



European  
Commission

## JRC TECHNICAL REPORT

# Developing an Evaluation Framework Integrating Results of the Thematic Approach to Smart Specialisation

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2020



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#### EU Science Hub

<https://ec.europa.eu/jrc>

JRC120392

EUR 30171 EN

PDF	ISBN 978-92-76-17905-4	ISSN 1831-9424	doi:10.2760/329458
Print	ISBN 978-92-76-17904-7	ISSN 1018-5593	doi:10.2760/636484

Luxembourg: Publications Office of the European Union, 2020

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How to cite this report: Hegyi, Fatime Barbara and Ruslan Rakhmatullin, Developing an Evaluation Framework Integrating Results of the Thematic Approach to Smart Specialisation. EUR 30171 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-17905-4, doi:10.2760/329458, JRC120392.

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## **Abstract**

This paper examines how European regions can jointly pilot experimental policy support measures in precise S3 niches prior to their full-scale rollout in partner regions. By tackling new and often ambitious areas together, participating regions are able to test new policy support instruments while sharing the overall risk and uncertainty associated with such experiments.

Joint interregional initiatives can allow participating regions to mitigate risks of failure through a collective use of limited resources while identifying potential improvements or shortcomings. By working together, regions can clarify their vision and ambitions to occupy specific parts of the industry value chain.

Joint pilot activities can also help regions get a better picture as to how strong their positions are and whether specific clusters of global value chain activities in their partner regions are similar or complementary to their own activities. Furthermore, participating regions continue engaging with the industry while anticipating the likely evolution of the industry globally.

Finally, by monitoring such activities regularly, regions can assess the challenges and opportunities that can arise from future industry trajectories. By feeding this information back into each partner's smart specialisation strategy, regions are able to confirm the validity and relevance of previously selected RIS3 priority areas so that they could prepare themselves to respond to future challenges and opportunities in a proactive manner.

# 1 Experimentation: at the heart of smart specialisation

The concept of smart specialisation and related strategies were initially introduced by the Council of the European Union (EU) back in 2010. This was when regions and member states were invited to develop their smart specialisation strategies (S3) with a limited number of clearly defined research and innovation priorities. Furthermore, under the regulation for the programming period from 2014 to 2020, smart specialisation was introduced as a legal precondition (ex-ante conditionality) for using the European Regional Development Fund (ERDF). To support its member states and regions, the European Commission (EC) set up its Smart Specialisation Platform (S3 Platform or S3P) at its Joint Research Centre (JRC) in Seville, Spain. The S3 Platform was created specifically to assist and guide EU regions and member states through the design, implementation and review of their research and innovation strategies for smart specialisation (RIS3). Currently, over 120 smart specialisation strategies are being implemented across the European Union with a budget of over EUR 40 billion, while over EUR 65 billion (including national co-financing) was allocated to regions through the ERDF.

In order to ensure the long-term sustainability of their regions' territorial advantages, many managing authorities implement RIS3 in close cooperation with a large number of relevant stakeholders. In line with the European Commission's 2017 communication, competitiveness can be achieved through the development and matching of research and innovation strengths with business needs, while identifying new and emerging market opportunities and trying to avoid duplication of efforts. These efforts are expected to result in a strengthened research and innovation system as well as streamlined knowledge flows, effectively resulting in a better use of existing regional capabilities and additional benefits spreading throughout regional and national economies.

The draft regulation for the upcoming 2021-2028 programming period (EC 2018) proposes introducing an enabling condition linked to good governance of national or regional smart specialisation strategy. This new enabling condition would be supported by a set of seven fulfilment criteria including an up-to-date analysis of bottlenecks for innovation diffusion, existence of a competent institution or body to manage the smart specialisation strategy. The proposed enabling condition would also require any ongoing RIS3 activities to result in actions improving relevant research and innovation systems and facilitating industrial transition. There would also be dedicated measures supporting international and interregional collaboration. Importantly, the draft regulation proposes to put in place a dedicated monitoring and evaluation framework that would allow measuring performance and progress towards the objectives of the strategy.

Since the introduction of smart specialisation as a legal precondition for accessing ERDF funds, regions and member states were encouraged to be experimental during the design and implementation of their RIS3 strategies. In line with the draft regulation for the next programming period, smart specialisation is expected to increase its importance with a number of additional checks and balances built in to the existing innovation systems. The principle of smart specialisation is expected to remain at the heart of experimental policymaking during the new programming period. Such policy experimentation allows cooperative interregional initiatives to test new approaches to fostering policy innovation and institutional adaptation (North 1990). While any policy experimentation comes with some risk, it can also allow identifying policies that are relevant to the context, yet by blindly imitating good policies, one can end up with the results that are not entirely appropriate (Mukand and Rodrik 2005).

Priority setting in the context of smart specialisation requires at least a degree of experimentation. In some cases, experimentation can help testing new policy tools, ideally through pilot projects during the process of elaboration and modification of the S3 (EC 2016). The smart specialisation methodology encourages regional authorities to implement their strategies through a roadmap. A good roadmap should be operationalised with an action plan that allows for a degree of experimentation such as pilots that constitute the main tools for policy experimentation and allow testing new policy mixes on a smaller scale, before deciding on their implementation at a larger and more expensive scale. In order to serve such a purpose effectively, pilot projects should be combined with effective evaluation mechanisms leading to sound appraisal of success and feasibility as mainstream RIS3 projects (EC 2012).

With no one-size-fits-all solution to piloting public policies in the S3 context, regional authorities are encouraged to examine a multitude of approaches before amassing a tailored set of instruments suitable for their region. The innovation policy process across the European Union has greatly evolved from an innovation policy development confined to each region to collaborative learning activities that involve multiple peers who possess the required expertise and other critical resources (Rakhmatullin 2014). Collaborative arrangements such as thematic S3 partnerships can be seen by partner regions as an attractive way for risk-sharing, working together towards objectives transcending regional borders including sustainability, leading to improved competitive positions, and a lower level of uncertainty often associated with such experimentation (Grabher and Powell 2004).

In line with the RIS3 Guide (2012), pilot projects can offer a key tool for policy experimentation and testing of new and unprecedented mixes of policy measures on a smaller scale, before deciding to implement it on a larger and more expensive scale. This is where the three thematic platforms could be viewed as a risk-minimising venue supporting such policy pilots, helping region and regional stakeholders defining and working towards sustainable development objectives. Pilots can also help achieve a number of important policy objectives. First, pilots should precede any large policy implementation. Greenberg and colleagues (2003) argue that by monitoring pilots, policymakers cannot only learn about the process but can also avert any unplanned consequences. Furthermore, the authors argue that even though such policy pilots may frequently mean an additional cost, they can also allow mitigate risks of inserting otherwise potentially avoidable failings into a new policy. Piloting can also allow for innovation in policy areas that would otherwise be considered too risky or costly to tackle, however both the scale and complexity of any such experiments should be proportional in relation to its potential value (Greenberg, Linksz, and Mandell 2003). Additionally, several interregional collaborations are set up along S3 priority areas linked to sustainability or resource efficiency that allows collaborative efforts contributing to the attainment of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) adopted by the United Nations (UN) (United Nations, 2015).

