New ways to involve business in bio-/circular smart specialisation

Jukka Teräs, Senior Research Fellow, Nordregio

Tampere, March 26, 2019

Smart specialisation: brief remarks

- **Smart specialisation**: European regions create their innovation strategies based on existing strengths, and combine their resources in a new way to provoke new ideas and possibilities for growth
  - "Ex-ante condition" related to smart specialisation and Structural Funds
  - New instrument for regional development – with international benchmarking (EU JRC Peer Review process)
  - Smart Specialisation as an element of regional branding

Nordregio

BSR Stars S3 Policy Brief (2019)

Nordregio #01
POLICY BRIEF JAN 2019

Industrial Symbiosis in the Baltic Sea Region

Current Practices and Guidelines for New Initiatives

Industrial symbiosis (IS) is vitally important in facilitating the move towards a circular economy by helping industries and businesses cooperate in the exchange of natural resources and production infrastructures. Strong public and private sector leadership and firm links between industry and research institutes are essential for the formulation of effective IS initiatives.

This policy brief examines three good practice examples of IS from the Baltic Sea Region (BSR) and outlines practical guidelines for public authorities and business development organisations on how to develop and implement IS ecosystems. This research is based on the activities and experiences of a project, BSR Stars S3, which was financed by the EU Interreg Baltic Sea Region and focused on BSR cooperation within the bio- and circular economy.

Nordregio

BSR Stars S3 Industrial Symbiosis Policy Brief: Recommendations

- *"The BSR Stars S3 Interreg project has contributed to the acceleration of the circular economy in the Baltic Sea Region by bringing stakeholders together to share information and experiences from ongoing IS initiatives at the regional, national and macro-regional level"*

- List of recommendations ranging from financial incentives to mapping of relevant material flows and sustainable good practices

Nordregio

BSR Stars S3 Industrial Symbiosis Policy Brief: Recommendations

BSR STARS RECOMMENDATIONS

The Interreg BSR Stars S3 project has contributed to the acceleration of the circular economy in the Baltic Sea Region by bringing stakeholders together to share information and experiences from ongoing IS initiatives at the regional, national and macro-regional level. The following IS guidelines have been drawn up based on the project activities and case study findings to help and motivate practitioners, including public authorities, industries and businesses, to develop and implement effective IS initiatives.

- Encourage an active leadership role for public authorities in motivating and facilitating collaboration through the establishment of regional IS clusters and networks, which helps to build trust among industries, business development organisations and research institutes.
- Increase efforts to include IS and circular economy activities in regional strategies by mapping areas of regional IS strengths and development potential in entrepreneurial discovery workshops with local experts.
- Provide financial incentives for industry and research institutes to engage with IS initiatives, such as tax exemptions and IS-earmarked national or EU-level public procurement funding.
- Explore private sector IS financing models, for example private for-profit platform companies (see the ECO3 case).
- Establish stronger links between local industry and research institutes to ensure that IS research, training and business models meet the needs of the private sector (see, for example, Karlstad Innovation Park in the Paper Province case).
- Encourage industry to take a leading role in coordinating the development of IS platforms by raising its awareness of the potential benefits of involvement (see, for example, the visionary role of experts from the Tampere University of Technology in the ECO3 case).
- Encourage public authorities, universities and research institutes to map regional material flows and IS stakeholders (see, for example, the role of university students in the Trøndelag case and the development of online information resources such as the ecosystem monitoring tool from Tampere Region).
- Disseminate information on IS best practices to promote learning among regional stakeholders (for example, the ECO3 platform has an updated and informative online presence).
- Encourage the development of long-term regional IS visions and planning support tools through the development of strategic roadmaps and future scenario plans (see, for example, the development of roadmaps in the ECO3 case).
- Advertise regional IS initiatives to international audiences to promote the region's sustainable good practices and image to maximise the potential for transnational collaborations (see, for example, the active presence of the ECO3 platform among international institutions).
- Local public authorities to promote conditions for industrial symbiosis in urban areas, and facilitate public and private sector interest and capabilities to form industrial symbiosis in urban districts.

Nordregio

BSR Stars S3 Policy Brief: context and more info

ABOUT THIS POLICY BRIEF

This policy brief is a part of **BSR Stars S3** (Smart specialization through cross-sectoral bio-, circular and digital ecosystems) project which seeks to enhance growth opportunities in the Baltic Sea Region, focusing on the bio-/circular and digital economy fields.
Read more: www.bsr-stars.eu/bsr-stars-s3

Aknowledgements: The authors would like to thank Johanna Alakerttula, Sakari Ermala, Torfi Jóhannesson, Murat Mirata, Magnus Persson, Marko Seppänen and Per Erik Sørås for their time and helpful inputs into the preparation of this policy brief.

Research contacts

John Moodie
Senior Research Fellow at Nordregio
john.moodie@nordregio.org

Viktor Salenius
Intern at Nordregio
viktor.salenius@nordregio.org

Johanna Leino
Development Director at the Baltic Institute of Finland
johanna.leino@tampere.fi

Photos:
Front page: Wastewater plants are often one of the key players in industrial symbiosis / Unsplash
ISSN 2001-3876
DOI: doi.org/10.30689/PB2019:1.2001-3876
www.nordregio.org

BSR STARS S3

Interreg Baltic Sea Region

EUROPEAN REGIONAL DEVELOPMENT FUND
EUROPEAN UNION

Nordregio

Nordregio

ECO3, Nokia, Finland

Nordregio

ECO3 and Tampere Region

ECO3 is in the heart of Finland

City of Nokia and Tampere Region

- Tampere Region has a population of 505,000 which makes it second largest region in Finland just after Helsinki capital region.
- 31 000 places of business.
- 2nd largest airport in the country.
- Up to 15 % of Finland's national R&D budget is spent in Tampere.
- Close to the large Finnish ports on the Gulf of Botnia.
- For companies the key reasons to operate in Tampere Region are good availability of employees, central location and the close connections to universities.

