

# Presentation of the Input Paper for Romania

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# Economic profile of Romania

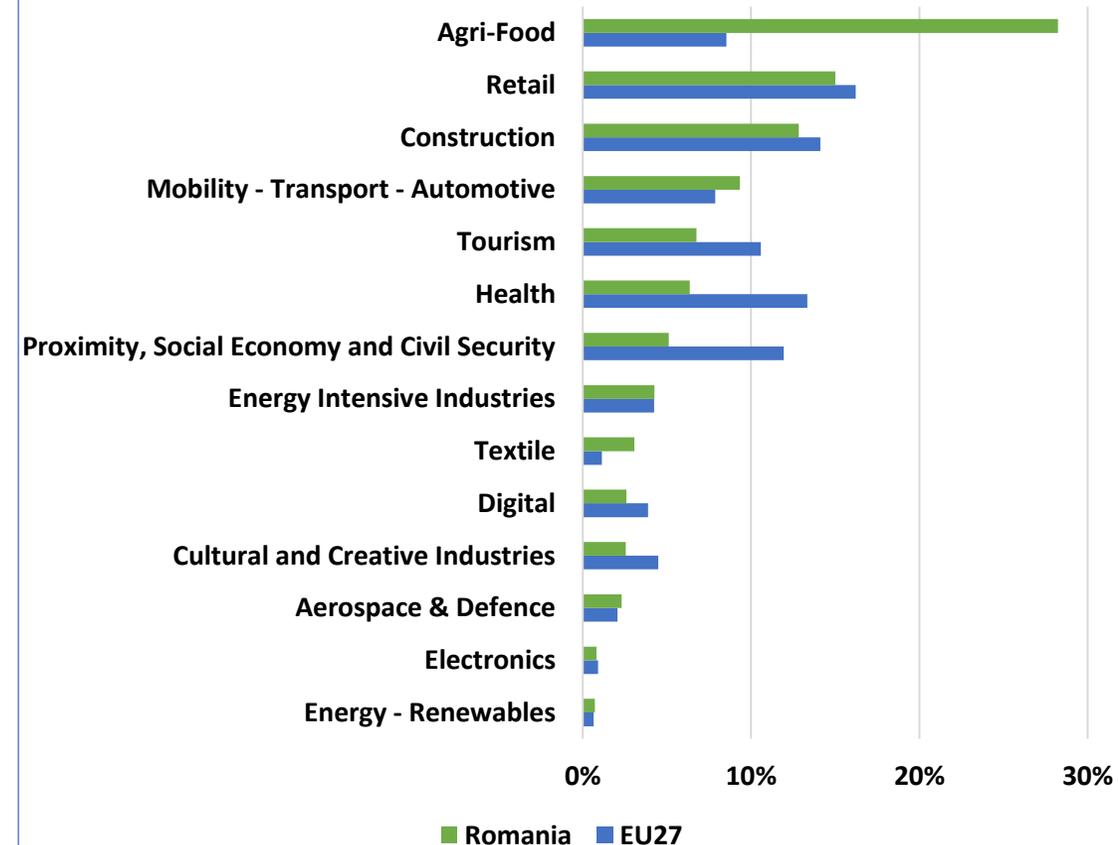
## General trends in the national economy:

- **GDP per capita of €24,000 (PPS)** (EU27 average of €32,400), with **regional disparities** between the capital region and the more rural regions of Romania, such as North-East.
- The **Covid-19 pandemic** had a significant, but comparatively rather contained impact on Romania's economy.

## Sectoral and ecosystem composition:

- **Manufacturing** and **Agriculture & Mining** make up important industries in terms of employment with a more **pronounced presence** in less densely populated regions.
- These rural regions of Romania also exhibit specialisation nodes in industrial ecosystems like **Agri-Food, Textile, Mobility-Transport-Automotive and Energy-Renewables**.
- The capital region exhibits specialisation nodes in the **Digital as well as Aerospace & Defense ecosystems**.

