

The European Commission's science and knowledge service

Joint Research Centre



European
Commission

Implementing S3 in Romania. The role of UIG cooperation

JRC training workshop

Strengthening University-Industry-Government cooperation

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Outline

1. Smart Specialisation Strategies (S3): concept, process, JRC role
2. Implementing S3 in Romania: challenges, impact, UIG cooperation

What is Smart Specialisation?



Core of 2014-2020 EC Cohesion Policy for place-based regional innovation

- **INNOVATIVE:** boost growth and jobs in Europe, by enabling each region to identify and develop its own competitive advantages.
- **BOTTOM UP:** priority-setting through an Entrepreneurial Discovery Process to identify and pursue the most promising development projects
- **STRATEGIC:** Quadruple Helix actors to define a shared vision for regional innovation, address emerging market opportunities, market niches
- **SPECIALISED:** Prioritise R&I investment in competitive areas, match R&I strengths to business needs to strengthen competitive advantage
- **RESPONSIVE:** Better use of EU Structural Funds in line with regional needs

S3 rise to the heart of EC policies

Regional
innovation
strategies
in Europe
1990s

EC Expert
Group
*Knowledge
for Growth
(K4G)*
2005-2009

Academic
developments
2000s

Strong echo in
EU policy:
- Europe 2020
- Innovation Union
- Digital Agenda
- Cohesion Policy
2014-2020

PO1 'A
Smarter
Europe'
2021-2027

Policy rationale:

- innovation priority for all regions
- connect R&I to local development
- investments in regional strengths that generate jobs and growth
- bottom-up strategy and decision

Economic rationale:

- place-based approach
- market niches in traditional sectors
- technology modernisation
- develop new technological sectors

Wide implementation in the EU (2014-2020)



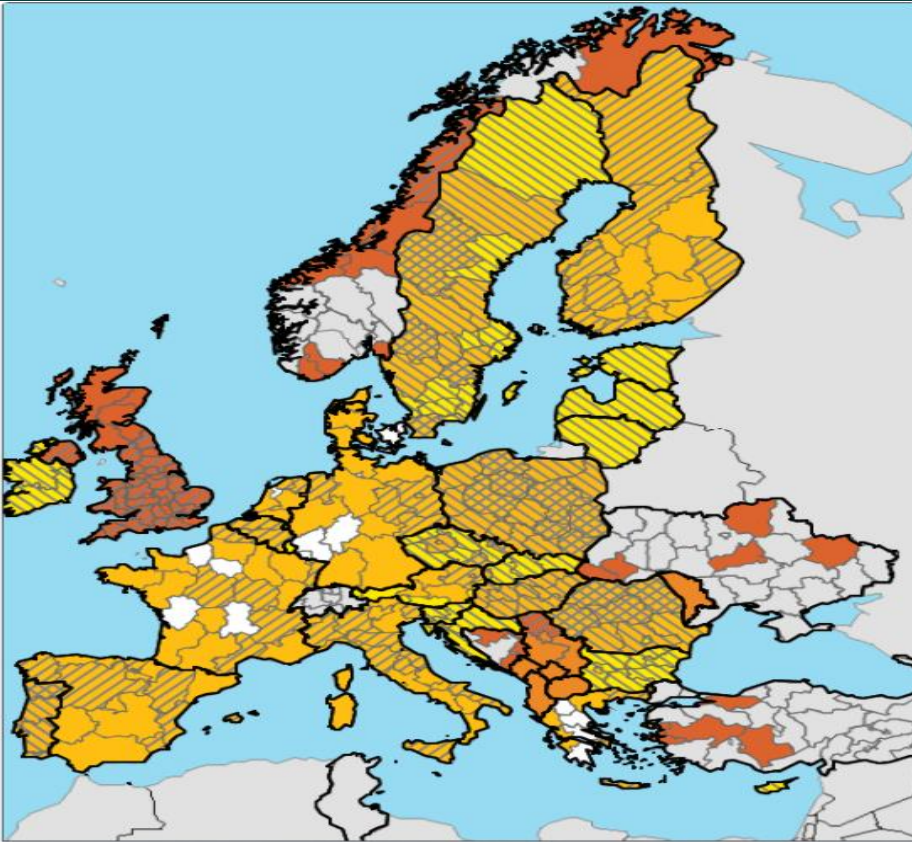
- Over 120 S3 strategies prepared by EU MS and regions identifying national and regional priorities for R&I investments
- Over EUR40 bn ERDF (+ over EUR65 bn of national co-financing) allocated to regions
- EUR1.8 bn ESF programmed for human capital in RTDI
- Estimated impact of support to R&I and entrepreneurship*:
 - help 15,000 enterprises to introduce new products to market
 - support 140,000 start-ups
 - create 350,000 new jobs by 2020

