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Synergies between EU R&I Funding Programmes. Policy Suggestions from the Launching Event of the Stairway to Excellence Project

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Abstract

This Policy Brief addresses the concept of synergies arising from the two major EU funding sources (The European Structural and Investment Funds and Horizon 2020) in the context of the new *Stairway to Excellence* Project. This project is centred on the provision of assistance to Member States who joined in 2004, 2007 and 2013 in using innovation funding under ESIFs via the early and effective implementation of RIS3 with the aim of closing the innovation gap and promote scientific and technological excellence. This Policy Brief summarises the discussion and case studies presented at the launching conference of the *Stairway to Excellence* Project held in Prague in October 2014. This event offered a first opportunity to identify the key elements for building successful synergies and gave a useful insight into how synergies could be achieved in practice. A diverse set of experiences from five EU countries (Cyprus, Czech Republic, France, Spain, and the UK) and an international organisation were presented. In turn, this could be a source of inspiration for other regional and national managing authorities and the research community.

Keywords: Synergies, Research & Development, Innovation, Excellence, Horizon 2020, Framework Programmes, European Structural and Investment Funds, Smart Specialization.

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[a] The views expressed are purely those of the authors and may not in any circumstances be regarded as stating an official position of the European Commission.

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Executive Summary

The purpose of this policy brief is to provide a structured account of the proceedings from the launching conference of the *Stairway to Excellence* (S2E) project held in Prague on 2-3 October 2014. The findings from the conference can then act to inform the future work of the project.

The Stairway to Excellence (S2E) project
There are two main objectives of the project. The first objective is to provide assistance to Member States (MSs) who joined the EU in 2004, 2007 and 2013 in closing the innovation gap in order to promote excellence in all regions and at the MS level. The second objective is to provide assistance with the early and effective implementation of research and innovation strategies for smart specialisation (RIS3). The project is managed by the Joint Research Centre within the Smart Specialisation Platform (S3P), which assists EU countries and regions to develop, implement and review their Research and Innovation Strategies for Smart Specialisation (RIS3).

The concept of synergies
While the concept of synergies may have its most visible form in the combination of different EU funds it also has to encompass political, institutional, operational, and financial aspects. This effort then envelops a broader set of different objectives than just combining funds, such as: (1) improving the quality of governance of the national/regional innovation systems, in particular through strengthening cooperation between innovation actors through entrepreneurial discovery process and by teaming up different capacities in leading and lagging regions in interregional cooperation; (2) enhancing the impact of public investments on the regional economy and its research potential; (3) amplifying projects or initiatives by joining forces under different funds to generate critical mass; (4) strengthening cooperation between innovation actors and policies relevant for innovation; and (5) strengthening cooperation and complementarity across Europe by teaming up different capacities in leading and lagging regions based on their smart specialisation strategies.

Project launching conference
The conference to launch the S2E project provided an opportunity to analyse a variety of issues at the "coffee table" discussions. These were organised around six topics, related to ESIF support to non-funded proposals originally submitted to Horizon 2020, market take up of research results, capacity building, infrastructures, NCPs and managing authorities, and networking.

The second main forum for the discussion regarding synergies was the presentation of case studies from across Europe. A diverse set of experiences were presented from five EU Member States (Cyprus, Czech Republic, France, Spain, and the UK) and an international organisation with the main facility based in Sweden.

Findings from conference proceedings
The main issues identified when *funding Horizon 2020 shortlisted proposals with ESIF* are related to the different types of eligibility and evaluation criteria between the programmes and their different timeframes. One proposed solution was to have permanently open ESIF calls and for the European Commission to better align eligibility and evaluation criteria. Similar concerns related to coordination were evident in the discussion on *how to achieve the take up of FP/Horizon 2020 results into the market,* particularly between the different communities and the need for better dissemination of results. Coordination was again prominent for *capacity building and awareness*

rising to enhance participation into Horizon 2020 with the need to improve communication channels and remove "silo effects" so that data and information can be better shared.

The discussion on *funding R&I infrastructures with ESIF* emphasised that investing in such infrastructures in itself is not enough as there needs to be a coherent strategy that includes provision for human capacity building. A noted gap was that while Structural Funds are for upgrades and building and framework programmes are for researchers and projects it is not clear who funds the operational costs. The need to coordinate and break up "silos" was again to the fore when discussing *the role of NCPs and managing authorities in the fostering of synergies*. It was stated that Managing Authorities need a better understanding of FP/Horizon 2020 and the NCPs a better knowledge of the regional funding. The differences between the different communities were also mentioned in relation to *networking and the cross-border dimension of synergies*. In this instance it was stated that while academia is used to working in international consortia, regional and also national authorities are not. Furthermore, in order for cross-border activities to take place there will need to be a degree of alignment between the different regional operational programmes.

