Smart Specialisation as linking element between Horizon 2020 and the reformed European Cohesion Policy 2014-2020

Sofia Conference, 28 September 2017

Dr Stefan Weiers
Deputy Head of Unit
European Commission
DG Research and Innovation/Unit B5
Spreading excellence and widening participation
Closing the innovation Divide in Europe requires complementary and customized solutions

- No "One-size-fits-all" approach possible

Source: Innovation Scoreboard 2017
Distribution of funding between ESIF and Horizon 2020 -> Need for synergies and complementarities

**ESIF R&I allocations 2014-2020 by region per capita**

**H2020 funding 2014 - 10/2016 by region per capita**

HORIZON 2020
Three priorities

- Excellent science
- Industrial leadership
- Societal challenges
## Funding for Industrial Leadership (£ million)

<table>
<thead>
<tr>
<th>Leadership in enabling and industrial technologies (LEITs)</th>
<th>13 035</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Access to risk finance</th>
<th>2 842</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leveraging private finance and venture capital for research and innovation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Innovation in SMEs</th>
<th>589 + complemented by a minimum of 20% of the total budget for societal challenges + LEITs and 'Access to risk finance' with strong SME focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fostering all forms of innovation in all types of SMEs</td>
<td></td>
</tr>
</tbody>
</table>
The SME Instrument
SEAMLESS BUSINESS INNOVATION SUPPORT FROM IDEA TO MARKET...

PHASE I
Grant of € 50,000 (lump sum) + coaching support

Concept & Feasibility Assessment
Idea to Concept

10% success
Idea > Business Plan

PHASE II
Grant of € 0.5 Million to € 2.5 Million (70% of funding)** + coaching support

Demonstration Market Replication R&D
Concept to Market-Maturity

30-50% success
Elaborated Business Plan

Commercialisable Output

PHASE III
Risk Finance (Private/Public)

Commercialisation
Market-Maturity to Market Launch

2% budget
Market Success

10% budget

YOUR HIGHWAY TO DELIVER INNOVATION ON THE MARKET!

Apply at any time!

6 months

88% budget

12-24 months

ACTIVITIES SUPPORTED

PROOF OF CONCEPT
✓ Prove Technical and Commercial Viability
✓ Explore IP Regime
✓ Design Study
✓ Develop Pilot Application
✓ Risk Assessment

DEMONSTRATION OF COMMERCIAL POTENTIAL via
✓ Prototyping
✓ Testing
✓ Piloting
✓ Miniaturization
✓ Scaling-up
✓ Application Development

GO-TO-MARKET
✓ EU Quality Label (Promotion & Networking with Financiers/Clients)
✓ Investment Readiness Training
✓ SME window in the EU Financial Facilities (debt & equity backed by EIB/EIF)
✓ Link to Public Procurement Networks
Societal challenges

Climate change
Health and ageing
Natural resources
Energy efficiency
Clean transport
Land use

• Powerful drivers of change in economy and society
• Major global market opportunities
• Requiring EU-scale approaches
• From research to market

New needs → new ideas → new markets
<table>
<thead>
<tr>
<th>Category</th>
<th>Funding (€ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health, demographic change and wellbeing</td>
<td>7 257</td>
</tr>
<tr>
<td>Food security, sustainable agriculture and forestry, marine and maritime</td>
<td>3 708</td>
</tr>
<tr>
<td>and inland water research and the Bioeconomy</td>
<td></td>
</tr>
<tr>
<td>Secure, clean and efficient energy *</td>
<td>5 688</td>
</tr>
<tr>
<td>Smart, green and integrated transport</td>
<td>6 149</td>
</tr>
<tr>
<td>Climate action, environment, resource efficiency and raw materials</td>
<td>2 956</td>
</tr>
<tr>
<td>Inclusive, innovative and reflective societies</td>
<td>1 259</td>
</tr>
<tr>
<td>Secure societies</td>
<td>1 613</td>
</tr>
<tr>
<td>Science with and for society</td>
<td>445</td>
</tr>
<tr>
<td>Spreading excellence and widening participation</td>
<td>816</td>
</tr>
</tbody>
</table>

* Additional funding for nuclear safety and security from the Euratom Treaty activities (2014-2018)
Widening participation

• **Principle of excellence:** continue to allocate funding on the basis of competitive calls, selecting only the best projects

• **Clear division of labour** between cohesion policy and Horizon 2020
  - Cohesion policy: support for regions in building up their research and innovation capacity
  - Horizon 2020: widen participation, better coordination between the two Union funding programmes, support policy learning reforms

• **Accompanying measures in Horizon 2020** to ensure that excellence prevails wherever it exists, including: Teaming, Twinning, ERA chairs, support for access to international networks, development of smart specialisation strategies
Basics on EU Cohesion Policy
Why an EU Cohesion Policy?

