General challenges of CE

- ▶ A lot of expectations - how to answer?
- ▶ Economic growth paradigm remains often unquestioned
- ▶ How we can achieve win-win situation for the environment and the economy in practise?
- ▶ Business benefits are emphasized but how about the wider perspective of sustainability improvement? How to take into account not only economic and technological aspects? Societal and cultural approach? Citizen participation?
- ▶ Environmental risks and operational obstacles in formation of new resource cycles.

Views of companies in Turku region on CE obstacles

- ▶ Resource ownership - who owns the possible CE resources and material
- ▶ Existing legislation and regulation
- ▶ Lack of promotive legislation
- ▶ Competitive tendering does not include CE requirements
- ▶ Lack of competence of political decision makers
- ▶ Slow political decision-making

Views of companies 2

- ▶ Values, ways of thinking
- ▶ Lack of good practises and routines
- ▶ National CE goals hard to put into practise
- ▶ Lack of CE leadership and management
- ▶ Problems of side stream functionality and reliability
- ▶ Change resistance in organisations, path dependency

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How to overcome the challenges?

▶ In regions:

- ▶ Taking part to regional CE networks, following and assessing information and communication in them. Knowledge management improvement
- ▶ Developing CE business parks
- ▶ Taking into account the need of different types of enterprises
- ▶ Holistic and systemic approach towards CE
- ▶ Quadruple helix development

How to overcome the challenges?

1. Rethinking the ownership: developing sharing platforms and smoother use of them
2. Developing different producer-ownership pilot models and assessment of the experiences
3. Improvement of products, longer life-cycles by creative and smart planning
4. Making sustainability goals of CE better known, widening the goals to all production
5. Improvement and foresight of the awareness of value chances and systemic changes

Many thanks for your attention!

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