The increasing complexity of the policymaking landscape can mean that some regions might not be adequately equipped to develop sufficiently appropriate policies. In other cases, regions might not have the capacity to reform to source and internalise the resources required to support the overall policy process. It has been argued that various forms of interregional and transnational cooperation can offer a lower-risk path to the implementation of certain RIS3 aspects and effectively resulting in a more efficient and effective use of often limited resources (Mariussen, Rakhmatullin, and Stanionyte 2016).

## 2 Thematic S3 partnerships: innovating and experimenting together

In its 2017 Communication, the European Commission recognised how interregional collaboration contributes to reshape EU-wide value chains and contribute to a more effective innovation policy. Building on the outward-looking dimension introduced with the S3 principle and as a response to an increase in demand for interregional cooperation in the S3 context, the European Commission launched three thematic platforms to support interregional collaborative activities in three broad areas related to Agri-Food, Energy and Industrial Modernisation. As of 2020, three thematic smart specialisation platforms (TSSP) continue to facilitate interregional efforts across the European Union to develop and implement over 30 qualified partnerships (joint investment projects) related to a number of strategic areas.

These thematic S3 partnerships are working to develop and implement joint activities in line with the workflow methodology proposed by the thematic platforms in strategic areas of future growth varying from photonics and innovative textiles to bioenergy and high-tech farming. This thematic approach to smart specialisation was designed as a new venue for bringing any new and existing regional policy efforts closer to other various thematic policies (Rakhmatullin, Hegyi, Ciampi Stancova et. al. 2020).

With no relevant prior experiences to build on, interregional collaborations in the S3 context often require methodological support from policymakers at European, national and regional levels. To support this, over the past few years, the European Commission has defined a methodological guidance for interregional S3 partnerships. The existing interregional S3 partnerships take advantage of a defined methodological and operational framework as well as an organisational and governance structure purposely built to support its implementation. This current methodological guidance is based on the Vanguard Initiative (VI) approach to partnership building (Hegyi and Rakhmatullin 2017). Working closely with the VI regions allowed the European Commission's S3 Platform team to gain a better understanding of the specifics of the VI approach to building and managing interregional partnerships. In fact, in its 2017 Communication, the European Commission recognises the Vanguard Initiative as an example of how stronger strategic interregional cooperation and sustainable linkages between regional ecosystems along RIS3 priority areas can help regions increase their collective knowledge, competitiveness and resilience.

The three thematic S3 platforms implemented and supported by the European Commission offer one approach to carrying out joint experiments. Such thematic S3 partnerships allow partner regions to test their policy logic and instruments as well as confirm the overall validity of the regions' smart specialisation priorities. The three thematic platforms guide partner regions through various steps involved in the development of investment projects along new global value chains, while helping improve their existing business environments by identifying barriers to translating innovation into joint investments. Thematic platforms work closely with partner regions to identify and build synergies between various interregional cooperation tools in order to boost competitiveness and innovation through a coordinated effort between relevant European Commission services and committed regions.

The thematic S3 partnerships are expected to drive a more effective innovation policy and contribute to developing and reshaping the European value chains by encouraging interregional synergies through joint investments. Many interregional partnerships supported by the thematic S3 platforms started off by defining a common domain of a RIS3 priority. Generally, a partnership chooses a research and innovation priority area of shared interest in which partner regions have complementing expertise and skills within their regional innovation eco-systems. Thematic platforms here are expected to support the implementation of RIS3 strategies through the development of methodological and benchmarking support and tools, facilitate the overall S3 process and link the S3 concept and methodology into the overall economic development of any involved regions.

One important objective behind this approach is to exploit complementing regional research and innovation (R&I) capabilities, while building up necessary capacities and overcoming interregional fragmentation and a lack of critical mass across the EU. This thematic approach to smart specialisation contributes to the strengthening of the new interregional innovation ecosystem. Furthermore, partner regions' innovation performance is expected to improve through the promotion and renewal of their regional economies (Mariussen, Rakhmatullin, and Stanionyte 2016). Such regional efforts could help create new competitive advantages through the development and matching of related research and innovation strengths with any existing or potential business needs while identifying new market opportunities (European Parliament 2016). In addition, interregional cooperation under the thematic S3 platforms can help tackle even further any duplication and fragmentation of efforts across the European Union, resulting in a more efficient use of resources and increased sustainability.

Similar to other EU-wide collaborative arrangements, interregional S3 partnerships can bring significant advantages to their partners and stakeholders in domains varying from learning, innovation, status and legitimacy, and economic returns (Brass, Galaskiewicz, and Tsai 2004; Podolny and Page 1998). Often, such initiatives result in new networks that can provide partner regions with access to information, resources and markets that offer gains in terms of learning and innovation, economic returns, legitimacy and status, effectiveness, and internationalisation (Human and Provan 2000; Porter and Powell 2006; Provan and Sydow 2008).

Mutual learning has already proved instrumental to addressing new policy initiatives that any one region would otherwise find challenging to experiment with on its own (Mariussen, Rakhmatullin, and Stanionyte 2016). Due to their experimental nature, thematic S3 partnerships can test new forms of interregional collaboration that go beyond the mutual learning objective by focusing on defining and realising joint investment projects. Since smart specialisation is generally a dynamic and longer-term process with a steeper learning curve, the thematic S3 platforms are well placed to offer groups of regions a suitable venue to experiment with such interregional ambitions (European Parliament 2016). Policy makers increasingly recognise the importance of learning together while working towards a better alignment of individual regional innovation roadmaps across various European regions and Member States.

### **3 Thematic S3 partnerships: monitoring progress and assessing results**

Thematic S3 partnerships are effectively joint interregional innovation networks of actors with specific subject knowledge and hands-on business expertise. These actors share a joint intention to ensure their regions' industry position in specific global value chains. These partnerships are expected to bring together various regional and national research and innovation actors with relevant industrial stakeholders in order to exploit complementarities in product and process design. Through such joint initiatives, a range of quadruple helix (QH) actors from participating regions can access new forms of knowledge while combining their resources and R&I capabilities.

