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Innovation ecosystems management for better I3 Instrument implementation

Policy brief on main findings and recommendations of the discussion group

I3 Interregional Innovation Investments Instrument

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I.01 - EU and Place-based Innovation Ecosystems

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Policy brief on main findings and recommendations of the discussion group

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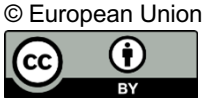

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Contents

1. Introduction 6

2. Challenges related to the role of ecosystem's orchestration in the implementation of I3 instrument 8

3. Key elements for an effective ecosystem orchestration (Question 1) 10

3.1. Strenghtening ecosystem readiness 10

3.2. Improve governance and strategic alignment to reduce fragmentation and foster cohesion 13

4. Quadruple Helix Stakeholders Contribution to the orchestration of ecosystem (Question 2) 15

4.1. Define the role of ecosystem actors in orchestration mechanisms 15

4.2. Stengthening ecosystem capacities through all types of actors 18

4.3. Policy mechanisms for better interregional collaboration 18

5. Capacity building and support to SMEs (Question 3) 20

6. Conclusions 21

1. Introduction

This policy brief draws on the work of the **Discussion Group on Ecosystem management** which was established to exchange between policy makers and stakeholders already actively engaged or willing to be engaged in innovation policy and interregional collaboration under the I3 instrument. Throughout three sessions held through 2025, i.e., in April, June and September, the discussion group stirred dialogue and collaboration among experts in the field to tackle key issues in innovation ecosystem management in the context of I3. The deliberations, contributions and ideas of the discussion group members have been summarised and are presented in this policy brief.

The discussion group included 13 members coming from different backgrounds (i.e., government, policy, academia, clusters and other intermediary organisations) selected based on the open call for Expression of Interest launched in mid-January 2025. The coordinator was in charge of organising and stirring the discussions and developing the policy brief with support of discussion group members.

The purpose of this discussion group was twofold. On one hand, it aimed to identify key drivers and main challenges in the “management” (the word ‘orchestration’ was later chosen as it better reflects the reality pertaining to the innovation ecosystem) of a regional innovation ecosystem in the context of I3 instrument implementation. On the other hand, it focused on gathering evidence and ideas for improving regional innovation ecosystem performance for implementations of I3 projects.

The first meeting (kick-off) took place online on 14th April 2025. It established the scope of the discussions by identifying the challenges faced by regional ecosystems and formulation of a list of questions to be addressed by the group through its work (see the table below). A scoping note was developed for this purpose and shared with discussion group members ahead of the meeting.

Box 1: Questions addressed by the group

1. **What are key elements of strategic alignment and governance necessary for an effective management of an innovation ecosystem for a good promotion and implementation oft he I3 instrument**
   - Is there a minimum requirement in terms of ecosystem readiness for a good implementation of I3 instrument?
   - What differences can be observed in "good" ecosystem orchestration in an Less Developed Region (LDR) and in a More Developed Region (MDR)?
   - Can we design an ecosystem framework for a good implementation of I3 instrument (S3 strategy alignment, funcioning multilevel governance)?
2. **How can stakeholders from the Quadruple Helix better contribute to the orchestration of the ecosystem management that leads to effective promotion and implementation of the I3 instrument?**
   - What can be the role of clusters, universities, accelerators and all other intermediaries' actors in ecosystem orchestration?
3. **How can the ecosystem management contribute to capacity building and support SMEs through the I3 instrument?**
   - How could an ecosystem orchestration contribute to prepare and support local SMEs for interregional collaboration in I3 projects ?

The **second meeting** held online on 12th June 2025 served to discuss in detail the proposed questions in relation to the identified challenges in I3 instrument implementation (developed based on the "Analysis of the implementation of the I3 instrument as perceived by the first generation of I3 consortia" EC, 2024, not published). The discussion group members were invited to address one or two questions in connection to the outlined challenges drawing on their experiences through a short intervention. The outcome of the meeting allowed to gather a significant amount of information for analysis and served as key element for the third and final meeting.

The third and final meeting was held in-person in Brussels in EISMEA premises on 25 September 2025. It served to formulate actionable recommendations to address the challenges identified in the management of the ecosystem for the promotion and implementation of the I3 instrument.