*Based on plans in the national or regional operational programmes for 2014-2020:

<https://cohesiondata.ec.europa.eu/themes>

Smart Specialisation Platform (S3P) – JRC Seville

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



Interregional
Cooperation

Guidance

Targeted
Support

S3 Beyond EU

Communities &
Actors

Governance

- **EU Countries registered in S3P: 19**
- **EU Regions registered in S3P: 178**
- Non-EU Countries registered in S3P: 7
- Non-EU Regions registered in S3P: 30
- S3P Peer-reviewed Countries: 16
- S3P Peer-reviewed Regions: 75



JRC Guide to RIS3 (2012) and the S3 Implementation Handbook (2016)

<https://s3platform.jrc.ec.europa.eu/>



- **Guide to RIS3 (2012) - six practical steps for RIS3 design:**

- 1) Analysing the innovation potential
- 2) Setting out the RIS3 process and governance
- 3) Developing a shared vision
- 4) Identifying the priorities
- 5) Defining an action plan with a coherent policy mix
- 6) Monitoring and evaluating

- **S3 Handbook (2016) - five key milestones in implementation process:**

- 1) The EDP cycle: from priority selection to strategy implementation
- 2) Good governance: principles and challenges
- 3) From priorities to projects: selection criteria and selection process
- 4) Transnational cooperation and value chains
- 5) Monitoring

JRC "Targeted support to S3 implementation"

Five closely complementary JRC activities

STRIVE - Support to Transitions in Regional Innovation Eco-systems

Targeted S3
Support to
Romania

Targeted S3
Support to
Lagging Regions
(9 countries)

Industrial
transition reviews
(Greece, Bulgaria,
Andalusia, Romania)

Higher Education
+VET in Smart
Specialisation

Stairway to
Excellence

European
Parliament
DG REGIO

European
Parliament
DG REGIO

JRC
DG REGIO

DG EAC
DG EMPL

European
Parliament
DG REGIO

2016 - 2020

2016 - 2020

2018-2020

HESS: 2016-2020

S2E-4: 2018-2020

The "Lagging Regions" project: geographical coverage by stage

1. Low-growth regions (GDP/capita below EU average)

- Greece
- Italy
- Portugal
- Spain

2. Less developed regions (GDP/capita <50% of EU average)

- Bulgaria
- Hungary
- Poland
- Romania
- Croatia (entry in stage 2)

