



ERRIN European Regions
Research and Innovation Network

ERRIN Bioeconomy mapping of regional Smart Specialisation strategies

Why?

- **Overview of Bioeconomy in S3 and focus areas**
 - State of play
 - Activities for WG
 - Policy influencing
 - Project Development
- **Matchmaking regions with complementing priorities**

Participating regions

- 11 countries participated

Country	Regions
F i n l a n d	Oulu
	South Ostrobothnia
	Central Finland
	North Karelia
	Kainuu
	Satakunta
S p a i n	Asturias
	Extremadura
	Castilla-León
	Navarra
S w e	North Sweeden
	Ostergotland (East Sweeden)
	Varmland

Country	Regions
I T A	Lombardy
	Basilicata
France	Lower Normandy
Belgium	Flanders
Denmark	Central Denmark

Country	Regions
Poland	Lodzkie
Netherlands	Gelderland
UK	Scotland
	Wales
	Nothern Ireland
NORWAY	North Norway

- 24 EU regions

How would you consider the state of progress in the field of the Bioeconomy in your region?

- Advanced: **17**
- Less advanced: **7**
- Not advanced at all: **0**

Does your region have a strategy for Bioeconomy?

- **All regions have Bioeconomy(sectors) included in their S3**
- **The Chemicals and material sector is the largest sector** (including for example nano- and biotechnologies, Biopharma and green chemistry)
- **Food sector second biggest sector** (including for example food, nutrition and health and Food processing and safety and forestry)

Bioeconomy sectors in S3

	FINLAND						SPAIN				SWEDEN			ITALY		FRANCE	BELGIUM	DENMARK	POLAND	NETHER	UK		Norway	
	Oulu	South Ostrobothnia	Central Finland	North Karelia	Kainuu	Satakunta	Asturias	Extremadura	Castilla-La Mancha	Navarra	North Sweden	Ostergötland (East Swe.)	Varmland	Lombardy	Basilicata	Lower Normandy	Flanders	Central Denmark	Lodzkie	Gelderland	Scotland	Wales	Northern Ireland	North Norway
Through which sector is Bioeconomy mentioned in your RIS3?																								
Marine						x															x			x
Food		x	x				x			x			x	x	x	x		x			x			
Energy					x		x			x								x		x				x
Chemicals and Materials				x		x	x			x		x	x	x			x	x	x		x			
Agriculture						x		x						x	x			x	x		x			
Forestry	x		x	x	x	x				x	x		x										x	
Other																								



Marine, Food, Energy, Chemical & Materials, Agriculture, Forestry , Other

Has your region received, planned and/ or applied funding from national programmes for the Bioeconomy?

- **18 regions answered YES**
- All Finish (6), Spanish (4) and Swedish (3) regions have received/ applied for funding from **national programmes for Bioeconomy**
- **Other regions are:** Basilicata, Central Denmark, Lodzkie, Gelderland and Scotland

Are your ESIF funds used for funding bioeconomy related initiatives?

Country	Regions	National or Regional Strategy for Bioeconomy?	State of Progress of Bioec. in the Region ?	Is the Bioeconomy included in your RIS3?	Are your ESIF Funds used for funding Bioeconomy related initiatives?
F i n l a n d	Oulu	Yes	Advanced	Yes	Yes - (Not concrete examples)
	South Ostrobothnia	Yes	Advanced	Yes	Yes - (concrete examples)
	Central Finland	Yes	Advanced	Yes	Yes - (concrete examples)
	North Karelia	Yes	Advanced	Yes	Yes - (Not concrete examples)
	Kainuu	Yes	Less Advanced	Yes	Yes - but in future
	Satakunta	Yes	Advanced	Yes	Yes - (Not concrete examples)
S p a i n	Asturias	No	Less Advanced	Yes	Yes - (concrete examples)
	Extremadura	No	Less Advanced	Yes	Yes - (Not concrete examples)
	Castilla-León	Yes (RIS3)	Advanced	Yes	Not answered
	Navarra	Yes (Integrate)	Advanced	Yes	Yes - (concrete examples)
S w e	North Sweden	Yes (RIS3)	Advanced	Yes	Yes - (Not concrete examples)
	Ostergotland (East Sweden)	Yes (RIS3)	Advanced	Yes	Yes - (concrete examples)
	Varmland	No	Advanced	Yes	Yes - (concrete examples)
I T A	Lombardy	Yes (RIS3)	Advanced	Yes	Yes - (Not concrete examples)
	Basilicata	Yes	Advanced	Yes	Yes - (concrete examples)
France	Lower Normandy	No	Less Advanced	Yes	Yes - (concrete examples)
Belgium	Flanders	Yes	Advanced	Yes	Yes - (concrete examples)
Denmark	Central Denmark	In Progress	Advanced	Yes	Yes - (concrete examples)
Poland	Lodzkie	No	Less Advanced	Yes	Yes - (concrete examples)
Netherlands	Gelderland	Yes	Advanced	Yes	Yes - (concrete examples)
UK	Scotland	Yes	Less Advanced	Yes	Yes - (concrete examples)
	Wales	Yes	Less Advanced	Yes	Yes
	Nothern Ireland	No	Less Advanced	Yes	Not by the moment
NORWAY	North Norway	In Progress	Advanced		Not by the moment

What do you aim to achieve?

- Create a sustainable economy
- Gaining investors and exports
- more jobs
- Better and new products
- Development and integration of biorefineries and with the rural sector

what are your main goals for Bioeconomy?

- Bioeconomy as strategy for cluster development
- Reinforcement for models of entrepreneurial innovation
- Maintain people linked to the territory
- Bioeconomy as a regional scale demonstrators builder
- The importance of the food chain

For the implementation of the RIS3 relating to the Bioeconomy objectives, what are the challenges and obstacles in achieving your goals and aims?