2. Challenges related to the role of ecosystem's orchestration in the implementation of I3 instrument

Regional innovation ecosystems play a crucial role in enhancing a region's innovation capacity by facilitating knowledge exchange, encouraging risk-taking, and providing access to necessary resources and support systems. It also plays a critical role in nurturing entrepreneurship, attracting investments, creating jobs, and developing innovative solutions to complex regional problems.

By connecting innovation ecosystems, the I3 Instrument aims at strengthening the capacity of regional innovation actors—including SMEs, clusters, incubators, and public authorities (represented by the nodes in the figure below), providing funding, advisory services, and networking opportunities (those interactions are represented by the arrows). I3 projects should enable regions to identify investment opportunities, develop business cases, and engage in cross-border value chains.

Ecosystems embed the concept of quadruple helix (government, business, academic and civil society) that drives the entrepreneurial discovery process at the heart of the smart specialisation (S3) concept. Ecosystems bring together organisations whose purpose is innovation and include the links between resources (such as funding, equipment and facilities), organisations (such as higher education institutions, research and technology organisations, companies, venture capitalists and financial intermediaries), investors and policymakers. As said before, the role of innovation ecosystems and the objective the I3 instruments are intrinsically linked to each other as each one influences the other making the orchestration (management) of the ecosystem an important lever. The box hereunder shows the main challenges of beneficiaries of the first generation of I3 projects in terms of I3 project implementation with impact on their respective regional innovation ecosystems.

Box 2: Some outcomes of a survey targeting beneficiaries of the first generation of I3 project about the expected role of I3 instruments on Ecosystems[1]

Main challenges noted by the I3 instrument beneficiaries hindering effective I3 project implementation, according to the analysis of survey launched by EISMEA targeting the beneficiaries of the first generation of I3 projects:

- Limited interaction with authorities (weak integration with regional innovation strategies and ecosystems)
- Weak links to S3 strategies/platforms (missed opportunities for cross-regional collaboration and knowledge exchange)

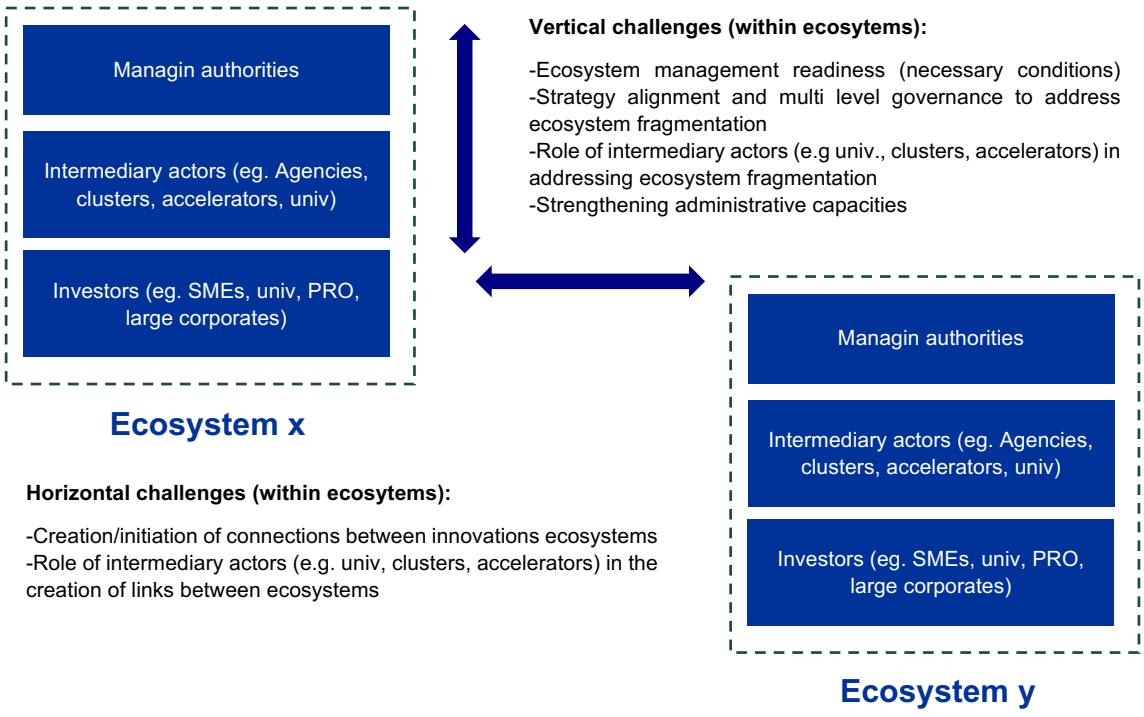
[1] Extracted from the Insight report: Analysis of the implementation of the I3 instrument as perceived by the 1st generation of I3 consortia – June 2024

