



European
Commission



REGIONS IN INDUSTRIAL TRANSITION NO REGION LEFT BEHIND

Regional and
Urban Policy

FOREWORD



We live in times of radical changes. Globalisation, new technologies and the effect of climate change are reshaping the way we live, learn and work. These changes are raising enormous opportunities, but while their benefits are widely spread, the costs are often localised. We therefore need to ensure that all regions can benefit from the internal market and better prepare themselves for these challenges. In particular, achieving a successful industrial transition requires substantial investment in advanced manufacturing, people's skills and talents, as well as research and innovation.

Cohesion Policy has a long experience in supporting the sustainable industrial transition of Europe's regions and cities, and we can be proud of it. Cohesion Policy is the main EU policy instrument to address structural changes linked to energy and industrial transition. In 2007-2013, innovation was already a central feature in Cohesion Policy programmes, mobilising almost 25% of the total allocation. For 2014-2020, we went a step further, by earmarking 30% of our funding to help regions become more innovative and competitive, in the context of "smart specialisation strategies". These strategies help regions build on their strengths to diversify their economies and create more jobs. Member States are now also required to channel significant shares of Cohesion Policy funding into low-carbon economy.

However, funding alone will not suffice to help regions harness industrial transition. This is why the European Commission has launched pilot actions to support 'Regions in Industrial Transition', 'Coal Regions in Transition' and the creation of new value chains through interregional investment in innovation. The aim is to capitalise on Europe's strengths: its diversity, dynamism and the willingness of actors at national, regional and local level to test new approaches.

This brochure presents the first, promising results of this collective endeavour. With the next generation of Cohesion Policy programmes approaching, I am confident it will be a great source of inspiration for many European regions in preparing for the future.

Corina Crețu
European Commissioner for Regional Policy

A handwritten signature in red ink, reading "Crețu".

1. Europe needs to ensure that the benefits of industrial change are shared

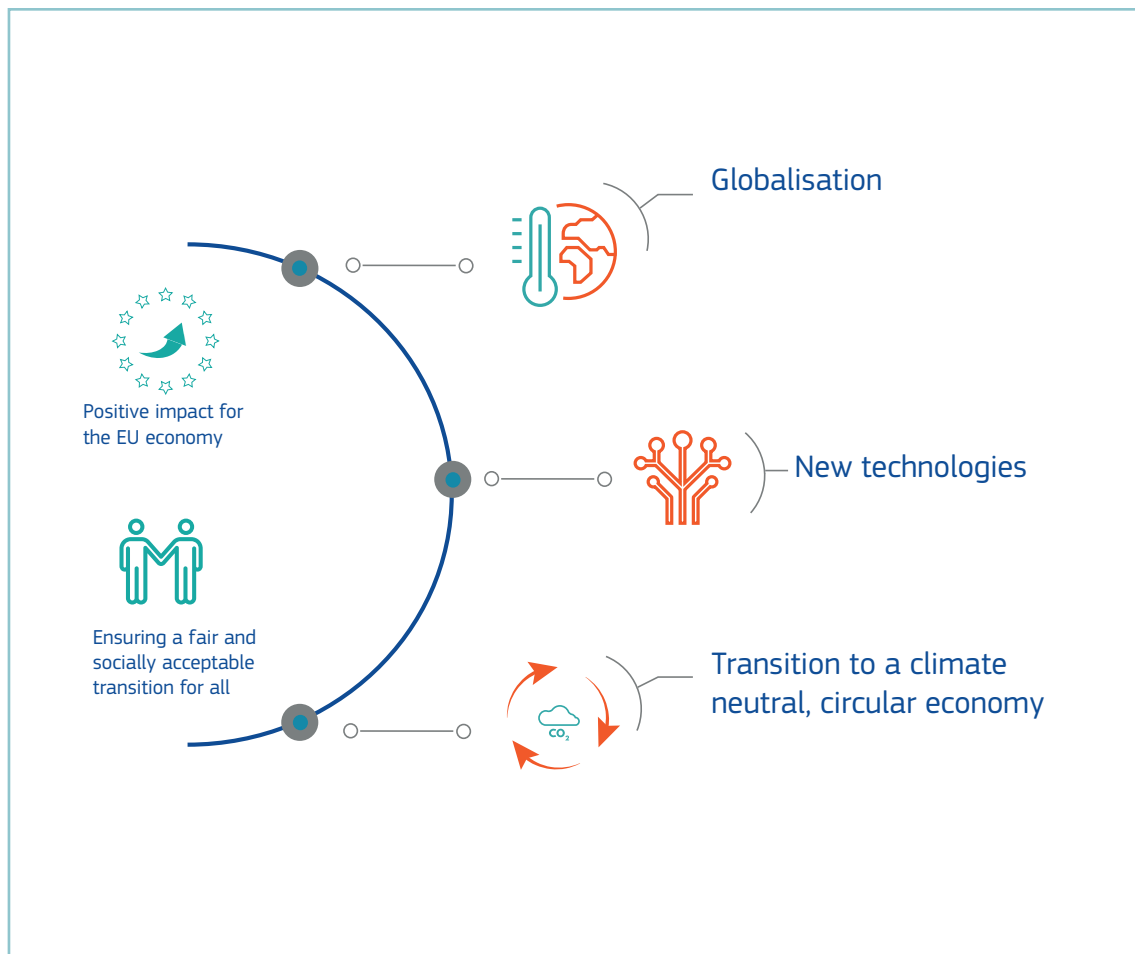
Globalisation, new technologies and the transition to a climate neutral, circular economy are radically changing our societies and economies. Tackling these challenges calls for urgent deployment of new solutions and requires profound, systemic transformations.