The case study examples from various countries highlighted the activities of stakeholders in tackling different innovation challenges by building on the different EU funding instruments available under the previous (2007-2013) and plans for the current programming period (2014-2020). These cases gave an insight into how synergies could be achieved in practice and could represent a source of inspiration for other regional and national managing authorities and the research community. Overall, it was clear from these examples that developing synergies is a process that is not only focussed on the combination of the different sources of money in a project or related projects. Furthermore, there are factors, particularly related to coordination, that need to be considered at different levels as outlined below.

- Governance level
    - Commitment to the process
    - Coordination among areas of government (different ministries, national and regional governments etc.)
- Strategic level
    - Use RIS3 as a framework
    - Improve coordination between different communities
    - Support infrastructure
    - Support network participation
- Implementation support level
    - Training
    - Support proposers
    - Dissemination of information.

Next steps

The findings will be used to guide the work of the project. This work will include a mixture of quantitative and qualitative analyses, and national and regional events.

1. Introduction

The European Structural and Investment Funds (ESIF) and Horizon 2020, when operating individually, provide significant support for research, development and innovation. Supporting synergies in their use and implementation may deliver additional gains in terms of innovation results, close the innovation gap in Europe and promote economic growth.

However, how to actively promote the combination of both funds is not straightforward given the different aims and nature of the funds. Moreover, the combination of various EU funding sources may appear complex due to different rules, eligibility criteria and timeframes (for calls, policy cycles, etc.) between EU-funded programmes. On the one hand, Horizon 2020 and the previous Framework Programmes for research and technological development (FP) provide funding on the basis of excellence (of individual R&D and innovation projects) through transnational competitive calls and direct awards to final beneficiaries (universities, research centres, firms, etc.) regardless of their geographical location. Horizon 2020 is managed directly by the European Commission through the production of work programmes (in consultation with Member States), the organisation of calls, the evaluation of proposals and the monitoring of project implementation. On the other hand, ESIFs are based on multiannual programmes aiming to reduce regional disparities with a non-competitive attribution based on strategic planning negotiation and awarded through shared management with national and regional managing authorities.

Despite their differences, there are also major complementarities and synergies that should be exploited. Horizon 2020 focuses on tackling major societal challenges, maximising the competitiveness impact of R&I and raising and spreading levels of excellence in the research base whereas ESIFs have reached the strongest concentration of funding on R&I activities in the current multi-annual financial framework 2014-2020 together with a strong emphasis on governance via the smart specialisation process and the definition of clear objectives on building knowledge and innovation capacity, supporting learning mechanisms and skills creation. The novelty of the Smart Specialisation contributes to this objective by providing an opportunity for Member States (MS) and regions to review deeply their strengths and weaknesses in innovation performance by means of a robust comparative methodology while identifying thematic areas where innovation potential could be increased by the concentration of investments from ESIFs and other innovation-related funding sources. However, this process is not quick, with complex interactions existing between different innovation actors. The successful deployment of a strategic perspective combining different funding instruments and policy frameworks (e.g. Smart Specialisation, EIPs, PPPs, EIT-KICs, etc.) may substantially contribute to boost competitiveness, welfare and growth in the regions.

In this context, the Smart Specialisation Platform of the European Commission's Joint Research Centre and DG REGIO jointly organised the launching Conference of the *Stairway to Excellence Project* (S2E). The event was held in Prague on 2nd and 3rd of October 2014 with the aim of raising awareness of the actions needed to enable synergies and to discuss the possibilities and share experiences of building synergies between EU funds in order to improve excellence in R&I systems.

The rest of this report is structured as follows. Section 2 describes briefly the concept of synergies. Section 3 describes the main outcomes of the discussions which took place at the Conference and proposes concrete recommendations on the basis of the discussions. Section 4 summarises the key elements for building successful synergies based on the analysis of the six case studies presented during the Conference. The final chapter highlights the main lessons and recommendations and proposes the main avenues to achieve the project objectives.

2. The concept of synergies

The call for better synergies reflects the need of a more efficient and effective use of available funding instruments to build sustainable long-term knowledge capacities and improve the overall quality of national and regional innovation system. The push to enhance synergies between funds provided the basis for the legislative novelties introduced in the current programming period. A Synergies Expert Group (SEG) was convened and published a report on this issue in 2011[1]. This report recommended the co-funding of activities using different funding sources while, at the same time, supporting a better alignment of policy instruments.

The basic principles defining the concept of synergies are described in the European Commission's guide "Ena*bling synergies between European Structural and Investment Funds, Horizon 2020 and other innovation-related Union Programmes*"[2]. Being policy makers and implementing bodies the target audience of the guide, it offers operational information on the regulatory scope for synergies together with (1) an overview of differences and communalities between relevant EU programmes and (2) practical scenarios and guidance for generating synergies between ESIFs and selected project types for research, innovation and competitiveness under directly managed EU instruments.

