

Final report – EDP, S3 governance and interregional collaboration for the Jämtland Härjedalen and Västernorrland regions

Smart Specialisation Community of Practice (S3 CoP)

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Executive Summary

Objectives

The project aimed to explore and enhance conditions for Smart Specialisation Strategies (S3) relating to the entrepreneurial discovery process (EDP), governance structures and interregional collaboration. A central focus of the assignment was to leverage the common challenges faced by the two regions to explore more effective and cohesive ways of working together.

Challenges Addressed

Entrepreneurial Discovery Process (EDP)

Västernorrland

- While the regional innovation ecosystem benefits from a strong network of Tier 1 innovation intermediaries, gaps in capacity and collaboration hinder its overall effectiveness
- Innovation diffusion across the region is not optimising its 'reach' potential
- A **joint capacity building support programme** for innovation intermediaries will be designed to **unlock their collaboration**, so generating a deeper-driven and demand approach to EDP

Jämtland Härjedalen

- The region's EDP has several bottlenecks that are preventing how S3 supports regional development and innovation
- Ambiguity persists regarding the roles of different actors in effectively supporting S3 planning and implementation
- A proposed S3 road mapping process offers a vital first step in reviewing and strengthening the core foundations of the innovation ecosystem, while providing the framework to re-set relationships and offer greater clarity about respective S3 roles, especially for S3 coordinators and the Tier 1 innovation intermediary community

Roadmapping

Västernorrland

- The region's S3 road mapping efforts are currently fragmented, with limited oversight and connectivity across the intermediary community

- This fragmentation has hindered the ability to fully explore and act on S3 niche opportunities, both within and beyond the region
- **A prototype for S3 road mapping - with key actions and principles - will drive a more cohesive road mapping effort**, while generating deeper commitment to explore and refine an overarching roadmapping process that can be applied across all S3 priorities

Jämtland Härjedalen

- The region's very strongly felt and understood place-based context should be positioned as an enabler of how it promotes its uniqueness – in and beyond the region
- The relative newness of S3 calls for a stronger bedding-down effort, underpinned by a 're-set' of the S3 direction

Governance

Both regions

- There are rather weak structures in place at national and local levels to align and connect S3 to wider policies and investments. This makes it difficult to connect S3 to green, technology-driven and demographic transitions
- Across the two regions, there is some ambiguity concerning how S3 connects to the regional development strategy
- **S3 governance requires more embedding efforts at the local level within each region**
- The pathway towards greater S3 collaboration across the 2 regions will require careful management according to capacity
- There is potential to build on a high degree of (more ad hoc), pre-existing collaboration across the 4 regions of North Sweden, to improve S3 cooperation
- **The NUTS2 ERDF programme offers a route to open-up the dialogue and process across the 2 regions - promoting improved strategic S3 collaboration and upgrading S3 governance**

Results

Västernorrland: EDP and Road mapping:

- A proposed capacity building programme for regional innovation intermediaries will boost their collaboration and strengthen the region's EDP
- A **recommended road mapping process** offers a framework for: improving the collective collaboration capacity of innovation intermediaries; better engaging innovation actors – in and beyond the region; and improving the region's innovation diffusion performance

- **The S3 roadmapping process is** underpinned by 3 key stages: 1) refining and agreeing an early ‘prototype’; 2) taking part in an Interreg Europe Policy Learning Platform Peer Review (planned for early 2025) ; a consolidation period to ground the process within the S3

Jämtland Härjedalen: EDP and Road mapping:

- The region has committed to ‘re-setting’ the S3 through upgrading the evidence base and redefining the mutually reinforcing roles of S3 coordinators and innovation intermediaries
- A proposed, **4-step roadmapping process** aims to improve the functioning of the innovation ecosystem by improving how innovation knowledge and ideas flow through the region
- The process requires sustained management support from within the regional authority

Recommendations

Västernorrland

- **EDP – Create and deliver an innovation intermediary support programme**, to: 1) generate the impetus and conditions for working together across innovation intermediaries; 2) adjust the region’s innovation supply-side support in responding to challenges / opportunities through improved joint planning and foresighting; 3) connect and upgrade the region’s roadmapping efforts to ‘go deeper’ into S3 priorities and identify niche specialisations with related visions and goals
- **Roadmapping – Apply the assignment guidance to design and deliver the region’s S3 roadmapping process**, clarifying roles, resources and timescales. The region’s ‘Smart Collaboration’ initiative will support the upgrading of the innovation intermediary forum

Jämtland Härjedalen

- **Roadmapping - invest in ‘re-setting’ the S3 direction through a planning framework** that:1) acknowledges and addresses the bottlenecks that are preventing more effective S3 delivery; 2) re-visits and deepens the S3 evidence base; and 3) redefines and invests in capacity support for the upgraded roles of S3 coordinators and innovation intermediaries
- **EDP - adopt a more systematic approach to S3 collaboration to improve the ‘reach’ of innovation support and services across the region.** A proposed, 4-step ‘prototype’ process will: 1) re-shape the S3 evidence base; 2) create a shared vision of the S3 ecosystem priorities; 3) generate a demand-led S3 orientation; and 4) drive the design of Action Plans under the S3 priorities

Both regions: Governance

- A proposed guidance framework for connected S3 governance and improved S3 collaboration will be further reviewed by the 2 regions. This will drive a new approach for more strategic S3 joint working, building gradual capacity towards improved and connected S3 governance
- Governance actions should be considered on 3 'levels': 1) creating a solid 'grounding' and understanding of respective S3 governance challenges; 2) 'matching' joint S3 efforts to the EU's evolving direction of travel with respect to a changing global context; and 3) reviewing place-based options to stimulate and accelerate S3 collaboration across the 2 regions.

1. Introduction and contextual setting

Background of request: The regions of Jämtland Härjedalen and Västernorrland began implementing their S3 strategies during the current programming period (2021-2027) and a **strong degree of S3 ‘bedding down’ is required**. The regions have unique characteristics, with differences in their economic structures and innovation ecosystems. This means that their S3 approaches and priorities are different. However, occupying the same territory across the North of Sweden, **the regions share a core of common features owing to the sparsely populated and rural geographical context**. These issues include infrastructure deficiencies (such as gaps in digital connectivity¹ and a core reliance on roads as a means of transport); obstacles to innovation diffusion due to distance; and a lack of innovation collaboration.

They are also part of the same NUTS2 European Regional Development Programme (ERDF) that supports S3. For this reason, the regions wished to engage together in this assignment, seeking region-specific support but also identifying areas for greater S3 collaboration, not least related to S3 governance.

The regions are at different stages of development with S3 implementation. Both expressed an interest in exploring how S3 ‘road mapping’ could support a shift from S3 planning to delivery, allowing the EDP to support the identification of specific, niche and value-chain driven S3 opportunities. For this reason, **the EDP and road mapping elements of the assignment were reviewed separately, at regional level**.

The regions expressed a wish to deepen their S3 cooperation by exploring together S3 / innovation governance structures and challenges, with a view to creating a shared agenda and synergies for improvement. Therefore, **the S3 governance and collaboration theme of the assignment was explored from a joint perspective**.

This report is organised into five key sections. It begins with the **Introduction and Contextual Setting**, outlining the assignment’s context, aims, and scope, providing a foundation for understanding the objectives and approach of the study. The second section, **Methodology**, describes the methods applied to gather and analyse data, emphasising the rationale for these approaches and their role in supporting the findings and recommendations.

The third section, **Findings**, highlights the insights gathered during the assignment. It begins with a discussion on innovation diffusion, which emerged organically as a factor significantly influencing the effectiveness of the S3 themes under review in this assignment, especially the EDP and how this impacts on each region’s unique understanding of S3 road mapping in the context of this assignment. This is followed by an analysis of the characteristics of the two regions, including their strengths and challenges. The section further delves into thematic discussions on the Entrepreneurial Discovery Process (EDP), S3 governance, roadmapping,

¹ The joint ERDF programmes notes planned digital support from Sweden’s Recovery and Resilience Plan
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and interregional collaboration, providing a comprehensive overview of the study's observations and conclusions.

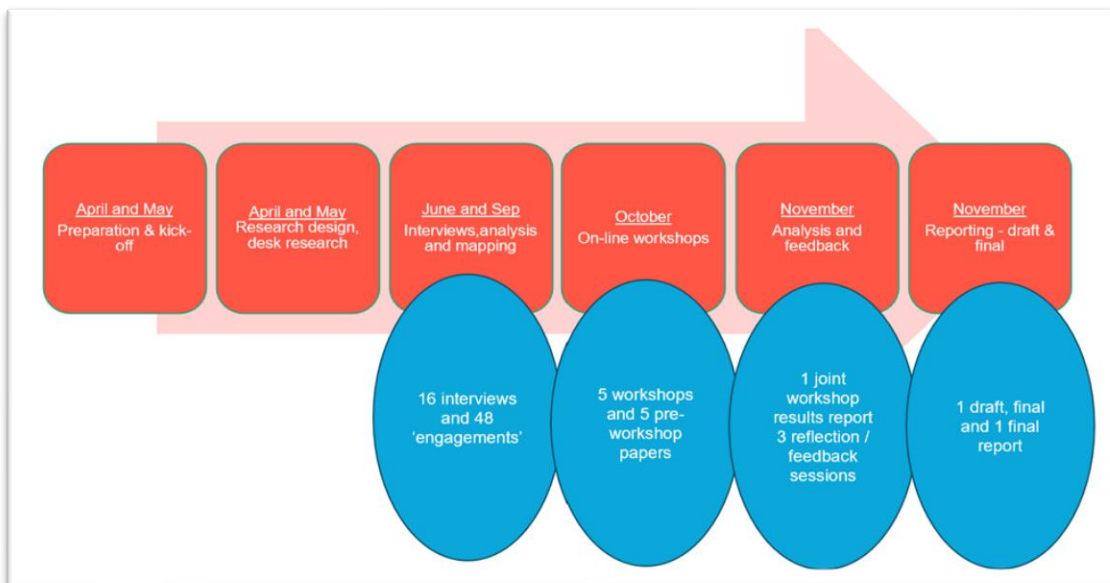
The fourth section, **Recommendations**, offers targeted advice for the regions of Västernorrland and Jämtland Härjedalen, as well as joint recommendations addressing governance, collaboration, and strategic alignment. The report concludes with a **Conclusions** section that summarises the key findings and their implications for both regions.

2. Methodology

a. Process and timescale

The assignment was conducted between April and November 2024. Given the constraints of resources and time, the methodology primarily relied on desk research and on-line exchanges, including ongoing communications with the two regions, interviews, and workshop sessions. Below, the six key stages of the methodology are described, alongside diagrams to illustrate the approach and key thematic focuses.

Figure 1 The methodology for the targeted assignment

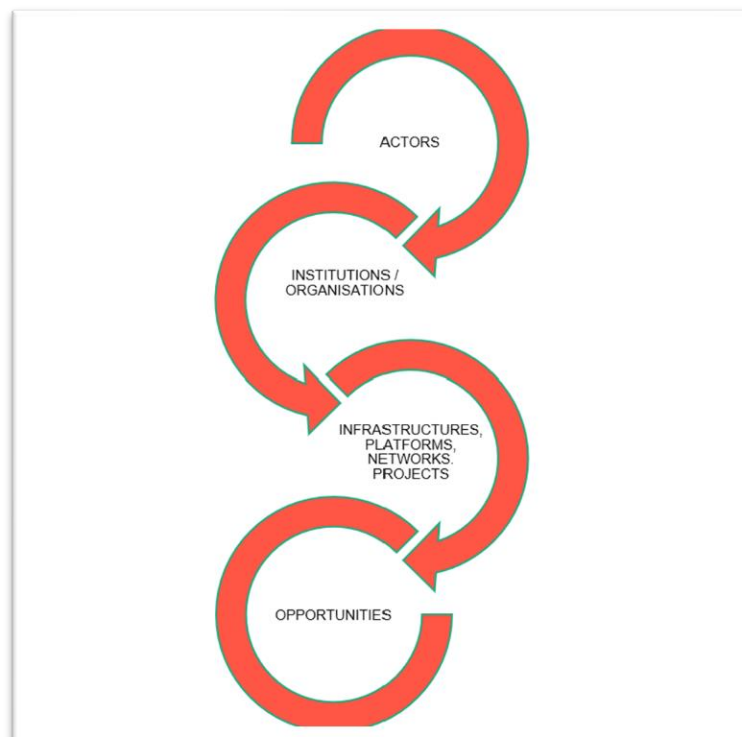


- 1. Preparation and kick-off** – this involved the early-stage process of assignment set-up and on-line meetings with the S3 coordinators across the 2 regions to discuss aims, method and ways of working together. Both DG REGIO and the S3CoP Secretariat were present.
- 2. Research design and desk research** – a core ‘mapping’ method to guide the assignment research and analysis was applied (see diagram below), allowing flexibility and a holistic perspective on ways to connect and align assets, actors and resources relevant to each region’s S3 ecosystem. A wide range of documents was sourced from each region (e.g. S3 strategy, underpinning evidence, materials used to promote the vision for S3) and wider sources of evidence (e.g. from EU and national levels) to

provide greater context of innovation policies. While some quantitative sources were used, the exercise was predominantly a qualitative one.

3. **Interviews, analysis and mapping** – an interview programme was designed and delivered from June to September and the mapping approach was applied to undertake analysis of all evidence gathered from interviews and wider desk-based resources.
4. **On-line workshops** – these were delivered to both share outline findings and to generate an action-oriented approach to generating recommendations and solutions and to further deepen S3 in the regions (separately and together). Separate workshop reports were provided to participants in advance of workshop sessions, acting as a stimulus and providing context setting.
5. **Analysis and reflection** – findings and agreed actions from workshops supported a process of consolidation, leading to a final workshop report (combining findings from the 5 workshops). This report provided a further opportunity for each region to take part in a reflection session (on-line) to review key findings and recommendations. An additional reflection session was organised for both regions and DG REGIO stakeholders to come together.
6. **Reporting (draft and final)** – a draft report was produced in advance of the reflection sessions incorporating findings from the assignment and workshop results. Following feedback from these sessions, a final report was produced, encapsulating all key findings and recommendations.

