Stairway to Excellence.
Analysis of the key success factors and barriers on building synergies between ESIF and Horizon 2020

Andrea Conte, PhD
Project Leader,
European Commission, DG JRC
Brussels, 17/02/2016
Rationale

• Supporting synergies in the use of two EU funding sources (ESIF & Horizon 2020) may deliver additional gains in terms of:

  ➢ innovation results
  ➢ close the innovation gap in Europe
  ➢ promote economic growth

• The overall political rationale of identifying synergies between ESIF, H2020 and other R+I programmes is to maximize impact and efficiency of public funding.

• Innovation funds increased under cohesion policy from 6% of the funds in the 2000-06 period to around 25% in the 2007-13 period

• Roughly 9% of the public spending on R&I in the EU came from the EU budget, divided almost equally between the 7th FP & the ESIFs
Objectives

• S3P supports MSs & Regions to design and upgrade their RIS3 by identifying a limited number of R&D and industrial activities with high innovation potential.

➢ This innovation potential may be further reinforced & developed by using ESIFs in order to make catching-up MSs & regions more competitive in spatially blind & excellence-based H2020 calls.

➢ Beyond a stronger innovation generation capacity, there is room for increasing the innovation absorption capacity by new MSs in the context of past FP projects.

• The project has two main objectives, namely:

➢ The provision of assistance to EU13 to enhance the value of these two EU funding sources for R&I by promoting their combination;

➢ Stimulating the early and effective implementation of national and regional Smart Specialisation Strategies.
Smart Specialisation Platform

Created in 2011 to provide science-based professional advice to EU national and regional policy-makers for the establishment and implementation of their Research & Innovation Strategies for Smart Specialisation (RIS3), make better use of the European Structural and Investment Funds (ESIF) and thus contribute to the Europe 2020 goals.

A privileged perspective:

Outside the Commission - Support to countries and regions developing and implementing their RIS3 and to their "triple/quadruple helix" partnerships

Inside the Commission - Support to DG REGIO and other policy DGs

In the scientific community - Contribution to the conceptual and methodological debate around smart specialisation
Some key data

- Wide membership: 169 regions + 19 countries
- Strong endorsement by national/regional policy makers: average 4.5/5 satisfaction rankings (86% rankings at least 4/5; 100% at least 3/5)
- High “loyalty rate”: > 50% of regions attending workshops come back
- Political endorsement at EU level: EC (Hahn, Cretu), EP (Winkler, Van Nistelrooij, Buzek), CoR (Markkula), Council (Van Rompuy)
Main activities of the S3 Platform

- Trans-national focus
- 75 Peer Reviews
- Peer eXchange & Learning
- Thematic focus on actors, process, common features and priorities
- Synergies ESIF-H2020
  "Stairway to excellence"
- Support to lagging regions
- Interactive web tools
- Value chains and alignment of innovation roadmaps
- RIS3 assessment and support to REGIO desks
- Focused approach on digital growth (CONNECT) and energy (ENER)
- Guidance and analysis: RIS3 Guide;
  Digital Agenda Toolbox;
  S3 publications;
  S3 Seminar Series on Territorial Development
- Eye@RIS3
- "Focused approach on digital growth (CONNECT) and energy (ENER)"
Knowledge base

Policy Briefs and Working Papers
The S3 Policy Brief Series targets policy-makers and practitioners and provides succinct analysis leading to policy recommendations. The S3 Working Paper Series is more oriented towards an academic audience (but not exclusively).

S3 tools
S3 Guidance and Repository of RIS3 Examples;
"RIS3 Assessment Wheel": on line tool to be used by regional/National policy-makers to position their RIS3 Benchmarking Regional Structure: an interactive tool to identify reference regions based on structural similarities

EYE@RIS3: on line mapping tool/database on regions' RIS3 priorities
EU Trade: mapping tool based on imputed bilateral trade flows between NUTS2 regions that allows to assess the competitive position of regions in the European trade network

ICT Monitoring: on line mapping tool/database on regions' Digital Agendas investments

S3 Peer review
Methodology: development of a methodology to foster transnational mutual learning and cooperation
Peer review Feedback Reports: 75 Feedback Reports

Ad-hoc evaluation
Answering to specific requests from regions/MSs and DG REGIO
Attending consultations and ad hoc requests promptly and efficiently
Policy impact?