More specifically, synergies can be achieved by sequential and/or simultaneous use of funds. The sequential use of funds refers to both "upstream knowledge capacity" (i.e. ESIF investment enabling Horizon 2020 participation) and "downstream actions" (i.e. ESIF investment used for a better exploitation / dissemination of results from FP/H2020 projects). Examples of these actions include JPIs, ESFRI, Article 185 TFEU and public procurement initiatives.

To fully exploit the synergies better communication between the "regional development community" and the "Horizon-Science community" is needed, as well as better and more strategic coordination on both sides.

The concept of synergies and smart specialisation are closely linked via the Entrepreneurial Discovery Process[3]. This process emphasises learning as a key element to select R&D+I as well as non-technological activities in which a region can hope to emerge by building on its own comparative advantages. RIS3 should be developed by making operational the Entrepreneurial Discovery Process. In turn, this involves the contribution of all relevant stakeholders (business, research institutes, civil society etc.) to the work performed by the Managing Authorities. Also, the authorities responsible for the implementation of Horizon 2020 calls are required to be associated to the Entrepreneurial Discovery Process. The essence of this process lies in its interactive nature that brings the different actors together in a participatory leadership process to carve out jointly the smart specialisation fields and develop a suitable policy mix to implement it.

[1] European Commission (2011).
[2] European Commission (2014)
[3] Please refer to Annex 3 of the RIS3 Guide available at:
http://s3platform.jrc.ec.europa.eu/documents/10157/72857/RIS3%20Guide%20new%20annex%20III%20FINAL%20May2013.pdf

3. Key elements for Building Successful Synergies: analysis of stakeholders discussion

In the course of the Conference, parallel '*Coffee-Table*' participatory sessions hosted conversations on the concrete questions and issues identified during the previous sessions. The following six key issues were identified and discussed in detail:

- Funding Horizon 2020 shortlisted proposals with ESIF.
- How to achieve the take up of FP/Horizon 2020 results into the market.
- Capacity building and awareness rising to enhance participation into Horizon 2020: human capital.
- Funding R&I infrastructures with ESIF.
- Smart specialisation strategies: the role of NCPs and managing authorities in the fostering of synergies.
- Networking and the cross-border dimension of synergies.

The results of the open discussion at each coffee-table session and the concrete recommendations proposed are described in the following sub-sections.

3.1 Funding Horizon 2020 shortlisted proposals with ESIF

The topic for discussion was related to funding those Horizon 2020 proposals that may be positively evaluated but for which there is not sufficient funding. The two guiding questions for the discussion were:

- How these Horizon 2020 proposals should be treated within the scope of the Operational Programme (OP)?
- Should there be a fast-track selection process with a permanently open ESIF call in order to select Horizon 2020 proposals or should the proposal be submitted within the standard calls and then treated preferentially?

The actual discussion was framed around the H2020 support to innovative SMEs' close to market activities and focused on three key questions: (1) market opportunity; (2) company potential; (3) assessment of the quality of the solution and feasibility of the solution. If the three criteria are fulfilled, the SME can receive the label of excellence. In the second stage the EU added value is also assessed.

The discussion highlighted the issue of the actual implementation of such a funding process and the difficulties around the need to adhere to legal and administrative requirements in the countries and the different processes related to different EU funding programmes. In particular, difficulties were indicated on the different eligibility and evaluation criteria between funding programmes. For instance, while Horizon 2020 overall focus is on excellence with respect to the objectives of the call (which may go beyond research and include factors supportive to e.g. innovative SMEs), this may not be the most compatible criteria for a specific ESIF call. Furthermore the shortlisted Horizon

2020 proposals that did not receive funding may not comply with the selected RIS3 priorities of a given region. This issue of the consortium highlights another problem since the majority of Horizon 2020 is based on consortia from different countries while ESIFs do not allow securing funds for those partners outside the region (beyond the 15% rule).

Other issues related to the implementation refer to different timeframes for calls under H2020 and ESIF. Moreover, the language of proposals for national programmes is normally the national language while proposals are written in English when submitted to Horizon 2020 calls. Finally, with regard to the specific SME example it was stated that very few SMEs from the EU13 are funded or even shortlisted for funding.

Overall it was felt that the most feasible option was to have a permanently open ESIF call. However, this could be problematic for the ESIF managing authorities given the uncertainty of the budget to be allocated. There would also be a need for the alignment of eligibility and evaluation criteria. However, the alignment of requirements may trigger complaints from applicants to ESIF who are already facing significant bureaucratic challenges. There is also a need for ESIF managing authorities to improve their evaluation system with the help - for instance – of a European pool of evaluators.

Finally, it was mentioned that the identification of proposals shortlisted in Horizon 2020 calls and not falling under any regional S&T priorities could eventually lead to a re-design of the strategy since the RIS3 is an ongoing and evolving process.

