



S3 CoP Working Group: Innovation Diffusion

Input note 2: Exploring weak articulation of demand for innovation and innovation support services

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November 2023

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1. Introduction and context: Summary update of the WG on Innovation Diffusion

1.1. State-of-play: key messages from first challenge on a weak or absent systemic approach to innovation diffusion

The Working Group took part in an on-line meeting on 27 September 2023. This meeting reviewed the feedback from Working Group (WG) members based on the first challenge of a **weak or absent systemic approach to innovation diffusion**¹. Key messages and outcomes from the meeting were²:

- The most recurring contribution revolved around the **need to stimulate cooperation and innovative co-creation**. Emphasis was placed on the necessity to foster these contacts among countries with different levels of development, especially among key entities for the dissemination of innovation, such as universities. The importance of focusing on the individuals who will participate in this collaboration and knowledge exchange was also underscored.
- **Interregional collaboration**³ is a key aspect for the diffusion of innovation among ecosystem actors and, therefore, cannot be overlooked.
- Another important aspect was the **need to build trust among actors**. Trust among actors is something common within agents of the same sector; however, more effort is required to gain trust in cluster or inter-cluster collaboration.
- It was also pointed out the **importance of actors being aware of the significance of collaboration for the diffusion of innovation**, as many actors are not conscious of their important role in this task. They may be performing it without awareness, may not be identified by others, or simply may not be connected, which impacts the development of the potential of a regional innovation ecosystem. Thus, piloting actions to identify and create awareness in existing networks has become a focus of work in some participant regions today. This highlights the novelty of the identified issue (barriers to the diffusion of innovation) and the ongoing specific measures to address it.

1 See input note 1 “The challenge of a weak or absent systemic approach to innovation diffusion” at: 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

2 For further details on the discussions that took place during the 2nd WG meeting, please, see minutes of the meeting.

3 Please, note that interregional collaboration is the subject of another working group within S3CoP. For more information see: https://ec.europa.eu/regional_policy/policy/communities-and-networks/s3-community-of-practice/interregional_collaboration_en

- As for the **communication of the benefits of innovation diffusion**, it needs to start with improved governance of the supply-side innovation system to better facilitate collaboration. Moreover, within the intermediary community, improved coordination and coordinated communications are needed as well as instruments to facilitate peer exchange. Finally, this also extends to innovation beneficiaries, an improved targeting of communications would benefit the community.
- While S3 governance tends to promote an integrated approach to innovation diffusion at micro-level, this is not always the case at the macro-level (regional) and hence more tailored solutions are needed.

Finally, some **potential actions for regional authorities** to improve the system approach of innovation diffusion policies and practices were discussed, such as:

- **Position the innovation diffusion topic at the core of innovation policy** challenges and objectives, and subsequently **formulate policy responses and instruments** aimed at fostering collaboration among ecosystem stakeholders.
- Dive deeper into the detailed **breakdown of innovation services and support**, taking into account the varying needs of SMEs, specific industry requirements, company size, product and service characteristics or regional considerations.
- Facilitate the **systematic gathering of ecosystem actors and monitor** the agreements reached in these meetings, aiming to provide support tools or other facilities.
- Support the **capacity building of SMEs** and ecosystem agents through training programs, workshops, and knowledge-sharing platforms. Strengthening their capabilities can enhance their ability to participate effectively in innovation diffusion processes and actions.
- Introduce **data collection and evaluation mechanisms** to assess the impact of innovation diffusion policies. Data-driven insights can guide ongoing policy adjustments and improvements.

1.2. Second implementation challenge: weak articulation of demand for innovation and innovation support services

Innovation diffusion can be defined as the process through which different organisations or innovation actors gather ideas and use them to introduce an innovation (e.g. a new process of production, a new product itself, a new way of providing a service or a new way of working). Innovation diffusion, underpins successful implementation of smart specialisation strategies. In other words, it is not possible to implement an S3 if the functioning of the regional innovation system is not clearly understood⁴.