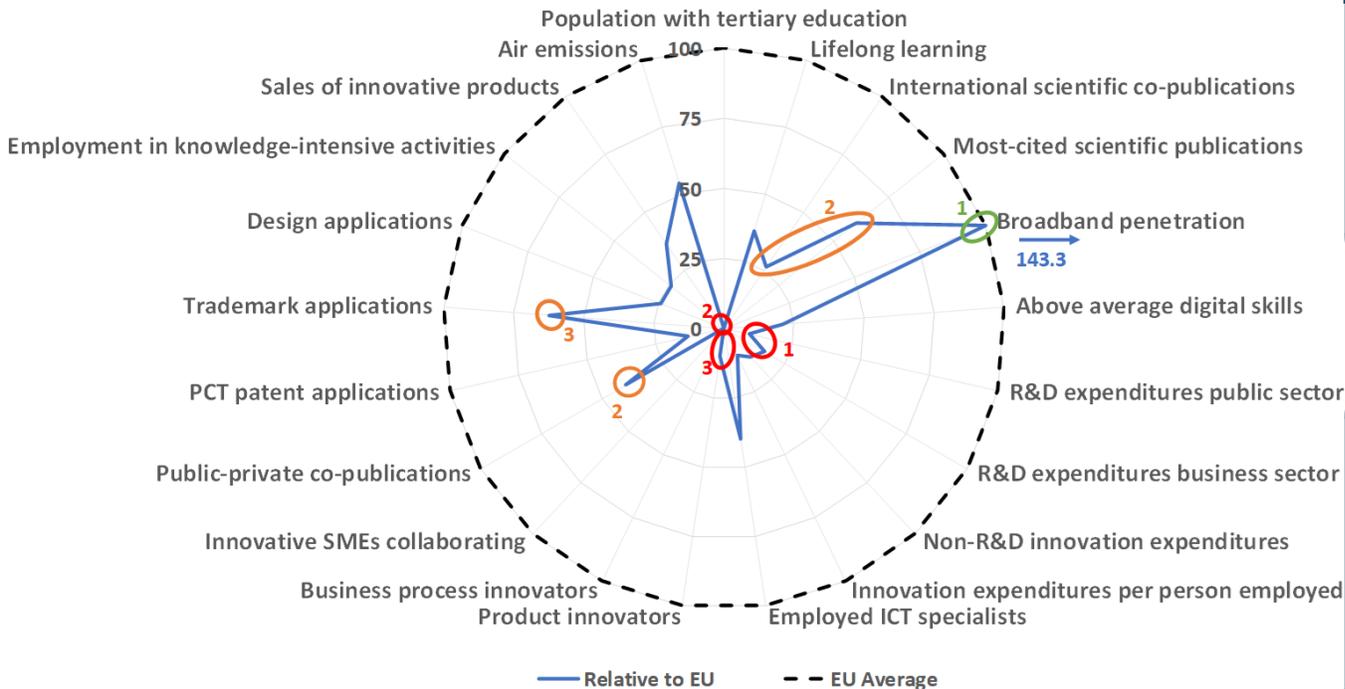
## Employment shares across the Industrial Ecosystems



Source: ECCP (2023), own elaboration based on Eurostat.

# Romania's national innovation & regional competitiveness performance

## EIS 2023: RO – Romania as an “Emerging Innovator”



### Relative strengths and Improvements

1. Broadband penetration (relative to EU)
2. International scientific co-publications, Most cited publications, Public-private co-publications (positive performance change)
3. Trademark applications (positive performance change)