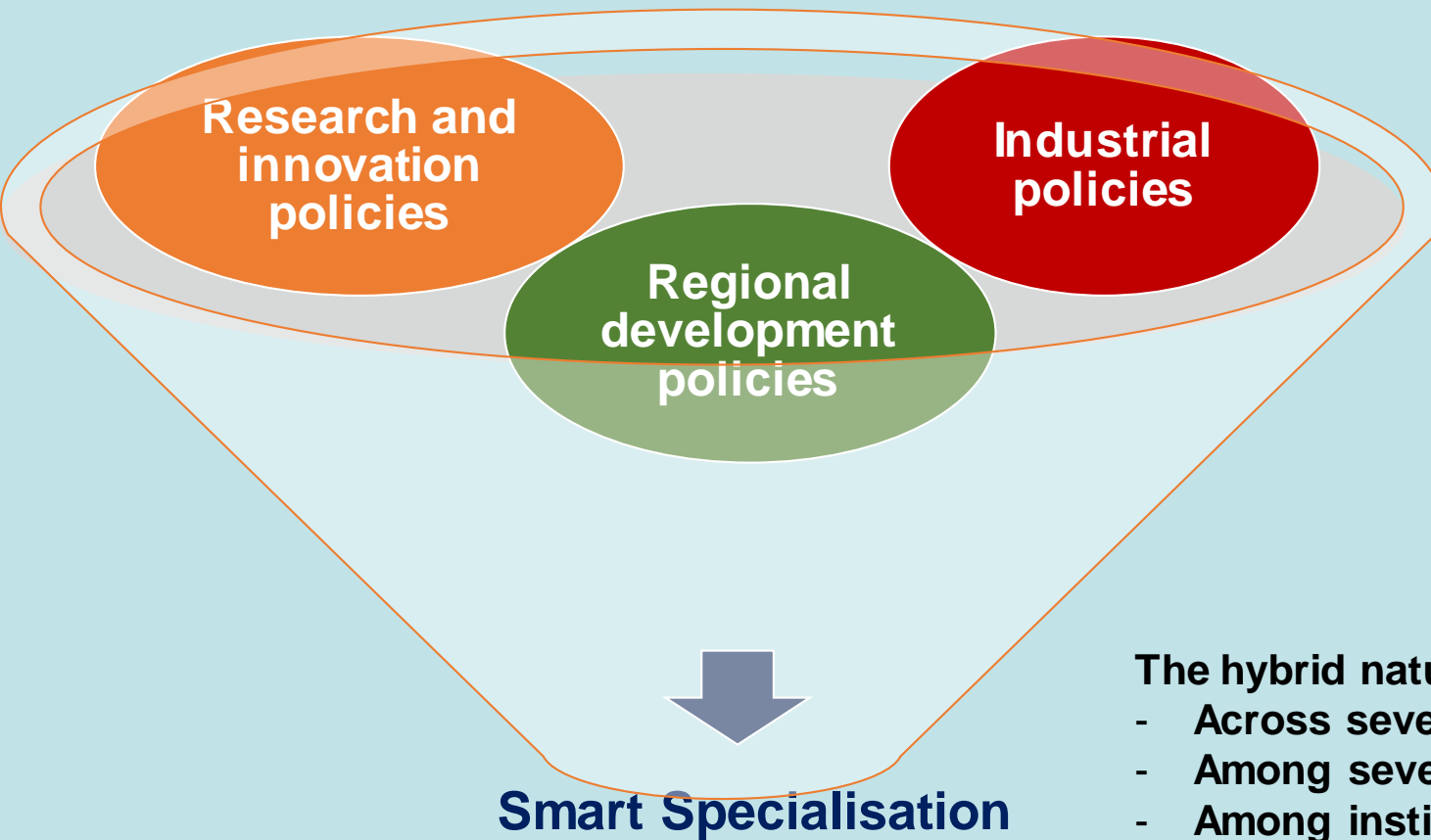
	Stage 1 (2016-2018)	Stage 2 (roll-out) (2018-2020)
EL	Eastern Macedonia and Thrace, national roll-out	Central Macedonia, Western Greece, National level
IT	Puglia	Puglia & Campania
PT	Centro	Centro, National level (HESS)
ES	Extremadura	Extremadura, National/regional linkages
BG	Severen Tsentralen	National level
HU	Észak-Alföld (Hajdú Bihar county)	National level
PL	Warminsko Mazurskie	Kujawsko-Pomorskie, Lubuskie, Podlaskie
RO	Nord-Est, Nord-Vest	Nord-Est, Nord-Vest, Centru, Sud-Est, Sud-Muntenia, Sud-Vest, Vest, București-Ilfov National level
HR		National level





