

Presentation of the Input Paper

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Economic profile of Baden-Württemberg

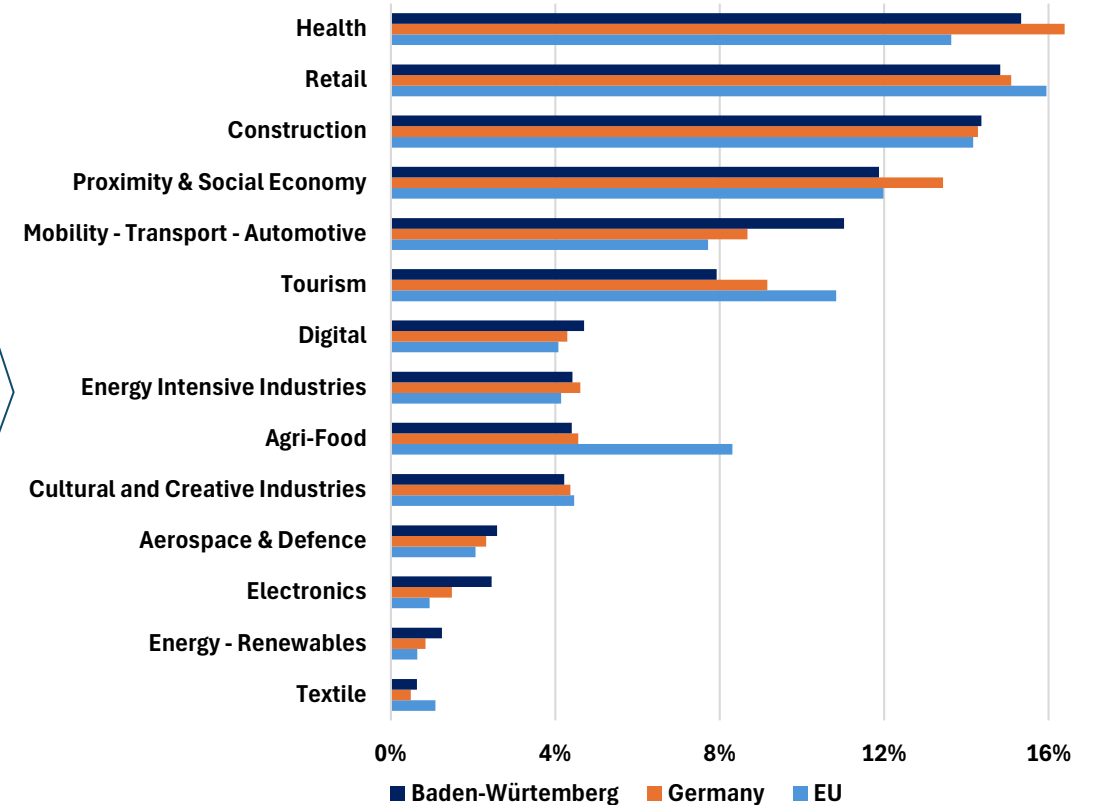
General trends in the regional economy:

- The state of Baden-Württemberg (BW) exhibited a **GDP of €622.1 billion** and a **GDP per capita (PPS) of €49,100** (EU27 avg. €38,100)
- BW **exports totalled €241.1 billion in 2024**, with the **vehicles industry** accounting for most exports (21.5% of total exports)
- The region excels in **the automotive industry**, with approximately **1,000 suppliers, 300 automobile companies**, an annual turnover of **€135 billion** and nearly **half a million jobs** linked to the industry