### Areas for improvement

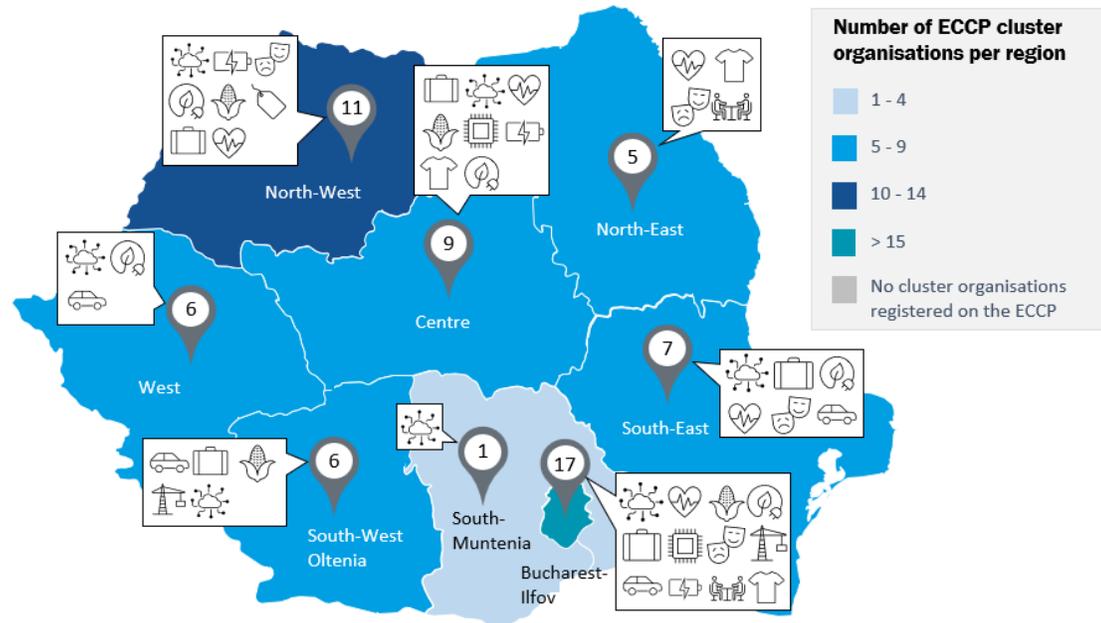
1. R&D expenditures and non-R&D expenditure
2. SMEs collaborating with others
3. Product and Business process innovators

### Regional Competitiveness Index 2022

- Romania's overall **average score falls below** the EU average, with significant variations among regions.
- The capital region stands out for its relatively strong performance, particularly in **Higher education & LLL, Labour market and Market size.**

Source: ECCP (2023) based on the Regional Innovation Scoreboard 2023.

# Cluster ecosystem\* in Romania: Locations, sectors and structures



## Cluster Organisations

- **62 Cluster Organisations** (CO) from Romania on ECCP
- Well distributed across regions
- Cover 13 out of 14 EU Industrial Ecosystems
- **Top 3:** Digital, Tourism, Renewable Energy/Health

## Structure of clusters

- **Relatively small COs:** 70% have 50 or less members (EU: 35%)
- Cluster organisations have comparatively **low numbers of staff:** 76% have up to 5 employees (EU: 55%)
- **Collaborative Areas:** Partnering for projects; internationalisation; digitalisation

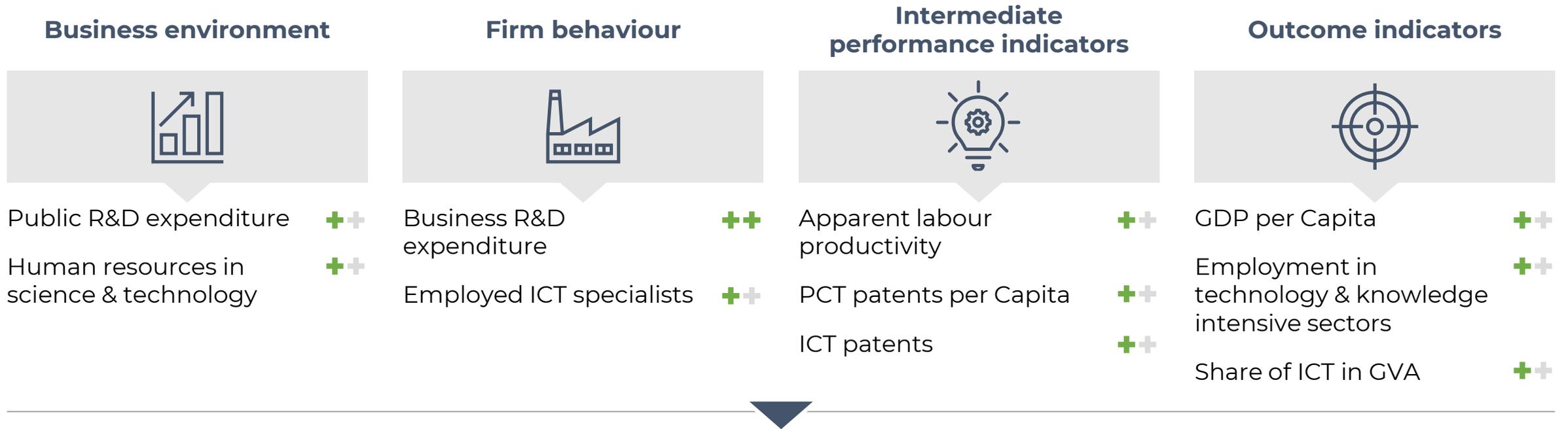
### Industrial Ecosystems addressed by cluster organisations



