Designing Smart Specialization Strategies & Synergies with Horizon 2020

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09/07/2014
Lessons from past RISs - From RIS to RIS3

Widespread experience of nat./reg. innovation strategies in the framework of the EU Cohesion Policy (on-going ex-post evaluation)

**Inward-looking**
- Lack of international and trans-regional perspective
- Not taking into account multi-governance issues.

**Lack of Policy Ownership**
- Lack of understanding of RI systems as an interaction of interdependent players, policies and institutions.
- Failure to set the networking process in motion or to keep it going.

**Innovation policies not in tune with industrial/economic context & Excessive focus on technology supply/R&D**
- No sound analysis of regional assets and strengths.
- Too much public intervention in R&D, not enough business-driven.
- Too little emphasis on applications and diffusion.
- ‘Picking winners syndrome’ (no priorities identified)
Member States R&D Profiles
R&D Intensity by Sector of Funding 2012*, % GDP

Difference - R&D & GDP Growth
2007-2012

*or latest available data
JRC Calculations based on ESTAT Data
Smart Specialization
A sustainable/inclusive/smart process

- Ex-ante **conditionality** in the new cohesion policy 2014-2020.
- Evidence-based **priority** setting in times of scarce resources (value for money).
- Focus on regional **comparative advantage**, a limited set of research and innovation priorities (not necessarily on sectors).
- Accumulation of **critical mass**
- Strategies in line with **NRPs** and Europe 2020 Strategy.
- No top-down decision, but **entrepreneurial discovery process** involving key stakeholders
- **Sourcing** knowledge rather than re-inventing the wheel.
- Excel / Improve in something **specific**
- **Monitoring** and review system
RIS3 is an Economic Transformation Agenda

RIS3  "Research and innovation strategies for smart specialisation"

is a dynamic and evolutionary process – "not a structure"- deeply grounded in an entrepreneurial discovery process (not a one-off action) where Governments are rather facilitators...than in a position of command and control.

RIS3 is for...

innovation leaders

and for

those lagging behind!
Thematic concentration changes:

**Research and Innovation**
- Developed regions and transition regions: 60%
- Less developed regions: 20%

**Energy efficiency and renewable energy**
- Developed regions and transition regions: 6%
- Less developed regions: 44%

**SMEs competitiveness**

**ICT Access and Use**

Flexibility (different regions present different needs)
Special arrangements for the previously convergence regions

Up to €100 billion ESIF money could be made available for innovation, bolstering over 100 smart specialisation strategies.
What does the RIS3 ex-ante conditionality apply to?

Investment Priorities under TO:

1. Research and innovation
2. **ICT use** *(ICT based innovation & "digital growth")*
3. Competitiveness of SMEs

Ex ante conditionalities:

- Smart specialisation strategies
- Digital growth strategy can be independent, but for sake of coherence it is **recommended to integrate it in RIS3**
- Next Generation Access / Network Plan
- Small Business Act
  - **Recommended:** Include in the RIS3 envisaged support to SME innovation
RIS3 guide - Key steps for developing a RIS3

Step 1 – Analysis of regional context/potential
Step 2 – Governance - EPD
Step 3 – Vision for the future
Step 4 – Selection of priorities
Step 5 – Policy mix
Step 6 – Monitoring and evaluation
Smart Specialisation Platform (S3P)

- EU Countries: 15
- EU Regions: 152
- Non-EU Regions: 2
- S3P Peer-reviewed Countries: 15
- S3P Peer-reviewed Regions: 50

- Designed to assist regions & countries in developing RIS3
- Launched in June 2011
- Managed by JRC-IPTS in Seville
- Monitored by a Steering Team incl. DG REGIO, RTD, ENTR, EAC, CNECT, AGRI
- Input from a Mirror Group of European high-level experts and network representatives
Eye@RIS3 – an online database for RIS3 priorities

- enable Regions to position themselves,
- to find their unique niches
- to seek out potential partners for collaboration