In developing the policy mix, it is also important to support the process of demand articulation for innovation by firms, considering that the needs and instruments will differ not only by

⁴ For detailed information on the concept of innovation diffusion, see “Innovation Diffusion, Concept note” available at : https://ec.europa.eu/regional_policy/sources/policy/communities-and-networks/s3-community-of-practice/WG_Innovation_diffusion.pdf

priority area, but also by SMEs typology (e.g., innovative or potentially innovative). Understanding the bottlenecks to innovation diffusion and the role of intermediaries in penetrating the territory and reaching out to different types of firms is a critical step, rightly acknowledged in the current enabling condition.

A more nuanced analysis of strengths and weaknesses in the adoption of new technologies, innovations, business practices and digital tools across the business population (and especially among SMEs) is needed to support effective linkages across the business community and the wider quadruple helix. This includes innovation ideas and practices that can be diffused from leading firms to the wider SME community and supply chain, as well as to those businesses lagging behind.

Like the first agreed challenge, the second one selected by the group⁵ “weak articulation of demand for innovation and innovation support services “ relates to the core functioning of the regional innovation ecosystem. This resonates with the survey findings related to the first challenge and detailed in the first input note, whereby Working Group members tended to note **gaps and challenges with the core functioning of their innovation systems**. In turn these issues were felt to be **impacting on the extent to which systemic, coherent and integrated approaches to supporting innovation diffusion can be generated**.

As with the first challenge, an **on-line survey** (see Annex I) was set-up for the second challenge, looking at both **how demand for innovation is articulated in the region (e.g. what are the processes underpinning this and who is involved) and how this information / evidence is then used to design and upgrade innovation support services across the innovation ecosystem**. In this process, there is scope for things to 'get lost in translation' with possible impacts on perceived relevance, uptake and value of innovation support services.

A number of factors impact on how effective these efforts are within regions. For example, regions might lack capacity or authority (through their governance systems) to adopt a truly place-based and targeted approach to defining regional innovation needs. Equally, capacity constraints or more focused efforts / engagement with a core set of innovation stakeholders could affect the relevance of how innovation demand is defined and translated into support. Another important element underscored is that, when it comes to innovation and SME – support-services, there are still partial solutions to partial issues and that an overall perspective and integrated approach is missing.

Positively, there was a very strong core of **good practice across regions** – revealed in surveys for both challenges to innovation diffusion - and a number also indicated that work and efforts were in progress to further invest in processes to improve how innovation diffusion functions. In terms of addressing weak articulation demand of innovation by SMEs good practices were found. New initiatives for tackling the challenge of weak articulation of innovation demand by SMEs were identified within the ERDF Programmes for the period 2021-2027. These

⁵ The implementation challenges were selected by the WG member during the kick-off meeting. See minutes here: https://ec.europa.eu/regional_policy/sources/policy/communities-and-networks/s3-community-of-practice/WG_Innovation_Diffusion_Kick-off_Minutes.pdf

involved the implementation of SME-support instruments tailored to specific target SMEs, avoiding one-dimensional approaches. Additionally, successful approaches include initiatives within Smart Specialisation (S3) strategies, where effective governance contributes to identify and address the specific needs of SMEs.

It is not surprising that **gaps and challenges in the core functioning of innovation ecosystems are also impacting on demand articulation for innovation** and – in turn – **on innovation support services**. In other words, where innovation ecosystems are characterised by gaps in how different actors cooperate or how they contribute to the policy development process, this will affect how demand for innovation is defined. Correspondingly, this creates a strong risk that related support services are not wholly aligned to the needs of the innovation community.

This challenge is important as it highlights that – even if regions are broadly content with how innovation diffusion processes work in and across their territories – the **impact is unlikely to be optimal if it is not well-aligned with effective innovation demand articulation**. This is a point that was emphasised in the first input note because there was a level of ambiguity across the regions concerning whether demand articulation for innovation truly reflected needs.

Having an accurate and updated evidence base of the status of innovation needs across the region is critical to designing relevant support and to improving innovation performance. Likewise, **relevant and demand-led innovation services depend on an accurate evidence base to ‘feed’ their design and upgrade**.

