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ECON  
Commission

## European Committee of the Regions

Territorial Impact Assessment

# EU Industrial policy strategy

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### Disclaimer

This report was produced by the European Committee of the Regions secretariat to support the own-initiative opinion of the Committee of the Regions on *A place-based approach to EU industrial policy*, which has as Rapporteur Ms Jeannette Baljeu, Member of the Council of the Province of Zuid-Holland.

The findings of this report are not binding for the European Committee of the Regions and do not prejudice the final content of its opinions. This report is for information purposes only.

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This territorial impact assessment report is the outcome of an expert workshop co-hosted by the European Committee of the Regions and ESPON EGTC on 6 March 2019 in Brussels.

The ESPON TIA Tool is designed to support the quantitative assessment of potential territorial impacts according to the Better Regulation guidelines. It is an interactive web application that can be used to support policy-makers and practitioners in identifying ex-ante, potential territorial impacts of new EU legislation, policies and directives (LPDs). This report documents the results of the territorial impact assessment expert workshop. It serves for information purposes only. This report and the maps represent the views and experiences of the participants of the workshop. It is meant to be used for decision support only and does not necessarily reflect the opinion of the members of the ESPON 2020 Monitoring Committee nor of the other institutions involved.

### **Authors**

Erich Dallhammer, Bernd Schuh, Chien Hsiung (ÖIR GmbH)

Igor Caldeira (CoR)

### **Participants in the TIA workshop**

Alexander Lembcke	OECD
Antoni Pastor	EURADA
Bernd Schuh	OïR
Bert Kuby	CoR/Econ, moderator
Clemens Rosenmayr	EUROCHAMBRES
Edwin Perdijk	South Holland province
Erich Dallhammer	OïR
Hélène Diane Dage	EC/ DG Grow
Igor Caldeira	CoR/Coter
Igor Kos	Institute for Circular Economy (Si)
Jacqueline Spuijbroek	South Holland province
Jeannette Baljeu	Rapporteur, Member of the COR
John Bennett	CoR/Econ
Julika Dittrich	Circular Futures (AT)
Marek Przeor	EC/ DG Regio
Marta Marin	Basque Country
Marta Pilati	EPC
Maurits Butter	Expert
Michele Alessandrini	t33
Nikos Pantalos	EC/ DG Grow
Pietro Celotti	t33
Rafael Mondelaers	CoR/Econ
Samantha Jacson	Hauts-de-France region
Winod Datadien	South Holland province

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


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## Acronyms and legend

<b>CoR</b>	European Committee of the Regions
<b>EP</b>	European Parliament
<b>ESPON</b>	European Territorial Observatory Network
<b>LRA</b>	Local and Regional Authority
<b>MS</b>	Member State(s)
<b>NUTS</b>	Nomenclature des unités territoriales statistiques Common classification of territorial units for statistical purposes
<b>OIR</b>	Austrian Institute for Spatial Planning (ÖIR)
<b>TIA</b>	Territorial Impact Assessment



### Effects of the directives – colour code

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	Positive effects
	Minor positive effects
	Neutral
	Minor negative effects
	Negative effects

### Legend – direction of effects

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	Increase
	Decrease

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## Introduction

There is increasing pressure on the Commission, including from Member States, to come up with a strategic vision for European industry. Regions are key stakeholders in this debate. The Commission's High Level Industrial Roundtable "Industry 2030", chaired by the Commission Vice-President Jyrki Katainen, will report in summer 2019 with "a bold, longer-term vision on industrial policy". The CoR considers it important that this vision include strong territorial and place-based dimensions, particularly as the report is likely to inform the policy agenda for the next European Commission.

### Political mandate

This report serves to support the own-initiative opinion of the Committee of the Regions on *A place-based approach to EU industrial policy*, the rapporteur for which is Jeannette Baljeu, Member of the Council of the Province of Zuid-Holland.

The opinion aims to make the political case for how an EU industrial policy strategy can be designed and implemented using a territorial or place-based approach, for the role of regional and local authorities in its implementation and for ways that their role can be supported by EU initiatives.

The Commission's Communication [\*Investing in a smart, innovative and sustainable Industry: A renewed EU Industrial Policy Strategy\*](#) COM(2017) 479 underlines the importance of a strong and high-performing industry for the future of Europe's economy and acknowledges that partnership with Member States, regions, cities and the private sector is essential for strengthening European industry, as most tools to stimulate industrial competitiveness are at national, regional or local level.

### Description of the workshop

This report is written on the basis of a workshop that took place on 6 March 2019, in which participants were asked how an EU industrial policy strategy could be designed and implemented using a territorial or place-based approach, particularly in the context of the post-2020 programming period and the Commission's Communication on *Investing in a smart, innovative and sustainable Industry: A renewed EU Industrial Policy Strategy*.

In particular, participants were asked how a European industrial strategy could be a driver of innovation and new business and employment opportunities in a regional and local context. They discussed the likely framework of a prospective industrial policy strategy. They also examined the main opportunities and challenges and the implications for business models and value chains, with special attention being devoted to specific themes such as skills-based education, digitalisation and decarbonisation.

The effects of different policy proposals were analysed at NUTS 3 level, and participants were asked to evaluate the quality of the results and discuss the best options.

Short introductory presentations by Pietro Cellotti and Alexander Lembcke provided the context and key issues for industrial policy strategy and how it concerns regions.

Pietro Cellotti presented the main findings of a CoR-commissioned study<sup>1</sup>, covering conceptual issues related to the place-based approach and the circular economy, key obstacles that confront local and regional authorities in implementing a place-based approach, the advantages of circularity in the context of Industry 4.0, the interplay between place-based, low carbon and circular approaches and the associated challenges for regional and local authorities. He underlined the key features of the place-based approach as highlighted by the case studies in the report, namely: understanding the place and the endogenous forces; mobilising the key stakeholders; developing and adopting a quadruple-helix vision and partnership; inter-sectoral cooperation; experimentation; and combining open governance with strong leadership. Developing the circular economy can be a sound and innovative place-based approach to industrial development that also ensures resource efficiency and the reduction of greenhouse gas emissions.

Alexander Lembcke briefly reviewed some key trends in the industrial economy, current issues and future challenges from a regional perspective. He underlined that industrial transition concerned all regions. He highlighted the concentration of high-tech manufacturing and knowledge-intensive services in urban areas and the legacy of the financial and euro area crises, particularly with regard to the negative effects on investment in many regions and lost human capital potential as a result of high unemployment. Industrial transition is leading to a continuing decline in manufacturing jobs in most regions, even as output increases. More productive industry is necessary for competitiveness, which has implications for the sustainability of manufacturing jobs in many regions. Digitalisation gaps may be closing but there are new bottlenecks in the areas of utilisation and skills. Global value chains are no longer increasing at the fast pace seen since the beginning of the century and there is now a more geographical spread of knowledge-intensive tasks. An uneven geography of "winners" and "losers" is evident: digital jobs are found in cities, and even secondary cities are facing problems. He drew attention to the fact that the future of work will see automation continuing to replace tasks, leading to a differential effect on jobs that do not require a high level of education. Dual labour markets and non-standard forms of work will continue to grow. The fourth industrial revolution will be characterised by the proliferation of programming skills, and a shift towards selling services and data

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<sup>1</sup> Implementing a territorial or place-based approach to EU industrial policy strategy, t33

as the "new gold". The transition towards carbon-neutral economies will be a critical challenge for combatting global warming and wasteful production.

As regards the possible policy response, he emphasised the need to break down silos and engage a wide range of stakeholders. A bottom-up approach will be needed: industrial strategy needs to be place-based and tailored to different contexts and local areas. Centralised solutions alone will not work. Establishing connections and networks between places will also be crucial, as will effective communication, particularly when it comes to measures that may hurt some stakeholders.



## 1 Methodology: ESPON Quick Check

The concept of territorial impact assessment (TIA) aims to demonstrate the regional differentiation of the impact of EU policies. The ESPON TIA Tool<sup>2</sup> is an interactive web application that can be used to support policy makers and practitioners in identifying, ex-ante, the potential territorial impacts of new EU legislation, policies and directives (LPDs). The "ESPON TIA Quick Check" approach combines a workshop setting for identifying systemic relations between a policy and its territorial consequences with a set of indicators describing the sensitivity of European regions.

It helps to steer an expert discussion about the potential territorial effects of an EU policy proposal by checking all relevant indicators in a workshop setting. The results of the guided expert discussion are judgements about the potential territorial impact of an EU policy, considering different thematic fields (economy, society, environment, governance) for a range of indicators. These results are fed into the ESPON TIA Quick Check web tool.

