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Prizztech Ltd.
Regional development & innovations

Marko Lehtimäki

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Overview

- Region and company

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Cornerstones of the local economy

- Industrial renewal
- Circular economy
- Maritime & offshore
- Bioeconomy
- Ports and logistics
- Process, Metal, Forestry, Food industries
- Energy production
  - Nuclear
  - Renewables

- Industry 55 % of whole turnover in region (35 % in Finland)

Regional Innovation System

1. Networking:
Cooperation and contacts to industrial partners, mapping the needs & possibilities and defining shared vision.

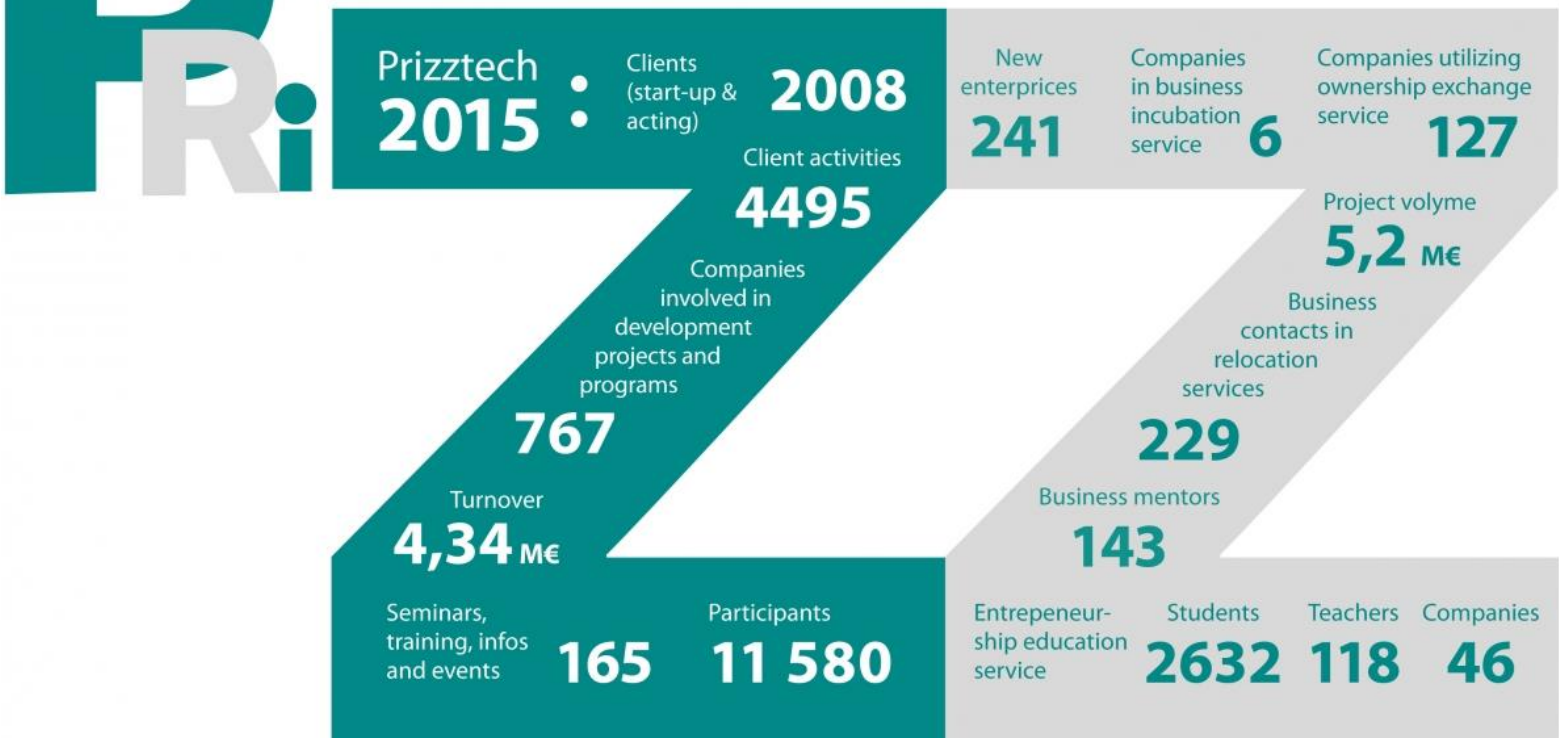
2. Refining:
Identified and shared objectives are refined in tiple-helix –manner with all stakeholder groups.

3. Selection:
Most promising ideas are formed as development projects and programs.

4. Results:
- Development projects
- Industrial renewal
- Pilot solutions
- Reference cases
- Increased RDI-activities
- Investments
- Common strategy for regional development

”We bring together key players across the whole innovation chain, from research, from product & process development to prototyping and demonstration, and to full scale implementation in the public and private sectors.”

Prizztech Ltd: Key figures 2015



Prizztech Ltd is a non-profit business development company owned by municipalities in Satakunta region. With over 40 experts and an annual turnover of € 4.4 M, Prizztech Ltd is one of the biggest public business development organisations in Finland. The company is a key player in the world of innovation environments working to improve business performance and competitiveness. Prizztech Ltd has also won numerous awards for its approach and ability to deliver results.

