“Interregional and international collaboration in R&I: insights from lagging regions”

Dr. Effie Amanatidou
Manchester Institute of Innovation Research / AMBS
JRC – EC Expert

Workshop on ‘Connecting Present and Future S3’, Zagreb, 30 Jan 2020
The scope of the ‘Lagging Regions’ project

Low growth regions
• Greece (Central Macedonia, Western Macedonia and the national level)
• Italy (Puglia and Campania)
• Portugal (Algarve, Alentejo, Centro, Norte)
• Spain (Extremadura)

Low income regions
• Bulgaria (national level)
• Hungary (national level)
• Poland (Kujawsko-Pomorskie, Lubuskie, Podlaskie)
• Romania (national level plus all the regions)
• Croatia (national level)
Some facts
- Participation of EU13 in H2020

- Represents 8.5% of total participations and receive 4.4% of total funding although EU13 FTE researchers make for 12.45% of EU28 FTE.
- A lower success rate of applications: 11.1% vs. 14.4% for the EU-15.
- A much smaller share of project coordinators: 5.1% vs. 87.6% (EU-15).
- Participate more in larger projects (i.e. > EUR 5 million), but coordinate more often small projects (<EUR 200 000).

Some facts

- Participation of widening countries in P2Ps

WIDENING COUNTRIES in Horizon 2020

Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia and Slovenia (Innovation Union Competitiveness Report 2013)
Some facts
- Participation of widening countries in P2Ps

![Bar chart showing participation of widening countries in Work Package and Task Leaders in P2Ps](image)

**WIDENING COUNTRIES in Horizon 2020**

Source: ERA-LEARN, [https://www.era-learn.eu/](https://www.era-learn.eu/)

Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia and Slovenia (*Innovation Union Competitiveness Report 2013*)
Some facts
- Participation of widening countries in P2Ps

NUMBER OF PROJECTS with EU13 and EU15 involved
funded within transnational P2P calls in H2020

WIDENING COUNTRIES in Horizon 2020
Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia and Slovenia (Innovation Union Competitiveness Report 2013)
Some facts

Interreg-Europe: Number of beneficiaries
Some facts

Interreg – Mediterranean: Number of beneficiaries

- IT: 250
- ES: 175
- EL: 100
- FR: 50
- HR: 25
- SL: 15
- CY: 10
- PT: 5
- AL: 5
- MT: 5
- BA: 5
- ME: 5
- B: 5
- AT: 5
Some facts

Interreg-Central: Number of beneficiaries

- IT: 250
- DE: 180
- PL: 160
- SI: 140
- HU: 120
- AT: 100
- HR: 90
- CZ: 70
- SK: 60
- BE: 50
- ES: 30
- RO: 10
Some facts

https://interreg.eu/
The study on interregional collaboration

Case studies include:
1. Puglia Region in Italy
2. Centro Region in Portugal
3. Western Hungary in Hungary
4. Croatia (national level)
5. Extremadura Region in Spain
6. Region of Western Macedonia in Greece
7. Nord-East Region and Centru Region in Romania
8. Kainuu Finland (with the BRIDGES Coordinator)

Kainuu (FI) a ‘strong +’ innovator, Centro (PT) a ‘strong –’ innovator, all the rest ‘moderate’ or ‘modest’ innovators (RIS 2017)
A shift towards a more selective and strategic approach to interregional collaboration

**Negative coordination**
(main purpose of policy learning and avoiding overlap and duplication)

- identification of domains of common interest
- alignment of priorities
- policy learning networks
  - e.g. the Interreg Beyond EDP or KNOW-HUB projects

**Positive coordination**
(main purpose of actual policy integration to address common problems)

- aligning funding programme conditions
- sharing of programmes or structures
- mobility incentives for researchers
- joint collaborative activities or projects or even strategies
  - e.g. S3 strategy developed by the regions Norte (PT) and Galicia (ES) or the strategic partnership between North East Romania and Northern Netherlands (SNN)

