



EUSBSR EU STRATEGY FOR THE BALTIC SEA REGION



SUOMEN ITÄMERI-INSTITUUTTI
THE BALTIC INSTITUTE OF FINLAND

Macroregional cooperation as booster for the uptake of circular principles

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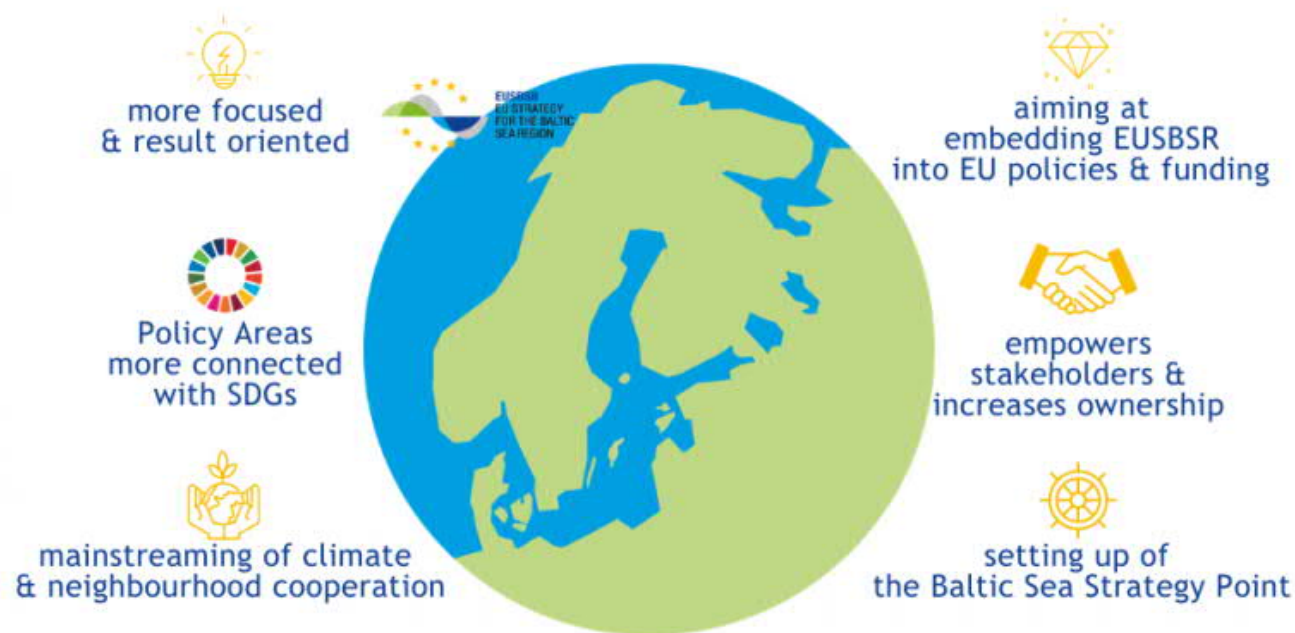
AI-NURECC PLUS - 2nd HIGH-LEVEL CONFERENCE ON CIRCULAR
ECONOMY IN THE ADRIATIC IONIAN REGION, 11 April 2022



New EUSBSR Action Plan

- The European Commission has approved the revised EUSBSR Action Plan on 17 February 2021 and the revision process is now completed.
- Commissioner for Cohesion and Reforms, Elisa Ferreira:
"More than ever before, Europe's recovery and prosperity demand cooperation across policy areas, countries and regions. The coronavirus pandemic shows that international cooperation is an essential approach in solving cross border issues and has proved to be an effective tool to strengthen, share and accelerate resilience, recovery and secure economic and social development. Cooperation is at the essence of the EU Cohesion policy, and the updated Action Plan of the Baltic Sea region strategy comes at the right time."
- The revised Action Plan brings along, among others, the following elements to the Strategy:
 - 14 Policy Areas, no more Horizontal Actions
 - Neighbours & Climate are mainstreamed
 - Empowers stakeholders & increases ownership
 - Baltic Sea Strategy Point to provide administrative and technical support
- The new EUSBSR Action Plan can be found here: <https://www.balticsea-region-strategy.eu/action-plan>