Participating actors are likely to have varying expectations as to what they would like and/or can achieve as a result of each pilot or how soon. Some policymakers might feel discouraged if an interregional pilot or initiative does not bring immediate results early on. In this context, a seeming lack of instant and significant outcomes early on could be mistakenly interpreted as a sign of potential failure. However, each thematic S3 partnership is a unique interregional initiative that is likely to develop in line with its own dynamics and along its own inimitable learning curve.

As various forms of collaboration can produce different network outcomes and advantages (Uzzi 1997; Moretti 2017), it is important to collect key data and evaluate policy pilots and activities. This is why the implementation of various pilot activities should include a sufficiently comprehensive yet light feedback system. This system should allow sharing any relevant information about the results of pilot projects with the regional or national policymakers in charge of monitoring and evaluation of regional smart specialisation strategies.

Monitoring strategic activities such as pilot projects could allow adjusting or fine-tuning certain policy measures and instruments while continuing to implement a pilot action. When carrying out a policy pilot or experiment, policymakers are encouraged to design and implement a light monitoring and evaluation framework that would allow policymakers and stakeholders regularly monitor the progress and evaluate any outcomes and results from these pilot initiatives. Regular monitoring of any ongoing pilot activities would allow policymakers to make better-informed decisions when determining the impact and effectiveness of a program or policy (OECD 2009). Furthermore, the various experiences gained through the work of thematic partnerships are expected to inform policymakers involved in the strategic planning process of the next programming period.



### 3.1 From monitoring pilot activities to review Smart Specialisation strategies

In line with the European Commission's RIS3 Implementation Guide (2016), monitoring the implementation of innovation policies offers regional authorities a way to minimise duplication and fragmentation of efforts, while providing policy evaluators a reliable basis for comparison and benchmarking of policies. Hence, a solid monitoring and evaluation framework is a vital management and housekeeping tool that can help policymakers and practitioners ensure that RIS3 is implemented as effectively as intended. Not only it can help re-examining earlier policy decisions and even validating certain action points for the next programming period, but it would also allow examining which strategic objectives are achieved and which are to be reviewed again.

Planning a policy and related tools and instruments can take a relatively long time (over a year) and, often, this process can continue for a number of years after the beginning of the programming period. This is why (and in line with the concept of smart specialisation), a set of relevant indicators for monitoring the implementation of S3 should be defined early on in the process to ensure that funds are spent in a way that allows for an effective delivery of the planned outputs and outcomes.

Figure 1 envisages a relationship between various phases defined within the overall RIS3 Methodology (the '6-step approach to RIS3') and the methodology defined by the thematic platforms (the 'Thematic Approach to Smart Specialisation'). The horizontal chain of elements depicts the six steps of the RIS3 design process, while the diagonal flow consists of the five elements representing specific phases in the development of thematic S3 partnerships.

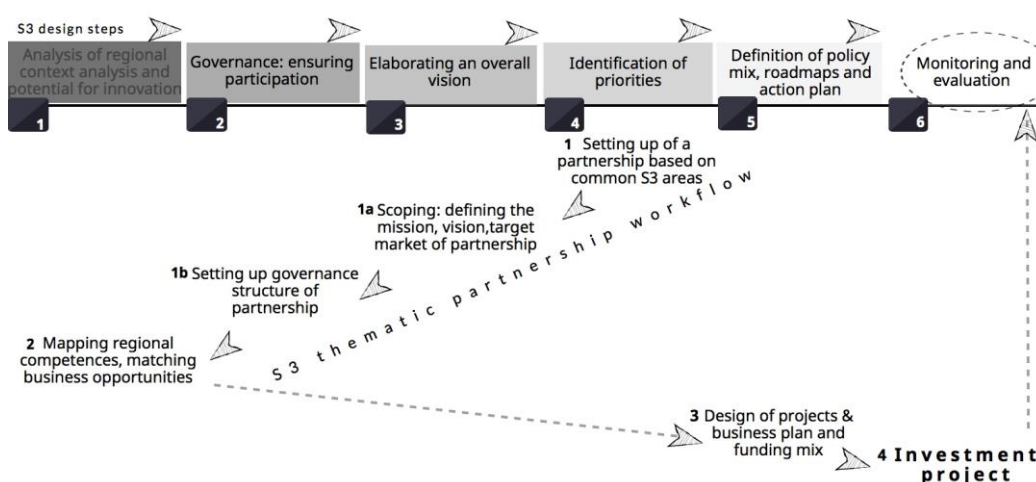


Figure 1: Integration of methodologies of S3 Design and Thematic Approach to S3

(Source: Mariussen, Hegyi, and Rakhmatullin 2019)

Over the course of 2018, the European Commission's S3 Platform introduced a dedicated monitoring report form to keep track of progress and developments associated with participation in thematic S3 partnerships. In line with the logic presented in Figure 1 above, the new tool includes a number of specific questions (see Appendix A) directly related to the five methodological phases associated with the thematic S3 partnerships and to each thematic S3 partnerships' extent of contribution to Sustainable Development Goals (SDGs). An early version of this monitoring report form was initially introduced to help interregional thematic partnerships to validate the extent to which they develop in line with the proposed methodological approach. Furthermore, this monitoring tool can help any existing thematic partnership to communicate their specific technical, financial and methodological needs directly to the European Commission's services supporting each thematic S3 platform.

Under the self-assessment part of this monitoring report, partnerships are asked to indicate the extent to which each specific step is completed, with options ranging from 'currently planned', 'work in progress', 'facing some challenges', 'completed' and 'completed and regularly monitored'. Furthermore, each thematic S3 partnership is invited to indicate if a solid M&E framework is already in place. Additional elements included in the monitoring report invite regions to provide further information about their partnership's governance structure, alignment of regional policies and technical instruments, as well as any regular monitoring and evaluation activities. Finally, partnerships are asked about the extent to which their activities and results are used to re-examine their own regional RIS3 priorities.

Any assessment of thematic S3 partnerships would ideally facilitate the identification of strengths and weaknesses. It should contribute to the examination of the partnership's performance and the results should be used to amend or fine-tune relevant S3 priority areas, if necessary (OECD 2005; Huggins 2008). Ideally, relevant information from each thematic S3 partnership is to be collected and shared with those responsible for the monitoring and evaluation of each partner region's smart specialisation strategy.

The monitoring report tool introduced by the S3 Platform can effectively help existing partnerships evaluate their progress along the five methodological (workflow) phases, while passing these results onto their RIS3 implementing bodies. The feedback can be gathered at the end of each workflow phase and connected with the corresponding steps of the overall RIS3 development. Regional research and

innovation (RIS3) priorities are to be frequently reviewed due to external changes resulting from various socio-economic and technological factors affecting related business markets. Thus, translating the results of individual pilots actions into lessons learnt that could inform any new policy decisions are of particular importance.