"The smart specialisation programme of the European Commission is currently the biggest experiment in innovation and industrial policy in the world and possibly the biggest ever undertaken."

Y. Kuznetsov (World Bank), C. Sabel (Columbia University) [2016 forthcoming]

Smart specialisation beyond the EU

Gaining interest in ...
- Norway and Serbia (at national and regional level)
- EU Candidate and neighbourhood countries (Turkey, Ukraine, Tunisia...)
- Australia, South Africa
- Latin America (Chile, Brazil, Peru, Mexico)
General macro-economic indicators

<table>
<thead>
<tr>
<th></th>
<th>EU13*</th>
<th>EU15</th>
<th>EU28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>105 127 027</td>
<td>401 484 800</td>
<td>506 611 827</td>
</tr>
<tr>
<td>GDP - Euro per capita</td>
<td>10 417</td>
<td>29 000</td>
<td>25 700</td>
</tr>
<tr>
<td>GDP - Euro per capita in % of EU average</td>
<td>40.5</td>
<td>115.3</td>
<td>100</td>
</tr>
<tr>
<td>R&amp;D expenditure – Total (million Euro)</td>
<td>11 521.81</td>
<td>260 036.97</td>
<td>271 558.78</td>
</tr>
<tr>
<td>R&amp;D expenditure – Total [% of GDP]</td>
<td>1.05</td>
<td>2.09</td>
<td>2.01</td>
</tr>
<tr>
<td>R&amp;D expenditure - Business Enterprise Sector (BES) [% of GDP]</td>
<td>0.54</td>
<td>1.34</td>
<td>1.28</td>
</tr>
<tr>
<td>R&amp;D expenditure - Government Sector (GOV) [% of GDP]</td>
<td>0.23</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>R&amp;D expenditure - Higher Education Sector (HES) [% of GDP]</td>
<td>0.27</td>
<td>0.49</td>
<td>0.47</td>
</tr>
<tr>
<td>R&amp;D expenditure - Private non-Profit Sector (PnP) [% of GDP]</td>
<td>0.004</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>R&amp;D Personnel** – Total (% of active population)</td>
<td>0.62</td>
<td>1.25</td>
<td>1.12</td>
</tr>
<tr>
<td>R&amp;D Personnel – BES (% of active population)</td>
<td>0.25</td>
<td>0.69</td>
<td>0.60</td>
</tr>
<tr>
<td>R&amp;D Personnel – GOV (% of active population)</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>R&amp;D Personnel – HES (% of active population)</td>
<td>0.22</td>
<td>0.39</td>
<td>0.36</td>
</tr>
<tr>
<td>R&amp;D Personnel – PnP (% of active population)</td>
<td>0.002</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Unemployment Rate***</td>
<td>9.9</td>
<td>9.50</td>
<td>9.60</td>
</tr>
</tbody>
</table>
General macro-economic indicators

Real GDP per Capita, 2005=100
General macro-economic indicators

Real R&D per Capita, 2005=100

- Bulgaria
- Czech Republic
- Croatia
- Lithuania
- Malta
- Romania
- Slovakia
- Cyprus
- Estonia
- Hungary
- Latvia
- Poland
- Slovenia
Share of EC FP7 contribution received between 2007 and 2014 (starting from FP6)
Regional R&D Intensity

Regional R&D Intensity as a % of GDP
5 Country Groups

Source: JRC/PTS
Funding Distribution of 7th FP and SFs

Source: JRC/IPTS

5 Country Groups

FP-based R&D Intensity as a % of GDP

SF-based R&D Intensity as a % of GDP

Source: JRC/IPTS
Four potential cases of combined funding (2014 COM Guide on Synergies):

1. **Joint or simultaneous funding**: Different funding sources in the same project e.g. H2020 money and ESIF used together to fund different cost items within a single project. ESIF could also be used for some "complementary" funding (cost items eligible under ESIF but not under H2020).