DISCOVER the revised EUSBSR Action Plan



Read more at
balticsea-region-strategy.eu

 **Interreg**
Baltic Sea Region



EUSBSR Policy Area Innovation: New Action Plan 2021-

Added value:

Policy Area Innovation (PA INNO)

- promotes a globally competitive position within innovation for sustainable economic growth in the BSR, and provides a strong platform for an enhanced macroregional collaborative ecosystem for innovation, research, SMEs and digitalization.
- enables shared learning through knowledge-transfer activities
- creates and strengthens networks across the Baltic Sea region
- aligns resources and regulations e.g. through co-ordination of funding sources
- facilitates the joining up of forces in common programs and investments and in the development of solutions for common challenges; and
- enhances BSR's profile, visibility and attractiveness as a partner of choice for international innovation cooperation within and beyond the BSR.

EUSBSR Policy Area Innovation: New Action Plan 2021-

EU or other policy framework

PA Innovation is related to the following EU- regional - and international strategic frameworks:

- European Strategic Cluster Partnerships (COSME)
- Smart Specialisation Strategy
- Digitising European Industry, in particular the support to Digital Innovation Hubs that can support SMEs with their digital transformation
- Activities to support cultural and creative industries
- Digital Single Market
- EU Blue Bioeconomy Roadmap and Bioeconomy Strategy
- Policy goals of Horizon Europe
- A new Circular Economy Action Plan for a Cleaner and More Competitive Europe

The innovation AP is to be linked to the Green Deal, support for R&I being a cross-cutting element of the pact. It will also be directly linked to certain texts of the Green Deal: the new industrial strategy, the new circular economy action plan, the farm-to-fork strategy

EUSBSR Policy Area Innovation: New Action Plan 2021-

Key PA achievement so far

- PA INNO has helped versatile BSR innovation cooperation to evolve into strategic and complementary actions with stronger impact and more scalable results.
- PA INNO flagships such as BSR Stars, SUBMARINER Network, ScanBalt, Baltic Science Link and BSR Digi co-lab have produced numerous interesting and highly relevant results and new solutions e.g. in the fields of research collaboration, health, blue growth, bio/circular economy and digital economy.
- PA INNO experiences and results on transnational S3 are providing strong evidence and basis for the next wave of S3 in the next EU programming period.
 - Related to this, a network of ERDF Managing Authorities (MA Network) has been established to develop proposals on transnational S3 collaboration, embedding EUSBSR to ERDF. Pilot projects on clean technologies and digital transformation have been created under the MA Network.
 - results of various (regions-lead) PA INNO flagships on S3 are now being scaled up in connection with BSR S3 Ecosystem project

EUSBSR Policy Area Innovation: New Action Plan 2021-

Action 1: Challenge-driven innovation

- Macroregional challenge-driven innovation policies and actions aim at fostering disruptive, breakthrough and market-shaping innovations to respond to the 21st century social, environmental, and economic grand challenges in the BSR (*e.g. climate change, resource efficiency, demographic change, pandemics, rapid urbanization, healthy living and aging, clean energy, inclusive societies, sustainable food and feed production and various environmental challenges of the Baltic Sea*).
- Building on the strong background and experience on challenge-based innovation cooperation, and leveraging and scaling up the successes and best practices, stronger innovation ecosystems can be created and common BSR challenges tackled by developing shared solutions and related new pan-Baltic value chains.
- The aim is to turn challenges into opportunities for sustainable growth in BSR.

EUSBSR Policy Area Innovation: New Action Plan 2021-

Action 2: Digital innovation and transformation

Digital transformation is a societal change in BSR. Emerging digital technologies such as AI, VR/AR, blockchain, robotics and Internet of Things (IoT) are key tools to tackle societal challenges, facilitate new businesses, innovations, services and more sustainable, usable and vital living environments and infrastructures, and develop BSR innovation (e.g. smart city initiatives) and startup ecosystems.

