IQ-Net

Improving the quality of Structural Funds management



THE GOOD, THE SMART, AND THE INNOVATIVE: GOVERNANCE AND IMPLEMENTATION OF SMART SPECIALISATION STRATEGIES IN 2021-27

ANNEX

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PREFACE

The IQ-Net Network promotes exchange of experience on the management and implementation of Structural Funds programmes among Managing Authorities, Intermediate Bodies and Coordinating Authorities. The network is managed by the European Policies Research Centre Delft under the direction of Professor John Bachtler and Heidi Vironen. The research for this report was undertaken by EPRC Delft in preparation for the 57th IQ-Net Conference taking place in Eindhoven, Netherlands on 11 to 13 November 2024. The report was written by Liliana Fonseca and Rachel Maguire.

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Austria

- ÖROK Secretariat – Austrian Conference on Spatial Planning

Belgium

- Flanders Innovation & Entrepreneurship

Czechia

- Ministry of Regional Development

Denmark

- Danish Business Authority

Finland

- South and West Finland (Etelä- ja Länsi-Suomi)

Greece

- Management Organisation Unit of Development Programmes S.A., Ministry of Economy and Finance

Hungary

- Managing Authority of the Economic Development and Innovation OP (GINOP), Prime Minister's Office

Ireland

- Southern Regional Assembly, EU and Corporate Affairs Division
- Northern & Western Regional Assembly

Netherlands

- Managing Authority Kansen voor West
- Managing Authority Noord, Northern Netherlands Alliance (SNN)
- Managing Authority Stimulus (OP Zuid)

Poland

- Marshal Offices of the Warmińsko-Mazurskie and the Pomorskie Regions

Portugal

- Cohesion and Development Agency (ADC)

Spain

- Provincial Council of Bizkaia/ País Vasco (Basque Country)

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Disclaimer

It should be noted that the content and conclusions of this paper do not necessarily represent the views of individual members of the IQ-Net Consortium.

LIST OF ABBREVIATIONS

ADC	Cohesion and Development Agency (Portugal)
CDTI	Centre for the Development of Industrial Technology (Spain)
CPR	Common Provisions Regulation
CF	Cohesion Fund
CORIS	Challenge-Oriented Regional Innovation Systems
EC	European Commission
EDP	Entrepreneurial Discovery Process
EGD	European Green Deal
EIS	European Innovation Scoreboard
ERDF	European Regional Development Fund
ESF/ESF +	European Social Fund/ European Social Fund Plus
ESIF	European Structural and Investment Funds
GBARD	Government Budget Allocations for Research and Development
GINOP	Economic Development and Innovation OP (Hungary)
Interreg	European Territorial Cooperation Program
IOI	Innovation Output Indicator
ISIF	Irish Strategic Investment Fund
JTF	Just Transition Fund
JRC	Joint Research Centre
MFF	Multiannual Financial Framework
MA	Managing Authority
MS	Member State
MYR	Regional Management Group (Finland)
NCBR	National Centre for Research and Development (Poland)
NEIA	New European Innovation Agenda
NIPS	National Innovation Platforms (Czechia)
NRDI	National Research Development and Innovation Agency (Hungary)
OP	Operational Programme
OPEIC	Operational Programme Enterprise and Innovation for Competitiveness (Czechia)
PA	Partnership Agreement
PO1	Policy Objective 1 - A more competitive and smarter Europe
PO2	Policy Objective 2 - A greener, low-carbon Europe
RDI	Research, Development, and Innovation
RIS	Regional Innovation Scoreboard/Strategy
ROP	Regional Operational Programme
(N)RRP	(National) Recovery and Resilience Plan
S3	Smart Specialisation Strategy
S3CoP	S3 Community of Practice
SO	Specific Objective
SNN	Northern Netherlands Alliance
SME	Small and Medium-sized Enterprises
VLAIO	Flemish Agency for Innovation and Entrepreneurship (Belgium)

COUNTRY/PROGRAMME ABBREVIATIONS

Country	Abbreviation
Austria	AT
Belgium (Vlaanderen)	BE (Vla)
Bulgaria	BG
Czechia	CZ
Cyprus	CY
Denmark	DK
Estonia	EE
Finland	FI
France	FR
Greece	EL
Hungary	HU
Ireland	IE
Ireland (Southern Regional Assembly)	IE (SRA)
Ireland (Northern and Western Regional Assembly)	IE (NWRA)
Latvia	LV
Lithuania	LT
Luxembourg	LU
Netherlands	NL
Poland	PL
Poland (Warmińsko-Mazurskie)	PL (W-M)
Poland (Pomorskie)	PL (Pom)
Portugal	PT
Slovenia	SI
Slovakia	SK
Spain	ES
Spain (Bizkaia, País Vasco)	ES (Biz)
Sweden	SE

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1 Annex 1: Case studies and good practice in S3 governance and implementation

Effective governance structures and implementation practices are essential for ensuring that S3 deliver on their innovation potential. Across European countries and regions, different models have emerged, reflecting varied local and national contexts, as well as the diverse challenges each one faces in driving innovation-led growth. This section examines S3 governance and implementation approaches, highlighting key best practices that have proven successful in enhancing regional innovation ecosystems. The cases studies featured here have been selected given the level of detail available. Please refer to the previous IQ-Net paper on Delivering Innovation in 2021-27[1] to access other relevant case-studies under this theme.