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Priorities

- Current and future themes in our portfolio

INDUSTRIAL RENEWAL

GAS ECONOMY

CIRCULAR ECONOMY

RENEWABLES

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Development themes

CIRCULAR ECONOMY

GAS ECONOMY

WINDPOWER

RENEWABLES

INDUSTRIAL RENEWAL

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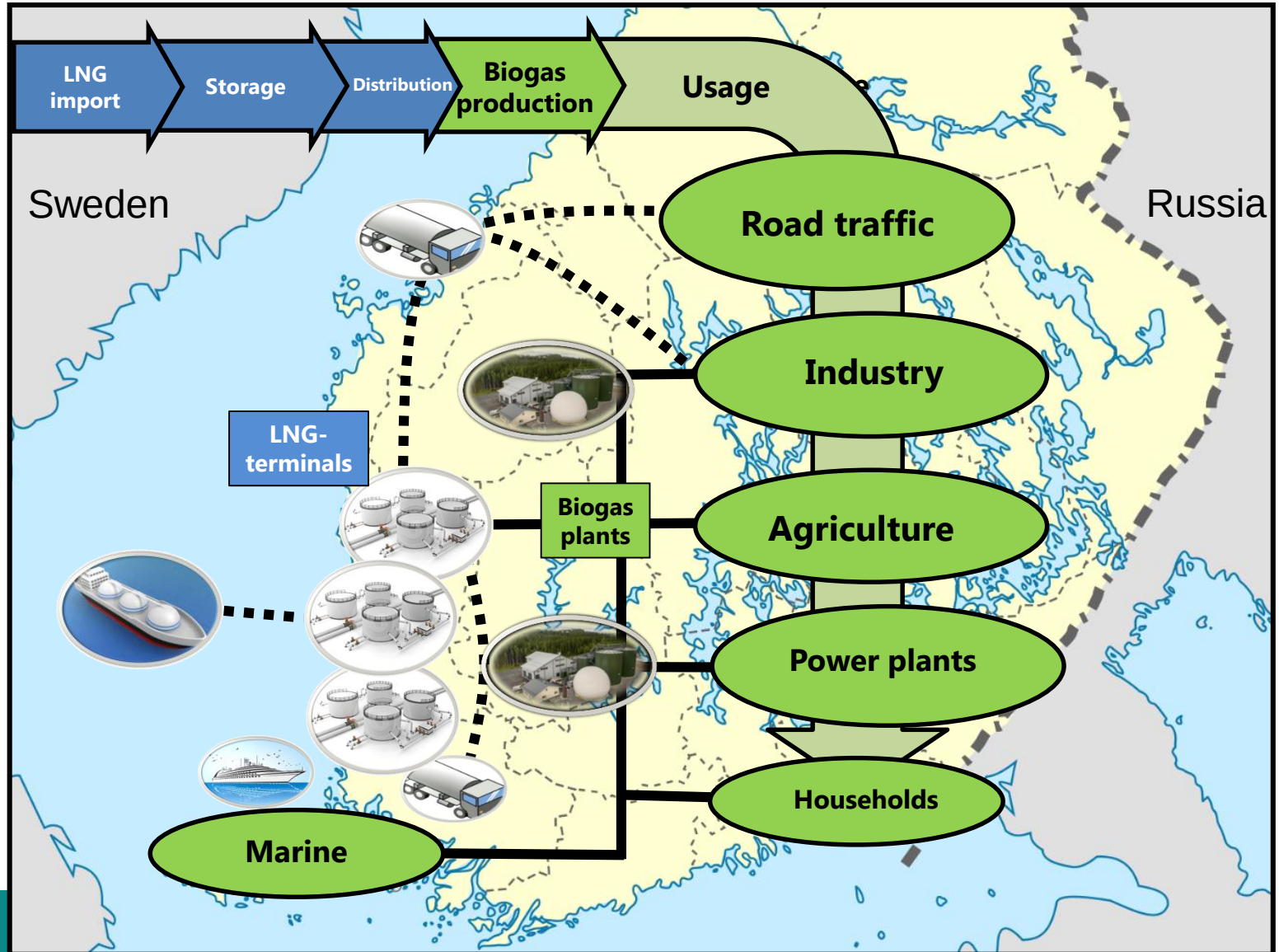
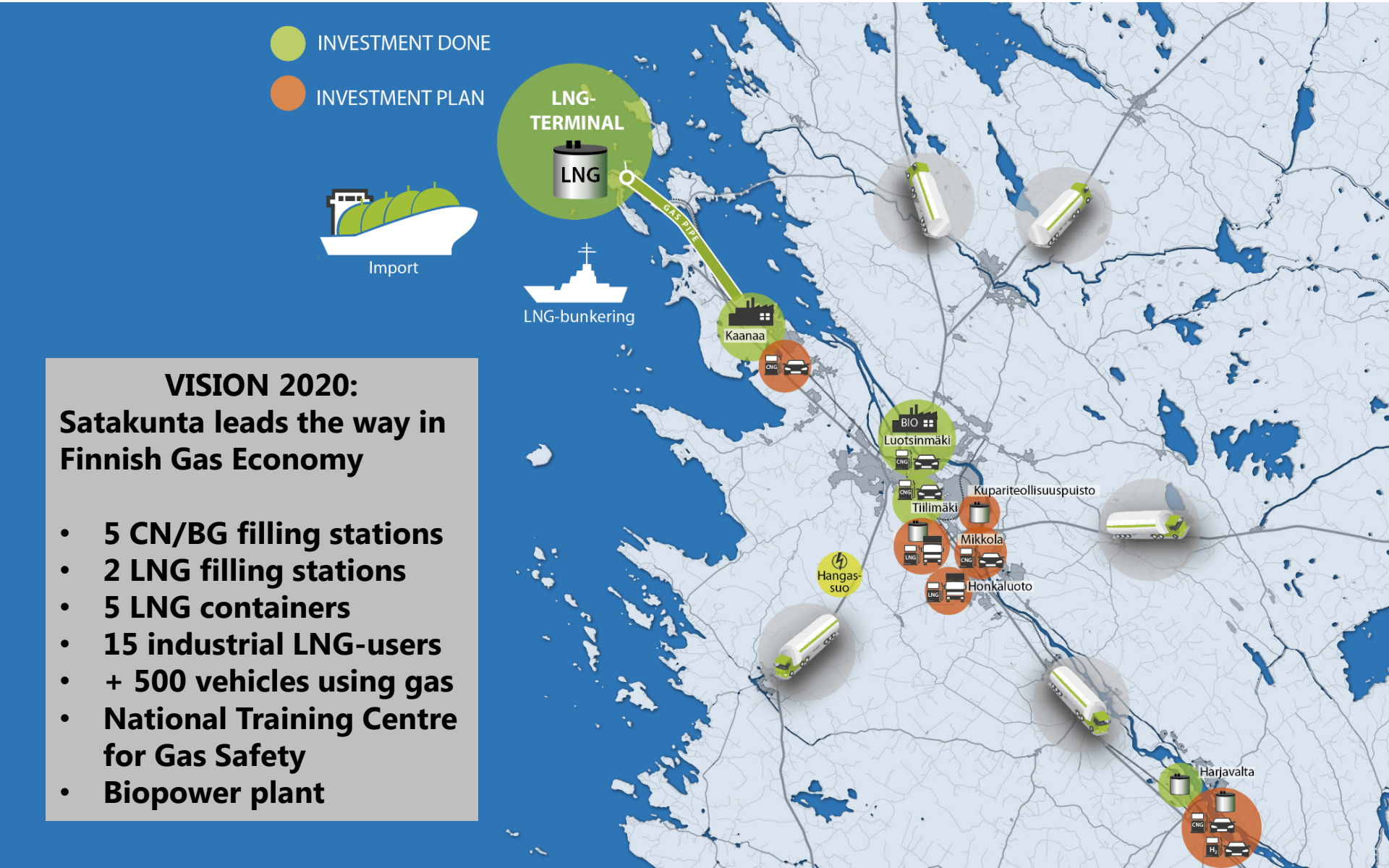
Gas economy