Objectives:

- to develop common standards for interoperable public and private solutions (e.g. e-identity) and promote harmonizing of data - supporting transfer of solutions across BSR, new market opportunities and globally more competitive digital ecosystems.
- to give businesses and public service providers opportunities to analyze, evaluate, develop, co-create and test new ideas and services together.
- to promote knowledge sharing and institutional capacity building within digitalization to facilitate digital transformation and bridge digital divides in BSR.

EUSBSR Policy Area Innovation: New Action Plan 2021-

Action 3: Co-creative innovation

Innovation ecosystems (local, regional or sector-based) are emerging as key frameworks for economic and innovation activity also in BSR. Transnational platforms and change agents are needed to connect BSR innovation ecosystems. Co-creative and open innovation as key innovation methods.

- To scale up the use of co-creation among BSR SMEs through improving their capabilities and absorptive capacities to efficiently turn market demand driven ideas into innovations
- To connect innovation ecosystems across BSR through developing and piloting systematic models and practices to engage BSR SMEs, researchers, test facilities and end users in co-creation activities
- To facilitate the understanding and change of mindset among policy-makers and SMEs to scale up practical co-creation activities in BSR and
- To promote transnational cooperation and SMEs access to RDI infra, and transnational exchange and joint development between Innovation Infrastructure Organisations and incubators.



EUSBSR PA INNO topics on Greener Europe

- Industrial symbiosis (IS), i.e. the transition move towards a circular economy by helping industries and businesses cooperate in the exchange of natural resources and production infrastructures
- Circular bioeconomy (CBE) - the circular economy is not complete without the bioeconomy and vice versa. The huge volumes of organic side and waste streams from agriculture, forestry, fishery, food and feed and organic process waste can only be integrated in the circular economy through bioeconomy processes, while the bioeconomy will hugely profit from increased circularity.
- Blue growth: sustainable use of the Baltic Sea resources, carefully combining ecosystem services and protection of the unique environment by realising blue bioeconomy concepts
- Digital transformation of, for example, IS, CBE and blue growth in BSR; including the establishment of more efficient and effective data and information generation and provision based on new ICT solutions

The above topics, as examples, present game changing opportunities for BSR regions – underlined by the recent policy developments at the EU level – the adoption of the European Green Deal, new Circular Economy Action Plan For a cleaner and more competitive Europe, EU Blue Bioeconomy Roadmap and Bioeconomy Strategy, the adoption of an EU Industrial Strategy, Digital Single Market, as well as a high priority of Greener Europe topics in BSR S3s



EUSBSR PA INNO and smart specialisation

- In 2014-2021, EUSBSR PA INNO has prioritised Smart Specialisation to secure that innovation measures are designed to better meet the local and subregional level need of actions
- The same regional/S3 focus continues in EU 2021-2027, and is relevant in all three priority innovation actions/themes of the new EUSBSR Action Plan (2021): Challenge-driven innovation; Digital Innovation and transformation; Co-creative innovation
- Supported by EUSBSR PA INNO, BSR sub-regions have been actively developing their S3 in line with the EU Green Deal and with increasing focus on interregional cooperation
- Various EUSBSR S3 projects have facilitated the building of long-term strategic innovation cooperation and partnerships that can eventually lead to joint investments, as well as provided insights and tools for regions to develop their smart specialization strategies for sustainability (S4), with a strong focus on inclusive sustainability, green and digital transition
- Regions have an important role in strengthening the commitment of all actors in BSR innovation ecosystems, including the business sector, to move forward with selected strategic direction with interregional cooperation
- One of the core challenges in current interregional cooperation is the gap between demonstration and scale-up as most interregional projects do not reach the scale-up phase due to insufficient short-term planning and financial constraints

