



INNOVATION IN LESS-DEVELOPED REGIONS

A Policy Brief from the Policy Learning Platform on
Research and innovation

April 2021



**Interreg
Europe**



European Union | European Regional Development Fund



Table of Contents

- Summary 2
- Forewords - Andrés Rodríguez-Pose 3
- 1. Innovation in less-developed regions..... 4
- 2. Research and Innovation policy priorities in less-developed regions 7
- 3. The impact of interregional cooperation for less-developed regions10
- 4. Policy Recommendations12
- Sources of further information on innovation in less-developed regions16

Summary

This policy brief explores the importance of research and innovation in less-developed European regions **to promote regional convergence** within the European Union. The New Cohesion Policy, and its regional component, the European Regional Development Fund (ERDF), dedicates the bulk of its budget to less developed regions through the promotion of research and innovation policies spearheaded by the Smart Specialisation Strategy (S3). The regional approach to find contextualised place-sensitive and place-based innovation policies make Interreg Europe projects the ideal space for policy learning for less-developed regions. This policy brief features five policy recommendations using the experience of Interreg Europe projects to inspire policymakers to design the most adapted and contextualised place-based policies.

Acknowledgements: The authors would like to particularly thank our external contributors, Andrés Rodríguez-Pose, Lars Hustveit, Corné Dijkmans, Clive Peckham, Mojmír Prídavok, Nicola Mayera, and Balázs Tordai for their insightful contributions into some of the key policy issues currently facing less-developed European regions.



Forewords

Andrés Rodríguez-Pose, Princesa de Asturias Chair and Professor of Economic Geography at the LSE.

Individuals and firms in lagging-behind regions in Europe need to innovate. Innovation is the only way forward to remain competitive in a more open and integrated world, but also to cater for the economic and social well-being Europeans, wherever they live. Achieving innovation in less-developed regions will also bring about considerable economic benefits, as it will unleash the innovation potential of lagging-behind areas. Let's not forget that some of the most innovative firms in Europe —such as IKEA or Inditex— were born in lagging behind regions.

The innovation deficit of less-developed regions does not necessarily stem from a lack of investment in R&D. While much still can be done on this front, addressing the limited capacity of weak socio-economic fabrics to transform knowledge into innovation would facilitate the generation and the assimilation of new ideas and their transformation into novel economic activity.

This is where past policy has generally failed. Most science and technology policy in Europe has concentrated on the 'R' in R&D, often at the expense of the 'D'. But, while research outputs have improved, innovation has lagged behind, hitting lagging-behind regions particularly hard.

Less-developed regions should therefore rethink development strategies in light of their specific circumstances. Five different lines of intervention are necessary to develop more 'innovation-prone' ecosystems in the less-developed areas of Europe.

First, a place-sensitive approach to innovation is required. This will imply adapting innovation intervention to the common characteristics —such as relatively weak industrial fabrics, lower capacity to reap spillovers, and networking and connectivity deficits— of lagging-behind regions.

Second, policy should focus more on innovation. The lower capacity of less-developed regions to transform new knowledge into novel and commercially viable products and processes demands improving access to sources of knowledge, regardless of geography, and the adaptation of that knowledge to production.

Third, coordinating innovation policies with other public interventions in education and training will facilitate the absorption of new knowledge by local firms.

Fourth, innovation deficits can only be overcome when the institutional barriers that constrain the capacity of less-developed regions to innovate are removed.

Finally, firms in lagging-behind regions need to become free from the tyranny of physical distance. This can only be achieved by the active promotion of participation in international networks and global value chains. International networks ease the inflow of new ideas and knowledge that can be diffused within the region through existing intraregional networks.