For the most part, **regions tend to focus innovation demand articulation on their business and industrial sectors** since these are the drivers of innovation performance. For this reason, there is a tendency in the survey results for **regions to consider innovation demand articulation and related support services from this business-oriented perspective**. As is explored in this note, this creates a **risk that the wider quadruple helix might not be fully engaged in the process of articulating innovation demand** – either related to specific ‘community’ needs (such as those in the wider research sector) or in generating a collective understanding of innovation demand. This raises the question (and should be further explored) of whether forging a stronger connection between businesses with difficulties to express their innovation needs and the larger societal and environmental challenges could be a key solution to overcoming the obstacles these companies encounter.

Furthermore, there was a **general absence of feedback from regions concerning business-to-business innovation diffusion** – either as part of support services provided through the region or as part of business collaboration efforts that take place ‘outside’ of the regional innovation support environment

The next section of this input note provides details of the survey responses related to this challenge.

2. Analysis of the responses obtained in the survey

2.2 An overview of questions and responses

An on-line survey⁶ based on eight questions (three closed and five open-ended) generated nine responses, constituting a 69% response rate⁷. The short timescales (due to the timing of the next WG meeting) might have influenced this response rate. However, in addition, a range of open-ended responses suggests that **the topic under review is rather difficult to define from regional perspectives** and that some gaps and ambiguities exist that might have made it challenging to offer clear answers to some of the questions.

The table below provides an overview of the survey questions and the types of response received. These have been anonymised to ensure that no single region / individual can be identified:

⁶ Designed with google forms and sent by email to the WG members on 2 October.

⁷ Responses from South Moravia (Czechia), Centre-Val de Loire (France), Region of Western Greece (Greece), Satakunta Region (Finland), Puglia (Italy), Croatia, Flanders (Belgium), Northern Netherlands (Netherlands) and Porto, Portugal).

Table 1. Summary of the key messages and practices on the implementation challenge “weak articulation of demand for innovation and innovation support services” from survey responses

| Survey question | Overview of responses | Insights and issues for further consideration |
|--|--|--|
| <p>1. Who is involved (in the region and beyond) and who influences the process of articulating innovation demand?</p> | <ul style="list-style-type: none"> • Triple helix actors – especially large companies, SMEs, academic / research actors and regional / managing authorities; a quadruple helix approach was less obvious • Sector-driven actors and organisations including clusters and an example of cross-sectoral approach through regional value chain strategic fora | <ul style="list-style-type: none"> • Responses indicated that innovation demand articulation is not usually underpinned by an embedded, continuous approach. It is often ‘fragmented’ with more focus on business engagement than the wider innovation ecosystem. It was also not clear if / whether engagement with these innovation actors was driven by a small group of ‘influencers’ or a wider, more inclusive process across ecosystem innovation stakeholders. • It is not clear if / how the process of receiving ecosystem input to articulating innovation demand is connected to the S3 Entrepreneurial Discover Process (EDP). |
| <p>2. On a scale of 1-4, how effective is the process of articulating demand for innovation in your region?</p> | <ul style="list-style-type: none"> • 6 responses – 3 (67%) • 3 response – 2 (33%) | <ul style="list-style-type: none"> • This indicates a general sense that the process of articulating innovation demand is effective |
| <p>3. On a scale of 1-4, how effective is the process of translating articulated demand into relevant innovation support services in your region?</p> | <ul style="list-style-type: none"> • 5 responses – 3 (56%) • 4 responses – 2 (44%) | <ul style="list-style-type: none"> • This indicates a slightly less positive response to the process of translating articulated demand for innovation into relevant support / services. |