The web tool translates the combination of the expert judgements on exposure with the different sensitivity of regions into maps showing the potential territorial impact of EU policy at NUTS 3 level. These maps serve as a starting point for further discussion of the various impacts of a concrete EU policy on different regions. Consequently, the experts participating in the workshop provide an important input for this quick check on the potential territorial effects of an EU policy proposal.

The workshop on the industrial policy strategy was held on 6 March 2019 in Brussels and brought together a number of experts representing different organisations and LRAs.

Two moderators from the OIR, provided by ESPON, prepared and guided the workshop and handled the ESPON TIA tool.

### 1.1 Identifying the potential territorial effects based on economic, social, environmental and governance aspects – defining a conceptual model

The participating experts discussed the potential effects of the implementation of a renewed EU industrial policy strategy using a territorial or place-based approach, particularly in the context of the post-2020 programming period and the Commission's Communication on *Investing in a smart, innovative and sustainable Industry*.

***Communication on Investing in a smart, innovative and sustainable industry – A renewed EU industrial policy strategy (COM(2017) 479 final)***

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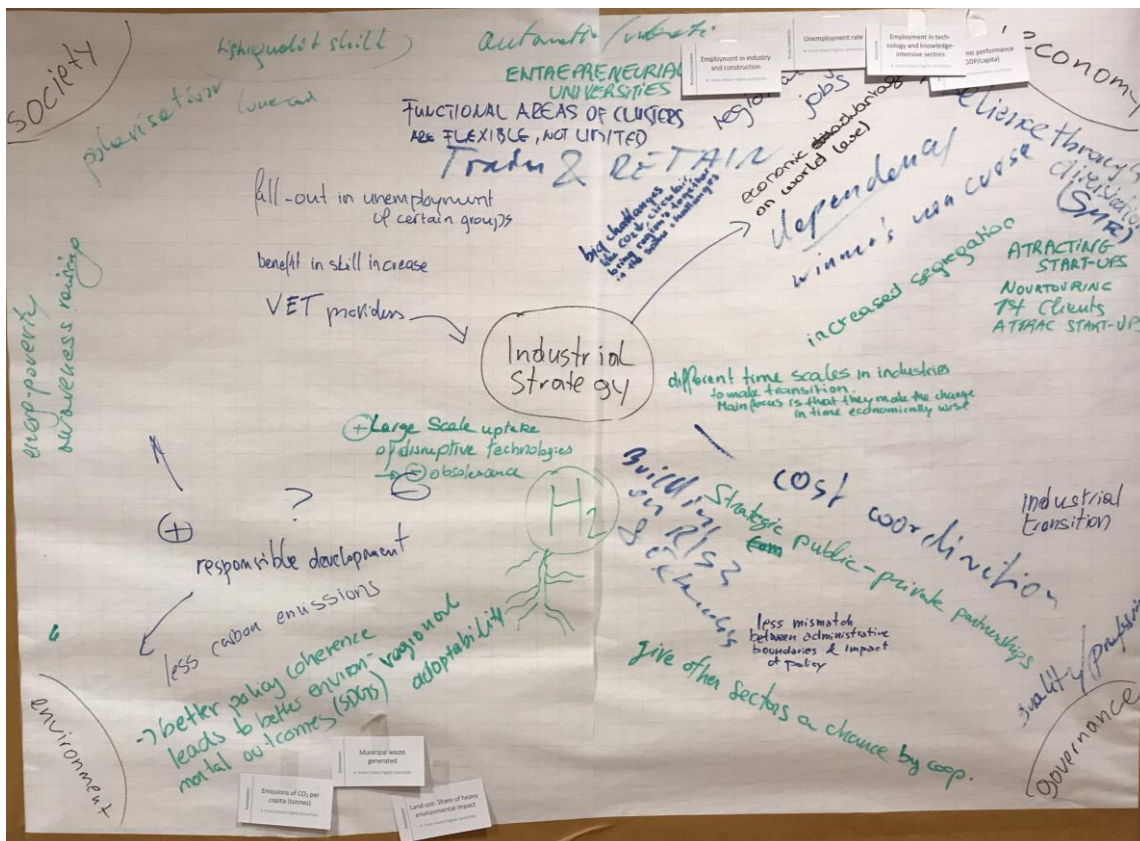
<sup>2</sup> [https://www.espon.eu/main/Menu\\_ToolsandMaps/TIA/](https://www.espon.eu/main/Menu_ToolsandMaps/TIA/)

The renewed EU industrial policy strategy combines both existing and new horizontal and sector-specific initiatives and sets out measures clustered around seven specific themes:

- a deeper and fairer single market: empowering people and businesses;
- upgrading industry for the digital age;
- building on Europe's leadership in a low-carbon and circular economy;
- investing in the industry of the future;
- supporting industrial innovation on the ground;
- the international dimension; and
- partnership with Member States, regions, cities and the private sector.

This discussion revealed potential territorial impacts and effects of implementing the renewed industrial policy strategy, taking into account economic, social, environmental and governance-related indicators. The participants identified potential linkages between the implementation of the strategy and the effects on territories, including interdependencies and feed-back loops between different effects (see figure below).

Figure 1 - Workshop findings: Systemic picture



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019, OIR

## 1.2 Conceptualising the potential territorial effects by means of indicators

In order to assess the potential effects set out in the conceptual model, suitable indicators need to be selected related to the parameters that the experts discussed in the fields of economy, environment, society and governance. The availability of data for all NUTS 3 regions poses certain limitations to the indicators that can be used. From the available indicators offered by the ESPON TIA Quick Check web tool, the experts chose the following to describe the identified effects.

Potential territorial impacts based on economic indicators:

- Economic performance (GDP/capita)
- Employment in industry and construction
- Employment in technology and knowledge-intensive sectors

Potential territorial impacts based on societal indicators:

- Educational attainment of 30-34 year olds, tertiary education (levels 5-8)
- Unemployment rate

Picturing potential territorial impacts considering environmental related indicators:

- Emissions of CO<sub>2</sub> per capita (tonnes)

## 1.3 Judging the intensity of the potential effects

The participants in the workshop were asked to estimate the potential effects deriving from the implementation of the renewed EU industrial policy strategy. They assessed the potential effect on territorial welfare using the following scoring system:

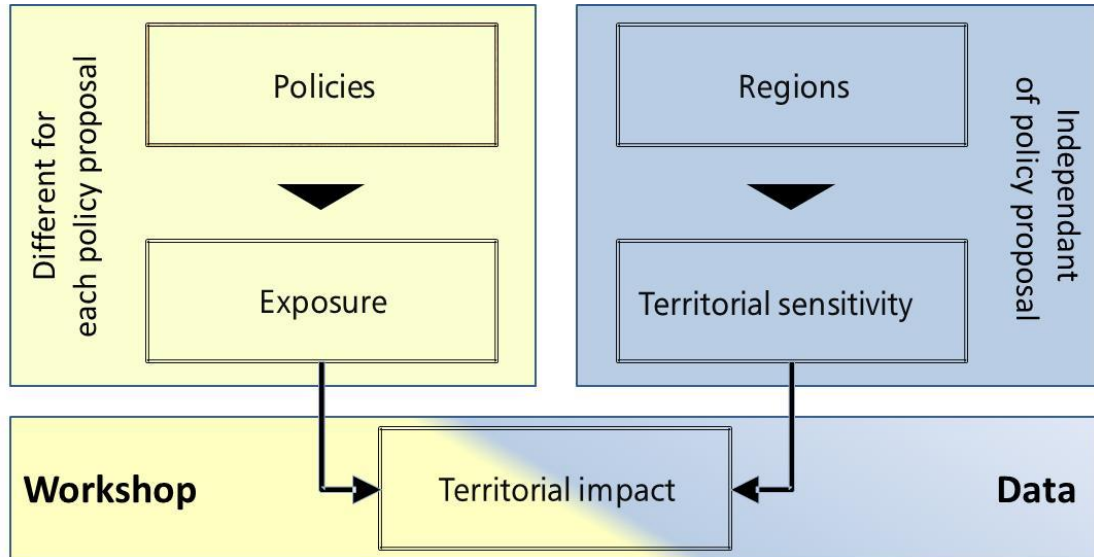
- ++ strong advantageous effect on territorial welfare (strong increase)
- + weak advantageous effect on territorial welfare (increase)
- o no effect/unknown effect/effect cannot be specified
- - weak disadvantageous effect on territorial welfare (decrease)
- -- strong disadvantageous effect on territorial welfare (strong decrease)

## 1.4 Calculating the potential "regional impact" – combining expert judgement with regional sensitivity

The ESPON TIA Quick Check combines expert judgement on the potential effects deriving from the impact of the implementation of a renewed EU industrial policy strategy (**exposure**) with indicators depicting the sensitivity of regions, resulting in maps that reveal a territorially-differentiated impact. This approach is based on the **vulnerability concept** developed by the Intergovernmental Panel on Climate Change (IPCC). In this case, the effects deriving from a particular policy measure (exposure)

are combined with the characteristics of a region (**territorial sensitivity**) to produce potential territorial impacts (cf. figure 2).