LNG is a bridge to biogas & new low-carbon business opportunities



Gas Economy in Satakunta region – VISION 2020

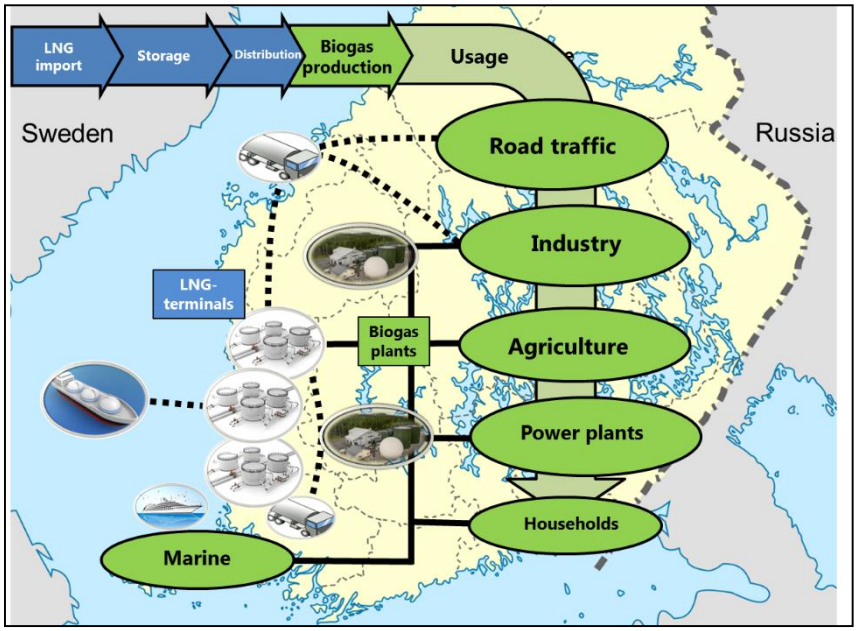


VISION 2020:
Satakunta leads the way in Finnish Gas Economy

- **5 CN/BG filling stations**
- **2 LNG filling stations**
- **5 LNG containers**
- **15 industrial LNG-users**
- **+ 500 vehicles using gas**
- **National Training Centre for Gas Safety**
- **Biopower plant**

Gas economy

Biogas production, traffic use, agriculture infrastructure, investments



Goals:

- Biogas business growth, especially in the rural sector
- Roadmap 2020 for the agricultural gas economy (e.g. synchronizing rural biogas investments with the emerging use of biogas as road fuel)
- Piloting and prototyping:
  - 1-3 biogas production plants
  - 1-3 biogas filling stations

Actions:

- Survey on raw material resources and utilization of by-products of existing biogas plants
- Survey on companies interested in biogas economy and biogas as transportation fuel (production, distribution, usage)
- Analysis of the most profitable and practical solutions and business models for biogas economy
- Prognosis of biogas fuel consumption in 2020 and the rise in value of biogas due to increased transportation usage
- Gathering and distributing information on biogas business opportunities, cost efficiency etc. as well as of gas related investments in Pori region

Partners:

- Gasum & SkanGas (Finnish experts in energy gases, natural gas and biogas)
- Biotehdas Oy (builds and operates biogas production plants in Finland)
- Sarlin Oy (provides overall solutions for building, maintenance, monitoring, operation and reporting of the biogas filling stations)