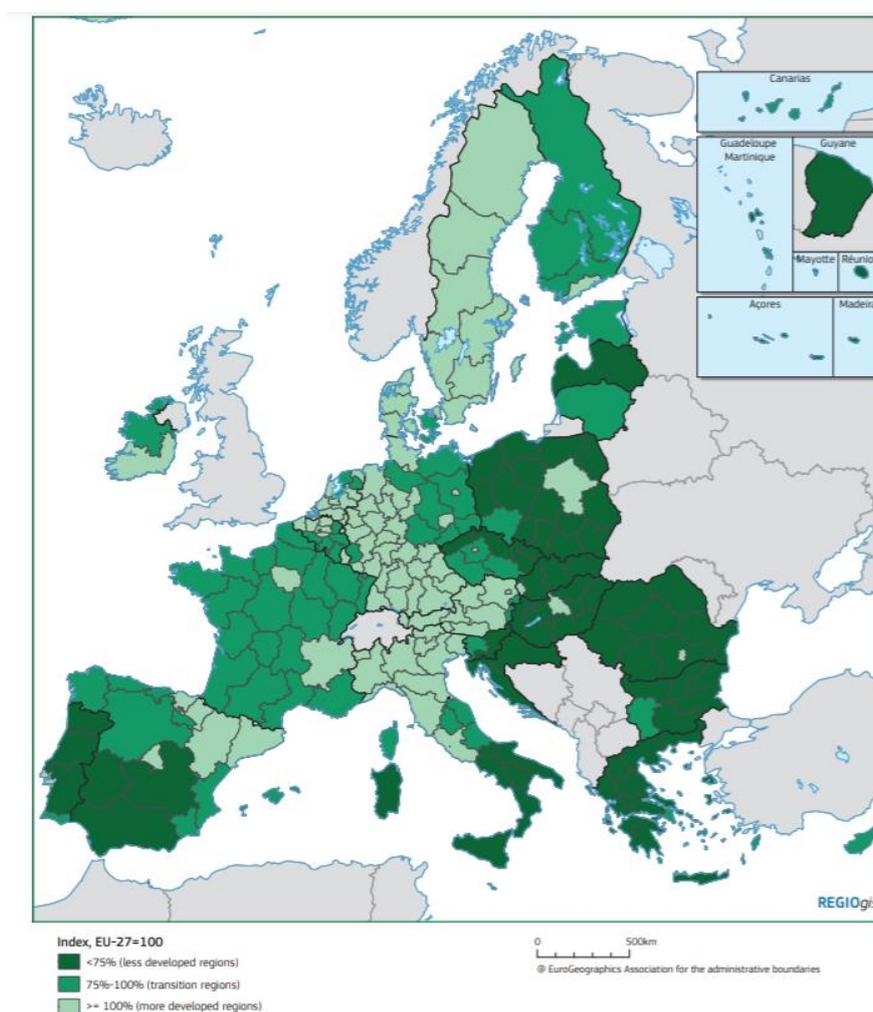
Transforming lagging regions of Europe from innovation-averse ecosystems into innovation-prone regions is the way forward to tap into a latent innovation potential that, if untapped, will remain a wasted opportunity, not only for the left-behind regions, but also for Europe as a whole.



1. Innovation in less-developed regions

Less-developed regions in the European Union

Less-developed regions in the European Union (EU) are regions whose per capita gross domestic product (GDP) is **less than 75% of the EU average** ([EUROSTAT](#)). The European Union dedicates a significant part of its budget (32.5%) to the EU Cohesion Policy, which aims to promote and support the ‘overall harmonious development’ of its Member States and regions ([European Commission](#)). For less-developed regions, research and innovation is at the top of the policymakers’ agendas as it is seen as a pathway to promote convergence and reduce disparities. The promotion of innovation was a central feature in the Cohesion Policy programmes for 2014-2020, where about 65 billion EUR went towards innovation and research, around 30% of the total Cohesion Policy ([European Commission](#)).



Map 1. Gross Domestic Product per inhabitant index, based on GDP in purchasing power standards (PPS) in relation to the EU-27 average = 100, by NUTS 2. Source: [Eurostat](#).

Some challenges in less-developed regions

Despite the policy focus on less-developed regions, the convergence across regions in the European Union is not materialising yet. In fact, we are mostly witnessing the opposite where large metropolitan regions are growing faster and diverging from the rest of the regions in the

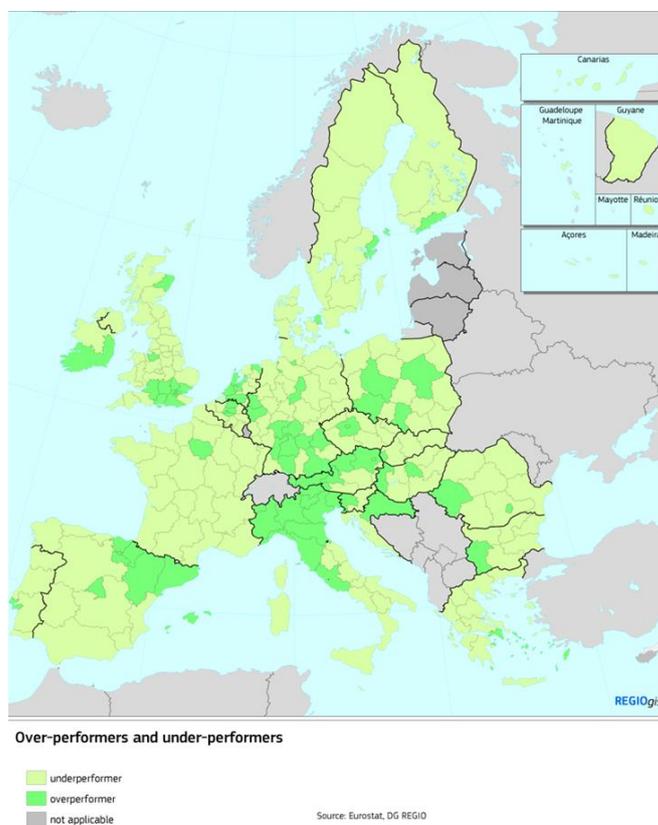


European Union and where existing divides such as in North-South Italy persist ([Iammarino, Rodríguez-Pose & Storper](#)).