Source: ECCP (2023). Own elaboration based on <https://reporting.clustercollaboration.eu/all>; last access 24.10.2023. \*registered on the ECCP

# Clusters and regional economic competitiveness

**Cluster organisations** are **positively correlated** with a range of **economic competitiveness indicators**:



**However:** The presence of regional industrial agglomerations is also linked with **higher air pollution**.

Source: ECCP (2022). Summary Report on Cluster Policy in the EU.

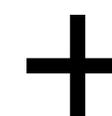
**++** Positive correlation **+** Weak positive correlation

# European Commission programmes for collaborative projects among clusters & their members

2014-2020 funding period

2021-2027 funding period

				
<p><b>INNOSUP-1</b></p> <ul style="list-style-type: none"> <li>• Horizon 2020 initiative</li> <li>• Development of new cross-sectoral industrial value chains across the EU</li> <li>• <b>Three clusters involved in five INNOSUP-1 projects</b></li> </ul>	<p><b>ESCP-4i</b></p> <ul style="list-style-type: none"> <li>• COSME initiative</li> <li>• Development and implementation of joint internationalisation strategies to support SME internationalisation</li> <li>• <b>Seven clusters involved in 8 ESCP-4i projects</b></li> </ul>	<p><b>ESCP-4x</b></p> <ul style="list-style-type: none"> <li>• COSME initiative</li> <li>• Boost the cross-cluster networking and learning within the EU and development of cluster management excellence</li> <li>• <b>Seven clusters involved in as many projects</b></li> </ul>	<p><b>ESCP-S3</b></p> <ul style="list-style-type: none"> <li>• COSME initiative</li> <li>• Boost cluster cooperation in specific thematic areas in the field of regional smart specialisation strategies</li> <li>• <b>Two clusters involved in two projects.</b></li> </ul>	<p><b>Euroclusters</b></p> <ul style="list-style-type: none"> <li>• Single Market Programme</li> <li>• Support the implementation of the EC industrial strategy through cross-sectoral, interdisciplinary and trans-European cluster initiatives</li> <li>• <b>One cluster involved in one Euroclusters (DREAM project)</b></li> </ul>

