Summary of the public consultation on Smart Specialisation:

"A fresh approach to European growth and jobs through regional innovation strategies"

June 2017

Table of Contents

1	Introduction	2
2	Dialogue with stakeholders	2
3	Fraunhofer Institute surveys	4
4	On-line consultation	7
	4.1 Objectives and Structure of the survey	7
	4.2 Who replied to the Public consultation?	8
	4.3 Answers to the closed questions	12
5	Summary of position papers	35
Ann	ex	43

1 Introduction

This summary presents the main outcomes of the consultation strategy for the preparation for the Commission Communication on *Smart Specialisation* to be adopted in 2017. It includes: i) a summary of the extensive dialogue of Commission services with stakeholders since 2016; ii) the insights gained thanks to the independent surveys on smart specialisation that the Fraunhofer Institute ISI organised in 2014, 2015 and 2016; iii) the on-line consultation organised by the European Commission between 23 December 2016 and 24 March 2017; and iv) position papers on smart specialisation received in this context.

The aim of the consultation strategy was to collect views on the over 120 smart specialisation strategies in EU Member States (MS) and regions, their implementation and evolution in order to identify the state of play, challenges, good practices and lessons learnt since 2010. It also aimed to gather information on projects and initiatives that follow the smart specialisation approach, and suggestions for future actions/initiatives to help implement the smart specialisation strategies and to evolve the concept.

The target group were stakeholders who make innovation happen in the EU, especially businesses or business support organisations, national/regional/local public authorities, research and innovation organisations, but also many national and European associations made their voice heard in the name of their members. Some of them sent position papers, and many shared their insights in meetings and conferences, e.g. ERRIN (European Regions Research and Innovation Network), EURADA (European Association of Economic Development Agencies), EBN (network of around 150 quality-certified business and innovation centres), European Cluster Alliance, IASP (International Association of Science Parks), UAS4Europe (Universities of applied Sciences for Europe). Many national and regional authorities noted their views on S3, its' achievements, challenges and perspectives for the future in numerous bilateral meetings with Commission services, including in the course of ESIF programme Monitoring Committees and annual meetings.

2 Dialogue with stakeholders

a. Overview

The main feed-backs received from stakeholders emanated from over 20 seminars, workshops and conferences, including those organised by the S3Platform with its over 170 registered members from national and regional administrations. See list in annex.

b. Main trends

The discussions with and among the stakeholders showed the persistent strong interest in S3, the need to continue with the Entrepreneurial Discovery Process during the implementation of the S3 strategies and their evolution all along the implementation period. It was acknowledged that the ex-ante conditionality status given to the S3 concept speeded up its roll-out on the ground and went in most MS and regions clearly beyond a pure "paper-filling"

exercise for ex-ante conditionality compliance. S3 had tangible impacts on the governance of innovation related policies in the MS and regions and was in many cases a fresh start for innovation policy in regions and some Member States. S3 helped also to strengthen the role and potential of regions in innovation policy by acknowledging the need to take place-based specificities in industrial structures, research and human capital better into account when designing and implementing support policies for innovation and competitiveness. Closer collaboration among research, innovation, industry and regional development policies, also at EU level, were noted in the discussions.

The paradigm shift in innovation policy design through S3 was largely embraced, i.e. a move from the past approaches that focused on addressing weaknesses in the research and innovation systems and capacities and gaps in the innovation support systems (with the aim to bring all to an equal level playing field or equip all regions with strength in a particular "fashionable" technology or sector), towards the S3 approach of detecting (potential) strengths and fields of competitive advantage and focusing efforts on those unique areas of a region, while avoiding one-size-fits-all solutions took ground. The S3 concept was also increasingly accepted in academic debates, noting that this was a large scale policy experiment that took place unusually quickly after the coining of the concept of smart specialisation.

As regards difficulties and remaining challenges for innovation stakeholders in particular questions related to complementarities and synergies across EU programmes and national funds emerged, often related both to a revamp of the programme rules and regulations, and the need to modify the General Block Exemption Regulation for state aid as regards R&I measures funded from ESI Funds to ensure equal treatment with Horizon 2020 funded projects. Also the need to professionalise and improve regional and national innovation support policy mixes and delivery mechanisms were raised, in particular in cases when the "silos" between research and business were not sufficiently broken up.

The need for more inter-regional cooperation was a recurrent feature and combined with the call for different support as currently offered under Macro-regional strategies, INTERREG, COSME or Horizon2020, in particular more based on a preparatory phase that allows for the teaming up of regions and clusters with related S3 priorities along value chains and in view of concrete investment projects.

The wish for continued and improved Commission support for S3 mutual learning and more specifically for better implementation, administrative capacity building support, and monitoring and data collection was frequently mentioned.

There was mixed feed-back as regards the precision and specificity of S3 priorities and their revision. Some argued for open up the limited number of S3priorities in order to cater also for individual firms and researchers with good ideas outside the priorities, i.e. a risk to fall back into a "business as usual" approach to speed up absorption of EU funding. Others stressed the need to focus, i.e. develop the innovation eco-systems by making choices and focusing efforts in a country or region on those areas with most chances for competitive advantages, solving societal challenges and spill-overs to other economic and societal sectors.

The main issues that emerged in these consultations concerned an unbalanced and nonparticipatory Entrepreneurial Discovery Process (in some regions and countries giving too much emphasis to research and science and in others inversely to business; in some countries the multi-level governance between the national and regional levels was not clear), the lack of novel intervention tools and policies (e.g. process, service, social, demand side innovation measures and the use of regulatory tools to foster innovation and the cooperation between public research, education and business).

3 Fraunhofer Institute surveys

Since 2013, the Fraunhofer Institute for System and Innovation research (ISI) has conducted annual surveys of policy maker's perception of the European Commission's S3 agenda, starting from general assessments (2013) and views on options for implementation (2014) on to concrete questions on obstacles, monitoring and the need for interregional collaboration (2015).

About one year after the formal approval of most S3 documents and of the launch of the implementation of most ESIF programmes, the European Commission's Directorate-General for Regional and Urban policy has triggered a continuation of this effort via a fourth round of the by now established empirical exercise. This allowed taking a first look backward and appraising which lasting changes the S3 agenda may have brought in regional or national innovation policies.

This year's survey focused on concrete questions on S3 to an even stronger extent than its predecessors: "Are there still EDP working groups?", "Whom are they led by?", "Do local stakeholders live up to their envisaged roles?", "Are their findings taken up by policy?" "What promise do policy makers see in the RIS3 processes continuation?", "What prospective role do they see in interregional collaboration?", "What sort of monitoring could capture their activities?".

Target group and respondents:

In 2016, the survey link was sent out to more than 1200 contacts of which 113 answered completely and 66 partially – a slight increase compared to earlier rounds. The survey achieves a good coverage of regions and Member States in a geographical sense, receiving input from more than 50% of all managing authorities across Europe. Somewhat more than 50% of the respondents had filled out one of Fraunhofer ISI's earlier questionnaires, while due to changes in responsibility, shifting remits, etc. more than 40% answered the survey for the first time. The survey is thus not in a strict sense a panel, but has a substantial core that is – even more so if that characteristic with a view to administrations rather than individual persons answering.

While a certain bias towards interested and engaged regions is possible, the survey can by no means be considered as representing a distorted opinion of 'a happy few'. Participation patterns show a good and balanced coverage of all EU Member States as well as a balanced representation of large and small administrative territories. More than 85% of responses come

from regional rather than national administrations and more than 75% are directly or indirectly involved in the process of S3 development within administrations. Furthermore, more than 60% work in an administration with a direct remit in regional policy, complemented by 20% from the fields of research and industry. Further analysis shows that many share a certain experience with strategic innovation policy. ESIF funding plays a major role in the financing of most of the surveyed regions' regional innovation policy and the smart specialisation is assessed rather positively. In line with this, additional analyses show that there is continued or growing interest in S3 in more than 85% of the surveyed administrations.

Main trends emerging in the survey¹

The Entrepreneurial Discovery Process goes on and is relevant to many of those who – conceptually - should be interested:

The survey documents that the initially quite broad based **processes of entrepreneurial discovery** have entered a new stage in which those areas that merit further activities have already been identified and are further pursued, while activities in other fields have declined or ceased. Overall, about 60% describe such a continuation in "relevant areas" while less than 20% see a "comprehensive" continuation. Importantly, a "rather partial" continuation was mentioned by hardly more than 20% as well. Arguably, therefore, the increasing focus found in processes of consultation and project definition can be interpreted as a positive sign of evolution and further development – rather than a sign of fading activities which are only partially continued.

After the fulfilment of the ex-ante conditionality, the original Entrepreneurial Discovery Process (EDP) is typically not continued in full; instead it is **focused on some areas**. So far, political backing for this remains stable in many places.

The primary aim of most EDP is to agree on priorities, less the development of better processes per se (but often this is also an objective). Yet, detailed answers suggest that the **consolidation of processes plays an important role**.



Figure 4: Continuation of entrepreneurial discovery processes

¹ The full results are published here:

Source: Fraunhofer RIS3 survey 2016

http://s3platform.jrc.ec.europa.eu/documents/20182/196760/Policy+Brief+on+Smart+Specialisation/938913b a-040f-4d67-bb07-383e45ffaf0b

Changes in the innovation support are happening, but are limited and evolutionary:

There is still a **focus on technologies rather than societal challenges**, most dominantly in Central Europe, yet, some regions for which challenge-oriented approach matters (South-East, South, East Europe) do indeed focus in that way.