EUSBSR PA INNO and smart specialisation

- Recent developments and experiences, e.g. based on the outcomes of BSR S3 Ecosystem platform project, offer valuable tools and guidance for BSR subregions for effective and coordinated utilisation of e.g. the following EU 2021-2027 opportunities:
 - the new EU instrument for interregional innovation investments (I3)
 - coordinated calls under mainstream ERDF programmes
 - Interreg BSR, Interreg Europe, cross-border Interreg programmes
 - Horizon
- Based on EUSBSR innovation priorities, PA INNO can support and facilitate e.g. the following interregional, macro-regional and cross-macro-regional cooperation topics in connection with the above EU 2021-2027 instruments :

EUSBSR Policy Area Innovation: Potential project topics

Potential project topics

- Sector/S3 priority-specific S3/4 initiatives (e.g. on blue growth, circular economy/industrial symbiosis, health, industry 4.0, smart cities, low carbon energy) having the potential to solve BSR challenges, to generate new business, and to encourage the development of BSR value chains
- Coordinated interregional COVID-19 recovery measures
- Promotion of stronger BSR value/supply chains that would be able to respond to future undesired external disruptions
- Methods and tools for the facilitation of the systemic change needed for green transition and sustainable and inclusive growth, and transformation of business models
- Initiatives on public procurement for innovation (challenge-based procurement)
- Real-Time Economy; Development of common standards for interoperable public and private solutions (e.g. on smart green mobility and harmonising of mobility systems)
- Joint development and implementation of Digital Innovation Hubs (DIHs) (e.g. to promote data-driven solutions and business models for sustainable industry)
- Digital, data-driven solutions for sustainable business and growth in BSR (promoting the twin transition in BSR, e.g. digital transformation of bio and circular economy in BSR)

PA INNO S3 project example: BSR Stars S3

- Improve capacities of regions to implement regional smart specialization strategies through engaging business and research and utilising international opportunities
- Increase knowledge among regional authorities and decision makers on ecosystem based approaches to regional development and business support
- Enhance business opportunities in bio-/circular and digital economy and help companies to transnationally utilise business services and test facilities
- Enhance new partnerships and business-research cooperation in the Baltic Sea Region



Smart specialization in bio-, circular- and digital economy in the Baltic Sea region through business-research-public co-creation and innovation ecosystem management.

About the project

BSR Stars S3 - Smart specialization through cross-sectoral bio-, circular- and digital economy ecosystems.

Lead partner: The Baltic Institute of Finland
Web site: www.bsr-stars.eu

Duration: May 2016–April 2019

Total budget: EUR 2,8 Million

European Regional Development Fund:

EUR 2,2 Million

Norwegian Funding:

EUR 145 000



BSR Stars S3 policy brief on industrial symbiosis in BSR



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.

BSR Stars S3 policy brief on industrial symbiosis in BSR: recommendations

- 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.
- 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 ECO3 case in Tampere Region).
- 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.



BSR Stars S3 policy brief on industrial symbiosis in BSR: recommendations

- Explore private sector IS financing models, for example private for-profit platform companies.
- 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).



High level Value Chain Mapping in the BSR: Pilot exercise on Circular Bioeconomy (CBE) 2020



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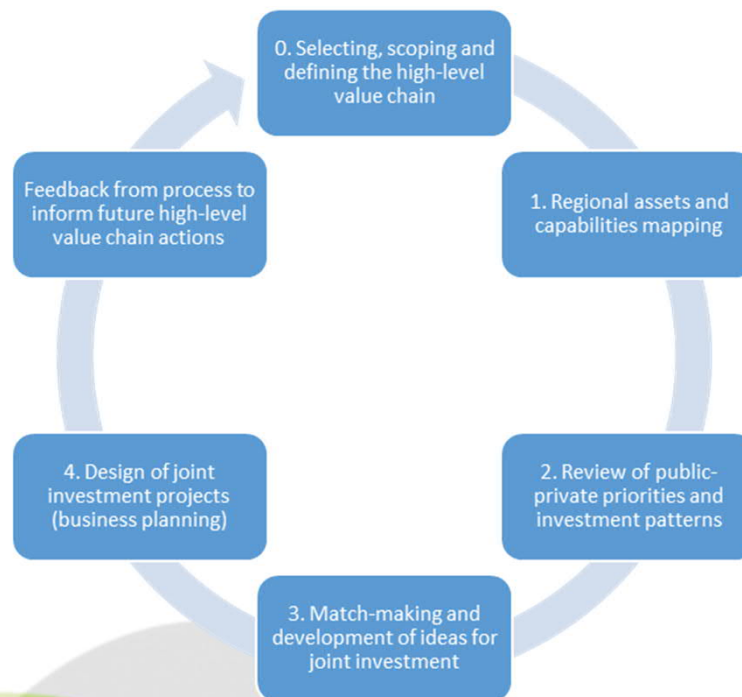


