



Policy Brief no. 3

Anticipating regional futures: Exploring scenarios for spatial mobility and the twin transition in Europe



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Key Messages

- ▶ **Successfully navigating the twin transition requires shifting from top-down mandates to localized, participatory foresight models.** Engaging citizens and local experts in scenario-building ensures that regional policies reflect ground-level realities, address specific vulnerabilities, and maintain vital societal legitimacy.
- ▶ **The interplay between spatial mobility and twin transition capacity is decisive for regional survival.** Regions lagging in both green and digital transitions risk compounding population loss and fiscal strain, while those investing in these foundations create new centres of attractiveness.
- ▶ **Most pilot regions are currently projected to experience gradual, uneven transitions dominated by inertia and demographic decline.** Foresight scenarios indicate a 50% to 75% probability that these territories will follow a "Snail's Pace" trajectory rather than undergoing rapid transformation.
- ▶ **Embedding mobility foresight into regional policy design is essential for transforming mobility from a source of inequality into a driver of inclusive prosperity.** This proactive approach allows the EU to move beyond reactive cohesion measures and implement targeted, place-based transition management.

Background & Context

Europe's regions are entering a decisive decade shaped by two intertwined forces: digital transformation and the green transition. Together, these processes—referred to as the **twin transition**—are redrawing the spatial, economic, and social landscapes of the European Union. The **MOBI-TWIN project** explores how twin transition interacts with interregional spatial mobility, i.e., the movement of people across regions through commuting, migration, and new hybrid forms of work. Understanding these dynamics is vital for strengthening cohesion, competitiveness, and resilience.

To anticipate how mobility trends and transition capacities will shape regional trajectories by 2030, a structured

foresight exercise was conducted using the Regional Attractiveness Index (RAI), which was developed in the framework of the project. The process produced four scenario types, representing distinct futures for EU regions, that were tested across the project's five pilot regions.

The brief synthesises evidence from consortium-level co-creation workshops, a European Delphi survey, local stakeholder workshops in all pilot regions, and regional data analysis. **It aims to inform policymakers on how to design place-sensitive policies that manage mobility flows, support just transitions and reduce territorial inequalities.**

MOBI-TWIN Evidence

Methodology

MOBI-TWIN's scenario building introduces an **integrated foresight methodology** that combines:

- **Literature-based framing:** conceptualizing mobility, digitalization, and regional transitions.
- **Expert validation:** an online Delphi survey with 60 participants assessing scenario probability and impact.
- **Co-creation workshops:** consortium partners elaborating the core narratives.
- **Local stakeholder workshops:** 52 participants providing regional contextualization and societal validation.

Four Regional Scenario Archetypes:

Leapfrog: Rapid advancement overcoming structural barriers through innovation, digital readiness, and proactive policy.

Dark Horse: Unexpected success emerging from niche strengths or external catalysts, such as new green industries.

Snail's Pace: Slow, uneven progress dominated by inertia and demographic decline.

Lion's Den: A high-risk trajectory marked by geopolitical tensions, shocks, and environmental or economic vulnerabilities.

This approach embodies **Responsible Research and Innovation (RRI)** principles, including transparency, inclusiveness, and reflexivity, and links qualitative foresight with quantitative modelling.

Each scenario links to four systemic variables: demographics, social structures, welfare capacity, and labour-market composition, contextualised by digital and green transition dynamics.

Key cross-regional findings

The Delphi analysis shows that most pilot regions are projected to evolve through gradual and uneven transitions rather than rapid transformation:

- **Lion's Den** trajectories are significant (40 – 55%) where external risks, such as geopolitical tension, ageing, or climate shocks, prevail.
- **Leapfrog** and **Dark Horse** pathways remain less probable (< 30%), but

signal windows of opportunity if targeted investment and co-ordination occur.

- **Snail's Pace** scenarios dominate in Central Macedonia, Groningen, Castilla-La Mancha, Lombardy, and North & East Finland, with probabilities ranging from 50% to 75%.

The interplay between mobility and transition capacity is decisive:

- Digitalisation enables remote work and innovation ecosystems, creating new centres of regional attractiveness.
- The green transition fosters local resource valorisation and clean energy industries, but also demands upskilling and infrastructure.
- Without integrated policies, regions lagging in both transitions risk compounding population loss, labour shortages, and fiscal strain.