While less than 5% state that EDP/S3 have "very much" improved policy makers' ability to leverage private investment, more than a third concede that there was some improvement.

An emphasis in the use of EDP outcomes is the definition of new public private partnerships or large-scale projects, the existing support architecture will likely not be much affected, the closure of existing organisations is considered unlikely, and instead, answers suggest a focus on the **reorientation of the activities performed by established organisations**.

Expectations are focused on science-industry collaboration, R&D investment and, to a lesser extent, SME support. Expectations regarding industrial renewal and qualification are remarkably more limited.

Participation in the Entrepreneurial Discovery Process is still dominated by universities, but SMEs and intermediaries gain influence:

EDP is dominated by universities and intermediaries/clusters (where these exist), domestic SME matter also, multinationals and start-ups appear to be underrepresented, as are (more clearly) civil society and financial institutions.

Universities play a notable role in Scandinavia as co-developers of strategies. Elsewhere they neither very commonly act as public entrepreneurs nor fulfil their presumed role as interregional antennas or interfaces particularly well.



Figure 10: Stakeholders engaging in EDP by average rank of importance

The potential of universities as regional innovation and change agents is not sufficiently developed:

In the South East, domestic firms play a large role and universities focus strongly on own interest, suggesting possible capture by vested interests.

Source: Fraunhofer RIS3 survey 2016

Overall, universities play the strongest role as representatives of their own interests and providers of knowledge; their role in developing strategies or adding momentum to collaborative research and training efforts are more limited. The sometimes suggested entrepreneurial function and interregional integration capacity, in contrast, are not very common.

Inter-regional cooperation is seen as an opportunity:

More chances seen in interregional collaboration, than in coordination of funding across different regions and MS. Interregional collaboration is still typically without budget and dominantly through INTERREG.

The hopes placed in the coordination of funding and interregional cooperation are lowest in South-East Europe quite contrary to what common sense would suggest – while they are higher in the South and the East.



Figure 15: Perceived benefits of trans- and interregional cooperation by country group

S3 will evolve based on monitoring results, but capacity and quality of monitoring needs attention:

Reconsiderations of strategies are considered possible even if not necessarily likely – due to technological and market trends and indeed also based on monitoring results.

Ideally, monitoring systems should have both qualitative and quantitative aspects with an emphasis on the former – but in most areas it still has to be developed – within the South East appears a notable challenge, given existing deadlines.

Source: Fraunhofer RIS3 survey 2016



Figure 19: Envisaged nature of ideal monitoring system

Source: Fraunhofer RIS3 survey 2016

4 **On-line consultation**

4.1 Objectives and Structure of the survey

An online semi-structured public consultation survey was carried out for 3 months, from 23 December 2016 to 24 March 2017. The aim of the public consultation was to provide input to the Commission Communication on Smart Specialisation (S3) scheduled for May 2017 via the collection of:

- ✓ views on the over 120 regional/national S3 strategies, their implementation and evolution, to better understand challenges, and to identify good practices and lessons learnt,
- \checkmark information on projects and initiatives that follow the smart specialisation approach,
- ✓ suggestions for future Commission actions/initiatives to help implement the smart specialisation strategies and to evolve the concept.

The target groups were stakeholders who make innovation happen in the EU, especially businesses or business support organisations, national/regional/local public authorities, research and innovation organisations, etc.

The questionnaire was designed with a view of having a good balance (60/40) between closed (multiple choice) questions and open (free text) questions in order to receive structured information and to gather suggestions and comments that could prove valuable in the process of preparation of the S3 Communication and the accompanying Staff Working Document.

<u>Closed questions</u> focused on receiving input in the following areas:

- The need for smart specialisation: approach, preconditions for effective investments, objectives, overall assessment of achievements.
- Impact of S3 on national and regional research and innovation systems.
- Cooperation of actors in the R&I eco-systems and the level of their involvement in the Entrepreneurial Discovery Process (EDP) and the design and/or implementation of R&I strategies.
- Funding from EU programmes / EU required support to interregional cooperation.

The open questions focus to select free text information on:

- Ideas on tailoring support to develop regional capacity.
- Suggestions / comments on facilitating innovation investment including across borders.
- Research and innovation project examples implemented during the last 3 years.

All questions were mandatory with the option to choose "no opinion / not applicable" when the respondent wouldn't feel comfortable/relevant to respond a question.

4.2 Who replied to the Public consultation?

There were **237 responses** of which more than 68% responded as representatives of their organisations, with a coverage from 24 Members States (MS). The highest number of responses was received from Italy (34), followed by Spain (24), Poland (21) and France (21). There were 2 responses from Estonia, Ireland, Lithuania, Slovenia, and the United Kingdom and only one response from Bulgaria, Croatia, the Czech Republic, and Malta. There were no respondent organisation originating from Cyprus, Denmark, Hungary and Luxembourg (although organisations with members from several countries that responded may include members from these countries). 4 replies came from non EU countries (i.e. Turkey, Norway).



Figure 1. Number capacity and nationality of respondents to the survey (N=237)

The majority of respondents come from urban areas (at least 50.000 of inhabitants). 37% of respondents come from regional authorities and national administration. 20% from public and private business or innovation support bodies, 16% from higher education institutions and research bodies, 12% are from the private sector (firms of all sizes) and 11% from non-governmental organisations. The other 4% either did not classify themselves or cover different types of organisations.



Figure 2. Type of organisation of the respondents (N=160)

As regards the relevance and implication of the respondents with smart specialisation strategies the 72% of the respondents consider themselves as very knowledgeable regarding S3. Only 55% were involved in the development of the S3 of their country or region and 54% have a significant role in the implementation of innovation and business development funding. In the case of 46% of the respondents, their fields of activity fall into one or more of the smart specialisation priorities of their country / region. This is depicted in the following figure.



Figure 3. Relevance of respondents with smart specialisation (N=237)

Regarding their role in innovation, 60% of the respondents considered themselves as innovators, 24% as support providers for innovation or both (13%); 3% either responded as individuals or did not provide any reply.



Figure 4. Role in innovation ecosystem in own country (N=237)

4.3 Answers to the closed and open questions

• Objectives and significance of S3 – where to focus in order to drive innovation (Q1, Q2)

Question 1a: What are the main objectives of S3 in your member state/region?

The main objective of S3 is perceived by most respondents as a lever for the creation of jobs through place-based research innovation investments in their Member State/ Region (84% considered it as most or very important). 72% considered the main objective of S3 as making business and researchers have investment projects together. 68% see fostering economic transformation of the region (e.g. towards new sectors) as main objective and 64% consider increasing Research & Development expenditure as main aim of S3. S3 also aims to attract innovative entities to the regions through innovation facilities (63%), is seen as improving capacity of public administration to stimulate Research & Innovation (R&I) (54%) and as helping to reduce disparities between the level of development of both their and other EU MS / regions (47%).



Figure 5. Main objectives of S3 in MS/Region (N=237)

Question 1b: What is the international/European significance of S3?

The *implementation of European strategic priorities in focus areas in regions* stands out as most and very important significance of S3 for 73% of the respondents, followed by the **bottom-up agenda for European growth and jobs** (70%), and **all types of regions can participate** (advanced, research intensive and lagging regions) (68%) as well as **alignment**

between complementary efforts in different countries and regions (64%). The for leap-frogging opportunities for lagging regions is only seen by 47% as most or very important.



Figure 6. International / European significance of S3 (N=237)

Question 1c: How important is it for you that regions (and countries) put in place S3s with clear priorities upon which business, academic and public stakeholders are consulted in advance of allocating funding?

The vast majority of respondents value the bottom-up approach and consider that it is important for MS or regions to put in place S3 with clear priorities upon which business, academic and public stakeholders are consulted in advance of allocating funding (94%).

Figure 7. Importance of bottom-up approach (N=237)



Question 2: What should smart specialisation strategies focus on to drive innovation in your region or country?

Access to skilled personnel (engineers, marketing / design experts, skilled workers, etc.) stands out with 71% as main factor that S3 should focus on in order to drive innovation. This is, followed closely by cooperation between academia, universities and enterprises (69%), and the need to stay competitive and access to technology, research providers and R&I infrastructure (both score 68%). Also the availability of skilled personnel with entrepreneurial spirit (66%), cooperation between different enterprises inside the country / region together with access to finance (grants) are seen as important (both score 58%). Cooperation between academia/universities and enterprises outside the country / region as well as innovation friendly regulatory environment (both reach 55%). In addition, access to researchers / scientists as well as access to finance (venture capital, equity) both account for 52%. Only 40% of the respondents agreed that access to finance in the form of loans and guarantees should be the focus of S3 implementation.



Figure 8. Importance of drivers of innovation (N=237)

• Impact on Research & Innovation support and improvement of use of R&I infrastructures and services in the past 3 years (Q3)

Question 3a: Did smart specialisation have an impact on research and innovation support to your work in the past 3 years?