Divergence and Research and Innovation

Regional divergence is mostly the outcome of the differences in regional innovative capacities due to the nature of technological innovations ([Akcigit, Grigsby, & Nicholas](#)). This trend is thus the outcome of two interdependent and cumulative forces, (1) the concentration of high-technology and knowledge-intensive sectors in large metropolitan areas, favouring the mobility of highly-skilled, non-routine and creative jobs towards economic cores and (2) regional evolutionary features, consisting of place-specific endowments of people and skills, firms and industries, formal and informal institutions, capabilities for innovation, and their reaction to change ([VOXEU](#)). Indeed, the cumulative nature of technology combined with the geographical concentration of innovation over time due to the specific, local, tacit, and only partly appropriable nature of knowledge are contributing to the perpetuation of technology gaps in regions that are enjoying a technological advantage ([Storper](#)).

In the European Union, while there is a trend towards long-term convergence in productivity and income at the national levels, regional-level analysis either shows little change in patterns of dispersion, or a tendency towards divergence. The realisation of the importance of the regional dimension in the process of innovation comes from the numerous examples of regional divergence within the same countries. For instance, the Third Italy versus the South of Italy or Ile de France versus the rest of France (see Map 2 where overperformer regions are those that grew faster than the national average for the period 2001-2013). As a result, [Cohesion Policy](#) through the [European Regional Development Fund](#) (ERDF) and its [Smart Specialisation Strategy](#) (S3) is focusing on promoting research and innovation to enhance convergence.

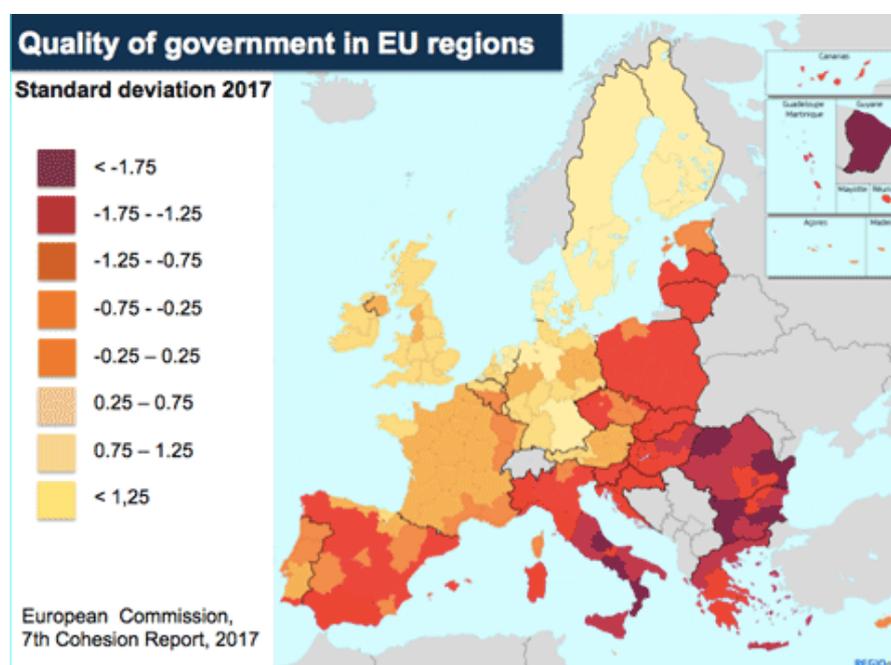


Map 2. Over-performers and under-performers, 2001-2013. Source: [VOXEU](#).



Divergence and institutional capacities

In addition to research and innovation gaps, less-developed regions suffer from lower quality of their government systems ([Charron, Dijkstra, & Lapuente](#)), capacities to absorb funds ([Oughton, Landabaso, & Morgan](#)), and institutional capabilities ([Farole, Rodriguez-Pose, & Stroper](#)) that further hinder the possibility to structurally transform their economies and to catch-up technologically with more developed regions. These regional differences in institutional capacities are reflected in the EU Quality of Government Index – QoG, which can partly explain the observed within-country divergences in economic performance ([European Commission](#)). The QoG project measures good governance across countries and regions via an index that captures multiple dimensions¹ of the public sector (see Map 3). The QoG is based on an extensive survey covering the perceptions and experiences that citizens have with public sector services. As a result, the Cohesion Policy dedicates a large part of its budget to institutional capacity building, efficiency and transparency of public administration.