2. Implementing S3 in Romania

The hybrid nature of Smart Specialisation

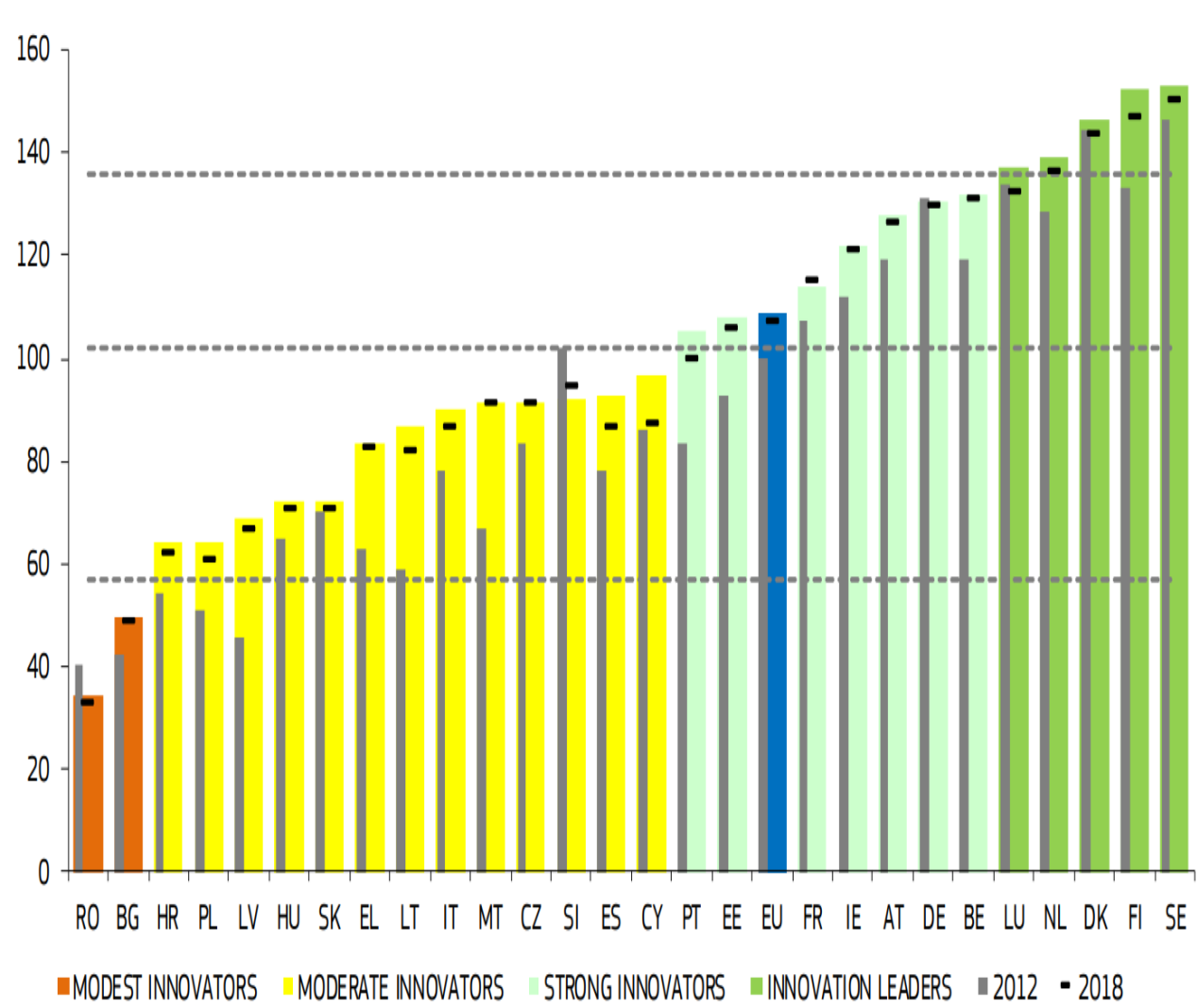


The hybrid nature of S3 requires coordination and communication:

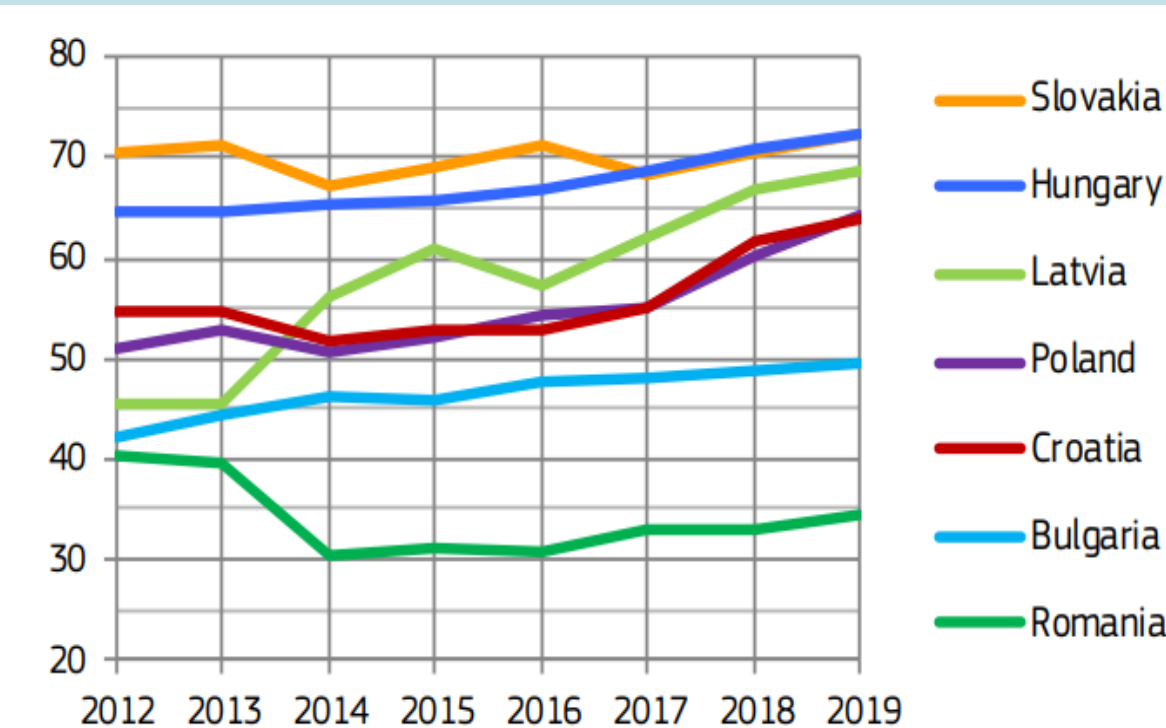
- Across several policy fields with own strategies
- Among several national and regional agencies
- Among institutions with different work cultures

Romania: low national innovation performance

European Innovation Scoreboard 2020



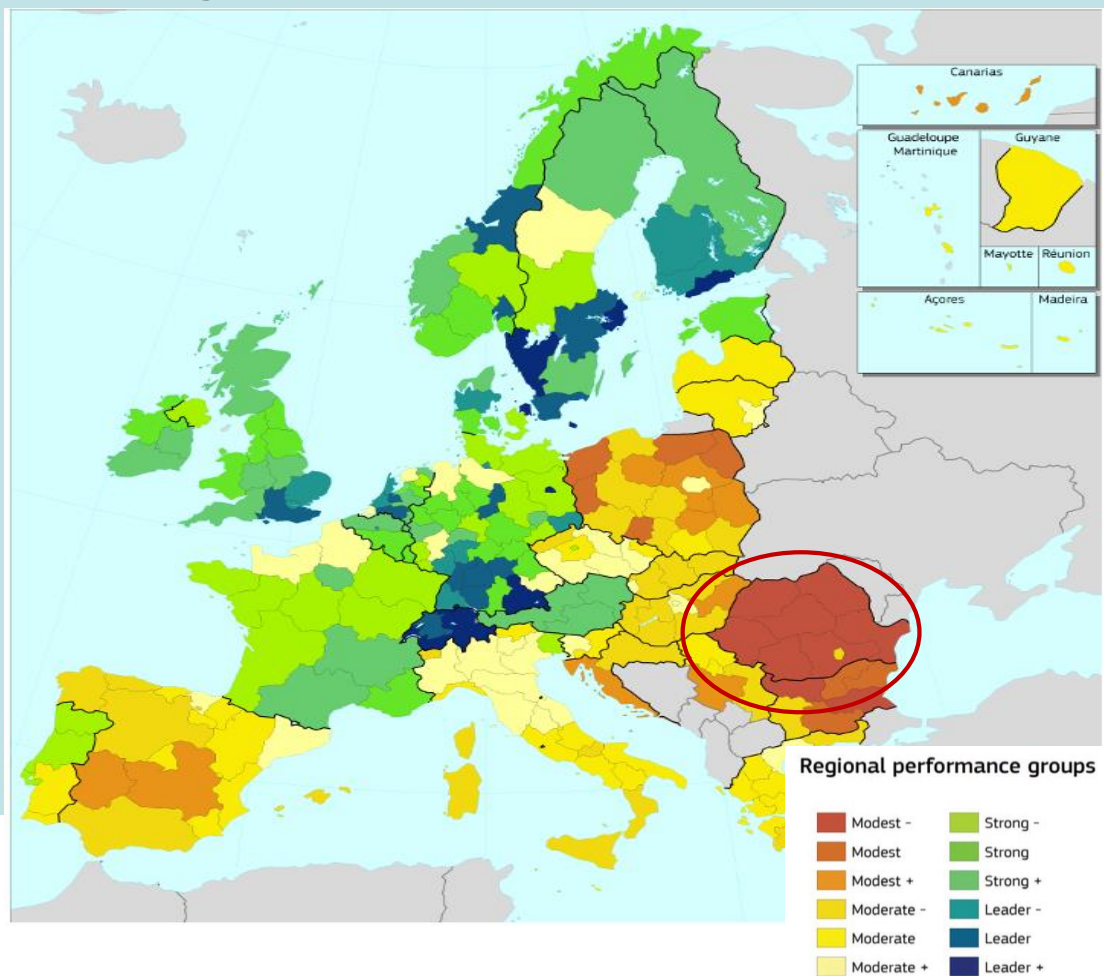
Declining RO innovation performance 2012-2019 by 5.7%, due to strong drop in 2014 (-9.2%), outweighing a 4.1% increase since 2014