- Data from peer reviews, expert assessment reports, and national reports
- Data on regions, then each priority has four dimensions, short text based description, and three categories with fixed two level categories, connection to EU prioritised policies, regional capabilities and target markets.
- The data base can be searched in all these dimensions
- And data can also be uploaded
- Categories are not perfect matches, but serves the purpose of an easy to use tool to give initial indications of where regions are aiming with their priorities.
Background on Pilot "Synergy" Project

*Fragmentation of innovation policies at EU level (SEG 2011)*

- Sub-optimal coordination of R&I as well as CPs at European, national and regional level, both within and between these levels;
- Lack of common strategies related to Europe 2020;
- Lack of a coherent and interacting governance structure;
- Weak complementarities / compatibilities / interoperability of policies and programmes, particularly regarding the regional dimension in R&I policy and the R&I dimension in regional policy;
- Lack of instruments aimed at supporting the pooling of European and national funds;
- Poor communication, coordination and cooperation between actors and stakeholders at all levels.

*Synergies* as the alignment of and cooperation between policy frameworks, programmes and actions allowing more and better attainment of their objectives.
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 would have 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.
Horizon 2020
(but also COSME, ERASMUS+, CREATIVE EUROPE)

DIFFERENCES:

• Non-territorial, mainly transnational approach based on excellence; Horizon 2020 does not take into account geographic specificities in allocating funding.
• Focus on individual R&I Projects tackling the whole cycle of innovation, taking into account strategic approaches at EU level, e.g. through European Innovation Partnerships and the Strategic Energy Technology plan (although some programmes are aimed at co-funding for research coordination like ERA-NETs, etc.)
• Centrally managed (EC) and awarded directly to final beneficiaries or managed by a multi-country entity;
• Competitive calls for proposals addressed to international groupings (including beyond the EU) without geographic pre-allocation (European Research Council and Marie Skłodowska-Curie as well as Erasmus+ actions for learning mobility also address individuals)

COMPLEMENTARITIES:

• Horizon 2020 will focus on industrial leadership and tackling major societal challenges, maximising the competitiveness impact of research and innovation and raising and spreading levels of excellence.
• Horizon 2020 includes actions to close the research and innovation divide: ERA Chairs, networks, teaming and twinning, research infrastructure development, etc.
• Horizon 2020 has the objective of spreading excellence and widening participation compared to FP7.

European Structural and Investment Funds

Place-based approach supporting economic and social cohesion

Largely focused on improving the R&I capacities and R&I eco-systems with the objective of regional growth and place-based economic transformation towards higher added value and more knowledge-intensive activities (Smart Specialisation Strategies).

Shared management with national and regional public intermediaries (managing authorities, implementing agencies and intermediate bodies) which define the implementation details and allocate the funding to final beneficiaries

Policy-related prioritisation based on cohesion considerations and RIS3 priorities to individual firms/bodies and consortia within the territory covered by the operational programme (and only within the EU).

• Use of competitive attribution through calls and aid schemes based on project selection criteria is also increasingly used (depending on MS).

Besides improving the innovation eco-systems, Cohesion policy will partly increase the capacity of regions and Member States to participate in Horizon 2020 ("Stairways to Excellence") and partly fund R&I activities in a MS/region that can build on FP7 and Horizon 2020 projects.

In addition, ESIF/RIS3 can support to a limited extent cooperation with actors outside the operational programme territory.
Recognizing the strong Territorial impact in space-blind policies

For instance, less developed regions are less successful as FPs funding recipients (Source: 5th Cohesion Report)
% of FP7 Contribution received between 2007 and 2013

- DE 15.85% to 17.05%
- UK 14.40% to 16.09%
- FR 11.27% to 11.90%
- IT 10.22% to 8.83%
- ES 5.27% to 7.25%
- BE 4.18% to 4.02%
- AT 2.82% to 2.59%
- IE 0.94% to 1.36%
Total intramural R&D expenditure (GERD) by sectors of performance (Eurostat, 2012)

- Government sector: 14%
- Higher education sector: 29%
- Business enterprise sector: 54%
- Private non-profit sector: 3%

FP7 EC contribution received by type of Italian participants

- Higher of secondary education est.: 34%
- Private commercial: 32%
- Public body (excl. research and education): 2%
- Research organisations: 31%
- Other: 1%
Distribution of FP7 EC Contribution among Italian regions