3.2 How to achieve the take up of FP/Horizon 2020 results into the market

The objective of this table discussion was to share ideas and practical experiences on the use of ESIF to convert FP7 / Horizon 2020 results into marketable applications with economic value (the so called *downstream* activities).

The combination of ESIF and FP7 / Horizon 2020 funds through consecutive funding of projects to achieve such market oriented results raises different questions:

- How will the coherence with smart specialisation strategies be treated in this case?
- What kind of links between managing authorities and NCPs are most suitable to inform managing authorities about successful FP7 / Horizon 2020 projects falling within RIS3 and the relevant OP?
- Is a tracking system to determine call the evaluation success rate and funding rate at the national level appropriate and feasible?

The main concerns raised during the discussion emphasised issues about the coordination between the two funding programmes. A particular concern was the ability of managing authorities to monitor the success of participants from their region, understand the results from the projects and provide assistance in transforming project output into a practical market oriented application. Particular issues commented upon were:

- The accessibility of FP7 project results at the regional level. Information concerning FP7 / Horizon 2020 is provided by the EC to programme committee representatives at the

national level. Those representatives are individually committed to confidentiality rules and do not have enough resources to fully exploit the results and disseminate to regional authorities.

- The role of FP7 / Horizon 2020 National contact points (NCP) is only focussed on their specific programme and not on the other types of funding (see discussion on this particular topic in Section 3.5).
- Regions are facing difficulties monitoring the participation of their stakeholders in FP7 / Horizon 2020. It is clear that NCP networks have a crucial role and should have a clear mandate to link with regional authorities and ESIF. However, there is an inherent heterogeneity as the organisation of NCP systems depend directly on the MS and the mode of implementation will vary between countries. In order to improve the utility of the results from FP/H2020 funded projects the EC should explore way to improve their dissemination.

3.3. Capacity building and awareness rising to enhance participation into Horizon 2020

The objective of this discussion was to share practical experience on combining ESIF funds and competitive funds with a particular focus on building capacity (including human capacity) and raising awareness so as to enhance participation in Horizon 2020 for those in EU13. The broad questions used to frame the discussion were:

- What support will be provided to increase the success of proposals?
- Are you going to use ESIF (or other funds) to build capacity and raise participation in Horizon 2020?

While it is generally felt to be enough awareness of the importance of building synergies, there is often a lack of support for the participation in calls prior to the proposal submission at the institutional level. This could point to the need of training resources to boost the management of research and innovation activities at the institutional level. At the ministry level, there is a need to establish better communication channels between the unit coordinating structural funds and the National Contact Points for Horizon 2020. It is also important for data to be shared among different units within the same ministry in order to coordinate procedures in an effective way. The so called "silo effect" can therefore be fairly local and the capacity to develop synergies is improved if such barriers are removed.

Some of the major issues raised by the participants were cross-cutting in nature and were present in discussions under other topics such as eligibility rules, auditing, and timing. It is important to address differences in terms of application rules and eligibility criteria, e.g. research consortia composition and content, structure and length of the proposals as well as language of the proposals. The timing of national calls (managed by managing authorities) and competitive funds (managed by EU institutions) differs and this is linked to the issue of call publication and management. The opinion of auditors on fund combination is unknown and it is not clear how they will proceed in the future. The issue of language was also highlighted, while FP proposals have to be submitted in English language proposals submitted under ERDF calls are in the local language.

A particular issue is related to those countries that are associated to FP7. These countries are not EU Member States and therefore are not eligible for ERDF. In such cases synergies need to be found with other non-ERDF funding sources.

Awareness raising and better coordination were considered important for helping to improve human capital. Human capital was also discussed not just in terms of research and innovation activities but also in terms of support that can be given to such activities. Institutional awareness campaigns and grant support schemes were considered very useful. As an example, a new prize "Spreading good name of research" is awarded to Czech researchers for their excellent achievements in the international arena. Communication between NCPs and ERDF managing authorities needs to be improved especially in terms of data sharing. For instance, it was mentioned that access to data on FP participation and success rates would be greatly appreciated.

3.4 Funding R&I infrastructures with ESIF

The focus of this discussion was the use of ESIF to build capacity at national and regional levels by investing in Research and Innovation (R&I) infrastructures. It can be assumed that the region that benefits from such investments become a more attractive partner for potential FP7/Horizon 2020 consortia and for excellent researchers from around the world. However, the infrastructure itself does not guarantee the capacity building process which should take into consideration other elements.

In this context, the development of RIS3 was recognised as a key element since R&I infrastructures should be coherent with the general regional/national strategy, and. The key stakeholders must agree upon a shared understanding of the infrastructure uses, scientific and technical requirements, financial schedule and costs. By doing that, the risk of having inefficient or empty facilities is minimised.