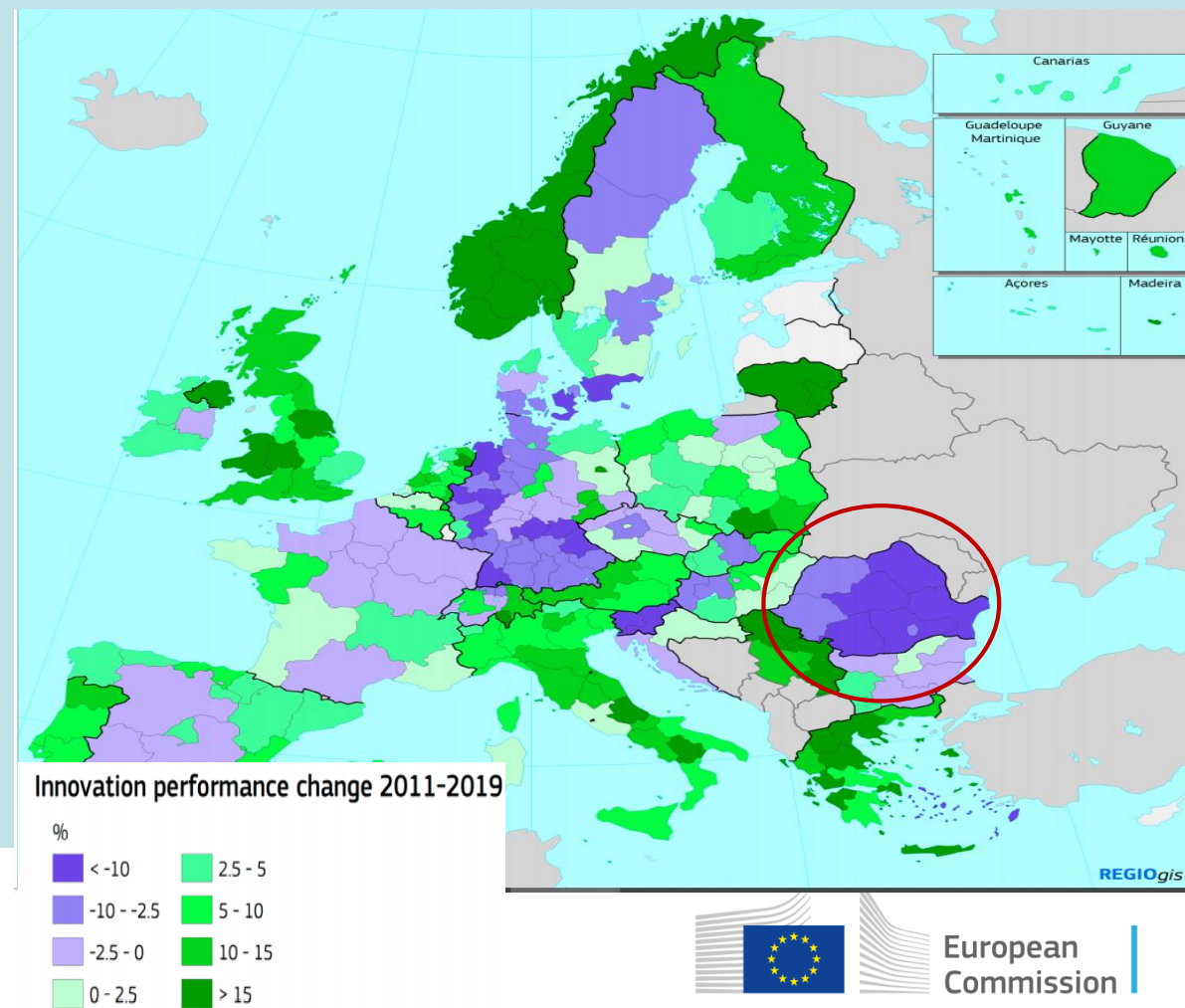
Romania: low regional innovation performance