BSR S3 Ecosystem

Driving a new macro-regional approach to S3

Outline method for high-level inter-regional value chain analysis and mapping

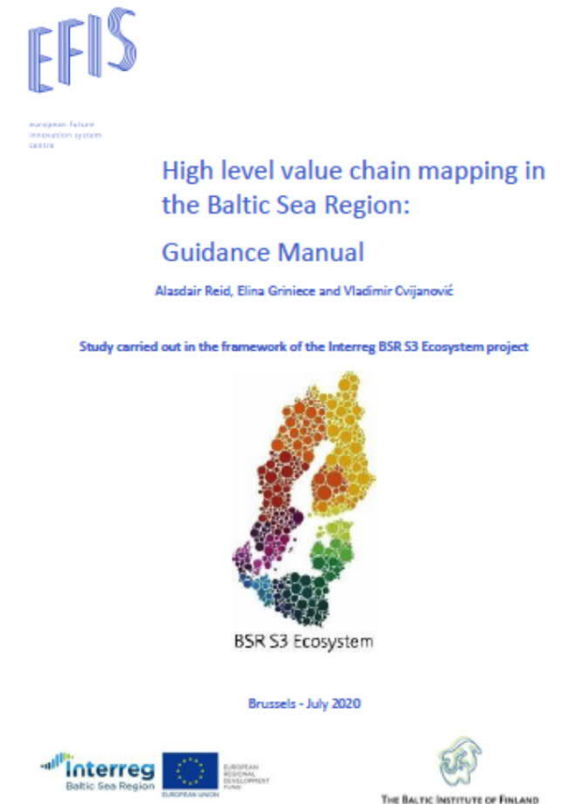
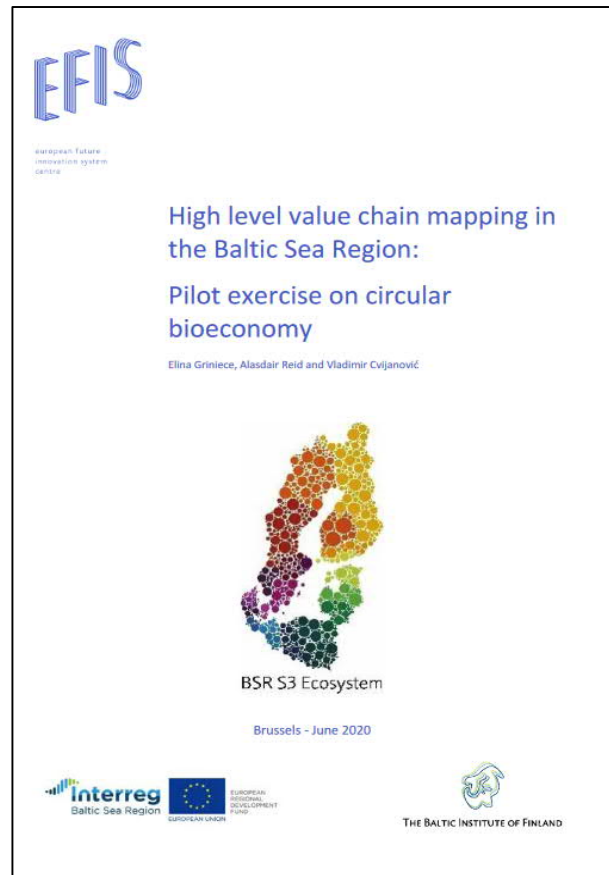
A manual defining (high-level) value chain mapping has been created: as an analytical and visual tool that helps understanding with how a particular innovation ecosystem is organised spatially, as well as size wise and direction wise