Based on participants' experience on the use of ESIF to support R&I infrastructures the following issues were highlighted:

- A comprehensive cost planning and accounting system based on a good understanding of type of cost elements and eligibility criteria is always needed but even more when different funding sources are being combined. While Structural funds are for upgrades and building the facilities and Framework Programme / Horizon 2020 is for funding researchers and research projects, it is not clear who funds the operational costs. These operating costs (personnel, material, electricity, etc.) are very important to assure the optimal use of the facility and for its sustainability. A cost-benefit analysis of R&I infrastructure should be done to guarantee a fully functional infrastructure.
- An issue that was particularly important for small countries is the loss of sovereignty over their facilities and the perception that they do not get back much in return. The infrastructure itself is not enough for creating capacity and thus the host country of the facility should be able also to put in place capacity building measures for the sustainability of the infrastructure and to make it attractive for other partners.
- The main aim of the procurement process should make best use of the internal and external knowledge and expertise. However, public procurement rules could be a problem in some countries since they are too generic and do not take into account the specificities of

the research undertaken. The procurement for R&I infrastructures has to deal with a large range of supplies with their own specificities and, thus, these different types of supplies would require different procurement approaches.

- Research infrastructures need the appropriate people but not just researchers. There are three main categories required for the operation of an infrastructure: researchers, public procurement specialist and managers. The management team of the infrastructure must have the necessary specified competencies, including research experience, project management and technical skills. The governance structure of the facility should be clearly defined from the start. They should have a long-term plan for scientific goals, maintenance, financing and utilisation.

Two main recommendations on two different aspects, financial cost and management, came out of the discussion:

- Given the multi-country approach and a multi-funding instrument approach of these types of activities, a basic framework for cost model alignment (including information on eligibility criteria) between different funding instruments at European and national levels would provide a great help. Further assistance on how to interpret rules between different countries would be also welcome.
- The importance of having a good management team and governance should be recognised. Managers should be provided with the necessary competences to determine a sound governance structure, with clear lines of authority and responsibility.

3.5 The role of NCPs and managing authorities in the fostering of synergies

This discussion focussed on the two organisations involved in assisting in the practical implementation of the programmes: Managing Authorities (MAs) for ESIF and National Contact Points (NCPs) for FP7/Horizon 2020. Both communities have traditionally addressed different target groups and their knowledge on the other community has been limited. In the context of enhancing synergies, both players should work in a more aligned manner and thus should communicate and coordinate better.

As a general concern, it was mentioned that NCPs could play a better role but to do that they would need a wider knowledge of the Operational Programmes, macro-regions and other related issues to be able to help further and to suggest synergies with national programmes and strategies. Specialised training and the possibility to attend seminar and peer-review workshops would increase their expertise.

Some practical approaches to break up 'silos' and to help NCPs and MAs to better communicate were discussed. Three recommendations were proposed:

- Development of a tracking system at national level to collect and share information. There was a general consensus about the relevance of having access to the right information and being constantly informed about progress in EU-funded Research Development and Innovation (RDI) initiatives. It could be interesting to get examples of different MSs and how

they overcome the 'silo effect'. It would be necessary to have an overview of what is possible (data base, track proposal, etc.).

- Exchange of good practice examples, the creation of a neutral body to build trust or a coordination body at national level were pointed out as possible solutions to improve communication and align actions.

3.6 Networking and the cross-border dimension of synergies

This discussion focused mainly on the identification of bottlenecks that reduce the effectiveness of the joint use of EU funds and inhibit cross-border cooperation. The main bottlenecks identified by the stakeholders are as follows:

- Institutional resistance in some countries and regions to participative in cross-border funding by different countries and funding sources. Conservative approaches and resistance to change makes some institutions unable to adapt in a flexible manner to new requirements and demands. In this respect, it was also recognised that a lack of competences of human resources in some organisations. The professionalization of institutions will make these organisations more adaptable and more willing to open and cooperate.

- The so called 'silo effect', also mentioned in previous sub-sections, is present in most governance systems at national and regional level, which implies a lack of communication between different departments and organisations. It would be necessary to work towards the transformation of the mind-set of people towards cooperation.

- While academia is used to collaborating in international consortia, regional and national authorities have worked historically in their own territory. Opening up of R&I national programmes to foreign researchers was also recognised as a clear barrier, especially in terms of political resistance and legal and regulatory barriers to the cross-border flows of funds. Hence, it is important to convince Managing Authorities that it is to their benefit to be opening-up and collaborating.

- Alignment of OPs or roadmaps will be required to facilitate cross border initiatives. Alignment should somehow happen through the selection of priorities in the RIS3. However, some practical cases, such as the Adriatic regions, show that there is no alignment between regional priorities in RIS3.