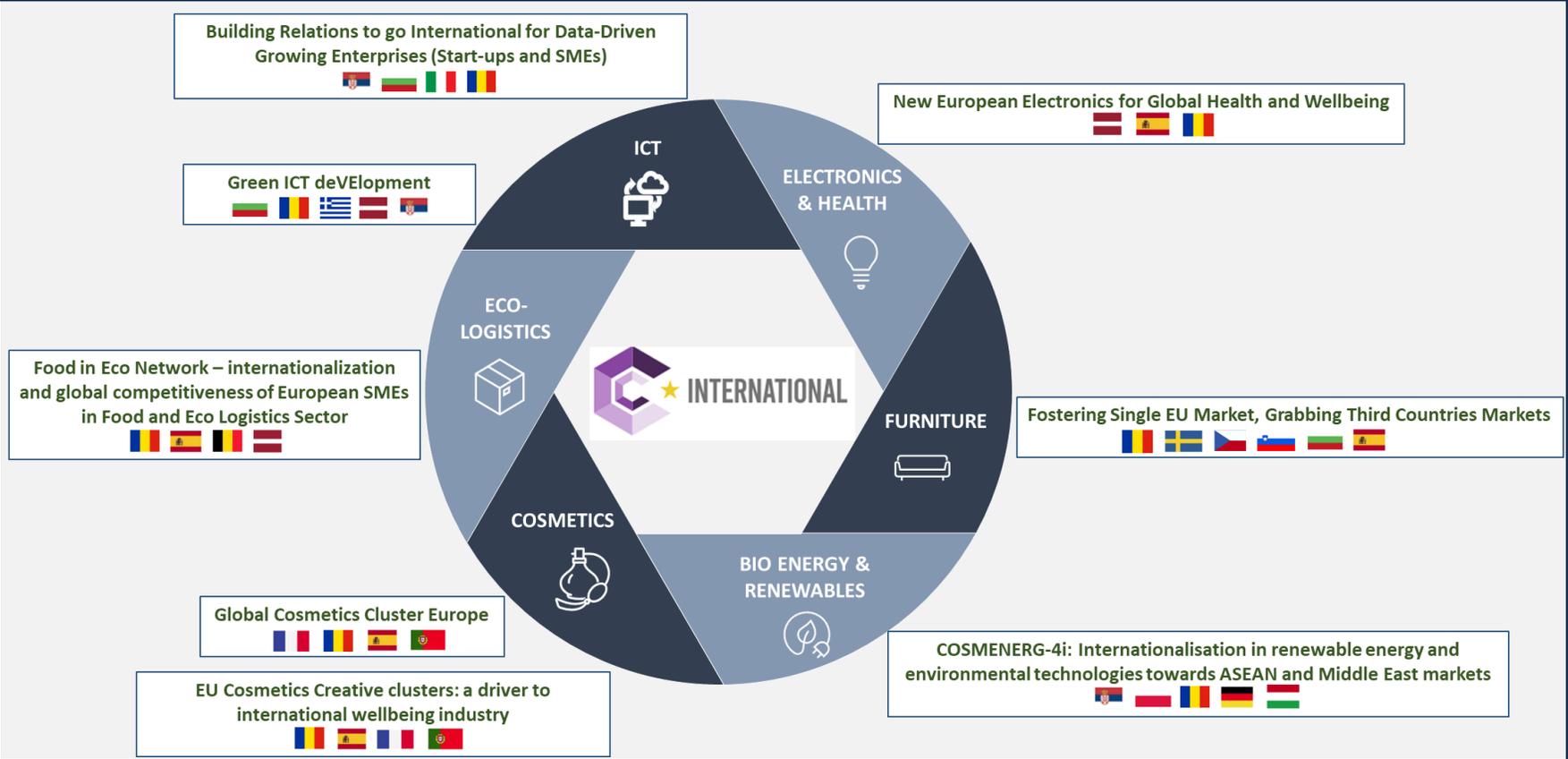


Source: ECCP (2023).



# Seven clusters from Romania involved in eight ESCP-4i projects with European partners

## Overview of the involvement in the ESCP-4i



- **8 project participations in the ESCP-4i** by 7 Romanian cluster organisations.
- **The projects involved 27 European cluster partners** from 18 different countries.
- **Thematic focus:** furniture, cosmetics, bio-energies, ICT & deep tech amongst others.
- **Diverse target markets:** USA, Canada, Singapore, China, UAE, and more.