Map 3. The Quality of Government Index. Source: [European Commission](#).

¹ Mainly corruption levels, impartiality of public services and rule of law.



Box 1. The COVID-19 Impact on Less-Developed Regions

The tourism industry is an important economic sector accounting for approximately 10% of the European Union's GDP. Tourism plays a key role in the development of many European regions, in particular the less developed regions, due to its considerable spill-over and job creation potential, especially for young people ([European Commission](#)). The COVID-19 crisis is having a considerable impact on European tourism which will not recover until 2023 at earliest. As a result, tourism job losses in Europe could range between 14,2 million to 29,5 million workers. The COVID-19 crisis impact on tourism will be more acute and longer in regions that rely on EU and extra-EU tourism such as Portugal, Croatia, Greece and Austria, and metropolitan cities such as Paris or Milan than in regions relying on domestic tourism. For instance, the economy of some islands in Greece relies 90% on tourism. The COVID-19 crisis, however, offers an opportunity to modernise and digitalise the sector making it more sustainable ([European Committee of the regions](#)). Interreg Europe project [DIGITOURISM](#) promotes the digital transformation of the tourism sector and has many good practices that can inspire other European regions in rethinking tourism (read also our policy brief on [Sustainable Tourism](#)).

Digital innovation as a driver for economic recovery

Dr. Corné Dijkmans, Breda University of Applied Sciences, [DIGITOURISM](#) partner, points out that for destination management organisations in less-developed regions, because of COVID-19, new ways of thinking and managing touristic practices have emerged. Digitisation plays a fundamental role in this. Some of them are bringing about changes that could be sustained once the pandemic has passed, for instance towards transforming a less-developed destination into a digital/virtual experience. Other examples are destinations creating 3D videos to share their best places to a digital audience. They stimulate creating a strong relationship between visitor and destination. The digital experience of a destination can thus be a powerful tool to promote a place before the actual visit, supporting less-developed destinations in their marketing and communication.

2. Research and Innovation policy priorities in less-developed regions

Policy priorities in less-developed regions

The **European Commission** published [The Lagging Regions Report](#) to examine the factors that hold back growth and investment in the low-income and low-growth regions of the EU (the lagging regions) and to identify possible solutions to boost growth and increase income in those regions. The solutions given in the report are: to design better smart specialisation strategies (S3) ([read our policy brief on S3](#)), to invest in human capital and infrastructures ([read our policy brief on Skills for Innovation](#)), to have better urban-rural linkages ([read insights on the online discussion on urban-rural linkages](#)), and to invest in quality institutions and regional administrative capacity ([European Commission](#)). This policy brief focuses on three fundamental aspects to promote economic convergence and catch-up in less-developed regions, namely understanding the context, promoting technology diffusion, and interregional learning and collaboration.



Understanding the institutional context

The first policy priority for less-developed regions is to understand their specific institutional context to design and implement the most appropriate place-based innovation policies. The smart specialisation strategy (S3) is a place-based innovation policy concept that allows regions to analyse and assess their innovation strengths and weaknesses to design and implement policies adapted to their regional institutional contexts. S3 aims to support regional prioritisation in innovative sectors, fields or technologies through the **entrepreneurial discovery process (EDP)**, a bottom-up approach to reveal what a region does best in terms of its endowments in science and technology ([Foray, David, & Hall](#)). S3 aims to correct some common issues that regions face when drafting their regional innovation strategies such as:

- the picking winner syndrome,
- the lack of understanding of the regional institutional context,
- the copy-paste imitation of innovation policies designed in best-performing regions.

Despite the S3 focus on prioritising sectors and understanding the regional institutional context to design place-based policies, many regions with weaker quality of governments display a proliferation of objectives and design strategies loosely connected with their regional intrinsic conditions to mimic what neighbouring regions do ([Di Cataldo, Monastiriotis, & Rodríguez-Pose](#)). As a result, less-developed regions must also develop institutional capacity-building in the public sector to improve the quality of government and to strengthen policymakers' capabilities to analyse the regional institutional context and respond to innovation weaknesses with the most adapted place-based policies. As pointed out by **Lars Hustveit**, [P-IRIS](#) lead partner, Vestland County Municipality, Norway, "innovation in rural areas is not only a matter of funds, schemes and structures but also of skills and capacity-building. Our tool-box [innotool](#) to build innovative networks could be used to foster such capacity."

Promoting technology diffusion

The second policy priority for less-developed regions is to promote the diffusion of existing technologies rather than focusing on invention or frontier technological innovation. Economic and technological catch-up can be promoted through diffusion of knowledge and technology. [The Science, Research and Innovation Performance of the EU \(SRIP\) report](#) recognises that the rate of technical change and of economic growth depends more on the diffusion process than on new inventions. In the innovation process, diffusion, and more importantly its speed, matters more for economic development than innovation or invention ([Keller](#)).

