



MOBI-TWIN

Policy Brief #3

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

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Introduction

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 these transitions interact 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.

The project developed a structured foresight exercise to anticipate how mobility trends and transition capacities will shape regional trajectories by 2030. Using the Regional Attractiveness Index (RAI) developed in previous steps, the study explored regional scenarios linking mobility flows with digitalisation, environmental transition, and socio-economic conditions. It produced four scenario types—Leapfrog, Dark Horse, Snail's Pace, and Lion's Den—that represent distinct futures for EU regions.

»» The scenarios are tested in five pilot regions representing Europe's territorial diversity:

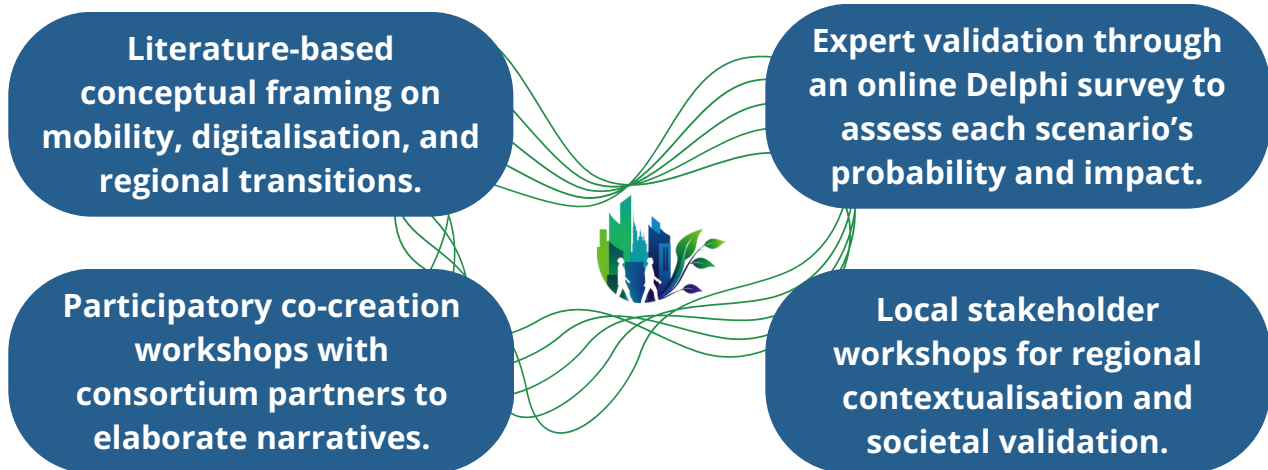


»» The brief synthesises evidence from co-creation workshops at consortium level, a European Delphi survey involving 60 experts, local stakeholder workshops in all pilot regions involving in total 52 participants, and regional data analysis. It aims to inform policymakers on how to design place-sensitive policies that manage mobility flows, support just transitions and reduce territorial inequalities.

Evidence and Analysis

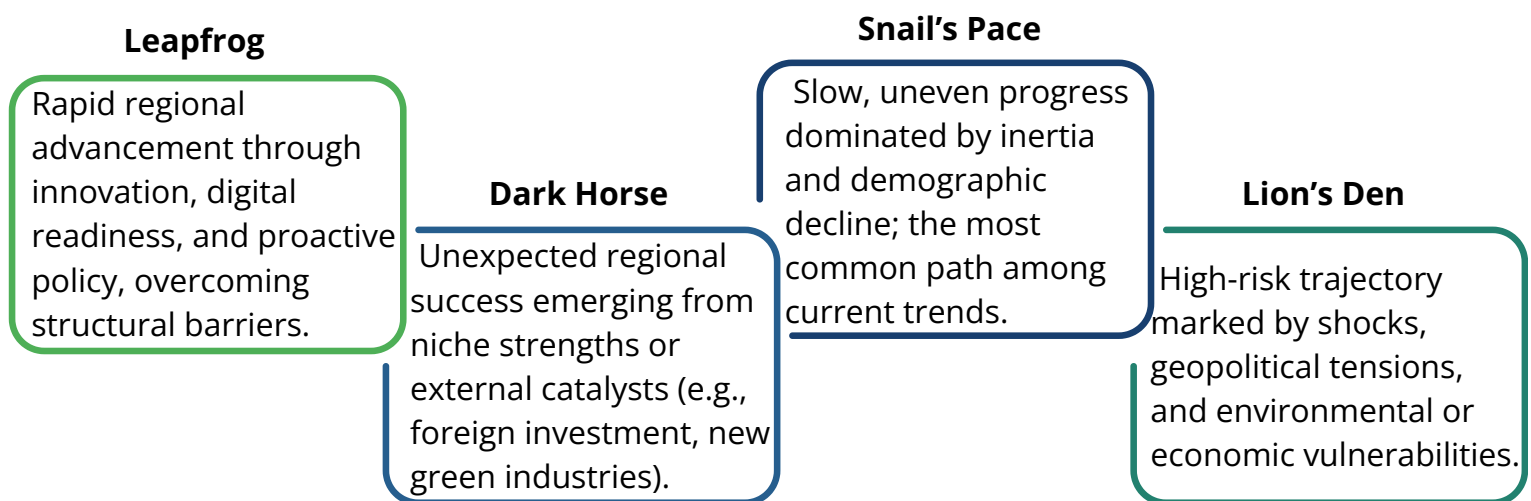
1. A methodological innovation in regional foresight

MOBI-TWIN's scenario building introduces an integrated foresight methodology combining:



➤ This approach embodies Responsible Research and Innovation (RRI) principles, including transparency, inclusiveness, and reflexivity, and links qualitative foresight with quantitative modelling (to be used in the following phases of the project).

2. The four scenario archetypes

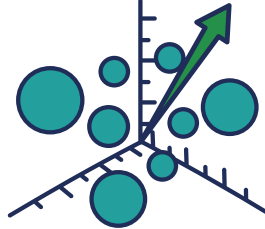


➤ Each scenario links to four systemic variables: demographics, social structures, welfare capacity, and labour-market composition, contextualised by digital and green transition dynamics.

3. 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.



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

Leapfrog and **Dark Horse** pathways remain less probable (< 30%) but signal windows of opportunity if targeted investment and coordination occur.

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.



4. Pilot-region insights



North & East Finland: Most experts foresee a Snail's Pace trajectory (69%). Digital and green progress remains incremental amid ageing and geopolitical risks. A small Dark Horse potential exists if renewable energy and digital connectivity attract new residents.



Central Macedonia: With a 75% probability of Snail's Pace, demographic decline and bureaucratic inertia constrain transformation, though emerging tech and agri-innovation could trigger a Dark Horse shift.



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.



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.

Policy implications and recommendations

Integrate spatial mobility into cohesion-policy design

- 1 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.

Strengthen digital and green foundations in lagging regions

- 2 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.

Link labour-mobility governance with transition planning

- 3 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.

Use scenario-based foresight in regional policymaking

- 4 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).

Promote cross-regional learning and capacity building

5

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 ESPON-type networks, as well as the continuous monitoring of demographic, digital, and green indicators through a European Regional Attractiveness Dashboard.

Reinforce RRI principles for inclusive transition governance

6

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.

Conclusion

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 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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