1.1 Policy experimentation

In the evolving landscape of regional innovation, policy experimentation has emerged as a key driver for advancing S3.[2] Recognising that conventional approaches may not always yield the desired results, regions are increasingly adopting innovative, flexible, and context-specific policy frameworks. Experimentation in policy design and execution allows regional governments to mitigate risks while learning from successes and failures. In the context of S3, experimentation enables regions to explore novel pathways for fostering collaboration, aligning with broader societal goals, and strengthening the overall impact of innovation strategies. This section explores key examples from IQ-Net programme authorities of policy experimentation, focusing on mission-oriented innovation, regional programme design and evaluation, "deregionalising" policy, and the deployment of new instruments for delivering S3.

1.1.1 Centralisation of regional innovation policy

DK presents a unique case of governance reform in smart specialisation, where the responsibility for regional innovation policy shifted from the regional to the national level in 2018. Governance is now overseen by the Danish Board of Business Development, supported by cross-municipal Business Hubs (*Regionale Erhvervshuse*), which have replaced the regional councils as key implementation bodies. Regional development has thus been removed from the remit of the elected regional councils.

The reform was informed by a 2016 report from the government-appointed Simplification Committee (*Forenklingsudvalget*),[3] which identified two key weaknesses in the regional S3s:

- **Overlapping strategic priorities**: multiple regions were focusing on similar priorities, particularly in critical areas such as green and digital transformation, food, and energy. This resulted in duplication of efforts across regions and with national Innovation Networks (*Innovationsnetværk*), sponsored by the Ministry of Research and Education.

- **Limited business support:** smaller firms were constrained by regional boundaries when seeking knowledge partners, while larger firms found the fragmented landscape of regional clusters and business development organisations difficult to navigate.

To address these issues, a two-step process was initiated to establish national clusters. First, promising fields of business activity were identified through comprehensive economic analysis and stakeholder input. An open call followed, inviting consortia to manage these clusters. This led to a merging of many existing regional clusters into 14 new national partnerships. These partnerships mobilised national business and sectoral organisations, particularly in regions outside West Denmark, a region historically overrepresented in cluster development due to the dominance of corporate and interest organisation headquarters in the Copenhagen capital region.[4] While the new clusters were designed to have a national outlook, the process of deciding their headquarters sparked political debate and intense lobbying. Ultimately, the Ministry of Education and Research approved a decentralised operational structure, dispersing cluster headquarters across different regions.

Ultimately, the centralisation of innovation policy in **DK** streamlined governance and reduced redundancy across regions, fostering national-level S3 coordination. The shift has resulted in a more simplified system for businesses, particularly SMEs, to access innovation support, while also enabling more strategic national oversight of S3 priorities. An evaluation undertaken for DBA and the Danish Agency for Higher Education and Science[5] has shown that businesses are largely positive about the changes, citing easier navigation of innovation networks and better access to expertise. However, the transition posed challenges for knowledge institutions, which had previously enjoyed a quasi-monopoly as preferred collaboration partners in their respective regions. For the 14 new national cluster organisations the experience of the last five years has, however, been uneven. One of the 14 organisations, the maritime Marlog cluster, declared bankruptcy in 2022. Applying for different types of funding (national and European) has required considerable resilience of the cluster organisations and their board of directors, not least the private sector and SME representatives.

National political concerns have driven this shift. These are related both to a pursuit of policy and governance efficiency, and enhanced accessibility of resources for firms. Looking forward, with the launch of the new S3 for 2024-27 the Danish government has plans to consolidate the cluster programme further under the Danish Board of Business Development, centralising all national funding for innovation from 2025. This decision, pending parliamentary approval in 2024, would make the Board solely responsible for implementing Denmark's S3 strategy and overseeing the national cluster programme.

Discussion item: what are the potential risks and benefits of this approach for regional stakeholders, particularly SMEs and knowledge institutions? How can the government ensure that local needs and priorities are not overshadowed by national strategies?

1.1.2 Designing S3 to address regional priorities

Regional innovation policy is most effective when designed around structured frameworks that combine both thematic priorities and regional assets.[6] These frameworks guide S3 implementation, ensuring that innovation investments are aligned with both regional strengths and broader societal goals. This framework design can take different forms, from **mission-oriented approaches** (e.g. **AT**, **CZ**, **NL**) that target grand societal challenges, to cross-policy coordination (e.g. **HU**), to region-specific strategies (e.g. **PL**) that focus on **local smart specialisations and cross-sectoral integration**.

Mission-oriented innovation policy focuses on addressing major societal challenges—such as climate change, digital transformation, and public health—by aligning research, industry, and government efforts toward shared, long-term objectives. These policies aim to mobilise multiple stakeholders and resources, fostering collaboration between public and private sectors to generate innovative solutions with widespread societal impact. **AT**'s approach to mission-oriented innovation policy demonstrates how national and European strategies can align to address key societal challenges through S3. The RTI system in the country is evolving from topic-oriented research funding towards a more coordinated, mission-driven approach. By linking mission-oriented RTI measures, **AT** aims to achieve systemic change, including better coordination among stakeholders, fostering a research-friendly environment, and enhancing interdisciplinary and transdisciplinary collaboration and creative solution development.