While the benefits of globalisation are widely spread, the costs are often localised. Europe therefore needs to ensure that all regions can benefit from the internal market and better prepare themselves for the challenges of globalisation.

The process of industrial transition provides enormous opportunities, but reaping them requires substantial investment in advanced manufacturing, people's skills and talents, as well as research and innovation.

In other words, Europe's regions need a clear vision on how to modernise their economies by embracing digitalisation, technological and social innovation, decarbonisation and the circular economy for the benefit of all, so that no region is left behind. In this way, the European Union can be an innovative and competitive economy that serves the needs of its citizens, wherever they live.

Sharing the benefits of industrial change



2. Cohesion policy – the main EU instrument to support industrial transition

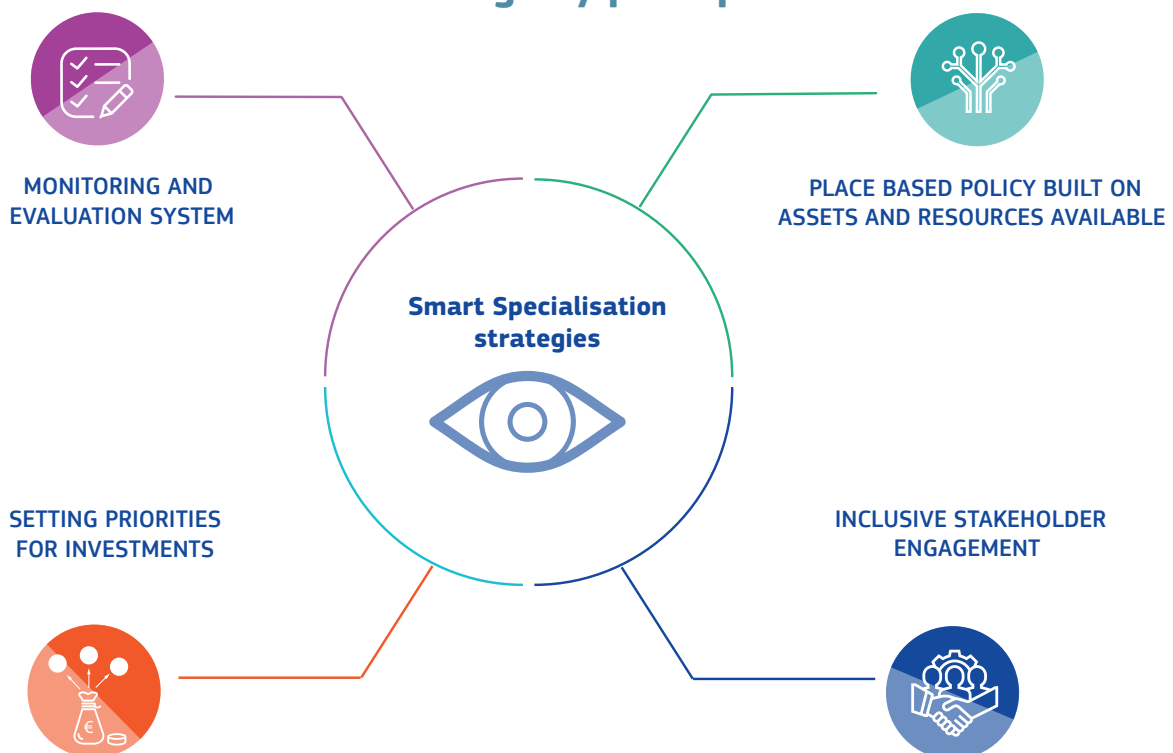
Cohesion Policy has a long experience in supporting the sustainable industrial transition of Europe's regions and cities. It is the main EU policy instrument to address structural changes linked to energy and industrial transition. Regional economies need to innovate, transform and adapt to an ever changing and more competitive environment. The promotion of innovation was already a central feature in the Cohesion Policy programmes for 2007-2013, where about €86.4 billion or nearly 25% of the total allocation went towards broad innovation.