Employment composition

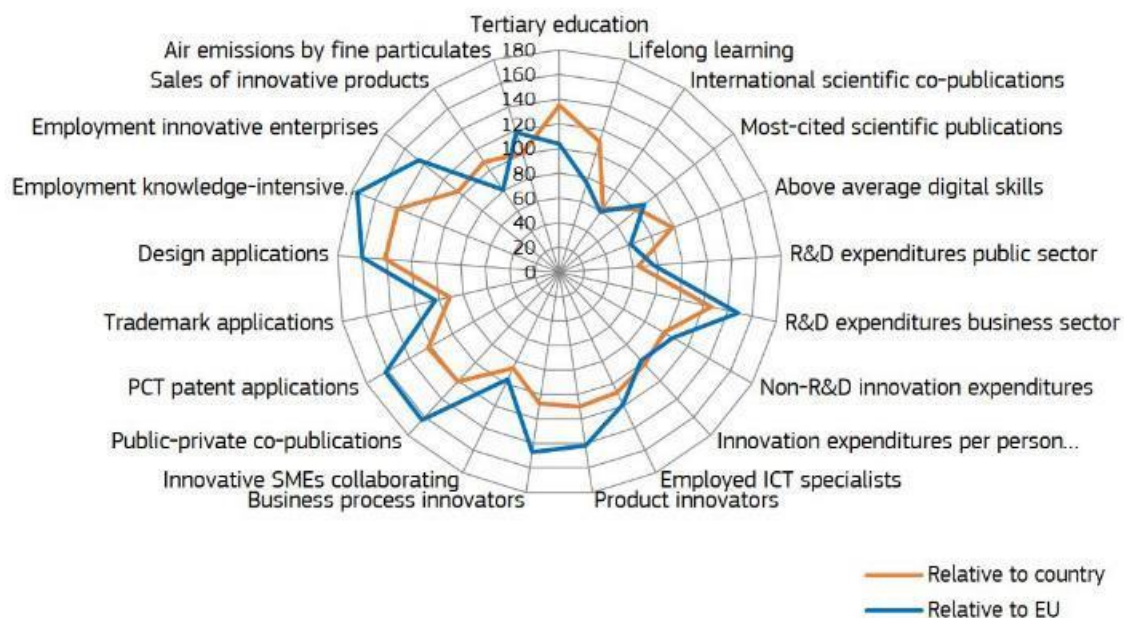
- The importance of the **Mobility-Transport-Automotive ecosystem** is reflected in its employment share (11%), significantly above the national and EU27 average (8.7% and 7.7%)
- **Digital, Aerospace & Defense, Electronics** and **Energy – Renewables** also represent employment shares above the national and EU average

Employment across the industrial ecosystems



Regional innovation and competitiveness performance

RIS 2023: Stuttgart (DE11) as an “Innovation Leader”



BW ranks among the global leaders in R&D, with **expenditure at 5.6% of its GDP**, while accounting for 24% of Germany’s **total R&D employment** and 38.7% of its **patent applications**



The strong innovation performance of BW is reflected in the **Regional Innovation Scoreboard**, with all regions classified as **innovation leaders** or **strong innovators**

The administrative district of **Stuttgart** showcases:

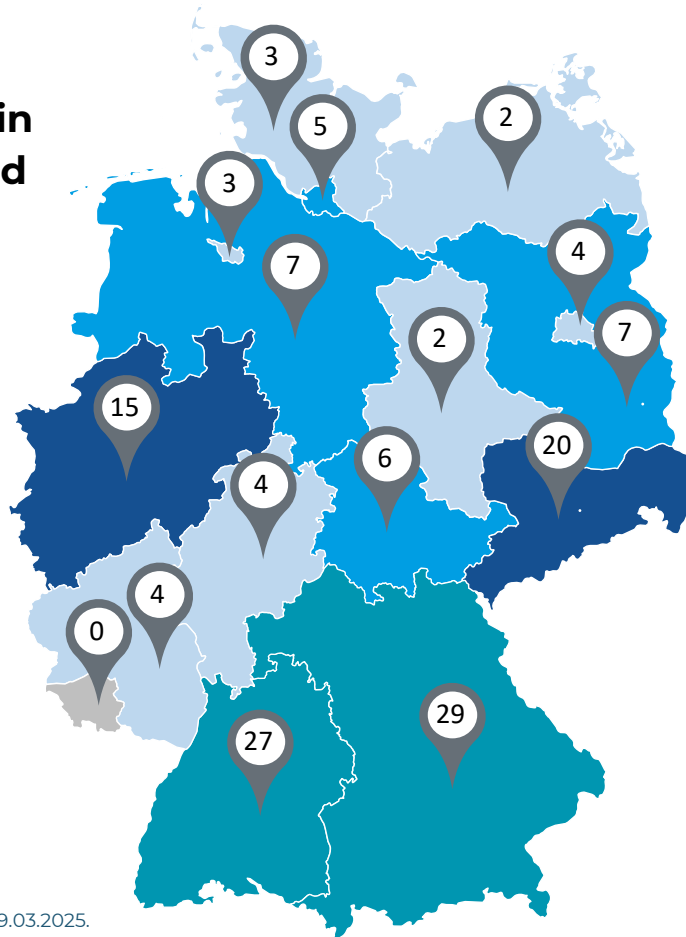
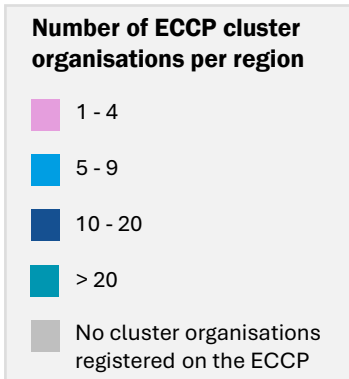
- **Strong performance** in PCT patent & Design applications and employment knowledge-intensive activities
- **Room for improvement** in international scientific co-publications and collaborations between innovative SMEs.