Pilot-region insights

Groningen

Gradual development is likely (68.4% Snail's Pace). Digital and green innovation offer opportunities, but rural depopulation remains a risk. Leapfrog potential depends on linking university growth with rural revitalisation.

Castilla-La Mancha

Slow, steady growth is likely (65.5% Snail's Pace). While remote work and improved connectivity offer opportunities, maintaining population levels will require stronger infrastructure and services.

North & East Finland

69% of experts foresee a Snail's Pace trajectory. Digital and green progress remains incremental amid ageing & geopolitical risks. Small Dark Horse potential exists if renewable energy and digital connectivity attract new residents.

Lombardy

Despite strong institutions, growth remains uneven (Snail's Pace 52%), hindered by policy inertia and demographic stagnation. A Lion's Den path looms if climate and cost pressures intensify.

Central Macedonia

With a 75% probability of Snail's Pace, demographic decline and bureaucratic inertia constrain transformation, though emerging tech and agriinnovation could trigger a Dark Horse shift.



“Navigating the twin transition requires moving from reactive policies to participatory foresight, actively anticipating whether a region will leapfrog toward innovation or risk a ‘Lion’s Den’ of fragmentation.”

Policy Recommendations

1. Integrate spatial mobility into cohesion-policy design.

Mobility is both an outcome and a driver of regional transition. EU policy should incorporate mobility indicators, including migration flows, commuting, and telework intensity, into regional typologies used for existing policy frameworks, such as Smart Specialisation Strategies (S3) and Just Transition Plans.

2. Strengthen digital and green foundations in lagging regions.

Regions in Snail's Pace or Lion's Den trajectories require targeted ERDF and RRF investments to close infrastructure and skills gaps. Priorities include digital aspects, such as universal broadband and open-data infrastructures, green aspects,

referring to local renewable-energy systems and circular-economy pilots, as well as twin-related interventions, like skills' partnerships aligning vocational training with green-digital sectors.

3. Link labour-mobility governance with transition planning.

Mobility can mitigate regional skill shortages but also deepen inequalities. In this regard, policymakers should focus on harmonising recognition of digital and green skills across regions, supporting interregional mobility schemes with portable social rights, and anticipating labour-market mismatches via foresight-based modelling, such as the one introduced by MOBI-TWIN.

4. Integrate foresight and modelling into regional planning.

The MOBI-TWIN methodology demonstrates how participatory scenario building can inform regional strategies under uncertainty. EU institutions could mainstream such foresight tools within Cohesion-policy programming (post-2027), European Semester recommendations and mission-oriented territorial roadmaps (e.g., Cities Mission, Climate Adaptation Mission).

5. Promote cross-regional learning and capacity building.

Knowledge exchange between EU regions is an important pathway for creating multipliers in capacity building. This can be achieved through the establishment of “mobility and transition hubs” linking similar regional typologies (e.g., ageing + low digital readiness), the exchange of good practices between pilot regions and others via Interreg or ESPONtype networks, as well as the continuous moni-

toring digital, and green indicators through a European Regional Attractiveness Dashboard.

6. Reinforce RRI principles for inclusive transition governance.

The scenario process demonstrates that co-creation, multi-stakeholder engagement, and iterative reflection enhance the legitimacy and societal relevance of regional policies. Embedding RRI principles in governance fosters anticipation, transparency, inclusiveness, and responsiveness, which are essential for sustainable transitions. By actively integrating RRI, regions can transform participation and foresight into adaptive governance practices, ensuring policies remain socially robust, ethically grounded, and aligned with evolving societal needs.

Conclusions

The twin transition will not unfold uniformly across Europe. While some regions may leapfrog toward innovation-driven growth, others risk remaining in slow-moving or high-risk trajectories without targeted support. The findings from the **MOBI-TWIN foresight exercise** offer an evidence-based lens to anticipate these divergent paths. By embedding mobility foresight into regional policy design, the EU can move beyond reactive cohesion measures toward proactive, place-based transition management. **Investing simultaneously in people, places, and predictive governance will be essential for turning mobility from a source of inequality into a driver of inclusive, sustainable prosperity.** Overall, foresight-led, coordinated action can transform regional mobility into a strategic lever for shaping Europe's resilient and equitable future.

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