AT's involvement in the five EU missions – Cancer, Climate, Waters, Cities, and Soil – illustrates how mission-oriented policies can align with broader European goals. These high-profile EU missions are designed to inspire citizens and highlight the value of European investment in R&I. **AT** supports these efforts through Horizon Europe's thematic clusters, which help finance the missions, and through complementary national and regional activities aimed at leveraging further investments. To coordinate the implementation of these EU missions, **AT** established a working group under the RTI Task Force, co-chaired by the Ministry of Education, Science and Research (BMBWF) and the Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology (BMK). This working group includes ministries related to the EU missions and **AT**'s ten central RTI institutions. Their primary goal is to create an "Austrian Implementation Plan" that aligns national priorities with the EU missions and provides clear guidelines for mission-oriented measures. To drive this process forward, five "Mission Action Groups" were also created, each dedicated to one of the EU missions. These groups, jointly led by RTI and sectoral departments, bring together stakeholders from research, industry, government, and civil society to develop concrete proposals for implementing the EU missions in the country. The process is supported by two expert advisory boards focusing on "Strategic Intelligence" and "Foresight & Citizens," ensuring that long-term perspectives and public engagement are integrated into decision-making. This approach is echoed in **CZ**, which highlighted the importance of a mission-oriented approach in the S3 governance structure and framework (Box 1). The case of **NL (North)** will be discussed later in this chapter.

Box 1: Czechia's mission-oriented innovation policy approach

> **CZ**'s approach to smart specialisation governance stands out for its adoption of a *mission-oriented approach* in their framework. These missions are aimed at solving complex societal challenges, such as sustainability, through R&I and cross-disciplinary and collaborative interventions. The governance of these mission-led strategies involves a strong partnership between regional authorities and international bodies, such as the OECD and JRC, facilitating the integration of global expertise into local innovation systems. This governance structure has empowered regions to adopt more flexible, multidisciplinary and dynamic approaches to smart specialisation, allowing for adjustments based on emerging societal needs.



On the other hand, **PL (W-M)** offers an example of a good practice in **S3 design focused on project evaluation** within the Regional Operational Programme and support for horizontal areas. Regional areas of specialisation were defined for the first time in the *Strategy of Socio-Economic Development of the Warmińsko-Mazurskie Voivodeship until 2025* of 25 June 2013. The following functional areas were identified: water economy, high-quality food and wood and furniture – based on extensive public consultations and analysis, and in cooperation with the Regional Steering Committee for the Regional Innovation Strategy. Crucially, the Strategy identifies not only the main areas of specialisation, but also the **horizontal areas** affecting their development. These are: security, ICT, financing, logistics and trade fairs and promotion. This integrated approach ensures that investments in innovation not only strengthen sectoral capacities but also promote cross-sectoral synergies. Project evaluation under the ROP is designed to ensure that funded initiatives demonstrate a clear impact on at least one smart specialisation, fostering innovation that supports regional economic growth while addressing local challenges. "Influence on the development of at least one smart specialisation of the Warmińsko-Mazurskie Region" is understood as meeting at least two of the following conditions:

- Impact on eliminating threats and/or impact on exploiting opportunities diagnosed in the SWOT analysis for a given smart specialisation;
- Impact on strengthening strengths and/or eliminating weaknesses diagnosed in the SWOT analysis for a given smart specialisation in the SWOT analysis for a given smart specialisation;
- Diffusion of the project results to more than one entity operating in the area of a given smart specialisation;
- Creation, as a result of the project, of export opportunities within the given specialisation and/or generation of potential growth of cooperation in European value chains;

- Impact on the creation of cooperation between the scientific community, business, business environment, administration within at least one specialisation as a result of the project.

For each specialisation, a diagnostic document was developed on the potential of the region in a given smart specialisation, including a SWOT analysis. The set criteria made it possible to support not only projects of entrepreneurs offering their products/services only in a given specialisation, but also products/services that could support the development of these specialisations. For example, in the smart specialisation 'High-Quality Food', co-financing was available not only to producers of food or machinery for the food industry, but also to IT companies using ICT technologies to support production processes.

Box 2: Hungary's Cross-Policy Coordination

In the 2021-27 period, **HU** redefined its S3 approach to address three distinct policy areas: RDI, Enterprise Development, and Digitalisation. S3 now serves as an umbrella strategy, aligning the objectives of each area and fostering cross-policy cooperation.

To achieve this, **HU** established the PO1 Working Group, a collaborative forum involving key government departments (enterprise development, digitalisation, EU planning, and RDI). This group coordinates five distinct funding sources and four grant-managing bodies, ensuring cohesive action across diverse policy areas.

The PO1 Working Group's main tasks include:

- Proposing improvements to the legislative and business environment supporting S3;
- Ensuring alignment with government action plans;
- Monitoring S3 targets and progress against key indicators.

By facilitating intersectoral communication and operational-level collaboration, the PO1 Working Group strengthens Hungary's S3 as a tool for achieving integrated regional innovation goals.

Discussion item: what mechanisms or governance structures can ensure that S3 strategies remain flexible and responsive to both emerging societal challenges and evolving regional strengths?

1.1.3 New instruments for delivering S3

Several programme authorities have introduced innovative instruments to enhance the implementation and effectiveness of their S3. These instruments demonstrate flexibility in supporting SMEs, fostering collaboration between knowledge institutions and businesses, and addressing societal challenges.

i Collaborative innovation schemes

NL (North) presents a compelling case of how cluster-based collaborative innovation schemes can effectively address societal challenges or "missions" while enhancing the innovation

ecosystem. Since 2014, the S3 in the region has prioritised societal transitions, ensuring that its approach is inclusive, transcending sectoral and technological boundaries, and generating a collective sense of urgency.

A pivotal development in this landscape was the introduction of the **Open Innovation Call** in 2017. This initiative marked a significant shift in the design and implementation of innovation support instruments. Unlike traditional funding mechanisms that often focus on predefined activities, the Open Innovation Calls prioritise objectives, thereby granting stakeholders greater freedom and flexibility in pursuing solutions tailored to regional needs. This framework laid the groundwork for the subsequent **REACT-EU experiment**, which focused on health ecosystems and knowledge institutes, and emerged as a response to the inefficiencies revealed by the COVID-19 crisis within the innovation ecosystems.