Regional Competitiveness Performance (RCI 2022)

- All four regions BW score above the EU average; the districts of Karlsruhe and Stuttgart also exceed the national average
- The district of Karlsruhe excels in infrastructure, Stuttgart leads in health, and both regions demonstrate strong market size scores

ECCP cluster ecosystem in Baden-Württemberg

Cluster organisations registered on the ECCP in Baden-Württemberg and Germany



138 ECCP-registered cluster organisations in Germany, of which 27 are based in Baden-Württemberg

- Second-most ECCP-registered cluster organisations in Germany
- ECCP-registered cluster organisations in BW are active in **11 out of 14 EU Industrial Ecosystems**
- **Health, Digital and Mobility-Transport-Automotive** are the most represented ecosystems among those organisations

Two cluster organisations are located in the Heilbronn-Franken economic region

- **TransformativeDIALOG** aims to drive innovation and competitiveness particularly in the automotive sector by fostering collaboration among companies
- **Packaging Valley Germany e.V.**, is a key cluster organisation in the packaging industry, representing over 100 companies

Source: ECCP (2025). Own elaboration based on <https://reporting.clustercollaboration.eu/all>; last access 19.03.2025.

Key innovation centres and hubs

Baden-Württemberg

Quantum^{BW}

- Connects research and industry to drive **quantum tech development**
- Builds a strong, collaborative **quantum ecosystem** in BW

INNOVATIONCAMPUS
FUTURE MOBILITY

- Collaborative project by University of Stuttgart & Karlsruhe Institute of Technology
- Focuses on **sustainable transport and production technologies**

Cyber Valley

- Leading hub **for AI and robotics** research and innovation
- Fosters **knowledge exchange** between science, industry, and society

Heilbronn-Franken

IPAI

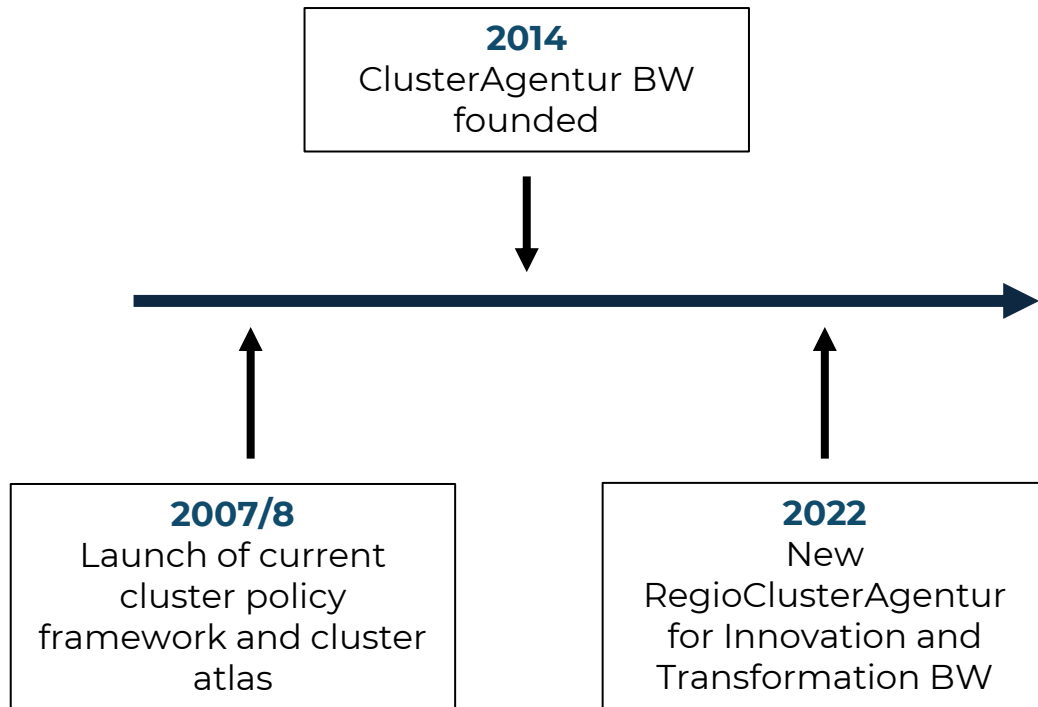
- Fosters collaboration between **AI experts from industry & research**
- Educates the public on AI, promoting awareness & accessibility