2. **Sequential funding**: separate successive and legally/financially not linked projects with alternating H2020 or ESIF support. This is an easier way to combine funds with less risk of (involuntarily) creating double funding scenarios. **Sequential funding can go in both directions**: capacity building (e.g. raising readiness to participate in H2020) and/or innovation exploitation (e.g. exploitation of H2020 results, learning tools, cooperation models etc. developed in Erasmus+). Funding of one phase does not guarantee a funding of the subsequent phase.

3. **Additional/parallel funding**: ESIF money is not directly linked to a H2020 project, but a regional/national authority decides to fund a project to enhance the impact of a H2020 R+I project or Erasmus+ or COSME in its region (i.e. skills development or capacity building or for amplifying the impact of Joint Technology Initiatives).

4. **Alternative funding**: ESIF money could be used for project proposals with a positive evaluation under H2020 or Erasmus+ that could not be funded due to a lack of H2020 funds under the call (i.e. SME instrument projects from a single country / projects submitted under the Fast Track to Innovation pilot scheme). These proposals could be reoriented towards ESIF requirements and submitted at national/regional level, if this type and topic of project fits into the OPs of the concerned territories.
S2E Rationale & Case Studies

Horizon 2020
- Frontier research (ERC, FET)
- Collaborative research projects
- Individual and/or collaborative research projects
- Key enabling Technologies
- Knowledge innovation communities
- ERA-Net, JPI, EUROSTARS...
- Marie Curie actions
- Public-private partnerships
- Prizes
- Demonstration Pilots
- SME Instruments
- Knowledge transfer
- Procurement
- Business Innovation
- Pilot lines
- Financial instruments

National/Regional R&I systems
Targeting "Research Excellence"
Targeting "Innovation Excellence"

Capacity Building
Research & Development
Innovation
Market
Stairway to Excellence

What is Stairway to Excellence

The "Cohesion Policy and the synergies with the research and development funds: the STAIRWAY TO EXCELLENCE (S2E)" project was launched in 2014 within the Smart Specialisation Platform (S3P).

The Stairway to Excellence (S2E) project aims to support EU13 regions and countries in developing and exploiting the synergies between European Structural and Investment Funds (ESIF), Horizon 2020 (H2020) and other EU funding programmes and:

- Assist them in closing the innovation gap, in order to promote excellence in all regions and EU countries;
- Stimulate the early and effective implementation of national and regional Smart Specialisation Strategies.

Activities of S2E

Background for the Project

National Events

National Events are being organized in EU13 Members States to:

- Ease understanding of national and regional innovation ecosystems
- Raise awareness to enable synergies between EU funding programmes
- Share experiences in combining Structural Funds and Framework Programme to improve excellence
- Draw lessons for the future and identify follow-up actions to enhance potential synergies

Country & Region Information

Quantitative and Qualitative information are produced for EU13 regions and countries:

- National and Regional Fact & Figures aim to draw the European profile of a country/region with statistical and financial information coming from the EU’s 7th Framework Programme and Structural Funds dedicated to research and innovation.
- S2E Country Reports provide further analysis on selected policy issues that affect optimal use and the combination of key EU funds for R&I and offer country-tailored policy suggestions aiming to tackle the weaknesses identified in the analysis.
**Synergies examples**

Synergies examples are provided in which SF/ESIF and FP7/H2020 funds have been combined in order to amplify the R&I investments and their impact, using different forms of innovation and competitiveness support, or carrying innovative ideas further along the innovation cycle or value chain to bring them to the market.