Braun 2008; Uyarra et al., 2018; 2014
Types of collaboration based on case studies

- **Technology and knowhow transfer**: e.g. BRIDGES – Interreg Europe, Western Macedonia - Greece, Kainuu and Helsinki – Uusimaa in Finland
- **Industrial transition**: e.g. LED/Greece – Albania 2014-2020, Foundation – Interreg Europe involving Western Hungary (among others)
- **Modernisation and digitalisation** of SMEs: DigitaliseSME incl. Centru (RO) and Extremadura (ES), Upgrade SME – Interreg Europe and 3D Central – Interreg Central inv. Western Hungary, ODEN – Interreg-Med inv. Croatia and Region of Crete - EL
- **Improved RIS3 implementation**: e.g. Beyond EDP and MONITORIS3 – Interreg Europe - inv. and IMPROVE – Interreg-NPA – led by Extremadura (ES)
- **Cross-border alliances** e.g. between Extremadura and the regions of Centro and Alentejo (PT) in the framework of Interreg V-A Programme
- **Joint cooperation strategy**: e.g. between Albania and Puglia (Italy)
- **Thematically oriented collaborative** projects: e.g. RegioTex co led by NordEst Romania and the successor TEX4IM project
Types of collaboration based on case studies

- **Framework conditions**: e.g. Smart Factory Hub - Interreg Danube – inv. Croatia or PPI2Innovate – Interreg Central – inv. Croatia, Hungary, among others, but also regions such as Piemonte (Italy).

- **Joint value chains**: e.g. the collaboration between NordEst Romania and SNN

- **Research Infrastructures**: e.g. partnership between Croatia and Spain to host the DONES (DEMO Oriented Neutron Source) facility in Europe.

- Many other collaborative projects under programmes including INTERREG, COSME, EUREKA/EUROSTARS, H2020, ERASMUS+ or European partnerships in R&I.

“We not only cooperate for exchanges of good practices – learning is a must but only learning is not enough, we need to have concrete results, returns to scale.” Kainuu Region (Finland)
Drivers and motivations for interregional collaboration

<table>
<thead>
<tr>
<th>Overall</th>
<th>Case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Create critical mass</td>
<td>All those but also clarified that motivations and drivers are different across policy and beneficiaries:</td>
</tr>
<tr>
<td>• Access complementary assets</td>
<td>• For policy, it is policy and organisational learning a major motivation apart from meeting the needs of the region (whatever these may be, i.e. tech transfer, transition, critical mass, access to excellent knowledge, etc.)</td>
</tr>
<tr>
<td>• Address competence or capability failures</td>
<td>• The beneficiaries, on the other hand, are primarily driven by the need to sustain and improve their businesses</td>
</tr>
<tr>
<td>• Address lock-in and learning failures</td>
<td>• An underlying belief is that innovation cannot be done behind closed doors as well as that certain challenges cannot be dealt with by a single country/region alone.</td>
</tr>
<tr>
<td>• Improve conditions for entrepreneurial self-discovery</td>
<td></td>
</tr>
<tr>
<td>• Prevent government and institutional failures (myopia, inertia, policy capture and imperfect information)</td>
<td></td>
</tr>
<tr>
<td>• Share costs and risks</td>
<td></td>
</tr>
<tr>
<td>• Development of public or club goods</td>
<td></td>
</tr>
<tr>
<td>• Overcoming fragmentation</td>
<td></td>
</tr>
</tbody>
</table>

(following Sörvik et al., 2016; Kroll, 2017; Foray et al. 2012; Foray 2014)
Purposes for interregional collaboration