mec

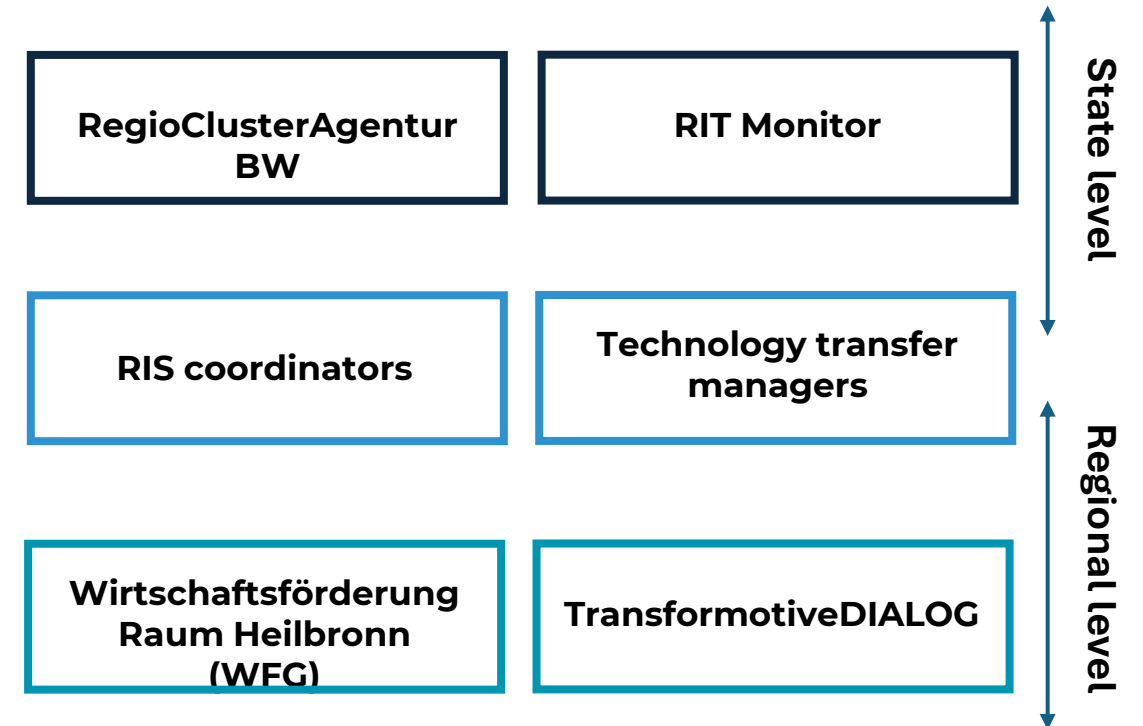
- Advanced Chip Design Accelerator (ACDA)
- Competence center focusing on **advanced chiplet, packaging, system integration, sensor, and (edge) AI technologies** to enhance automotive R&D