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For the implementation of the RIS3 relating to the bioeconomy objectives, what are the challenges and obstacles in achieving your goals and aims?																									
International	x	x							x			x													
Regional cooperation								x				x		x	x										
Capacity building and awareness raising							x	x	x	x	x					x				x				x	
Industry					x			x			x									x					
Research and Development					x			x			x	x		x							x				
Regulatory and Public Investment issues						x	x	x						x			x		x						
Infrastructure			x			x		x																	
Skills												x				x									
lack of key actors				x			x																		
value chains													x	x											
Lack of private	x			x	x																				



Capacity building and awareness raising, Industry engagement, Public investments, better skills, value chain organisation ...

In which field more research and innovation is needed to advance the Bioeconomy in your region?

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In which field more research and innovation is needed to advance the bioeconomy in your region? (i.e. logistics, consumer behaviour, financial instruments, etc.)																									
Logistics	x		x	x		x					x	x			x										
Consumer behaviour																			x						
Financial	x				x	x		x	x					x	x			x	x	x	x				
New technologies	x						x	x																	
Development of new products	x				x					x															
New value chains										x															
Policy changes						x																			
system impact																									
competitiveness of SMEs																				x					
valorisation																								x	



Logistics, Consumer behaviour, Financial, New Technologies, Development of new products, New value chains, Policy, Competitiveness of SMEs, Valorisation

How to involve all actors along the Bioeconomy value chain, from the primary producers until the end users, what is / have been the role in your region?

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How to involve all actors along the bioeconomy value chain, from the primary producers until the end users, what is / have been the role in your region?																									
Regional	x									x			x												
National strategies													x												
International strategies													x												
Projects					x				x	x	x			x				x							
Funding instruments		x																							
Research and innovation centres															x									x	
Joint initiatives				x																					
Horizontal approach																	x								
Communication							x																		
Collaboration Models				x				x											x	x	x				
Clusters									x			x	x	x	x					x					



Regional and National strategies, International strategies, Projects, Funding instruments, Research & Innovation centres, Joint initiatives, Communication, New collaboration models....

What obstacles do you see holding back the needed development of the Bioeconomy?

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What obstacles do you see holding back the needed development of the Bioeconomy?																								
Financial	x				x	x		x	x	x		x		x	x					x		x		
Lack of international	x																							
Lack of awareness			x																	x		x		x
Legislation				x		x									x									
Lack of European strategies											x													
Lack of EU funding											x													
Costs																				x				
Lack of inclusive strategies								x												x				
Organisational obstacles								x		x		x									x			
Political changes															x									
Shortages in human capital																								x
Territorial fragmentation														x										



Lack of awareness, lack of EU funding and EU strategy, Organisational obstacles, Shortages in human capital, Territorial fragmentation...

Have you considered synergies with Horizon 2020 in your OP/ RIS3 on the Bioeconomy?

- Majority of regions reported that synergies with Horizon 2020 in the OP/RIS3 have been considered.
- Implementation still needs to be clearly defined.
- Only very few regions (less than 5) have implemented the synergies in a concrete way

Example of synergies:

The Government of **Navarra** is promoting and encouraging the participation of Navarra stakeholders in H2020 by providing **vouchers to elaborate project proposals** for this EU program. This action is **co-funded by ERDF funds**. Other co-funded actions include **grants** for R&D collaborative projects and for technological centres (including the bio economy sector).

Synergies are considered by **building up value chains** on the whole territory of East and North Finland aiming at utilization of Horizon 2020 funding for building regional path of development. Part of the plan is launching the ERDF thematic call for project proposals in the wood product sector.

Do you detect any missing parts in the scoping paper for WP 16-17?

- More call for pilots, demonstration and deployment activities (3 regions)
- More forestry-related calls, such as processing wood and peat into new high value end products, or Forestry based bio-refineries (2 regions)

Would you propose any further focus areas?

- 9 regions proposed further focus areas. Suggestions are very diverse from the food sector to forestry, including biomaterials.

Which focus areas and subthemes are most interesting for your region?

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Which focus areas and subthemes are most interesting for your region?																								
1.a More resilient and resource efficient value chain	x					x		x		x	x	x	x	x	x	x			x	x			x	x
1.b A competitive food industry						x		x		x			x	x		x			x	x			x	x
1.c Healthy and safe foods and diets for all	x					x		x		x			x	x	x	x				x	x		x	
1.d Implementation of the EU-China FAB Flagship initiative	x					x		x		x				x		x				x			x	
2.a Innovation for emerging Blue Growth activities						x				x						x	x				x			x
2.b Healthy oceans and seas for healthy people						x				x						x	x				x			
2.c Strengthening the European ocean observing, surveying and monitoring capability						x				x							x				x			
3.a New approaches towards policies and governance	x	x	x	x	x	x		x		x	x			x		x				x			x	x
3.b New value chains and business models	x		x	x	x	x				x	x			x									x	x
3.c Innovation and skill development	x				x	x		x		x	x	x		x		x					x		x	x
4.a Fostering sustainable biomass	x			x		x		x		x	x		x		x	x				x		x		x
4.b building the bio-based market of the future			x		x	x				x	x	x	x	x	x	x				x				
5. Other and cross-cutting areas																								

- 1.a More resilient and resource efficient value chain
- 1.c Healthy and safe foods and diets for all
- 1.d Implementation of the EU-China FAB Flagship initiative
- 2.c Strengthening the European ocean observing, surveying and monitoring capability
- 3.a New approaches towards policies and governance
- 3.b New value chains and business models
- 3.c Innovation and skill development
- 4.a Fostering sustainable biomass
- 4.b building the bio-based market of the future