- Political cycles sometimes make it difficult to have long term perspectives and continuity which prevent the production of consistent roadmaps.

Three main practical recommendations were proposed to encourage national programmes to cooperate in cross-border research:

- The development of RIS3 should be done looking at other similar regions and not only at the home territory. All RIS3 should incorporate the cross-border dimension as a result of meetings and discussions with neighbour regions. .

- The systematic analysis of existing INTERREG projects could be a good starting point to enlarge cross-border collaboration and synergies.

- A few operational steps could be put in place at the national/regional level: a) Identification of consortium with a good proposal but not selected in Horizon 2020 calls (see section 3.1), b) put together joint programmes at regional and national level, and c) allow researchers from outside the regional/country to participate in the national projects.

4. Key Elements for Building Successful Synergies: case study analysis

The conference also provided an opportunity to present and analyse a variety of case studies across Europe. They were selected through a call for expression of interest through the S3 Platform established by DG Regional Policy and managed by the Joint Research Centre in Seville[4].

These cases gave an insight into how synergies could be achieved in practice by different levels of implementation bodies and could represent a source of inspiration for other regional and national managing authorities and the research community. They showed a diverse set of experiences from five EU countries and one European facility: Cyprus, Czech Republic, France, Spain, the UK and the European Spallation Source. Brief explanations of the case studies are given below.

Cyprus

The Cyprus Institute is comprised of 3 research centres focused on challenging problems of relevance to the Eastern Mediterranean Region and beyond, and as such maintains strong partnerships with internationally recognised institutions. In some cases funding has been achieved through a combination of EU Structural and Research funds. One case involved the use of ERDF in the construction of an experimental Concentrated Solar Power plant. Based on this facility, the Cyprus Institute participated in STAGE-STE (Scientific and Technological Alliance for Guaranteeing the European Excellence in Concentrating Solar Thermal Energy), funded under FP7.

Another case is related is in the area of high-performance computing, with the Cy-Tera supercomputer that received initial funding through the Structural Funds. This facility has led to participation in an FP7 project called "Linking Scientific Computing in Europe and in the Eastern Mediterranean (LinkSCEEM)" and allowed Cyprus to become a member country in PRACE (Partnership for Advanced Computing in Europe), which is part funded by FP7.

Czech Republic

The construction of the IT4Innovations National Supercomputing Center was support by Structural Funds, PRACE and national budget. The centre has participated in the European Network of Excellence on High Performance and Embedded Architecture and Compilation (HiPEAC), PRACE and was also successful with a proposal to the FP7 Exascale computing platforms, software and applications call in 2013.

The Global Change Research Centre was based on the Structural Fund supported project CzechGlobe – Centre for the Global Climate Change Impact Studies. The CzechGlobe project issue is focused on the basic thematic segments of the global change impacts, i.e.: Atmosphere, Ecosystems; and Socio-economic systems. The centre has participated in European Strategy Forum on Research Infrastructures (ESFRI) related projects and Framework Programme projects.

[4] The presentations of the case studies are available at: http://s3platform.jrc.ec.europa.eu/launching-conference

France
The Alsace Europe Network for Research and Innovation presented examples of combining ESIF and other EU funds. All the examples underline the key role of communication between research communities, business and regional authorities, which is in fact promoted by the region.
The case of Rhenovia Pharma, a young biotech company, demonstrated how the Structural Funds were used to develop a bio-simulation platform. The expertise developed in bio-simulation was then applied in FP7 projects on the application of filtration technology and the application of bio-simulation. The company also participated in a Eurostars project.

Another example described the LEAD ERA project, an FP7 ERA-NET aimed at fostering the coordination of a series of trans-regional programmes dedicated to research and innovation within the themes of the EU Lead Market Initiative. Following a common call for proposals, the Basque Region in Spain and Alsace supported the project KeepHealthyKids using Structural Funds.
In a third example the Region a combination of funds were used over a 15 year period to establish a regional policy for energy efficiency in buildings. The ERDF supported an energy efficiency promotion programme, while CIP co-financed complementary innovative training schemes and an innovative financing mechanism that allows considerable up-scaling of thermal renovations.

Spain
The CDTI is the Centre for the Development of Industrial Technology and is the Spanish public funding body for business research and development, and innovation. It is also the Spanish representation in international programmes including the framework programme NCPs and programme committees. One of its objectives was to increase Spain's participation in and economic return from FP7 to equal its economic weight within the EU. Therefore the challenge was to increase the number of funded projects.

One action that was implemented was support to project offices in organisations that included providing support for the preparation of proposals and project management, financial and administrative management, legal issues: consortium agreements and IPR, and impact analysis. Besides project offices they also supported courses and short stays in Brussels, and provided grants for proposal preparation. It was argued that such measures can be adopted by Member States and regions under their ESIF Operational Programmes. It is also important to improve the coordination between Horizon 2020 NCPs/national managers of international R&D programmes and regional actors promoting and financing R&D and Innovation.