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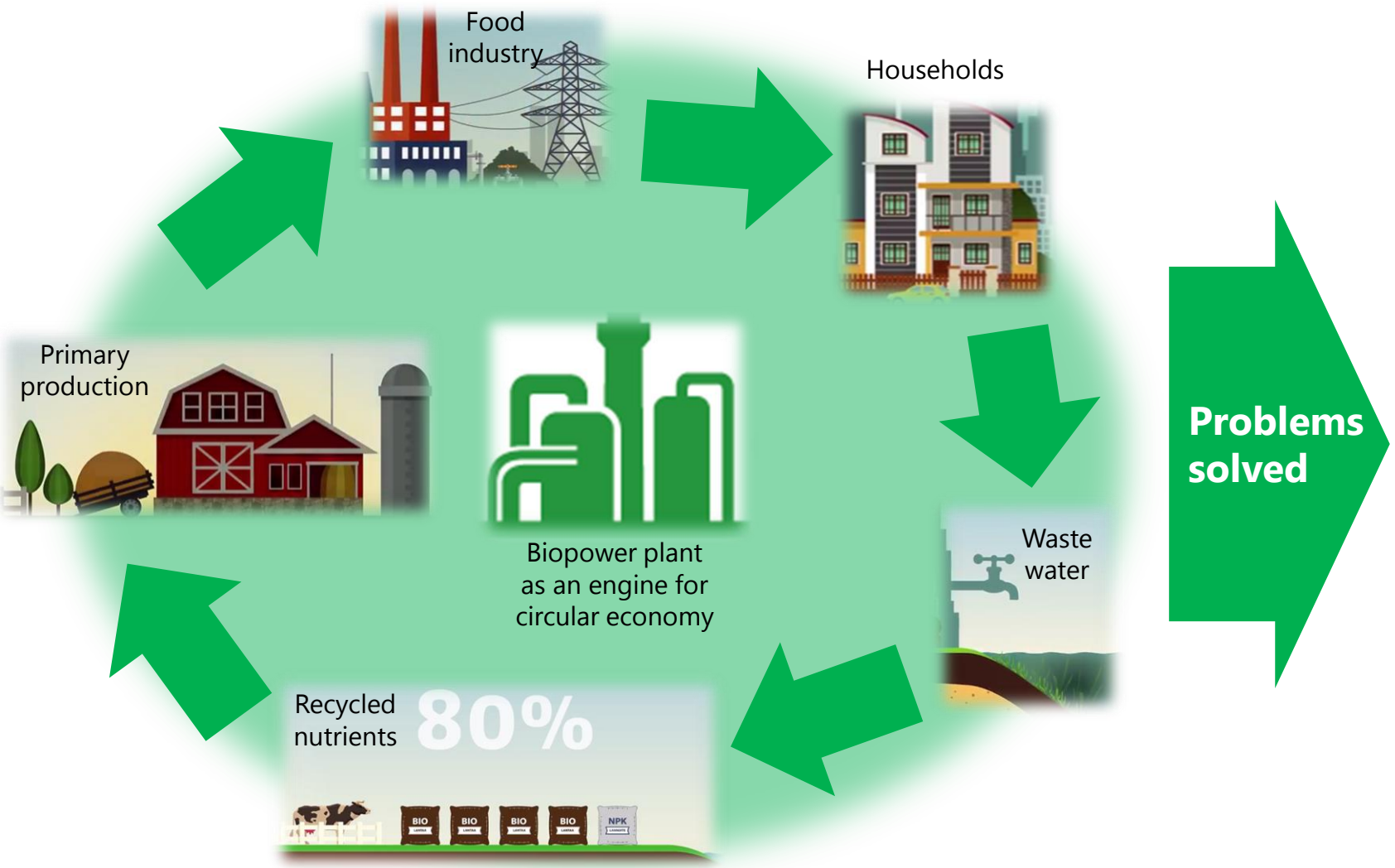
Nutrient recycling

Boosted by gas economy



Eutrophication

Erosion

P

Lack of phosphorus

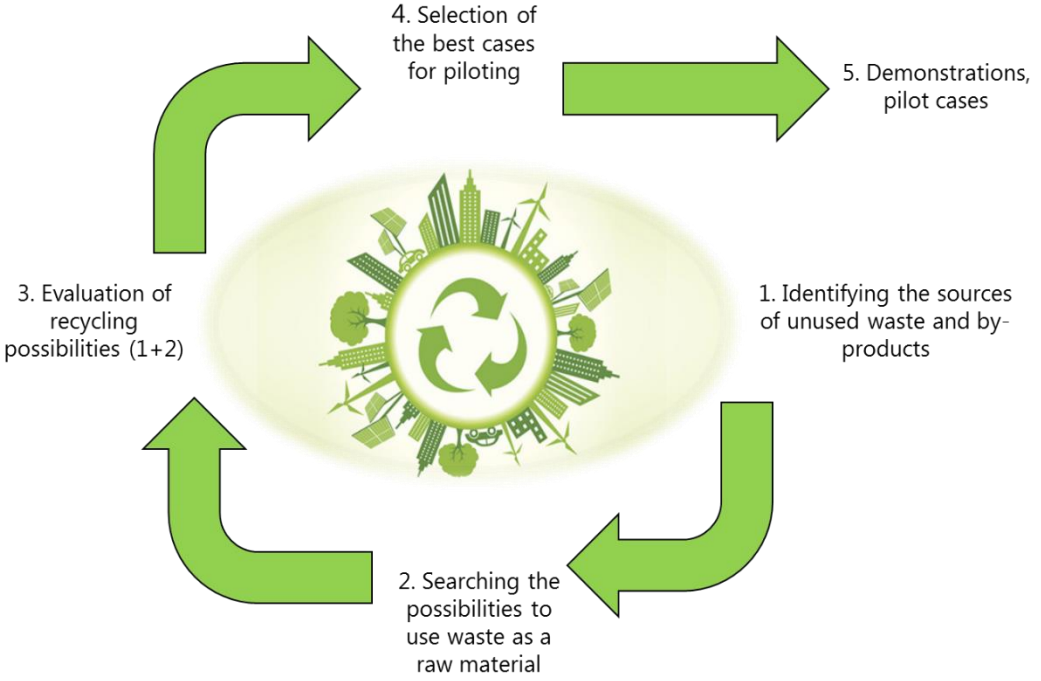
Climate change

Circular economy

Region's economy is based on strong and versatile industry. This means that vast amount of raw material is handled and used, energy consumption is also in the high level.