Figure 2 The mapping process for assignment analysis



b. An overview of the interviews and workshops

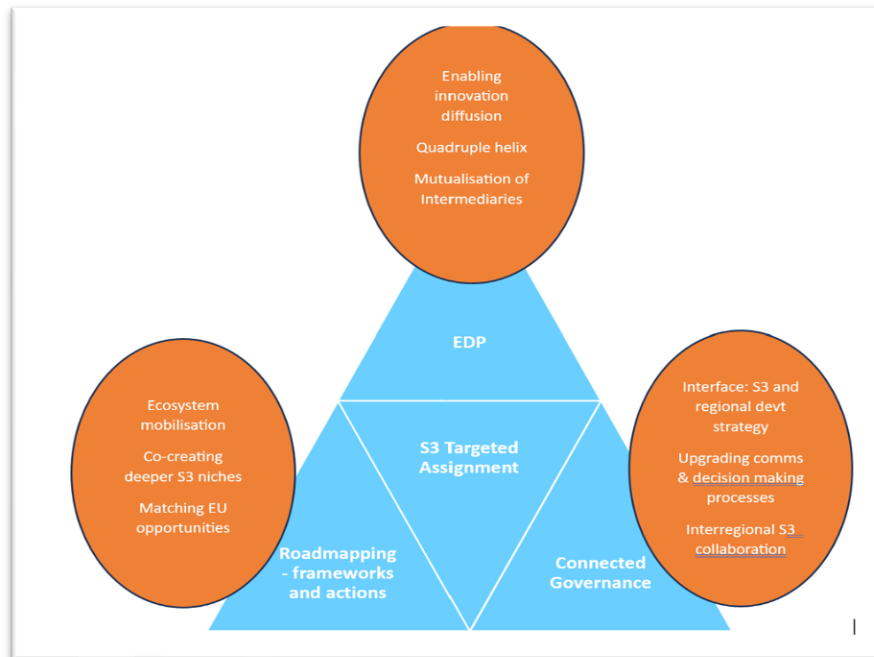
In total, **16 on-line interviews were undertaken during June to September 2024, and 5 on-line workshops were delivered across the 2 regions in October 2024.**

- For the **interviews**, 8 were undertaken with stakeholders from Västernorrland, 5 with stakeholders from Jämtland Härjedalen and 3 with stakeholders outside of the 2 regions but with knowledge of and / or support to the 2 regions.
- Interviewees were largely drawn from the regions' public authorities with roles related to Smart Specialisation / regional innovation. Other actors from both regions were drawn from support organisations that are predominantly public sector financed and included those from innovation intermediary organisations and the university sector. In total, **48 stakeholders 'engagements' made up the interviews**, with some actors involved on more than 1 occasion.
- **A maximum of 5 interviewees could take part in 1 interview session.** Analysis of the interviews was supported by the 'mapping' guide detailed above, illustrating the focus on adopting a holistic approach to understanding specific characteristics, processes and structures in each region underpinning their respective approaches to S3.
- **For the 5 on-line workshops**, 2 were undertaken in each region focusing on S3 EDP and S3 road mapping and a joint workshop on S3 governance and interregional collaboration across the 2 regions
- Each workshop took place over a 3-hour session with a strong focus on working towards a consensus regarding key messages and outline recommendations. **Approximately 10 attendees were present at each workshop session.**
- **In total, there were 50 participations in the 5 workshops.** Some stakeholders took part in more than 1 workshop, reflecting their roles and relevance to the workshop content

The **themes of EDP, S3 road mapping and S3 governance / interregional collaboration** were dominant across the interviews and workshop programme. While each region is characterised by very specific issues relating to their own regional context, the 3 themes noted above allowed for a 'common thread' of discussion across the interviews and workshops aligned with the assignment objectives.

The diagram below illustrates the dominance of these 3 themes over the course of the consultation and workshop phases of the assignment. This diagram was shared with all interviewees and workshop attendees to illustrate the importance of these themes to the assignment. The oval shapes in the diagram were common sub-themes across the 2 regions, further highlighting the regions' common issues and challenges. The content of the ovals has been upgraded since the workshops, better reflecting common issues.

Figure 3 The 'triangle' of key S3 themes across the 2 regions



3. Main findings

a. Characteristics and economic context of the regions

The summary below provides some important insights and stylised facts / data into the context of the 2 regions. This context is critical for understanding the current state of S3 implementation in each region and for ensuring the applicability of the assignment’s recommendations.

The 2 regions are characterised by geographical contexts that present both S3 opportunities and challenges. Natural resources will continue to be a key driver of regional development in both territories, with significant diversification opportunities driven by technology upgrades and climate-driven transition requirements. Long-term skills needs in a challenging demographic context will require optimising the attractiveness of the regions for immigration, while investing in skills upgrading for the existing labour market.

Improved innovation performance is a core requirement in making these shifts and this assignment had a particular focus on supporting both regions to position Smart Specialisation (S3) as a key driver in activating change and supporting complex transitions. With the S3 agenda still rather new to the 2 regions, this assignment has provided the impetus to reflect on strengthening the conditions that underpin S3 approaches.

Box 1 The general and S3 context of Västernorrland and Jämtland Härjedalen

The general and S3 context of Västernorrland and Jämtland Härjedalen

Both regions:

- **The NUTS2 ERDF programme area** of Mellersta Norrland - (Central Norrland) has approximately 4.5 inhabitants per squared kilometre with weak connections to external markets. The NUTS2 geography is based on small local markets with a limited range of goods and services and a strong dependence on natural resources. The ERDF allocation for 2021-27 across the 2 regions is EUR 356.5 mn (of which EUR 142.6mn from direct EU). Of this, EUR 264.4 mn is for the 'Smarter Europe' objective, linked to S3. Physical and digital infrastructure for regional development 'connectivity' was identified as a major priority. The programme indicates that "... [it] shall contribute to the deployment of locally-linked optical fibre networks or any other technical solution with equivalent transmission capacity necessary to reach the national broadband target in 2025"²
- **2024 European Commission Country Report**³ draws on statistics across Swedish NUTS2 regions and notes that the Central Norrland NUTS 2 region is challenged by skilled labour shortages and has poor transport links
- **The European Commission's Science, Research and Innovation Performance (SRIP) report, 2024**⁴ shows the NUTS2 region as a lower investor in research and development (R&D) (between 0.5 and 1% of GDP in 2021) than all other Swedish NUTS2 regions
- **Regional Innovation Scoreboard 2023**⁵ identified the NUTS2 region as a moderate innovator + and is the least innovative of the Swedish NUTS2 regions. The region's innovation performance has declined by 2.3% when compared to the EU average, and it has declined by 7% compared to the national (Swedish) average
- **Recent OECD survey**⁶ noted that public services need staffing to support green industry growth in the north of Sweden. It predicts a doubling of electricity demand in the region by 2045. Furthermore, *"While the region has an abundant supply of clean energy sources today, investment is urgently needed in renewable and nuclear power as well as storage and transmission. Simplifying complex planning and permitting procedures would help to unleash such investment. There is also a need to improve skills and draw talent from across Sweden and abroad, to fill demand for workers..."*

² Taken from translated version of ERDF

³ https://economy-finance.ec.europa.eu/document/download/e2e7e782-7541-46e0-bf4b-1486bfaa0304_en?filename=SWD_2024_627_1_EN_Sweden.pdf

⁴ https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/support-national-research-and-innovation-policy-making/srip-report_en

⁵ https://ec.europa.eu/assets/rtd/ris/2023/ec_rtd_ris-regional-profiles-sweden.pdf

⁶ <https://www.oecd.org/sweden/boosting-workforce-participation-and-better-facilitating-green-transition-key-priorities-for-sweden.htm>

Västernorrland:

- Approximately 242,000 inhabitants across 7 municipalities lived in the region in 2023, (11.2 inhabitants per square kilometre)
- Employment rate for ages 20-65 years is 81.9%
- S3 in place since 2021 underpinned by 9 priorities:
 - Areas of strength - forest-based bioeconomy; renewable energy - power generation, solar, wind, hydro and bio energy; GovTech; advanced manufacturing in metal, machinery and vehicles
 - Areas of development - food technology; autonomous mobility; crisis care, safety and security, smart caring
 - Horizontal enabler: complex production of operational systems

Jämtland Härjedalen

- Approximately 132,500 inhabitants across 8 municipalities in 2023 (2.7 inhabitants per square kilometre). The Sami population lives in 6 of the 8 municipalities
- Employment rate for ages 20-65 years is 85.2%
- S3 in place since 2021 underpinned by 4 priorities (soil, forest and water; sustainable energy; experiences; and digital solutions)

S3 in both regions:

ERDF has a programme known as '1.4' acting as a building capacity resource for S3, both in each region and across the 2 regions

b. A general finding: towards improved innovation diffusion across both regions

The relationship between S3's EDP, S3 road mapping and innovation diffusion was a common feature of discussion across both regions. The assignment analysis uncovered that **each region's approach to EDP and vision for road mapping were insufficiently grounded in an innovation diffusion rationale.**

The geographical features of the 2 regions – with large territories that are sparsely populated – make innovation connectivity and scaling particularly challenging. Innovation diffusion is a key element of S3's enabling conditions that seeks to facilitate and optimise how innovation-related information, knowledge and ideas flow through a society / economy. Innovation diffusion can also be understood as a process through which innovation actors / organisations gather ideas from external and internal sources and use them to introduce an innovation, not least related to the adoption of technologies. Where barriers impede this 'flow', the uptake of innovation ideas and practices within and across innovation actors can be negatively impacted.

With an absence of close geographical proximity, it was often difficult to generate the right degree of traction and concentration for EDP and roadmapping in each region and to engage a strong pool of innovation stakeholders (across the quadruple helix). The specific role and value of innovation intermediaries in driving the EDP and how this relates to innovation diffusion was not a strong (pre-existing) feature of the S3 approach in either region.

For this reason, a **guidance note** was generated and widely discussed during workshop sessions, across the 2 regions. It is entitled: **‘Insights into the role and value of innovation intermediaries and boundary spanners’** (see Annex 2). The note offers a stylised description of a well-functioning, supply-side, innovation intermediary community across any regional setting. The roles and objectives outlined in the note offer an illustration of different innovation supply-side functions.

In particular, the note delineates the functions of innovation intermediaries, categorised as Tier 1, Tier 2, and a boundary-spanning role **acknowledging that industry and innovation actors across different sectors operate with highly varied proximity to innovation support and collaboration**. A brief description of these roles is outlined below:

Box 2 Innovation intermediary functions

- **Tier 1** – generic, horizontal and often strategic support role in innovation ecosystem
- **Tier 2** – vertical, sector-specific, business associations and clusters
- **Boundary spanners** – connecting actors across sectors and in industry transition / upgrading; championing interregional innovation

The effectiveness of any innovation ecosystem is highly place-specific, necessitating a more nuanced interpretation of the guidance note to fit with any regional context.

The ideas in the guidance note highlight **the importance of the innovation intermediary function in directing and facilitating regional efforts related to the spread of innovation knowledge, ideas and flows**, and in connecting innovation actors to engage with and benefit from these efforts. In particular, **‘Tier 1’ innovation intermediaries influence how the regional EDP functions**. These stakeholders play important roles in providing general innovation support and - for the main part – are not focused on specific sectoral or cluster support.

The guidance note has long-term value for the regions and is intended to serve as a basis for strategic discussions and analysis with S3 coordinators and innovation intermediaries to critique how the ‘supply-side’ innovation support works to address demand-side needs and opportunities. Over time, this can help to extend the ‘reach’ of innovation diffusion, collaboration and performance. It is referred to frequently in this assignment report.

c. Main findings and conclusions for Västernorrland

Box 3 Västernorrland – EDP and S3 Roadmapping

- The region requires to upgrade its approach to EDP to adopt a comprehensive approach to road mapping.
- Innovation intermediaries have a strong and decisive role to play in strengthening the EDP
- The guidance note in Annex 2 offers a pathway to support how the roles of innovation intermediaries can be incrementally upgraded, as the EDP develops over time across the region
- Västernorrland has a strong Tier 1 innovation intermediary system but with gaps in capacity and collaboration efforts
- Due to the region's geographical characteristics and under-developed status of the intermediary system, innovation diffusion is not maximizing its 'reach' potential
- The region's approach to S3 road mapping has commenced but requires improved coordination, underpinned by a well-communicated and cohesive delivery framework that can be applied across all S3 priorities
- The region's sectoral strengths are underpinned by a strong evidence base, providing clear direction for the road mapping work
- The S3 Road mapping process is intended to generate an industry-driven approach to identifying niche opportunities
- A 3-stage process was proposed with key parameters to support how the region will generate a co-created S3 Road mapping method, based on: a prototype to guide the road mapping process; an Interreg Europe Peer Review programme to 'test out' the road mapping process with other regions; consolidation of learning to strengthen the road mapping process

i. EDP of Västernorrland

The EDP Context: The region's EDP has strong, pre-existing foundations, with a rather established core of Tier 1 innovation intermediaries. How they work together needs a greater level of planning and investment. This will be critical for the region's S3 road mapping ambitions, to generate deeper insights and actions related to niche opportunities, while creating greater value for the region's growth and innovation collaboration efforts. **The sequencing of efforts matters - from strengthening the EDP to shifting to S3 road mapping action**, since the region's Tier 1 innovation intermediary group must play a decisive and pivotal role in designing and delivering the road mapping agenda. The guidance note in Annex 2 provides both the rationale and framework to support a shift in the EDP that is more strongly focused on extending the reach of the region's innovation diffusion efforts.