In the current 2014-2020 programming period, EUR 120 billion of the total allocation is targeted on helping regions become more innovative and competitive (thematic objectives 1, 2 & 3). "Smart specialisation strategies", that is to say strategies building on a region's competitive strengths, are at the centre of this approach. Putting in place such a strategy is a

requirement for regions to receive support from the European Regional Development Fund (ERDF). These regional strategies play a key role in helping regions to diversify their economies, create jobs and move up the value chain.

Furthermore, in the 2014-2020 period, Member States are required to allocate significant shares of Cohesion Policy funding to support the shift towards a low-carbon economy, with a mandatory minimum spending of 20% of national ERDF resources in "more developed" regions, 15% in "transition regions" and 12% in "less developed" regions. Some €38 billion from the ERDF and the Cohesion Fund are allocated to the low-carbon economy. This represents more than a doubling of funding in this area compared to the 2007-2013 period.

Smart specialisation strategies are designed around the following key principles:



3. Testing new approaches to meet the challenges of industrial transition

Many European regions are still addressing the challenges of job losses linked to the decline of traditional industries. These regions often have a strong heritage of carbon-intensive industries and can therefore face a lack of appropriate skills-base, high labour costs and deindustrialisation, which makes it difficult for them to harness fully the benefits of technological change. At the same time, they need to adapt their economies to the challenges of the ongoing fourth industrial revolution with its complex, digital and customised systems of production.

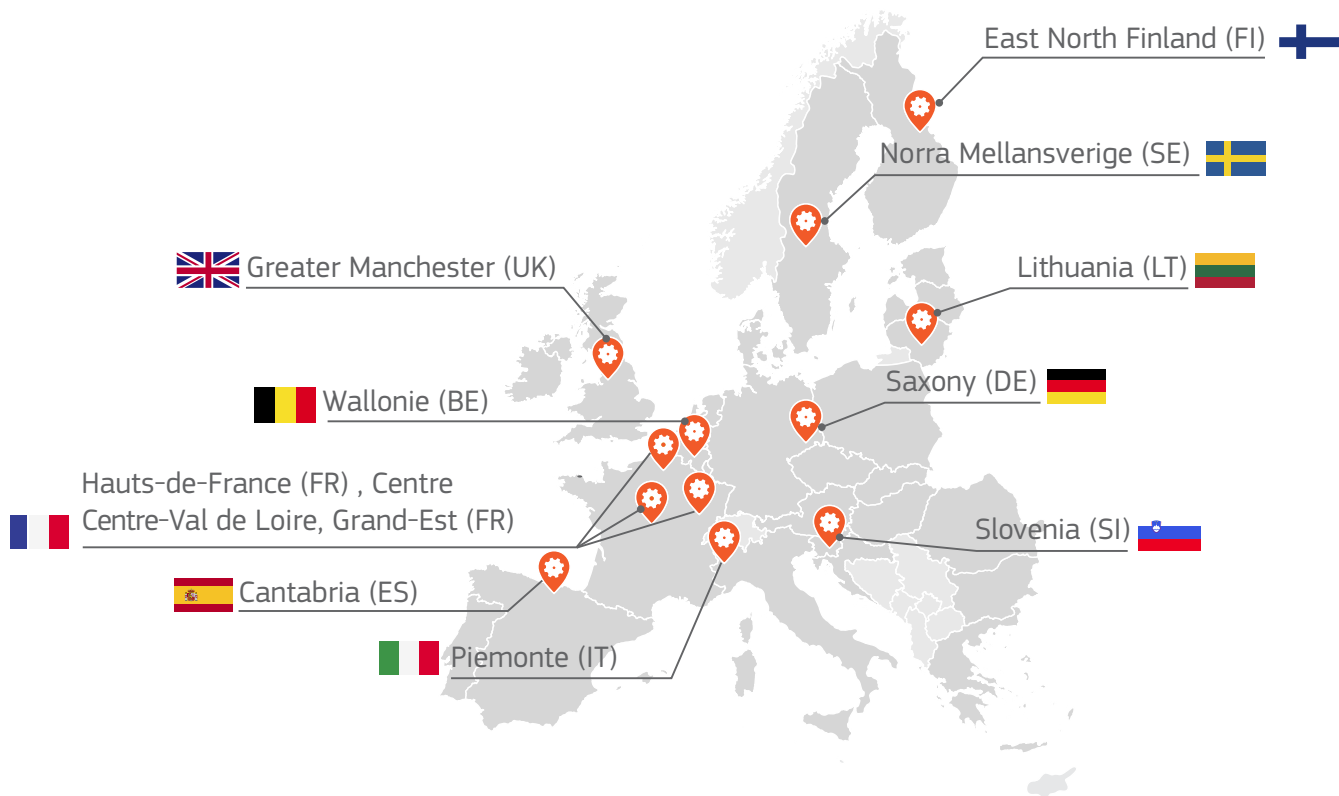
Europe therefore needs to strengthen its regions' ability to adapt and innovate by facilitating investment in new technologies and embracing changes brought on by increased digitalisation and the transition to a low-carbon and more circular economy. This means helping companies and public administrations to embrace innovation and upgrade their technology base, ensure that they are ready for new disruptive technologies and internalise sustainable development principles.