Less-developed regions are characterised by a high concentration of unskilled labour, limited access to capital, face barrier to identify and exploit technology due to lower human capital and cultural and institutional barriers. **Those conditions hinder their capacity to innovate and their absorptive capacity to exploit external knowledge and technology.** Less-developed regions could for instance support intermediary organisations or [Centres of Competence \(CoCs\)](#) to promote knowledge diffusion. European initiatives such as the [European Digital Innovation Hubs \(EDIHs\)](#) that function as one-stop shops to support companies, namely SMEs, and the public sector in their digital transformation, promote this diffusion process.



Interregional learning and collaboration

The third policy priority for less-developed regions is to promote interregional learning and collaboration. As “enabling condition” for smart specialisation in the next programming period 2021-2027, interregional learning and collaboration have multiple benefits for regional private companies and the public sector. For the private companies, it allows to access extra-regional knowledge. The literature in economic geography has identified the role of external knowledge as a critical element for fostering innovation and technological trajectories. External knowledge is especially important to strengthen firms’ competitiveness ([Maskell, Bathelt, & Malmberg](#)). This interregional dimension is tackled in [S3 Thematic Platforms to support the creation of new European value chains](#). Moreover, **less-developed European regions can use tools to identify complementary interregional capabilities to strengthen sector competitiveness** (see [Balland & Boschma](#)). For the public sector, interregional learning and collaboration favour capacity-building and the design of more adapted place-based innovation policies. [Interreg Europe](#) and its [Policy Learning Platform](#) offer the tools to enhance this process for European policymakers (see box 2).

Box 2. How can the Policy Learning Platform support the interregional learning?

The [Interreg Europe Policy Learning Platform](#) can help regional policymakers to better design policies to support economic convergence by facilitating the exchange of experience from different institutional contexts and showcasing success stories via the [Policy Learning Platform good practice database](#). In addition to the good practice database, the [Policy Learning Platform](#) can provide a forum for direct discussions among partners from different projects – either in thematic workshops, peer review learning, or in webinar and online discussions, and provide expert advice through our on-demand [policy helpdesk service](#).

Box 3. Digital Innovation Ecosystems (DIGEMs) and interregional linkages

Clive Peckham, Nièvre Numérique, Interreg Europe lead partner [CARPE DIGEM](#), highlights the need for interregional compensation mechanisms for less-developed regions. He emphasises that “DIGEMs are built on collaboration and inclusion; less developed regions need to compensate for the lack of density of public, community and business networks, by strengthening multi-stakeholder collaboration to share and optimise sparse resources; prioritise digital inclusion and include all stakeholders in new service design and implementation.

DIGEM outreach is boosted by complementary networks of local ‘Micro-Hubs’ and digital brokers-intermediaries with thematic and territorial-serving functions who share or co-develop skills and resources. They map, evaluate and match territorial needs and assets with digital innovation products and providers, and enable all stakeholders from entrepreneurs and seniors to be DIGEM players.”



Box 4. Interreg Europe Policy Learning Platform online discussion on European Value Chains (EVCs)

On 23 July 2020, the Policy Learning Platform organised an online meeting with the objective to explore how regional policymakers can foster [European Value Chains \(EVCs\)](#) towards greater European industrial sovereignty. **Fernando Merida Martin**, Joint Research Centre (JRC), S3 Platform, presented the [Thematic Specialisation Platforms as initiatives to promote European Value Chains \(EVCs\)](#). European regions have partnered around areas of common interest and joined forces to: avoid duplication, exploit complementary strengths across the EU, increase critical mass, and build synergies with other regional, national, and EU networks and initiatives. Less-developed regions could use such initiatives to access, identify, absorb, and exploit extra-regional knowledge and find complementary interregional linkages.

3. The impact of interregional cooperation for less-developed regions

Less-developed regions are central to Interreg Europe projects, which provide capacity-building for regional policymakers to learn from interregional exchanges and good practices to develop and deliver better policymaking. **Less-developed regions** are present in almost each of the [65 Interreg Europe projects](#) dedicated to Research and innovation. The participation of less-developed regions allows them to learn from more advanced regions to design contextualised innovation policies through **policy changes**.

A recent analysis conducted by Interreg Europe of **the policy changes in Research and innovation projects** found that 32% of the organisations from less-developed regions have introduced a policy change compared with 29% for all the partners in Research and innovation projects. These data refer to a mid-term analysis, which will be updated at the end of the projects' lifetime, show that less-developed European regions benefit from interregional learnings and cooperation to deliver better policymaking.