For **59% of the respondents** (N=237) the S3 process had an important impact on the quality and range of R&I support to their work over the last 3 years. The respondents from North-Western EU (N=81) countries perceived a bigger impact (65%) than those from Mediterranean countries (N=80) (56%). Also the majority of respondents from Central and Eastern European (N=25) countries noted an impact of S3 in the past 3 years (but it needs to be noted that 21 of the 25 respondents come from Poland, i.e. this trend might not be generalised yet).

Question 3b: How has smart specialisation improved your use of research and innovation infrastructure or services in the past 3 years?

The responses (of those that replied YES in the previous question thus N=139) show significant improvements of the research and innovation support achieved thanks to S3. In particular improvements were noted as regards support to **business development** via networking and cooperation, and support to business plan development, **support to innovation projects**, in particular via support to industrial research, design and creative thinking, **improved R&I infrastructure** access to FabLabs, LivingLabs or other experimentation support, **better access to researchers** and better cooperation between stakeholders to identify relevant skills needs. Also the access to not repayable public funding has improved with more competitive selection of projects for funding and more combination of different funding sources. As regards knowledge and technology the most important improvement is seen in technology transfer and digitization.

Improvements are less visible with regard to access to financial instruments (loans, venture capital, equity, guarantees), requirements as regards project durability in time and reporting and other administrative requirements. Also support to intellectual property rights management has not improved much. The same goes for the regulatory environment, such as time and cost of the set-up of firms or obtaining permits, and the ability to participate in assessing the impact of legislative proposals

In more detail:

• **Business Development** - significant improvement comes up in the *support for finding networking and cooperation partners within own country* (62%), followed by *support for finding networking and cooperation partners abroad* (54%) and *support to business plan development or bankability of innovation projects* (37%). There are less perceived improvement in the domains of *support for standardisation or conformity certification for new products* (18%) and *support for access to market / marketing* (8%).

- Innovation & Competitiveness projects the area that mostly improved was the *industrial research activities* (55%), followed by *support for design and creative thinking* (50%), *experimental development / prototyping* (49%) and *new forms of innovation* (*social innovation, co-creation, etc.*) (48%). Improvement is less pronounced in the domain of *fundamental / blue sky research activities* (17%).
- Infrastructure significant improvement is reported in *better access to relevant R&I infrastructures and R&I service providers* (55%), followed by *access to FabLabs, LivingLabs or other experimentation support* (45%). Access to technology or science parks reaches 43% whereas pilot lines or demonstrators for testing and validation of new or improved products, incl. commercially usable prototypes obtain 42%.
- Skills & Talents most notable improvement appears in *better access to researchers* (53%) followed by *better cooperation between stakeholders to identify relevant skills needs* (51%) and *better access to skilled personnel* (40%). *Support for skills development inside your organisation (e.g. e-skills training, design thinking, project management training)* reaches 39%.
- **Public Funding** the area with most improvement is more competitive selection of projects for funding (53%), followed equally by more combination of different funding sources (national, regional, EU, International) (46%) and access to grants and other not-repayable support (46%), and then by more focused funding offers (e.g. for specific challenges or technologies or sectors) (44%). Participation of more partners in a project (30%). The upswing is less visible with regard to access to financial instruments (loans, venture capital, equity, guarantees) instead of grants (24%), in the field of requirements as regards project durability in time (22%) and that of less reporting and other administrative requirements (13%).
- Knowledge & Technology the most important improvement is seen in *technology transfer* (47%) followed by *digitization of enterprises and processes* (42%) whereas *intellectual property rights management support* (*patenting, licensing etc.*) comes last (27%).
- **Regulatory Framework** little signs of improvement with the highest rate in *new legislation that favours R&I* (22%), followed by *easier / cheaper / faster set-up of firms* (20%), *less administrative burden for research, innovation or business projects* (15%). The lowest level of improvements is noticed regarding the *ability to participate in assessing the impact of legislative proposals* as well as *easier / cheaper / faster obtaining of permits and licences* (both reach 14 %).

Figures 9a - 9g. Improvements in the use of R&I infrastructures or services in the past 3 years (N=139)



Figure 9a. Answers regarding INFRASTRUCTURE

Figure 9b: Answers regarding KNOWLEDGE & TECHNOLOGY





Figure 9c. Answers regarding BUSINESS development

Figure 9d. Answers regarding INNOVATION & COMPETITIVENESS PROJECTS





Figure 9e. Answers regarding SKILLS & TALENTS

Figure 9f. Answers regarding PUBLIC FUNDING





Figure 9g. Answers regarding REGULATORY FRAMEWORK

• Innovation "eco-systems": Interaction and openness to cooperate among different stakeholders (Q4)

Question 4: Did you/your organisation in the past 3 years work together with any of the following types of bodies / enterprises to improve your innovation capacity or implement innovation projects? Did you observe in the past 3 years that there is MORE participation of the following type of enterprises / bodies in the innovation eco-system in your country or region?

The consultation responses confirm that over the past 3 years thanks to the S3 the interactions between the different stakeholders in the innovation eco-systems has improved significantly.

More than half of the respondents observed an improved cooperation with Higher Education Institutions, clusters and business associations, domestic manufacturing firms, consultancy firms, IT service providers, multinational firms and research service providers. Innovators also noted improved cooperation with clients of innovative solutions (feed-back, co-design). The improvements in terms of innovation eco-systems were **less pronounced** as regards cooperation with marketing or design firms, private investors, technology brokers and patent lawyers / advisors. There also seem to be **still too few improvements** as regards cooperation with **foreign manufacturing firms and research service providers**.

In more detail, the **Implementers of Innovation** noted a significant increase of cooperation with Higher Education Institutions (HEI) (76%), followed by more cooperation with clusters or business associations (66%) and consultancy firms (64%). Soft and hardware firms / IT developers reach the fourth position (55%), followed by multinational firms (53%), whilst

research service providers together with clients obtain equal rating (52%). Provider of hightech or research equipment, training providers (managerial, technical, digital skills) as well as suppliers reach all 47%, followed by manufacturing firms from your country / region (45%), research service providers from abroad (40%), civil society organisations (38%). Marketing or design firms get 33%, whilst foreign manufacturing firms, private investors (e.g. business angels) and technology brokers all score 31%. Patent lawyers / advisors get 29%.





Support providers for innovation in other enterprises or bodies have been asked whether they observed more participation from a list of various organisations in the innovation ecosystem in their region/country in the last 3 years. The results show a significant increase in participation of clusters or business associations (75%), followed by domestic research service providers (72 %) and HEI (68%). Domestic manufacturing firms (with 62%) and soft or hardware firms / IT developers (with 61%), comes respectively in 4th and 5th position. Consultancy firms get 51%, followed by multi-national firms (46%), training providers (managerial, technical, digital skills) (45%), providers of high tech or research equipment (44%), suppliers (42%), clients (feed-back, co-design) (41%), marketing or design firms (37%) and civil society organisations (35%). The last 3 all get 32% and encompass foreign manufacturing firms, technology brokers as well as foreign research service providers.



Figure 11. Improvements in innovation eco-system – Supporters of innovation (N=142)

• Involvement in the Entrepreneurial Discovery Process for the design and/or implementation of S3 (Q5)

Question 5a: Do you think that YOU/your organisation or other organisations should be more involved in the design and/or implementation of R&I support, including S3 in your country / region?

The vast majority of 92% of the respondents (N=237) think their organisation should be more involved in the design and/or implementation of research and innovation support - including S3 - in their country / region.

Question 5b: Which OTHER organisation should be more / better involved in the design or implementation of research and innovation support in your country / region?

Most respondents see a need to involve enterprises (55% for medium-sized enterprises, 46%, for large and 43% for small and micro-enterprises) better in the <u>implementation or research</u> <u>and innovation support</u>. More involvement of SME intermediaries such as cluster organisations and Higher Education Institutions (43% each) are also seen as important.

With regard to the **organisations that should be more or better involved in the** <u>design of</u> <u>research and innovation support</u>, respondents mention research and technology organisations (46%), HEI and/or vocational training bodies (43%), followed closely by the civil society (42%). Small and micro-enterprises, large enterprises as well as SME intermediaries, such as cluster organisations, all score 38%.





• Suggested S3 project examples (Q6)

Question 6: Could you describe a very good research and/or innovation specific project that was implemented in the course of the past 3 years in your country / region, was linked to a smart specialisation strategy, and that could inspire others to launch similar projects?

A number of respondents mentioned research or innovation related projects implemented within the S3 of their country or region, in particular related to linkages between the actors in innovation eco-systems, human capital development, inter-regional cooperation and governance, which are summarised below. Others also referred to Horizon 2020 projects or R&I projects without particular link to S3 implementation or development.

Human capital development:

The objective of the **WaterSEED** project (**Netherlands**) is to provide a doctoral program to excellent early stage researchers (ESRs) that want to develop their skills and contribute to the development of breakthrough technologies for water related challenges. Key elements in the program are the strong focus on interdisciplinary interaction, entrepreneurial skills and societal relevance. The Wetsus program is an example of smart, regional specialization on **water technology**: over 100 EU and global companies and 20 EU universities are cooperating in to create breakthrough water technologies. www.WATERSEED.eu

http://cordis.europa.eu/project/rcn/197133 fr.html

Small Medicine Advanced Training (SMART)

The **SMART project** is a 3-year initiative funded under the Horizon 2020 Programme, coordinated by Dr Marek Migdal from the Children's Memorial Health Institute in Warsaw, **Poland** and involving three internationally-leading research institutions: the Consorzio per Valutazioni Biologiche e Farmacologiche (CVBF), University College London UCL in the United Kingdom and Aix-Marseille University in France. Its aim is providing innovative **paediatric research methods** in EU widening countries and brings together academic, private and public sector actors.