Key messages

1. Current status of the regional innovation ecosystem – strong intermediary system but with gaps in capacity and collaboration

Västernorrland has a strong Tier 1 innovation intermediary system with key actors such as Bizmaker, Almi, Bron Innovation and Mid-Sweden University. Across these intermediaries, core services that are delivered include: incubator support; accelerator programmes; digitalisation (including support under the European Digital Innovation Hub – EDIH); green transition; investment; and internationalisation. Beyond the industry sector, Companion has 25 locations throughout Sweden and plays a significant role in supporting the region's cooperative and social enterprise sector. In addition, High Coast Invest plays an important role in an investment promotion capacity, operating across the entire regional territory and helping to secure green / renewables-related investments.

There is **growing recognition of the need to strengthen innovation intermediary 'connection points'** (in and beyond the region) to allow for more strategic responses to innovation-driven value-chain upgrading and investment opportunities, recognising the complexity of a rapidly shifting international innovation context.

However, across the region, there is a **lack of collective capacity to both extend the reach of innovation support across the region's municipalities and to better connect Tier 1 providers to each other**. This prevents effective 'networking' of the innovation support system.

The **relatively under-developed nature of the regional innovation ecosystem and EDP also prevents a 'joining of the dots' between innovation support across Tiers 1 and 2 innovation intermediaries**. Several intermediaries have rather limited information about their peers in the wider innovation intermediary community.

To address this, **joint capacity building and awareness-raising support should be designed and delivered for the innovation intermediary community, acting as a first step in understanding and promoting how these stakeholders can work better together**.

In addition, **the region has gaps in Tier 2 innovation intermediary support**, due to an absence of sectoral clusters or entities that can provide 'clustering' support in key sectors. The region's geography, economic structure and cluster capacity make it challenging to adopt a strong cluster model. However, there is **increasing interest (and clear expertise) for the region to explore a 'clustering approach'**, underpinned by joint capacity building efforts across the innovation intermediary community, with the aim of improving how innovation collaboration is facilitated and supported across the region's innovation community.

Improved networking or existing hubs (physical and virtual) could open up new opportunities for innovation actors to meet and exchange (within and across industry sectors). The virtual element of 'clustering' offers more possibilities given the region's geography and physical distances between actors and the physical platforms / spaces that can connect them.

More generally, **there is significant variability in the extent to which innovation intermediaries are connected to local innovation actors**, with some having very established networks (e.g. RI.SE Processum⁷) while others have either a rather small pool of actors they are working with, or their routes to accessing innovation actors are ad hoc and sporadic. **Improved connections across the intermediary community could significantly improve shared intelligence about, and sign-posting to, innovation actors across the region.**

The region's approach to innovation boundary-spanning - i.e. connecting innovation actors across different sectors / disciplines and making connections with other innovation actors outside of the region – **remains rather under-developed**, partially due to a **lack of supply-side capacity** but also because (as outlined above) there is a lack of a systemic and planned approach to how intermediaries work together. However, **a strong approach to boundary-spanning is evident in the work of North Sweden. Cleantech**, partially due to its wider geographical focus across and beyond North Sweden. There is clear scope for the intermediary community to learn from this model.

There is significant interest and motivation in strengthening how the region's innovation intermediary community can work better together e.g. to explore how a 'clustering' approach could be designed and delivered. This is further supported by the region's existing efforts to coordinate industrial clustering support through 2 categories of innovation clusters:

- **IRIS:** these are organisations who are predominantly financed by the regional authority / national financing to provide more generic (Tier 1) level support to the innovation community
- **ERIS:** these are organisations providing more specific (and often sectorally-driven) innovation support and are financed by the public sector and also by the private sector

Currently, there is limited cross-over in how these types of intermediaries are working together. Engaging the ERIS-driven entities in wider S3-related efforts has yet to be taken forward. There is a strong need to incentivise private sector clusters to work with their public-sector counterparts to deepen innovation collaboration efforts. The S3 road mapping work offers an opportunity to connect the IRIS and ERIS community since investments in the road mapping evidence base will reveal opportunities of joint interest. ERIS actors could benefit from a stronger scale effort (with the IRIS community) to unlock new industrial transition, diversification and niche efforts, thereby generating new value for their membership / customer base. This collaborative effort is strongly linked to widening EDP-related industrial innovation engagement, as well as generating benefits for innovation diffusion across (and beyond) the region.

The Guidance Note in Annex 2 relating to EDP and innovation diffusion offers strong advice and direction to underpin this effort of better connecting innovation intermediaries.

⁷ RI.SE Processum is part of Sweden's national cluster network for the biorefinery sector:
<https://www.ri.se/en/processum>

2. Innovation Diffusion is not optimising its ‘reach’ potential

Innovation diffusion in the region is challenged by both geographical characteristics and the rather under-developed nature of the wider intermediary system. This acts as a brake on the functioning of the region’s EDP and prevents how innovation ideas and ‘know-how’ flow through the region.

RI.SE Processum has significant and wide-ranging capacity in promoting innovation diffusion and innovation collaboration. Termed by some as a ‘spider in the web’, Processum has established competence in regional (and interregional) innovation collaboration and facilitating innovation upscaling, with a proven diffusion effect. Processum is a national entity and does not serve only the needs of the region. **There could be even greater potential for Processum to extend its bioeconomy focus and reach into other sectors of the region, exploring its relevance across S3 priorities.** The ‘enabling structure’ of Processum is rather unique but it could be **useful for the region’s intermediary community to review the conditions / characteristics that support Processum’s innovation capacity** with the aim of understanding if aspects of this model are transferable to the structures and practices of other regional intermediaries.

ii. Road mapping of Västernorrland

Roadmapping Context: For Västernorrland, there was an expressed aim to apply S3 road mapping to ‘go deeper’ into S3 priorities, improving collective understanding across key actors about niche value chains and particular strengths that would help to drive new value across the region, in working with S3. The region was lacking a clear vision and process to guide this effort and wished to undertake efforts to mobilise key actors towards collective action for S3 ‘roadmapping’.

Key messages

- 1. Road mapping work is already underway in the region but operating at different speeds across different sectors and with no underpinning framework to guide efforts or provide overall direction**

Tier 1 innovation intermediaries – and a deeper effort to ‘mutualise’ how they work together – will play a valuable role in supporting the design and facilitation of the region’s roadmapping efforts across S3 priorities. The S3 capacity building programme for intermediaries referred to earlier should be connected to roadmapping efforts.

- 2. Västernorrland’s S3 is underpinned by significant analysis and evidence regarding sectoral strengths**

The region is strongly committed to strengthening the S3 evidence base by identifying niche areas to connect to EU value chains, that will optimise innovation performance and accelerate digital and green transition commitments.

3. The S3 Roadmapping process is intended to generate an industry-driven approach to identifying niche opportunities

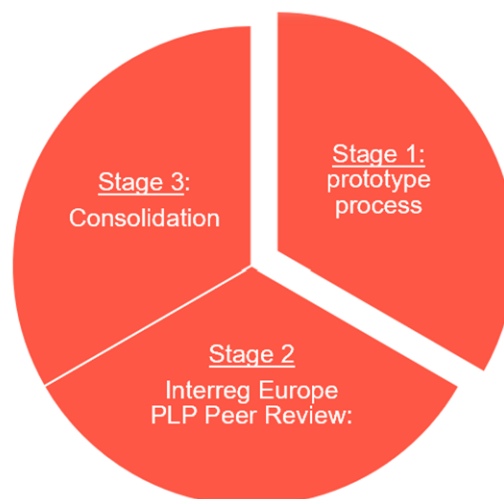
This will require a re-setting of existing roadmapping efforts to drive the design of a co-created approach, particularly through the leadership of Tier 1 innovation intermediaries. Efforts should focus on identifying and refining S3 opportunities (both within priority sectors and across them).

4. A 3-stage process was proposed offering a basic outline and parameters to support how the region will generate a co-created S3 Roadmapping method

The process comprises:

- Stage 1: Develop a draft ‘prototype’ to support S3 Roadmapping across the region’s S3 priorities
- Stage 2: Take part in Interreg Europe Policy Learning Platform Peer Review Process (early 2025) focused on S3 roadmapping
- Stage 3: Consolidation – reflecting on learning to date; upgrading, capacity building and diffusing messages / efforts to support the activation of the S3 Roadmapping process

Figure 4 Key stages of S3 road mapping



5. Guidelines to provide an outline pathway or ‘prototype’ for the S3 road mapping process

The following textbox sets out guidelines to drive direction in the region for the co-creation of a roadmapping prototype. These are strongly aligned to ERDF S3 enabling conditions especially relating to skills for S3, industrial transformation and entrepreneurship.

Box 4 Guidelines for S3 roadmapping prototype

1. Confirm the region's S3 priorities
2. Generate a working definition of Roadmapping
3. Agree on core group membership to commence the effort
4. Design a 'horizontal monitoring' approach to ensure coordination and coherence across roadmapping efforts
5. Agree aims, goals, purpose, expected joint value (and resources needed)
6. Ensure a mutual recognition of the 'regional reality' to instill the right pace and prioritisation process
7. Position the transversal S3 in the process - complex production and operational systems - by exploring how this will add value and what specific areas will help to unleash this value
8. Agree and approve the Roadmapping process, by:
 - a. Agreeing core criteria to apply in the exploration of S3 niches under S3 priorities
 - b. Connecting to the capacity building programme of Tier 1 intermediary support, under which the Roadmapping effort would take place

6. A set of core questions / criteria to support the roadmapping process under each S3 priority

The key prompts below are intended to provide stimulus for the design of a core set of questions that could be applied across any S3 priority / sub-sector. In turn, this will support the process of generating deeper evidence and insights into niche S3 areas. These niches will form the core of the region's roadmapping efforts:

- Who needs to be involved?
- What is the market potential compared to the region's current performance?
- What are the bottlenecks and enablers?
- What existing innovation collaboration is there under / related to this priority, in and beyond the region? And how does this connect to the EU's industrial priorities and value chains?
- What value chains / niches should be targeted?
- What value could be generated over what timescale?
- What specialised support is needed (e.g. financial, patenting, legal, equipment, infrastructure)?
- What infrastructures / test beds can be further explored for wider benefit (both within and across S3 priority areas) and what is the scope for the networked application of infrastructures?

c. Main findings and conclusions for Jämtland Härjedalen

Box 5 Jämtland Härjedalen: Roadmapping and EDP

- The concept of S3 roadmapping in the region has been adapted to allow for a holistic ‘re-set’ of the region’s S3 approach
- A review of the S3 ‘end-to-end’ process therefore comes in advance of specific EDP actions
- An S3 roadmapping prototype has been proposed, to guide this process and to support a more collaborative response to unlocking challenges and bottlenecks
- There is a very strongly felt and understood place-based context to the region including pride in natural resources that could be more strongly promoted through the S3
- As a relatively new policy area, S3 needs more ‘bedding down’ in the region, with improved communications across multiple stakeholder groups of its purpose and value
- A more compelling S3 rationale should be communicated to the region’s innovation community, explaining the policy’s value in helping to secure the region’s future through addressing green, digital and demographic transitions
- A shared understanding is needed especially at senior management levels in the regional authority concerning the S3 challenges the region faces, including: the relatively weak connection between the regional development strategy and the S3; and resource and capacity constraints at the S3 coordinator level

i. Roadmapping of Jämtland Härjedalen

The road mapping context: The region is experiencing a range of bottlenecks in shifting from S3 theory to practice, while making S3 a more pervasive element of regional innovation. The assignment identified that an S3 ‘re-set’ is necessary, clarifying the key milestones / actions (and core stakeholder groups involved) for the creation of an S3 ‘roadmap’. **Therefore, the meaning of ‘roadmapping’ for Jämtland Härjedalen is different from the roadmapping process being explored by Västernorrland.** Jämtland Härjedalen’s roadmapping process will allow the region to shift to a new trajectory for S3 action, driven by an ‘end-to-end’ process of deepening S3’s role and value across the region. This requires a shared understanding and renewed joint working commitment across the regional authority S3 coordinator and management functions, and the innovation intermediary community concerning how their roles should evolve for greater S3 impact.

The sequencing of key actions for the region should take a specific route, with **S3 roadmapping actions coming before actions related to the improved functioning of the EDP.**

Key messages

1. There is a very strongly felt and understood place-based context to the region

The territory is characterised by significant pride in its natural resources and entrepreneurial culture that supports a continual ‘reinvention’ of the region. This offers a key focus (and enabler) for the region’s ongoing efforts to define its ‘uniqueness’ that – in turn - allows for stronger articulation of S3 priorities, while sharpening the focus of how S3 collaboration - both within and beyond the region – can be taken forward.

2. The region’s S3 is still rather new and an extensive ‘bedding down’ period is needed

The region is currently missing a shared understanding – from senior management in the regional authority to the innovation communities in the region’s municipalities – of the purpose and value of S3. The ‘translation’ of the S3 message into a narrative this is meaningful to different groups of actors needs greater investment. This is at the root of connecting the region towards a common purpose, related to its future development.

3. A level of scepticism is present in the region concerning whether innovation / S3 creates local value or ‘damage’

The region has a rather strongly embedded culture of positioning regional development and citizen wellbeing as a driver for future resilience and sustainability. With a strong legacy of nature-based assets, regional actors and citizens are very mindful of the potential ‘trade-offs’ in protecting local assets and the territory’s nature-driven focus, while pursuing economic growth. There is a strongly held perception that innovation should not be confined to generating new economic growth where this undermines the region’s quest to preserve and protect natural assets (such as forestry, green space and clean air). This argument has perhaps tarnished the image of innovation as a source of sustainable regional development. In turn, **many businesses and citizens have negative perceptions of innovation and S3**. There is a need to confront this ‘growth vs development’ dilemma in order **to set out a compelling rationale for the role and value of innovation, in securing the region’s future**. This requires an S3 narrative that emphasises its relevance to the region according to citizens’ needs and investment in areas such as green, digital and demographic transitions.