The policy framework to support cluster development

Evolution of Baden-Württemberg's cluster policy

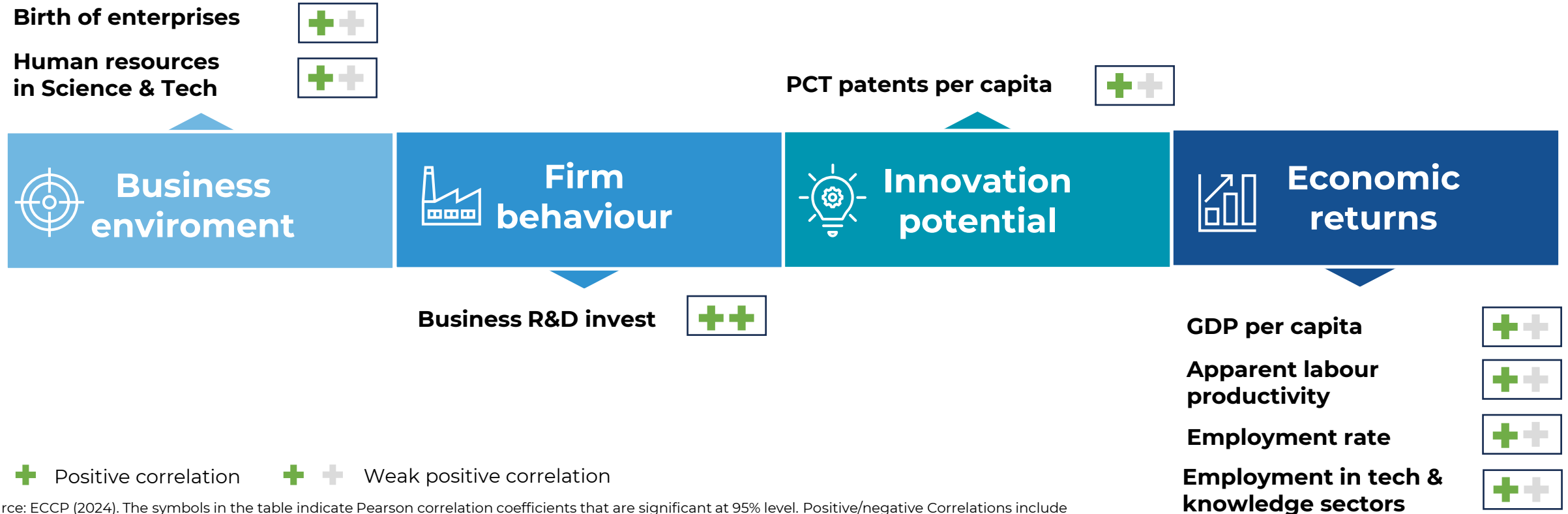


Baden-Württemberg's cluster support system



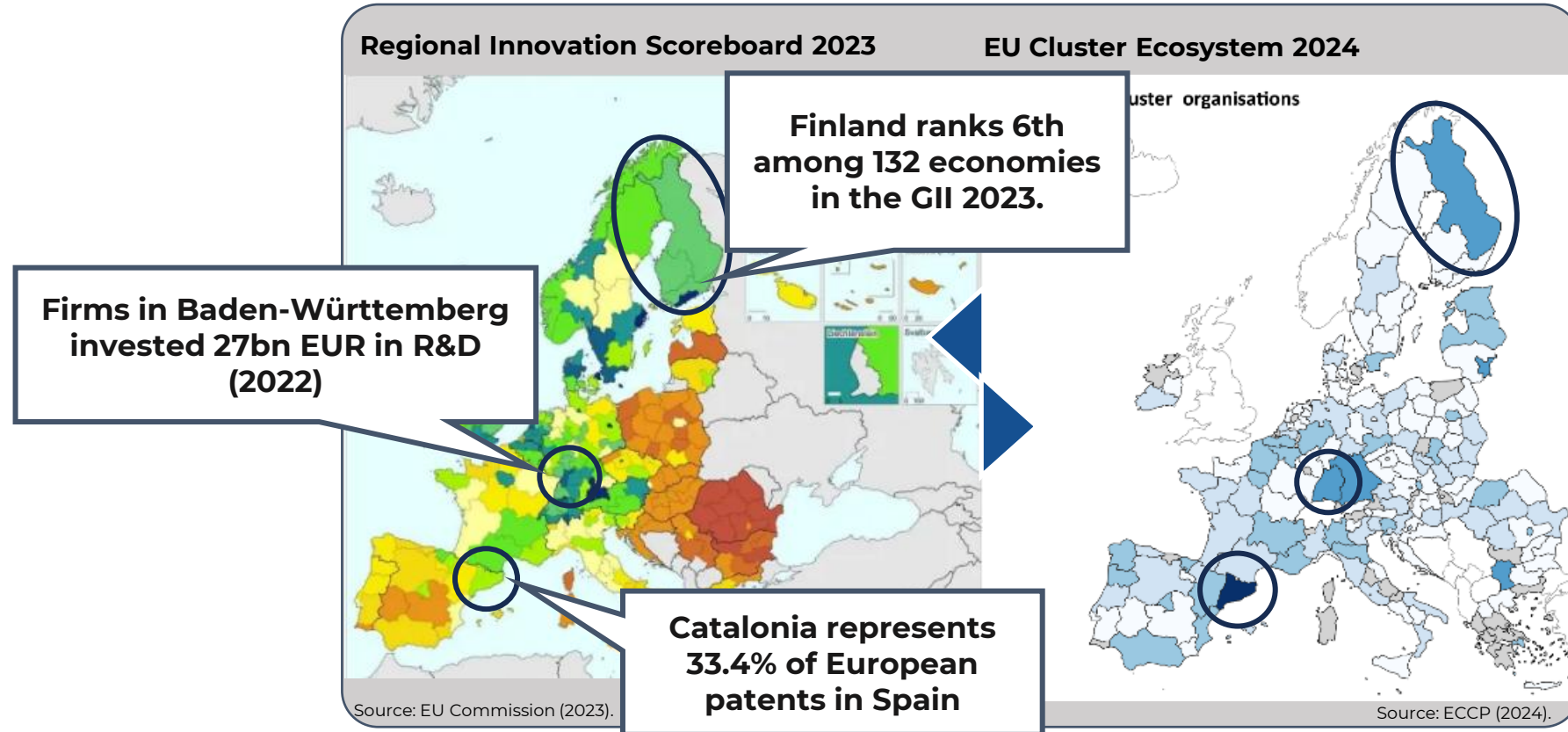
Clusters and regional economic competitiveness