Figure 2 - Exposure x territorial sensitivity = territorial impact



Source: OIR, 2015.

- "Territorial Sensitivity" describes the baseline situation of the region according to its ability to cope with external effects. It is a characteristic of a region that can be described by different indicators independently of the topic analysed.
- "Exposure" describes the intensity of the potential effect caused by the potential impact of the implementation of legislation on a specific indicator. Exposure illustrates the experts' judgement, i.e. the main findings of the expert discussion at the TIA workshop.

### 1.5 Mapping the potential territorial impact

The result of the territorial impact assessment is presented in maps. The maps displayed below show potential territorial impacts based on a combination of expert judgement on the exposure combined with the territorial sensitivity of a region, described by an indicator at NUTS 3 level. Whereas expert judgement is a qualitative judgement (i.e. strong advantageous effect on territorial welfare/weak advantageous effect/no effect/weak disadvantageous effect/strong disadvantageous effect), the sensitivity is a quantitative indicator.

## 2 Preliminary Discussion

### 2.1 Initial questions

The moderator reviewed the strategic challenges for industry and the regions and the prospective industrial model that EU policy implies. This embraces digital and data-driven technologies as the basis for competitive advantage; underpins the shift from a linear to a circular economy and contributes to decarbonisation; promotes innovative SMEs, start-ups and scale ups and their integration in GVCs; creates value for all European regions and supports resilient communities and places based on high-quality jobs; ensures social inclusiveness by providing high-skilled jobs and life-long learning opportunities across the social spectrum and territories; and results in industry that is territorially embedded.

A set of questions was used as a conversation-starter. This non-exhaustive list covers some of the main issues to be addressed in a European-wide industrial strategy.

- What do we mean when we speak about industry in today's economy? The industrial economy is changing rapidly, particularly with the increase in the knowledge and services content of industrial offerings and greater integration in Global Value Chains (GVCs).
- What are the key political, governance and functional challenges for place-based industrial development? What is the appropriate territorial scale at which a place-based approach can or should be applied?
- How can the Commission's industrial strategy policy document and its linked actions be the basis for potential activities by regions and cities and the use of EU funding?
- How should the proposed programmes and funding instruments for the next multi-annual programming period, 2021-2027, be used in order to better implement a territorial or place-based approach to industrial policy strategy?
- How, in the context of an EU industrial policy strategy, can regional and local authorities contribute to realising the economic and business potential of a low-carbon and circular economy?

### 2.2 Key messages

More concretely, the rapporteur asked participants to reflect on the following key messages, on which she elaborated:

- A place-based approach requires trans-regional collaboration to ensure a competitive European Industry;
- Multi-level collaboration between EU, national, regional and local governments is crucial for creating impact;

- Society is facing complex societal challenges. Regional governments play a crucial role in shaping a mission-oriented approach and bringing sectoral policy into practice;
- Regions should take responsibility for communicating to citizens about the actions needed for industrial transition;
- Regions should ensure the availability of skills that are needed to support the transition of industry;
- In order to create a sustainable European industry, regions and clusters should show leadership;
- Regional governments are crucial for enhancing the impact from innovation hubs in their regions, but also for creating trans-regional uptake of industrial innovation.

### 2.3 Defining the enabling factors for a European industrial strategy

To further streamline the discussion, experts were asked to reflect on a multitude of factors that can enable a successful industrial strategy to be developed at European level:

- a) Education and skills – the impact that education has on industry and the interaction between business and companies;
- b) Cybersecurity – the need to protect industrial know-how from competition;
- c) Digitalisation – the widespread impact of ICT across the economy and labour market;
- d) Research and development, and the joint efforts of academia and industry;
- e) Clusters – consisting of dynamic geographic concentrations of inter-connected firms and related innovation actors (e.g. research organisations, universities, technology centres, accelerators, incubators, investors etc.) in a particular area of related industries;
- f) Quality and stability of legal standards, such as competition policy (in the context of global competition) and state aid legislation;
- g) Supportive public policies in the field of economic and interregional cooperation.

Of these, the experts focused the discussion around three **main areas**: knowledge, education and skills; clusters/agglomeration; and territorial cooperation. State aid issues were also discussed.

### 3 Expected economic effects

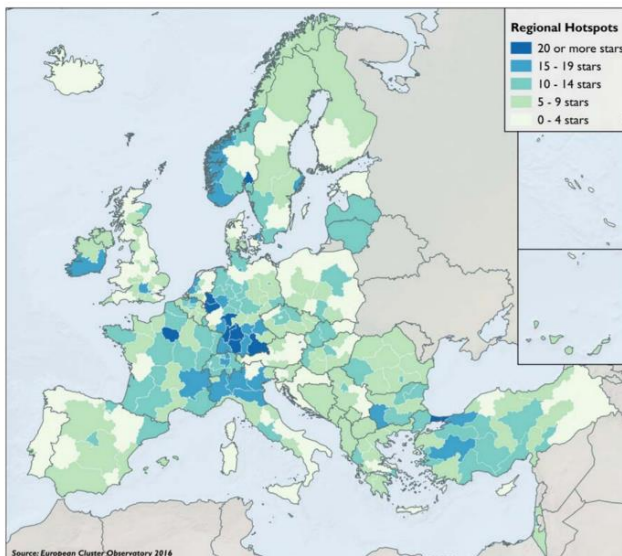
#### 3.1 Exchange on certain key topics

##### Clusters

Clusters are key elements for the implementation of the EU's industrial policy, as they represent the geographic concentrations of highly specialised industrial actors and enable their strategic and structured collaboration. Within the cluster ecosystems, innovation is boosted through the dynamic collaboration of big firms with SMEs, technology centres and universities.

The [European Cluster Observatory](#) has identified 3043 strong regional clusters in Europe. About 1000 of these have registered and provided a profile of their cluster organisation on the European Cluster Collaboration Platform, in order to engage in strategic partnering. These cluster organisations act as multipliers by reaching out to over 100,000 SMEs, some 8,000 large firms and 11,000 universities/research organisations.

Map 1 - Europe's regional hotspots of cross-sectoral, emerging industry clusters that drive growth



##### Clusters matter because they...

- **account for 54 million jobs** (i.e. 45% of traded industries employment and 23% of the overall economy);
- **are represented in all parts of Europe** and have shown resilience during economic crises;
- **nurture growth and jobs**, e.g. by providing 3% higher wages (compared to all traded industries) and helping young, fast-growing enterprises to employ more staff (compared to outside clusters).

*European Cluster Observatory (2016) European Cluster Panorama*

The development of clusters that close loops in the productive cycle is always positive. Hyper-specialisation can, in the long run, have negative outcomes if there is no proper foresight of the adaptability of a region and its productive sector to significant market changes. Furthermore, it may also imply increased economic segregation, which may take place at both national and intra-regional levels.



### **Territorial cooperation**

The territorial aspect of cooperation was mentioned as an important element to be taken into account. Public and private investment, viewed together, foster economic activities that deliver outcomes in the overall public good, which would not be supplied (or would be supplied under different conditions in terms of objective quality, safety, affordability, equal treatment or universal access) by the market without public intervention. This is especially true for regions that suffer from lower availability of services of general interest.

Another territorial aspect of cooperation relates to a mismatch between political/administrative boundaries and economic activities. In that sense, regions with common interests must cooperate. The type of cooperation and its scope will depend on the specific industrial sector. For example, whereas agro-industries can have a strong local component, cooperation in the steel sector will be transnational and on a European scale. Whereas, as mentioned above, closing the loops in a productive cycle should be as local as possible, in some cases that may imply cooperation among regions of multiple countries. The fact that cooperation also implies costs, both direct (related to coordination activities) and indirect, was raised as a significant issue.