Outline steps to underpin high-level value chain mapping (EFIS 2020)

2 significant reporting outputs

- Interreg BSR project: BSR S3 Ecosystem
- Value Chain mapping: evidence, process and mobiliser
- Contractor: European Future Innovation System Centre (EFIS)
- Output 1: BSR Value Chain mapping report for CBE, incl. survey with 15 regions from 7 BSR countries
- Output 2: BSR Value Chain mapping manual



The Value Chain mapping focus: Circular Bioeconomy

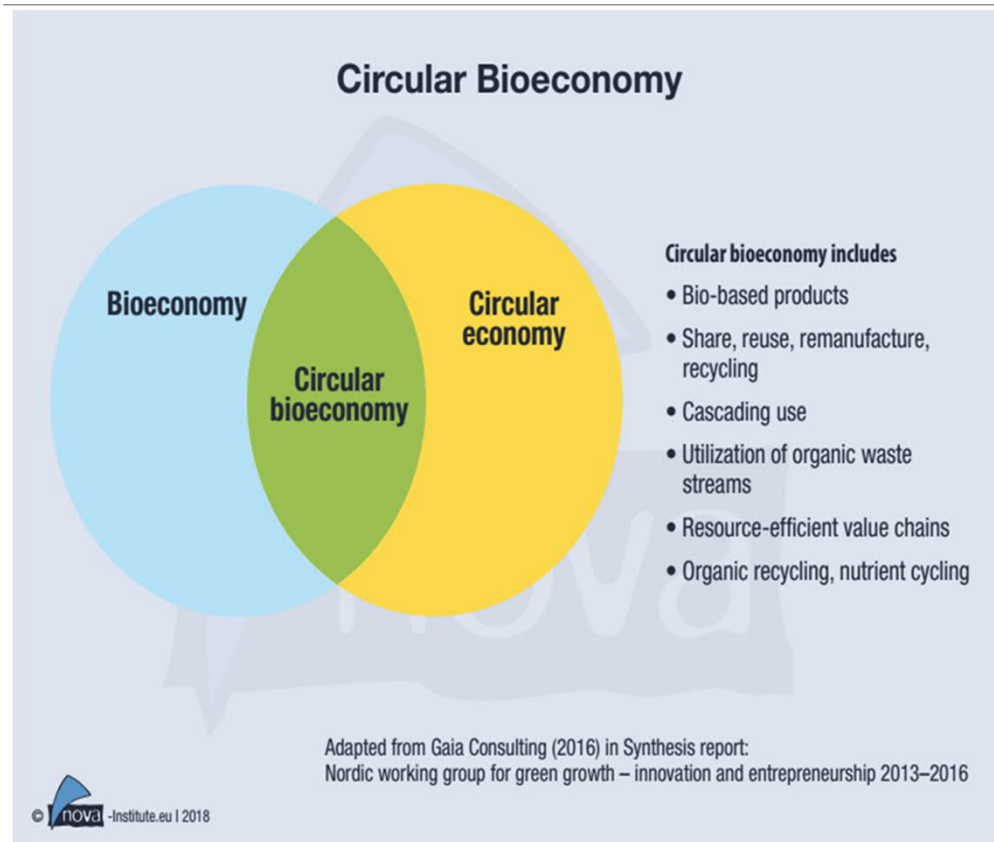
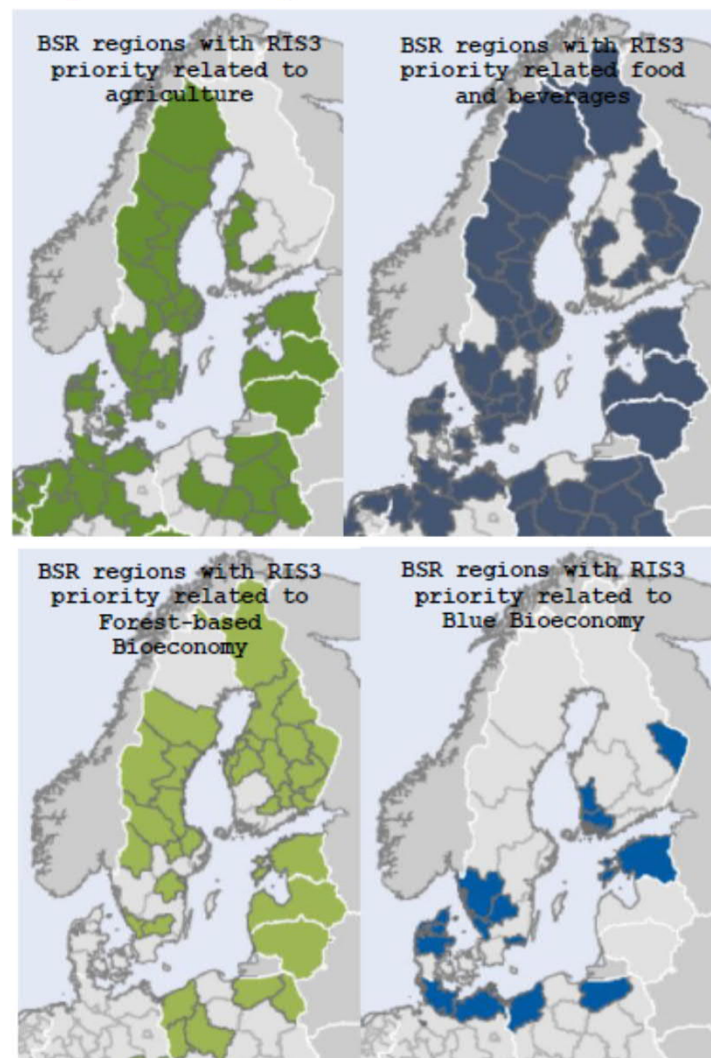