Looking at the different facets of the concerned projects where partners from less-developed regions represent a significant part of the consortia (50% or more), several thematic areas are tackled. While all Interreg Europe projects aim to promote better policymaking in diverse research and innovation policy instruments, [BRIDGES](#) focuses on **Centres of Competence (CoCs)** as S3 implementation units and the better delivery of structural funds. [IMPROVE](#) focuses on better **managing and implementing Structural Funds Programmes**, namely S3. [INNOVASPA](#) promotes innovative **health solutions for thermal spa regions**. [IWATERMAP](#) supports innovation policies in the **water technology sector** and regional water technology ecosystems. [RATIO](#) aims to **promote SMEs** in peripheral areas to improve their competitiveness. [RUMORE](#) looks at **urban-rural linkages** through partnerships. Finally, [STRING](#) promotes innovation in **food clusters**.

**Box 5. Interreg Europe projects bring policy changes.**

As shown in Debrecen, Hungary, **interregional learning and collaboration while contextualising knowledge to local realities** is essential. Before joining **STRING**, the **Debrecen Municipality and the University of Debrecen** (Hungary) were working on the creation of a business incubator to promote innovation value chains and triple helix cooperation in the agri-food sector. The idea of this incubator was at a very early stage, with no clear definition of the equipment, facilities, and actions to include. **Learning from the experience of their partners**, the Hungarian partner took inspiration from the experience of the **ICE cluster (Spain)**, which provides a number of collective services. They compared their work with **VITARTIS**, the agri-food cluster in Castilla y León, Spain. They were encouraged by the experience of **Brainport development** with the **Food Tech Brainport** in the Netherlands that offers demo-facilities and shared equipment. And they discovered the experience of **Innovation Camps** in Denmark to support product consistency and quality. Following study visits in the three regions, the Hungarian partners decided to **co-create the strategy with 12 local companies in the food sector to refine the policy and adapt the good practices to their institutional context**. In November 2019, the Debrecen Municipality approved the strategic plan for the incubator lab.

As identified in the region of Western Greece, **technological diffusion can be a powerful force for regional economic catch-up**. In **OSIRIS**, led by the Computer Technology Institute and Press Diophantus, the region of Western Greece launched the initiative “ReBrain Western Greece” to promote a new model of regional development, based on Digital transformation and Industry 4.0. **The region of Western Greece saw the integration of local assets in the social economy and culture with advanced technologies as potential for economic transformation**. **OSIRIS** supported the region of Western Greece to learn the importance of co-creation to assess needs and capabilities. The partner was inspired by the good practices **Innovation Loop** from Sweden and **Open Data** from Italy to map local needs, assets and capabilities. From this mapping, calls for projects on creative industries and open data for regional development were launched.



4. Policy Recommendations

This policy brief provides five policy recommendations, from more general to more specific advice focusing on less-developed regions. They are illustrated with good practices coming from Interreg Europe partners from less-developed regions.

Policy recommendation 1. To promote economic diversification into related industries

The first policy recommendation is **to promote economic diversification into related industries**. Economic geographers have shown that the emergence of new regional industries follows a branching logic into related economic activities, as new regional industries branch out from pre-existing regional industries. As a result, policymakers in less-developed regions must analyse the regional institutional context to promote economic diversification in the most promising sectors related to existing scientific and technological endowments.



Evolutionary economic geographers provide tools for regions to measure related variety and economic relatedness in order to facilitate, through evidence-based approaches, the regional S3 prioritisation process ([Neffke, Henning, & Boschma](#)). As a result, policymakers in less-developed regions must prioritise the design and implementation of place-based innovation policies to promote economic diversification into more complex and related regional industries.

Box 6. Diversification of related regional industrial sectors.

In [RECORD](#), the region of Upper Nitra in Slovakia was able **to transform its industrial economic structure from coal mining to railway sector**. The diversification strategy was supported with Structural Reform Support from the European Commission and EU Funds with the Just Transition Mechanism. The coal mining region was able to repurpose existing manufacturing infrastructures, to develop R&D activities, and reskill workers for the railway sector, namely railway freight car bogies. The good practice highlights the importance for regions that aim to diversify their economic structures of analysing their existing regional assets to identify the most promising sector to prioritise. It highlights the importance of having an integrated diversification strategy not only covering social aspects and re-skilling of the regional labour force but also supporting the private sector to be resilient to this economic transformation.

Recommendations from Interreg Europe community

Mojmír Prídavok, Technical University of Košice, highlights that “the regional economic transformation process is a very sensitive topic and very often touches large number of employees and their families. As proven by the development in Upper Nitra Region in Slovakia, the transition from coal industry towards the innovation-driven railway sector can exploit the expertise of existing workforce, protecting the level of employment, and bring the higher added value to the regions. In order to grasp the socio-economic potential from existing assets, the regional authorities should be active in facilitating the identification of the transition pathway and its co-design, as they understand regional specifics and stakeholders’ dynamics.”



Policy recommendation 2. To promote technology diffusion.