<table>
<thead>
<tr>
<th>Overall</th>
<th>Case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Interregional policy learning</td>
<td>These too but also</td>
</tr>
<tr>
<td>• Solve common problems or challenges in regions with similar socio-economic characteristics/common borders</td>
<td>• Industrial transition and restructuring of the regional economy (Western Macedonia - EL, Kainuu FI, Western Hungary)</td>
</tr>
<tr>
<td>(following Braun, 2008)</td>
<td>• Modernisation of SMEs (Centru –RO, Extremadura – ES, Western Hungary, Croatia)</td>
</tr>
<tr>
<td></td>
<td>• Improving S3 implementation (Extremadura – ES)</td>
</tr>
<tr>
<td></td>
<td>• Cross-border alliances and joint strategies (Extremadura –ES and Centro and Alentejo –PT, Puglia-IT)</td>
</tr>
<tr>
<td></td>
<td>• Improving framework conditions (Croatia, Hungary but also Piemonte-IT)</td>
</tr>
<tr>
<td></td>
<td>• Joint value chains (NordEst Romania)</td>
</tr>
</tbody>
</table>
Enabling factors for interregional collaboration

<table>
<thead>
<tr>
<th>Overall</th>
<th>Case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Similar / complementary interests / challenges</td>
<td>Yes, but also...</td>
</tr>
<tr>
<td>• Similar / compatible institutional and territorial contexts</td>
<td>• Complementary capacities / expertise</td>
</tr>
<tr>
<td>• Proximity (geographical, functional, relational, cognitive)</td>
<td>• The importance of geographical proximity depends on the topic addressed, i.e. it is not of major importance in areas not ‘bounded’ in geographical terms</td>
</tr>
<tr>
<td>(following Edler, 2010; Maggioni and Uberti, 2009; Boschma, 2005; Noteboom, 2002)</td>
<td>• Non-lagging regions may choose to collaborate with lagging regions for a variety of reasons. A level-playing field needs to be created, a win-win situation for all involved regions.</td>
</tr>
<tr>
<td></td>
<td>• Formal requirements existing in programmes to include a Northern European region are not effective.</td>
</tr>
<tr>
<td></td>
<td>• Pilot actions are useful in demonstrating benefits of interregional collaboration</td>
</tr>
</tbody>
</table>
Barriers and challenges for interregional collaboration

<table>
<thead>
<tr>
<th>Overall</th>
<th>Case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Legal or administrative barriers</td>
<td>Yes, but also...</td>
</tr>
<tr>
<td>• Lack of trust between potential partners</td>
<td>• Mind-set implying inferiority of actors in lagging regions</td>
</tr>
<tr>
<td>• Limited commitment of national stakeholders</td>
<td>• Lack of collaborative links between local actors (research and businesses)</td>
</tr>
<tr>
<td>• Insufficient engagement of regional stakeholders</td>
<td>• Limited research capacities</td>
</tr>
<tr>
<td>• Institutional or relational inertia</td>
<td>• Differences in levels of regional autonomy</td>
</tr>
<tr>
<td>• Asymmetric levels of policy competence</td>
<td>• Differences in regional R&amp;I system governance</td>
</tr>
<tr>
<td>• Asymmetric incentives/ mismatch of objectives</td>
<td></td>
</tr>
<tr>
<td>• Socio-cultural mismatch (e.g. language barriers)</td>
<td></td>
</tr>
<tr>
<td>• Lack of resources (financial, human)</td>
<td></td>
</tr>
<tr>
<td>• Lack of synergies across funding sources</td>
<td></td>
</tr>
<tr>
<td>• Lack if interactions with foreign actors (MNCs)</td>
<td></td>
</tr>
</tbody>
</table>