€ 999,475.00 100% funded by European Union (started 01/2016, ending 12/2018) www.smart-h2020.eu

Better linkages between stakeholders in innovation eco-systems:

The **Mining Water Competence Network project in Finland** gathers together Finnish research organizations, companies including SMEs and start-ups, service providers and managing authorities to form a consortium. The network has put forward a multidisciplinary research, development and innovation initiative in the field of mine water. Stakeholders have developed eco-friendly and cost-efficient solutions. The project coordinator is the Geological Survey of Eastern Finland Office and main partners are the National Institute for Health and Welfare, the University of Eastern Finland and Savonia University of Applied Science.

Total budget 910,934 euros, of which ERDF: 570,448 euros.

http://newprojects.gtk.fi/kaivosvesiverkosto/index.html

http://teollisuustaito.fi/assets/files/KVV%20poster%20eng.pdf

Bioenergy and Business Incubator of Portalegre BioBIP, Potugal

Located in a region with low density and ageing population, the scheme aims at developing cross-sectoral partnerships projects between students, graduates, teachers and entrepreneurs (20 projects in total). Alentejo Programme 2017, co-financed by the European Regional Development Fund (ERDF) under the Convergence objective http://www.biobip.pt/

http://ec.europa.eu/regional_policy/en/atlas/programmes/2007-2013/portugal/operational-programme-alentejo

Interregional cooperation:

Baltic TRAM aims to further advance the transnational governance of smart specialisation and facilitate coordination between different actors involved in the implementation of smart specialisation on the regional, national, transnational level in line with the EUSBSR Policy Area Innovation Strategy Guide. (https://www.baltic-tram.eu)

The ESTHER Initiative - Emerging and Smart Technologies for Healthcare - involves 17 regions and aims at facilitating the emergence of innovation based medical technologies, based on each region's specialisation and synergistic use of infrastructures and skills. This Group is cooperating closely with the Vanguard Initiative. The regional development agency of the North-East Region of Romania has made a regional strategy on smart specialisation and analysed its value chains with North Netherlands provinces to establish common projects. The regional development agency Dev'Up from Centre-Val de Loire region (France) is coordinating an Interreg Europe Project Beyond-EDP and has set-up the priorities of the focus groups of the European Innovation Partnership 'Agricultural Productivity and Sustainability' (EPI AGRI) in their rural development programme. https://www.facebook.com/DevupCentreValdeLoire/

https://ec.europa.eu/eip/agriculture/en/content/EIPAGRIabout

Baltic Sea Regions Smart Blue Growth https://www.submariner-network.eu/

Governance

Governance and capacity-building

The JRC-IPTS has recently completed a European Parliament Preparatory Action in REMTh with 2 main aims: i) to facilitate the refinement & implementation of the S3 strategy in a region heavily hit by the crisis, ii) and to

serve as a model for other convergence regions in Greece & Europe. Moreover, it served as a unique test bed for theories on S3. 6 Thematic Workshops, 2 Pilot Workshops, 1 Evaluation Event, 2 Working Groups (Governance & HR Mobility), 600 Participants from 16 Nationalities, 50 ideas for innovative products and services. http://s3platform.jrc.ec.europa.eu/remth

EDP in Slovenia

The S4 implementation involved a project of putting in place 9 strategic research and innovation quadruple helix partnerships (SRIP) across 9 S4 priority domains. This project mobilised over 500 partners. Over 15 m EUR grants are available for the support of SRIP activities, starting with small grants aimed at the compilation of Action plans for each partnership. The crucial driver for a success of SRIP project was an ambitious implementation of the Entrepreneurial Discovery Process.

http://www.svrk.gov.si/en/areas_of_work/slovenian_smart_specialisation_strategy_s4/

• EU Funding and Synergies between funding programmes (Q7)

The EU provides around 10% of all the public research and innovation support in the European Union member states. This works either via directly managed funds (e.g. Horizon 2020, COSME) or via shared managed funds (e.g. European Regional Development Fund, European Social Fund) where the definition of the support conditions and the selection of the projects is done by national or regional bodies or intermediaries. The European Investment Fund is also often an intermediary both for directly and shared managed EU funds. Achieving optimal complementarities and synergies between these funds is inscribed in the programme regulations of the EU Funds. Also synergies of the EU funds with the European Fund for Strategic Investments (EFSI) are sought since its creation in 2014/2015.

Question 7.a: Did you get in the past 3 years support for research and innovation from a European Union fund or European body?

137 (58%) of the respondents (N=237) confirmed that they received support from EU funds, of which 88 (64%) acknowledged that the funding is linked to S3. The respondents have received funds mostly from ESI Fund sources, in particular ERDF national/regional operational programmes and Interreg, as well as European Social Fund programmes. To a lesser extent, respondents have received Horizon 2020 funds, especially for collaborative research and innovation projects (35%), but also from the SME Instrument and Marie Sklodowska-Curie and support from National Contact Points (14%). 19% of the respondents received funding from the Erasmus + programme, 10% received support from the COSME funded Enterprise Europe Network and 9% from the LIFE programme. Only between 5-8% received support from the EIB group, despite its large potential volume of funding for innovation.



Figure 13. Type of funding received in the past 3 years (N=137)

a. ESIF



b. HORIZON2020



c. EIB GROUP



d. COSME





e. OTHER DIRECTLY MANAGED EU PROGRAMMES

Question 7d: Did you receive in the past 3 years funding or other support from more than one EU fund or programme?

Synergies and complementarities between various EU support programmes and funding are an important issue in the current EU programmes. The results of the consultation show that there is significant improvement as regards complementarities and synergies, as out of the 137 respondents that answer they have received funding, the 101 (73%) respond that they received support from more than one EU fund or programme in the past 3 years and **they benefited from synergies or a combination of different funds**. 37% acknowledge that the different EU support or funding was mutually supportive and improved or expanded the impact of the activity. EU support or funding from more than one fund or programme for the same activity. Yet, support or funding was not linked and not complementary, as very different activity. Yet, support or funding was not linked and not complementary, as very different activity were funded for 36% of respondents.

• Other types of support needed in the S3 implementation (Q8)

Question 8: What other / additional types of research, innovation and competitiveness support in the framework of smart specialisation strategies would you / your organisation need?

In terms of needs related to research, innovation and competitiveness support schemes in the framework of smart specialisation strategies, a significant part of respondents recommend **further training, sharing of good practice examples, peer review exercise, benchmarking and mentoring to accompany the implementation S3**, notably in the domains of

- Awareness-raising of the benefits of S3
- Capacity-building
- Monitoring
- Help understand regulations
- Sectoral expertise
- o Skills

See quotes from the free text responses (including translations into English):

Capacity-building:

"Support to implement suggested changes";

"Improve the innovation environment and administrative capacities in the ministries".

"Manual with detailed examples on how to implement activities like the one done in the region of Eastern Macedonia and Thrace by the S3 platform"

"We will welcome additional support for <u>monitoring</u> the implementation process of our smart specialization strategy (i.e. expert consultations)."

Sectoral expertise:

"Ambassadors" should travel and share success stories across Europe, providing evidence of the socio-economic benefits of S3 and ways forward."

"Setting up a managing board of experts and representatives that provide professional (sectoral experts) assessment on every candidate initiative to be regarded as entrepreneurial discovery. Being responsible for orienting towards the use of KETs and promoting and searching initiatives in new business departures (telemedicine apps, e-security, mems apps)"

"Highly skilled personnel, <u>new skills</u> for employees in the field of new emerging technologies, trend and innovations" - "More skilled professionals in the technological development field"

"Funds to train people in developing their skills on entrepreneurship"

"Continuous / on-going peer reviewing events would be beneficial, in the framework of the JRC Platforms and beyond"

Respondents ask for support to **foster interregional cooperation and networking.** Respondents seek to consolidate communities of practice, notably through the activities of the S3 Platform. The ability to identify potential partners to develop joint projects is recognised as important. In addition, it is worth noting that many stakeholders have underlined their wish to work with regions with similar level of development. Furthermore, respondents asked for the promotion of **partnerships between research and industry at both regional and international level**. Moreover, **forecasting technology and market trends is seen as crucial for a good definition and assessment of priorities**, and a clear understanding of technology evolution along different fields. Market-oriented support is needed to stimulate interregional cooperation and joint projects within the framework of value chains.

"To achieve sufficient critical mass and create capacity, it is important to find strategic partners which are complementary to your own knowledge, expertise and infrastructure. By identifying complementary partners, aligning your RDI strategies into joint action plans and building sustainable cross border collaboration structures, the innovation potential of the partnership will be increased".

"S3 can lead to unique knowledge hubs, gateways for European talent and hotspots for validation of research results. They could also form the bridge between less-developed regions and front runners".