The REACT-EU experiment was distinctive in its approach, departing from conventional methods that typically start with predetermined instruments or calls. Instead, it commenced with a collaborative meeting of a representative group of actors from the ecosystem. Participants were presented with a challenge and tasked with identifying the core issues that required addressing. This collective decision-making process not only fostered ownership among stakeholders but also facilitated the co-creation of potential solutions that encompassed structural change and improvement. Once consensus was achieved and the project aligned with S3 objectives, partners could apply for REACT-EU funding. Two notable projects emerged from this collaborative effort:

- **HiNoord** focuses on transforming the existing healthcare model, shifting from a system centred on healthcare delivery to one that emphasises holistic health management (*zorg voor gezondheid*). The timeline of this project illustrates the effectiveness of the collaborative process (Figure 1).

Figure 1: Timeline of HiNoord project



- The **KONNECT** initiative aimed to explore how knowledge and educational institutions in **NL (North)** could better connect to SMEs and enhance their valorisation roles within the context of RIS3 transitions. Research conducted between August 2022 and October 2023 revealed a strong drive and ample resources within the region to bolster innovation capacity, highlighting the need for joint action across strategic, tactical,

and operational levels. However, the diverse cultures, languages, and perspectives among various ecosystem participants presented a significant challenge.

A pivotal recommendation from the KONNECT initiative was to position hubs in a leadership role, with a centralised management structure complemented by local organisation. This finding has been operationalised in the **Konnect Framework**, which addresses the innovation ecosystem at various levels. The framework emphasises the importance of cultivating a culture of experimentation, investing in the roles of connectors, and developing competencies, alongside establishing an independent body to steer the innovation agenda with a reflective monitoring framework.

Integrating these success factors into both new and existing initiatives and collaboratively redefining roles among stakeholders provides a shared foundation for knowledge institutions, companies, and other entities in **NL (North)** to further shape the innovation ecosystem. While KONNECT marks the beginning of this journey, it underscores the necessity for sustained ownership and urgency in addressing the complexities of the topic. The project has effectively narrowed the gap between knowledge institutes and SMEs, particularly crucial in the Northern region, where the number of SMEs is limited, but strong knowledge institutes are prevalent.

ii SME-specific instruments

One of the ways to promote innovation is by tailoring support mechanisms to the unique needs of smaller enterprises. These tools are designed to reduce barriers to entry, providing SMEs with the financial backing, expertise, and resources they require to develop and scale their innovations. Both **NL (West)** and **PL (Pom)** regions have adopted innovative financial instruments aimed at facilitating access to R&D resources for SMEs, enhancing their ability to innovate and compete.

NL (West) has introduced a new approach under PO1 on "innovation acceleration", focusing on empowering SMEs through **voucher-based support**. This initiative allows existing Field Labs[7] and campuses in the West region to apply for bundles of vouchers,[8] which they can then distribute to innovative SMEs. These vouchers enable SMEs to access the knowledge, facilities, and specialised services of the Field Labs or campuses at a significantly reduced cost, making innovation support more accessible to smaller businesses. There are three types of vouchers:

- **Advice Voucher** for financial support for employing experts, utilising facilities, or other services for the development or further development of an innovation and/or business growth. Covers up to 100 percent of the approved budget, with a maximum subsidy of €15,000.
- **Establishment Voucher** for financial support for paying rent and setting up an office or lab. Covers up to 50 percent of the approved budget, with a maximum subsidy of €15,000.
- **Pilot Voucher** for financial support for using experts and/or facilities to test, validate, or further develop an innovation. Covers up to 50 percent of the approved budget, with a maximum subsidy of €50,000.

Both campus organisations and individual Field Labs must be in West Holland and have previously received funding from the Kansen voor West III programme to be eligible for the voucher bundles. For other organisations that wish to issue a bundle of vouchers on behalf of a group of Field Labs, it is required that at least one field lab involved has received funding from Kansen voor West III. A field lab cannot be part of multiple applications at the same time. The maximum subsidy amount for bundle applications by Field Labs is €750,000, except for applications submitted by an individual field lab, where the maximum subsidy amount is €250,000. Innovative SMEs can apply for individual vouchers from various types of organisations.

Similarly, **PL (Pom)**'s **"Microgrants" initiative** provides SMEs with non-repayable grants to co-finance R&D services, empowering businesses to test new ideas and develop proofs of concept with minimal financial risk. This is an instrument under the region's S3, funded by the ERDF as part of the 2014–20 ROP, and resulting from the dialogue between the employees of the Marshal's Office, the scientific community, and representatives of entrepreneurs. Eligible costs could reach up to PLN 200,000 (approximately €47,000), making the microgrants a crucial tool for smaller firms aiming to increase their R&D activities. The primary goal of this initiative was to enhance access to advanced research services, promote collaboration with universities, and increase the R&D activity of businesses. It also aimed to streamline the process of applying for national and European R&D funds, helping entrepreneurs avoid the complexities of larger-scale grants. By offering a simpler and more accessible funding mechanism, the microgrants allowed SMEs to test research concepts and verify proofs of concept without committing to more complex funding applications. The method of obtaining grants was also simplified in relation to R&D grants, hence the great interest in this instrument. As a rule, after passing verification under Microgrants, projects would be further developed and financed under funds from the ROP allocated for R&D.

The initiative was managed by Excento Ltd, a unit of the Gdańsk University of Technology, in collaboration with the Regional Chamber of Commerce of Pomerania and other key partners. Running from three years from September 2020 to 2023, the total project value was PLN 26.9 million (€6.2 million), with PLN 19 million (€4.4 million) allocated directly for subsidies. Throughout the project, 186 grant applications were submitted, 95 of which were approved, resulting in the successful implementation of 86 R&D projects. Many of these projects are expected to evolve into larger applications under the S3 framework for 2021–27, further boosting innovation in the region.