4. A number of challenges are present that require greater acknowledgement, in order to ‘reset’ the direction of S3, underpinned by a ‘shared reality’ of the current baseline.

Challenges include:

- **A ‘disconnect’ between the regional development strategy and the S3** – while the S3 was derived from the ‘grounding’ of the regional development strategy, there are few connection points that readily link S3 back to this strategy. This creates challenges in signalling the importance of S3 across the region to supporting its long-term, development direction. In turn, there is a tendency for S3 to be sidelined and overlooked by other

regional authority departments and across senior policy and political level actors. Therefore, S3's profile and perceived value are rather low

- **A widespread lack of ownership of the S3 across the region** – this is related to the point above and presents clear challenges in mobilising a 'whole system' effort, in planning for and delivering regional innovation
- **A high level of ambiguity within the innovation ecosystem concerning respective roles** – the region has struggled to clarify specific roles for core actors - from strategic policy to S3 facilitation to delivery - involved in making the shift from S3 theory to practice. This is creating bottlenecks in action and contributes to an environment of mistrust
- **A lack of resources and capacity at the S3 coordinator level** to make the shift in their role towards S3 strategic facilitation, allowing the supply-side of the region's innovation ecosystem to 'step-up' in their engagement and delivery support role. Equally, management support in the regional authority to direct this 'evolution' has been in short supply. S3 coordinators recognise that their value could be strongly boosted by delivering a pivotal role in connecting to the wider innovation ecosystem (through innovation intermediaries) and making this a strongly visible priority at senior policy and political levels through the regional development strategy.

ii. EDP of Jämtland Härjedalen

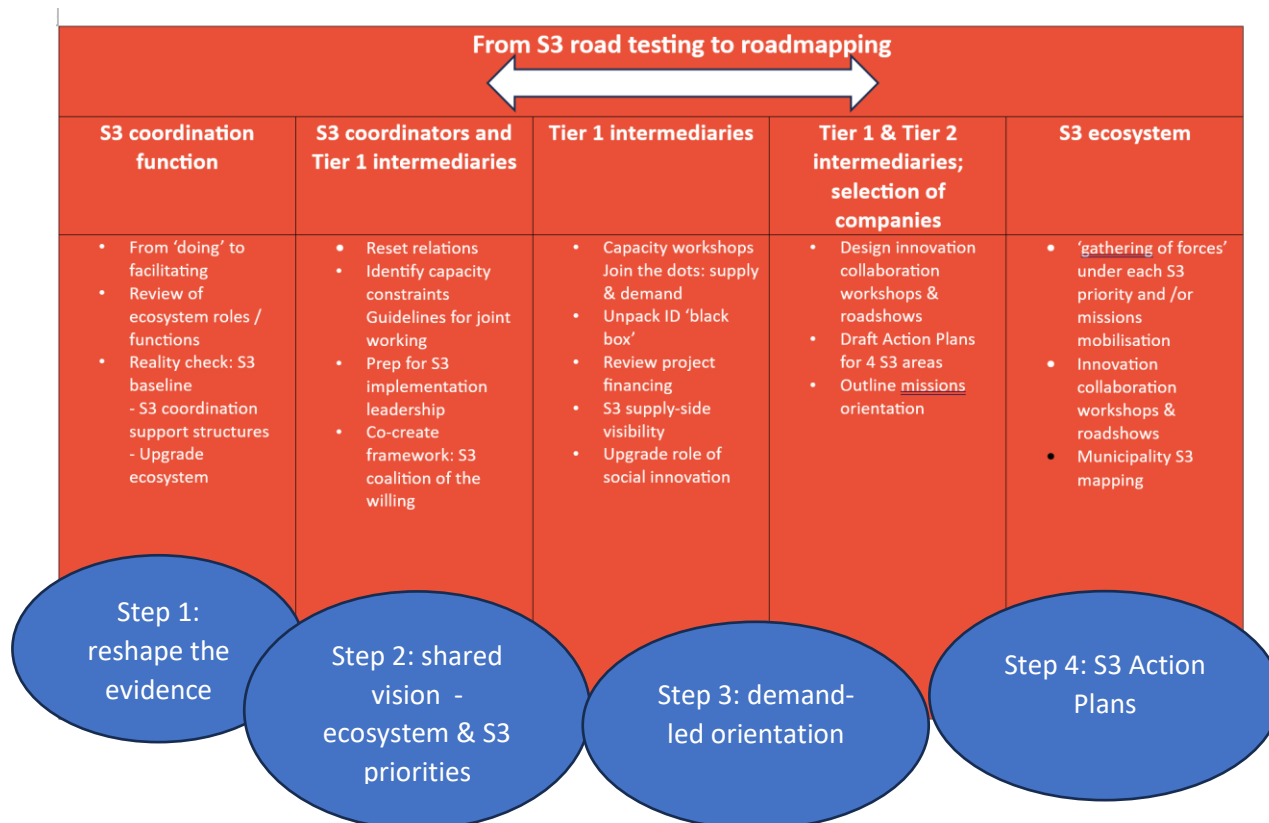
Key messages

1. The region's EDP is rather weak and requires a shift from a supply-driven approach to a demand-led orientation

The **roadmapping prototype process** designed for Jämtland Härjedalen (see diagram below) sets out key steps and actions that will support a new phase of S3 joint working and learning across the region's core S3 actors (the S3 coordinators and management in the regional authority and the Tier 1 innovation intermediaries). **The term 'road testing' was applied as a pre-cursor to roadmapping** since a period of review concerning the overall design of the roadmapping process is required. This needs strong collaboration and support across the region's S3 coordinator and senior management teams in the regional authority, and the innovation intermediary community.

This will also help to deliver a stronger demand-led approach to S3 that is constrained by: large geographical distances between businesses, making innovation collaboration challenging; under-developed structures and processes to connect innovation actors; and an evidence base that lacks sufficient data and evidence of both regional innovation supply and demand.

Table 1 S3 re-set roadmapping prototype



2. The S3 roadmapping prototype offers a vital first step towards improved innovation collaboration and diffusion

The 'end-to-end' roadmapping process offers a new pathway to generating a more cohesive and demand-led approach to the region's EDP. A deeper 'internal' review of the outline process is required to ensure it is sufficiently tailored to local needs and has secured the buy-in of key actors. The **outline roadmapping process provides a focus for action that was previously missing, in shifting the S3 effort across the region from theory to practice.** It promotes a coordinated and cohesive approach, setting out the mutually reinforcing roles of core S3 actors in guiding this process.

3. Tier 1 innovation intermediaries must be harnessed to the S3 roadmapping process

A new level of collaboration is required across S3 coordinators and Tier 1 intermediaries. Over time, this will require that S3 coordinators adopt a stronger S3 strategic oversight and facilitation role, while Tier 1 intermediaries will shift into an 'operational leadership' role, acting as the 'eyes and ears' of the wider S3 innovation ecosystem, and providing critical insights and intelligence regarding the specific (sectoral and cross-sectoral) needs of innovation actors across the whole region and within the municipalities. Joint ownership of an upgraded approach to working together will be critical in ensuring its success.

4. The proposed, 4-step roadmapping process offers direction and stimulus for the next phase of the region's S3 work

The process offers an incremental approach to improving the functioning of the regional innovation ecosystem, while facilitating and optimising how innovation knowledge and ideas flow through the region. It is therefore designed to improve the innovation diffusion dynamics of the region. The guidance note in Annex 2 should be referred to as part of the roadmapping process, since this describes in more detail how the 'supply-side' intermediary community can catalyse improved engagement from 'demand-side' innovation actors. In turn, this will help to create a more dynamic approach to the EDP, and to unlock innovation opportunities, based on regional strengths.

More content of these 4-steps is detailed later in the report, under Recommendations.

d. Main findings and conclusions for both regions – S3 governance and interregional collaboration

Box 6 Both regions: S3 governance and interregional collaboration

- S3 governance lacks traction in each of the regions, creating ambiguity concerning how the policy connects to the regional development strategy
- This is further challenging structural weaknesses related to a lack of connectivity between national innovation initiatives and regional S3 plans and actions
- S3 governance requires more embedding efforts at the local level, as a precursor to improved S3 collaboration across the 2 regions
- There is a lack of clarity concerning ways to improve S3 engagement with local municipalities across the 2 regions although new efforts are underway to address this
- The NUTS2 ERDF operational programme states that the 2 regions will increase their S3 collaboration despite local S3 governance conditions currently offering limited scope for connectivity
- The high degree of collaboration that already exists across the 4 North Sweden regions provides a baseline for strengthening their S3 collaboration
- A new era of EU innovation collaboration will require strong S3 governance to support interregional engagement efforts

1. In each of the regions S3 governance is at an early stage of development

The S3 governance status within each region is still rather under-developed. This is partially due to the relative newness of S3 in each regional context. Furthermore, at the local level across the 2 regions, there is some **ambiguity concerning how S3 connects to the regional development strategy**. Working in relative ‘isolation’ of wider regional authority policy structures, S3 coordinators across the 2 regions are striving to generate improved traction of the S3 agenda within policy frameworks. This challenge lies at the core of many of the bottlenecks already outlined in this report. A **fundamental lack of ‘connectedness’ between S3 and regional policy priorities** (including regional development strategies) creates a tendency for S3’s status and value to be under-represented and under-acknowledged. In turn, it is difficult to position S3 as a strategic lever in supporting regional efforts to address challenges such as addressing the green, digital and demographic transitions.

2. There are ambiguous S3 / innovation governance connections between Swedish national and regional levels

The national level was rather late in developing supportive structures and processes⁸ for the regions to work with S3, with **no clear lines-of-sight concerning how to connect national innovation initiatives to regional S3 plans and actions**. The assignment uncovered that a perceived lack of national S3 guidance was felt to have contributed to a level of ‘drift’ concerning its overall value. This creates gaps in how S3 aligns with wider policies and investments, with **silos at all levels of governance, impacting on the potential for S3 to act as a strategic driver of regional innovation**. These structural weaknesses – stemming from a lack of traction and connectivity between national innovation policy, actions and investments and regional S3 – were deemed to result in significant innovation scaling bottlenecks that prevent regions from effectively connecting national innovation to regional S3.

Furthermore, this **also affects how the regions engage with EU-related S3 opportunities**. Overall, **weak and under-developed S3 governance** can act as a bottleneck in regional capacity to engage with S3-related opportunities – at EU, national and interregional levels.

3. S3 governance requires more embedding efforts at the local level, as a precursor to improved S3 collaboration across the 2 regions

The vision and commitment across the regions’ S3 coordinator teams to strengthen their S3 collaboration is challenged by the gaps in local S3 governance due to a lack of connection to the regional development strategy. Investing in local efforts is therefore a pre-condition for generating stronger S3 collaboration across the 2 regions.

⁸ https://www.centrawsweden.se/wp-content/uploads/Report-on-smart-specialisation-final_.pdf
S3 Community of Practice – Alison Hunter

4. There is a lack of clarity concerning ways to improve S3 engagement with local municipalities across the 2 regions

Improving S3 engagement with local municipalities remains a key challenge in both regions. While there is a recognised need to establish a cohesive, region-wide S3 effort, the process requires clearer strategies and stronger alignment among stakeholders. The recently established associations of municipalities have expressed a willingness to take on a facilitation role, though embedding these efforts will take time. Realising this potential will depend on securing high-level commitment and resources from regional authorities and municipalities alike. The EDP and roadmapping recommendations outlined in this report provide actionable guidance to strengthen innovation diffusion across the regions, ensuring active and meaningful engagement with municipalities.

5. The NUTS2 ERDF operational programme states that the 2 regions will increase their S3 collaboration

This offers an important lever for the regions' S3 coordinators to take forward their ambitions for greater S3 cooperation. However, this will be difficult to achieve in the absence of more senior level commitment and support. Indeed, a 'reality check' in each region is needed that clearly outlines the **current mis-match between S3 governance realities and the expressed vision in the ERDF programme to generate greater S3 collaboration across the 2 regions.**

6. A high degree of collaboration already exists between the 4 regions of North Sweden

Significant collaboration occurs across North Sweden, though it is not sufficiently focused on innovation-driven initiatives. Likewise, collaborative actions within and across the 4 regions (e.g. within the 2 NUTS 2 territories, across all 4 regions, partnerships between 2 or 3 of the regions) are plentiful and include cooperation through Northern and Sparsely Populated Areas (NSPA), wider Baltic Sea-related activities and projects and a board that has been established - the Europa Forum of the 4 North Sweden regions. This backdrop is important as it emphasises the need and capacity for collaboration, not least in a context of radical global change, that is challenging the EU to strengthen its 'internal' cooperation. However, a continued ad hoc approach will not deliver optimal value. **The conditions are therefore ripe for a higher degree of commitment - with related resources - to adopt a more strategic S3 collaboration agenda across the 4 regions of North Sweden.**

7. A new era of EU innovation collaboration will require strong S3 governance to support interregional engagement efforts

It was acknowledged in both regions that EU innovation collaboration must be accelerated to transform the EU's competitiveness performance⁹. This has also been strongly signalled in the EU's new administrative period (2024-2029) and gearing up for the post-2027 programming period. There is **growing momentum across the EU for new policy design principles to ensure**

⁹ Draghi Report: https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en

that EU innovation is ‘fit for purpose’ in an increasingly uncertain and highly complex geopolitical context. This opens up potential for new S3-related interregional collaboration opportunities. Indeed, regions cannot act alone in pursuing different innovation policies, pathways and investments. However, pursuing interregional S3 responses can be challenging. Key considerations that were reviewed across the 2 regions include:

- **A period of more concentrated dialogue across the EU27 has not always been inclusive of the views of (or effects on) regions.** Domestically, this has often served to dislocate the regions from the national level, preventing a consolidated multi-level governance (MLG) effort to addressing the challenges that lie ahead. This makes long-term planning at the regional level difficult, not least in identifying clear targets for S3 interregional collaboration
- **In turn, the regions lack foresight and / or capacity to adapt to a changing context and risk pursuing path-dependent and ‘locked-in’ innovation responses.** This further frustrates efforts to design effective transition pathways to address climate, societal and technological needs, and impacts on efforts towards S3 collaboration
- **The EU’s S3 interregional project landscape was not always felt to be inclusive of the needs of more developed regions who have challenges in maximising S3 capacity** – there was a strong perception across the regions that the conditions underpinning EU-related, interregional S3 projects (such as Interregional Innovation Investments¹⁰ and Regional Innovation Valleys¹¹) were often targeted either at the needs of very advanced EU regions or those less advantaged regions characterised by ‘less developed’ or transition status in their economic performance. This was felt to have left a clear gap for more prosperous regions (defined by their economic performance being greater than the EU average) but where capacity and experience of S3 were more limited, not least in S3 governance structures to support their engagement in this type of EU project / opportunity
- **Strategic EU network engagement offers an increasingly important avenue for regions to share innovation experiences and intelligence** – the 2 regions could explore how to maximise their joint capacity for such engagement, thus reducing the efforts of one region acting alone.