"Set up a managing board of <u>sectoral experts</u> to reinforce clusters collaborations and facilitate technology transfer"

"A more comprehensive and structural EU policy for clusters should be developed, allowing to build an EU industrial policy, based on the interconnection of <u>regional clusters</u>, for creating EU clusters"

"Support cooperation with other regions that have the same development level"

"Instruments that support industry to strengthen cooperation with academia. One dedicated to the development of industrial doctorates and another to support research and innovation developed for SME and carried out by the academia."

"Support to identify the <u>relevant international value chains</u> for our regional priorities ; could be done by S3 Platform"

"More funding to be able to support the activity of the local enterprises in the global value chains"

"Support to identify the relevant international value chains for our regional priorities; could be done by S3Platform"

"The major structural change caused by digitization affects all market players. In the future the competitiveness of the skilled crafts and trade sector will become increasingly dependent on how companies cope with technological progress. The Chamber of skilled crafts and trade for Munich and Upper Bavaria therefore participates in the EU-Working Group "Strengthening Leadership in digital technologies and in digital industrial platforms across value chains in all sectors of the economy".

"Development of Joint Demonstration Initiatives on the basis of learning by doing, allowing the identification of bottlenecks and real needs from the ground, combining the development of regional assets with openness and collaboration with European stakeholders, business sector, cluster associations, RTOs, etc."

Data centre on infrastructures and competences

S3 & markets mapping; identification of high skilled personnel and news skills in emerging technologies fields, capabilities, etc.

Reinforce the links and networks among stakeholders from academia, research and the private sectors,

"Cooperation, International cooperation, new abroad <u>markets mapping</u>, international partnership support, international networks, link to academic sector".

"Resources to access private technical-scientific, patent and commercial databases"

Particular support to SMEs is advocated, including the recognition of their potential in the S3 framework, and a better link with research and industry, with a cross-disciplinary approach.

"Within the SME sector it is important, that the organisations are better involved in the design of research and innovation support".

"Improve SMEs inclusiveness. They are innovative but lack the funds to fully develop these innovations. There should be more funding for higher risk investment, for instance in biotechnology and pharma."

"Support should still focus in promoting relations between Research institutions - Industry. Concept of Industry can be redefined taking into account the growth of the micro-sme's working with R&D and Innovation: technology developments are currently happening at start-up companies within a low-resources framework. Visibility of this environment is needed, targeting support to networking and connecting them to medium and large companies with complementary needs. Employment creation is priority."

"Simplify communication for public bodies and SME's. Simplify explanation of tools and opportunities."

"In the regions already existing support structures for SME (for example the Enterprise Europe Network) should be used an extended within the framework of smart specialisation strategies."

Simplification of regulation and funding rules, notably regarding synergies between Horizon 2020 and ESIF funding, and harmonisation of State aid rules are highlighted.

"Regulatory simplification in particular for financial instruments"

"Funding rules of different programmes are so different that at the moment combining them synergistically is not possible in practice. These other funding programmes should follow the same financial and participation rules of the R&I Framework Programmes whenever possible if we want innovation actors to be involved. Integration of the same set of rules throughout the instruments would be a genuine simplification action, which would benefit all. Moreover, strategic policy integration is needed."

"Decrease of administrative requirements. Simplification with regard to grant management".

"The guidance on combination of opportunities provided by ESI funds programs and Horizon2020 instruments (i.e. alignment of regulatory procedures concerning State aid, indirect costs rates, funding projects developed by consortiums) is needed to successfully implement activities supporting research and innovation."

"Questions remain as to the compatibility and articulation between ESIF and H2020, in particular in terms of the application of State aid rules. In addition, the lack of feedback on the "Seal of Excellence" projects and the lack of characterization of the link with regional S3s at the time of their submission make it difficult to take on these projects. A desire for better coordination between the Commission and the regional managing authorities"

"Creating special marking systems to promote "cooperation inside H2020 calls, evaluating favourably the share of common infrastructures or research activities among partners from similar specialised regions"

"Operational and fast State aid assistance for public and private actors"

"Before designing additional types of research, innovation and competitiveness support we would like to draw attention to the need to revise currently existing legislation. For instance, State aid rules could be revised. In particular, the rules governing investment in research infrastructure."

Other suggestions and needs

"Need for managerial and operational accreditation certificate at national and international level"

"Funding in innovation support to develop partnerships and trade within the Greater Caribbean (with the EU Outermost Regions of the Caribbean), and technical support from the EC to work on innovative solutions to overcome legal obstacles or take more into account the particularities of EU Outermost Region and implement specific waivers/law adaptation to take into account their geographic distance from the rest of the EU, as provided for in the EU functioning treaty."

"Impact of Smart Specialisation strategy on rural development"

"A mechanism should be envisaged to integrate and further promote the potential entities from less developed regions."

"Innovation with respect to (i) smart acute and long term healthcare (ii) smart fitness (iii) smart welfare systems (iv) smart regulation (v) smart rural transport (vi) smart youth social development and (vii) smart democratic engagement"

Horizontal training on Digital technologies, big data analysis, applied IT, software are also mentioned

"Innovation in Services included the research and innovation in retail and tourism sectors, as new business model, new format, process, marketing, and other types of non-technological innovation."

• Interregional cooperation and S3 (Q9)

Question 9a: Have you been involved or observed concrete, strategic interregional cooperation between your region and other regions with similar or related smart specialisation strategies?

59% of respondents (N=237) have been directly involved or observed concrete, strategic interregional cooperation between their region and other regions that have similar or related S3 priorities. The respondents who replied negatively (N=97) were asked to identify the main constraints to inter-regional cooperation that they observed. Replies suggest the main obstacles are the **inward looking approach in designing S3** (32%) and the **difficulty to engage business** in interregional cooperation (27%). Difficulties to identify other regions with similar or related strategies reaches 16% whilst for 12% of respondents perceive other regions as not open to inter-regional cooperation. Around 13% did not provide any responses. Few acknowledge a lack of awareness regarding S3 and cooperation support programmes as well as competitiveness issues.



Figure 14. Identified constraints to interregional cooperation (N=97)

Question 9b: Should the EU develop interregional cooperation regarding smart specialisation?

A large majority of 86% of the total respondents (N=237) confirmed that developing interregional cooperation in the framework of smart specialisation is important.

EU support for finding new business and/or research partners from abroad (39%) and reducing the innovation gap between less and more developed Member States/Regions (36%) got the highest scores in terms of needs for additional EU support for inter-regional cooperation. Also support for the increase of cross-border cooperation between business and higher education institutions and for the exchange of good practices for public administration and business models were requested by 35% of the respondents, followed by 31% asking for EU support for the creation of critical mass for the research and innovation investments and23% want support for an alignment of research and innovation investments along European value chains.

Least interest was flagged in further increase of trade between EU regions and outside EU (10%), avoidance of duplication of public investments in R&I infrastructures (12%), using the existing R&I facilities of another region and support for finding new business and/or research partners from other regions/municipalities within your country (16% each).



Figure 15. Most important benefits from interregional cooperation (N=205)

• Further suggestions regarding S3 development and implementation (Q10)

Question 10: Please give further suggestions or comments regarding the development and implementation of smart specialisation strategies, including in the context of the wider EU policies on research, innovation, competitiveness, digitisation, education, etc. e.g. on how to reinforce political commitment, disseminate good practices and facilitate strategic interregional collaboration?

From the open questions (6, 8 and 10), it comes out that a vast majority of respondents stress the value of S3 policy and the need to accompany the development of existing S3 projects further.

Regarding the **regulatory framework** and **the funding system**, many respondents advocate the simplification of procedures and a better alignment between funds, more flexibility in regulatory control which tend to deter private actors and especially SMEs from participating to EU initiatives. Moreover, agenda setting, monitoring and impact evaluation of S3 are seen as key component of S3.

With regards to funding alignment, including synergies between ESIF and H2020:

Alignment of regulatory procedures of both ESIF and H2020 would be beneficial, as well as the revision of rules concerning cross-border cooperation. More attention should also be paid to creating venture capital ecosystem especially targeted at supporting research and innovation initiatives.

"There needs to be more connection between research and innovation policy under H2020 and FP9 and higher education building on the HESS project and ideas in the Madelin review. Key to this is institutional change in universities away from a linear model of innovation towards a co-production model involving education as well as research and which civil society and business in QH partnerships to address societal challenges "

"A fresh approach to synergies between policies. Co-investment projects require a new design, combining a regional development perspective with a collaborative one. New management rules to allow mixed funding of innovative projects from different sources (public/private, EU, national, regional funds), tools, domains, and across regions. A renewal of current programmes and budget architecture that supports the implementation of S3, anchored in the regions, but linked to EU priorities."

"To make more clear synergic instructions and guidance between the funding programs."

On ex-ante conditionality's, opposite views are expressed:

"A real and thorough enforcement of the ex-ante conditionality of S3 is required"

"It is absolutely necessary to allow for smart diversification within the further development of the RIS. If the regions are supposed to bring their RIS forward, the limitations posed by being an ESIF-ex-ante conditionality should be lifted.

On State aid rules:

"State aid rules of H2020 and SF R&D activities could be harmonised. EU is currently supporting the same R&D activities with different rules.

State aid rules for research infrastructure should be liberalized, allowing access to companies.