| Survey question | Overview of responses | Insights and issues for further consideration |
|--|--|--|
| <p>4. Explain what - if anything - gets lost in translation (in the process of articulating demand for innovation AND in designing /upgrading innovation support services). What impact does this have?</p> | <ul style="list-style-type: none"> • It is impossible to satisfy everyone and some might feel their voices are not heard. • Expressed demand is not necessarily the same as actual demand. • Traditional / more established methods of the demand articulation process being dominated by some businesses and academic actors are creating evidence that is not wholly representative of the wider regional innovation needs. • Demand articulation is different at different levels (national, regional and local) and a diverse industrial base – requires continuous communication / consultation. • Difficult to balance the needs of the heterogeneous innovation system with a resourcing / capacity reality that requires common support tools. • There is an absence of instruments to promote innovation collaboration. | <ul style="list-style-type: none"> • The very real need to rationalise support (due to finite resourcing / capacity) might require to be balanced with greater transparency in the rationale and process of translating demand into innovation services. • There could be core challenges in the capacity of regional innovation actors to express innovation demand, creating either a gap in intelligence or inaccurate information about the nature of innovation demand. This implies a need for greater investment in capacity building across the innovation ecosystem to promote a more continuous flow of accurate and strongly-articulated information about innovation demand and to ensure strong proximity to actors responsible for designing / upgrading innovation support services, to ensure coherence between supply and demand. If there is a perceived or actual mismatch between articulated demand and how this translates into supply, this could generate dissatisfaction, dis-trust and disengagement with innovation support services, making it even more difficult to generate future evidence to ensure that support services are truly demand-driven. • Effective and trusting relationships and communications across the innovation ecosystem are needed to prevent negative dynamics. • Related to the above, there is a challenge to translate demand into support that can serve a more general innovation purpose (i.e. to provide for as much demand as possible through design of generic yet purposeful tools / support), while recognising the need to tailor |

| Survey question | Overview of responses | Insights and issues for further consideration |
|---|--|---|
| | | <p>support according to specific needs (e.g. size of company, maturity, sector).</p> <ul style="list-style-type: none"> Overall, there appears to be an absence of a systemic, integrated approach to translating innovation needs into support services, indicating the need for greater investment in two-way communication channels that promote continuous connectivity to innovation actors, to encourage feedback on innovation needs AND to ensure these are effectively translated into support services. |
| <p>5. Provide any specific examples of good practice in how your region goes about the process of articulating demand for innovation and / or how this gets translated into relevant, targeted innovation support services</p> | <ul style="list-style-type: none"> ‘Listening’ to innovation actors through platforms (with 150+ actors) that promote their engagement and connection to each other. Professionalise the network of SME advisers. Launch calls for RIS3-related projects that driven territorial socio-economic impact: projects facilitate collaboration across business / academic actors and promote integration of business needs. Promote RDI of regional growth clusters, although need for more active company engagement. Promoting industrial transition through initiatives that support start-ups to connect to larger companies. | <ul style="list-style-type: none"> Varied responses to this question indicate that regions are testing and delivering a wide range of initiatives and innovation support Both ‘push’ and ‘pull’ approaches exist: ‘Pull’ approach where region sets out S3/innovation priorities and provide direction/incentives for actors to work collaboratively to explore/deepen specific innovation potential. Through close proximity to the actors and dynamics in these projects and initiatives, their support needs are revealed. What is less clear is how the needs of those actors ‘outside’ of projects and initiatives are represented ‘Push’ approach through a ‘mission’/challenge (e.g promoting collaborations that deliver socio-economic impacts in broad domains). Here, actors need to adopt a more exploratory approach to working together. Articulation of demand for innovation is expected to emerge through the collaborative process. What was less clear in survey responses is how regional authorities and actors who are responsible for designing / delivering innovation support are engaging in/shadowing these efforts to elicit the |

| Survey question | Overview of responses | Insights and issues for further consideration |
|---|--|---|
| | <ul style="list-style-type: none"> • Spearhead clusters model – e.g. technology forecasting and roadmaps. • ‘Innovation-escalator’ model to as part of SME support instruments. | <p>intelligence and insights needed, to provide the evidence base that influences innovation support services (e.g. what these are? How they are delivered? Who they are targeted at?)</p> <ul style="list-style-type: none"> • It is also not clear if and to what extent regions are using both push and pull approaches to support the process of articulating innovation demand. • Overall, there is a wide range of support for innovation actors but not a great deal of clarity/detail concerning how these services and support are explicitly connected to articulation of innovation demand or how this ‘intelligence’ translates into evidence that then ‘feeds’ the innovation ecosystem’s needs and support services. |
| <p>6. Do they systematically review / evaluate both: a) whether innovation demand articulation is effective; b) the innovation services designed from this are relevant across the innovation ecosystem?</p> | <ul style="list-style-type: none"> • Evaluations depend on whether programmes are regional or national and also depend on the budget size (i.e. larger initiatives have greater expectations of impact). • Needs to be strengthened. • In process of establishing more systematic governance. • The S3 monitoring system helps us to understand if services are aligned to innovation needs. | <ul style="list-style-type: none"> • Responses to this question broadly indicate that wider M&E systems are ‘picking up’ these issues. However, it is not clear if specific efforts are in place to review the effectiveness of innovation demand articulation and how well this translates into innovation support |