Correlation of cluster presence and key competitiveness indicators



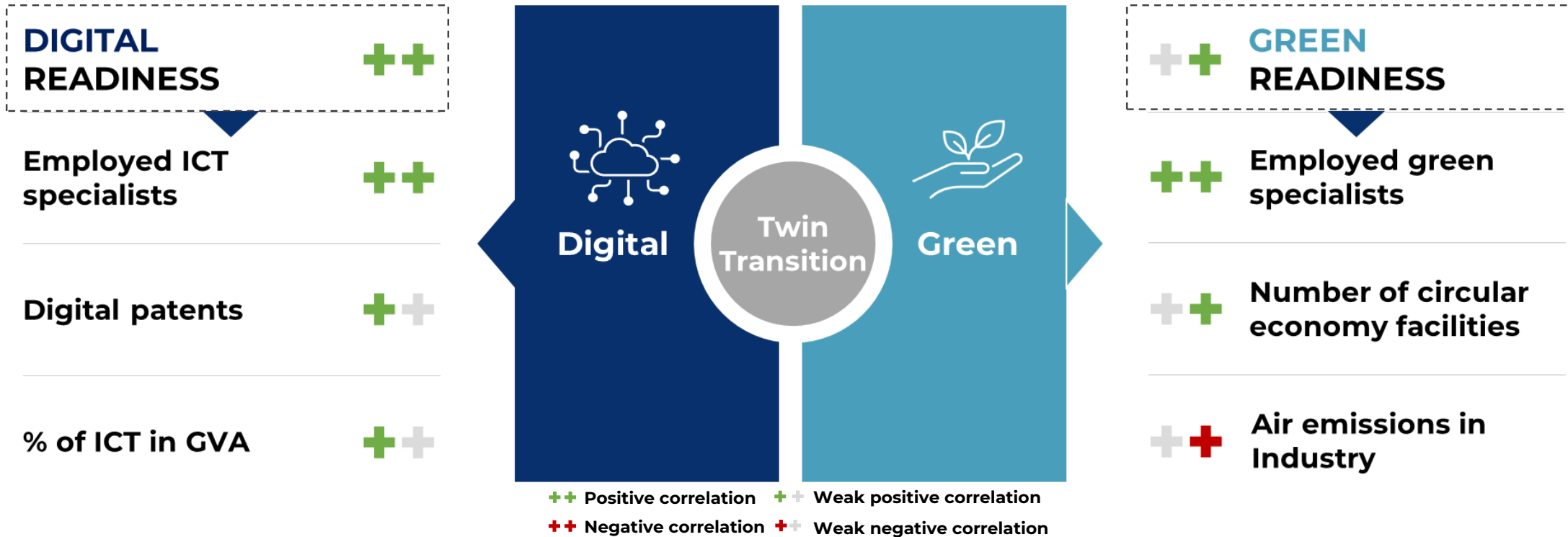
Source: ECCP (2024). The symbols in the table indicate Pearson correlation coefficients that are significant at 95% level. Positive/negative Correlations include coefficients ≥ 0.3 , weak correlations include coefficients ≥ 0.1 . Green fields indicate a positive relationship and red a negative relationship

Clusters and regional economic competitiveness



Clusters and the Twin Transition

Clusters are driving digital and green readiness:



Source: ECCP (2025). The symbols in the table indicate Pearson correlation coefficients that are significant at 95% level. Positive/negative Correlations include coefficients ≥ 0.3 , weak correlations include coefficients ≥ 0.1 . ^Green fields indicate a positive relationship and red a negative relationship

EU programmes for collaborative projects among clusters & their members



ESCP-4i

- COSME initiative
- Development and implementation of joint internationalisation strategies to support SME internationalisation
- **Three cluster organisations from Baden-Württemberg are involved in a total of **six** ESCP-4i projects**



ESCP-4x

- COSME initiative
- Boost the cross-cluster networking and learning within the EU and development of cluster management excellence
- **Five clusters from Baden-Württemberg are involved in **five** ESCP-4x projects**