3 regions are representing more than 50% of FP7 contribution received by the country

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<thead>
<tr>
<th>Region</th>
<th>FP7 Contribution</th>
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<td>Lazio</td>
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Financial absorption - Cumulative execution of advance and interim payments at the end of 2013

Source: Analysis of the budgetary implementation of the Structural and Cohesion Funds in 2013, DG Budget (compared to the nat. allocation available for 2007-13)
ACTION 1: Assistance to new MSs in closing the innovation gap, promote excellence in all regions and MSs of the EU

Launching "Upstream actions" to prepare regional R&I players to participate in Horizon 2020 through capacity mapping & capacity building.

- Mapping / providing new MSs & regions with analyses and evaluation of their past performance in FPs, strengths and weaknesses in terms of R&I capacity, institutional features, & alignment between public R&I and business innovation needs.

- Adapt the peer review & mutual learning methodology developed for assessing RIS3, to peer review the structures and instruments used by old & new MSs/regions to enhance participation to FPs & exploit synergies between H2020 and ESIF. As is the case for the RIS3 peer reviews, S2E peer reviews would be organised by MS/regions with the support of JRC.

- Communication & cooperation between Horizon 2020 national contact points & managing authorities of the ESIF shall be strengthened.
- New mandate of the S3P Mirror group of stakeholders in order to reinforce consultation and advice of stakeholders.
ACTION 2: Stimulating the early and effective implementation of national and regional Smart Specialisation Strategies

Launching "Downstream actions" to provide the means to exploit and diffuse R&I results, stemming from Horizon 2020 & preceding programmes, in line with priorities identified in the relevant S3.

Objective for 2014: develop/test some methodologies to do it effectively (full deployment of those methodologies in subsequent years).

Some possible actions in 2014 are as follows:
- Identifying a limited number of common thematic priorities within RIS3 of several new MS/regions. Potential high impact from horizontal priorities such as Key Enabling Technologies (KET) and ICT.
- Assessing selected on-going or recently finalised Framework Programme projects in these areas.
- Events with project participants from leading countries, business, research community and policy makers from new MS/regions and stakeholders. These events may try different formats to see which one would be most effective for wide transmission of knowledge.
How about synergies with Horizon2020?

**Upstream**

- ESI Funds
  - R&I Infrastructures and Equipment (IP1)
  - ESFRI
  - Skills
  - Business Advisory services

**Horizon 2020**

- Frontier research (ERC, FET)
- Excellent R&I Demonstration Pilots
- ERA-Net, JP, EUREKA...
- Marie Curie
- KICs
- KETs (IP1)
- SME instrument
- PPPs
- procurement
- KETs prizes

**Downstream**

- Business Innovation (IP1+3)
- National/Regional R&I systems

**"Stairway to Excellence"**

- "Research Excellence"

**"Innovation Excellence"**

- Hopefully also excellence, but

- IP: Investment Priorities under the R&I thematic objective of the ERDF Regulation

**R&D**

- Capacity Building
- Innovation
- Market
There are four potential cases of combined funding:

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

2. **Sequential funding**, i.e. 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: First ESIF (e.g. to raise readiness to participate in H2020) and then H2020 or Erasmus+ or COSME; or first H2020 or Erasmus+ or COSME and then ESIF (e.g. to support exploitation of H2020 results, learning tools, cooperation models etc. developed in Erasmus+ cooperation projects). Funding of one phase does not guarantee a funding of the subsequent phase.

3. **Additional/parallel** use of funds: ESIF money is not directly linked to a H2020 project, but a regional/national authority decides to fund a regional/national project or beneficiaries to enhance the impact of a H2020 R+I project or programme or Erasmus+ or COSME in its region. This may be particularly relevant for skills development or capacity building in innovation and cooperation, 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 (e.g. 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 operational programmes of the concerned territories.
Government effectiveness

Note: EU level for 2010 is the same as 2011
Note: EU = unweighted average; no data available for HR and MT – DB 2008
Source: Commission calculations based on World Bank Doing Business data
Thank you!

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

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