<table>
<thead>
<tr>
<th></th>
<th>Top</th>
<th>Bottom</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP per person</strong></td>
<td>Luxemburg 266%</td>
<td>Bulgaria 47%</td>
<td>5.7*</td>
</tr>
<tr>
<td>(% average EU-28)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Employment rate</strong></td>
<td>Sweden 79.8%</td>
<td>Greece 53.2%</td>
<td>1.5</td>
</tr>
<tr>
<td>(%, ages 20-64)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cohesion Policy aims to reduce disparities between EU regions in order to achieve balanced economic, social & territorial development.

* In the United States, the difference is only 2.5 and in Japan 2
Cohesion Policy delivers the Europe 2020 strategy

- A strategy from the European Commission ‘for smart, sustainable and inclusive growth’ over the next 10 years
- Smart agenda: innovation; education; digital society.
- Sustainability agenda: climate, energy, and mobility.
- Inclusive agenda: employment and skills; fighting poverty and social exclusion.
3 funds to invest in growth and jobs

COHESION POLICY FUNDING

DELIVERED THROUGH 3 FUNDS

1. EUROPEAN REGIONAL DEVELOPMENT FUND

€ 351.8bn COHESION POLICY FUNDING

2. EUROPEAN SOCIAL FUND

EXPECTED PUBLIC & PRIVATE NATIONAL CONTRIBUTIONS

3. COHESION FUND

LIKELY IMPACT OF COHESION POLICY € 500bn +
Investing in all EU regions

ALL EU REGIONS BENEFIT

€182 billion for less developed regions
GDP < 75% of EU-27 average
27% of EU pop.

€35bn for transition regions
GDP 75-90% of EU-27 average
12% of EU pop.

€54bn for more developed regions
GDP > 90% of EU-27 average
61% of EU pop.
The method: Programming, Partnership and Shared Management

- Common Strategic Framework
- Partnership Agreements
- Operational Programmes
- Management of programmes/Selection of projects
- Monitoring/Annual reporting
ESIF programming 2014-20: State of Play

- EUR 454 billion of ESIF + EUR 183 billion of national co-financing
- 456 national and regional and 79 INTERREG cooperation programmes
- Concentration on 11 Thematic Objectives

Source: Final ESIF partnership agreements as of December 2015
Soon all open data available at: https://cohesiondata.ec.europa.eu/
Key features of Smart Specialisation
Necessity of pre-conditions for an effective EU investment

Thematic *ex ante* conditionalities

- Linked to the **thematic objectives** and **investment priorities** of Cohesion Policy and applied in relation to investments in the **specific thematic area**: strategic, regulatory and institutional pre-conditions, administrative capacity.

General *ex ante* conditionalities

- Linked to horizontal aspects of **programme implementation** and apply **across all ESIF**: anti-discrimination policy, gender equality policy.
Key points on Smart Specialisation:

• Stimulate innovation through entrepreneurship, modernisation, adaptation

• Dare to introduce innovative governance solutions

• Think about strategic technological diversification on areas of relative strength and potential

• Increase diversification – promote new linkages, synergies and spill-overs

Adapted from Philip McCann (2012)
Steps to RIS3

Step 1: Analysis of regional potential for innovation-driven differentiation

Step 2: RIS 3 design and governance – ensuring participation & ownership

Step 3: Elaboration of an overall vision for the future of the region

Step 4: Selection of priorities for RIS3 + definition of objectives

Step 5: Definition of coherent policy mix, roadmaps and action plan

Step 6: Integration of monitoring and evaluation mechanisms
Thematic Smart Specialisation Platforms (TSSP):

- **Lead-regions** identify a thematic area in the broader domain of their RIS3 priority for setting-up cooperation together with participating regions on common topics, building European value chains based on complementarities and on investing in demonstrators and pilots.

**Examples:**

- **TSSP ENERGY**: Marine Renewable Energy; Sustainable construction; Bioenergy; Smart Grids
- **TSSP AGRI-FOOD**: High Technology Farming, Traceability and Big Data, Bio-Economy Pilot, Agri-food
- **TSSP INDUSTRIAL MODERNISATION**: Advanced Manufacturing for Energy Applications, Innovative use of non-food biomass, efficient and sustainable manufacturing, high performance production through 3D-Printing, new Nano-enabled products, innovative textiles for creative industries, Industry 4.0 for SMEs / Production performance monitoring system
RIS3: First Achievements of 121 Smart Specialisation Strategies