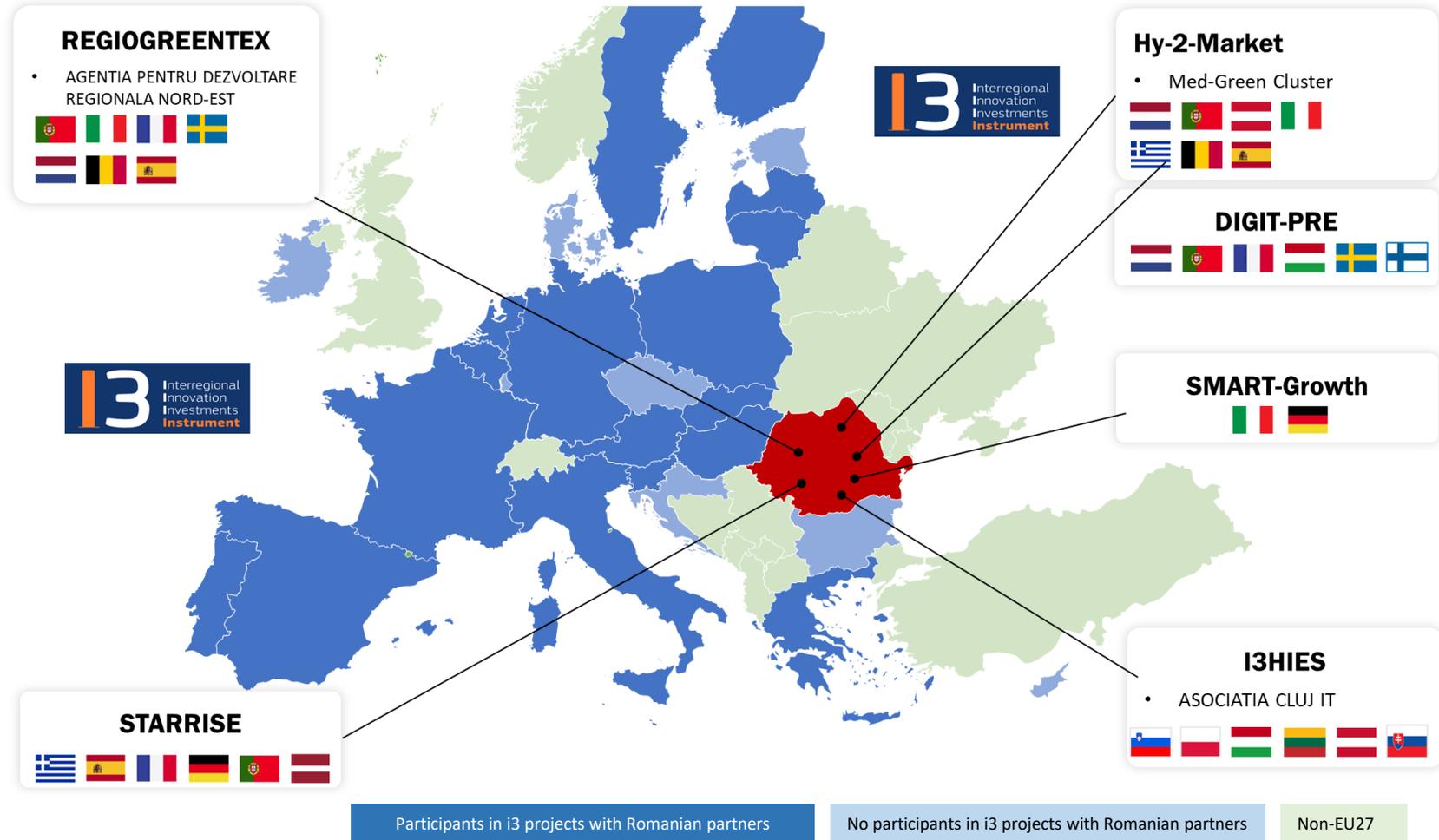
Source: ECCP (2023) based on information from COSME data hub.



# Romanian participations in interregional innovation initiative

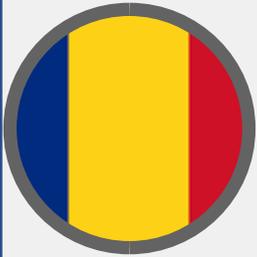
- **6 project participations in I3 from Romanian participants**
- **Projects involved EU cluster partners** from 17 different countries
- **Thematic foci:**
  - Textiles
  - Food packaging
  - Healthcare
  - Photonics
  - Hydrogen

## Overview of the selected projects



# Smart Specialisation in Romania

## Priority areas of Romania

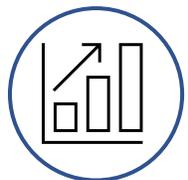


1. Bioeconomy
2. Digital Economy and Space Technologies
3. Energy and mobility
4. Advanced manufacturing
5. Advanced functional materials
6. Environment and eco-technologies
7. Health

- The Romanian Smart Specialisation Innovation Strategy 2021-2027 identifies **seven priority areas**.
- Cluster organisations (can) play an important role in the **design & implementation of S3**.
- Cluster organisations shall play a central role in the National Strategy for Research, Innovation & Smart Specialisation 2022-2027 of Romania.
- The strategy regards clusters as **key support tools for SMEs** in their integration into global value chains. Supporting clusters to increase the capacity for collaboration & internationalisation a priority strategy.

Source: ECCP (2023), own elaboration based on the National Strategy for Research, Innovation and Smart Specialisation 2022-2027 of Romania

# Final Remarks



**Romanian economy** is characterized by a comparatively large **Agri-food & Manufacturing** sector, as well as **substantial disparities** between the capital region and the more rural regions.