**Instruments, Platforms & Concepts**

Fiches are being made available on a selection of European instruments/platforms/concepts that can be considered as facilitators especially for “downstream activities”, to exploit and diffuse results from earlier programming period (FP7) and current one (H2020), and as key elements in monitoring the implementation of synergies in their various forms.

**Relevant Initiatives, Projects and Platforms**

Beyond the Reference Documents (below) and Related Links (left), there are a number of Relevant Initiatives, Projects and Platforms for Cohesion Policy and the synergies with the research and development funds.

**Reference Documents**

We gather Reference Documents relevant to Cohesion Policy and the synergies with the research and development funds, including guidance for Policy-Makers, Implementing Bodies and Beneficiaries of EU Funds and instruments issued by the European Commission or other bodies.

**FAQ**

Frequently Asked Questions relate to practical application of the Guidance on synergies between ESIF, Horizon2020 and other research, innovation and competitiveness-related Union programmes.

A list of acronyms is also available.
S2E Facts and Figures

Stairway to excellence
Cohesion Policy and the Synergies with the Research and Innovation Funds

POLAND
Facts & Figures

Figure 1: Evolution of the Share of EU FP contribution received between 2006 and 2014 (EU FP6 base share taken as base 100)

Figure 4: S&T specialisation areas according to the EU Contribution received by FP7 participants
- Framework programme 7 (% of FP7 budget dedicated to cooperation programme in the area)
- MALTA

(N): National smart specialisation area chosen

Source: JRC-IPTS calculated using data FP6 and FP7 contract database – June 2014
# S2E Country Reports

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<tr>
<th>Country</th>
<th>National Facts &amp; Figures</th>
<th>Regional Information</th>
<th>S2E Country Report</th>
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<td>BULGARIA</td>
<td>BG Facts &amp; Figures</td>
<td>BG Regional Annex</td>
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<tr>
<td>CROATIA</td>
<td>HR Facts &amp; Figures</td>
<td>n/a</td>
<td>HR Country Report</td>
</tr>
<tr>
<td>CYPRUS</td>
<td>CY Facts &amp; Figures</td>
<td>n/a</td>
<td>CY Country Report</td>
</tr>
<tr>
<td>CZECH REPUBLIC</td>
<td>CZ Facts &amp; Figures</td>
<td>CZ Regional Annex</td>
<td>CZ Country Report</td>
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<tr>
<td>ESTONIA</td>
<td>EE Facts &amp; Figures</td>
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<td>EE Country Report</td>
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<tr>
<td>HUNGARY</td>
<td>HU Facts &amp; Figures</td>
<td>HU Regional Annex</td>
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<td>LATVIA</td>
<td>LV Facts &amp; Figures</td>
<td>n/a</td>
<td>LV Country Report</td>
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<tr>
<td>LITHUANIA</td>
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<tr>
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<td>RO Facts &amp; Figures</td>
<td>RO Regional Annex</td>
<td>RO Country Report</td>
</tr>
<tr>
<td>SLOVAKIA</td>
<td>SK Facts &amp; Figures</td>
<td>SK Regional Annex</td>
<td>SK Country Report</td>
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</table>
S2E Country Reports

• **Chapter 1** includes introductory remarks, outlining the background of the “*Stairway to Excellence*” project.

• **Chapter 2** discusses the governance of the R&I system, presenting institutions involved in design and implementation of SF in 2007-2013 and European Structural and Investment Funds (ESIF) for the 2014-2020 perspective.

• **Chapter 3** further explores factors that support or limit national participation in R&I calls funded by ESIF, pointing to shortcomings such as: imperfect design of some support measures, ambiguity surrounding co-funding requirements for certain projects and cost eligibility, as well as managerial capacities of applicant organisations, including specific cases of public universities and public research institutes. It also discusses the capacities of funding agencies and steps taken to reduce administrative burdens at the ESIF application and implementation stages in 2014-2020.