As S3 strategies are expected to adapt to constantly changing environment and have a continuous EDP, amending these strategies should be done easily if necessary. Yet changing S3 areas triggers the need to amend OP, discrediting the whole approach."

With regards to the **allocation of funds**, it is recommended to target funding programmes on valorisation and business creation, support joint projects involving higher education institutions and research bodies with small firms.

"More research funding programs are needed to support higher education (e.g. universities) and microcompanies joint projects (growth, internationalization, co-creation, and living lab of micro enterprises). Especially support should be used to improve production technology innovations by micro-enterprises".

"A fresh approach to synergies between policies. Co-investment projects require a new design, combining a regional development perspective with a collaborative one. New management rules to allow mixed funding of innovative projects from different sources (public/private, EU, national, regional funds), tools, domains, and across regions. A renewal of current programmes and budget architecture that supports the implementation of S3, anchored in the regions, but linked to EU priorities".

"Creating special marking systems to promote that cooperation inside H2020 calls, evaluating favourably the share of common infrastructures or research activities among partners from similar specialised regions"

General and particular remarks:

"Cross-disciplinary approaches: cross-industrial dialogue and collaboration is needed in a much wider sense, also between funding agencies, investors and legislators".

"In Germany the nuts 3 Level is not ok! Economic Regions are within these Levels!"

"Regional Programs (funded by structural funds) should have a mandatory amount to be spent outside the region in order to promote interregional collaboration projects."

"Alignment of regulatory procedures of both ESI funds programs and Horizon2020 instruments would be beneficial, as well as the revision of rules concerning cross-border cooperation. More attention should also be paid to creating venture capital ecosystem especially targeted at supporting research and innovation initiatives."

"Things to be implemented in regions take time. Our suggestion is to continue with the efforts and give regions enough time to produce results. The efforts should be focused on helping the implementation, the links with operational programmes of the Structural Funds, interregional cooperation and accurate evaluation and monitoring."

"Citizens must obtain a receipt from the couriers to be able to complain. The EU should have immediate knowledge of the applications and monitor the process. There should only be one website in Europe and that the officials are not regional because they will be subject to the pressure of the autonomous governments where many will work without any training. Requests must first come out of the region and, from Europe, be distributed later. The regional administration cannot act as a firewall".

Regarding **interregional cooperation**, it is advocated to promote **networking between research and industrial actors** and to facilitate **cluster collaboration**.

"The transnational dimension should be mandatory in drafting next generation of S3."

"S3 platforms on European level seem like a promising vehicle to discuss priority program areas for existing financial instruments and to discuss innovative approaches for funding of complex joint ventures in identified priority domains (inter-cluster initiatives)".

"Promote a systemic approach based on networks of actors with different skills, capabilities, goals by improving networking between research and industrial players, in relation to an optimal use of available resources for innovation."

"**Mobility** opportunities for skilled human capital (through secondment or short-term missions in order to avoid potential 'brain drain') of lagging regions or from stronger innovators to lagging regions, collaboration opportunities/ partnerships of business-academia-research"

"It would be better, if the regions and their regional innovation agencies were responsible for the money distribution and management of the EU Funding for these cooperations."

General suggestions and particular remarks:

"More ambitious budget for the European Territorial Cooperation, both cross border and transnational, as well as interregional. This would make it possible to promote better collaboration between regions with Smart specialisation strategies sharing priorities that can be better developed jointly, as it is the case of the collaboration that has emerged from the regions, such as the Vanguard Initiative".

"To provide S3 macro-regional frameworks would substantially push for the relevance of S3 in the business planning at country/regional level. This would facilitate the horizontal circulation of best practices, skills and methodologies, both at the market level with its entanglement with the knowledge based institutions and in the policy making of the relevant authorities."

"S3 paradigm is relevant to homogenise, to a certain extent, strategy forming across Europe. the combination of horizontal (EU level) priorities and territorial breakdowns based on unique regional assets is important to maximize impacts. Hence, it is important to create a new stimulus to the revision of S3, as well as introducing novel dimensions like cross border cooperation and foster the use of thematic policy-mixes, adjusted to regional and thematic specificities."

"National and Regional Intelligent Specializations are defined in an unstructured manner by either recording the current state or relying on the expected direction of development indicated by the managers. KIS and RIS should be selected from a standardized list at EU level, which would take into account the strategic choices and expected competitive advantages of EU countries on the international markets".

"S3 should be a core component of future cohesion policy. Smart specialisation strategies support the development of effective regional innovation ecosystems and the joining up of the stakeholders within the region. However, more importantly, S3 must also help regions join up outside the region - sharing information on smart specialisation strategies and seeking active collaboration between regions sharing similar specialisms and value chains (e.g. current and future S3 Thematic Platforms)."

"Use Clusters to develop cooperation with third countries, for the EU regions in the Caribbean, which have only neighbours from third countries."

Regarding, the **dissemination of good practice**:

"Simplify communication for public bodies and SME's. Simplify explanation of tools and opportunities. Streamline the delivery and broaden the focus on people not involved in present structures."

"Regional stakeholders' acceptance is the key success factor to design a relevant S3 but it needs time and a change management strategy."

"We need mobile good practice ambassadors presenting across national boundaries & linked to mechanisms for reporting back to host communities. This latter element is distinctly missing in many higher education institutions: Successful activity is often kept secret to secure or maintain promotional, funding, work allocation & other advantages."

"Business partners appear somehow concerned about the formalities of RIS and consider the strict focus on a limited number of sectors as a restricting factor for innovation. The demonstration of good practices from around the EU or from regions of similar characteristics, would be very beneficial to the RIS concept. A round of workshops ("roadshows") to demonstrate success stories would be highly valuable to support RIS and persuade the triple helix partners to better involve in the process.

"Governance models for smart specialisation must be reinforced, especially regarding the priority setting, implementation and evaluation involvement and the international focus (e.g. involving agents from other regions not only from the same country but from abroad)."

"Demonstrate potential impact of S3 policies on R&I & education on growth, employment & other specific societal challenges for regions

Provide incentives (e.g. prizes, awards etc.)

Identify complementarities in regions' S3, organize interregional events to bring stakeholders together, demonstrate good practices, provide consultation & facilitate synergies"

"Promote full EU picture on smart specialisation, to leverage the strengths of different European countries and regions, building ecosystems where all players can bring in their best expertise."

"For data centre infrastructure and competence: use clearly-defined selection criteria and step-by-step selection to guide in selecting the optimal solution for smart specialization: a combination of cost-efficiency, environmental sustainability, state-of-the-art datacentre infrastructure and competence."

Regarding Higher Education Institutions and research bodies:

"Smart specialisation strategies should be directly focused on job creation, on skilled workforce enhancement that can generate new ideas and technologies, on sound business environment generation that encourages investment in technology and in knowledge-based capital and the enforcement of strong and efficient system for knowledge creation and diffusion that engages in the systematic pursuit of fundamental knowledge"

"To break down the barriers remoteness, backwardness and a low level of entrepreneurship and innovation some regions must approach to innovation in radically new ways. The objectives of S3 could reflect a learning journey: Human capital for innovation, entrepreneurship linked to innovation, and competitiveness through innovation"

"On a regional level, especially in smaller countries, scarce resources should not be wasted by creating competing training and support programs between regional sector specific hubs and incubators; instead regional, national and international co-operation between them (e.g. joint MOOCs) should be promoted. Consequently, the co-operation between sector specific actors should be supported on regional, national and European level."

"So far the role of the education is under estimated and particularly the quality vocational education is totally forgotten. Without skilled professionals nothing works and is currently the biggest barrier for the businesses to grow and to create new work places."

"A Cybersecurity Smart Specialisation Platform would be an effective industry tool to facilitate the emergence of a competitive EU industrial ecosystem. A strong (inter)regional cooperation among top-class universities, research institutes and private companies will be instrumental in the development of an ambitious pipeline of investment projects in that domain (mainly ESIF)"

5 Summary of position papers

The following organisations submitted position papers on smart specialisation:

- EURADA (European Association of Development Agencies)
- Vanguard Initiative (30 most innovative regions in the EU)
- **ERRIN** (European Regions Research and Innovation Network)
- North Middle Sweden Region (The NUTS2 area "North Middle Sweden" consists of three regions: Värmland, Dalarna and Gävleborg)
- UAS4EUROPE (Universities of Applied Sciences for Europe)
- French authorities

The main points in the position papers are:

Smart specialisation is seen as very positive and should be maintained in the future:

- Overall assessment of the Smart Specialisation Strategies is extremely positive and smart specialisation approach should continue to be supported.
- Smart Specialisation is considered as essential for future EU policies for economic growth and should be placed on the highest level of the political agenda of the EU Institutions. The complex governance of Smart Specialisation requires continuous policy support.
- Smart Specialisation should be deployed in all territorial levels, including cities as they have the appropriate size to establish a good prioritisation.

Wide stakeholder mobilisation as part of S3 design and implementation is welcomed:

- There is a consensus about the suitability of S3 to engage a wide range of stakeholders in a common transformation agenda.
- The role of universities and also RTOs within smart specialisation at the regional level is also important as key actors developing a 'connected region'.
- Multi-level governance: Direct dialogue with the Commission at the regional level is very much appreciated, notably with DGs REGIO, DG Grow, DG Research and DG JRC. It is advocated that the European Commission also maintain a dialogue with the Member States on how the national level can support regional work on smart specialisation and how to strengthen Europe's industrial base by enabling cross-border industry-led collaborative research.