Cross-sectoral cooperation and regional cooperation were pointed out as important elements for technological development, as they are needed to generate economies of scale.

### **Smart specialisation**

Smart specialisation as a place-based approach was the object of specific focus during the discussion. It builds on the assets and resources available to regions and on their specific socio-economic challenges in order to identify unique opportunities for development and growth.

Interregional cooperation in the context of smart specialisation might not necessarily mean simply focusing on areas in which a region is already strong. Experts noted that a region wanting to reconvert part of its economy might try to give opportunities to weak sectors by stimulating cooperation with regions that are strong in those areas. This might apply to sectors of reduced weight in such regions, but it is especially significant if the reconversion is made towards a contiguous industry.

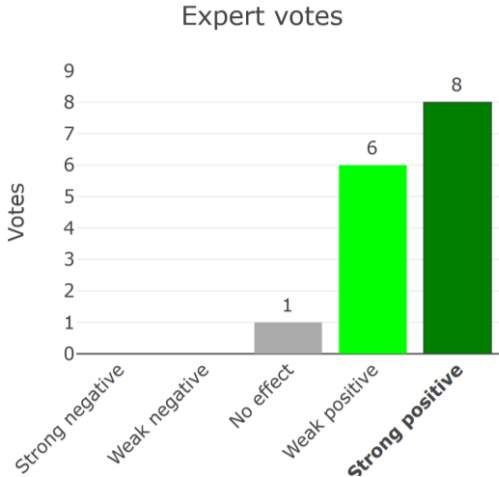
Fundamentally, smart specialisation should be seen not as a strategy of excluding some sectors to focus on others. It is fundamentally a means of establishing a driver for local and regional economies, with a leading sector pulling contiguous sectors and together steering the whole economy.

## **3.2 Economic performance (GDP/capita)**



The experts agreed that the renewed EU industrial policy strategy would have positive effects on economic performance (GDP/capita). Eight experts judged the effect as strongly positive and six judged it as weakly positive. One expert did not consider this indicator as relevant.

Figure 3 - Result of the expert judgement: economic performance (GDP/capita) affected by the renewed EU industrial policy strategy



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

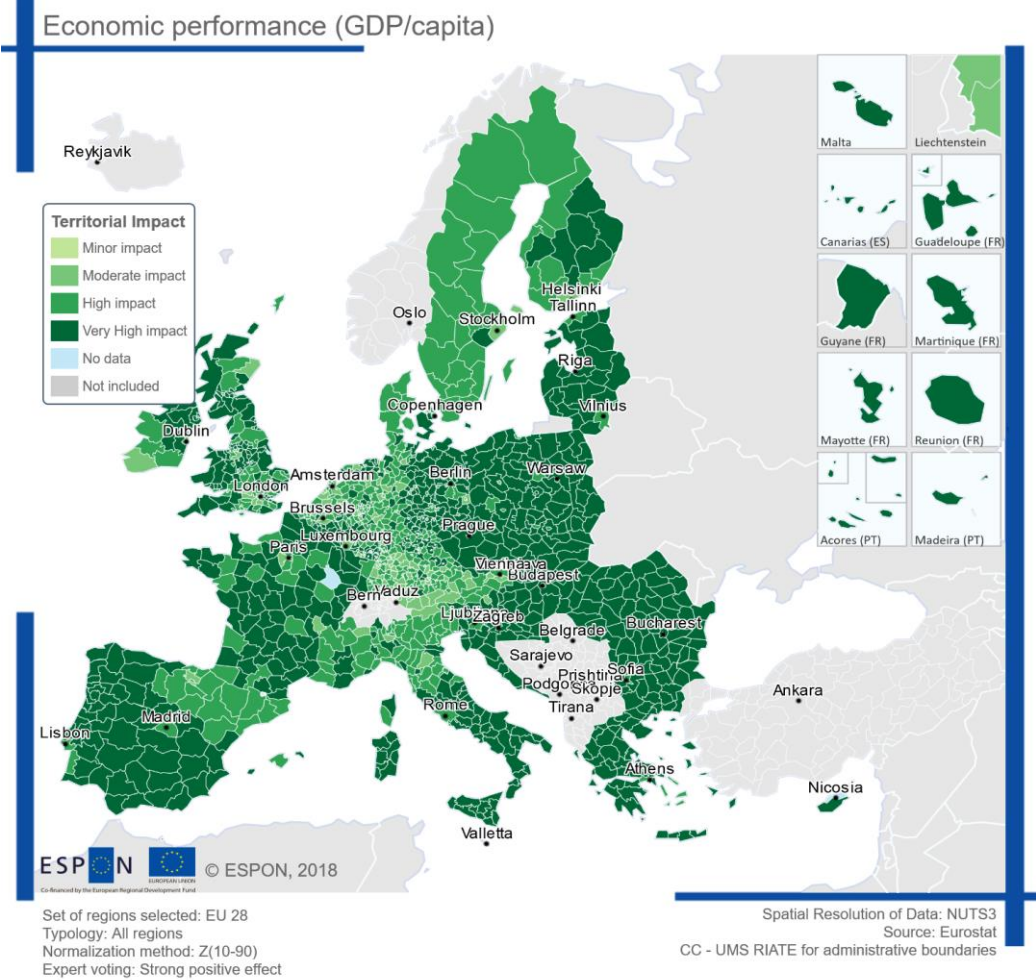
This indicator measures the gross domestic product (GDP) at current market prices (Purchasing Power Standard per inhabitant). Regions with lower GDP per capita are expected to benefit more from a renewed EU industrial policy strategy. Sensitivity is thus inversely proportional to the level of GDP per capita.

The following map shows the potential territorial impact resulting from the implementation of a renewed EU industrial policy strategy based on economic performance (GDP/capita). It combines the expert judgement of a strongly positive effect with the given sensitivity of regions. 56% of the regions would gain a very highly positive impact and 31% a highly positive impact. 13% of the regions are expected to face a moderately positive impact.

The map shows that an EU industrial policy strategy, as discussed, could result in a kind of "catching-up effect". Regions with lower GDP could benefit more than regions whose GDP/capita is already higher due to the lower marginal benefit for already economically highly performing regions. Thus, the regions gaining a very high and high positive impact are located in the eastern part of Europe (east Finland, Estonia, Latvia, Lithuania, Poland, east Germany, the eastern part of Slovakia, Hungary, Bulgaria, Romania) and in the south (Greece, south of Italy, Sardinia, Cyprus, south of Spain, Portugal).

Furthermore, regions in the west and north of Britain, the north-east of Ireland and the centre of France could potentially benefit more from an EU industrial policy strategy.

Map 2 - economic performance (GDP/capita) affected by the renewed EU industrial policy strategy – expert judgement: strongly positive effect

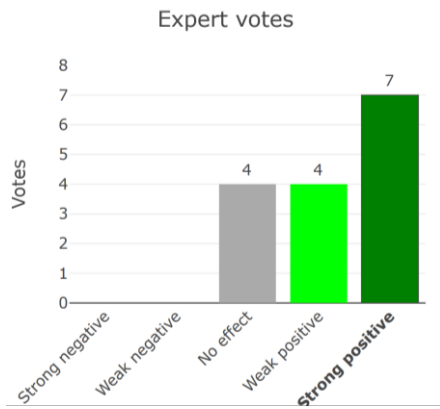


Source: Territorial impact assessment expert workshop, Brussels, 6<sup>th</sup> March. 2019

**3.3 Employment in industry and construction**

The experts considered that a renewed EU industrial policy strategy would have a positive effect on employment in industry and construction. Seven experts rated the effect strongly positive and four saw it as weakly positive. Four experts did not perceive a relevant effect.