These instruments illustrate how micro-level funding can stimulate SME-driven innovation, aligning closely with broader regional innovation goals while reducing barriers for smaller businesses to access expert resources and engage in R&D activities.

Discussion item: Given the increasing emphasis on cluster-based approaches and collaborative innovation in the 2021-27 programme period, what innovative instruments or approaches (e.g., innovative governance structures, clusters, vouchers, microgrants, calls) provide the greatest value in enhancing SME engagement and fostering collaboration within the S3 framework?

1.2 Effective cooperation

Effective cooperation among diverse stakeholders is essential for addressing complex societal challenges and enhancing regional competitive advantages. This section explores various models of collaboration that demonstrate how synergies between various types of entities can lead to transformative outcomes. Examples on public-private partnerships, interregional cooperation, and bottom-up engagement provide valuable insights into fostering an inclusive and responsive innovation ecosystem that can adapt to changing needs.

1.2.1 Public-private partnerships

A notable example of effective cooperation in regional innovation is **BE (Vla)**'s BlueChem, a part of the Catilisti Flagship cluster.[9] BlueChem is an incubator supporting startups in sustainable chemistry by providing infrastructure, financial, and market services. Located at the climate-neutral Blue Gate Antwerp business park, it helps startups overcome challenges in accessing resources and scaling innovations. The 3,375 m² facility, funded by the ERDF (40 percent), private investment (50 percent), and Flemish subsidies (10 percent), offers flexible workspaces, labs, and shared equipment.

In May 2023, announced plans for an expansion (BlueChem XL) in 2025, valued at €6.3 million, with half funded by EU and Flemish sources, and the rest by private investments. Almost fully occupied within three years, the incubator continues to attract interest from both domestic and international companies.

BlueChem exemplifies **open innovation**, involving collaboration between large companies, SMEs, startups, government bodies, and knowledge institutes (see Table 1). BlueChem has been a case study in the most recent impact evaluation of the 2014-20 ERDF programme in BE **BE (Vla)**, which concluded that ERDF funding was crucial to the project's realisation.

Table 1: BlueChem nv public-private partnership

BlueChem nv, responsible for the operation and daily management of the incubator	
Private	**Public**
Essencia, Belgian sector federation of the chemical industry and life sciences. The organization represents the specific interests	POM Antwerp (provincial development organisation), improving spatial infrastructure for business establishment

of companies active in chemicals, plastics, pharmaceuticals, and biotech.	through sustainable development of business parks and business centres.
	City of Antwerp, provides long term investment in BlueChem.
	VITO (Flemish institution for technology and research), independent research institute for cleantech and sustainable development).
BlueChem building nv, responsible for building the incubator	
Bopro Sustainable Investments (BSI), Part of Bopro, an independent group that offers a comprehensive package of integrated real estate services for building complexes in urban environments.	AG Vespa, Autonomous municipal company for property management and urban projects in Antwerp.
DEME Environmental Contractors (DEC), an international specialist in environmental projects, focusing on soil remediation and groundwater purification, recycling techniques, and the redevelopment of brownfield sites.	PMV (Flanders participation company), finances promising enterprises from their early stages through growth and internationalisation. In collaboration with the government and other partners, it realises projects that are important for prosperity and well-being in Flanders.

Discussion item: What strategies can be employed to ensure that these partnerships remain sustainable and responsive to evolving societal needs?

1.2.2 Strengthening capacities through interregional cooperation

Interregional cooperation is a vital mechanism for strengthening regional innovation ecosystems, enabling regions to pool resources, share knowledge, and address shared challenges in a collaborative and impactful way. Two notable examples of this approach in action are PT's **I3-4-BLUE-GROWTH** project and IE (SRA)'s **TALENT4S3** initiative (Box 3), both of which illustrate how interregional cooperation can drive progress in key sectors, from the blue economy to talent retention and human capital development.

The I3-4-BLUE-GROWTH project exemplifies how interregional cooperation can support the development of sustainable industries, particularly in less-developed regions. This initiative, funded by the European Innovation Council and SMEs Executive Agency, and coordinated by **PT**'s Agência Nacional de Inovação (ANI), brings together ten organisations from eight different countries – Croatia, **Spain**, **Finland**, France, Italy, **the Netherlands**, **Poland**, and **Portugal** – to enhance the blue economy. It focuses on two core value chains with potential for innovation and growth, in particular: **sustainable seafood, aquaculture and valorization of blue resources** (value chain #1), and **maritime renewable energy and decarbonization of the maritime sector** (value chain #2). The project seeks to identify opportunities for innovation and investment that will contribute to a greener, more sustainable economy.

At the heart of I3-4-BLUE-GROWTH is the goal of building the capabilities of regional innovation ecosystems, particularly in territories like the Autonomous Region of the Azores and the Centre and North of Portugal, where economic development is more limited. By facilitating cooperation between SMEs, startups, clusters, universities, and research institutes, the project enables these regions to tap into broader European networks, thereby accelerating innovation in sectors that are vital for future economic growth. Through a combination of open calls, working group meetings, and targeted capacity-building initiatives, the project provides tailored support to regional actors, helping them access funding opportunities (accessing guidance and calls to different EU funding instruments, such as InvestEU, the Connecting Europe Facility (CEF), the Innovation Fund, or other private funds), build partnerships and synergies, and scale their innovations. Identification and mapping of opportunities for innovative, sustainable and deeptech investments across those sectors will be at the core of the project activities.