Regional Innovation Scoreboard (2019)

Capital region Bucharest-Ilfov: Moderate - Innovator
Seven regions: Modest - Innovators



Regional innovation performance change 2011-2019



S3 in Romania: dual approach at national and regional levels

(changes from 2014-2020 to 2021-2027)

National level



- **National R&I Strategy 2014-2020, four S3 priorities:**
 1. Bioeconomy
 2. ICT, space and security
 3. Energy, environment, climate change;
 4. Eco-nano-technologies and advanced materials
- **National RIS3 Strategy 2021-2027 (in progress)**

Governance: Intermediary Body - Ministry of Education & Research

Funding: Competitiveness OP PA 1, National RDI Plan

Regional level



- **7 regional S3 Strategies 2014-2020**
- **Bucharest-Ilfov (capital) regional S3 strategy 2021-27**

Governance

- **Managing Authority:** Ministry of Public Works, Dev. and Administration
- **Regional Intermediary Bodies:** 8 RDAs
- **Regional Development Councils**

Funding: Regional OP, PA1 “Technology Transfer“

1.1 TTOs, S&T Parks, SMEs partnerships with TTOs: 109 MEUR

1.2. **Lagging Regions Initiative (JRC and WB support): 70.7 MEUR**

Main causes for the low R&I capacity

- Heavy under-financing of R&I sector (GERD around **0.5%** during 2012-18, Eurostat)
- **14.6%** innovative enterprises, **3.5%** both product- and process innovators (2016-2018, INS)
- **14%** innovative SMEs (2016-2018, INS)
- R&I policy mix designed at national level, broadly defined national R&I objectives, no formal regional R&I policies to reflect specific regional needs (S3 priorities emerged as *de facto* regional policies)
- Weak entrepreneurial culture, low tech transfer capacity in universities
- Fragmented R&I system, weak links between R&I actors (especially U-I) and between authorities
- Significant brain drain, migration, poor incentives to attract diaspora or international talent
- Centralised national R&I system, regional R&I systems at early stage

Main directions for JRC support to Romania

(through both the RO project and the Lagging Regions project)