Figure 4 - Result of the expert judgement: employment in industry and construction affected by the renewed EU industrial policy strategy



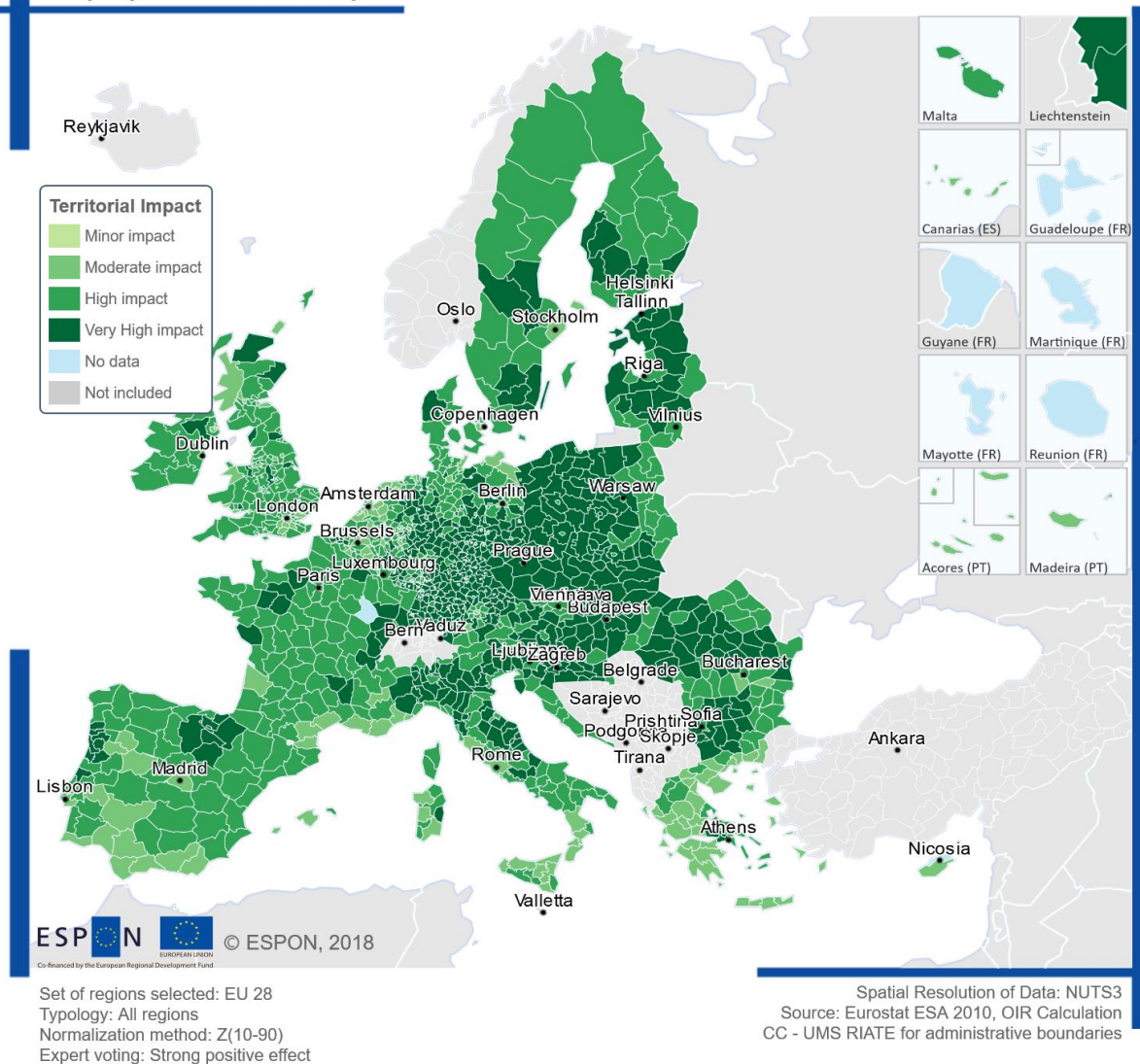
Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

This indicator depicts the share of employment in industry and construction on total employment. Regions with a higher share of employment in industry and construction are expected to be influenced more by changes concerning this sector. Sensitivity is thus directly proportional to the share of employment in this sector.

The following map shows the potential territorial impact of a renewed EU industrial policy strategy on employment in industry and construction. It combines the expert judgement of a strongly positive effect with the given sensitivity of regions. 39% of the regions could achieve a very highly positive impact. 44% of the regions would experience a highly positive impact and 17% a moderately positive impact.

Map 3 - employment in industry and construction affected by the renewed EU industrial policy strategy – expert judgement: strongly positive effect

## Employment in industry and construction



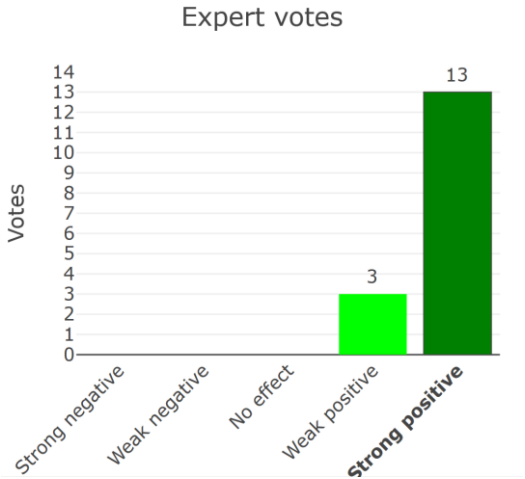
Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

The indicator assumes that regions with a high share of employment in the industry sector will be able to benefit particularly strongly from the effects of a renewed EU industrial policy strategy due to their existing industrial basis. The regions that could gain the highest positive impact are mainly located in Eastern Europe (Estonia, Latvia, Lithuania, Poland, the eastern part of Slovakia, Hungary, Bulgaria, the western part of Romania) as well as in Germany and the north of Italy, the south of Sweden and Finland, and northern Spain.

### 3.4 Employment in technology and knowledge-intensive sectors

It was assumed that a renewed EU industrial policy strategy would bring a boost in technology and knowledge-intensive sectors. Therefore, the experts considered that there would be a positive effect on employment in technology and knowledge-intensive sectors. Thirteen experts voted for strongly positive and three for weakly positive.

Figure 5 - Result of the expert judgement: employment in technology and knowledge-intensive sectors affected by a renewed EU industrial policy strategy



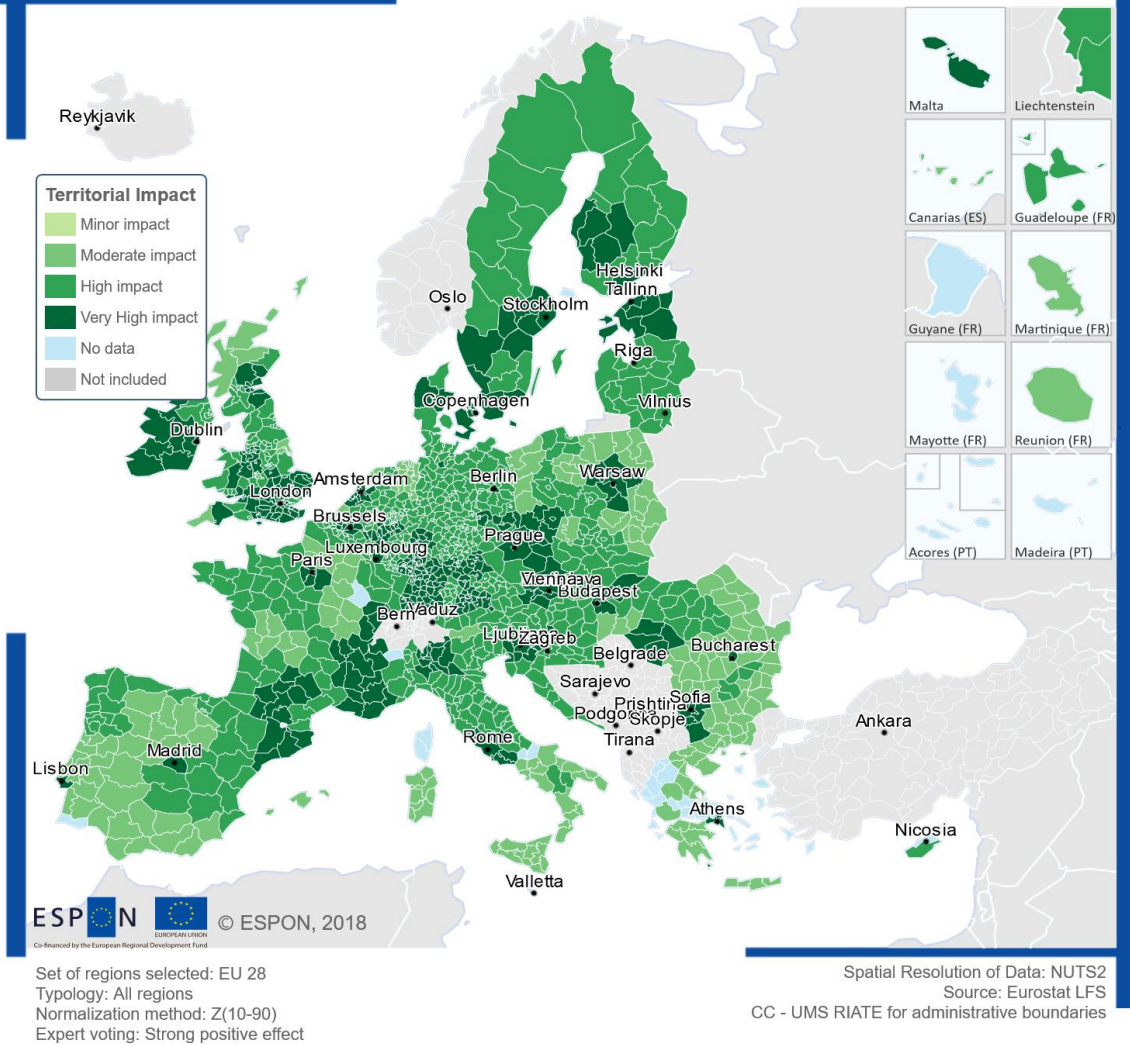
Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