These conditions could be linked to the operational similarities between existing partnerships. For example, each partnership starts with a definition of a common thematic S3 niche and continues to develop their activities along the same methodological workflow. In the context of smart specialisation, ongoing monitoring of pilot activities is expected to allow stakeholders verify as to whether the implementation of any planned activities is rolling out according to an agreed action plan.

This self-assessment exercise is currently carried out twice a year by each thematic S3 partnership to evaluate its progress to date. As there is generally no qualitative uniformity in RIS3 strategies, various systemic context conditions could perhaps be used to carry out evaluation and comparison of different partnerships (Soete and Corpakis 2003).

As new policy experiments can frequently come with unclear benefits, policy decisions once made can benefit from being re-examined at a later point (Besley 2000). When reviewing their RIS3 strategies, many regional and national authorities are expected to re-visit regularly their policy logic and related decisions. Some policymakers choose to improve continuously their performance by proactively learning from their own experiences as well as policy successes and failures in other regions. Learning from one's own region's experiences means that key information from strategic pilot actions such the thematic S3 partnerships should be fed back into the overall (national and/or regional level) RIS3 monitoring and evaluation (M&E) framework. It should also include a review of the effectiveness of the policy measures and indicators employed to date.

## 3.2 About the monitoring report form

Once developed, an earlier version of the monitoring tool was tested with the help of a small group of five thematic S3 partnerships back in May 2018.

In its initial form (tested over the course of 2018 and 2019), this monitoring tool includes the following elements: scoping activities (subpart 1), mapping of regional competencies and capabilities (subpart 2), global value chain analysis (subpart 3), industry cooperation (matching of business opportunities) (subpart 4), design of projects (subpart 5), business plan (subpart 6) and funding mix (subpart 7), investment projects (subpart 8), as well as monitoring and evaluation framework (subpart 9).

Most subparts of this self-assessment instrument contain additional questions. Subpart 1 of the self-assessment tool includes three key elements confirming: (a) if the scoping phase has been developed and completed, (b) if a suitable governance structure has been agreed and put in place; and (c) if working areas have been defined and agreed with partners.

Figure 2 compares the assessment results reported by two partnerships (A and B) back in June 2018. Despite starting at the same time, the two partnerships assess their progress differently.

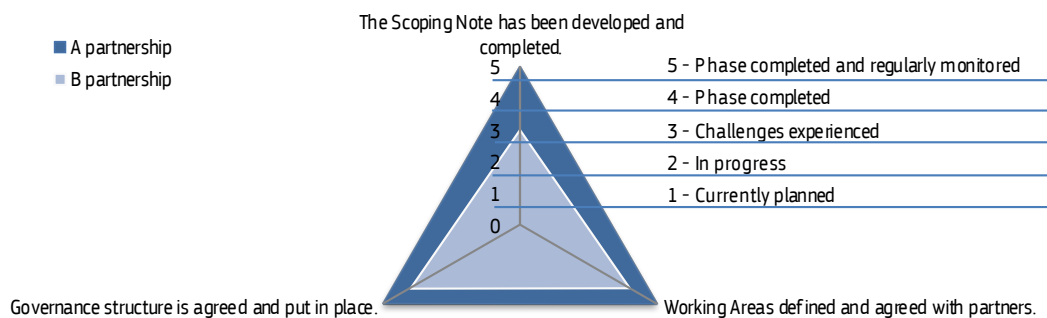


Figure 2: Assessment - Scoping Phase (subpart 1)  
(Source: Monitoring reports, June 2018)

*Partnership A* suggests that it has completed and reviewed all elements included in the Scoping Phase (subpart 1). In comparison, *Partnership B* seems to have experienced a number of challenges while developing their scoping note but has defined its working areas and has agreed on the governance structure.

Under subpart 2 (Mapping Phase) and subpart 3 (Global Value Chain Analysis), the monitoring tool examines a range of analytical activities that help align partners' strategic objectives and activities closer. These elements help partner regions to carry out a detailed analysis of its stakeholders done in order to define joint investment project ideas. This phase generally requires:

- Mapping of competences;
- Analysing regional capabilities (& gap analysis);
- Analysing connectivity within regional (and in terregional) eco-system;
- Global value chain analysis;
- Engaging with the industry and its stakeholders on a continuous basis;
- Anticipating the likely evolution of the industry globally;
- Assessing the challenges and opportunities to emerge from future industry trajectories; and
- Responding to these challenges & opportunities in a proactive manner.

Taking into account these critical analytical elements, Figure 3 offers a comparison of the assessment results from the same two partnerships (A and B) carried out in June 2018.

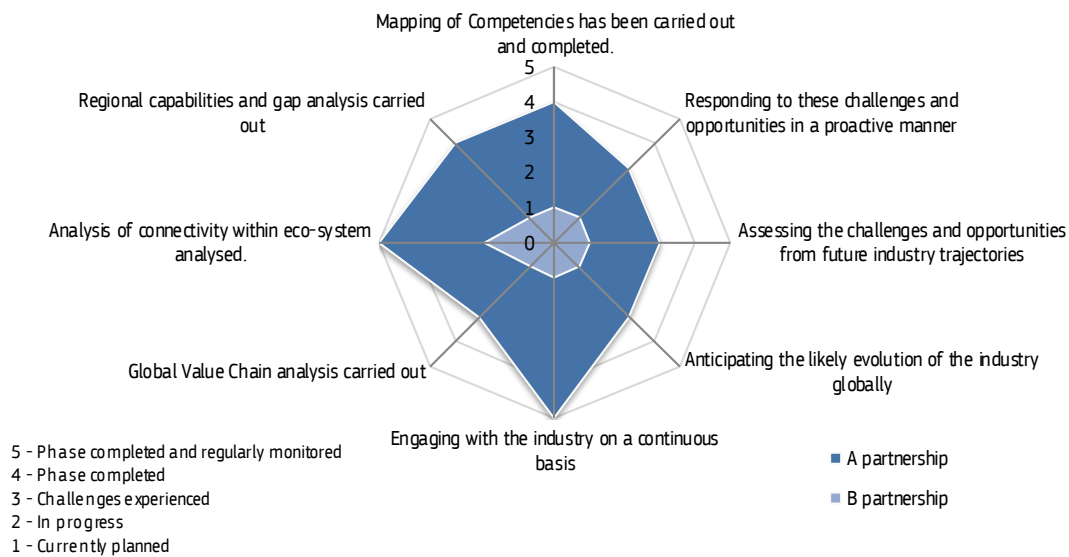


Figure 3 Assessment - Mapping Phase (subpart 2)

(Source: Monitoring reports, June 2018)

These results confirm that despite following the same methodological approach, partnerships tend to advance at their own pace. While Partnership A advanced significantly through some elements under the Mapping Phase (subpart 2), it found other elements to be somewhat more challenging: assessing future industry trajectories and responding to these challenges, anticipating the likely evolution of the industry or the global value chain analysis.