Europe's great strength is its diversity, dynamism and the willingness of actors at national, regional and local level to test new approaches. To meet the challenge of industrial transition, we need to invent new solutions. As a result, the European Commission has launched a number of pilot actions to test new approaches to dealing with industrial transition.

PILOT ACTION “Regions in Industrial Transition”

The pilot action on Regions in Industrial Transition was launched at the beginning of 2018 in order to help regions undergoing industrial transition to develop new approaches to restoring their growth and productivity. Ten regions and two small Member States were selected to work in partnership with teams of experts from the European Commission to boost their innovation capacity, remove investment barriers, equip workers with the right skills and prepare for industrial and societal change, based on their smart specialisation strategies. By focusing on specific challenges related to industrial transition, the pilot seeks to develop new policy tools for regions and cities to address these challenges.

Pilot regions



The first phase of the pilot action on Regions in Industrial Transition focused on the analysis of existing policy instruments and on identifying future challenges. These regions benefited from tailored assistance from Commission experts organised in “regional” teams from several Commission departments and from the European Observatory for Clusters and Industrial Change¹. In collaboration with the European Commission’s Directorate-General for Regional and Urban Policy, the OECD organised a series of thematic peer-learning workshops around which a number of policy conclusions were drawn on how to address industrial transition.

On this basis, the twelve pilots will each receive support in the form of a €300,000 grant to trial a new approach to industrial transition. This aims to test a policy response to one or several challenges identified during the peer review workshops and reflected in the regions’ economic transformation strategy.

¹ https://ec.europa.eu/regional_policy/en/information/publications/factsheets/2018/pilot-action-regions-in-industrial-transition



PREPARE THE JOBS OF THE FUTURE

Smaller and older firms have limited capacity to adopt and exploit new technologies, in particular where there is a significant skill, training and education mismatch in their region. It is therefore essential to strengthen links between entrepreneurship, higher education and vocational training policies.

High Impact Action example

Many small and medium-sized enterprises (SMEs) from the French region of **Centre-Val de Loire** suffer from persistent human resource and skill mismatches and difficulties with talent recruitment and retention. Therefore, in partnership with a publicly supported specialised recruitment network, the region aims to work directly with SMEs to define their recruitment needs, provide coaching, and support human resource strategies. This new approach, which seeks to work directly with SMEs that are recruiting, should have immediate and direct impacts. By identifying the internal skill needs of SMEs, they will be able to improve human resource management, better anticipate industrial transition challenges, and exploit the disruptive technologies that are changing the nature of industrial jobs.



BROADEN THE INNOVATION BASE AND ENHANCE INNOVATION DIFFUSION ACROSS TERRITORIES AND BETWEEN LARGER AND SMALLER FIRMS

Regions need to create and promote open innovation systems and develop financial mechanisms for smaller firms, incentives for innovative product-driven activities, incubation and acceleration programmes.