The indicator "employment in technology and knowledge-intensive sectors affected" depicts the share of employment in technology and knowledge-intensive sectors relative to total employment. Regions with a greater share of employment in technology and knowledge-intensive sectors are considered to be more sensitive to measures influencing innovation. Sensitivity is therefore directly proportional. The following map shows the potential territorial impact of a renewed EU industrial policy strategy on employment in technology and knowledge-intensive sectors. It combines the expert judgement of a strongly positive effect with the given sensitivity of regions. 33% of the regions are expected to face a very highly positive impact. Half of the regions (49%) would gain a highly positive impact and 17% only a moderately positive impact.

Map 4 - employment in technology and knowledge-intensive sectors affected by the renewed EU industrial policy strategy – expert judgement: strongly positive effect



## Employment in technology and knowledge-intensive sectors



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

The indicator alleges that a strong base in technology and knowledge-intensive sectors is required to absorb positive stimuli in technology-based sectors. Regions that would gain the highest positive impact with regard to employment in technology and knowledge-intensive sectors are located in Estonia, the south of Sweden and the south-west of Finland, Ireland, the north of Italy, and south Germany. Several regions in the environs of capitals would also experience highly positive impacts, e.g. around Prague, Copenhagen, Rome, Sofia, Madrid, London, Warsaw, Ljubljana and Brussels.

## 4 Expected societal effects

### 4.1 Exchange on some certain topics

#### **Social polarisation**

The dynamics of winners and losers, which will necessarily be produced by any policy decision, and which were touched upon during the discussion around the expected economic effects, is also reflected in the social sphere. Indeed, the transformation of the industrial fabric implies the fallout of certain groups, whose skills are no longer needed. There is consequently a risk of social polarization between winners (highly skilled workers, labour attached to new technological developments) and losers (low skilled workers or labour whose skills cannot easily be transferred from a declining industry to new economic activities).

Brain drain was also presented as an issue to be tackled through targeted policies. The training of skilled labour, and the retraining of workers whose skills have become obsolete, can act, in more depressed regions, as a means to avoid migration to more affluent regions.

#### **Education for skills**

The improvement of skills and their adaptation to foreseeable or expected changes is essential. Simply focusing on increasing the number of university graduates was not deemed the best approach to achieving this. Though it may be helpful, the crucial issue to be answered is not the percentage of the labour force with diplomas, but the quality and quantity of the labour force's skills. In that sense, strong investment in STEM (science, technology, engineering and mathematics) areas is a better predictor of a vibrant industrial sector than the sheer number of university graduates.

Enhanced investment in VET (Vocational Education and Training) is a pressing need. As the success of an industrial strategy results from the existence of the necessary skills in the labour force, and as these depend on proper VET, the success of VET is dependent on close cooperation between local and regional authorities, schools and companies. LRAs' knowledge of the social and economic fabric of the region (plus the fact that many LRAs have competences in the sector) must be integrated with the educational institutions to answer to the needs of the productive sector itself, which might not be sufficiently addressed.

#### **Research and entrepreneurship**

Furthermore, emphasis must be put on promoting "entrepreneurial universities" – universities where the research is integrated into the economic fabric of the region. This can deliver better academic

results, increased employment opportunities for graduates and a more dynamic industrial sector. Such universities can serve as incubators of new, small businesses.

**Good governance**

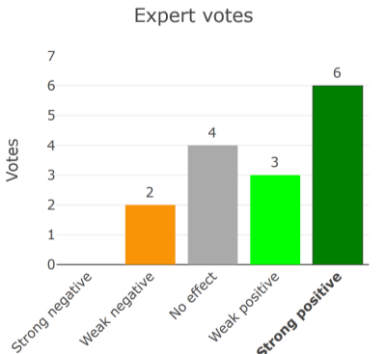
The quality of governance was defended as an important aspect of industrial strategy. Difficult to measure though it may be, it has an important place in determining the success or failure of industrial policies.

Mentioned by experts as particularly relevant is the role that the European Union plays on a global scale. Its competition rules aim at guaranteeing a level-playing field in the context of an open, competitive economy. Nevertheless, more protectionist policies by other economic powers generate economic disadvantages for European players in areas such as industrial concentration.

**4.2 Educational attainment of 30-34 year olds, tertiary education**

The experts agreed that a renewed EU industrial policy strategy would upgrade the education level of the population, as new technologies require better educated employees and consequently the education system would tackle this challenge through additional education efforts. The education level could be measured by the indicator "population aged 30-34 with a tertiary education" The experts assumed that a renewed EU industrial policy strategy would affect this indicator positively. Six experts judged the effects as strongly positive and three as weakly positive. On the other hand, two experts opted for weakly negative. Four experts did not consider this indicator relevant.

Figure 6 - Result of the expert judgement: educational attainment of 30-34 year olds, tertiary education affected by the renewed EU industrial policy strategy



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

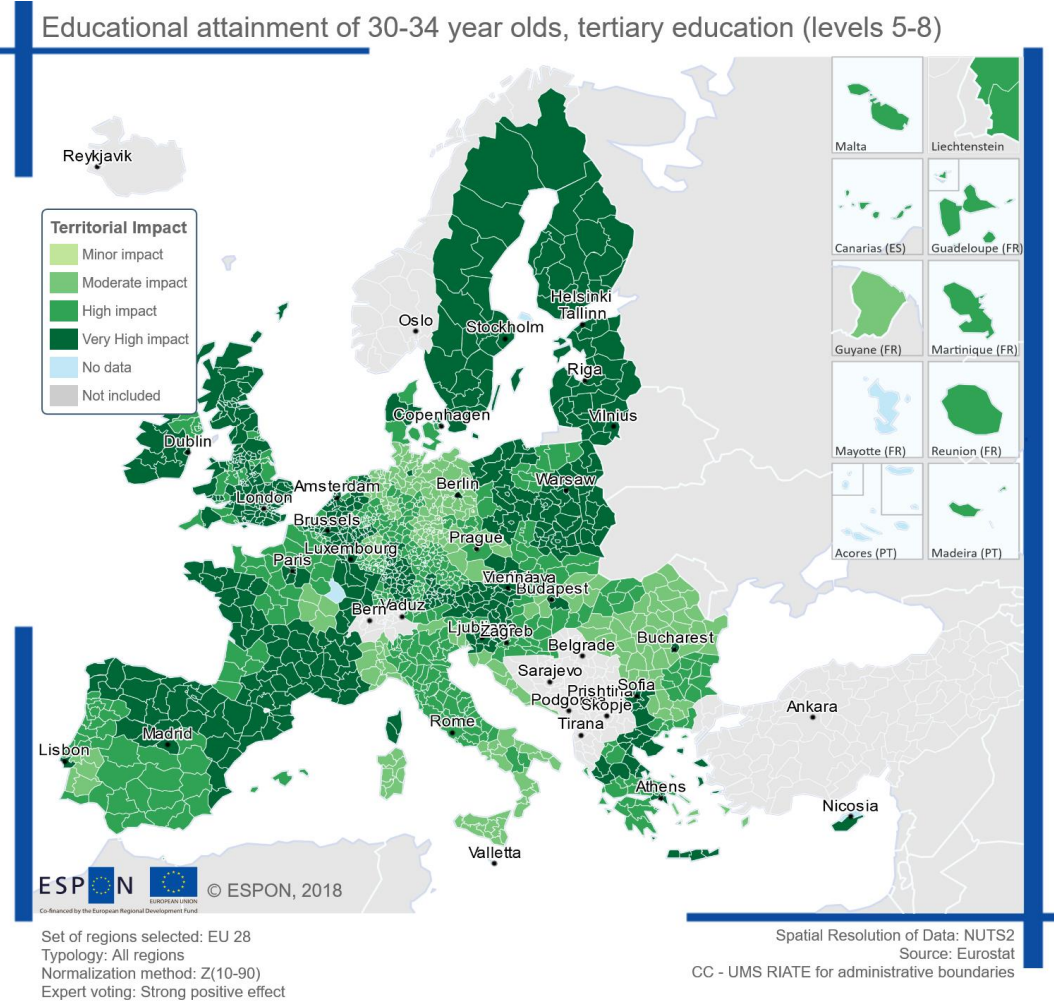
This indicator "population aged 30-34 with a tertiary education" depicts the share of population aged 30-34 with tertiary education (levels 5-8). Regions with higher shares of this population group are expected to benefit more from a renewed EU industrial policy strategy compared to regions whose



population has a lower educational level. Sensitivity is thus directly proportional to the share of population aged 30-34 with tertiary education.