Interregional cooperation opportunities offered by S3 should be further exploited and supported by the Commission:

• Smart Specialisation is a good opportunity for interregional cooperation. European Commission should create the conditions for building collaboration and open innovation networks around shared strategic interests and shared priorities. The role that clusters can play as bridges between actors within regions and outside, as channels for business support to SMEs, should be reflected in EU policies. Increasing the links of global and European companies with the European innovation ecosystems gravitating around their European supply chains (with many SMEs).

- Capacity and capability that exist within large scale initiatives like JTI's or PPP's should be connected with regional actors to address societal challenges, developing innovative ideas from a bottom- up approach.
- The role of new intermediaries such as 'innovation brokers, orchestrators, facilitators' who can play an active role in building regional research and innovation ecosystems.
- Strengthen training and professional qualifications and the development of new competences as smart specialisation requires new 'intermediary' competences at the regional level and developing stronger engagement of the Enterprise Europe Network

Need to modernise innovation support at regional, national and EU level to optimise synergies, complementarities and combination of different sources of support:

- Better alignment between different funds should be available for regional players. Creating better synergies between the different funds is a recurring topic. The wish for better synergies applies also to the European Structural and Investment Funds (ESIF).
- EU policies should further address investor-readiness issues like the protection and sharing of intellectual property rights, the management of data, the development of business cases, the appropriate funding mix and innovative use of funds that enable the support of industry-led pilots as well as the identification of the skills and expertise needed.
- New and flexible management, financial and State aid rules must be developed to allow mixed funding of innovative projects from different sources (public/private, EU, national, regional funds), tools, domains, and across regions.
- Simplification of future EU programmes both in terms of target audiences, administrative processes and wider regional scope.

ESIF should benefit from the same state aid rules as directly managed EU funds

• More attention should be paid to harmonising state aid provisions between research funding and cohesion funding and developing more practical guidance for regions.

Need for continued policy support for S3 governance and implementation:

• Innovative ways of monitoring, capturing not just output but also short- and long-term effects is advocated. Too much focus on short-term indicators, such as new jobs, growth and new firms, may cause an unbalanced search for quick fixes and quick results.

Summaries of each position paper:

• EURADA (European Association of Development Agencies)

Overall position: EURADA's overall assessment of the Smart Specialisation Strategies is extremely positive. There is a consensus among the professionals of development agencies and regional practitioners about the suitability of S3 to engage a wide range of stakeholders in a common transformation agenda.

The entity considers that it should have been associated with the translation of the S3 conclusions into the first Investment Priority of regional Operational Programmes (OPs) of the ERDF. This appears to them as the "the major weakness" of the ex-ante conditionality principle.

The role of EURADA in the design of S3 differed according to national contexts and understanding of the governance principle of national administrations: i) leading the drafting S3 in numerous regions, ii) more or less involved , iii) considered as actors like many others, especially in EU 13 countries. It is also greatly involved in the implementation phase.

Main points:

• Smart Specialisation is considered as **essential for future EU policies** for economic growth and should be placed on the highest level of the political agenda of the EU Institutions.

• The **complex governance of Smart Specialisation requires continuous policy support**. Particularly challenging are the selection of activities with the appropriate granularity to provide impact, as well as the use of advanced monitoring and evaluation mechanisms for a continuous entrepreneurial discovery process and the full engagement of private sector to leverage investments. The support given by the S3 Platform has been especially relevant.

• Smart Specialisation is a good **opportunity for interregional cooperation**. Initiatives like the thematic platforms in agro-food, energy and industrial modernisation should be reinforced.

• Smart Specialisation should be **deployed in all territorial levels, including cities** as they have the appropriate size to establish a good prioritisation. Municipalities and local authorities have several instruments to support the policy mix, with local development agencies, the possibility of establishing living labs, innovative public purchases, workspace provision, investment attraction mechanisms, support to new entrepreneurs, etc.

• Further alignment should be sought between S3 and OPs to leverage private investments.

• Vanguard Initiative

The Vanguard Initiative brings together 30 regions with the aim of "delivering growth and jobs through industry-led interregional cooperation, co-creation, and co-investment, on the basis of smart specialisation principles".

Main recommendations:

• Capacity and capability that exist within **large scale initiatives** like JTI's or PPP's **should be connected with regional actors** to address societal challenges, developing innovative ideas from a bottom- up approach

• EU policies should further address **investor-readiness issues** like the protection and sharing of intellectual property rights, the management of data, the development of business cases, the appropriate funding mix as well as the identification of the skills and expertise needed.

• Developing **appropriate funding tools, funding** mixes, and innovative use of funds that enable the support of industry-led pilots, networks of demonstrators and the most promising innovative projects should be central to the EU's work. Possibilities offered by financial instruments for investment projects stemming from interregional collaboration should in particular be explored.

• A **fresh approach to synergies** is adopted. New and flexible management, financial and **State aid** rules must be developed to allow mixed funding of innovative projects from different sources (public/private, EU, national, regional funds), tools, domains, and across regions.

• A renewal of current programmes and budget architecture that supports the implementation of smart specialisation, anchored in the regions, but linked to EU priorities and deployed across Europe should be on the agenda.

• The European Commission should create the conditions for building collaboration and open innovation networks around shared strategic interests and shared priorities.

• A mix of **support tools for clusters** dedicated to groups of enterprises rather than to individual ones should be developed to enable **cross-sector** approaches and collaborative EU partnerships. Furthermore, the role that clusters can play as bridges between actors within regions and outside, as channels for business support to SMEs, should be reflected in EU policies.

• **ERRIN** (European Regions Research and Innovation Network)

ERRIN strongly recommends the continuation of Smart Specialisation in the next EU funding period post-2020. Main recommendations:

• S3 is an **effective tool for regional development**. Smart specialisation has a transformative must play a strong role in future cohesion policy which should include support for regional collaboration through thematic platforms.

• S3 fosters stakeholder's interaction and cooperation. ERRIN highlights the **role of new intermediaries such as 'innovation brokers, orchestrators, facilitators'** who can play an active role in building regional research and innovation ecosystems, support the engagement of citizens and also seek synergies between European, national and regional funding programmes. The role of universities and also RTOs within smart specialisation at the regional level is especially important as drivers of regional growth and as key actors developing a 'connected region'.

• Strengthening regional profile and contributing to inter-regional value chains:

Peer Reviews conducted by the S3 Platform and the tools developed to better identify priorities have helped regions to great extent. Value chains can be further developed thanks to the Vanguard Initiative and the Smart specialisation Thematic Platforms. Supporting collaboration among regions should be developed, with adequately funded future Interreg-Europe programme and strategic cluster partnership programmes.

• S3 One of the S3 strength lies in its **thematic approach which opens a path to synergies** between EU and regional innovation policies and funding. ERRIN advocates a programme level approach to overcome barriers such as lack of knowledge about funding schemes in regions, state aid rules, lack of capacity, etc. The organisation emphasises the territorial dimension, such as smart cities, regional clusters, innovation hubs which allows start-ups and SMEs to access advanced technologies and these activities could be strengthened by a future revised 'Regions of Knowledge 2.0' programme which would include grants for joint investments for shared innovation infrastructure and facilities.

• Strengthen **training and professional qualifications** and the development of new competences through university short courses and MOOCs. Smart specialisation requires new 'intermediary' competences at the regional level and developing future roles such as 'regional NCPs' or stronger engagement of the Enterprise Europe Network. Such specific training, mobility and coaching schemes might be included in future Erasmus programmes and Erasmus for Young Entrepreneurs.

• Encouraging political buy-in and understanding

Strengthening the concept of smart specialisation as a focus for thematic concentration might help widen the smart specialisation concept to politicians and citizens and encourage more dialogue at the city and regional level. The Committee of the Regions should play a key role in communicating the concept.

• More research is required to strengthen the **academic and practitioner base**, especially on implementation, monitoring citizen science and gender research.

• **Internationalisation**: development of scientific cooperation. S3 can contribute to global development such as in Latin America, Asia, US and Canada.

• Simplification and State aid

The plethora of funding programmes is often perceived as bewildering for regional actors. There is a need for a simplification of future EU programmes both in terms of target audiences, administrative processes and wider regional scope. Regional investment in upstream research infrastructures is often delayed or abandoned due to concerns regarding potential state aid infringements. More attention should be paid to harmonising state aid provisions between research funding and cohesion funding and developing more practical guidance for regions.

• Clarity of a **regulatory framework for the future Cohesion** programme

More attention needs to be paid in future programmes (post-2020) to incorporate a legal instrument or regulations or a common framework to provide greater clarity for regions and Member States regarding the expectations regarding the development of smart specialisation strategies at regional level.

• North Middle Sweden Region draft response (The NUTS2 area "North Middle Sweden" consists of three regions: Värmland, Dalarna and Gävleborg)

• Smart specialisation has proven to be an effective and transformative tool, successful in refining priorities and achieving a more long-term and systematic approach to R&I policy. It has strengthened cooperation among stakeholders, leading to key joint project (such as Värmland's "Academy for Smart Specialisation"). It has led to interregional and European cooperation, Dalarma being part of the Vanguard Initiative since 2004. Moreover, the S3 approach is widely applicable in high tech sectors as well service-driven sectors such as tourism and welfare services. Support to develop these areas should be continued.