The second policy recommendation is to **promote technology diffusion**. In less-developed regions, regional policymakers often overestimate their regional innovation systems' capacity to develop new ideas and to produce technological innovations. As a result, **regional innovation policies must promote the diffusion of technologies and adapt the technologies to the regional context** through increasing the absorptive capacity of local stakeholders, namely SMEs, to adopt them.



Box 7. To promote the diffusion of new technologies

In [REGIONS4FOOD](#), [Industry 4.0 Sample Factories](#) is a programme to diffuse Industry 4.0 technologies to SMEs in the food sector in Közép-Magyarország, Central Hungary. The programme offers demonstrations and technical knowledge for SMEs to learn about automatization and digitalisation opportunities in the food sector and thus increase their productivity and competitiveness. The programme includes an assessment of industry 4.0 readiness, visits to factories using Industry 4.0 technologies, expert consultancy, and the development of a tailored industry 4.0 strategy. The programme was able to reach more than 1,000 SMEs of which 50 SMEs developed an Industry 4.0 strategy. The good practice highlights the importance of close collaboration with Budapest University of Technology and Economics to support the diffusion of Industry 4.0 technologies.

Recommendations from Interreg Europe community

Balázs Tordai, ICT Association of Hungary, suggests that most SME decision makers overestimate their management skills meanwhile underestimate IT capabilities. They usually lack business and digitisation strategies. This is why dedicated mentoring is recommended during the whole transformation lifecycle. With this approach it is possible to avoid the 'just for show' investments and the future disappointment in the digital transformation promises.

LEAN based audit should be the basis of transformation. The strategic programme should break down into defined projects. Also, Industry 4.0 solution providers need to be prepared for modernising smaller industrial environments.

Policy recommendation 3. To promote the formation of start-ups and spinoffs.

The third policy recommendation is to **promote the formation of start-ups and spinoffs**. Start-ups and spinoffs can create new technological trajectories, foster high-skilled employment, and stir economic growth.



In less-developed regions, however, the formation of start-ups and spinoffs is not only hindered by cultural barriers (see policy recommendation 5) but also by financial, and institutional barriers such as entry regulations, procedures, lack of seed capital funding, and private venture funding. The topic of entrepreneurship and start-ups is covered in **Interreg Europe Thematic Objective SMEs Competitiveness** (read the policy brief on [public-private start-up accelerators in regional business support ecosystems](#) or [How to boost entrepreneurship in rural areas?](#)).



Box 8. To promote the formation of spinoffs.

In **AGRI RENAISSANCE**, the program **Spin-offs CALABRIA** aims to promote the creation of university spinoffs in the agricultural sector. Spinoffs are innovative companies emerging from research laboratories in universities. At the University of Calabria, Technest is an incubator for spinoffs in the agricultural sector with spaces for co-working, meeting rooms, and administrative offices. It also offers specialised services such as training and assistance on business creation and management, support in networking activities, research programmes and internationalisation, management of intellectual property rights (IPR), support for access to finance and venture capital, mentorship on business plan and business model analysis, and support for acceleration processes.

Recommendations from Interreg Europe community

Nicola Mayera, Calabria Region, points out that “new canvas model, Spin-off TECHNEST Model, more suited to the context of Calabria, was developed and applied by University of Calabria (Italy), aiming to support the spin-offs growth by deeply contributing to the economic and social growth of the territory, thus concretizing the “third mission of the university”.

The Technest methodology proposes in fact to monitor the main risk areas (market, technological, implementation, governance and economic-financial risks) and focuses on strategic priorities in order to balance the development and the resources for becoming autonomous from the “protective” context of a university environment. Our recommendations to regions aiming to pursue similar initiatives is to focus on the real territorial needs of innovation, trying to evaluate all risk areas and to highlight any misalignment between market and academic research.

Policy recommendation 4. To use public procurement of innovation (PPI) to develop innovation capacities.

The fourth policy recommendation is to **use public procurement to develop innovation capacities**. Public procurement of innovation (PPI) is a demand-side innovation approach to develop new products or services with the objective to stimulate innovation and deliver new value-added services.



Public Procurement of Innovation (PPI) is an important policy tool to respond to regional and societal challenges and help companies, especially SMEs launch new and innovative products and services. The **European Commission** has published a comprehensive **guidance document** that presents the fundamental aspects of Public Procurement of Innovation: why it is important, who has an interest in it, and how it can be done. **With the COVID-19 crisis, the European Commission has established a new guidance on public procurement** giving additional flexibility to public buyers and thus offering regions the opportunity to experiment faster responses to the socio-economic challenges, for example those emerging with the COVID-19 crisis and to the desires of enhancing European economic and sanitary sovereignty (**[watch our webinar on public procurement of innovation](#)**).



Box 9. To use public procurement of innovation to develop innovation capacities.