The following map shows the potential territorial impact of a renewed EU industrial policy strategy on the population aged 30-34 with a tertiary education. It combines the expert judgement of a strongly positive effect with the given sensitivity of regions. 46% of the regions would face a very highly positive impact. 35% of the regions would face a highly positive impact and 19% a moderately positive impact.

Map 5 - educational attainment of 30-34 year olds affected by the renewed EU industrial policy strategy – expert judgement: strongly positive effect



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

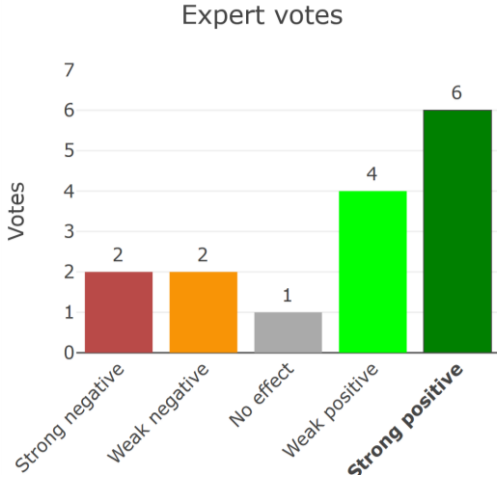
The indicator alleges that additional efforts towards improving education can be made in regions that already have a higher level of education, as in those regions a good educational infrastructure exists which can deal with additional demands. Consequently those regions that already have a high share of "population aged 30-34 with a tertiary education" would gain the highest positive impact. These

regions are located e.g. in Finland, Sweden and Ireland, in the north of Spain, in large parts of France, Poland and Austria, in the south of Germany and in the north of Great Britain.

### 4.3 Unemployment rate

Due to the positive effects of a renewed EU industrial policy strategy on industrial production, the experts concluded that there would be a positive effect on the unemployment rate. Six experts expected a strongly positive effect and four a weakly positive effect. Two experts voted for weakly negative and two for strongly negative. One expert did not consider this indicator as relevant.

Figure 7 - Result of the expert judgement: unemployment rate affected by the renewed EU industrial policy strategy

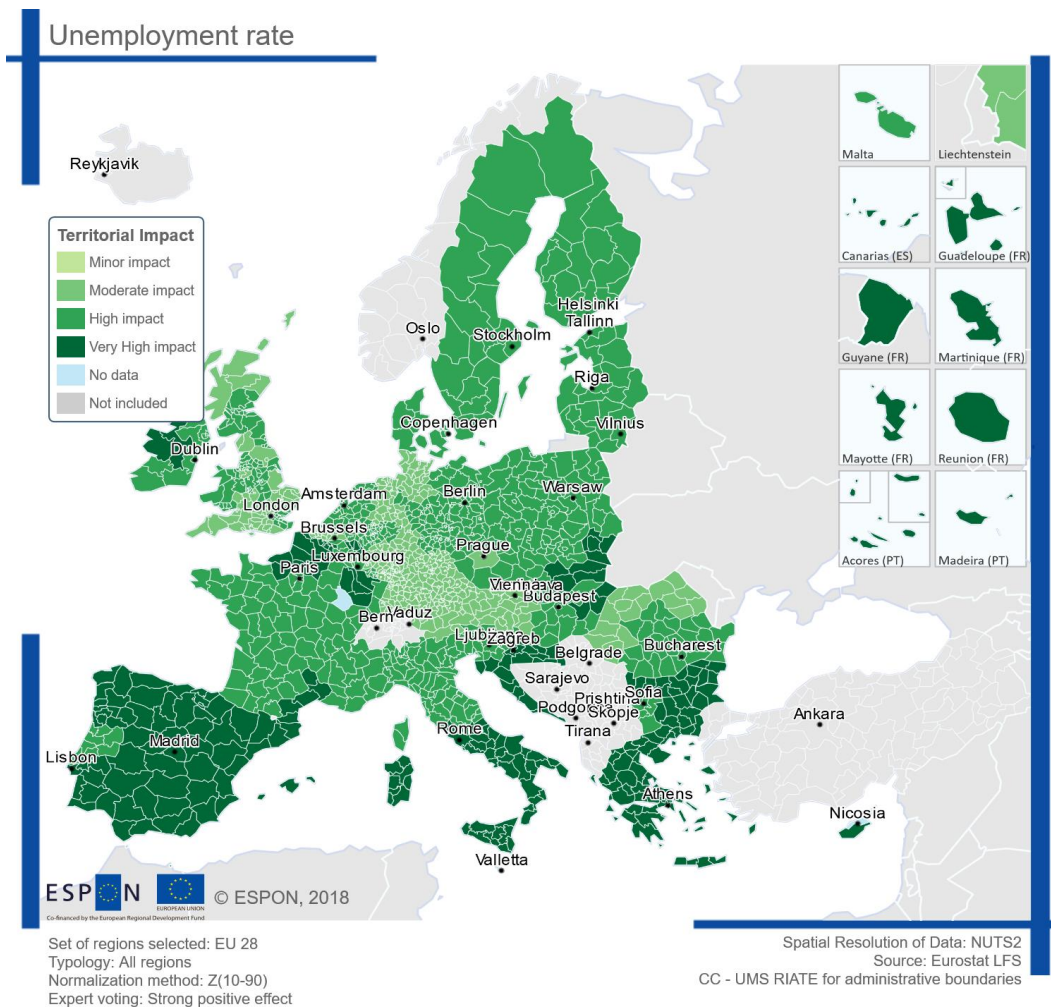


Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

The indicator "unemployment rate" refers to the sensitivity of a region according to its unemployment rate. It is calculated by dividing the number of unemployed people by the total number of people in the economically active population. Regions experiencing higher levels of unemployment are likely to benefit more from a reduction in unemployment and are more harmed by an increase in it. Sensitivity is thus directly proportional to the unemployment rate.

The following map shows the potential territorial impact of a renewed EU industrial policy strategy based on the unemployment rate. It combines the expert judgement of a strongly positive effect with the given sensitivity of regions. 20% of the regions could experience a highly positive impact. Half of the regions (51%) would experience a highly positive impact and 29% of the regions a moderately positive impact.

Map 6 - unemployment rate affected by the renewed EU industrial policy strategy – expert judgement: strongly positive effect



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

The indicator supposes that regions with a high unemployment rate would benefit most, when initiatives are taken to reduce unemployment. These regions can be found throughout Spain, Croatia and Greece and in the southern parts of Portugal and Italy as well as in Cyprus and in parts of France, Belgium, Ireland, Poland, Slovakia, Hungary and Bulgaria.

## 5 Expected environmental effects

### 5.1 Exchange on certain key topics

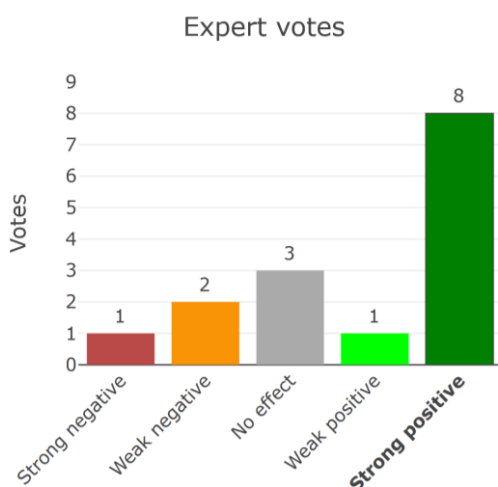
An industrial strategy focused on the circular economy was highlighted by the experts as a positive development at regional level, since the search for a less carbonised economy (meaning an economy where for the same amount of wealth we have a smaller carbon footprint) often implies a more localised economy, with more regionally dispersed growth and jobs.