- Fragmentation among stakeholders (that hinders cohesive, resilient, and interconnected innovation ecosystems)
- Limited capacity in less-developed regions (that perpetuates regional disparities and limits ecosystem development)
- Challenges in SME integration (that reduces ecosystem innovation and market uptake)
- Ineffective communication/dissemination (that limits stakeholder engagement and adoption of innovations
- Uncertain post-project exploitation pathways (that undermines long-term sustainability and systemic impact of projects)

The exchanges among the Discussion Group members led to identification of challenges related to the orchestration of innovation ecosystems that have direct implications for the I3 instrument implementation and interregional innovation collaboration. These challenges can be divided into two categories: vertical challenges (i.e. within the ecosystem of a region and its multilevel governance) or horizontal (i.e. between regions and ecosystems). These two types of challenges are summarised in Figure 1.

In this respect, it is important to note that the strength of a given ecosystem has a direct impact on the quality of the ecosystems' interactions and effective I3 project implementation.

Figure 1 – Addressing ecosystem challenges within and between ecosystems for better I3 implementation and inter-regional collaboration



3. Key elements for an effective ecosystem orchestration (Question 1)

Given the correlation between the strength of the ecosystem and capacities of the ecosystem to engage in effective inter-regional collaboration, it is important to first analyze the critical elements of the effective regional ecosystem orchestration.

At the heart of every thriving regional ecosystem lies a delicate balance of vision, collaboration, and execution. Five core pillars—political support, strategic alignment, effective governance, targeted financing, and rigorous monitoring—form the backbone of successful orchestration. In addition, the way these principles are brought to life can look differently depending on whether a region is just beginning its journey or already stands on the grounds of decades of development.

3.1. Strenghtening ecosystem readiness

Any successful orchestration begins with clear political backing. Decision-makers must recognize interregional collaboration as a strategic priority which is worth the resources and efforts it requires. Without this commitment, initiatives struggle to gain traction, secure resources, or sustain long-term impact.

Recommendation 1: Develop and use an "***ecosystem readiness level framework*** to assess regional capacities and gaps, analogous to TRL, recognizing maturity differences between regions and their innovation ecosystems.

- The question of ecosystem readiness for I3 implementation can be considered differently if the region is more or less developed. Consequently, the need for orchestration is less important for more simple ecosystems with a limited number of actors which is often the case for Less developed regions. However, more complex ecosystems often found in more developed regions require a dedicated ecosystem orchestration mechanism. At the same time, both less and more developed regions require continued capacity building to accompany ecosystem dynamics and translate the inter-regional and global trends locally.
- In terms of operationalisation, an ecosystem readiness level scale (ERL) might need to be framed as domain specific, since some regions might be less developed (LDR), but with a strong ecosystem for innovation in a specific domain. The opposite can also be a valid scenario, a more developed region can have a simpler ecosystem in specific domains. The

question of making mandatory the Ecosystem readiness assessment at the moment of submission of an I3 proposal is relevant. Such assessment could also be done after the implementation of the I3 to measure the impact of the I3 instrument on regional ecosystems.

Recommendation 2: Invest in capacity building including skills, governance structures, and absorptive capacity to ensure that all regions can participate effectively in interregional projects. The importance of open, collaborative platforms and regional living laboratories in increasing absorptive capacity can be emphasised.

➔In less developed regions, where the ecosystem is still nascent, the priority should be given to ensure that basic elements of a good governance are in place with a focus on empowering actors who may have never before had a seat at the table: local entrepreneurs, civil society groups, and public institutions. This means investing in skills, fostering trust, and fostering networks. It's about turning potential into action, one workshop, one training session, one mentorship program at a time. In this context, S3 can become a real compass. The development of S3 strategies and roadmaps allow to identify key challenges and opportunities and shape a shared vision for addressing those challenges. The development of tailored Entrepreneurial Discovery Processes (EDP) approaches that are scaled to fit smaller, less resourced ecosystems becomes important. Finally, investing in absorptive capacities is critical to enhance region's readiness for inter-regional projects.