This environment provides good opportunities for developing and piloting new approaches for industrial renewal, energy efficiency and circular economy.

Prizztech is promoting sustainable management and resource efficiency in the SME sector, and introducing operating model with concrete actions targeting to sustainable growth. We have applied our model in metal and process industry, and next we are looking new opportunities in agriculture sector, starting from food industry.



Our approach step-by-step:

- Identification and evaluation process: surveys, workshops, seminars, meetings, interviews
- Analysis phase: company specific analyses of sustainable management
- Development programs: company specific sustainable development programs
- Concrete development actions based on steps 2 - 3
- Dissemination of information (legal obligations, support mechanisms etc.) and best practices

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Circular economy

FISS Finnish Industrial Symbiosis System

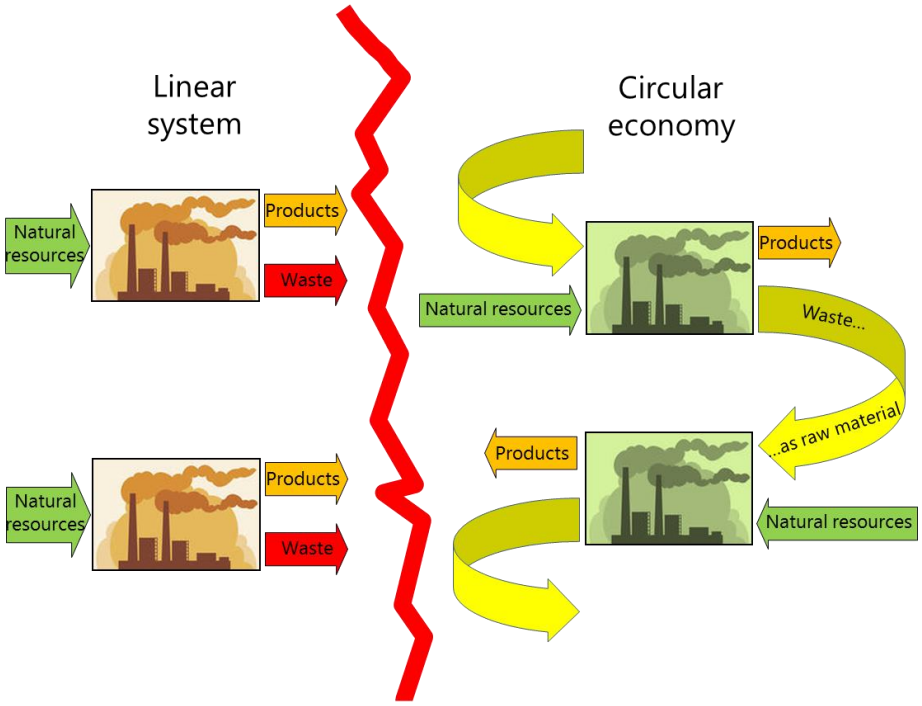
FISS – Finnish Industrial Symbiosis System is a national approach promoting industrial symbiosis. The system is based on British National Industrial Symbiosis Programme (NISP) methodology adapted to the Finnish operational environment.

FISS model is based on active facilitation of symbioses and co-development. It aims to promote, in particular those symbioses, which would not otherwise be materialized.

Regional organizers, like Prizztech in Satakunta, take care of the symbiosis promotion in practice. Their tasks include business activation and commitment, exchange of resource information and networking, as well as helping in the implementation of the symbiosis.

Regional organizers also help companies in identifying new synergies and business opportunities, as well as helping companies find the necessary partners.

The resource information and identified opportunities for synergies are collected in a common SYNERGie® database. The database is used to monitor the progress of the synergies and achieved benefits, as well as identifying new synergy opportunities.



FISS aims at promoting new business opportunities, re-use of waste and reducing use of natural resources.

The goal is to speed up the transition **from linear system to circular economy.**

http://www.industrialsymbiosis.fi/

Renewables: Windpower

Offshore windturbine has been piloted in icy conditions in the coast of Pori since 2010.

First-in-the-world offshore wind farm in icy conditions will be located in Tahkoluoto, Pori. Windfarm will be producing energy by the end of 2017.

There are five onshore windfarms in the Pori region in operation, and numerous projects are in planning or building phase.

Prizztech is an active development partner in all wind energy related projects, operating as cluster and network builder, and bringing partners together from the triple-helix point of view.