ECO3

Nordregio

ECO3: Operational model

How do we operate?

Verte Ltd.

ECO3 platform company

- Matchmaking
- Setting up business and concepts in national and international level
- Owned by the City of Nokia

Publicly owned companies as a business platform

- Tampere Regional Solid Waste Management Ltd.
- Verte Ltd.

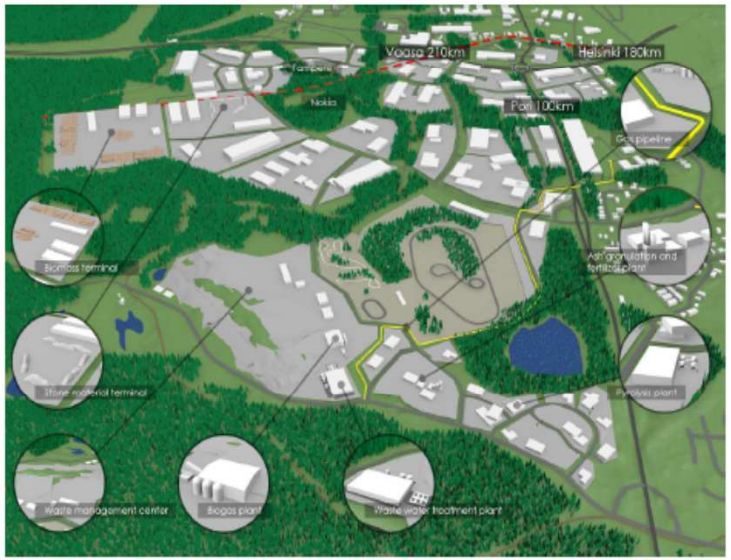
ECO3 Consortium

- Companies
- Universities and research centres

Nordregio

Building up ECO3

ECO3 IS BUILT UP IN PHASES



Facts

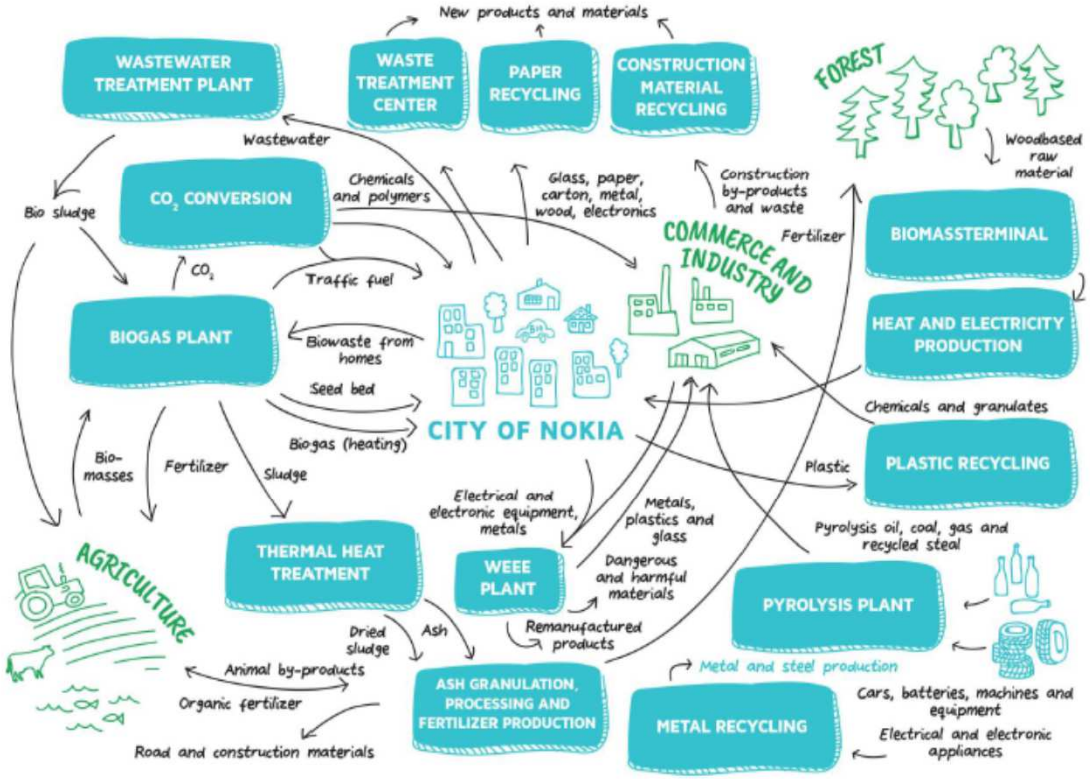
- An innovative, industrial-scale, multidisciplinary bio- and circular economy business area is being built in Nokia, Finland.
- ECO3 competence centre works simultaneously as a demonstration and pilot environment.

ECO3

Nordregio

The ECO3 concept

THE ECO3 CONCEPT



ECO3

Nordregio

BSR Stars S3 Policy Brief and ECO3

- *"A circular economy is named as one of the strategic smart specialisation priorities of Tampere region, which sets the strategic framework for S3 operations"*

- *"The universities of Tampere have also made a crucial contribution with scientific input, anticipating and inspiring the growth of the CE model on which ECO3 is built"*

- *"All participants gather in meetings multiple times per year to share their latest developments and discuss future ideas"*

Nordregio

Thank you!

www.nordregio.org

Photo: Kjell Nilsson

Nordregio