¹⁰ https://ec.europa.eu/regional_policy/policy/themes/research-innovation/interregional-innovation-investments_en

¹¹ https://ec.europa.eu/regional_policy/whats-new/newsroom/24-09-2023-regional-innovation-valley-matchmaking-map-now-available_en

4. Recommendations

a. Västernorrland

Box 7 Västernorrland: recommendations for EDP and roadmapping

- The region requires a **capacity building programme for the innovation intermediary community**, with support from national and regional levels to sustain momentum and resourcing.
- The programme should seek to:
 - build the conditions for improved collaboration across the innovation intermediary community
 - generate a stronger demand-led approach to innovation by upgrading innovation support ‘entry points’
 - explore the root causes of fragmentation in the functioning of the innovation ecosystem
- Longer-term and more strategically-oriented objectives for the intermediary community include:
 - Investing in planning and foresight (e.g. transitions, demography, skills)
 - Connecting to the regional development strategy
 - Working towards their ‘mutualisation’ (i.e. a systematic, cohesive and streamlined intermediary community)
- The region’s **S3 roadmapping process should be underpinned by a support framework**, with agreed parameters relating to resources, actors involved and the timeline for design and delivery
- Over time, the roadmapping prototype should be refined into a ‘model’ for application across all S3 priorities
- The roadmapping process should be supported by a ‘horizontal’ coordination function to avoid dislocation of efforts across S3 niches
- The roadmapping process should also extend its reach to the wider innovation community, drawing in the expertise of actors across the quadruple helix, and deepening the region’s EDP and innovation diffusion goals

i. EDP in Västernorrland

The region is committed to creating a programme of support to build joint capacity across the innovation intermediary community. This process can be guided by the actions outlined below:

1. Co-create and deliver a programme of support and capacity building for the region's innovation intermediary community

This should be drafted by the regional authority, as a strategic action for improving the functioning of the EDP and agreed by a core group of intermediary actors who would lead on the development and roll-out of this programme. It was identified that the region has an existing programme of support called '**Smart Collaboration**' (under ERDF 1.4) that could act as a 'platform' to mobilise capacity building efforts.

Senior level engagement and support – both from national and regional policy and political perspectives – is needed to mobilise the commitment and resources for this action. To date, it has been difficult to get sufficient traction within the regional authority to invest in upgrading S3 towards an improved ecosystem orientation. An example of current inertia relates to public financing support for the intermediary community. Currently, the **financing system is designed to deliver short-term, project-oriented funding** to support individual intermediaries in how they engage with the wider innovation community. This financing approach was generally felt to be counter-productive as it **encouraged competition across the intermediary community, rather than collaboration.**

The support programme should be designed to **generate a shift from a 'here and now' and ad hoc approach to S3 support to a more strategic orientation** with a stronger joint delivery focus on the supply-side of the innovation ecosystem. This upgrade requires a new level of support from S3 coordinators related to coordination, facilitation and advice in supporting a **community of 'mutualised' innovation intermediaries** – that is a community of supply-side actors who can adopt a systematic, cohesive and streamlined approach in how they respond to innovation demand across the region.

The support programme should be underpinned by 3 broad objectives, outlined in the table below.

Box 8 Outline of capacity building programme for innovation intermediaries

Framework objectives of Västernorrland's innovation intermediary capacity building programme:

1. Create the impetus and conditions for working together across innovation intermediaries

This will require an **in-depth exploration of the region's intermediary organisations** and includes: improving knowledge of the actors and organisations in the intermediary community; and examining delivery models and roles in the context of the region's specific innovation ecosystem. While the region's IRIS cluster community (providing more generic and publicly-financed innovation support) should lead this effort, there is clear potential to connect the ERIS cluster community (entities more strongly aligned to industrial sectoral efforts, including privately-financed networks and associations). The long-term goals of this joint effort are to:

- Devise a tailored set of agreed actions to better connect intermediary actors / organisations – i.e. 'joining the dots' across the innovation supply-side community
- Generate a more demand-led approach to supporting the region's innovation community
- Improve the region's approach to innovation diffusion

2. Design a stronger demand-led approach to innovation by investigating and upgrading innovation support 'entry points'

These entry points are where innovation actors can access support / advice. Such an exercise is time and resource-intensive requiring a structured approach to outreach efforts with regional innovation actors (generating a strong, demand-side innovation evidence base), and investing in mapping and analysis of intermediary support (both at sectoral and municipality levels). **Anchoring the S3 in the region's municipalities** will be essential for establishing a stronger innovation diffusion orientation. Both clusters and 'clustering' are important influences to improving innovation collaboration.

3. Explore the root causes of fragmentation in the functioning of the innovation ecosystem

Stronger working relations across the S3 coordinator and innovation intermediary community will help the region to better articulate the key challenges that currently prevent a 'one VN' approach – a vision strongly expressed in the region's S3. A regular dialogue is needed that promotes a frank exchange about conditions, established ways of working and capacity challenges. In turn, this will help to establish joint commitment to removing and managing these obstacles.

2. Invest in planning and foresighting to strengthen how the region's innovation supply-side support responds to complex challenges / opportunities. A more strategic and future-oriented approach to S3 could help the region to navigate a challenging era of uncertainty and change from both EU and international perspectives. This includes navigating Green Deal transitions; demographic change; technology upgrading needs; and long-term skills needs.

3. Improve how the innovation intermediary community connects with the regional development strategy. This was noted as a gap in knowledge and prevents a more strategic and collective understanding of the region's high-level objectives and direction. Over time, this offers an opportunity for the S3 intermediary community to influence the direction of the regional development strategy. This is a clear example of how a strategic orientation to S3 can serve to influence policy that goes well beyond the regional innovation dimension.

4. Position the task of 'mutualising' the region's Tier 1 intermediary community as a prerequisite to effective S3 roadmapping. The region's ambitions to 'go deeper' into S3 priorities, identifying niche specialisations and opportunities, must be driven by the intermediary community since they are uniquely positioned to access and engage with the region's innovation community, to identify and exploit these opportunities.

It was strongly acknowledged that the region's innovation intermediary community has a critical role to play in guiding and championing the roadmapping process. This will allow for a knowledge-driven, depth review of the region's S3 niches, identifying where to maximise diversification and upgrading opportunities across prioritised sectors.

Additional areas for review in supporting how the region deepens its EDP

The recommendations below are based on actions that will generate a greater level of shared understanding and joint action across the S3 coordinator and innovation intermediary community:

- **Review options for funding that invest in strengthening the innovation system.** The region must seek to overcome the prevalence of funding support models that incentivise competition (and not collaboration), across the intermediary community. This also exacerbates a fragmented / silo approach to innovation, while disincentivising collaboration
- **Connect sectorally-focused SMEs to support a more systemic approach to innovation support and collaboration** – the Guidance Note offers direction for this type of action, which requires long-term commitment and resources
- **Identify, target and incubate support for tech-oriented start-ups** – many of these enterprises will be small and could be operating 'under the radar' of the region's known innovation community. Joint efforts across intermediaries can help to identify and classify

the support needs of these entities, as well as to facilitate their engagement with other enterprises.

- **Identify and mobilise a set of Regional Ambassadors** to market the region's sectoral strengths. This is both an internal action -within the region - and an external one, to better promote the region's strengths and identify places and actors for S3 collaboration.
- **Bring together innovation actors taking part in EU-financed projects** to better capitalise on learning within and across sectors. This can also act as a springboard to adopting a more strategic approach to targeting future S3 / innovation EU projects / funds, based on a better overview of needs and project history.
- **Explore different EU cluster models to understand their structures, financing, incentives and outreach capacity** – some stakeholders already referred to the Värmland Paper Province¹² model. Deeper dialogue with Clusters of Sweden¹³ could also be taken forward. Successful local models could be considered across other sectors (e.g. how the Institute of Technology and Hydraulics - ITH - provides support, advice, testing facilities and e-learning, generating a very strong innovation diffusion dynamic that is similar to the model of a Research and Technology Organisation - RTO¹⁴). Also, the approach in the region's hydraulics sector to making the shift towards distance / remote maintenance could be reviewed by other sectoral support organisations.
- **Review with Tier 1 intermediaries a more collective and coordinated approach to outreach with the region's business community.** Beyond a group of well-connected and engaged companies, it is not easy (and very time-consuming) to draw in the interest of regional businesses – many of them operating as SMEs or micro-businesses with limited time and capacity. One Tier 1 intermediary suggested that a more consolidated approach is needed for companies who are currently distanced from innovation support and collaboration. In addition, the region's S3 coordinators are keen for publicly-funded innovation intermediaries to extend their reach in connecting with the region's private sector networks, to generate mutual benefits in how innovation support is offered to the innovation community

ii. Roadmapping in Västernorrland

The previous section in the report has provided the 'building blocks' for the region's S3 roadmapping process, with particular emphasis on the 'first-stage' prototype development.

At this early stage, there is ambiguity concerning resources, actors to engage and a timeline to co-create the region's S3 roadmapping process. Efforts are needed to establish a clear

¹² <https://paperprovince.com/en/>

¹³ <https://clustersofsweden.com/>

¹⁴ See here for further details of RTOs - <https://www.earto.eu/about-rtos/>

framework for how this will be taken forward. The S3 coordination team has committed to leading this process, ensuring it is underpinned by strong and clear communications, as a ‘call to action’ for the region to be able to go further with its S3 direction. Explicit details about the purpose and value this can generate will be critical to making the appeal to the wider intermediary community. **Mobilising actors in this way will help to generate a strong ‘anchoring’ process**, supported by the roadmapping prototype. A range of additional questions were posed during the roadmapping workshop, that require to be explored as a group, including:

- What direction and outcome will each roadmap be seeking?
- How will we make the shift from the current status to where we want to get to (‘A to B’)?
- How will we engage industry in the process?

1. Refine the S3 roadmapping prototype to generate a ‘model’ for application across all S3 priorities

Taking the S3 roadmapping process from concept to action requires a strongly coordinated and well-communicated effort. While **S3 coordinators will facilitate this exercise, it must be the intermediary community who leads on both the design of the roadmapping process and its delivery into the innovation community**. The region is not starting with a ‘blank canvas’ in taking forward such an exercise. Many intermediaries are already engaged in efforts that are deepening insights into S3 niche opportunities. However, there is no coordination or oversight of these efforts in the region, thus preventing a truly impactful and cohesive approach. There is therefore a need to connect existing efforts and to identify gaps and opportunities for follow-up.

There is also a need to **build into the S3 roadmapping process a ‘horizontal’ coordination function**, to ensure that depth roadmapping explorations within S3 areas do not become dislocated from each other. This will also provide a **platform to discuss common challenges and practices** that can be transferred across S3 areas.

2. Extend engagement in S3 roadmapping efforts to a wider range of innovation actors – both in and beyond the region

The roadmapping process can act as a strong enabler of the region’s EDP, since it offers a **‘magnet’ to attract the interests of the wider business community**. It also provides a focal point to connect a wider group of intermediaries (e.g. from Tier 2 clusters and organisations) with local businesses. The process offers opportunities that can help them to extend their innovation capacity and ‘reach’, supporting business diversification and upgrading opportunities. Furthermore, the roadmapping process can help to activate and support a stronger innovation collaboration ethos across the region.

In extending the ‘reach’ of S3 to the region’s municipalities, the region has already embarked on an early-stage exploration of industrial, municipality strengths. While this early effort is not yet explicitly linked to the region’s S3 priorities, it is a critical step in better connecting the municipalities to the S3 agenda. Indeed, this learning should be further explored through the roadmapping process.

Taking **the region’s S3 roadmapping activities beyond the region’s parameters will also support the process of S3 interregional collaboration**. Through new roadmapping insights into regional capacity and S3 strengths, the region can upgrade its attractiveness to other EU territories by demonstrating evidence and capacity to explore sectoral and cross-sectoral value chains. The 2025 Interreg Europe Policy Learning Platform Peer Review is part of this objective.

b. Jämtland Härjedalen

Box 9 Recommendations Jämtland Härjedalen

- The region should re-set its S3 direction through a proposed 4-stage roadmapping process.
- Core, identified actors should agree and refine the roadmapping process through the actions in the report relating to S3 gaps and weaknesses.
- Undertake an ‘S3 reality check’ through an inclusive exercise that engages senior managers to identify current weaknesses in both the strategy’s underpinning evidence and delivery mechanisms.
- Review ways to generate critical mass and a ‘gathering of forces’ across the region’s 4 S3 priorities
- Reset the S3 EDP through a new spirit of collaboration across S3 coordinators and Tier 1 intermediaries
- Invest in systematic S3 collaboration by improving the ‘reach’ and impact of innovation support and investing in a stronger quadruple helix approach with civil society
- Communicate the vision for the S3 ‘re-set’ and its value to more senior level decision makers within the regional authority
- Apply a stepwise process to the S3 roadmapping guide driven by:
 - Re-shaping the S3 evidence base
 - Generating a shared vision of the regional innovation ecosystem and S3 priorities
 - Setting out a strong demand-led innovation orientation
 - Co-designing action plans for each S3 area

i. Roadmapping Jämtland Härjedalen

1. The region should re-set its S3 direction through a proposed roadmapping process

The roadmapping framework detailed earlier in the report offers a robust pathway for the region's S3 re-set process. This framework should mobilise key actors (senior managers and S3 coordinators in the region, and Tier 1 innovation intermediaries), providing a stimulus for discussion and agreement to re-orient the S3. The steps proposed offer a pathway to review and deepen the region's EDP.