2.3 Lesson from the survey responses

What might survey responses tell us about underpinning processes in regions to articulate demand for innovation and how this information / evidence gets translated into innovation support services?

Overall, survey responses require to be further validated at the next working group meeting, since the 69% response rate might have generated responses that are not wholly representative of the wider group. However, there was also a tendency for some survey responses to offer a **rather incomplete picture** of the challenges under review. This could be related to the **difficulty of explaining how innovation articulation works in the regional context. It could also be that this operates in a rather ad hoc / fragmented way.**

Furthermore, **the relationship between innovation demand articulation, translation into innovation support services and the effectiveness of innovation diffusion is a complex one.** In any dynamic innovation system, there will be **few (if any) easy-to-capture, linear processes and linkages between these 3 elements.** It therefore seems necessary to set these key, underlying factors in a visual and exploratory way, with the aim of prompting discussion and feedback from the WG members concerning whether these might help regions to review some of the fundamentals of their innovation ecosystems and how these connect to optimising Innovation Diffusion dynamics and effectiveness.

The survey results also broadly pointed to **innovation services / support and projects as providing the 'trigger' for evidence and information about innovation demand and needs.** What is less clear is:

- a) how is evidence being captured in these settings, who is leading on this and what steps / processes lead to this information being translated into support (including any necessary upgrades / changes to existing support)? and
- b) how is demand captured from those innovation actors who are not engaged in these services and projects?

In short, survey results provided limited evidence of systemic and continuous processes for capturing and collating evidence of innovation needs within regions.

While there is a wide range of support for innovation actors, there was **not a great deal of clarity or detail concerning how innovation services and support are explicitly connected to articulation of innovation demand or how this 'intelligence' translates into evidence that then 'feeds' into the innovation ecosystem's needs and support services.**

This theme is further explored in the next section, with the aim of prompting discussion across the Working Group at the next meeting.

3. Insights into innovation demand articulation and relationship with innovation diffusion

3.1 How is innovation demand articulated at regional level?

The structures, processes, governance, innovation support services and key actors of the innovation system (within and beyond the region) are vital components of the region’s ‘signalling’ system that (formally and informally) generates, shares and diffuses information (e.g. facts, learning, knowledge, evidence, data and insights related to practices) about regional innovation ideas, actions and needs.

Since businesses lay at the core of regional innovation ecosystems, it is often the case that innovation-related information in the system prioritises their needs. Innovation diffusion relates to how innovation information flows, is disseminated, exchanged and captured within and beyond the regional setting. **The effectiveness of innovation diffusion therefore depends on information flows within and cross the innovation system.** Many factors impact on this – including the relatedness of supply chains; vehicles and actors who promote diffusion of innovation (including clusters).

However, **survey results revealed only partial insights into how this works across the regions of the Working Group**, and tended to be mainly focused on **the role of innovation support services in providing the conduit for innovation diffusion**. What is less clear is how information, ideas and intelligence flow into and out of innovation support and services – e.g. is this managed / overseen in a systematic way or does this take place in a more random and intuitive manner which is difficult to capture?