Box 3: The project development lab tool in the Centru Region (Romania)

In 2025, the Project Development Lab was piloted in Romania's Centru region under a Targeted Assignment supported by the DG REGIO of the Europen Commission, upon request of the Centru Regional Development Agency (RDA Centru). The initiative aimed to strengthen the regional governance framework and support the Entrepreneurial Discovery Process (EDP) within the context of Smart Specialization Strategy implementation.

The assignment identified key challenges, notably the limited cohesion of the regional innovation system gaps, in the RDA's action plan for continuous EDP, and the need for enhanced alignment of regional priorities with EU policy orientations and programming objectives

The Project Development Lab providd dedicated support to potential project promoters – public research organizations, SMEs, and innovation clusters – in the preparation of proposals for the Centru Regional Programme. Fourteen proposals (ten for RDI capacities and four for clusters) were developed and reviewed, each accompanied by specific recommendations for quality improvement. The exercise also enabled RDA Centru to better respond to maket demand and to fine-tune funding guidelines and annexes

- Measures to reinforce collaboration within the regional innovation ecosystem, including enhanced stakeholder engagement, capacity building, and integration of continuous EDP actions.
- Short-term measures aligned with the RDA's activity plan, such as institutionalising project development labs and revising smart specialisation priority areas based on updated evidence.
- Ations to improve vertical coordination between regional and national levels, strengthening the role of the National Coordination Committee for Smart Specialisation and ensuring stakeholder input throughout the implementation cycle.

RDA Centru is currently preparing to launch the two targeted calls and to organise a new EDP later this year. In 2026, a subsequent Project Development Lab will be organised, drawing upon the methodologies developed under the S3CoP ad-hoc mission.

Source: Szavicz, P. (2025) Targeted assignment for Centru, Romania providing support for the Entrepreneurial Discovery Process and governance system, Ad-hoc assignment: Smart Specialisation Community of Practice (S3 CoP), European Commission, DG Regio

➔In more developed regions, the challenge is to inter-link and better integrate various elements of the ecosystem. Creating collaborative platforms and open innovation spaces that facilitate the flow of ideas, skills, and resources among stakeholders can promote cross-fertilization and the emergence of ambitious projects. Advanced strategic alignment of S3 strategies and related roadmaps with major EU and global challenges is key to turning regional strengths into European and global advantages. Finally, MDR can afford to invest in dedicated ecosystem orchestration teams, supported by regional funding. These professionals ensure coordination, animation, and monitoring of initiatives, guaranteeing optimal management of resources and opportunities.

Box 4: The case of Brainport development agency (or Brainport region)

In 2005, Brainport Development, the executive organization of the Brainport Foundation, was created from a triple-helix initiative involving the local government, private companies, including Philips Electronics and ASML, and educational institutions, including Eindhoven University of Technology. Brainport Development, which combines innovation and investment promotion activities, aims to foster more aggressive approaches towards technological innovation so that the Brainport region can remain one of the top technology hubs in the world. In 2018, Brainport Development had a budget of €8,2 Million, half of which was funded by the region's 21 municipalities, and half by the national and provincial government, private companies, the EU and its own revenues. Brainport Development designs and implements place-based policies within multiple triple-helix arrangements. It operates five working areas: people, business, international, technology and basics. 'People' aims to support human capital investment to respond to new demands in skills from employers in the region.

Source: Morisson, A. & Doussineau, M. (2019) Regional innovation governance and place-based policies: design, implementation and implications, Regional Studies, Regional Science, 6:1, 101-116, DOI: 10.1080/21681376.2019.1578257

3.2. Improve governance and strategic alignment to reduce fragmentation and foster cohesion

A high-performing ecosystem is built around a shared vision and common priorities. This could be agreed upon by studying S3 strategies and identifying areas of common interest or challenges and then linking them to regions' capacities. Mapping or building a solid understanding of actual capacities of the region in relation to opportunities and expected impacts and goals of interregional collaboration would be an important element for the success of interregional collaboration. Finally, strategic alignment also involves aligning regional challenges with broader EU or global priorities—such as the Green and Digital transitions, EU Missions, and Partnerships, etc.