Figure 4: BSR regions surveyed



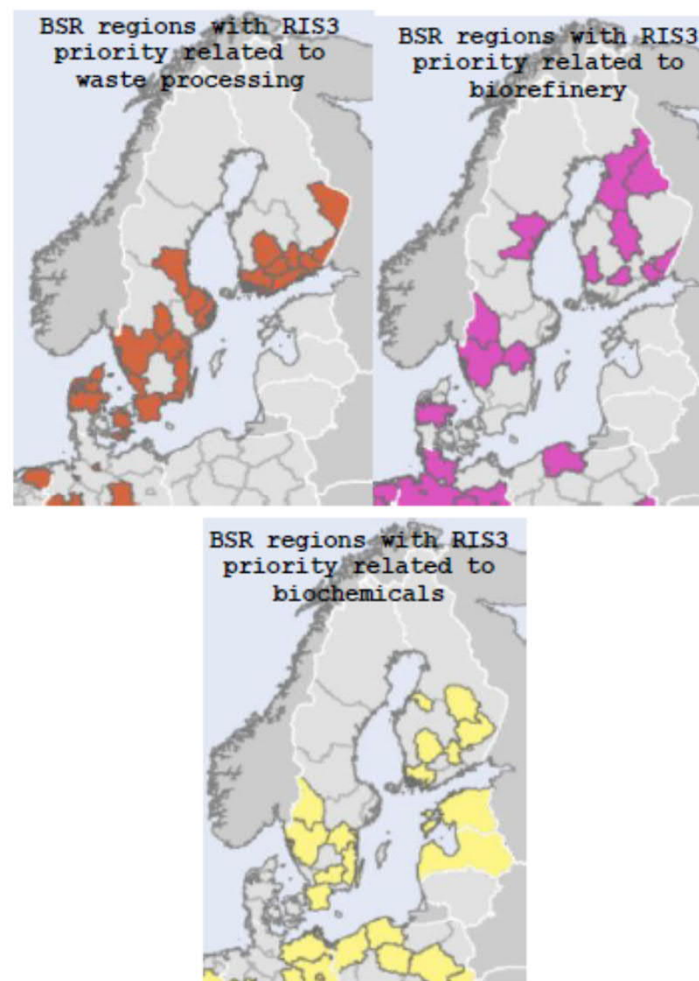
*Note: Figure shows Trøndelag instead of Sør-Trøndelag.
Source: Map was created with mapchart.net.*