By building on the outcomes achieved throughout subpart 2 (Mapping Phase) and subpart 3 (Global Value Chain analysis), partnerships work towards matching business opportunities along a number of validated investment project ideas. During the industry cooperation phase (also known as matching of business opportunities) (subpart 4), partnerships are asked to critically evaluate their progress along four dimensions: (a) having organised matchmaking events, involving (b) RTOs and academia as well as (c) SMEs and clusters, RTOs and academia and matchmaking events organised.

Figure 4 presents the level of advancement of two partnerships as regards to the matching phase.

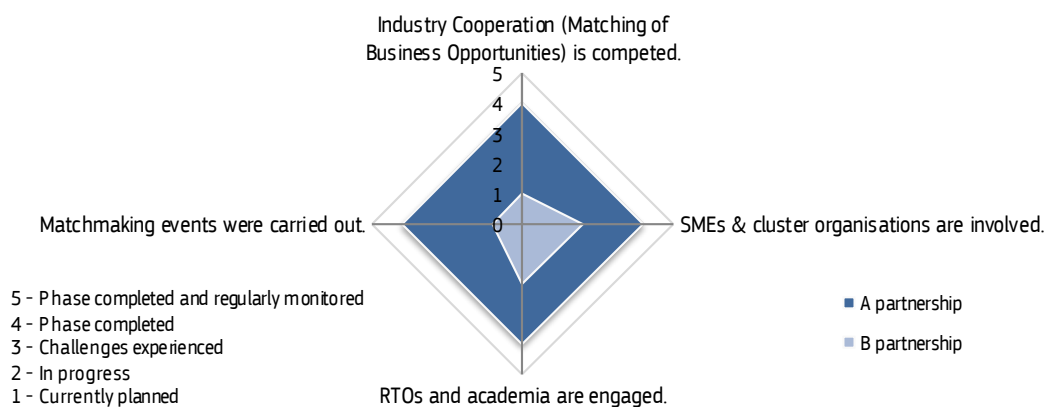


Figure 4 Assessment of matching phase

(Source: Monitoring reports, June 2018)

Figure 5 presents the advancement of two partnerships regarding the more advanced phases that are related to the design of projects, project and demo case definition supported by adequate legal and IPR instruments or the funding mix.

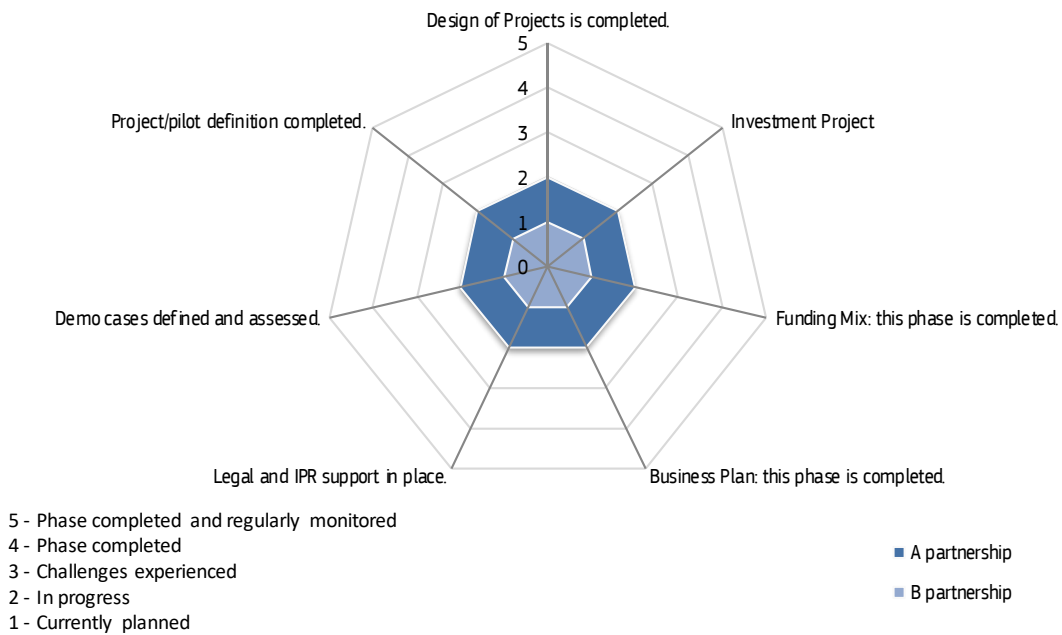


Figure 5 Assessment of project design and investment project phases

(Source: Monitoring reports, June 2018)

The proposed self-assessment logic invites partnerships to verify if an adequate monitoring and evaluation system is in place and to review the overall effectiveness of the governance structure. Furthermore, partnerships are asked to reflect whether regional policies and technical instruments are sufficiently aligned and if the results of the partnership are regularly fed back to the overall monitoring and evaluation of S3 priorities. The results are shown in Figure 6 for the same two partnerships A and B.

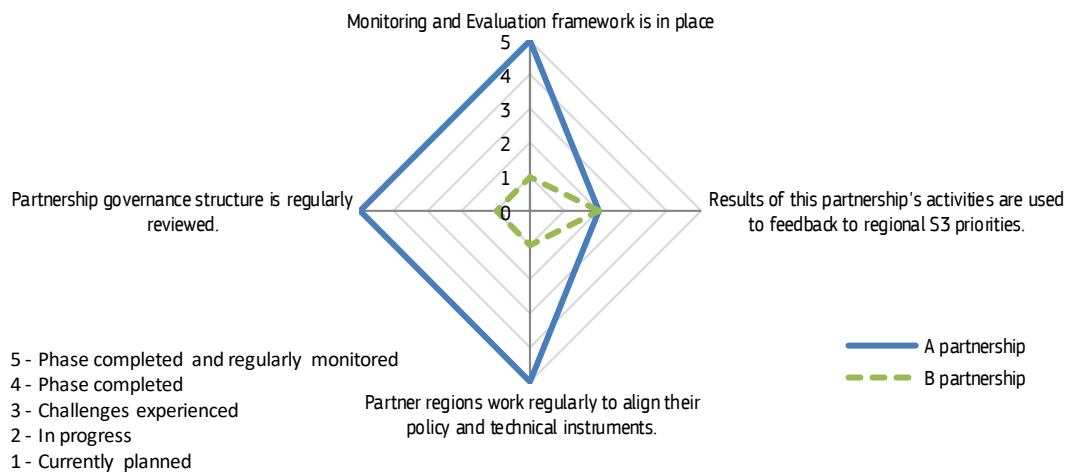


Figure 6: Assessment of monitoring and evaluation frameworks of partnerships

(Source: Monitoring reports, June 2018)

