

ÖSTERBOTTENS FÖRBUND – POHJANMAAN LIITTO

Cooperation in Smart Specialisation with Aysén
Experiences in the field of Bio-economy

By Jerker Johnson JRC Seminar 15.3 2017, Brussels



Energy and environmental technology is the regional growth engine

International networks important

- In the Vaasa region there is versatile competence and large resources to take on the challenges in the field.
- More than 140 businesses, several of which are global market leaders in their field
- Total business turnover some EUR 4,4 billion annually, export rate over 70%
- About 30 % of total Finnish energy technology export
- More than 1000 experts specialized in energy related research and development
- Two of the three Finnish companies with the highest levels of R&D investment, are situated in Vaasa



... and energy efficiency solutions

- Frequency converters save energy in applications with electrical motors (Vacon)
- Energy efficient electrical motors and generators (ABB)
- Smart Grid-solutions, leading role globally in distribution automation (ABB, VAMP, Arcteq)
- New and innovative solutions in power distribution, to meet requirements with new ways of production (VEO, ABB)
- Solutions for energy efficiency in homes (There Corporation, ABB)
- Planning and consultation in energy production (Citec)
- Electrification and planning of bio power plants (VEO, Citec)





Policy analysis

In what kind of situation are we?

- The major regional innovation agenda of the EU cohesion policy agenda is based on RIS3
- RIS3 can be characterised by search of new growth opportunities by analysing unique regional strengths and specialisations.
- Public agents are expected to play a proactive role in the search or the process of entrepreneurial discovery process (EDP)
- RIS3 differs from previous EU regional policy agenda in that it takes into account all regions and it considers a larger innovation concept than R&D-based innovations i.e. practise based innovations
- The RIS3 is bottom-up policy starting with a place-based analysis of the innovation prerequisite
- In Ostrobothnia it implies innovation network gap-analysis as a base for intervention

RIS3 analysis in Ostrobothnia

Outward orientation

Hausmann type: "Diffusion paradigm":

- Global "flying geese" production system
- Metaphor communicating mutual benefit and a dynamic development
- Place base development building on outward orientation and value-chain analysis
- Globalised cluster assumed to be innovation leaders and innovation taking place in networks.
- Horizontal connectedness will further foster innovation.
- Bottom-up network model.

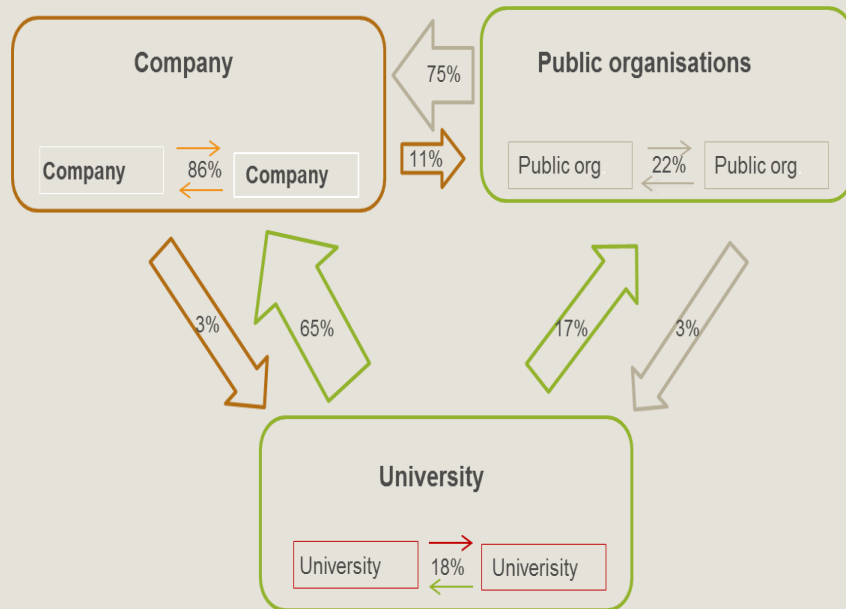


Building innovation partnerships

Ostrobothnia, Finland vs. Aysén, Chile

Ostrobothnia:

Business-driven innovation partnerships:



Challenge:

- Lock-in
- Horizontal coordination
- The knowledge spiral

Aysén:

Features:

-No larger business with whom to engage, government key in the process

-Sparsely populated

-University presently being established (in 2017)

-Priorities: bioeconomy, agriculture & forest development, preserving biodiversity linked to eco-tourism

Challenge:

- Building innovation platforms
- Salmon industry enclave
- Coyhaique air quality
- Establishing a university

Sharing experience in responding to challenges

Ostrobothnia, Finland vs. Aysén, Chile

Research and dissemination of the Ostrobothnian experience:

The Ostrobothnian Model of Smart Specialization *Seija Virkkala, Antti Mäenpää, Åge Mariussen (Eds.) University of Vaasa 2014 (Also available in Spanish courtesy of the Universidad de Playa Ancha, Valparaiso Chile)*

Smart Specialisation Implementation Processes in the North. Lessons learned from Two Finnish Regions Teräs, J. & Mäenpää, A. (2016), European Structural and Investment Funds Journal

Learning Smart Specialisation using the Ostrobothnian Modell (2016) Johnson J, Virkkala S, in *Smart Cities in Regions Conference Lahti University of Applied Science, Conference Proceedings*, p. 215-221)

A connectivity model as a potential tool for smart specialization strategies. Virkkala, S., Mäenpää, A. & Mariussen, Å. (2017). *Journal of European Planning Studies*

Dialogue with Aysén and Chile:

- Foro internacional de innovación regional, Santiago de Chile May 2016
- Discussions on cooperation proposal, Coyhauque, Chile May 2016
- Signing of MoU on Bio-economy and Circular economy between Finland and Chile August 2016 (MoU on topics in a wider context but RIS3 part of its implementation)
- Visit to Ostrobothnia, by a delegation from Aysén, Ministries of Energy and Environment, Dec. 2016
- Embassy of Chile in Finland to speak on business opportunities on energy and cleantech, Next week
- <http://energyvaasa.vaasanseutu.fi/energyweek/energy-business-forum/>

A focus for the discussion

Proposal for biomass development



Development Proposal for Complejo Integral de Biomasa en Aysén



Executive Summary

- **CIBA Forrest** – Extraction, management including state-owned areas, international regulations and certification, sustainability and low emission extractive processes, market of buyers and local mid sized producers.
- **CIBA Bio-Energy** – Dendropower generation plant, heat recovery, district heating in Coyhaique, bio fuels, processed biomass resources such as pellets or briquettes.
- **CIBA Manufactured Wood** – Sawn wood for building purposes, processed timber products for finishings and carpentry, dried wood for furniture industry, native processed wood for architectural purposes; natural treatments for long lasting wood.
- **CIBA Lab** – Research in wood and timber science, renewable and new technologies in forest management, international certifications and laboratory, technology transfer, applied studies.
- **CIBA Business** – Commercialization of value-added timber products, export, international positioning, trade of burnt wood, carbon offset trading

Integrated biomass complex in Aysén

Proposal

The Bio-mass proposal

A show-case for Finnish core competence

The benefits for the partners

CIBA benefits for Finland

- ✓ CIBA represents an opportunity to Finland for exporting its technologies, applying them in a different geographical context, thus enhancing them, and providing a new market for Finnish entrepreneurs.
- ✓ CIBA provides Finland with the opportunity to test, in an emerging economy context, the concepts of Circular Economy thinking.
- ✓ CIBA implies an opportunity to work in the unique environment of the Patagonia, contributing to its development as well as its conservation.
- ✓ CIBA, represents a concrete project that may open a new market for Finland when it stages comes to operation. Hence meaning that Finland technology, expertise, know-how and human resources are very welcome and will find fertile [market in Aysén](#).

CIBA benefits for Region of Aysén

The Complex will address several elements, contributing to enhance sustainable development in the Region of Aysén:

- ✓ the problem of local pollution in Coyhaique
- ✓ the development of a value-added wood industry
- ✓ the creation of a sustainable and responsible environmental industry
- ✓ the creation of hundreds of green jobs; some of them directly, others as a result of local engagement with the Project
- ✓ it will produce local expertise and promote the development of new technology due to the research center. CIBA will improve local commitment to a renewable source of local energy in Aysén.



Reflections on the proposal

The feasibility

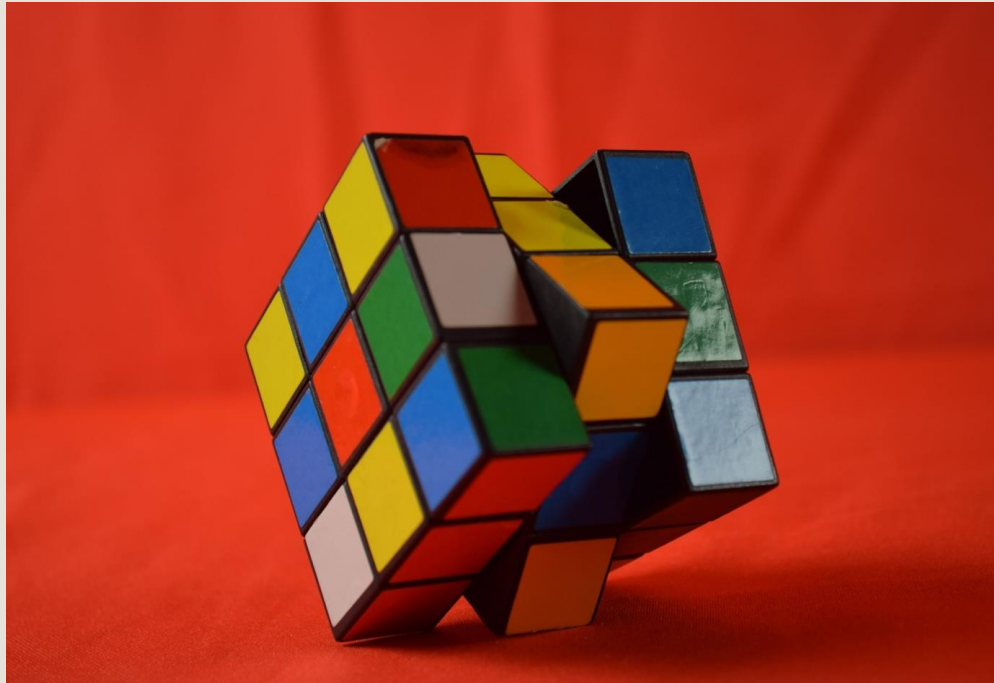
Yes:

- The proposal is demand-driven and has linkages to smart specialisation and circular economy. We may draw on an experience in the innovation field.
- It constitutes a “platform” with whom to engage, in engaging it will be possible to draw on previous experiences. Private-public partnerships and research
- The MoU gives the frame for building and maintaining triple-helix consortiums over time

But:

- It will require a road-map and consortium building for engagement
- Bottom-up planning and ownership-issues
- A larger complex engagement how to maintain the dynamics over time.
- The financing of the proposal

Thank you for your attention...



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