• **Chapter 4** outlines reasons for limited participation of Polish organisations in FP7 and Horizon 2020 (H2020 actions), referring to: competition with other, nationally available funding opportunities, personnel lack certain skills (including limited command of English and limited international contacts), only marginal involvement in H2020 programming and lack of adequate representation of Polish interests in Brussels, demotivating salary and intellectual property rights (IPR) regulations in H2020, and insufficient academic recognition of researchers managing externally funded R&I projects.
Chapter 5 presents policy instruments, which facilitate the participation in ESIF and FP7/H2020, outlining support for applicants, activities of the National Contact Point, financial support for FP7/H2020 project proponents, governmental plans to establish a dedicated contact point and funding for H2020 application drafting by small and medium-sized enterprises (SMEs) and the “Pact for Horizon 2020”, signed by the Ministry of Science and Education with universities and research institutes, including reciprocal commitments intended to increase the Polish participation in H2020.

In chapter 6, experiences with evaluation and monitoring of ESIF are described, demonstrating the limited role of international evaluators and shortcomings in evaluation criteria used for some support measures. It also discusses the policy learning based on ESIF monitoring mechanisms and positive changes in the wake of the 2014-2020 ESIF perspective.

Chapter 7 lists factors, which limit the synergies between ESIF and H2020, including: differences in legal frameworks, H2020 salary regulations demotivating researchers from Polish public universities and research institutes, and H2020 IPR regulations considered as problematic by some innovative SMEs, challenges in using research infrastructures established with ESIF funding, organisational barriers including accounting and auditing practices discouraging high-risk innovative projects, as well as the evolving design of Poland's ESIF support measures, as a dedicated measure intended to increase the H2020 readiness of SMEs was eliminated from Poland's operational programme. The subsequent discussion of factors supporting the synergies points to multiple support measures, directly complementing the funding available from FP7/H2020, including examples of parallel funding (“TEAM”, local support for KIC co-location centres), simultaneous/cumulative funding (“IDEAS FOR POLAND”, and two dedicated measures included in 2014-2020 ESIF: “International Research Agendas”, complementing H2020 Teaming, and “Virtual Research Institutes”, adding value to H2020 Twinning), alternative funding (“Ideas Plus”), as well as the ease of securing sequential funding to combine multiple funding sources and ensure continuity of research efforts. Importantly, synergies are not only found between FP7/H2020 and SF/ESIF, but also involve multiple support.

Chapter 8 offers insights into the take-up of public sector research results, discussing available support measures and providing examples of successful commercialisation of research results.

Chapter 9 includes a detailed list of policy suggestions, concerning: (a) strengthening of ESIF-H2020 synergies, (b) improvement of R&I support in Poland, and (c) actions to be taken by the European Commission to better serve the EU member states and contribute to their innovative development.

Chapter 10 summarizes the factors behind different regional levels of participation in FP7 and SF, presenting divergences in R&I performance, which influence the levels of R&D investment and applications for external funding.
### Case Studies

<table>
<thead>
<tr>
<th>S&amp;T Theme</th>
<th>Type of synergies</th>
<th>Country</th>
<th>Synergy Example</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biotechnology</td>
<td>Parallel Funding</td>
<td>MT</td>
<td>Development of capacity at the University of Malta</td>
<td>This example considers the case of synergies achieved by the University of Malta through participation in two projects, one funded through ERDF funds and the other funded through the FP7 Capacities Programme. ...</td>
</tr>
<tr>
<td>Biotechnology;</td>
<td>Sequential Funding</td>
<td>HR</td>
<td>Ruđer Bošković Institute (RBI)</td>
<td>The case study outlines upstream sequential type of synergies developed at the Ruđer Bošković Institute in Zagreb, Croatia in the research area of biomedicine. The IPA project „Creation of research related ...</td>
</tr>
<tr>
<td>Health; NMP</td>
<td>Sequential Funding</td>
<td>CZ</td>
<td>Central European Institute of Technology (CEITEC)</td>
<td>CEITEC is a research centre in the fields of life sciences, advanced materials and technologies having the aim to catalyse the existing research resources in South Moravia and establish itself through ...</td>
</tr>
<tr>
<td>Biotechnology;</td>
<td>Sequential + Parallel Funding PL</td>
<td>Molecular scissors for double stranded RNA - International Institute of Molecular and Cell Biology, Prof. Janusz Bujnicki's team</td>
<td>The resourceful combination of funding from national sources with Structural Funds (SF) and Framework Programme 7 (FP7) allowed the research team of Prof. Janusz Bujnicki to make breakthrough ...</td>
<td></td>
</tr>
</tbody>
</table>
Eye@RIS3