In [IBUY](#), the good practice '[prior market consultation](#)' is an activity performed prior to the launch of a call for public procurement to screen existing regional capacities to respond to the requirements of the calls. In the City of Ventspils, Latvia, the public procurement aimed to develop an **electric 16-seats minibus with a fast-charging infrastructure solution**. The **prior market consultation** was performed to do market research, to find potential market opportunities, and to analyse the market readiness to develop such minibuses. The prior market consultation allows regional private companies to prepare for the call for public procurement by identifying extra-regional partners with the technological capacities to respond to some of the specifications of the call.

The Good Practice was featured in [EURegionsWeek- E-Buses Session](#)

On 14 October 2020, the **Interreg Europe Policy Learning Platform** organised a session on [E-buses: From procurement to deployment](#) for the 18th European Week of Regions and Cities. The discussion revealed many insights for other cities and regions aiming to support the transition to sustainable mobility such as the importance of political commitment, to perform initial market assessment, to take a system perspective... ([read the key takeaways here](#)). E-mobility will be central in the next EU budgeting period (2021-2027) with lots of opportunities, especially in the context of the European Green Deal.

Policy recommendation 5. To promote an entrepreneurial mindset and an innovation culture.

The fifth policy recommendation is to **promote an entrepreneurial mindset and a local innovation culture**. An important feature of the [European Skills Agenda](#), an [entrepreneurial mindset](#), based on continuous learning among students and workers, can allow more flexibility and resilience to economic shocks ([read our policy brief on Skills for Innovation](#)).



Less-developed regions usually have cultural and institutional barriers, such as risk-averseness, norms, status quo, that hinder the creation of innovative companies. As a result, events and programmes can be initiated to diffuse values and norms to promote an innovation culture and the inclusive **appropriation of science, technology, and innovation** to the entire civil society.

Box 10. To promote an entrepreneurial mindset and culture.

In [CREADIS3](#), [Patras Innovation Quest initiative](#) offers networking opportunities and promotes the flagship annual event **PATRAS IQ Exhibition** to foster an innovation and entrepreneurial culture in Patras, Greece. The Patras IQ exhibition includes the showcase of innovative ideas, products and services from local primary, secondary and university students and higher education institutions (HEIs), the promotion of specific activities such as workshops, keynote presentations, and seminars to inspire participants to innovate and to promote an entrepreneurship mindset. Patras IQ is the outcome of strong collaboration among quadruple helix stakeholders—higher education institutions (HEIs), entrepreneurship actors, policymakers, and civil society—with public and private funding.



Sources of further information on innovation in less-developed regions

- European Commission – [Cohesion Policy](#)
- European Commission - [The Science, Research and Innovation Performance of the EU \(SRIP\) report](#)
- European Commission – [New Cohesion Policy](#)
- European Commission - [The Lagging Regions Report](#)
- JRC Sevilla S3 Platform - [Smart Specialisation Strategy \(S3\)](#)
- Interreg Europe - policy brief on [Skills for Innovation](#)
- Interreg Europe - policy brief on [Industry 4.0](#)
- Interreg Europe - policy brief on [Smart Specialisation Strategy \(S3\)](#)
- Interreg Europe - policy brief on [Entrepreneurship in Rural Areas](#)
- Interreg Europe - policy brief on [Built Cultural Heritage](#)

If you have any additional policy questions regarding Innovation in less-developed regions, do not hesitate to contact us through our on-demand [policy helpdesk service](#).

Annexe 1: Selection of relevant Interreg Europe projects with partners from less-developed regions

Project	Policy Objective
AGRI RENAISSANCE	To promote research and innovation in the agri-food sector
BRIDGES	To foster centres of competence as S3 implementation units
CREADIS3	To promote Smart Specialisation Creative Districts
IBUY	To support the use of public procurement of innovation
IMPROVE	To better manage and implement Structural Funds Programmes
INNOVASPA	To promote innovation in thermal spa regions
iWATERMAP	To support innovation policies in water technologies
RATIO	To promote SMEs in peripheral areas to become more competitive
RECORD	To promote innovation in the railway sector
REGIONS4FOOD	To promote digitalisation of the agri-food sector
RUMORE	To foster better urban-rural linkages
STRING	To promote innovation in food clusters

Cover image credit: Photo by [Christian Wiediger](#) on [Unsplash](#)

#ResearchAndInnovation #InterregEurope
#lessdevelopedregions
#policylearning



Thematic experts:

Arnault Morisson & Marc Pattinson

a.morisson@policylearning.eu

m.pattinson@policylearning.eu

To cite this Policy Brief: Morisson, A. & Pattinson, M. (2021). *Innovation in Less-developed regions*. Lille: Interreg Europe Policy Learning Platform.



**Interreg
Europe**



European Union | European Regional Development Fund