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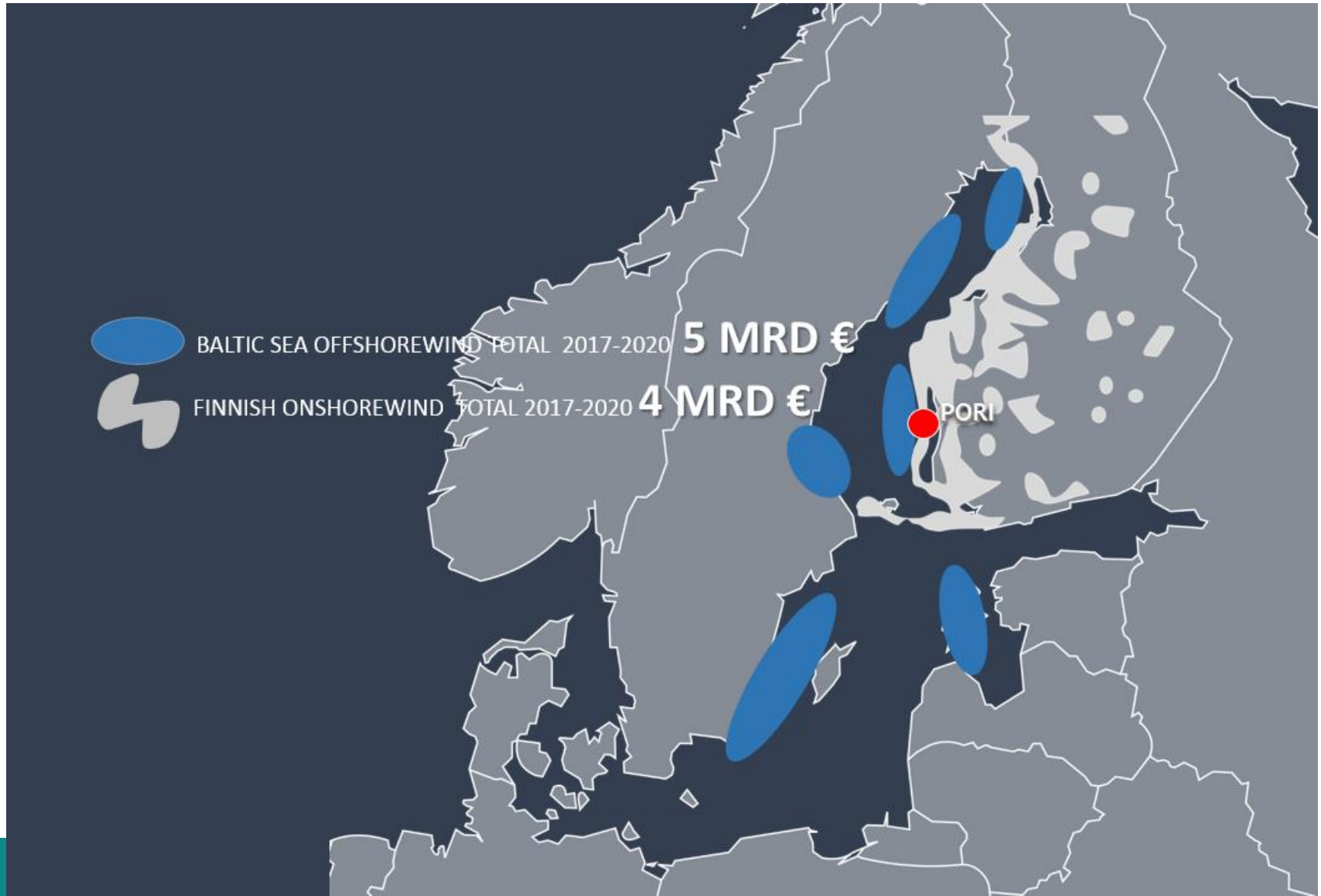
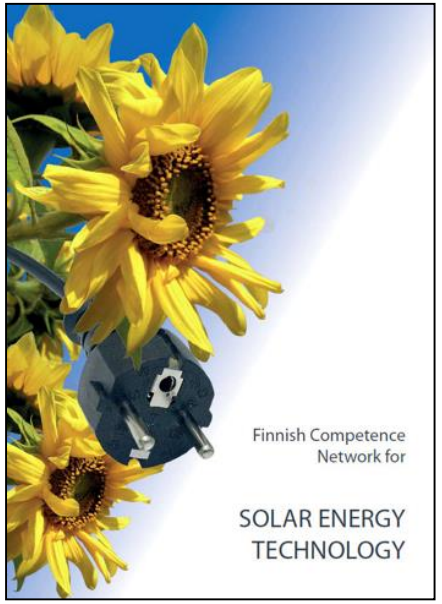
Windpower market:

City of Pori is located in the middle of Baltic Sea offshore and Finnish onshore wind markets



Renewables: Solar Energy



Solar energy is an important element in renewable energy portfolio as Prizztech is supporting the implementation of climate and energy strategy both on national and EU-level.

Operations consist of pilot projects such as solar powered swimming hall in City of Pori (picture above) and cluster building in regional and national level.

Next steps in 2017:

- Mapping the potential areas in Satakunta for solar power production.
- Especially landfill areas.
- Contacting stakeholders and cluster building.
- Investments for solar p0wer.

→ Enhancing the production of renewable energy

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EU operations

- Project examples
- Speeches & lectures

LIFE IP CIRCWASTE FINLAND –
Towards circular economy in Finland (2016-2023)

The **LIFE IP CIRCWASTE-FINLAND** project will provide new waste management concepts, as well as increasing capacity building and enhanced cooperation within the waste management sector and stakeholders. Project covers five regions in Finland (east-central-west), 20% of territorial area and 24% of population.

Prizztech in Western Finland:

Peittoo recycling park – a testing environment for the productisation of industrial waste materials.

- Identifying and analysing the potential for recycling industrial by-products.
- Demonstration of the separation of NdFeB magnets from metal scrap and infrastructure application for foundry sand waste.
- Increasing handling, testing, and recycling of industrial by-products, reducing industrial waste and phasing out industrial landfilling.

peittoo.recyclingpark.