Euroclusters

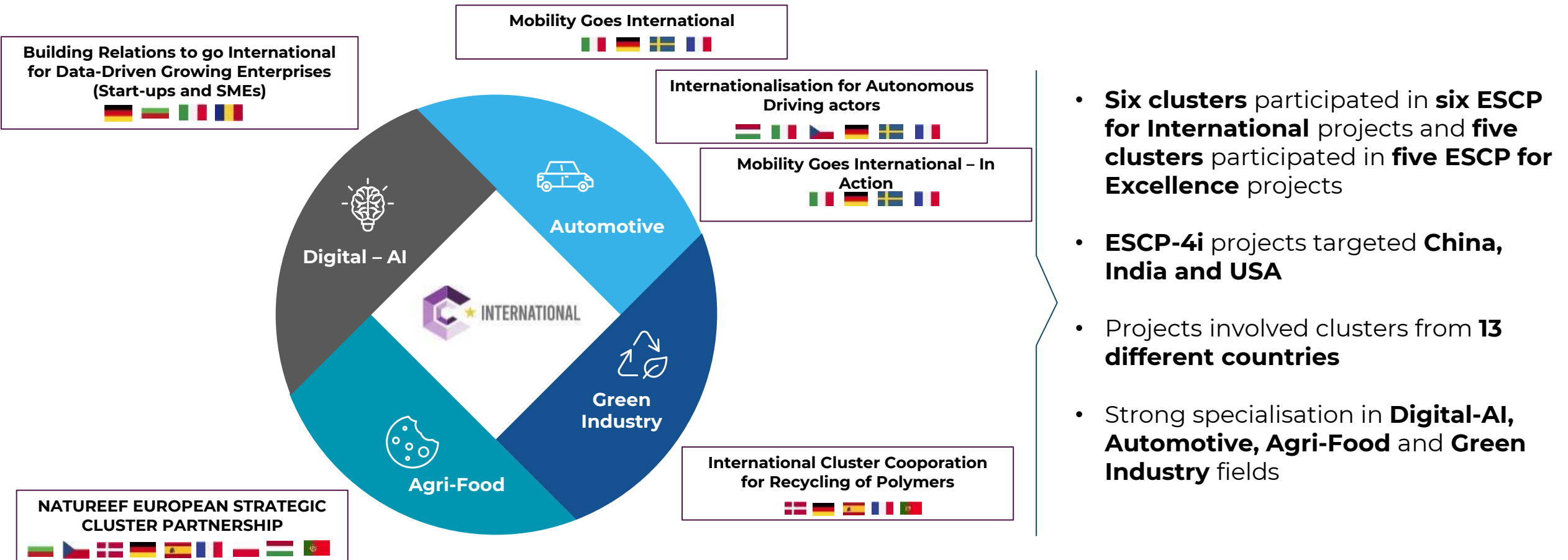
- Single Market Programme
- Support the implementation of the EC industrial strategy through cross-sectoral, interdisciplinary and trans-European cluster initiatives
- **Three cluster organisations from Baden-Württemberg participate in **three** Euroclusters: AIBC, POLREC, BioMan4R2**



I3

- Funding instrument under the European Regional Development Fund (ERDF) 2021-2027 programming period that provides advisory and financial support
- **One beneficiary (not a cluster organisation) from Baden-Württemberg participates in the I3 project INNO4CFIs**

Cross-border cooperation and involvement of Baden-Württemberg in European partnerships



Involvement of Baden-Württemberg in the Euroclusters

BioMan4R2

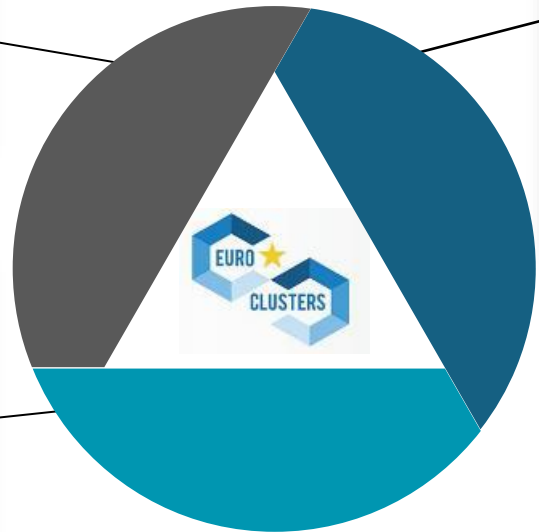


- **BioRegio STERN Management GmbH**
- Focused on the health sector, the purpose is to reshape its funding to boost innovation in biomanufacturing and medical products

POLREC



- **TransformotiveDIALOG**
- Enhancing the polymer industry's capacity to minimise the environmental impact of its products while strengthening Europe's strategic autonomy in the supply of raw materials for polymer production



AIBC-Eurocluster



- **Baden-Württemberg Connected e.V.**
- Centred on AI and Blockchain technologies, the aim is to support the development of AI and Blockchain by SMEs and start-ups.

- **3 participations in Euroclusters** by three BW cluster organisations
- Euroclusters involved EU cluster partners from 11 different countries
- Thematic focus areas:
 - **AI-Blockchain**
 - **Health**
 - **Polymer recycling**

Engaging in strategic interregional cooperation



Interreg Alpine Space Programme 2021 - 2027

RE-INCITE project

- Fosters circular economy in the Alpine region by connecting clusters and municipalities to transform industrial waste into secondary materials for other industries
- Reduces CO2 emissions and raw material dependency

INNOBIOVC

- Strengthens circular bioeconomy value chains in the Alpine region by fostering transnational collaboration among SMEs operating at local level



Vanguard Initiative



BW was a founding member of the Vanguard Initiative



Aims to stimulate industrial innovation and builds European value chains based on complementarities in regional smart specialisation strategies