Recommendation 3: Ensure strong political and institutional support for interregional collaboration, coupled with clear strategic alignment through shared long-term vision, priorities, and roadmaps that are regularly updated. A robust monitoring system of the S3 strategy is essential here for tracking progress, identifying bottlenecks, and adjusting strategies in real time. This ensures transparency, accountability, and continuous improvement within the ecosystem. The role of regional managing authorities is important and needs to be highlighted here however this topic is specifically covered in another dedicated discussion group (*see Discussion Group policy brief on engaging the managing authorities*).

Governance must combine strategic steering (by the government) with operational leadership (by intermediary agents). The intermediaries such as clusters, technology centres, incubators and accelerators, etc. —play a crucial role in fostering innovation and making ecosystem's interaction with other ecosystems a success. The combined approach of strategic steering and operational leadership ensures all stakeholders of the ecosystem are engaged, enhancing both relevance and ownership of initiatives.

Recommendation 4: Promote active and transparent participatory governance, involving intermediaries (clusters, incubators, universities, technology centres) and utilizing vertical (within ecosystem) and horizontal (between ecosystems) links. Implement mechanisms—such as multi-level governance bodies and coordination platforms—to bridge fragmented ecosystems and facilitate knowledge diffusion, best practice sharing, and cross-sectoral cooperation. Dedicated fora or advisory boards, possibly at multiple levels (regional, national, EU), to orchestrate actions, facilitate stakeholder engagement, and maintain momentum through constant interaction and feedback could be considered. Whatever form it takes, any new initiatives need to be simple and easy to understand, and use a common language among all members involved in each region.

For example, this could take the form of strategic forums or working groups that periodically connect all ecosystem actors—SMEs, clusters, universities, policy makers—within and across regions, including external stakeholders when relevant (see example implemented by Emilia-Romagna region in box 5).

Box 5: The creation of strategic fora in Emilia Romagna region: the experience of Blu-ER project

The Regional Strategic Forum devoted to Blue Economy in Emilia Romagna Region is the result of a path launched since 2018. In the previous EU programming period, Emilia – Romagna Region identified in the S3, different topic priorities. Blue economy was considered a cross-sectoral topic and not a priority. Thanks to the implementation of different kind of initiatives, most of them, with international relevance, the results achieved represented a good engine and a strong encouraging element to take into consideration when there was the time to revise the S3. As the awareness towards all economic sectors already active at regional level, where much more evident, in combination with international increasing sensitivity towards Blue Economy, E-R Region decided to:

1. Revise S3 and set the blue economy as a S3 priority
2. Set up and internal regional working group, with representatives of all DGs within the regional administration, to share information about the many initiatives and actions put in place from each DGs (5 Directionate Generals), led by DG knowledge, labour, entreprises that is also managing authority for ERDF and ESF+
3. Launch a Strategic Regional Forum devoted to Blue Economy, from concept became a reality in perfect combination with an Interreg EURO MED Project – Blue Ecosystem, a follow up of the previous successful Project MISTRAL (the seed of these developments)

In combination with technical activities planned within Blue Ecosystem, a series of workshops have been arranged, to collect from the “ground” and from all key stakeholders, topics considered strategic for further development, collecting also bottleneck and gaps.
In a second phase, presently in implementation, with a specific methodology, in the form of TRAIN LABs (Transformative innovation combined with co-creation) all stakeholders have been invited to propose, via a call for solutions, ideas and projects in reply to complex regional challenges previously identified.
BLUER intends to be “the place” where BLUER stakeholders can meet, discuss and compare experiences and needs, while favouring collaboration for possible joint solutions.

BLU-ER

Linkedin: https://www.linkedin.com/company/blue-ecosystem/
Website: https://blueecosystem.interreg-euro-med.eu

4. Quadruple Helix Stakeholders Contribution to the orchestration of ecosystem (Question 2)

A well-orchestrated regional ecosystem is one where every actor knows their role, resources flow efficiently, and innovation is both supported and sustained. Achieving this requires clear leadership, targeted capacity-building, and governance.