Once the self-assessment tool was pilot-tested with a small group of five qualified partnerships from May to June 2018, the instrument has been extended to all partnerships supported by the thematic S3 platforms on Agri-Food and Industrial Modernisation. Results have then been collected from 19 qualified partnerships during June and November 2018. Figure 7 below summarises the results of this extended assessment for the main workflow steps as assessed after the first and second semester of 2018. By carrying out this assessment twice a year, the overall advancement of partnerships can be monitored more closely. The example below suggests that three more partnerships managed to complete the scoping phase in the six months between the two assessments in 2018.

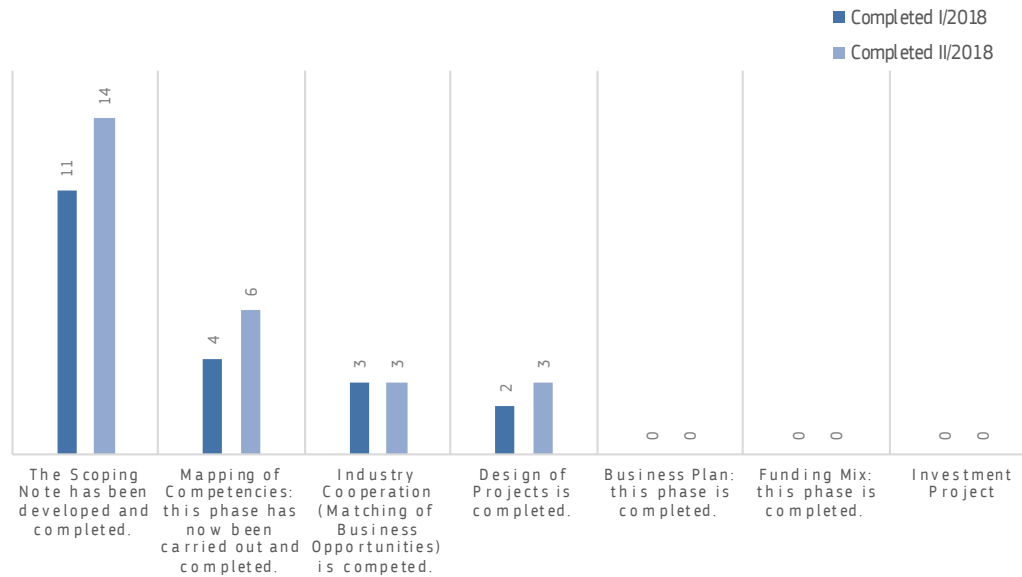


Figure 7: Monitoring of advancement of partnerships

(Source: Monitoring reports, June and November 2018)

The number of thematic S3 partnerships have increased significantly over the years, indicating the importance of achieving more complex strategic objectives through collaboration with other regions with similar strategic objectives and priorities. Figure 8 shows the percentage of the same set of 19 thematic S3 partnerships contributing to specific SDGs.

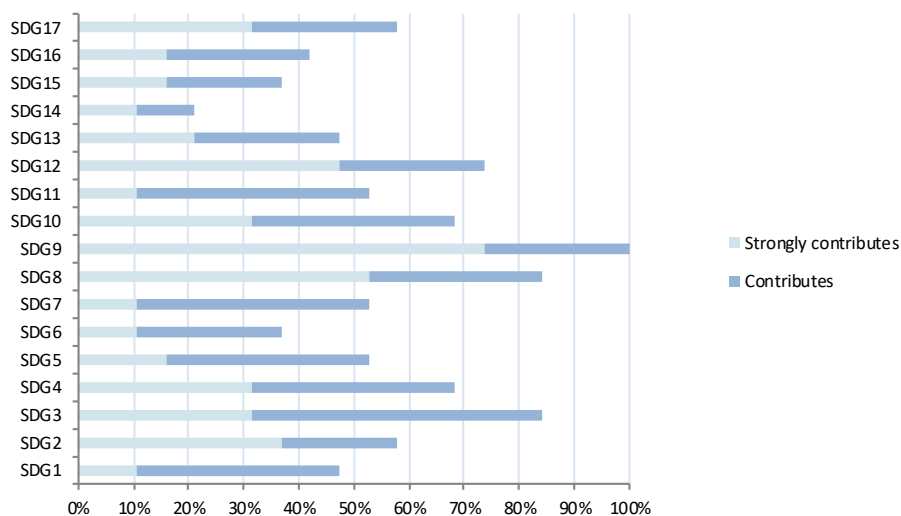


Figure 8: Thematic S3 partnerships contributing to Sustainable Development Goals

Source: (Source: Monitoring reports, June 2019)

As the figure suggests, all reviewed partnerships believe that their collaborative activities strongly contribute to Goal 9 (building resilient infrastructure, promote inclusive and sustainable industrialisation & foster innovation). A significant majority of the existing thematic S3 partnerships contribute to Goal 3 (ensuring healthy lives & promote well-being for all at all ages), to Goal 8 (promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all), and to Goal 12 (ensuring sustainable consumption and production patterns). Furthermore, over one half of all existing partnerships believe that their activities contribute at least to some extent to the following 10 SDGs:

- Goal 3 on ensuring healthy lives & promote well-being for all at all ages,
- Goal 4 on ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all,
- Goal 6 on ensuring availability and sustainable management of water and sanitation for all,
- Goal 8 on promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all,
- Goal 9 on building resilient infrastructure, promote inclusive and sustainable industrialisation & foster innovation,
- Goal 10 on reducing inequality within and among countries,
- Goal 11 on making cities & human settlements inclusive, safe, resilient and sustainable,
- Goal 12 on ensuring sustainable consumption and production patterns,
- Goal 13 on taking urgent action to combat climate change and its impacts, and
- Goal 17 on strengthening the means of implementation and revitalise the Global Partnership for Sustainable Development.

Comparing the results submitted by various partnerships offers further useful information on inter-partnership mutual learning possibilities (IPML) to be organised in the form of a peer learning exercise. Such an exercise could help a partnership under review share their challenges with their peers and get feedback and advice from the more mature partnerships that have already completed the phase. This dialogue would facilitate both self-reflection and mutual learning (Midtkandal and Hegyi 2014) in a guided way. The S3 peer review approach developed the S3 Platform provides a methodological framework that ensures that participants receive an adequate feedback, while facilitating an open and constructive dialogue (Midtkandal and Rakhmatullin 2014).