• Innovative ways of monitoring, capturing not just output but also short- and long-term effects is advocated. Too much focus on short-term indicators, such as new jobs, growth and new firms, may cause an unbalanced search for quick fixes and quick results.

North-Middle Sweden has developed a monitoring system to measure cluster performance. Some of its assets being: comparing perceived effect in addressing innovation gaps with real financial and non-financial performance; clear connections between certain activities and real performance, thereby making trends more accessible as well. The regions are exploring the possibilities of adapting aspects of their methodological approach to smart specialisation.

• The impact of smart specialisation in multiple policy-areas beyond the realm of regional policy, e.g. European R&I policy, but also Growth, Energy and Education, is important should continue moving forward. Universities are significant actors in smart specialisation, in terms of co-creation and bridging the gap between research and market and/or societal value. In this context, "the Academy for Smart Specialisation" is this dynamic. It could also entail partnering processes between regional authorities, academia and business from regions with similar profiles or specialisations, for instance through networking projects.

• European initiatives

The many European initiatives related to smart specialisation are a testament to its success in mobilising engagement and resources. The Vanguard Initiative is the prime example of this. The thematic S3-Platforms and forthcoming ones are welcomed.

Further alignment between Smart Specialisation and ESIF together with part of Horizon 2020 and future framework programmes should be sought.

The participation of a more diverse range of stakeholders should be facilitated in ESI-funded projects. For instance, overly standardised rules on overhead costs and timesheet requirements can have adverse effects on participation of universities and businesses. The same logic is applicable to monitoring indicators.

• Multi-level governance

Direct dialogue with the Commission at the regional level is very much appreciated, notably with DGs REGIO, Grow, DG Research and DG JRC. It is advocated that the European Commission also maintain a dialogue with the Member States on how the national level can support regional work on smart specialisation.

• Horizontal and social issues

More can be done to strengthen the integration of the principles equality and nondiscrimination in R&I policy and smart specialisation. Gender integration in innovation policy has tremendous potential for strengthening innovation and social cohesion and progress. North-Middle Sweden has actively been pursuing these issues. Värmland was the first region in Europe to carry out a review of the smart specialisation strategy from a gender perspective. Dalarna has integrated a gender perspective in the prioritisation of knowledge areas. Gävleborg has several activities related to leadership in the innovation system.

• <u>UAS4EUROPE (Universities of Applied Sciences for Europe)</u>

UAS4EUROPE believes that Smart specialisation strategies (S3) should continue to be supported. If managed well and broadly supported at grassroots levels, i.e. by companies, UAS, universities, communities and the like, S3 can improve the research and innovation processes and lead to both economic and social growth. The bottom-up support and flexibility are key ingredients in achieving this. The voluntary principle should also be safeguarded.

Better alignment between different funds should be available for regional players. Creating **better synergies between the different funds** is a recurring topic. The wish for better synergies applies also to the **European Structural and Investment Funds (ESIF)**. It would be good to look into how different funding mechanisms can be used successfully in the future.

- ➢ In case there are ESIF funds which are thematically linked to specific Horizon 2020 calls, it should be possible to apply for Horizon 2020 in order to fund the excellent science and simultaneously, this proposal would apply for structural funding. In this case the synergies between the programs would be part of the project from the beginning.
- If a Horizon 2020 project above the evaluation threshold has not been able to obtain funding due to limited budget, it should be supported and backed by regional funds like ESIF. This would mean that the Seal of Excellence4 proposed by the European Commission in 2015 would be continued and extended.

UAS4EUROPE is working on Smart Partnerships for Regional Impact (SPFRI), which is seen as a possible concept in e.g. FP9 to support and facilitate easier participation of applied research actors. It is of utmost importance to ensure as well a regional embedding of future FP9 funded projects, and therefore synergies between Smart specialisation strategies as a policy concept and SPFRI as a practical tool and instrument would be wishful.

• French authorities

France has implemented Smart Specialisation, involving a wide range of actors throughout the territory. In terms of coordination of European funds (ESIF, H2020), good practices are identified, notably in Reunion Island. However, 4 obstacles are highlighted:

- State aid rules variation between ESIF and H2020 projects

- The harmonisation of eligibility criteria and expenditure justification between ESIF and other EU programmes would facilitate stakeholders' ownership.

- The difficulty for regions to identify and follow (potential) H2020 beneficiaries, in particular unsuccessful candidates, in order to support them in improving their applications.

- The limited scope of the "Seal of Excellence" tool for funding agencies: State aid rules application to SMEs Phase 2 projects is a barrier to its promotion.

- Simplification of ESIF implementation for all actors, project holders and administrators, in terms of control, rules evolution and in particular State aid rules.

With regard to the value added of smart specialisation in France, although it is too early to measure results, several positive effects can be described:

- The positioning and visibility of regional innovation ecosystems are strengthened, and exchanges facilitated

- Smart Specialisation strategies act as a consolidating tool to strengthen French research and innovation policies.

With reference to S3 evaluation, it will be necessary to measure its impact at various levels (on its value-added, on the territories, on governance). Moreover, ways of improvements can be outlined:

- The necessity of an integrated approach to deploy strategic instruments in favour of territories development and in particular of innovation eco-systems:

- ✓ For example, cluster policies and support to inter-clustering. The European call on Strategic Cluster partnerships for Smart specialisation Investments could be renewed.
- ✓ Coordination between ESIF and H2020 to ensure a continuum from upstream research (ERDF allows for the funding of strategic infrastructure) to innovation. For instance, a framework for State aid rules, extending the "Stairway to excellence" project to all Member States to facilitate the exchange of good practice.

- Create better linkages between S3 and education, training and employment policies. It could take shape within Smart specialisation strategies' content, at the level of governance and entrepreneurial discovery process, in the coordination of funding including ESIF.

- Flexibility is key to adopt S3 concept at local level, especially in the context of the redefinition of the scope of French regions.

- Facilitate Inter-regional cooperation through cross-border programmes or other initiatives. Exchanges between leading and less developed regions should be further supported as well as smart specialisation by thematic domains.

Annex

Overview of main seminars, workshops and conferences on smart specialisation since June 2016:

- 1-2 June 2016: Smart Regions Conference, DG REGIO, Brussels (BE)
- 10-12 June 2016: Week of Innovative Regions in Europe (WIRE), DG RTD, Eindhoven (NL)
- 19-20 September 2016: Be Smart, Think Blue: Brokerage events for regions interested in Blue economy, Gdansk (PL)
- 28-30 September 2016: 1st SMARTER Conference on Smart Specialisation and Territorial Development, S3Platform, Seville (ES)
- 7 October 2016: Industrial Modernisation follow-up, DG GROW, Barcelona (ES)
- 10-13 October 2016: workshops on smart specialisation during the <u>European Week of</u> <u>Regions and Cities Brussels</u>, DG REGIO, Brussels (BE), in particular the workshops on combining ESIF and Joint Undertaking funding, Mobilising higher education institutions for smart specialisation, Building European value-chains based on regional specialisations for circular economy, the role of research and innovation policy, Academy of Smart Specialisation, and Smart specialisation and energy.
- 13/14 October 2016: S3Platform Energy thematic working groups, S3Platform, REGIO, ENER, Brussels (BE)
- 13 October 2016: S3 Workshop of European University Association
- 8-9 November 2016: Smart Specialisation workshop at 7th Strategic Forum for the EUSBSR, DG REGIO, Stockholm (SE)
- 16-17 November 2016: Industrial Modernisation thematic smart specialisation platform: kick-off meeting, S3P, REGIO, GROW, RTD, Brussels
- 22 November 2016: Committee of the Regions (CoR) local event as part of the evidence gathering for the CoR S3 opinion, Pamplona
- 30 November 2 December 2016: European Cluster Conference, DG GROW, Brussels (BE)
- 1-2 December 2016: European Cluster Conference: "Clusters 4.0: Shaping Smart Industries", DG GROW, Brussels (BE)
- 6-7 December 2016: kick-off event of the thematic smart specialisation platform for Agri-Food, S3Platform, REGIO, RTD, AGRI, Florence, Italy
- 8-9 December 2016: Central Europe S3 event, REGIO, Zagreb
- 31 January 2017: Committee of the Regions SEDEC committee debate on smart specialisation, Brussels
- 28 February 2017: European Industry Day, DG GROW, Brussels
- 1 March 2017: ERRIN hearing on smart specialisation, Brussels
- 23 May and 10 October 2016 and 7 March 2017: meetings of the Community of Practice for the Seal of Excellence Initiative, DG RTD and DG REGIO, Brussels

- 13 country events in 2015 and 2016 and on 8 March 2017: conference on the Stairway to Excellence pilot project, S3Platform, Brussels
- 30 November 2016 and 3 March 2017: S3 Mirror Group, DG REGIO & S3Platform, Brussels
- 3 meetings of the "Community of Practice" for the Seal of Excellence initiative on 7 March 2017, 10 October 2016 and 23 May 2016.