### Perceived benefits for interregional collaboration

<table>
<thead>
<tr>
<th>Overall</th>
<th>Case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Shared policy experiences and good practices</td>
<td>S3 and interregional cooperation are mutually reinforcing to the benefit of the regional R&amp;I system:</td>
</tr>
<tr>
<td>• Improved critical mass in research</td>
<td>• S3 push regions to clearly identify and assess their strengths, weaknesses and opportunities, and thus to their position vis-à-vis other regions.</td>
</tr>
<tr>
<td>• Supported industry in exploiting new markets</td>
<td>• S3 provides guidelines and insights about market and business needs, exchange platforms as well as opportunities for valorisation of innovation.</td>
</tr>
<tr>
<td>• Improved access to research expertise</td>
<td>• By linking S3 priorities with interregional cooperation local R&amp;I actors are ‘exposed’ to new knowledge flows that can trigger new insights for S3 priorities.</td>
</tr>
<tr>
<td>• Better and more integrated services for SMEs</td>
<td>• The value chain approach might help better identify the actual strengths of lagging regions.</td>
</tr>
<tr>
<td>• Supported industry in exploiting technological opportunities</td>
<td></td>
</tr>
<tr>
<td>• Improved linkages between research &amp; industry</td>
<td></td>
</tr>
<tr>
<td>• Increased regional visibility</td>
<td></td>
</tr>
<tr>
<td>• Shared costs and risks associated with R&amp;I</td>
<td></td>
</tr>
<tr>
<td>• Contribution to solving common socio-economic problems</td>
<td></td>
</tr>
</tbody>
</table>

(following Uyarra, et al. 2014; Kroll, 2016)
Perceived benefits as reported by the regions

“We have to consider that a parochial approach (i.e. concentrating solely on our own back yard in terms of knowledge generation and knowledge acquisition) will drastically limit the capacity of growth for the regional economy but also will wipe out almost all the incentives for the R&I system.” (Centru Region, Romania)

“S3 … it has led to a change in mind-sets that we have to start thinking in this way, to identify our local strengths and assets.” (Western Hungary)

“S3 focused on the needs of the region, to set the minimum needs (attract more talents, improve businesses, raise awareness of R&D, support R&D infrastructure). But until now we were more focused inwards. Now we need to rethink considering also international collaboration as an important S3 feature.” (Extremadura, Spain)

“S3 measures are country-specific policy mix measures addressing various dimensions of the R&I system. The international dimension included in S3 … can boost innovation and make Croatian businesses stronger and the specialisation areas more visible.” (Croatia)
Perceived benefits as reported by the regions

“S3 creates a community of interest nationally; if this community increases its horizon of knowledge beyond the region/country, this is added value for the research and innovation system itself. The more the integrated approach the more chances that interregional collaboration manages to overcome interregional competition.” (NordEst Romania)

“Interregional collaboration is an aspect that needs to be explored further in the next JRC activities. RIS3 policies have been developed separately from other policies but this should not be the case. Different but interconnected policies should be brought together within the region/country under a proper policy mix.” (Puglia Region, Italy)

“Interregional cooperation can inform the implementation of the action plans of the Operational Programmes and may offer new actors, new expertise and new governance. The solutions that may become available to local businesses will improve innovation performance and will thus strengthen the expertise potential of the region.” (Western Macedonia. Greece)
Perceived benefits as reported by the regions

“S3 is important especially in regions with a small economic base. If you want to have a strong localised economy, you need to have exchanges with international peers and collaborators to create the critical mass required for the local economy.” (Kainuu Region, Finland)

“Interregional cooperation may help unlock the innovation potential of S3 priorities. S3 helps the alignment of priority areas favouring the identification of potential partners for international cooperation.” (Centro Region, Portugal)
Some first conclusions

- Lagging regions are increasingly getting engaged in international cooperation that goes way beyond exchange of good practices and policy learning.
- R&I system similarities, geographical proximity or S3 common priority areas are key to enable interregional collaboration but also need to consider the different motivations of stakeholders, different mind-sets and levels of R&I capacities.
- Similarities in R&I systems and commonalities of challenges faced may be a good starting point but creating a level playing field, a win-win situation for all involved should be the underlying approach.
- For this to happen other conditions are important: trust, common understanding of challenges and opportunities, willingness to contribute to interregional convergence.
- Building the various types of capacities and skills needed is important.
- Interregional funding is less common but not impossible – some examples exist.
- Lagging regions are interested in integrating the interregional cooperation dimension in their development strategies - valuable tools already exist accommodating such collaborations.
Thank you for your attention!

- Effie.Amanatidou@gmail.com