The diagram below refers to a **‘black box’ of innovation diffusion** because of the dynamic nature of innovation ecosystems, which makes the process of diffusion difficult to track, due to the complexity of capturing knowledge / information flows. It is therefore **challenging to articulate how innovation diffusion is ‘feeding’ the innovation ecosystem.**

Figure 1. The ‘black box’ of innovation diffusion



Source: Author’s own illustration

A key challenge for S3 / regional innovation policy makers is **finding the right balance between facilitating unrestricted flows of innovation knowledge, learning and ideas within the regional ecosystem while ‘intervening’ to engage in, support and capture important findings that can be used for further upgrades to the innovation ecosystem** (e.g. contributing to evidence of innovation performance; further diffusion of learning to a wider range of innovation actors; improvements in innovation support services; targeted support through, for example, funded calls to respond to innovation opportunities).

With this there is also the challenge of **understanding if and to what extent existing innovation support services are benefiting a core group(s) of innovation actors more than others - or to the exclusion of others - in the wider innovation community**. Indeed, those actors who are more ‘embedded’ in the innovation system might be more influential and dominant in articulating innovation needs and in determining the type / design of innovation support services even if these are not broadly representative of the wider needs of the innovation community: “by ignoring indirect relations, heterogeneous network embeddedness and structural characteristics of regional networks within an RIS, significant portions of the system character of RIS remain unexplored” Stuck, Broekel and Revilla Diez (2015; p.6)⁸.

The **characteristics of the ‘network’ or innovation ecosystem** (including size, linkages present within and across different groups of actors and different sectors / domains) and the presence (and role) of innovation ‘brokers’ (or intermediaries) will strongly influence the nature and effectiveness of innovation diffusion. It is important for regional authorities and innovation policy makers to review these characteristics and related dynamics to better understand their influence on innovation diffusion within and beyond the ecosystem. For example:

- **The innovation diffusion dynamics of a large ecosystem might prove difficult to track** because of its complexity, relative to the resources and capacity of regional authorities. In turn, this could present challenges in understanding innovation needs across the ecosystem.
- **An ecosystem with many ‘inter-connections’ across actors, organisations and sectors might also prove difficult to monitor** for the same reasons outlined above
- **An ecosystem with a strong ‘core’ but many actors and organisations on its periphery might struggle to better integrate those on the periphery**. In the absence of better tracking their needs, this could prevent them from being drawn into regional processes of articulating innovation demand. In turn, this presents a risk that their innovation support needs are not met.
- **An ecosystem with strong inter-regional linkages but with high ‘barriers to entry’ due to a strong ‘gatekeeping’ function** might prevent wider diffusion of innovation knowledge and know-how across the regional ecosystem. Vested interests within the region to contain articulation of innovation demand to a core group is not only

⁸ Stuck, Broekel and Revilla Diez (2015), Network Structures in Regional Innovation Systems, European Planning Studies 24(3):1-20 available at: <https://www.tandfonline.com/doi/abs/10.1080/09654313.2015.1074984>

detrimental to the needs of the wider ecosystem; it can also serve to perpetuate path-dependent dynamics across the region, with a narrow, sectoral focus that excludes the wider potential of the innovation system

There is perhaps scope for the post-2027 S3 to place greater focus on how innovation diffusion dynamics within and across regional ecosystems influence the overall performance of the ecosystem. **Innovation diffusion dynamics affect and are affected by how innovation demand is articulated in regions. In turn, this influences how innovation support services are designed, delivered and upgraded.** Therefore, closely monitoring these dynamics can provide important insights for regional authorities and policy makers.

A series of core questions⁹ could support this process, such as:

- To what extent are S3s assessing / monitoring the quality, direction and dynamism across the regional ecosystem in terms of connections and relations across ecosystem actors? (e.g. who connects with whom? What is learned / exchanged and from whom to whom?)
- Who are the most dominant actors in the regional ecosystem and what role do they play in connecting to other innovation actors and in supporting the process of articulating innovation demand?
- Does the region assess the extent to which evidence, insights and knowledge about regional innovation needs are widely available and drawn from a number of different sources?
- Do these information sources include quantitative and qualitative data and are they representative of the whole innovation ecosystem?
- How is innovation evidence and information that is captured translated into ‘action’? (e.g. new information / insights to support the upgrading / redesign of innovation support services; process of absorption of innovation learning / insights at the level of different innovation actors / communities - such as companies, sectors, researchers, NGOs)
- How easy / difficult is it for regional authorities and policy makers to capture evidence of innovation diffusion (including tacit knowledge) at a company / sectoral level? Who oversees this process and how are developments fed back into the process of articulating innovation demand and reviewing innovation support services?
- What types of innovation knowledge, learning and ideas are being exchanged? From whom to whom? What is understood about if / to what extent this innovation exchange and diffusion supports innovation performance? (e.g. learning about contacts, markets, technology that will influence business decisions?)
- Overall, how dynamic is the innovation diffusion function across the region? How well is the innovation system being ‘fed’ by relevant knowledge, ideas and learning?
- What are the incentives and disincentives for innovation diffusion across different actors?
- What limits innovation diffusion and what impact does this have?

⁹ These are not definitive and should be tailored to the characteristic of the regional innovation ecosystem.

By reviewing and answering these questions, regions can develop a greater awareness of how innovation diffusion effectiveness is related to the wider theme of how innovation demand is articulated and how effective the processes are, that underpin this.

These questions / themes can form an essential component of an overall framework to **help regions to assess how innovation knowledge flows within and beyond the region. This is an important pre-cursor to understanding and articulating innovation needs.** The evidence generated from this can help with the process of designing new and upgrading existing innovation support services. **As a critical part of the regional S3, innovation diffusion can support this process.**

Furthermore, by assessing the effectiveness of innovation diffusion in and beyond the region, improvements can be made in strengthening flows of innovation information, ideas and learning by improving ‘transmission’ mechanisms (e.g. the role of brokers / intermediaries; digital platforms; innovation hubs; facilitating stronger engagement of identified innovation actors; incentivising greater innovation collaboration through, for example, funded calls)

4. Key messages and questions for follow-up discussion

Following the analysis above, the following key messages and questions are proposed for discussion during the upcoming WG meeting in November.

Key messages

- Many regions tend to have gaps and challenges with the core functioning of their innovation systems. In turn these issues are likely to have an impact on the extent to which systemic, coherent and integrated approaches to supporting innovation diffusion can be generated.
- There is a very strong core of good practice across regions and a number also indicated that work and efforts were in progress to further invest in processes to improve how innovation diffusion functions.
- Regions tended to identify gaps and challenges in the core functioning of innovation ecosystems (e.g. fragmentation within the region and between the regional and national levels) that are also impacting on how innovation is articulated.
- For the most part, regions tend to focus innovation demand articulation on their business and industrial sectors, including firms at the core of the innovation system and those at the periphery. This creates a risk that the wider quadruple helix might not be fully engaged in the process of articulating innovation demand
- A perceived or actual mismatch between articulated demand for innovation and how this translates into supply (of support services), could generate dissatisfaction, distrust and disengagement with innovation support services

- Innovation diffusion dynamics affect and are affected by how innovation demand is articulated in regions. In turn, this influences how innovation support services are designed, delivered and upgraded.
- The response rate to the survey was rather low (57%) and it revealed that the challenge under review - weak articulation of demand for innovation and innovation support services - is rather difficult to define from regional perspectives.
- Analysis of survey responses showed that:
 - innovation demand articulation is not usually underpinned by an embedded, continuous approach. It is often 'fragmented' with more focus on business engagement than the wider innovation ecosystem.
 - It was not clear if / whether businesses involved in the process of articulating innovation demand generally comprise a small group of 'influencers' or a wider, more inclusive process across ecosystem innovation stakeholders – i.e. it was not clear if / how the process of receiving ecosystem input to articulating innovation demand is connected to the S3 EDP.
 - There was variable capacity across the innovation ecosystem to express demand for innovation. This implies a need for greater investment in capacity building across the innovation ecosystem to promote a more continuous flow of accurate and strongly-articulated information about innovation demand.
 - Translating innovation demand into innovation services is clearly a complex process, requiring sensitive balancing of the needs of different communities / actors with resource constraints.
 - There appears to be an absence of a systemic, integrated approach to translating innovation needs into support services
 - Regions are engaged in a wide range of efforts and investments in delivering innovation support services, including innovation projects, cluster support and improved alignment of the research community in how they reach out to and work with businesses
 - However, it was not clear that intelligence generated from these efforts and support services is then 'fed' into the process of updating both how innovation demand is defined and how innovation support services are upgraded