High Impact Action example

The region of **East North Finland** will test a cross-regional voucher system. Via these vouchers, local small and medium-sized firms will be able to buy services to foster their innovation capacities and strengthen their participation in the value chain in the agro-forestry sector. The voucher system will target collaborative projects for companies to co-develop investment projects with research and technology organisations. The voucher system will help local SMEs to deploy innovative solutions in the tree, wood and timber value chain while addressing the circular economy.



MANAGE THE ENERGY AND CIRCULAR ECONOMY TRANSITION AND ENSURE A FAIR AND INCLUSIVE LOW-CARBON & CIRCULAR ECONOMY TRANSITION

Regions should help the communities at risk because of industrial transition and provide support to existing firms in the low-carbon and circular economy to fulfil their growth potential and create new employment.

High Impact Action example

The initiation and implementation of a transition lab on low carbon economy and resource efficiency in **North Middle Sweden** will leverage key strengths (for example in efficient energy use and renewables) and use existing collaborative structures (such as clusters and testbeds) to develop an open innovation platform. Inspired by existing challenge-driven innovation labs elsewhere in Sweden and internationally, the region will set-up a transition lab that will design and facilitate a transition process. Parallel to the transition lab workshops, the region will also launch an innovation seed fund to kick-start collaborative research, development and innovation projects. These will involve small and medium-sized firms from across North-Middle Sweden that want to solve common challenges related to low carbon economy and resource efficiency.



The region of **Wallonia** will test new solutions in the field of the circular economy in the area of plastics. As opposed to traditional business support schemes, this user-driven approach puts specific emphasis on the needs of firms. The action has therefore a strong potential to promote entrepreneurship and private sector engagement in the area of circular economy and further strengthen entrepreneurship ecosystems around the “plastics” issue.



**PROMOTE ENTREPRENEURSHIP AND MOBILISE
THE PRIVATE SECTOR AS A KEY FACTOR FOR
SUCCESSFUL INDUSTRIAL TRANSITION PROCESS**

It is important to facilitate access to finance for start-ups and scale-ups in regions undergoing industrial transition. Beyond financing needs, start-ups and scale-ups also tend to have limited access to skills, knowledge and networks. These issues can be tackled by policies aiming at attracting and retaining highly skilled workers and the roll-out of key digital technologies.

High Impact Action example

The action proposed by the region **Hauts-de-France** will contribute to the capacity of the public and private sector to anticipate and prepare for rapid change. It will take account of technological (digitalisation, industry 4.0) and market (positioning in global value chains) perspectives by testing a mix of advisory services and vouchers. The new policy instrument will target traditional small and medium-sized companies that are classified as “potential innovators” and which need to rapidly adopt one or more key digital technologies in their production processes, product design or distribution and service delivery in order to remain competitive.





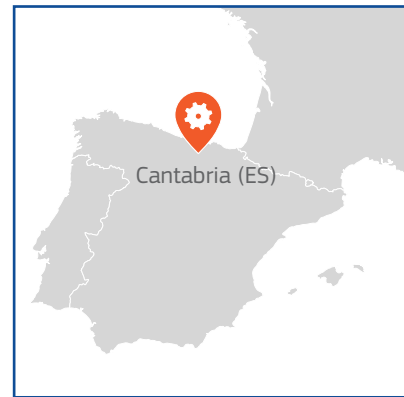
SOCIAL INCLUSION AND INNOVATION GO HAND IN HAND

A key element of industrial transition process is to address regional, economic and social disparities. In this context, social innovation and social entrepreneurship as well as specific support of multi-level partnerships, local working groups and collaborative open networks offer a potentially effective policy response, particularly when combined with initiatives to engage employers in good employment practices.

High Impact Action example

The region of **Cantabria** suffers from significant challenges of social inclusion linked to technological upgrading in the agrifood sector. The proposed actions will develop and test inclusive innovation and capacity building models in areas with potentially high social impact by targeting the agrifood industry supply chains. The special focus of this pilot action will be on reskilling, collaboration or specific support for groups at potential risk of social exclusion as a result of changing employment structures.

The region of **Greater Manchester** will test a ‘Good Employment Charter’ with the objective to improve productivity, job quality, and pay in the regional labour market with a particular emphasis on low pay, low productivity firms and sectors such as social care and retail. As a result, firm and sector performance should be improved through better access to training for workers leading to enhanced skills, together with business support to improve management practices.