JRC support

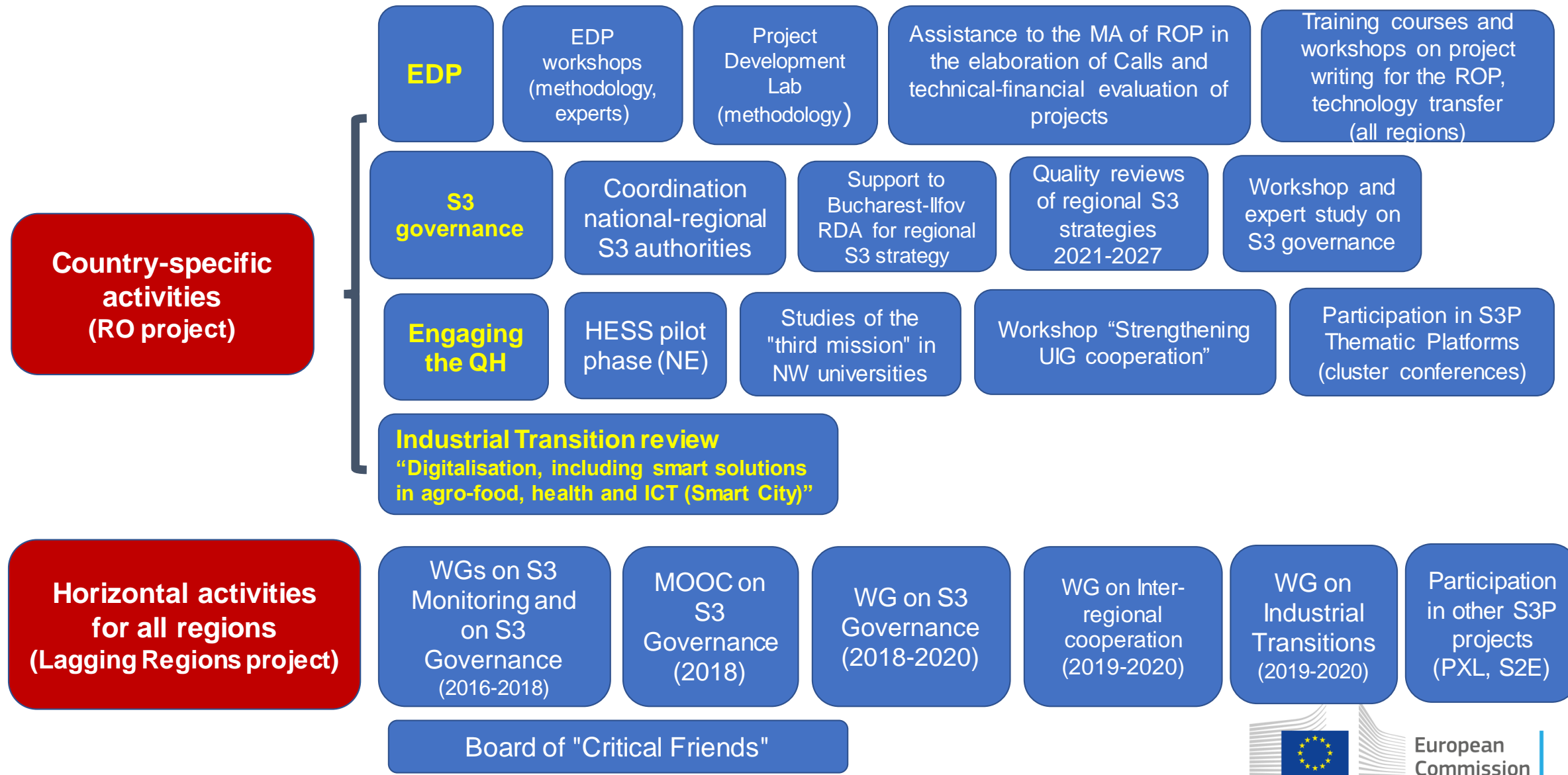
1. S3 governance and national-regional coordination
(AMPOR, RDAs, ministries)

2. Implementing EDP (RDAs, AMPOR)
Ensure a functional project pipeline from inception to funding and implementation

3. Engaging Quadruple Helix actors in S3
U-I-G links, Entrepreneurial University, tech transfer & commercialisation

4. Industrial Transition Review for Romania
(Sept 2019)

JRC support to S3 in Romania - specific activities (2016-2020)



S3 impact



Innovation governance

- Systemic nature of R&I/S3
- Multilevel governance
- Regional R&I – RDAs as “*regional innovation organisers*”
- Links between R&I stakeholders, regional networks
- Regional strengths/needs more visible in the regional S3
- Monitoring and evaluation
- Stronger institutional capacity

Regional knowledge and technology base

- Stronger focus on ITT competences
- New/enhanced regional industrial specialisations (regional S3 priorities)
- Social capital: stronger collective identities around local projects, competencies (EDP)

Accelerated development of regional innovation systems

Thank you!

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