An industrial strategy that delivers better environmental results requires improved policy coordination. Consequently, the experts stated that the Sustainable Development Goals could offer guidance on which elements to take into account for improved policy coordination.

### 5.2 Emissions of CO2 per capita

The experts concluded that a renewed EU industrial policy strategy would strengthen environmentally friendly ways of production with less consumption of energy and resources. Consequently, it will contribute to reducing the emission of CO2 per capita. Most of the experts saw a strongly positive effect. Two experts voted for weakly negative and one for strongly negative. Three experts did not expect a relevant effect.

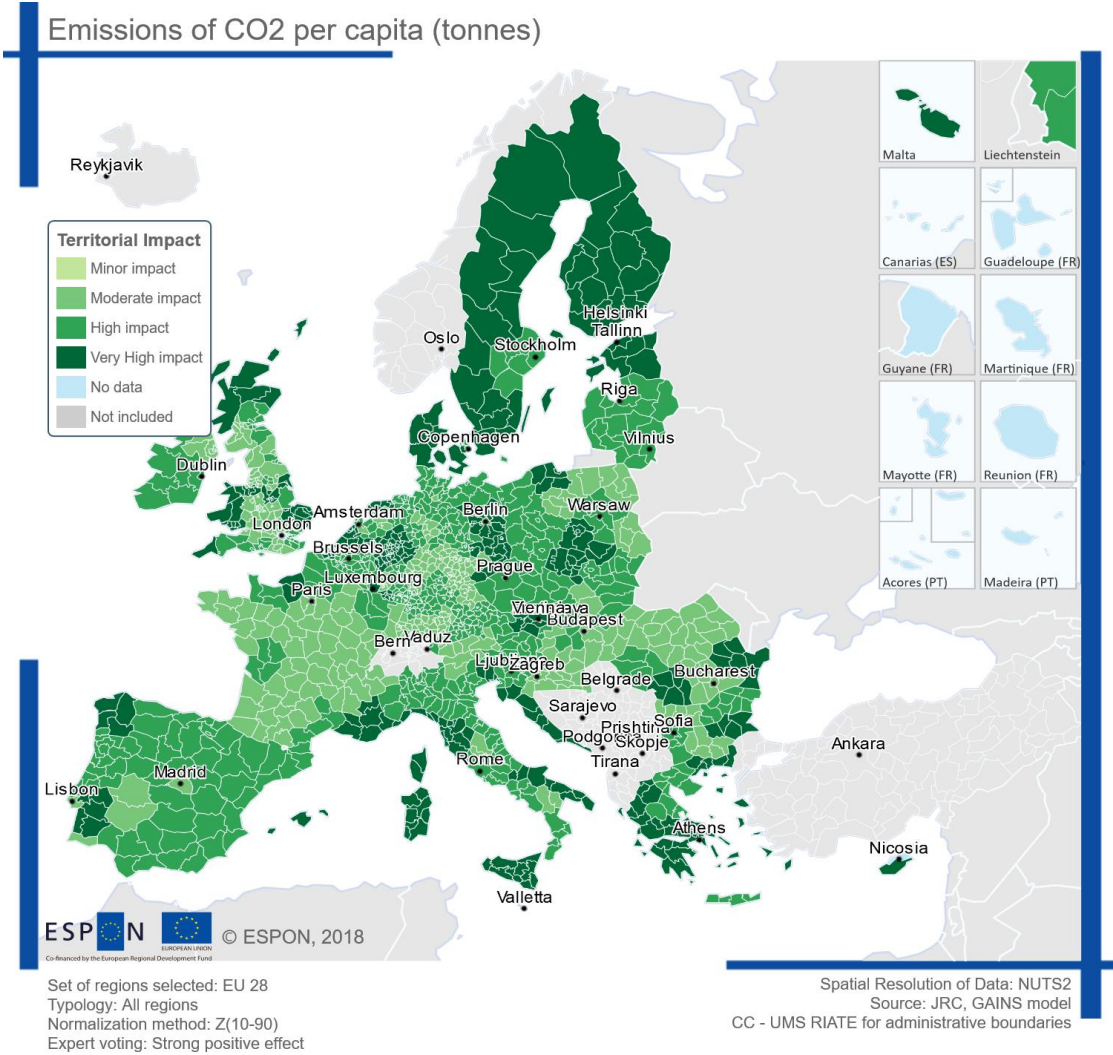
Figure 8 - Result of the expert judgement: emissions of CO2 per capita affected by the renewed EU industrial policy strategy



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

The indicator "emissions of CO2 per capita" refers to the sensitivity of a region according to the emissions of CO2 per capita. It is measured in tonnes per year. Regions showing higher concentrations of CO2 per capita are expected to be more sensitive to measures aimed at reducing CO2 emissions. The following map shows the potential territorial impact from the renewed EU industrial policy strategy based on the emissions of CO2 per capita. It combines the expert judgement of a strongly positive effect with the given sensitivity of regions. 27% of the regions could experience a very highly positive impact. 44% would experience a highly positive impact and 29% a moderately positive impact.

Map 7 - emissions of CO2 per capita affected by the renewed EU industrial policy strategy – expert judgement: strongly positive effect



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2019

Many of the regions that would gain the highest impact in terms of reduction of CO2 emissions are port regions or industrial regions. Sparsely populated regions with high CO2 emissions per capita in Sweden and Finland also show high impacts due to the low density of the population, which results in a high level of CO2/capita.



## Experts' policy recommendations

Based on the discussion and on the analysis of the potential territorial effects of the policy options outlined in the workshop, experts concluded by setting out the following policy recommendations.

### **The European Union should:**

- Steer interregional cooperation by facilitating partnerships and promoting cross-sectoral clusters, with greater focus on strategic value chains.
- Strive to remove regulatory barriers, especially those that affect the creation of a circular economy at European level. A case in point is the very difficult cross-border transport of waste. Continuing efforts to strengthen the Single Market is the only way to achieve this goal.
- Invest in a cybersecurity strategy that can respond effectively not only to political or military external threats, but also to economic threats, such as industrial espionage.
- Develop robust statistical indicators of economic circularity at regional level to enable better data-driven policy making.
- Involve local and regional authorities in designing a European place-based industrial strategy, making use of their knowledge of the diverse realities within each Member State and taking particular care in analysing specific needs for poorer and more fragile regions.
- Revise state aid rules concerning regional investments. Give increased attention to the difficulties surrounding public procurement rules. In particular, capacity building for national, regional and local authorities should be envisaged.

### **National, regional and local authorities should furthermore:**

- Question established supply chains for the benefit of innovative investments and in support of moving towards a circular economy.
- Promote vocational education and training and integrate universities and entrepreneurs to deliver increased research and development with a direct impact on the development of the European industrial fabric.
- Invest in research and innovation strategies for Smart Specialisation, prioritising domains, areas and economic activities where regions or countries have a competitive advantage or have the potential to generate knowledge-driven growth and to bring about the economic transformation needed to tackle the major and most urgent challenges for society and the natural and built environment.

## Territorial impact assessment

# Industrial policy strategy

European Committee of the Regions, Rue Belliard 101, Brussels, Room JDE53

**6 March 2019**

| **Working language:** English |

| **Moderator:** Bernd Schuh |

### 10:30 Welcome and introduction

**Jeannette Baljeu** (NL/ALDE), Member of the Council of the Province of South Holland

*Brief introduction of the experts*

### 10:50 Introduction to the topic

**Pietro Celotti**, Director at t33 – presentation of the report "Implementing a territorial or place-based approach to EU industrial policy strategy"

**Alexander Lembcke**, Centre for Entrepreneurship, SMEs, Regions and Cities, OECD

### 11:10 Explanation of the ESPON Quick Scan TIA tool

**Erich Dallhammer**, ÖIR GmbH

### 11:30 Presentation of the systemic vision of the workshop

**Bert Kuby**, Head of unit, ECON Commission of the European Committee of the Regions

### 11:40 Interactive discussion

- Dealing with cause/effect chains
- Defining the types of regions affected and estimating the intensity of the regional exposure

### 12:30 Lunch break

### 13:30 Interactive discussion about the systemic picture

### 14:45 Coffee break

### 15:30 Interactive discussion about the results

### 16:30 Policy recommendations

### 17:00 End of the workshop