Based on the results included in Figure 9 below, mutual learning exercises can be organised in the areas of mapping competences, regional capability analysis, as well as analysis of connectivity or stakeholder engagement. Developing such a community of practitioners willing to discuss their challenges and share their experiences can lead to improving the overall connectivity between knowledge networks and systems of innovation can be improved (Mariussen, Hegyi, and Rakhmatullin 2019).

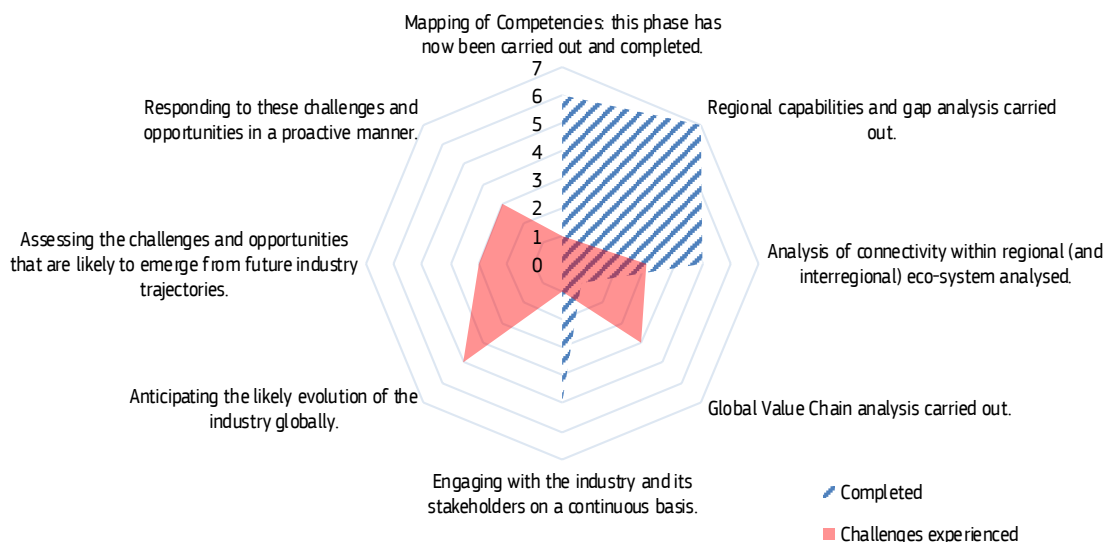


Figure 9: Identification of inter-partnership mutual learning opportunities

Source: Monitoring reports, June 2019

Regular progress assessments equip policymakers with the data that can allow to alter or adjust various existing policies and tools to the actual circumstances of participating partnerships. A number of support instruments<sup>1</sup> offered by the European Commission can be applied by partner regions to address specific challenges associated with a specific phase in the development of their partnership. In addition, monitoring and regular assessments of collaborative activities can confirm as to whether specific measures are sufficiently suitable to help partners develop their activities and progress to the next phase.

Furthermore, regular assessments can provide valuable data for the review of regional S3 priorities and would allow partner regions to align their policy and technical instruments. They can also help verify if the partnership governance structure is regularly monitored and if the monitoring and evaluation framework for the partnership's progress is in place. Figure 10 depicts the advancement of partnerships as regards to these issues. As the graph shows, the feedback mechanisms is an area where no partnership have yet completed the phase.

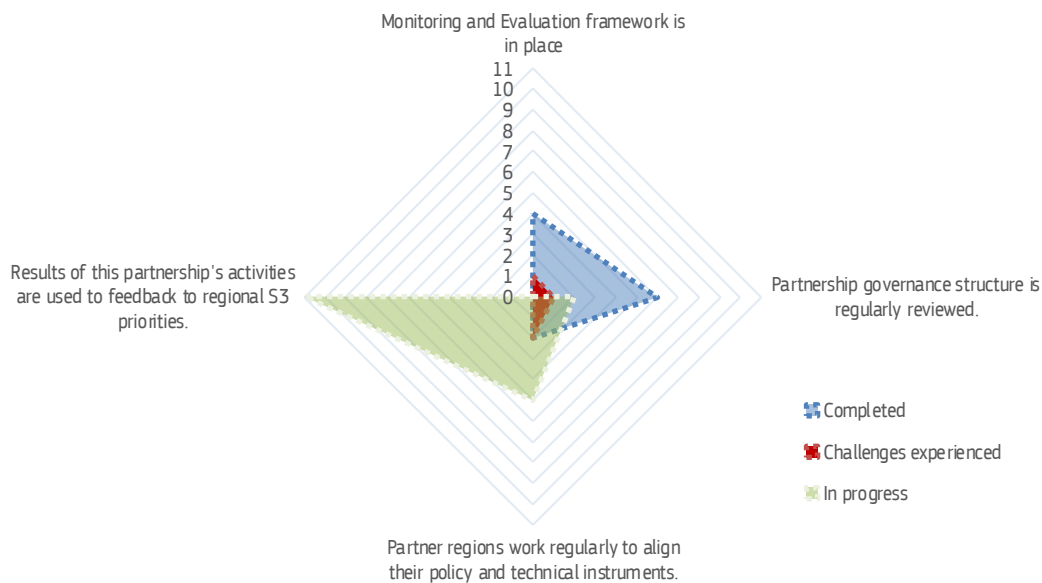


Figure 10: Assessment of partnerships' progress as regards to monitoring

Source: Monitoring reports, June 2018

<sup>1</sup> For more information regarding the available support measures: <http://s3platform.jrc.ec.europa.eu/eu-support>



## 4 Discussion

The European Commission recognises that interregional collaboration contributes to reshape EU-wide value chains and contribute to a more effective innovation policy (EC 2017). Transnational learning has proved its important role during the initial design and planning stages associated with the outward-looking nature of smart specialisation. Building on this outward-looking trend, the European Commission put in place dedicated thematic S3 platforms to support interregional activities related to priorities in Agri-Food, Energy and Industrial Modernisation. These three thematic smart specialisation platforms now facilitate interregional efforts across the European Union to develop and implement over 30 thematic S3 partnerships. Partner regions in these partnerships are working to co-develop and co-implement joint investment-focused activities in line with the workflow methodology developed by the S3 Platform (Rakhmatullin, Hegyi, Ciampi Stancova et al. 2020). This thematic approach to smart specialisation was designed to bring any new and existing regional policy efforts closer to other various thematic policies. Interregional partnerships focusing on joint investments can offer motivated regional actors a suitable platform to reach and collaborate with their counterparts with complementing regional capabilities across the European Union. Interregional S3 partnerships promote new regional growth models by bringing regional actors together with a shared focus on joint investments and scaling up regional competences.