UK
The Scottish Government presented their approach to building synergies between Horizon 2020 and ESIF into programme design. This involved a process to achieve a strategic focus by consulting and collaborating extensively and working within the framework of the smart specialisation principles. This has included identifying areas where the combination of Horizon 2020 and ESIF could have an impact on competitiveness, growth and jobs.

Furthermore, direct engagement with business includes ESIF supported programmes that have academics support businesses in applying to Horizon 2020 (academics have traditionally been more successful in framework programmes) and identifying suitable businesses for the SME Instrument of Horizon 2020. Indirect engagement with businesses includes building innovation management

capacity and a new ESIF programme that includes the use of the IMProve[5] assessment process and building a culture of innovation in the business that values Horizon 2020.

European Spallation Source (ESS)
The ESS is a European project with 17 Partner Countries. Sweden and Denmark are the hosts with the main facility to be built in Lund, and the Data Management and Software Centre in Copenhagen. The construction phase and co-financing will be achieved through in-kind contributions from partner countries. ERDF funded programmes have been a source of in-kind contributions. The ESS has applied to become a European Research Infrastructure Consortium (ERIC). The ESS could be an important partner in Horizon 2020 projects. This case highlights the way that authorities in other countries can work together and utilise ERDF to develop an infrastructure.

Another case was also highlighted using an FP7 ERA-NET. The MANUNET ERA-NET is a combination of regional and national agencies that use their own funding programmes to fund manufacturing research and development projects performed by companies (preferably SMEs), research centres and universities. A specific project was highlighted whereby a firm developed its expertise as an aeronautics gearing provider. This demonstrates how regional and national authorities can coordinate leading to tangible applications.

Summary of key elements for developing synergies
The case studies provide some key elements for building successful synergies that can be grouped into broad levels and themes. This structure for key elements of synergies is at different levels of aggregation (government, strategy and implementation) that highlight the fact that synergies are not just about combining different funding sources. There is a need for high level support, well thought out strategy and practical measures to assist in the implementation. These key elements are outlined below.

Governance level

Commitment

- An initial strong political commitment is needed at national and regional level.
- Creating synergies through parallel or consecutive projects requires a clear long-term vision and support to all projects through the whole value chain.

Different governance communities

- A lack of coordination between regions and national governments impedes accessing all potential participants. Such a lack of coordination also applies to different policy and research communities as indicated below.

Strategic consideration level

RIS3 provides a good strategic framework

- Effective synergies require a strategic orientation when using ESIF and Horizon 2020 in projects and programmes of significant scale and scope. The RIS3 is a good framework to

[5] https://www.improve-innovation.eu/

guide this process and to select a number of limited priorities to help countries and regions to be more strategic.

Improve coordination between different communities

- Improving communication between the research communities and managing authorities of Structural funds is a fundamental concern. In order to put into practice successfully any of the synergies, the research community needs to better understand how to apply to ESIF funds and better understand the regional priorities, while regional authorities should be able to identify excellence and potential projects to be combined.
- Communication and coordination of funding agencies and end beneficiaries are natural ways to overcome *silo thinking* and cultural differences among stakeholders. ESIF could be used to reinforce cooperation, communication and coordination between these two groups.
- Bringing together academia, research institutes, business and regional authorities is important towards an effective common strategic approach to R&I investments in areas where combining Horizon 2020 and ESIF could lead to a greater impact on competitiveness, growth and jobs. Thus, downstream activities should be also considered and thus reinforce market development of innovative products and services.

Support infrastructure

- ESIF can be used to build strategic infrastructures and attract top researchers and participate in international projects such as those of Horizon 2020.

Support network participation

- Having top research infrastructure and people needs to be coupled with participation in international research networks and research visibility. In order to do so, leveraging structural funds to build effective research infrastructure may help to secure participation in large-scale EU funded projects.
- ESIF could help to improve the regional/national innovation system by building capacity of SMEs to innovate successfully through incentives to connect academia and industry to create growth and to facilitate networking between innovation actors.

<u>Practical support level</u>

Training

- In some regions there is a lack of qualified professionals in research and innovation management and thus there is a need for specialised training for managers in project offices in universities, managing authorities and other organisations.

Support to proposers

- Linked to the training issue, implementing such support for business, universities, research groups, innovation agencies and other relevant organisations can help to improve participation by professionalising the management of international projects or providing grants to cover proposal preparation expenses.

Information dissemination

- Coordination of public support and the provision of tailored information are essential. It is important to streamline information on different funding schemes for potential beneficiaries.