The main objective is to promote **interregional collaboration** and build the capacity of actors in the regional innovation ecosystems of the less developed territories that are part of this initiative (namely the Autonomous Region of the Azores, and the Centre and North Regions of Portugal). It brings together innovative SMEs and start-ups, as well as clusters, business centres, universities, research institutes and innovation and technology transfer entities.

Box 3: IE (SRA)'s interregional collaboration in the TALENT4S3 project

IE (SRA) is participating in the three-year Interreg Europe TALENT4S3 project, which focuses on human capital. As regions across Europe face increasing competition for skilled talent, TALENT4S3 addresses the pressing issue of brain drain and talent retention within the context of S3. By partnering with regions from **Spain**, Italy, Romania, Slovenia, **Finland**, Lithuania, and **the Netherlands**, TALENT4S3 seeks to develop strategies that enhance the ability of regions to attract and retain the skilled workers needed to drive innovation and economic growth.

For **IE (SRA)**, this project offers an opportunity to integrate best practices from other European regions into its own development framework of the Regional Spatial and Economic Strategy (RSES). The initiative's focus on talent aligns with the region's broader goal of becoming a "Learning Region" that not only supports long-term

economic growth but also fosters social cohesion and adaptability in the face of changing labour market demands. The Southern Region is adapting successful talent retention and attraction strategies to its local context, thus strengthening its regional innovation ecosystem and enhancing its ability to implement S3 effectively.

What sets these initiatives apart is their ability to connect local actors to larger European networks, ensuring that innovation ecosystems in less-developed regions are not left behind. By fostering collaboration across borders, these projects help regions overcome the limitations of working in isolation, creating opportunities for shared learning and mutual growth. Importantly, they also highlight the role of targeted, customised support in ensuring that regional actors are equipped to navigate complex challenges, from accessing funding to scaling their innovations.

Discussion item: what governance structures and funding mechanisms are needed to ensure effective coordination and that all regions, regardless of their development level, fully benefit from such collaborations?

1.2.3 Ecosystem enhancement and innovation hubs

The **Films4Future** (F3) project in **FI** is a prime example of how innovation hubs can enhance regional ecosystems. Launched on 15 September 2022 and scheduled to run until 14 September 2025, F3 operates under the "Priority 1 Innovative Finland" and "SO 1.1 Enhancing Research and Innovation Capacities" framework of the Helsinki-Uusimaa Regional Council. With a total planned budget of €1,855,585 (including public and private funding), €260,395 is co-financed by ERDF and the remaining funds come from domestic AKKE co-financing.[10]

F3 brings together a consortium of 34 companies, including nine SMEs, to advance sustainable, recyclable, low-carbon film materials. By leveraging lignocellulose-based resources, the project seeks to replace fossil-based films, focusing primarily on applications within the food packaging industry. This effort will also contribute to innovation in other sectors like plastics, construction, and materials science.[11]

The project directly supports the S3 of both Helsinki-Uusimaa and South Karelia, strengthening Helsinki-Uusimaa's role as a bio- and circular economy hub, and South Karelia's prominence in the forest industry. The project will also be a part of the circular economy valley of Uusimaa (*Uudenmaan kiertotalouslaakso*). In addition, F3 aligns with other relevant regional strategies such as Carbon Neutral uusimaa (*Hiilineutraali Uusimaa*) and Entrepreneurial eKarelia (*Yritteliäs eKarjala*). The project combines the expertise of VTT Technical Research Centre of Finland, which is also the project lead, LUT University, and other project partners representing material science and manufacturing technology. Together they aim to develop new low carbon alternatives for current fossil-based solutions. Besides creating new academic knowhow and

piloting opportunities for the regions of Helsinki-Uusimaa and South Karelia in the south of Finland, the project also aims to create cooperation opportunities internationally.

Box 4: Ireland's schemes supporting R&I, research collaboration and enterprises

In Ireland, ERDF co-funded schemes supporting innovation and delivery of S3 priorities are implemented through Programme delivery Partners such as Science Foundation Ireland, Enterprise Ireland and the Higher Education Authority (HEA). One such scheme is the Technological University Research and Innovation Supporting Enterprise (TU RISE).

TU RISE funds PhD scholarships to enhance research collaboration between academia and regional enterprises. The programme aligns with Ireland's national Smart Specialisation Strategy and Regional Enterprise Plans, aiming to develop skilled researchers who will bridge academia and enterprise through placements. It also provides funding for higher education institutions to upgrade world-class research equipment, supporting innovation and R&D for Irish researchers and enterprise partners over the next two years.

TU RISE provides €63.68 million under the Irish Southern, Eastern, and Midland regional programme (SRA), and €20 million under the Northern and Western regional programme (NWRA). In SRA, there are six eligible institutions: Munster Technological University, Technological University of the Shannon, South East Technological University, Dundalk Institute of Technology, Dún Laoghaire Institute of Art, Design and Technology, and the Technological University Dublin. In NWRA, the eligible institution is the Atlantic Technological University (ATU). As an example of activity under TU RISE, in April 2024, the ATU launched 60 PhD scholarships under the scheme, spanning disciplines such as Advanced Manufacturing, AgriTech, Creative Industries, ICT, Life Sciences, Marine Economy, and Renewable Energy.

PT's Mobilising Programmes (Programas Mobilizadores) represent strategic approach to fostering innovation, particularly through large-scale R&D projects aimed at developing new products, processes, or services with high technological and innovative content. These programmes are designed to act as catalysts for change within specific value chains by leveraging scientific and technological capabilities across multiple sectors. For instance, the **"Mobilising Agendas for Business Innovation"**, which include the **Green Agendas**, aim to strengthen collaboration between businesses, research institutions, and the scientific community. This thereby enhances the competitiveness and resilience of the Portuguese economy based on R&D, innovation and the diversification and specialisation of the productive structure.