BW co-leads Initiative's pilot on AI



Participates in key pilots on Efficient and Sustainable Manufacturing, 3D Printing, and Nano-Enabled Products

Smart Specialisation Strategy of Baden-Württemberg and the role of clusters

Smart Specialisation Strategy of Baden-Württemberg



Priority areas of the S3 2021-2027 of Baden-Württemberg

1. Digitalisation, Artificial Intelligence & Industry 4.0
2. Sustainable mobility
3. Healthcare
4. Resource efficiency & energy transition
5. Sustainable bioeconomy

- BW's Smart Specialisation Strategy identifies **5 priority areas**
- **Cluster organisations play an important role** in BW's S3, fostering innovation in companies, the development of new technologies and business models and supporting internationalization activities and the recruitment of skilled workers
- **Invest BW and RegioWIN 2030** are instruments that operationalise the Smart Specialisation Strategy by funding innovation, transformation, and regional development projects in priority areas
- Complementary to S3, the **Innovation and Future Agenda of Baden-Württemberg** bundles investments in **seven innovation fields** to drive key technologies, strengthen research-industry ties, and boost BW's competitiveness and tech sovereignty.

Final Remarks



Baden-Württemberg is an **Innovation Leader** with a strong manufacturing base, high R&D intensity, and global export strength in automotive and machinery



Baden-Württemberg has a **diverse cluster landscape**, supported by the RegioClusterAgentur BW, which links clusters with regional innovation systems and promotes cross-clustering

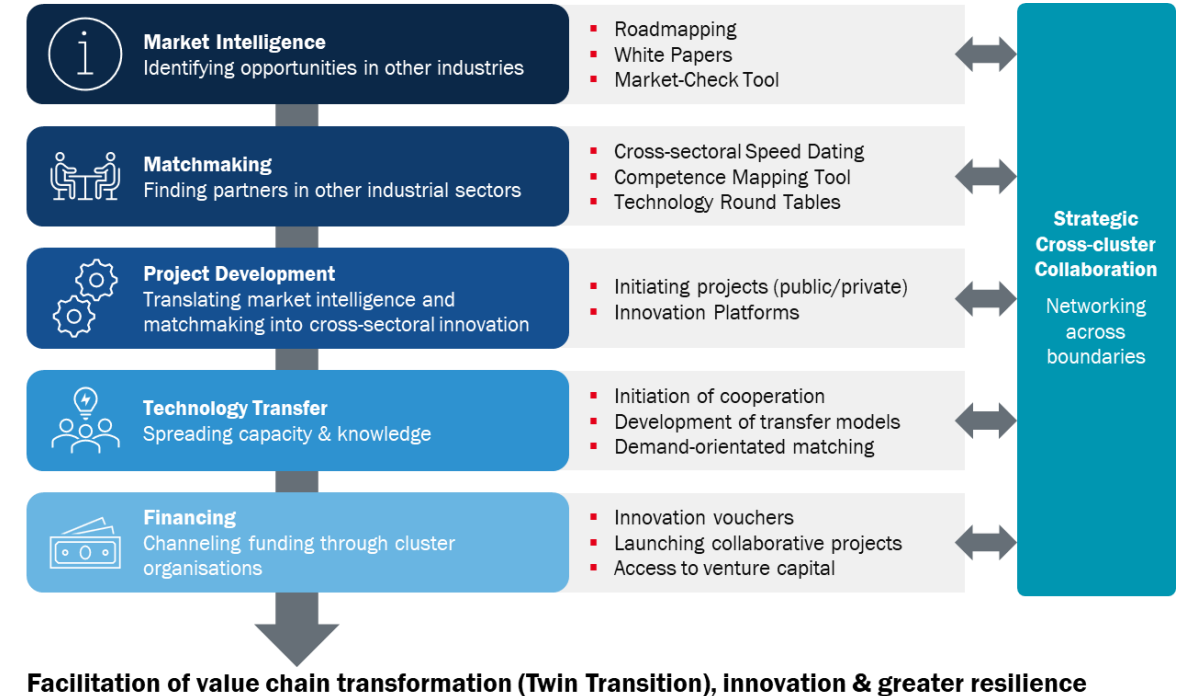


Cluster organisations from Baden-Württemberg are actively involved in various **interregional collaboration initiatives**, such as ESCP, Euroclusters and I3, supporting interregional collaboration and joint innovation



The Baden-Württemberg S3 2021–2027 defines **five priority areas**, with clusters playing a central role in the governance and implementation of the strategy

Role of cluster organisations in the innovation ecosystem



Source: ECCP (2025), based on European Cluster Observatory (2014): Cluster Collaboration and Business Support Tools to Facilitate Entrepreneurship, Cross-sectoral Collaboration and Growth

Make sure to check out the Input Paper!