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S3 Empowering for Innovation and Growth in Medium-sized Cities and Regions

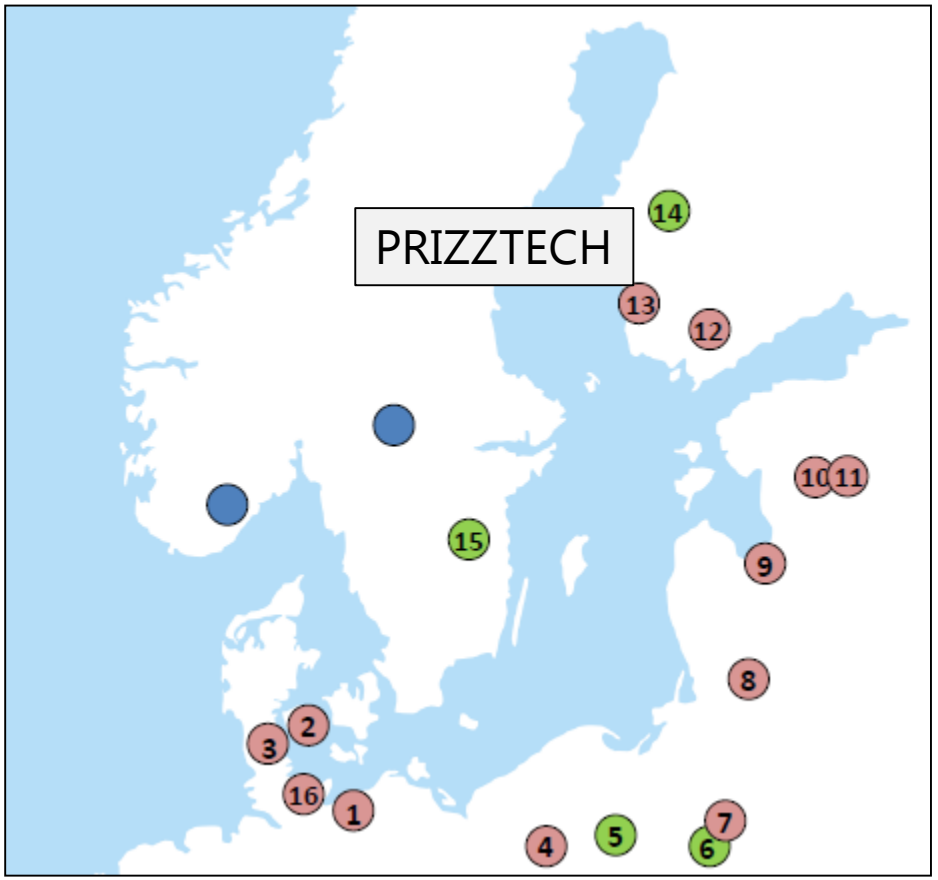
(Interreg Baltic Sea region Programme 2014-2020)

EmpInno fosters the implementation and improvement of research and innovation strategies for smart specialisation (RIS3) in medium-sized cities and regions in the Baltic Sea Region.

EmpInno aims to enhance the organisational capacities of innovation intermediaries to utilize the strategies and to enhance the capacities of regional authorities for upgrading and improving their RIS3 delivery and revision processes. The project exploits the experience and competences of the partnership, consisting of 16 partners and 29 associated organisations to discuss and mutually learn from the RIS3 processes of each partner region.

Prizztech is responsible for themes of ENERGY & MARITIME INDUSTRIES.

Interreg
Baltic Sea Region



Living Lab on Wellbeing Services and Technology- project

RegioStars 2013 finalist

- The Living Lab on Wellbeing Services and Technology project, 1.12.2009-30.4.2012:
  - Nominated as a finalist of the RegioStars 2013 awards in the category: Inclusive Growth, Social innovation: creative responses to societal challenges
  - In the RegioStars competition, the European Commission seeks the most innovative projects and best practices from the EU
- Followed in regional focus:
  - Commonweal – Innovation Network on Welfare Tecnology project 1.11.2014-30.9.2017
  - Funded by: The Regional Council of Satakunta (ERDF) and municipalities of the Pori region

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Interreg IV B Best Agers Lighthouses project:

Age-related and age-adjusted HR management helping SMEs to stay competitive (2010-2012)

BestAgers Lighthouses

KEY FACTS ABOUT THE PROJECT

- Builds upon the preceding Baltic Sea Region Programme "Best Agers" project and implements its recommendations with regard to the employment situation of older people
- Part-financed by the European Union's Baltic Sea Region Programme 2007–2013
- Priority 4 – Attractive and Competitive Cities and Regions
- 12 project partners from 6 countries involved
- 24 associated partners
- 9 lighthouse companies and public organisations
- Project period: December 2012–September 2014
- Project budget: 1.650.975 EURO
- Lead Partner: Wirtschaftsakademie Schleswig-Holstein (Academy of Economics Schleswig-Holstein), Germany

THE LIGHTHOUSE ORGANISATIONS

Sweden
Folktandvården (Public Dental Service). Luleå, Sweden.
Health Care,
570 employees

Finland
Pori Energia Ltd. Pori, Finland.
Energy,
210 employees

Latvia
The Latvenergo Group. Riga, Latvia.
Energy,
4,500 employees

Lithuania
Siauliai State College. Siauliai, Lithuania.
Higher Education,
230 employees

Siauliai University. Siauliai, Lithuania.
Higher Education,
800 employees

Kaunas University of Technology. Kaunas, Lithuania.
Higher Education,
1,000 employees

Germany
Kiel City Administration. Kiel, Germany.
Public Administration,
4,900 employees

L-3 ELAC Nautik. Kiel, Germany.
Electronics and Communication,
150 employees

Claudius Peters Projects GmbH.
Buxtehude, Germany.
Aerospace and Engineering,
400 employees

Prizztech Ltd, Finland
As Facilitating Partner of energy company Pori Energia Oy, Prizztech's competence and experience in the field of age management and project coordination were beneficial in planning, implementing and evaluating the intervention. Prizztech operates as an impartial, non-profit organisation of experts in business development, research and project management.