5. Conclusions and next steps

The launching Conference provided valuable feedback and practical experience on how to achieve synergies in the combination of EU funding sources in R&I. As a result of the discussions and the practical experiences presented it is possible to draw some lessons by summarising some of the key synergies-enhancing elements which emerged from the discussion. Overall the following lessons demonstrate that the concept of synergies is not just about combining funding schemes. There is a need to have the appropriate governance structures, well thought out strategy, coordination between different actors and support for implementation. Furthermore, all these elements can be beneficial, creating different kinds of synergies even before implementing funding synergies through the combination of different EU funds.

- *An initial strong political commitment is needed at national and regional levels, as well as a strategic orientation, when using ESIF in projects and programmes of significant scale and scope*. The RIS3 is considered a good framework to guide this process and to select a number of limited priorities which would help the process to be more strategic.

- *Bringing together academia, research institutes, business and regional authorities*. This is a key element towards a common strategic approach to invest in areas where combining Horizon 2020 and ESIF could lead to a greater impact on competitiveness, growth and jobs.

- *Improving the communication between the research communities and managing authorities of Structural Funds*. The research community needs to better understand how to apply the European Structural and Investment Funds (ESIF) and better understand the regional priorities, while regional authorities should be able to comprehend and identify excellence and potential projects to be combined.

- *In many cases, the lack of coordination between regions and national governments is impeding the ability to reach effectively all the potential participants*. Different areas of government and different sectors can have different organisational cultures. Coordination of funding agencies and end-beneficiaries are natural ways to overcome the cultural differences among stakeholders. ESIF could be used to reinforce cooperation, communication and coordination between these groups of actors.

- *ESIF should aim at building strategic infrastructures as well as attracting the top researchers*. Leveraging structural funds to build infrastructures will in turn leverage the participation in large-scale European funded projects.

- *ESIF could be used to reinforce cooperation and take up high quality project proposals that were not funded in H2020*.

- *ESIF could help to improve the regional/national innovation system* by building the capacity of SMEs to innovate successfully, incentives to connect academia and industry to create growth and to facilitate networking between innovation actors.

- *Coordination of public support and the provision of tailored information are essential*. Streamlined information on different funding schemes should be provided to potential beneficiaries.

- *As part of the building capacity strategy, a combination of measures should be taken with a short, medium and long term perspective*: (a) specialised training to have qualified professionals in project offices in universities, evaluating agencies and managing authorities. (b) Direct support to stakeholders (business, universities, research groups, innovation agencies, etc.) to provide a way to improve participation, and (c) creation of structures with a long-term view, such as creating international projects offices).

- *Ultimately, creating synergies through parallel or consecutive projects requires a long-term consistent vision/approach and support to all projects along the whole value chain.*

To further investigate the lessons highlighted at the event in Prague and to develop, the recommendations proposed by the stakeholders, activities will be developed within the framework of the S2E Project. These activities will include analyses and events as outlined below:

- The project will develop a series of analytical outputs accommodating lessons from the conference and research undertaken by the project team. Tailor-made events will also be organised on specific topics relevant to the issues related to synergies.

- More case studies will be identified and analysis undertaken to illustrate the potential for different instruments and initiatives across Europe to achieve excellence by promoting synergies between funding sources. Different cases covering all the possibilities conceived in the legal framework explained in the European Commission's guide on enabling synergies will be selected. Moreover, the cases will not only focus on the combination of ESIF and Horizon 2020 but also with other EU programmes included in Annex II of the guide. These cases could serve as inspiration for similar Member States or regions aiming at developing their own programmes and improving their governance systems.

- Workshops and meetings at national and regional level will be organised to tackle concrete issues and to facilitate deeper discussions and networking between stakeholders. These workshops would be considered as an opportunity to demonstrate motivations and barriers in terms of achieving successful upstream and downstream activities. Moreover, these exercises will take account of the existing platforms and initiatives (e.g. EIPs, KICs, Knowledge Alliances, Cluster Projects, JTIs, ETPs, and Lead Market Initiatives etc.).

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Title: **Synergies between EU R&I Funding Programmes. Policy Suggestions from the Launching Event of the Stairway to Excellence Project**

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Abstract
This Policy Brief addresses the concept of synergies arising from the two major EU funding sources (The European Structural and Investment Funds and Horizon 2020) in the context of the new Stairway to Excellence Project. This project is centred on the provision of assistance to Member States who joined in 2004, 2007 and 2013 in using innovation funding under ESIFs via the early and effective implementation of RIS3 with the aim of closing the innovation gap and promote scientific and technological excellence. This Policy Brief summarises the discussion and case studies presented at the launching conference of the Stairway to Excellence Project held in Prague in October 2014. This event offered a first opportunity to identify the key elements for building successful synergies and gave a useful insight into how synergies could be achieved in practice. A diverse set of experiences from five EU countries (Cyprus, Czech Republic, France, Spain, and the UK) and an international organisation were presented. In turn, this could be a source of inspiration for other regional and national managing authorities and the research community.

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