4.1. Define the role of ecosystem actors in orchestration mechanisms

The regional authorities (i.e. governments) set the tone and direction for the entire ecosystem. Their role is to provide strategic leadership, legitimacy, and the right conditions for the ecosystem to function effectively. By simplifying administrative processes, governments can make it easier for SMEs to access interregional projects, removing red tape that stifles innovation. Through participatory mechanisms—like living labs and co-creation platforms—governments ensure that citizens and communities are not just spectators, but active participants. This builds trust and ensures that innovation serves real societal needs and innovative ideas run beyond the project timeframes. Finally, public funding is critical for the ecosystem's operation. Governments can support intermediaries, incubators, universities, and businesses, enabling them to focus on what they do best: innovate, collaborate, and grow.

Intermediaries—clusters, technology centres, chambers of commerce and universities to some extent—are the glue (or bridges) within the ecosystem as they help to translate high-level strategies into actionable ideas by businesses and researchers. These organizations facilitate cooperation, help SMEs navigate opportunities, and act as neutral brokers, aligning public goals with private ambitions. Hence the importance of empowering the facilitators by investing in capacity-building for cluster managers, for example, to ensure they have the necessary skills to guide, connect, and inspire. It would be also about fostering their active participation in the orchestration through active co-creation or co-lead. Clusters, in particular, are the backbone of interregional collaboration. They know their regions inside out, bringing together the right players and fostering partnerships that cross borders and sectors. Clusters are excellent bridge with interregional collaboration thanks to their extensive networks (i.e. meta-clusters either formal or informal). Clusters serve as initiators of interregional collaboration and peer-learning/exchange of experiences.

Recommendation 5: Define a conductor acting as an orchestration Entity (a facilitator). At the heart of effective orchestration is a dedicated entity—a body or agency tasked with coordinating efforts, aligning priorities and activities, and

removing bottlenecks. This entity must possess both formal authority (the mandate to act) and moral authority (the trust and influence to bring stakeholders together). However, it must avoid becoming a bureaucratic burden. Its role is to facilitate, not control—ensuring that strategies are implemented, resources are allocated wisely, and all voices are heard.

Recommendation 6: Promote the role of the third mission of universities and university alliances as engines for linking ecosystems, supporting knowledge valorisation, talent development, and regional integration. This implies emphasizing the mobility of talent and cross-university initiatives (such as European University alliances) that build bridges not only in research and innovation, but also in education and entrepreneurship. Universities and research centres are the engines of knowledge and talent. They are also valuable for innovative solutions testing through provision of access to associated research infrastructures and technology infrastructures. Through joint research infrastructures and mobility schemes, they enable collaboration across regions, ensuring that expertise and resources are shared, not siloed.

Box 6: The example of the 4th generation universities

In The late 20th century saw the rise of the 3GU, or the entrepreneurial university. In this era, the notion of the triple-helix model began to dominate, emphasizing the interaction between universities, industry and government (Leydesdorff & Etzkowitz, 2000). Entrepreneurial universities went beyond knowledge transfer and research; they became economic players. They commercialized research results, promoted start-ups and fostered innovation by forming closer ties with industry… The 4th Generation University (4GU) represents a shift to a quadruple helix model in which, in addition to universities, industry and government, society plays a central role in knowledge creation and innovation. The 4GU recognizes the importance of regional connections. This collaboration leads to the formation of regional innovation ecosystems that increasingly define the innovation landscape. Within such an ecosystem, all involved parties exchange knowledge and collaborate on innovative solutions. A mission-driven innovation policy – as described by Mazzucato (2018), for example – that exerts significant influence on the strategic direction of both higher education and research funding calls for a shift to a new system (Aagaard et al., 2022). This also calls for collaborative skills and strategies of universities, companies and policymakers (Bogers et al., 2018).

Source: Bogers, M. L. A. M., & Steinbuch, M. (2023). De vierde generatie universiteit: het nieuwe tijdperk van open innovatie en ecosysteemdenken. Holland Management Review, (208), 63-71

Recommendation 7: Use intermediaries such as clusters and agencies to broker relationships, map strengths and gaps, channel funding opportunities between stakeholders and facilitate connections for both SMEs and large organizations. They play an important role in orchestrating innovation ecosystems, particularly for effective implementation of instruments like I3. Their functions encompass relationship brokering, ecosystem mapping, and the facilitation of funding flows across stakeholders.