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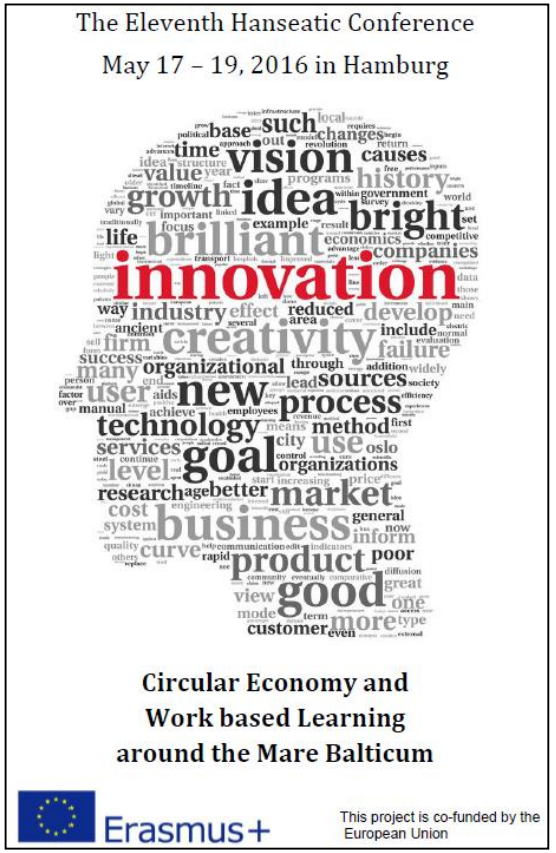
Speeches & lectures

on Circular Economy, Energy Efficiency, Renewables

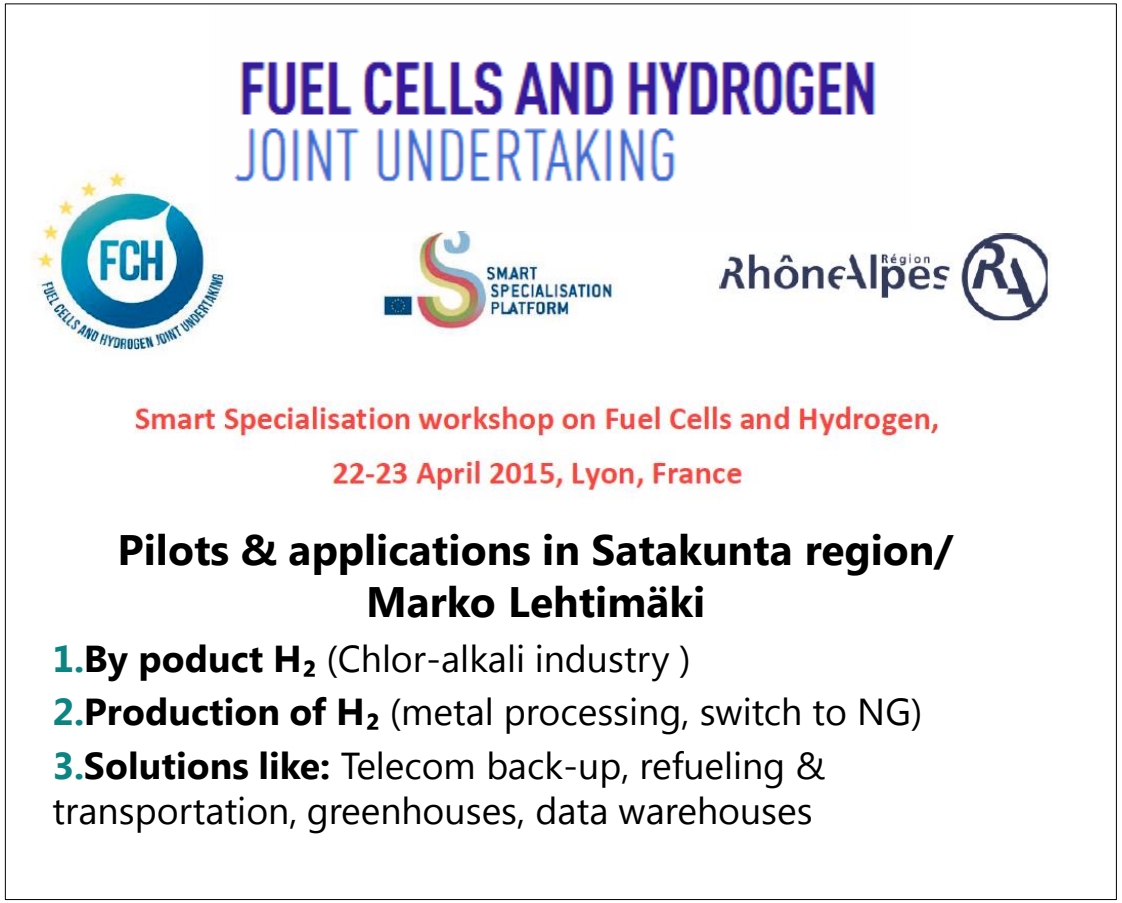
"**Biogas** Economy in Finland"/Tuula Raukola



"New Possibilities for **Circular Economy** through sustainable management and **resource efficiency** in the SME sector in Satakunta region (Finland)"/Tuula Raukola

Speeches & lectures

on Circular Economy, Energy Efficiency, Renewables



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