**Romanian cluster organisations** are present across all regions and particularly strong in the Digital, Tourism, Renewable Energy and Health ecosystems

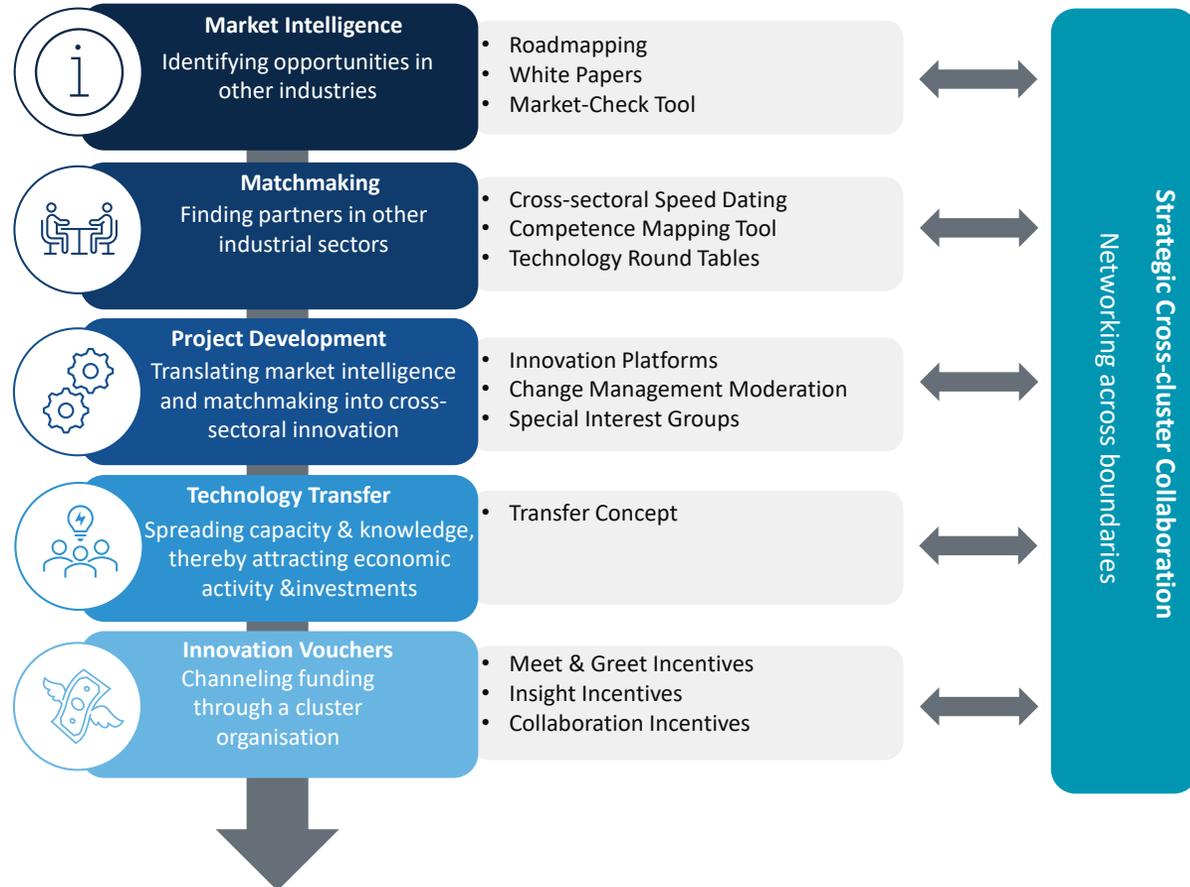


**Multiple Interregional cluster partnerships and cross-border collaboration** facilitate innovation and value chain transformation within the Single Market



The National Strategy for Research, Innovation & Smart Specialisation covers **7 priority areas** and regards clusters as a key support tool.

## Role of cluster organisations in the innovation ecosystem



**Economic integration into the single market and facilitation of innovation & greater resilience**

Source: ECCP (2023) based on European Cluster Observatory (2014): Cluster Collaboration and Business Support Tools to Facilitate Entrepreneurship, Cross-sectoral Collaboration and Growth