➔In terms of relationship brokering, clusters and agencies act as trusted connectors, linking universities, industry, SMEs, public sector actors, and sometimes civil society within and across regions. They organize networking events, thematic workshops, and matchmaking meetings to stimulate partnerships and collaborative project formation. By maintaining deep local and sectoral knowledge, these intermediaries help stakeholders identify compatible partners, avoid duplication, and create synergies that might not arise organically. Clusters can also anticipate needs, based on the cumulative sectoral knowledge.

➔On mapping strengths and gaps, intermediaries conduct systematic mapping of ecosystem capacities—such as technological competence, research infrastructure, available skills, and market access—highlighting regional or sectoral advantages and vulnerabilities. This mapping supports informed policy decisions, directs investments, and helps tailor capacity-building efforts to address the most pressing bottlenecks, especially for under-represented actors or less-developed regions. The collected intelligence enables clusters and agencies to recommend strategic priorities for roadmap development or suggest initiatives that maximize regional growth potential.

➔On channelling funding and financing opportunities, clusters and agencies act as multipliers for funding by aggregating and disseminating information on relevant funding programmes, such as cascade funding, public grants, vouchers, and private investments. They often support stakeholders in application preparation, consortium-building, and compliance, lowering entry barriers for SMEs and newcomers to access complex funding streams. Clusters and agencies can proactively finetune cascade funding programs (i.e. by leading themselves the programs) to the actual needs of ecosystem.

Box 7: The case of the Council of European BioRegions (CEBR)

The Council of European BioRegions (CEBR) is a membership-driven network that connects nearly 50 members from 18 countries, including life science clusters, regional development agencies, and research institutions. Its primary mission is to strengthen the transfer of knowledge and collaboration among life science clusters in Europe, supporting sustainable growth for small and medium-sized enterprises (SMEs) and enhancing competitiveness in the global economy.

Its key objectives related to ecosystem orchestration are:

- Foster Collaboration: CEBR aims to create a European platform for cluster and network development, enhancing visibility and collaboration among bioregions.
- Suport SMEs: The organization focuses on supporting the development of SMEs within the life sciences sector, facilitating innovation and commercialization of products.
- Enhanced Knowledge Transfer: By connecting various stakeholders, CEBR promotes the sharing of best practices and resources among its members, contributing to a more integrated life sciences ecosystem in Europe.

CEBR represents a critical mass of SMEs, universities, and research centres, making it a significant player in the European life sciences landscape. The network not only

supports its members through joint activities and initiatives but also plays a vital role in shaping policies and strategies that impact the biotechnology sector across Europe.

For more information about CEBR, you can visit their official website at www.cebr.net

4.2. Stengthening ecosystem capacities through all types of actors

Skill gaps need to be addressed in all category of actors to build capacities across the ecosystem. No ecosystem can thrive if its actors lack the skills or do not have the adequate behaviour or culture to participate in interregional collaboration.

Recommendation 8: Provide tailored capacity-building according to the needs of each stakeholder group:

➔Regarding government: public authorities need strategic steering skills, supported by expert consulting and targeted training. This ensures that policies are not just well-intentioned, but also well-informed and effectively executed.

➔Regarding intermediaries (clusters, chambers of commerce, technology centres): These organizations are the backbone of operational leadership. They require support in consulting, facilitation, and brokerage—helping them to connect actors, disseminate knowledge, and foster engagement of regional stakeholders. They can be engaged in proactive co-creation with the ecosystem, particularly within specific verticals each cluster or organization works with.

➔Regarding traditional SMEs and Start-ups: SMEs and Start-ups often struggle to navigate complex innovation landscapes. Onboarding mechanisms—such as tailor-made support services, open platforms, simplified access to funding (e.g. through lump sum funding via cascade funding programmes), accelerators, and forums—can lower barriers and help SMEs engage more effectively. Interaction and more active engagement with universities, clusters and technology centres leveraging public financing opportunities, joint project calls, and accessing infrastructures can foster collaboration and support the uptake of innovation.

4.3. Policy mechanisms for better interregional collaboration

A well-orchestrated regional ecosystem is a first step to an effective inter-regional collaboration where the complementarities of ecosystems allow to achieve scale and impact that one region would not be able to achieve alone. This is especially true given the current interconnected grand challenges the regions are facing (e.g., climate change, population aging, etc).