Key questions for discussion with the WG members:

1. Are the key messages and findings in the note relevant to your regional context?
2. Were survey questions difficult to understand or difficult to answer from a regional perspective, or both?
3. What kinds of business-to-business Innovation Diffusion is present in your region (e.g. across the SME sector; between large companies and SMEs; within and across clusters and networks) and how – if at all - are these facilitated by innovation intermediaries / 'brokers'?

4. How do businesses connect to other businesses outside of your region and what innovation diffusion processes / efforts support this?
5. Are regional businesses involved in the process of articulating innovation demand generally from a small group of 'influencers' or is there a wider, more inclusive process across ecosystem innovation stakeholders?
6. Is the regional process of engaging innovation actors in articulating innovation demand connected to the S3 EDP?
7. Do 'push' and 'pull' innovation projects and initiatives feature in your region?
Push = 'mission' / challenge orientation, promoting collaborations that deliver socio-economic impacts in broad domains. Innovation actors need to adopt an exploratory approach to working together
Pull = region sets out S3 / innovation priorities and provide direction / incentives for actors to work collaboratively to explore and deepen specific innovation potential
8. What – if any – challenges do you experience in engaging a wide range of innovation actors, from your ecosystem, in innovation projects and services? What influence / impact do these projects and initiatives have on how demand for innovation is articulated in your region?
9. Can you provide examples of how results from innovation projects / initiatives provide evidence to re-shape future innovation support?

5. Annex I: online survey

S3 CoP WG on Innovation diffusion - Questionnaire to unpack the 2nd implementation challenge: Weak articulation of the demand for innovation and innovation support services

Dear WG member,

We would appreciate if you could **reply to this survey** to help us unpack the implementation challenge **'weak articulation of the demand for innovation and innovation support services'** which will be the focus of our 2nd WG meeting in November.

With this survey, we are looking at both **how demand for innovation is articulated in the region** (e.g. what are the processes underpinning this and who is involved) and **how this information / evidence is then used (or not!) to design and upgrade innovation support services** across the innovation ecosystem. In this process, there is scope for things to 'get lost in translation' with possible impacts on perceived relevance, uptake and value.

We are keen to find out if these efforts are truly place-based and targeted towards regional needs, and what are the challenges and enablers to achieving this. We are also keen to understand the extent to which these efforts are relevant across the whole innovation ecosystem or whether a more limited group of actors are involved and stand to benefit more than others (e.g. only / mainly the national or regional authority decides; only or mainly the most active, visible and successful businesses or knowledge institutions are involved in designing and using innovation services).

This information is extremely valuable for us and will feed into the input note that will be prepared and shared with the WG members before next WG meeting.

Please, **submit the questionnaire completed by 9 October** (CoB).

- Email
- Name and surname
- Region, Country
- Q1: **Who is involved** (in the region and beyond) and **who influences the process** of articulating innovation demand?
- Q2: On a scale of 1-4 (1 = not effective; 4 = very effective), **how effective is the process of articulating demand for innovation** in your region?
- Q3: On a scale of 1-4 (1 = not effective; 4 = very effective), **how effective is the process of translating articulated demand into relevant innovation support services** in your region?
- Q4: Explain what - if anything - **gets lost in translation** (in the process of articulating demand for innovation AND in designing /upgrading innovation support services). What **impact** does this have?

- Q5: **Provide any specific examples of good practice** in how your region goes about the process of articulating demand for innovation and / or how this gets translated into relevant, targeted innovation support services
- Q6: Do they **systematically review / evaluate** both: a) whether **innovation demand articulation is effective**; b) the **innovation services designed from this are relevant** across the innovation ecosystem?
- Q7: Would you like share/add any other additional point?
- Q8: Would you like to present at the next meeting in November?
 - Yes, I could present in the next WG meeting
 - I am not ready yet
 - Not sure