PILOT ACTION ‘Coal Regions in Transition’

Coal used to be one of Europe’s main fuels. However, as the EU makes the transition to a climate neutral economy, coal production and consumption are declining. Cohesion Policy can help regions and cities to develop effective solutions for a fair and efficient clean energy transition that reflects the diversity of conditions across Europe.

The shift away from traditional sectors such as coal also comes with a number of challenges. Around 185,000 Europeans are still directly employed in the remaining active coal-mining operations in 41 regions in 12 EU countries. Another estimated 53,000 people work in coal-fired power plants. Experience has demonstrated that without long-term planning and solid supporting measures, the transition can be painful. Former coal-mining regions can suffer from decades of structural unemployment, with significant social impacts on people, their communities and public finances.

A fair energy transition

The EU has set a comprehensive framework to deliver on its climate and energy policies for 2030 and beyond. It is taking concrete and ambitious steps to deliver on its commitments under the Paris Agreement. This framework puts the EU on a good trajectory to a climate neutral economy by 2050.

The transformation to a climate neutral economy can have an overall positive impact for the EU economy. Nevertheless, it could also increase social and regional disparities. This is why this deep modernisation process needs to be managed well, ensuring a fair and socially acceptable transition for all. The EU, Member States and regions must take this into account in the next long-term EU budget, in particular through the new generation of Cohesion Policy programmes.

In response, the Commission has launched an initiative to provide tailored support for transition in coal and carbon-intensive regions². The objective is to help these regions in planning for the structural changes linked to their energy transition and cater for potential negative socio-economic impacts. Country teams made up of Commission experts provide support and a platform organised by the Commission at European level brings together all relevant stakeholders and provides access to technical support and capacity building. Coal regions share their experience through this platform, bringing together regional and national representatives, social partners, industry and civil society to share good practices and learn from each other.

Today, the initiative delivers Commission country-team assistance to 18 pilot regions in 8 EU Member States: Karlovarský, Ústecký, Moravskoslezský (Czechia), Brandenburg, Sachsen, Sachsen-Anhalt, Nordrhein-Westfalen (Germany), Dytiki Makedonia (Greece), Śląsk, Wielkopolska, Dolny Śląsk (Poland), Valea Jiului (Romania), Trenčín (Slovakia), Savinjsko-Šaleška, Zasavje (Slovenia), Principado de Asturias, Castilla y León, Aragón (Spain).

The country teams interact closely with regional and national authorities and other relevant actors to develop solutions accelerating the process of economic diversification and technological transition. The teams also guide the regions on the best way to access available funding, leverage their smart specialisation strategies, drive innovative businesses, and implement decarbonisation strategies. This includes Cohesion Policy funding which provides a stable, long-term investment framework. The programmes include support for investments in a wide range of areas that contribute to growth and jobs, for example for SMEs, innovation, clean energy transition and social inclusion.

The total Cohesion Policy funding potentially available for the current 18 pilot regions³ is estimated at around €32 billion for the current 2014-2020 period. At the same time, Cohesion Policy funding flexibility allows for accommodating new challenges and unexpected events. The Commission has for example agreed with the Czech authorities to re-allocate

€232 million to coal regions in transition. Similarly, Cohesion Policy is now supporting six flagship projects in Silesia for a total of €100 million.

Smart specialisation strategies are at the core of much of the work done through the initiative. These strategies help regions to diversify their economies and undertake structural transformation that supports a sustainable post-coal economy.

PILOT ACTION “Creating new value chains through interregional investment in innovation”

In order to benefit from the globalised economy, regions and cities need to create new value chains that allow them to scale up their good ideas in the EU single market. This means bringing businesses, researchers, public authorities and people from across the EU who work on developing smart specialisation priority areas in their territories to match their competitive strengths and develop innovative projects. In order to test new approaches to building these value chains, the Commission launched a call in 2017 and selected nine interregional partnerships. These partnerships have benefited from support from special teams established within the Commission, involving experts from several thematic departments⁴.

In addition to this hands-on support from the Commission, each partnership can benefit from external advisory services up to a value of €200,000 for scale-up and commercialisation activities from the European Regional Development Fund (ERDF). This approach inspired dozens of regions to propose portfolio of innovation ideas. They will feed into investment projects to be developed in the following areas:

² <https://ec.europa.eu/energy/en/topics/oil-gas-and-coal/coal-regions-in-transition>

³ At NUTS 2 level. These estimates are being updated as additional pilot regions join the initiative.