Figure 25: BSR regions with RIS3 priorities in different sectors



Source: Spatial Foresight, SWECO, OIR, t33, Nordregio, Berman Group, Infyde, 2017

Figure 26: BSR regions with RIS3 priorities in waste processing, biorefinery and biochemicals



Source: Spatial Foresight, SWECO, OIR, t33, Nordregio, Berman Group, Infyde, 2017

Some key findings

- **Biorefineries** – identified potential for CBE development, requiring further review with (e.g.) respect to possible networking of BSR infrastructures
 - Strong EU player in wood biomass supply
 - Waste conversion capacity – further, untapped potential? (e.g. biobased chemicals)
Geographical ‘balance’ – more analysis required
- **Cluster mapping** – getting to the right ‘unit’ of investigation within CBE space
- **Avoiding a sole focus on tech-driven R&I activity** – risks overlooking Baltic Sea regions with (traditionally) less capacity and visibility in CBE space



Emerging insights

- CBE in infancy - affects data / evidence capture; terminology differs
 - The 'local geography' of CBE – challenges for market size, scale and ecosystem dynamics
 - EU policy – growing importance of CBE
 - Tailored VC Mapping method – place-based, tailored approach; importance of capturing all relevant actors
 - Use of existing evidence / activity (e.g. Interreg; industrial symbiosis)
 - The reality of the macro-region: core 'commons' but significant heterogeneity
- The EU's post-2020 direction: S3 → S4



Table 3: Main challenges facing regional firms in adopting key technologies or introducing innovations in the area of CBE

Challenge	Average
Lack of investment and collaboration mechanisms between key matching infrastructures (e.g. biorefineries)	2.36
Slow establishment of a stimulatory framework for the new biobased industries which allows introduction of products from new value chains based on biomass, waste and side stream conversion	2.8
Limited knowledge, skills and expertise in novel areas of bio-based economy (in public research, business sector, universities, policy makers and regulators)	3
Lack of open access test facilities for facilitating the upscaling new processes and products	3.25
Lack of ambition in the political goals for level of upgrade of underexploited bioresources	3.33

Challenge	Average
Limited business access to international markets and integration in value chains, especially for niche products with high value added	3.33
Limited availability of various complementary actors in the regional business ecosystem	3.43

Table 4: Top five priority activities for inter-regional co-operation

Type of activity	Average
Mapping specialist expertise in relevant technologies in each region	1.86
Mapping leading regional firms in circular bioeconomy value-chains to identify potential synergies	2.45
Partner search, matchmaking and brokerage services for partnership development	2.75
Sharing of best practices with regard to the implementation of new technologies in circular bioeconomy	2.35
Co-development of technological and innovation infrastructures (biorefineries, testing sites, pilot facilities, etc.)	2.15
Create an inter-regional network of research and innovation centres that businesses can access (e.g. using an inter-regional innovation voucher)	2.71
Co-investment in pilot applications, technology validation actions, etc.	2.27
Cooperation on mobilising financial support for investments/projects e.g. pooling of regional funds through a joint programme initiative, development of an investment platform (this option was deleted from the range of answers that came in from Brandenburg)	2.2

Note: Scale from 1 - highest priority to 5 – lowest priority



EUSBSR

EU STRATEGY FOR THE BALTIC SEA REGION

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