The strength of these programmes lies in their ability to unite various stakeholders, including companies, business associations, entities of the R&I system, municipal bodies, and academic institutions, among others, into Consortia that drive innovation.[12] This collaborative structure is intended to foster cross-sectoral synergies and enable the endogenization of new technologies,[13] with a particular focus on fostering sustainability and resilience. This strategic approach allows for a clear framework and direction for participating actors, ensuring alignment with national and EU-wide priorities such as the green and digital transitions.

Discussion item: how can innovation hubs facilitate cross-sectoral innovation, enabling collaboration between industries that traditionally do not interact? What role should Managing Authorities play in promoting this kind of cross-pollination of ideas? What mechanisms can be put in place to maintain engagement momentum after the initial funding period ends?

Notes

[1] Vironen, H., Michie, R. and Fonseca, L. (2022) Implementing Innovation: Smarter and Greener Actions. IQ-Net Thematic Paper 53(2), European Policies Research Centre Delft.

[2] See research like Meyer, C. (2022). Social Innovation Governance in Smart Specialisation Policies and Strategies Heading towards Sustainability: A Pathway to RIS4? *Social Sciences*; and Moodie, J.R., Wøien Meijer, M., Salenius, V., & Kull, M.D. (2021). Territorial governance and Smart Specialisation: empowering the sub-national level in EU regional policy. *Territory, Politics, Governance, 11*, 1392 - 1412.

[3] Forenklingsudvalget for Erhvervsfremme, F. F. (2016). *Fokuseret og fremtidssikret*. København: Erhvervsministeriet.

[4] Halkier, H (2023) Cluster development policies in Denmark. A policy perspective on the new Danish Knowledge and Business Clusters. Presentation, EoRPA seminar 25.4.2023.

[5] Uddannelses- og Forskningsstyrelsen & Erhvervsstyrelsen. (2022). *Udbytte af "Innovationskraft" klyngeprogrammet 2021-2024 – resultater af klyngesurvey 2022*. København: UFS ERST.

[6] See for example Marques, P., & Morgan, K. (2018). The Heroic Assumptions of Smart Specialisation: A Sympathetic Critique of Regional Innovation Policy.

[7] A Fieldlab is an open and physical practice environment with a shared, concrete "asset" (such as a facility, infrastructure, database, or access to users), where (regional) governments, businesses, and educational and knowledge institutions (triple helix) can collaborate and develop and apply new knowledge.

[8] Innovation Vouchers: Aimed at assisting companies, mostly SMEs, in investing in innovative solutions and services or the acquisition of machinery that will facilitate innovation. This type of voucher focuses broadly on innovation, not specifically on digitisation. (See https://ec.europa.eu/information_society/newsroom/image/document/2019-32/member_states_use_of_voucher_schemes_0D31F683-AA92-B7FF-684433BCBD8A4F3A_61225.pdf for more info on vouchers)

[9] Mission of Catilisti is to actively contribute to sustainable and competitive chemical & plastics industries by working on new value chains, improved innovation power, clustering knowledge, and a sustainable economy

[10] EURA2021 database EURA2021 - Hanketietopalvelu

[11] EURA2021 database EURA2021 - Hanketietopalvelu

[12] https://www.compete2020.gov.pt/PRR_agendas_mobilizadoras; https://www.compete2020.gov.pt/admin/images/Concurso-Ideias-C5-i01.pdf

[13] https://www.ani.pt/financiamento/incentivos-financeiros-pt-2020/mobilizadores/

2 ANNEX 2: SMART SPECIALISATION STRATEGIES & ESIF IN IQ-NET COUNTRIES & REGIONS 2021-27 – QUICK GUIDE

MS/region	Approach to S3	Priorities/domains/themes	How operationalised in 2021-27?
Austria	Based on domestic RTI strategy 2030 (FTI-Strategie 2030) (2020), linked to national-level sectoral strategies and regional innovation strategies in each of the 9 *Länder*.	Each *Land* has defined its own priorities. Styria, for instance, focuses on mobility, green technology and health technology.	Mainly ongoing application principle, with limited number of calls, including one in the field of RTDI, to be implemented by the IB Austrian Research Promotion Agency (FFG) and provide support for research infrastructure. It will be the programme's only call that is open to applications from all 9 Länder.
Bizkaia/País Vasco	Based on the domestic RIS3 strategy (PCTI EUSKADI 2030)	Advanced Manufacturing Energy Health Food Urban Habitat Cultural & Creative Ecosystems and Industries	The RIS3 strategy underpins policy interventions in SOs 1.1 and 1.2 and is reflected in the project selection criteria of relevant interventions.
Czechia	National Research and Innovation Strategy for Smart Specialisation of the Czech Republic 2021-2027. Relevant in particular to OP Technologies and Applications for Competitiveness, OP Jan Amos Comenius and OP Just Transition. Intended also for other OPs and national funding programmes. Includes also strong regional dimension (14 separate regional RIS3 strategies).	Advanced materials, technologies & systems Digitisation & automation of production technologies Electronics & digital technologies Green transport Technologically advanced & safe transport Advanced medicine & pharmaceuticals Cultural & creative industries to accelerate socio-economic development of Czech Republic Green technologies, bioeconomy & sustainable food resources Smart settlements	Relevant OPs can implement through: • Consistency of call/support programme with specific objective of National RIS3 (horizontal challenges) • Consistency of thematic call/programme with domain of specialisation • Consistency with theme of key and emerging technologies within domain of specialisation • Targeted call for R&D&I topics within domain of specialisation • Targeted mission call. Also included in project assessment criteria.