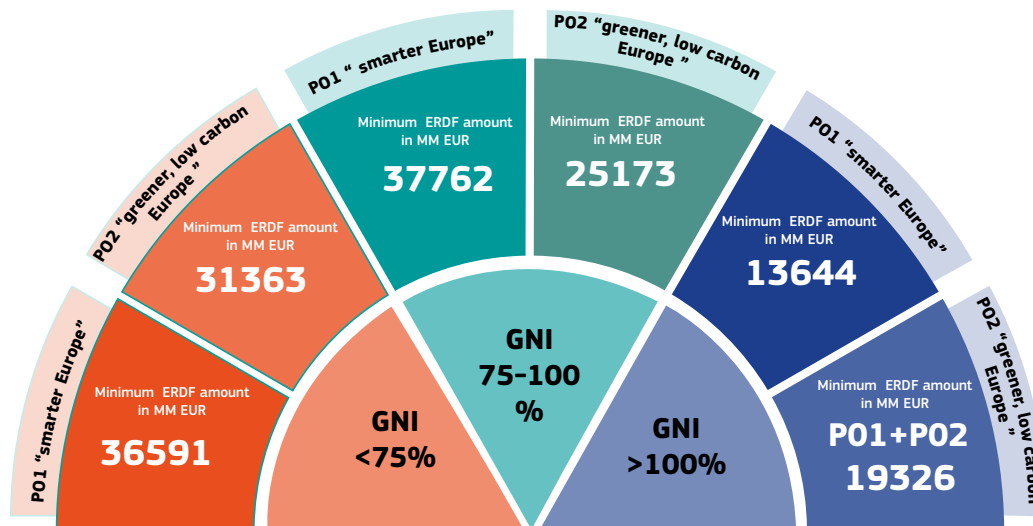
⁴ <http://europa.eu/rapid/attachment/IP-17-5108/en/Factsheet%20Interregional%20Innovation.pdf>

List of Selected Partnerships

THEMATIC AREA		PARTICIPATING REGIONS
 <p>Bio-economy</p>	<p>Conversion of lignin/wood into new functional aromatics which outperform fossil-based aromatics</p>	<p>Emilia-Romagna (IT), Flanders (BE), Helsinki-Uusimaa (FI), Łódzkie (PL), Lower Austria (AT), Navarra (ES), Noord-Brabant (NL), North Rhine-Westphalia (DE), Wallonia (BE)</p>
 <p>Batteries</p>	<p>Advanced materials for batteries</p>	<p>Andalusia (ES), Aragon (ES), Austria (AT), Auvergne-Rhone-Alpes (FR), Baden-Württemberg (DE), Basque Country (ES), Bavaria (DE), Brussels-Capital Region (BE), Castilla Y Leon (ES), Central Ostrobothnia (FI), East Netherlands (NL), East Slovenia (SI), Emilia-Romagna (IT), Flanders (BE), Kainuu (FI), Lapland (FI), Lombardy (IT), Metropol Region Eindhoven (NL), Navarra (ES), Northern Ostrobothnia (FI), Nouvelle-Aquitaine (FR) Pohjois-Savo (FI), Valencia (ES), Vestlandet (NO), Viken (NO), West Slovenia (SI)</p>
 <p>Cybersecurity</p>	<p>Design and test a tailored and integrated acceleration programme for scale-ups in cybersecurity across EU</p>	<p>Brittany (FR), Castilla Y Leon (ES), Central Finland (FI), Estonia (ET), North Rhine-Westphalia (DE)</p>
 <p>De- & re-manufacturing for circular economy</p>	<p>Composite recovery from wind energy systems and re-manufacturing of e-motors/ e-mobility batteries</p>	<p>Basque Country (ES), Emilia-Romagna (IT), Flanders (BE), Lombardy (IT), Norte (PT), Saxony (DE), Scotland (UK), Tampere (FI)</p>
 <p>High-tech farming</p>	<p>High tech solutions for table and wine grapes and poultry dust reduction</p>	<p>Central Macedonia (EL), Centro (PT), East Central Sweden (SE), Emilia-Romagna (IT), Estonia (ET), Extremadura (ES), Flanders (BE), Galicia (ES), Gelderland (NL), Limburg (BE), Marche (IT), Noord-Brabant (NL), Noord Holland (NL), North East Romania (RO), Northern Ireland (UK), Northern Netherlands (NL), Pays De la Loire (FR), South Ostrobothnia (FI), Tuscany (IT), Veneto (IT), Weser-Ems (DE), West Macedonia (EL), Zuid Holland (NL)</p>
 <p>3Dprinting</p>	<p>Hybrid 3DP-Carbon fiber components for chassis, trimmings and mechanical systems and knuckle/upright through metal AM produced inserts (3DP) in compression moulded fibre reinforced thermoplastic</p>	<p>Aragon (ES), Emilia-Romagna (IT), Flanders (BE), Lombardy (IT), Noord-Brabant (NL), Norte (PT), Saxony (DE), Wallonia (BE)</p>
 <p>Marine renewable energy</p>	<p>Sensors, instrumentation and remote monitoring</p>	<p>Andalusia (ES), Asturias (ES), Basque Country (ES), Brittany (FR), Cornwall (UK), Dalarna (SE), Emilia-Romagna (IT), Flanders (BE), Lombardy (IT), Navarra (ES), Norte (PT), Ostrobothnia (FI), Skåne (SE), Scotland (UK), Sogn og Fjordane (NO), South Denmark (DK)</p>
 <p>Sustainable buildings</p>	<p>Intelligent control management of electrical energy consumption and local information by smart plugs</p>	<p>Algarve (PT), Andalusia (ES), Central Slovenia (SI), Friuli-Venezia Giulia (IT), Provence-Alpes-Côte d'Azur (FR), South Karelia (FI)</p>
 <p>Traceability and big data in agri-food</p>	<p>A single food traceability tool</p>	<p>Andalusia (ES), Aragon (ES), Emilia-Romagna (IT), Extremadura (ES), Friuli-Venezia Giulia (IT), Pays De la Loire (FR), Pazardzhik (BG), South Ostrobothnia (FI), South Savo (FI)</p>