An active role in a thematic S3 partnership allows participating regions to mitigate potential risks associated with new and ambitious priority areas by sharing limited resources and working together to identify prospective improvements or shortcomings. By collaborating, regional authorities can fine-tune their vision and determination to capture specific parts of new and emerging European/global value chains. Interregional collaboration can help gain a better understanding of the competitive position of each partner region as regards to other partners' capabilities and gaps in specific themes.

By regularly monitoring the progress of interregional S3 initiatives, participating regions can better assess and improve their positions in value chains and strengthen their interregional innovation eco-system (Figure 3). Thematically focused partnership activities help collaborating regions see a bigger picture, as well as how solid their positions are and if specific clusters of value chain activities in partner regions are complementary to their own strengths and activities.

By sharing and combining their knowledge, partner regions are better positioned to engage the industry and anticipate its likely evolution globally. Regular monitoring exercises can help regions assess the challenges and opportunities that can arise from future industry trajectories. The policy brief explores how regular monitoring joint interregional pilot activities can help partner regions confirm both the validity and relevance of policy measures taken. In turn, this new information can help customise response mechanisms to new policy and market challenges as well as opportunities. By linking this information with each partner's smart specialisation strategy, regions are able to confirm the validity and relevance of previously selected RIS3 priority areas so that they could prepare themselves to respond to future challenges and opportunities in a proactive manner.

This policy brief examines examples of how European regions can experiment collaboratively with novel policy support measures in well-defined smart specialisation niches before committing to their full-scale rollout in their territories. Since the introduction of smart specialisation as a legal precondition for accessing ERDF funds, regions and member states have been encouraged to be experimental during the design and implementation of their RIS3 strategies. As policy experimentation is associated with a degree of risk, it can also allow identifying policies that relevant to the context (Mukand and Rodrik 2005).

The thematic S3 partnerships can serve as policy pilots to mitigate risks of policy failures. In fact, experimentation can help testing policy tools through pilot projects during the process of elaboration and modification of smart specialisation strategies (EC 2016). Piloting allows innovation in policy areas that otherwise are considered too risky or costly. By working together in new and promising areas, participating regions are able to test and validate new policy support instruments while sharing the overall risk and uncertainty associated with such experiments.

As argued by Foray (2015), a good entrepreneurial discovery process is a cyclical and continuous process. This continuity allows to regularly validate, verify, assess and evaluate new and existing strategic areas for investment. Therefore, regular (self-)assessment exercises carried out by each thematic S3 partnership allow monitoring and evaluating their progress that in turn can help to feed the assessment results back to the policymakers in charge of implementation, monitoring and planning exercises of relevant regional and/or national S3 activities.

When monitoring and evaluating a thematic S3 partnership, the overall methodological logic should reflect and build on the results actually attained throughout each of the five thematic workflow phases (Figure 1). While preparing for the next programming period, any assessment of the results (or a lack of) achieved to date by thematic S3 partnerships should be aligned with the relevant regional RIS3 priorities and corresponding expected outcomes. At the same time, any performance improvements and associated indicators should be reviewed in conjunction with the regional S3 policies and implemented priorities (Iurcovich et al., 2006). In fact, interregional S3 partnership activities supported by partner regions need to be linked to the RIS3 strategy-level monitoring and evaluation activities carried out by the S3 implementing bodies. This suggests that interregional S3 partnerships should be able to report the results of their activities in line with a methodological framework aligned with the general S3 approach. The proposed monitoring report is an example of such template to capture these processes, activities and outcomes over the lifetime of each interregional partnership (Figure 6).

As a number of thematic partnerships are set up along the existing S3 priority areas linked to sustainability and resource efficiency, their collaborative activities can help regions and their stakeholders work towards sustainable development objectives (Figure 8). To ensure the long-term sustainability of their regions' territorial advantages, many managing authorities implement RIS3 in close cooperation with a large number of relevant stakeholders. If adopted as a systematic exercise, this proposed assessment offers a way to support the ongoing involvement and engagement of relevant S3 stakeholders and actors (Figure 4). Given the ever-changing nature of markets, such continuing engagement can support the sustainability of the innovation system and early anticipation of future strategic areas of industrial growth.

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## **List of abbreviations and definitions**

COSME	Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME)
CVI	Corporate Vitality Index
EIT	European Institute of Innovation and Technology
KIC	Knowledge Innovation Community
RIS3	Research and Innovation Strategies for Smart Specialisation
S3	Smart Specialisation Strategy
TSSP	Thematic Smart Specialisation Platform
VI	Vanguard Initiative

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## Annexes

### Appendix A: Assessment questionnaire

	Currently planned	Work in progress	Challenges experienced	Phase completed	Completed and regularly monitored	Not applicable
<p><b>The Scoping Note has been developed and completed.</b></p> <p>Governance structure is agreed and put in place.</p> <p>Working areas defined and agreed with partners.</p> <p><b>Mapping of competences: this phase has been carried out and completed.</b></p> <p>Regional capabilities and gap analysis carried out.</p> <p>Analysis of connectivity within regional (and international) eco-system analysed.</p> <p>Global value chain analysis carried out.</p> <p>Engaging with the industry and its stakeholders on a continuous basis.</p> <p>Anticipating the likely evolution of the industry globally.</p> <p>Assessing the challenges and opportunities that are likely to emerge from future industry trajectories.</p> <p>Responding to these challenges and opportunities in a proactive manner.</p> <p><b>Industry cooperation (matching of business opportunities) is completed.</b></p> <p>Matchmaking events were carried out.</p> <p>RTOs and academia are engaged.</p> <p>SMEs &amp; cluster organisations are involved.</p> <p><b>Design of projects is completed.</b></p> <p>Project/pilot definition completed.</p> <p>Demo cases defined and regularly assessed.</p> <p>Legal and IPR support in place.</p> <p><b>Business plan: this phase is completed.</b></p> <p>Funding mix: this phase is completed.</p> <p><b>Investment project(s): this phase has been finalised.</b></p> <p><b>Monitoring and evaluation framework is in place.</b></p> <p>Partnership governance structure is regularly reviewed.</p> <p>Partner regions work regularly to align and assess their available policy and technical instruments.</p> <p>Results of partnership activities are used to feedback to regional S3 priorities.</p>						

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Publications Office  
of the European Union

doi:10.2760/329458

ISBN 978-92-76-17905-4