Denmark	As of 2024, S3 strategy same as the general strategy of the Danish Executive Board for Business Development and Growth.	Strengthening innovation and the use of technologies in SMEs.	Focus on clusters as key delivery mechanism.
Finland	• 18 regional S3s (linked to the domestic regional strategic programme or a separate S3) • Provide the framework for the implementation of innovation actions in Structural Funds programme (together with other key strategies e.g. national R&D&I roadmap and domestic regional strategic programmes)	Regional S3s have different priorities, e.g.: Helsinki-Uusimaa Citizens' City Climate neutrality Industrial modernisation Satakunta Technology metal, mineral & battery cluster Automation & robotics cluster Energy cluster Food cluster Bio- and circular economy cluster Blue economy Experience economy Wellbeing economy Safety & security of supply	S3 taken into account in the call stage (call emphasises the need to have alignment with S3 priorities), in the project selection criteria (includes some specific Smart Specialisation relevant criteria which are compulsory) and in the scoring of projects.
Greece	National S3, with 13 regional specialisations. Relevant to several OPs: • 13 Regional OPs • Competitiveness OP 2021-27, which provides a major part of resources supporting S3 • Just Development Transition OP also provides resources and contains relevant targets.	Climate change Digitalisation Health	Priorities will be implemented through calls.
Hungary	National S3 2021-27. Resource requirements for implementation of S3 will be provided mainly by two OPs: Digital Innovation Plus (DIMOP) and Economic Development and Innovation Operational Programme Plus (GINOP+).	National priorities: Agriculture, food industry Health Digitalisation of the economy Creative industries (new) Resource-efficient economy Energy, climate Services Cutting edge technologies	During selection of operations, project promoters under the RDI priority need to show link to the S3 strategy and to which priority the project contributed. The formal appraisal of projects is a responsibility of the MA but project selection will be managed based on a cooperation agreement with the national agency for research development and innovation. In practice, the agency will issue a statement on

		Horizontal priorities: Public sector & university innovation Training, education	the relevance of the operation for the S3 strategy.
Ireland	S3 for Ireland (2021-27) takes regional approach ("a bridge between regional and national innovation strategy building and decision making")[14] informed by development of Regional Enterprise Plans.	Digitalisation & digital transformation Green transformation for enterprise Innovation diffusion International collaboration on RD&I Improving the national or regional enterprise research & innovation system.	Link most direct through proposed Priority 1. Selection of operations to be aligned with S3.
Netherlands	S3 is a living document but only plays a small role in overall innovation funding in NL. New focus on promising sectors (West) and societal challenges/themes (South).	West: Energy transition & sustainability Agriculture, water & food Health & health care Security South: Energy transition Raw material transition Climate transition Agriculture & food transition Health transition	Calls to be theme-based (South).
Pomorskie	Pomorski Smart Specialisations (PSSs) recognised within Pomorskie Development Strategy 2030	Offshore, port and logistics technologies Interactive technologies in an information-saturated environment Eco-effective technologies around energy and fuels Medical technologies	Bottom-up process for defining its smart specialisations where PSSs were selected through dialogue and partnership, all part of the Call for proposals for the selection of Pomorskie Smart Specialisations. The details of each specialisation were defined in PSSs Agreements and each PSS has its own PSS Council.
Portugal	National Strategy for Smart Specialisation 2030 (ENEI 2030), and seven regional strategies.	National RIS3: Digital Transition Materials, Systems & Production Technologies Green Transition Society, Creativity & Heritage Health, Biotechnology & Food Major Natural Assets: Forest, Sea & Space	S3 integrated transversally into programming and is a condition of access to SO 1.1, both in the Thematic Programme Innovation and Digital Transition and in the Regional Programmes (five regions of the Mainland and the two Autonomous Regions), in which it will also be a condition of access in SO 1.4, and a condition of merit in SO 1.3.
Vlaanderen	S3 adopted by Flemish Government as a guiding strategic policy principle for innovation and industrial policies in the 2013	Sustainable chemistry (Catalisti) Advanced materials (SIM) Smart manufacturing (Flanders Make)	S3 fully integrated in the 2014-20 programme and will continue to be a guiding principle in 2021-27. MA takes the strategy as the basis when

	Concept Note 'Smart Specialisation Strategy for a Targeted Cluster Policy'. Latest iteration of S3 strategy in Vlaanderen approved in 2019. Approach focuses on 10 strategic research centres and spearhead clusters.	Health & life sciences (vib) Specialised logistics (VIL) Agro-Food (Flanders Food) Electronic systems, Iot & photonic systems (imec) Energy (Flux 50) Environment & cleantech (Vito) Blue economy (Blue Cluster)	it issues calls under Priority 1 and the 10 domains guide the process of project selection.
Warmińsko-Mazurskie	RIS3 incorporated in regional development strategy "Warmińsko-Mazurskie 2030".	Water Economy, High-quality Food Wood & Furniture Healthy Life	Investments in R&D will be focused on S3, along with staff education and training. In addition, projects in the fields of entrepreneurship, innovation or digitisation of the economy implemented in the areas of specialisation will be rewarded points in calls for funding applications, in order to concentrate support on S3.

Notes

[14] Department of Enterprise Trade and Employment (2022) Smart Specialisation, https://enterprise.gov.ie/en/what-we-do/innovation-research-development/smart-specialisation/, accesses 28th September 2022