4. Strengthening Cohesion policy support for industrial transition post-2020

Cohesion Policy 2021-2027 will allow Member States and regions to achieve industrial transition in a comprehensive and flexible way, with special attention to smart specialisation strategies and energy, climate and environment.



The future Cohesion Policy will have five Policy Objectives (PO). The majority of European Regional Development Fund and Cohesion Fund investments will be targeted on two objectives: a Smarter Europe and a Greener Europe. Member States will be required to direct between 65% and 85% of their allocations under the two funds to these priorities, depending on their level of development.

In addition to the proposed thematic concentration, Cohesion Policy will encourage Member States to strengthen their capacity to achieve innovation-led economic transformation of regions and a greener, low-carbon Europe through conditions that need to be fulfilled before programme adoption. In particular:

- The enabling condition related to smart specialisation strategies has been reinforced and will provide strategic focus for investments in research & innovation, digitalisation, small and medium-sized enterprises and related skills. This will ensure that investment in innovation supports a broader process of economic transformation. In particular, it requires Member States to identify actions to facilitate industrial transition based on a thorough analysis of transition challenges and needs, including in coal and carbon-intensive regions.
- The enabling conditions related to energy, climate and environment will ensure proper strategic planning. The link to the integrated national energy and climate plans will support the fulfilment of the long-term greenhouse gas emissions commitments of the Paris Agreement.

In many regions, moving towards high-value added industries is inseparable from the transition to a climate-neutral, circular economy. Indeed, the costs and benefits of this "twin

transformation" goes far beyond energy intensive sectors, as all parts of the economy will need to become more efficient in the context of automation, additive manufacturing, artificial intelligence and other disruptive technologies. This will require large-scale technological and skills upgrading of firms across the EU and the reconfiguration of traditional policy support mechanisms within development agencies and clusters.

For this reason, EU Cohesion Policy will strengthen its support to transition processes towards a more sustainable, competitive Europe for the benefit of all citizens in line with the reflection papers "Towards a more sustainable Europe by 2030"⁵ and on "Harnessing Globalisation"⁶. This will require new ways of working for regions and cities, involving more actors and promoting anticipation of broad societal and economic changes. It will require a greater capacity to develop and implement new solutions without leaving any region behind. Lastly, it will require a shift in thinking from 'spending' to 'supporting' these types of transition. In other words, there is an urgent need to bring together all relevant stakeholders and their knowledge, build on the experience of the pilot actions described above, develop them further, and ensure a proper dissemination of these positive practices across the whole of the EU. This will be at heart of discussions with Member States and regions on their new programmes for the post-2020 period.

⁵ https://ec.europa.eu/commission/sites/beta-political/files/rp_sustainable_europe_30-01_en_web.pdf

⁶ https://ec.europa.eu/commission/sites/beta-political/files/reflection-paper-globalisation_en.pdf