• **Better coordination and strengthened governance:** In majority of regions RIS3 has had a positive impact on their innovation policy governance, with better planning and more inter-departmental cooperation.
• **Better preparation and priority setting:** Ex-ante conditionality has encouraged Member States and encouraged many to strengthen the governance of R&I systems and better target public resources
• **Strengthened transformation dimension:** RIS3 helped regions and Member States to create their own visions for the transformation of their innovation systems.
• **Reinforced networks:** Regional innovation actors have become better connected by involving businesses, researchers and civil society in the entrepreneurial discovery process
• **Better monitoring and evaluation:** Substantial efforts made to put in place systems to continuously monitor implementation and to capture the results and impacts of innovation-led development through RIS3.
How to achieve synergies?
Combining Horizon 2020 & ESIF through funding of successive – parallel – simultaneous/cumulative – alternative projects

Horizon 2020

ESI Funds

- R&I Infrastructures and Equipment
- ESFRI
- Skills
- Business Advisory services

ESI Funds

- Excellent R&I
- Demonstration Pilots
- SME instrument
- Marie Skłodowska-Curie

ESI Funds

- KETs
- PPPs
- Business Innovation Procurement
- SME Pilot lines
- Financial instruments

Source: Guide on Synergies
Synergy actions driven by ESIF Operational Programmes (examples)

- Support for investment of research infrastructure and equipment including competence centres
- Preparation of research and innovation stakeholders towards a better participation in the Horizon 2020 Calls - support via training, raising awareness, networking and partner identification
- Support to the whole innovation cycle through improving the framework conditions for businesses (but also support for measures towards social innovation)
- Support to research actions and infrastructure investments in the area of Key Enabling Technologies
- Support to measures towards exploitation and commercialisation of finished or about to finish research projects
- Reinforcement of the local impact (including additional work packages) of funded Horizon 2020 projects (that are by definition transnational)
- Specific schemes in support of Horizon 2020 instruments, like WIDESREAD actions, SME Instrument
Excellent proposals receive the SEAL OF EXCELLENCE certificate

Horizon 2020 evaluation:

- **Funding threshold due to H2020 budget availability**

- **Quality threshold:**

  - Funded
  - Meriting funding
  - Rejected: not ready for funding

Pilot using the SME Instrument

- Close to intervention logic of ESIF authorities:
- Single company
- Small scale R&I actions
- Close to market

Regions/MS taking-up 'seal of excellence' proposals:

- Benefit from pre-screening by H2020
- Make the most of a unique, high quality evaluation process
- Better use the resources
- Invest on high local impact proposals
**Public-Private Partnerships – JU/JTI (Art. 187 TFEU)**

**CleanSky2 Joint Undertaking** is concluding MoUs with MS and regions that have a strong aerospace orientation in their RIS3. So far, 13 MoUs (Occitania (FR), Andalusia, Catalonia, Castilla La Mancha, Castilla Y Leon (ES), Campania (IT), Romania (state level), Czech Republic (state level), Flevoland and South Holland (NL), Ostergötland, Vastra Götaland (SE) and Portugal (state level).

The MoU aim to promote synergy between Horizon2020-funded research and innovation projects and the MS's / regions' ERDF and own R&I investments. They include:

- The appointment of a liaison committee, made up of two members each from CleanSky and Region
- promotion and management of collaborative activities
- define the implementation protocols.

Conclusions of the Smart Specialisation Communication

- **Step up available policy support:**
  - Smart Specialisation Platform
  - H2020 Policy Support Facility
  - SRSS
  - European Semester: Dialogue with regions and local authorities.

- **Pilot actions** for accelerating innovation uptake, removing investment barriers:
  - Lagging regions
  - Regions in industrial transition

- **Pilot actions** for maximising the impact of different EU funds:
  - Thematic partnerships to commercialise & scale-up inter-regional projects in value chains; developing bankable projects
  - Facilitate combination of funding instruments, harmonise rules, inter-regional investments
  - Mapping of R&I facilities
  - Investment envoys

Concluding remarks

• **Different starting points:** excellence vs. cohesion and centralised vs. shared management

• **Smart Specialisation:** act local & think European (global)

• **new way of working together**, which ensures stronger local and regional participation in decision-making, can be **scaled-up** for the benefit of the EU as a whole

• **Synergies** across programmes will gain importance in post 2020 programming period

• Plenty of **opportunities** for business and academia
Thank you for your attention!

Learn more:

Research & Innovation – Synergies with the Structural Funds
https://ec.europa.eu/research/regions/index.cfm?pg=synergies

Seal of Excellence initiative
https://ec.europa.eu/research/regions/index.cfm?pg=soe

Community of Practice for Seal of Excellence:
Send Expression of Interest to: RTD-SEAL-OF-EXCELLENCE@ec.europa.eu

Horizon 2020 Participant Portal

Guide on Synergies

Research & Innovation in Cohesion policy (2014-20)

Smart Specialisation Strategies
http://s3platform.jrc.ec.europa.eu