2. The region's core roadmapping actors should embark on a process of agreeing and refining the steps in the S3 roadmapping process

A number of critical actions are needed:

a) Undertake a consensus-driven, reality check of the status of S3

This exercise must engage senior management in the regional authority with a frank exchange about: the current weak foundation of S3 strategic planning and delivery due to an absence of senior-level S3 knowledge, engagement and support; and a lack of trust and effective collaborative working between S3 coordinators and the lead organisations in the region under the Tier 1 innovation intermediary community. In particular, new and upgraded efforts are needed to: improve the S3 evidence base (see below); upgrade communications about the role and value of S3 (in the regional authority and the wider region); and define and position S3 as a key enabler in securing the long-term investment needs of the region related to complex green and digital transition pathways, while securing quality of life for its citizens.

b) Re-visit and deepen key parts of the existing S3 evidence base

The region's S3 does not currently provide sufficient details or data to allow for a deeper understanding of S3 needs and opportunities. To guide this effort, the region should discuss with Västernorrland's S3 coordinators about how they generated a robust and highly credible S3 evidence base. Key themes / questions to support this process are outlined in the table below:

Box 10 prompt questions / themes to support the S3 evidence upgrading process

- Measure and evaluate the growth potential of market sectors within the S3 priorities, to prioritise key growth opportunities
- **Identify skills / capacity strengths and gaps**, including talent retention and attraction – draw on advice and insights on how to address this from resources such as the EU Rural Toolkit¹⁵
- **Identify actual and potential (regional and national) sources of innovation investment** e.g. Research Centre for Hybrid Electric System.
- **Combine the S3 evidence base with deeper analysis from across the region’s municipalities**, engaging local specialised experts from strategic sectors .
- **Analyse the business structure at local level to showcase the presence of innovative actors** and examples of innovation collaboration (in and across municipalities).
- **Build knowledge of updated EU industrial policy drivers and direction** (including developments in the associated State Aid regime such as Important Projects of Common European Interest - IPCEIs¹⁶) and the sectors / domains receiving the most EU attention to support Green Deal transitions and to address the EU’s security of supply challenges. A stronger, ongoing investment in this type of intelligence will help the region to plan better in connecting to EU innovation opportunities that match with place-based needs and assets. This will also require greater collaboration with national level actors.
- **Look for interregional S3 complementarities** by exploring EU project opportunities in areas that promote innovation collaboration (such as Interregional Innovation Investments - I3; Regional Innovation Valleys – RIVs; and Horizon Europe’s European Innovation Ecosystems – EIEs). This could be led by a sub-group of actors with interregional experience (e.g. providing insights into: signposting; networks; and making connections) to gain a strategic overview of EU opportunities, supported by the Brussels North Sweden office.

3. Review the capacity needs of the S3 coordinator role in making the shift to facilitating support and coordination of the intermediary community

This will require an intensive period of internal communication (in the regional authority) and capacity building to identify and deliver on S3 coordinator support needs. Making this change will not happen automatically, and efforts should focus on identifying and addressing capacity gaps between current roles and future needs.

¹⁵ <https://funding.rural-vision.europa.eu/?lng=en>

¹⁶ https://competition-policy.ec.europa.eu/state-aid/ipcei_en

4. Generate a clear and jointly agreed S3 status check with Tier 1 innovation intermediaries

Re-set relationships with the Tier 1 level by reviewing and reaching a shared understanding of the current challenges and bottlenecks the region is facing in connecting innovation 'supply' to innovation 'demand'. **The Tier 1 intermediary community needs to undergo a process of EDP-related support that will allow them to adopt a strong operational leadership role in mobilising the region's innovation ecosystem** to engage with S3. Some directions for action are noted below:

- **Understand the barriers and bottlenecks** that currently prevent closer alignment between Tier 1 intermediaries and the region's business community
- **Identify sectoral 'champions'** (Tier 2 organisations such as clusters and industry associations) to support sectoral and cross-sectoral innovation diffusion efforts
- **Identify (additional) relevant networks**, associations and platforms (regional, North Sweden, national and EU) for S3 engagement, including the recently established Association of Municipalities, setting out a new and deeper S3 relationship with the region's distinct municipalities
- **Explore the role of the university sector as 'anchor institutions'¹⁷**, providing research-driven, strategic advice and intelligence about the region's S3 priorities and helping to connect innovation actors across the region
- **Promote exchange between the Tier 1 innovation intermediary communities across the NUTS2 regions** (i.e. between Jämtland Härjedalen and Västernorrland), to allow for practice exchange and greater insights into barriers and opportunities.

5. Review how to generate 'critical mass' across the innovation ecosystem related to the 4 S3 priorities

The region refers to: 'gathering of forces' in its S3 vision. This needs to be translated into a co-created reality which is underpinned by challenges of 'distance' – both geographically in connecting innovation actors to collaborate and upgrade innovation performance, but also in a regional context where the relevance of innovation to securing the region's future development is not widely understood or acknowledged. S3 efforts must avoid a siloed and fragmented approach to their development. Scanning for related projects / investments (linked to the region's S3 priorities) in North Sweden, across Sweden and the EU can help to avoid duplication and to signal possible partners for engagement.

¹⁷ <https://www.eua.eu/downloads/publications/report%20on%20joint%20eua-regio%20the%20role%20of%20universities%20in%20smart%20specialisation%20strategies.pdf>

ii. EDP Jämtland Härjedalen

1. Support the S3 ‘re-set’ direction through a new spirit of collaboration across S3 coordinators and Tier 1 intermediaries

There is strong momentum for the region’s core S3 actors to engage in a new process of working together. This requires a co-created process of ‘resetting’ the S3 direction, with a particular focus on:

- **Improving the functioning of the innovation ecosystem** – better connecting the supply and demand sides of the innovation system
- **Facilitating and optimising how innovation knowledge and ideas flow through the region** – innovation intermediaries have a critical role to play in supporting innovation diffusion across the region. However, this requires a new level of collaborative action for S3 planning and communication – with Tier 1 intermediaries at the core of this effort. The Guidance Note in Annex 2 is a key reference for taking this forward

2. Invest in ‘systematic S3 collaboration’ across the innovation supply-side community

Related to the above point, there was a strong call for adopting a more systematic way of working together across S3 coordinators and Tier 1 intermediaries, creating a new ‘springboard’ for innovation action, while jointly developing the supply-side competence and capacity for a more pervasive, region-wide approach to S3, underpinned by:

- **Improving the ‘reach’ and impact of innovation support and services to the region’s innovation community**

Significant work that is already taking place with Tier 1 intermediaries in connecting to the wider innovation ecosystem. What is now needed is a more strategic and collaborative effort to **maximise the ‘reach’ of innovation support across the region and to improve impact in how innovation actors connect to each other** to optimise innovation collaboration. At the core of this effort is the need for a **clear and compelling narrative that sets out how innovation supports the region’s drive towards delivering transition goals (green, digital and demographic).**

- **Investing in a stronger quadruple-helix approach to the EDP**

There is strong potential for civil society actors across the region – including the Sami community - to play a more active role in the Tier 1 intermediary community, thus **extending innovation diffusion efforts to civil society, while strengthening the social innovation agenda**. As an example, resources currently in place to better connect the Sami community to S3 are not optimal, resulting in patchy geographical engagement and a more ad hoc approach. This is perceived to be related to a weak evidence base of their value as key actors in the region’s EDP. As part of the S3 evidence upgrade, consultation with the Sami community should be included

3. Communicate the vision for the S3 're-set' and its value to more senior level decision makers within the regional authority

This requires a clear and positive approach that outlines the current gaps in the EDP process, their consequences (in terms of impact on innovation efforts and diffusion) and how this can be addressed. The following guidelines could support this process:

- **Articulate the vision for and benefits of shifting the region's S3 and EDP to a new level of demand-led innovation support**, with an impact on innovation diffusion, thus extending the 'reach' of S3 and its relevance across the whole region's territory.
- **Outline the related actions and timeframe to achieving this** – this will help with managing expectations about the resourcing required for such an effort.
- **Clearly define the key enablers required to support this effort. These include: Allocating** the 'space' and time of S3 coordinators and Tier 1 intermediaries to work together and address capacity needs and challenges; having assurances of support and commitment from senior policy stakeholders in the regional authority to engage with the S3 're-setting' process; encouraging stronger awareness of S3's value across the regional authority; and ensuring that financial and other resources are available to deliver this (e.g. external expertise)
- **Review the scope for redesigning / upgrading S3-related project financing that will better encourage intermediaries to work together.** It was noted that current S3-related funding projects do not promote Tier 1 collaboration. This creates a tendency for Tier 1 intermediaries to be driven by targets that discourage collaboration and encourage them to work in isolation, often competing with each other in how they provide innovation support and services across the region

4. Apply a stepwise process to the roadmapping process

The outline, roadmapping process offers a strong visual and '**starting point**' for a **renewed process of dialogue and collaborative action, commencing with S3 coordinators and Tier 1 intermediaries**. The tool aims to 'kick-start' this process, seeking to achieve incremental engagement of innovation actors / the wider business community, to drive the region's S3 direction, based on a clearer understanding of the innovation community's needs. In turn, this will **facilitate the process of shifting the region towards a stronger, demand-led S3 orientation**. The guide offers a route to re-activating the region's EDP with a **strong focus on innovation diffusion**. Outreach and engagement with the region's innovation community will also support the pathway towards S3 roadmapping, where collaborative efforts can be taken forward to **unlock new knowledge and understanding about S3 niches** that are currently under-exploited. Ideas for consideration at each of the 4 steps are outlined in the table below, with examples of actions for further review and agreement, could help to deepen collaborative and trusting working relationships, while building capacity and expanding the scope of the region's EDP.

Box 11 Tasks to support the 4-stage roadmapping process

Step 1: deepen and re-shape the evidence base underpinning the region's innovation ecosystem

- Review the gaps in the S3 evidence base and consider how to fill them (e.g. data, consultation, desk research)
- Undertake a first stage overview and mapping of the region's key assets / infrastructures, transition drivers
- Discuss how to activate a sustainable, quadruple helix ecosystem
- Undertake stakeholder mapping to identify innovation champions – including industrial and social actors

Step 2: generate a broad perspective / shared vision of the regional innovation ecosystem under the 4 S3 priorities

- Undertake a review of innovation support services (the supply-side) to better understand: where these are located; what is on offer; what demand and uptake looks like; where there are gaps; how signposting to other intermediary support works
- Explore each of the region's S3 priorities for: labour market needs / gaps; tech-driven opportunities; investment needs and gaps
- Re-position the manufacturing sector as a stronger enabler of the region's transition and industrial upgrading agenda
- Explore both clusters and 'clustering' efforts within and across S3 priorities and consider opportunities to expand / upscale existing efforts through physical 'hubs' and virtual platforms
- Create a shared understanding of the region's strategic challenges and how these relate to S3 priorities (e.g. demographics; capacity; and scale challenges)

Step 3: set out the imperative for a demand-led, S3 orientation, where intermediary support is (re)directed to address the needs of the innovation community.

- Embed the role of the new association of municipalities into the region's S3 efforts, working towards a strong geographic coverage of S3
- Consider innovation actors and networks across the region (especially at Tier 2 and company level) who can help to champion a 'coalition(s) of the willing' in contributing to how the region's S3 becomes better embedded across the region, and how to improve the 'image' and relevance of innovation to the region's future development
- Design and deliver a series of Roadshows and Workshops to improve awareness of innovation support and the benefits of innovation collaboration and investment

Step 4: use evidence generated to co-design Action Plans for each S3 area (focused S3 roadmapping)

- Target the engagement of innovation actor support from the wider community, including Tier 2 intermediaries and companies.
- Consult widely on ideas and evidence to support the deepening of S3 priorities, towards niche, value chain opportunities for innovation collaboration in and beyond the region.
- Consult with Västernorrland, who are already embarking on this exercise, to identify areas of collaboration and good practices that can be shaped for the local context

The 4-step guide outlined above requires joint review across the S3 coordinator and Tier 1 intermediary group, with the aim of **gradually cascading ‘ownership’ of the S3 re-set process**. Some steps and stages are rather fluid and might shift to more immediate or even longer-term timeframes.

c. Both regions

Box 12 Recommendations: both regions and S3 governance / interregional collaboration

- Improved efforts are needed within each region to embed and upgrade S3 governance, as a pre-cursor to generating stronger S3 collaboration across the NUTS 2 territory
- Engage senior regional authority support within each region to align S3 with the regional development strategies
- Share local S3 governance challenges across the 2 regions
- Explore different options – based on 3 levels of engagement - for taking forward S3 collaboration that will target improvements in S3 governance:
 - Level 1: create a solid ‘grounding’ and understanding of respective S3 governance challenges
 - Level 2: ‘match’ joint S3 efforts to the EU’s evolving direction of travel
 - Level 3: ‘match’ S3 priorities across the 2 regions to stimulate and accelerate S3 collaboration across the 2 regions

i. S3 Governance and interregional collaboration

The regions expressed a wish to deepen their S3 cooperation by exploring together S3 governance structures and challenges, with a view to creating a shared agenda and synergies for improvement. Over time, this effort could be of wider interest to the four Northern

Sweden regions (2 NUTS 2 regions and 4 NUTS 3 regions). Indeed, their governance challenges are similar with respect to the multi-level arrangements in place at national and EU levels.