Interregional collaboration should effectively leverage and build on current collaborations and available opportunities. To avoid fragmentation, it could be worthwhile *integrating ecosystem managers into interregional bodies*, ensuring that those who understand local dynamics are also shaping cross-border engagement and strategies. In addition, *mapping and aligning existing initiatives* can help to address potential overlaps and duplications in inter-regional collaboration and identify opportunities for joint collaborations.

Recommendation 9: Create structured spaces for intentional exchanges. Effective collaboration requires intentional spaces where actors can meet, learn, and co-create. In this respect, several mechanisms could be mobilised. *Interregional knowledge hubs* can offer training, consultancy, and testing for ecosystem managers, helping them to adopt best practices and innovative approaches. Furthermore, *targeted support programs*—such as joint training sessions, peer-learning networks, and matchmaking events—can ensure that partnerships are strategic, not opportunistic. No region has all the answers, but every region has something to teach. Systematic sharing of good practices—through *platforms, reports, and exchange programs* among all actors of different regional ecosystems—can help harmonize approaches and raise the bar for innovation across Europe.

5. Capacity building and support to SMEs (Question 3)

An innovation ecosystem functions well and delivers on the projects it is engaged in when each actor within the ecosystem contributes its unique part to the implementation of the initiatives. In other words, when governments, intermediaries, universities, businesses, and civil society work together, i.e., quadruple helix model is dynamic and well-functioning, the result is an environment where ideas grow, collaboration thrives, and innovation transforms regions.

Businesses, particularly SMEs, are the practical force behind innovation to be introduced to the market. SMEs take risks, validate ideas in the market, and scale up what works. As they succeed, they create jobs, attract investment, and inspire others, driving the entire ecosystem forward. Ecosystems require incentive-based funding mechanisms and targeted support for SMEs. These policies should be designed to remove barriers to innovation, encourage risk-taking, and ensure equitable access to resources.

Recommendation 10: Map technological capacities and skill gaps among SMEs to design tailored support programmes, particularly in regions that have identified integration challenges.

6. Conclusions

A well-orchestrated innovation ecosystem is fundamental for maximizing the impact of the I3 instrument, enabling regions to build on their strengths, cooperate effectively across borders, and respond to complex challenges with agility. When regional actors—including government, intermediaries, universities, and businesses—align around a shared vision and engage through participatory governance, the ecosystem generates synergies, facilitates knowledge flows, and supports risk-taking and entrepreneurship for the benefit of all stakeholders.

Strong orchestration ensures resources, expertise, and innovation opportunities are accessible and leveraged optimally, while tailored capacity-building and structured collaboration spaces accelerate the ecosystem's readiness and resilience. Such coordinated management not only integrates SMEs and underrepresented actors, but also fosters long-term sustainability, job creation, and systemic change, making regional innovation systems engines for growth and transformation.

Table 1 Summary of the recommendations described in the policy brief

Key elements for an effective ecosystem orchestration (Question 1)	
Recommendation 1	Develop and use an "ecosystem readiness level" framework to assess regional capacities and gaps, analogous to TRL, recognizing maturity differences between regions and their innovation ecosystems
Recommendation 2	Invest in capacity building including skills, governance structures, and absorptive capacity to ensure that all regions can participate effectively in interregional projects
Recommendation 3	Ensure strong political and institutional support for interregional collaboration, coupled with clear strategic alignment through shared long-term vision, priorities, and roadmaps that are regularly updated
Recommendation 4	Promote participatory governance, involving intermediaries (clusters, agencies, incubators, universities, technology centres) and utilizing vertical (within ecosystem) and horizontal (between ecosystem) links
Quadruple Helix Stakeholders Contribution to the orchestration of ecosystem (Question 2)	
Recommendation 5	Define a conductor acting as an orchestration entity (a facilitator)
Recommendation 6	Promote the role of universities and university alliances as engines for linking ecosystems, supporting knowledge valorisation, talent development, and regional integration
Recommendation 7	Use intermediaries such as clusters and agencies to broker relationships, map strengths and gaps, channel funding opportunities between stakeholders and facilitate connections for both SMEs and large organizations
Recommendation 8	Provide tailored capacity-building according to the needs of each stakeholder group
Recommendation 9	Create structured spaces for intentional exchanges

Capacity building and SME support (Question 3)	
Recommendation 10	Map technological capacities and skill gaps among SMEs to design tailored support programmes, particularly in regions that have identified integration challenges

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