- Research & Innovation Capabilities
- Business Areas & Target Market
- EU Priority

EU Priority:
- Aeronautics & space
- Blue growth
- Cultural & creative industries
- Digital Agenda
- Nature & biodiversity
- KETs
- Public health & security
- Service innovation
- Social innovation
- Sustainable innovation
- Specific local policy priority
REGIO Survey on Synergies

- Most of the OPs, both regional and national, refer to the synergies and being open to synergies with different programmes related to RDI.
- Synergies is considered slightly more in relation to upstream activities than downstream activities: 87% of total OPs refer to upstream actions while it is 73% for downstream actions. Downstream actions are relatively more prominent for the national OPs (84.2%)
- Reference to the *alignment of costs models is low*. Only 14.5% of the OPs refer to this dimension. It is even lower for the regional OPs (11%)
- The "cross border cooperation" & "critical mass" are mentioned by half of the OPs.
- Participation of experts for other programmes in the Monitoring Committees is at 65.5%. It reaches 100% for the national OPs.
- Investment Priorities 1a and 1b are the most common priorities; 91% for IP-1b and 60% for IP-1a. These are followed by IP-3a (40%).
  - IP-1a: *strengthening RTDI by R&I infrastructure and capacity development*
  - IP-1b: *strengthening RTDI by promoting business investment and developing links between different entities*
  - IP-3a: *enhancing the competitiveness of SMEs*
National S2E Events

- A better understanding of the national innovation ecosystem
- Raising awareness of the actions needed to enable synergies between EU funding programmes
- Sharing experiences in combining different EU funds

Events are open to national and regional MAs, NCPs, national authorities in charge of RIS3, selected experts and representatives from business and research organisations.

**Croatia**  (March 2015)
**Latvia**  (April 2015)
**Slovakia**  (June 2015)
**Malta**  (S3 Workshop July 2015)
**Lithuania**  (October 2015)

**Forthcoming Events:**
**Czech Republic (3/3), Estonia (11/3), Slovenia (7/4), Hungary, Romania, Poland, etc.**

- **Joint Statement of the National Event**
Joint Statements

JOINT STATEMENT OF THE NATIONAL EVENT OF LATVIA
"The Synergies with Research and Innovation Funds"

organised by
European Commission, Joint Research Centre (Stairway to Excellence Initiative)
Latvian State Education Development Agency
15 April 2015, Riga-Latvia

Key Issue 2: The need for improved research collaboration with the Central and Western European countries (EU15).

Potential Actions: e.g. enhancing the network & learning (and adapting) from good practices across Europe.

Key Issue 5: Low rate of participation in international research collaboration

Key Issue 6: Long-term availability (sustainability) of ESIF

Potential Actions: e.g. establishment of incubation centres, enhanced autonomy for public universities, institute-dedicated budget, alignment of national funds and performance-based funding.

1. Consensus for Better Coordination & New Opportunities
2. Upstream activities
3. Downstream activities
4. The Way Forward
Thank you!

http://s3platform.jrc.ec.europa.eu

JRC-IPTS-S3PLATFORM@ec.europa.eu

JRC-IPTS-S2E@ec.europa.eu