1. Take steps to embed and upgrade S3 governance within each region

The 2 regions require to undertake some internal reflections and dialogue within their own regional authorities to explore the value of effective S3 governance within the region’s strategic policy framework. This requires clear messaging concerning why overcoming S3’s ‘silo’ status through improved regional policy alignment could generate wider benefits. In addition, a clear articulation of local S3 governance gaps and bottlenecks is needed. The example of Wallonie’s S3 governance framework¹⁸ (below) offers a stimulus for consideration, highlighting that S3 governance can be designed as a facilitator to upgrade innovation ecosystem conditions (e.g. related to openness, sustainability and political engagement).

Figure 5 Region Wallonie’s approach to S3 governance



2. Engage senior regional authority support within each region to align S3 with the regional development strategies

The need for greater S3 traction with senior policy levels has been a key theme throughout this assignment and must be extended to governance efforts since this will provide the ‘springboard’ for improved and more strategic alignment between regional development ambitions and the role of S3. The root causes of this lack of engagement were felt to be strongly related to the S3 national / regional governance challenge previously detailed in this report. With S3’s rather ambiguous profile at the national level, it has been challenging for S3 coordinators to champion its value within regional development strategies.

¹⁸ <https://economie.wallonie.be/sites/default/files/S3%20Wallonia%20general%20presentation.pdf>
S3 Community of Practice – Alison Hunter

3. Share local S3 governance challenges across the 2 regions

This will help to create a shared understanding of respective bottlenecks and barriers, as well as possibly offering a shared dialogue for addressing challenges. This ‘grounding’ exchange is a pre-cursor to creating strong governance foundations for joint S3 collaboration. In addition, there are different capacities across the two regions in taking forward S3. This affects overall speed, the actors engaged, and the level of ambition being sought for S3 collaboration. The 2 regions must be realistic about the steps they can take together that will support their S3 collaboration ambitions

4. Explore different options for taking forward S3 collaboration that will target improvements in S3 governance

Some of the ideas described are more long-term and strategic in nature, while other could assist in ‘opening the door’ to improved S3 collaboration efforts. In some cases, the ‘net of engagement’ could be broadened to the 4 regions of the North of Sweden, depending on appetite and joint capacity. The description below of the 3 levels helps to explain the different types of action and resources these imply:

- **Level 1: towards creating a solid ‘grounding’ and understanding of respective S3 governance challenges.** Actions on this level offer an important first step in planning for a new level of S3 collaboration, with the aim of reviewing and adjusting expectations according to what might be feasible, especially at the early stages of this process. This will require clear and frank communications about local barriers and challenges that might slow-down progress in working together. These efforts could help to set out a new pathway for the 2 regions to move beyond a more ad hoc approach to S3 collaboration. Furthermore, the findings and recommendations in this assignment are already setting out new ‘demands’ for the upgraded roles of S3 coordinators. Therefore, improved governance and collaboration ambitions should be considered within this context. For example, the 2 regions work with a number of innovation intermediaries who are either based on the same organisational actors (e.g. from Mid-Sweden) or belong to the same organisation but with different actors within each region (e.g. Almi and Coompanion). In Jämtland Härjedalen, there is a need to adopt a stronger facilitation role for S3 coordinators that will allow Tier 1 intermediaries to ‘step-up’ their operational leadership function, to deepen EDP engagement. While in Västernorrland, Tier 1 intermediaries have a stronger expectation that S3 coordinators will play a more proactive role in coordinating the efforts of the Tier 1 community. These insights could benefit from exchange across the 2 regions to better understand common challenges and possible shared ideas for action.
- **Level 2: ‘matching’ joint S3 efforts to the EU’s evolving direction of travel with respect to a changing global context and the challenges the EU is facing.** These include a very different global trading environment, where the EU’s strategic autonomy, economic security and competitiveness priorities call for the upgrading of policy and investment design that will mobilise new forms of innovation scale. The continued role for S3 in this

context is an important consideration, not least in aligning with renewed EU industrial policy efforts, and related EU value chains that connect to local S3 niche priorities and investments. The North Sweden EU Office already provides a much-appreciated service in supporting the 4 North Sweden regions to connect to EU opportunities. However, it was noted during the workshop that local capacity to respond to these opportunities is highly variable and ad hoc. By reviewing areas of joint S3 interest, this could open up greater scope for joint investment in taking forwards EU engagement opportunities

- **Level 3: place-based options to stimulate and accelerate S3 collaboration across the 2 regions.** Level 3 ideas are directly related to the priorities identified in each region's S3. Identifying collaborative opportunities requires a concerted effort to invest in a greater level of understanding of each region's S3 direction and related priorities. Areas of cross-over / overlap are not immediately obvious because of how these have been defined at local level (e.g. forest-based bioeconomy in Västernorrland and soil, forest and water in Jämtland Härjedalen).

Level 3 options are driven by 'narrower' local considerations. If they are considered in isolation (from Levels 1 and 2), there is a risk that collaborative efforts would encounter bottlenecks related to capacity. In turn, this could frustrate efforts to generate a new S3 collaboration dynamic across the 2 regions. There is therefore a need for the regions to become more familiar with the content of, and rationale for, respective S3 priorities to generate a deeper understanding of needs and ambitions, and to drive a joint direction for action. Supportive S3 governance is critical to this type of collaboration since underpinning processes, communications and decision-making structures need to be conducive to interregional collaboration

The box below offers a summary of the ideas presented above related to S3 collaboration and joint governance for the 2 regions.

Box 13 options to deepen S3 governance and interregional collaboration

- **Level 1: towards creating a solid 'grounding' and understanding of respective S3 governance challenges**

AIM: adopting clear principles / approaches to working together, including common language and goals

- Explore what do we want from our joint S3 collaboration? What (locally) works well and less well and what 'conditions' underpin this? What are we already doing together under S3?
- Review regional foresight capacity and means to respond to S3-related opportunities
- Strategic EU network engagement – a shared approach?

- **Level 2: ‘matching’ joint S3 efforts to the EU’s evolving direction of travel with respect to a changing global context**

AIM: connecting to a new EU direction of travel through upgraded innovation / S3 collaboration

- Adopt a more regular / continuous approach to tracking EU developments and updates (innovation, Industrial Policy, Cohesion Policy etc.)
- Engage with a new EU innovation context including: deep-tech and clean tech-driven innovation; and transformational innovation
- Retain oversight of the EU’s evolving defence-oriented innovation agenda¹⁹
- Consider the role of S3 in gearing up for improved, collaborative innovation scale in the context of renewed EU interest in competitiveness²⁰

- **Level 3: place-based options to stimulate and accelerate S3 collaboration across the 2 regions**

AIM: explore specific S3 cross-regional opportunities across the two regions

- **S3 process-related ideas:** Investing in analysis that highlights cross-regional S3 priorities and interests – the visual offers an illustration of a first-level analysis of S3 priorities across the 4 North Sweden regions, undertaken by Region Västernorrland. This offers a stimulus to review where S3 priorities align
- **Policy ideas:** e.g. strengthening S3-driven municipality engagement efforts across the 2 regions; a joint approach to scanning, reviewing and responding to interregional EU S3 funding calls and opportunities; joining forces to upscale efforts for talent attraction related to connected S3 priorities; joint exploration of ways to address gender-segregated labour markets
- **Sectoral ideas:** e.g. Bio-based Forestry; Gov Tech and public sector expertise; ways to promote cross-regional clustering opportunities for SMEs and micro-enterprises (virtual and physical); shared intelligence about mutual S3 roadmapping efforts and insights into value chain niches with possible value chain connection opportunities

¹⁹ https://defence-industry-space.ec.europa.eu/eu-defence-industry/edis-our-common-defence-industrial-strategy_en

²⁰ https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en

5. Conclusions

The regions of Jämtland Härjedalen and Västernorrland worked together on the S3 Community of Practice targeted assignment exercise with the aim of improving respective approaches to S3 – for EDP and S3 roadmapping - as well as setting out a foundation for S3 collaboration by improving S3 governance conditions at regional and NUTS2 level.

The regions have been working with S3 since the beginning of the current programming period (2021-2027). The S3 embedding period requires more time in terms of S3 awareness across regional contexts and how it connects and adds value to wider regional policy efforts.

The geographical characteristics of the regions pose challenges and opportunities. These include a strong legacy of nature-based assets and the transition to green energy economies. Geographical distances and sparse populations make innovation concentration and diffusion difficult to achieve.

Innovation intermediaries across the 2 regions were identified as key actors in supporting a stronger drive to operationalise S3. In Jämtland Härjedalen these actors – together with the region's S3 coordinators – will be critical in helping to 're-set' the region's S3 direction, while in Västernorrland, intermediaries require a focused programme of support to improve how they optimise collaboration efforts. In turn, this capacity building will help to drive a stronger S3 roadmapping effort in the region.

The assignment was underpinned by a Guidance Note relating to EDP and innovation diffusion that offers advice on adopting a stronger demand-led approach to S3 through improved guidance and direction for innovation intermediaries. This advice is based on a long-term trajectory and is relevant to both regions.

The S3 're-set' process for Jämtland Härjedalen will require upgrades to the existing S3 evidence base to better highlight the strengths of the region's 4 S3 priorities. Senior level management support in the regional authority is also required to ensure that capacity building investment in S3 coordinator roles is taken forward, better preparing this group to adopt a clear S3 facilitation and coordination function.

Jämtland Härjedalen also needs a more convincing rationale for S3 that demonstrates how it can support successful transitions. This will help to better engage the innovation community in innovation efforts by showing the value of S3 to support regional development transition efforts, securing the region's future in a context of significant EU and global change.

Jämtland Härjedalen is committed to embarking on an S3 're-set' through a 4-stage roadmapping process for which an outline has been generated through the assignment. This process should be mainly driven by S3 coordinators and a core group of identified innovation intermediaries, with wider senior policy support from the regional authority.

In Västernorrland a strong evidence base of the region's 9 S3 priorities is in place and there is an active and highly knowledgeable innovation intermediary community. However,

intermediaries do not cooperate on a systematic basis, creating gaps and overlaps in how S3 support is delivered across the region. This has prevented the region from adopting a systematic approach to S3 roadmapping across priority sectors.

Västernorrland should use the framework that has been designed through this assignment to generate and deliver a capacity building programme to improve the collaboration efforts of intermediaries. An S3 roadmapping prototype has also been drafted for further upgrading. This will help to direct efforts towards identifying niche opportunities under S3 priorities and - in turn - will help to reveal new directions for S3-driven, value chain collaboration within and beyond the region.

The 2 regions experience S3 governance challenges on national, regional and interregional levels. At the national level, there is ambiguity concerning how S3 connects to broader innovation policy. The requirement for regions to design and deliver S3 stems from the EU ERDF and is not a requirement at national level. The absence of a 'read-across' between these the S3 and regional development strategy has created ambiguity at the regional level with respect to S3 governance. In turn, there is often a rather weak connection between S3 and the regional development strategy. These challenges impede how the 2 regions can take forward the NUTS2 collaboration ambition that is set out in the ERDF operational programme.

The regions should work together to identify joint S3 collaboration opportunities through the 'lens' of S3 governance. Recommended ideas and options to activate this cooperation are defined on 3 levels, differentiated by national, EU and inter-regional contexts.

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Annexes

Annex I: Interview schedule

Guidance for engaging innovation actors / community in targeted assignment interviews and workshops

1. **Background to assignment** – S3 advice and guidance across the 2 regions (separate and connected). Summary of S3? EU support through European Commission services with regional innovation expert, Alison Hunter. Significant experience of working with EU regions to improve S3 capacity and delivery and to support interregional collaboration. Specific experience of working with regions across the Baltic Sea, including Region Vasterbotten
2. **Specific areas of S3 interest for the assignment:** EDP (entrepreneurial discovery process); interregional collaboration (IC); S3 governance
3. **Timescale:** completed by end October at latest. Assignment to include a series of on-line interviews (1-1 or in small groups) and on-line workshop sessions, with a highly interactive approach. **(After assignment, RVN will have a further support assignment through a 2-day Peer Review provided by a different service in the European Commission but with close coordination)**
4. Attach ppt from kick-off meeting (or selection of slides)?
5. **Process / method to engage actors:** ‘mapping’ of innovation actors, organisations, infrastructures and projects / initiatives to identify areas where critical mass can be better coordinated and supported, both within and across sectors (refer to diagram in ppt from kick-off). Also seeking to identify areas of S3 cooperation across the 2 regions, with possible extension to the 4 regions of North Sweden. Conducted through interviews and workshops. Each interview will last 1.5 hrs and each workshop approx. 3 hrs. Some actors might contribute to both
6. **Final report** – based on collated findings that are specific to each region and that are relevant to both regions. Individuals will not be identified in the report and all findings will be non-attributable
7. **An interview framework has been designed** – to provide an overview of the themes / questions to explore during the assignment. Different interviews can draw on different themes and ‘go deeper’ with some of the questions to be sure the interviews match to specific interests and experiences. Therefore, the framework provides only a guideline. You should consult this in advance of the interview and consider the themes and questions of most relevance to you

Effective functioning of EDP:

1. The current status of EDP (e.g. triple or quadruple helix; ratio / dominance of different parts of the helix and different actors; engagement across actors, sectors, geographies)
2. Is there adequate representation from the different parts of the innovation community?
3. What about civil society organisations? What S3 support is in place for social enterprises?
4. What role(s) are played by EDP actors and the regional process: proactive (including how S3 priorities are determined) or reactive (supporting delivery of pre-determined S3 priorities)
5. Is the EDP an ongoing process, more ad hoc or time-determined (e.g. annual meetings)? What are the advantages and disadvantages of how it currently operates?
6. Who are the main actors / organisations delivering innovation support? To whom? How (if at all) is this coordinated?
7. How are boundary-spanners / and innovation intermediaries identified and what are the processes of engaging with them? What are the specific roles they play? What is their outreach and coordination capacity?
8. To what extent is there:
 - a. Stakeholder ownership of the EDP?
 - b. Continuity of the process with coordinated efforts (i.e. a 'mutualisation' of intermediaries)
 - c. Perceived value in the process of EDP
 - d. Sufficient capacity and incentives for intermediaries to engage across the regional ecosystem
 - e. An innovation support system that adopts an innovation 'pipeline' approach where actors can access services at different stages of the innovation process (e.g. from basic advice through to commercialisation support and investment)
 - f. How active is the boundary spanner role – either across regional sectors or across regions?
9. Are innovation intermediaries supporting any of the following:
 - a. awareness-raising / knowledge building about S3?
 - b. coaching, advice and capacity building?
 - c. signposting to or directly providing access to finance?
 - d. facilitating networking?
 - e. support for the development and commercialisation of ideas?
 - f. strengthening clusters?
 - g. addressing barriers to innovation diffusion and knowledge flows?
 - h. encouraging the development / adoption of clean and green technologies

S3-driven interregional / international collaboration (IC):

1. What is the current status of interregional collaboration (e.g. with whom, quality and maturity of engagement, for what purpose, successes and good practices, challenges and gaps, extent to which IC is embedded in regional S3 practice; capitalisation of results)
2. What is the region's current capacity for IC and at what level (e.g. sharing / learning; commercialisation); weaknesses and strengths?
3. From the 2 broad types of IC below, what is the status across the region and within S3 priorities?
 - a. shared learning and peer exchange
 - b. direct engagement of innovation actors to deepen innovation collaboration efforts (i.e. towards commercialisation and impacts on growth)
4. How is engagement with other regions / countries being driven? (e.g. through EU and national Networks)?
5. How is national support (through national coordinator) helping to bring opportunities for IC to the region?
6. What examples of EU innovation-related projects? (e.g. Interreg; Horizon)?
7. How (if at all) are IC-related projects propelling further / deeper actions (locally) and cooperation (interregionally)?
8. Is there a group of regional actors / organisations who already (or who could) work together in the region to drive IC?
9. Efforts in the region to engage local innovation ecosystem actors / sectors in international value chains?
10. To what extent has the following (from ERDF OP) been taken forward: "cooperation with neighbouring regions in northern Sweden, or with other neighbouring countries, such as Norway and Finland, could promote a northern cooperation cluster on reuse and resource efficiency"

General

1. How is the region applying S3 to support how change is managed? (e.g. industrial transition related to digital and energy transitions; a shift to critical technologies to underpin EU competitiveness; demographic change)
2. What challenges and factors influence the change process? (e.g. resistance to change; confidence / capacity to manage change; decision making actors and processes that influence change)
3. To what extent does S3 adopt an holistic approach? (i.e. beyond innovation policy and actions, including citizen-well-being; twin transitions; critical technologies; investment capacity; working across public policy fields)
4. To what extent is S3 a rather siloed effort? (i.e. not well-connected to other policy drivers such as energy, digitalisation, investment)
5. How does the region combine a place-based approach to S3 with a global perspective of change?

6. Is there a shared definition across the region of S3 challenges and opportunities?
7. Include Brussels office in interviews?

S3 Governance – within each region and across the 2 regions

1. How does S3 governance work across the region? (e.g. policies, processes, engagement with other public services, relationship with regional development strategy)
2. What is the ‘fit’ between the regional (and national) policy culture and S3 governance principles?
3. What gaps and challenges exist and why?
4. What are the strengths of the region’s S3 governance?
5. Does the region have sufficient devolved powers to deliver on the S3 agenda? Also with respect to funding S3 plans and projects?
6. How are responsibilities for S3 and innovation divided and shared with the national level, and at the regional level? What coordination efforts exist / are needed? How transparent is the process? Are there silos, duplication / overlaps in S3-related activities?
7. How are municipalities involved in S3 governance?
8. With no NUTS2 level for S3, how is the delivery of the ERDF OP managed and ensured? (e.g. coordination and communication across the 2 regions)
9. What more could be done to connect S3 across the 2 regions?
10. How would you rate the region’s effectiveness on the following S3 governance principles²¹:
 - a. Leadership and participation
 - b. Cohesion to implement an effective vision
 - c. Independence and transparency
 - d. Integrated implementation
 - e. Embedding S3 in regional policy making
 - f. Multi-level governance
 - g. Reflection and learning
11. With an increasing focus on ‘whole-of-government’ approaches to S3, how are the regions positioned to deliver on this?

²¹ Taken from Interreg Europe
https://www.interregeurope.eu/sites/default/files/inline/Smart_Specialisation_Strategy_S3_-_Policy_Brief.pdf

Annex II: Guidance note

Insights into the role and value of innovation intermediaries and boundary spanners

Innovation intermediaries and boundary-spanners – unlocking the regional innovation ecosystem, delivering support and facilitating innovation diffusion and collaboration

The local ethos or ‘culture’ of S3 / regional innovation can act to help or hinder the extent to which S3 intermediaries can adopt a truly experimental and innovation diffusion function within their ecosystems. Where there is a clash / tension²² between an experimental approach and more rigid public sector accountability, this can stifle the EDP dynamic and the flexibility and time that intermediaries require to ‘test out’ ideas and to engage innovation actors in joint innovation actions.

The innovation intermediary function can operate in a number of ways across and within innovation ecosystems. The roles described below are unlikely to operate exactly as described. These are proxies that depend on the precise nature of a region’s economic structure, maturity in working with S3, capacity and expertise to design and deliver a sophisticated supply-side innovation response to the innovation needs of different geographies. Indeed, some roles might be undertaken by the same organisation / intermediaries. Furthermore, innovation intermediaries can be publicly funded bodies, private businesses and actors / entities from the social sector.

- **Horizontal level: Tier 1 support** – providing generic innovation advice and support across sectors and different innovation actors, offering signposting to business support services that aim to improve innovation knowledge and capacity. Examples include chambers of commerce and innovation hubs and advisers. Actors in this tier often possess a good grasp of the innovation activity and broad needs of several sectors across the region’s economic structure. In addition, their expertise often makes them suitable for leading on / contributing to S3 plans and initiatives that serve the wider regional innovation ecosystem
- **Vertical level: Tier 2 support** - providing sector-specific support through clusters and specialised test centres. For example, technical advice on the shared use of test facilities to explore innovation ideas related to advanced manufacturing or food technology. This support requires strong investment in the innovation ecosystem and can support regions to adopt a systemic approach to innovation diffusion and collaboration. To achieve this, the S3 intermediary function requires dedicated investment in resources and clear articulation of aims²³

²² <https://www.tandfonline.com/doi/full/10.1080/09654313.2024.2359669>

²³ Further guidance can be found: https://interreg-baltic.eu/wp-content/uploads/2021/10/56-EmplInno_Recommendations_for_Innovation_Intermediaries.pdf and https://ec.europa.eu/regional_policy/sources/policy/communities-and-networks/s3-community-of-practice/S3_COP_Working_Group_Innovation_Diffusion_Input_Note_1_Final.pdf

- **Boundary spanners** operate at the interface between innovation actors in the same / related sector (e.g. supporting companies to build connections for improved supply chains), across sectors (e.g. supporting agricultural actors to engage with advanced manufacturing equipment with the aim of diversifying business opportunities and upgrading towards greening measures) and across regions (e.g. connecting actors who have mutual innovation interests in and across sectors)

It is important to identify the actors who can fulfil these different roles and to review how these roles might be better embedded and optimised (individually and collectively) according to regional capacity. The mutualisation of innovation intermediary support²⁴ creates a strategic response to serving the needs of regional innovation actors across the quadruple helix. Shifting to this type of innovation support signals a departure from support that is more ad-hoc. Built into S3 governance, the embedding of the innovation intermediary and boundary-spanning functions also supports feedback to inform the S3 monitoring and evaluation (M&E) process.

Working towards mutualisation of the innovation intermediary function is a long-term endeavour and needs to stem from a co-created perspective – i.e. intermediaries and boundary spanners need a shared vision, building joint capacity to support innovation diffusion and collaboration in and beyond the region. Strong S3 policy coordination and facilitation support is also needed.

The challenge of ‘distance’ to innovation support and cooperation

The context of the regional innovation ecosystem and S3 support services is highly influenced by geography, economic structure and innovation capacity. The geographical ‘distance’ of companies (and other innovation actors) to innovation support can generate capacity constraints for the ‘connectivity’ of the innovation ecosystem.

‘Distance’ to innovation support is not only a geographical matter; it also relates to innovation knowledge, ‘know-how’ and capacity. Therefore businesses and other innovation actors who are more ‘removed’ from innovation information and knowledge will have less opportunity to benefit from support, or to perceive its value positively.

Proposed tool to review regional innovation collaboration

In the diagram below, the concentric circles represent 3 broad ‘layers’ of innovation actors with differing distances to regional innovation opportunities (e.g. support services, connections to intermediary organisations and to other innovation actors). The circles act as a proxy to illustrate the ‘distance’ of different innovation actors from the same sector to the innovation ‘frontier’ (i.e. how active different actors are to engaging with innovation). The relative percentage of actors within each group / layer will differ by sector, and is highly

²⁴ See Innovation Diffusion Working Group from S3CoP:
https://ec.europa.eu/regional_policy/policy/communities-and-networks/s3-community-of-practice/innovation_diffusion_en

context-specific, depending on economic structure, geographical characteristics and the nature of the regional innovation ecosystem.

Intermediary knowledge of the regional innovation ecosystem and mapping efforts can help to identify innovation actors (especially companies) who can be broadly ‘grouped’ according to their innovation engagement and capacity. While Tier 1 intermediaries can support this analysis effort, the level of knowledge required might be more readily found at the sectoral, Tier 2 level. This type of analysis can **help to identify how to prioritise (often scarce) resources across the region and how to match these to regional innovation intermediary support** (e.g. clusters, public sector innovation support, tech transfer offices).

The extent to which regional businesses collaborate (within their own sectoral layer, across layers in the same sector or across sectors) provides an **indication of the dynamics of the regional innovation system**. Adopting a demand-led approach to regional innovation collaboration requires continuous review of these dynamics in order to identify:

- Where and how business collaboration is taking place (within and across sectors).
- The extent to which core enablers of business diversification and transition (such as digital and tech-driven collaboration and greening practices) are present in business operations.
- Whether innovation activity tends to be concentrated (e.g. within a group of Layer 1 companies) or whether more widespread and diffused innovation activities are present.
- What impacts are being generated with the help of innovation support / guidance (e.g. financial and international performance; development of new products / services / business models and processes).

This type of evidence supports the process of **identifying demand-led innovation opportunities and strengthening intermediary support to facilitate faster, more focused and more relevant innovation collaboration**. It is impossible to have perfect information about regional innovation collaboration dynamics and how innovation knowledge flows within and beyond a regional context²⁵. However, having a broad sense of the types of – and greater potential for – innovation cooperation can help to plan resourcing of the intermediary and boundary spanning functions, focusing on a demand-led orientation.

The diagram below describes:

- **Layer 1 companies** – they are likely to include the best performing regional companies, who are often the largest ones in the region. The role they can play to draw in other regional actors for supply-chain development and to explore mutual diversification benefits is often under-developed. This could be due to lack of information about other local actors but a lack of collaboration can also be due to weak innovation absorption

²⁵ An S3CoP input note for the Innovation Diffusion Working Group refers to this as the ‘black box’: https://ec.europa.eu/regional_policy/sources/policy/communities-and-networks/s3-community-of-practice/Input_note_2_Exploring_weak_articulation_of_demand_for_innovation_and_innovation_support_services.pdf

capacity of Layer 2 and 3 businesses. Commercial concerns about sharing information can also prevent innovation collaboration. Layer 1 companies need to be sufficiently incentivised to invest in regional innovation collaboration. They require clear signals of how this will benefit them. Layer 1 actors will be relatively easy to identify. There is a need to review the extent to which incumbent actors risk playing an overly dominant role, in accessing public support and resources for innovation, to the detriment of other innovation actors. Equally, there might be Layer 1 actors who are less engaged with innovation support services and whose success has been achieved rather independently from public support measures. There is a need to draw in these companies with the aim of generating ‘win-win’ scenarios in how their collaborative efforts could support business growth, upgrading and transition (e.g. through working with other companies / innovation stakeholders from the local sector, in other local sectors and beyond the region)

- **Layer 2 companies** – sitting at the interface of innovation activity – these companies can play critical roles in both connecting to the region’s strong innovation actors and also drawing in those who are furthest away from innovation activity (Layer 3). Intense analytical and tailored support will be needed with Layer 2 companies as their trajectories are far from certain and their capacity could be rather limited. Mobilising actors and creating ‘spaces’ for improved exchange can be achieved in a number of ways - web-based; hubs; sectoral / cluster meetings; ‘meeting place’ / ‘elevator pitches’²⁶; and improved connections to networks
- **Layer 3 companies** – these are furthest from the innovation ‘frontier’ with respect to engaging with innovation support services, working in local supply chains and interacting with other innovation actors within and beyond the region. They also tend to be characterised by limited knowledge of and / or appetite for innovation. There are often many micro-businesses in this layer. Making the ‘case’ for their engagement in the local innovation ecosystem should emphasise the need for their improved business resilience (in the face of twin transitions and withstanding current and future shocks and crises). Working with others, and creating new scaled, innovation capacity is a significant part of the solution to these challenges. Introducing these companies to more generic innovation support services could help to improve their knowledge and – in time – to further incentivise them to build capacity for innovation collaboration.

²⁶ Examples for inspiration: <https://www.traceabilityandbigdata.eu/news/1st-elevator-pitch-and-matchmaking-event-in-sah>

Analysing demand for S3 / innovation support at sectoral and cross-sectoral levels

