



**European Committee  
of the Regions**

**Commission for  
Territorial Cohesion Policy  
and EU Budget**

# **Territorial Impact Assessment Smart Specialisation**

**COTER**





**European Committee  
of the Regions**

territorial  
impact  
assessment

Brussels  
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COTER  
Commission

## Territorial Impact Assessment

# Smart Specialisation

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### **Disclaimer**

This report was produced by the European Committee of the Regions secretariat to assist the rapporteur and the SEDEC commission in preparing the opinion on 'Smart Specialization Strategies (RIS3): impact for regions and inter-regional cooperation'. This report will be shared with the European Commission and the European Parliament. 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. The effects observed in our analysis might not necessarily be a result of the Smart Specialisation strategy itself but rather a result of national implementation.

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## Acronyms, legend and contributing experts

<b>CoR</b>	European Committee of the Regions
<b>EP</b>	European Parliament
<b>ESPON</b>	European Observation Network for Territorial Development and Cohesion

**LRA** Local and Regional Authority

**MS** Member State(s)






**NUTS** Nomenclature des unités territoriales statistiques  
Common classification of territorial units for statistical purposes

**OiR** Austrian Institute for Spatial Planning (ÖIR)

**TIA** Territorial Impact Assessment

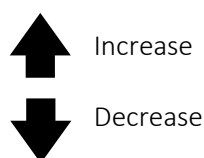
### Effects of the policy measures – colour code

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	Positive effects
	Minor positive effects
	Neutral
	Minor negative effects
	Negative effects

### Legend – direction of effects

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# 1 Introduction

Smart Specialisation is an innovative place-based approach aiming at boosting economic growth, employment and competitiveness through the identification and development of regional sectors in the EU. Smart Specialisation is a bottom-up and flexible process, which builds on stakeholder collaboration and interaction to define the competitive strengths and advantages of a region from the ground. In the period 2014-2020, for the first time, EU cohesion policy requires to develop such strategies as a pre-requisite in order to receive funding from the European Regional Development Fund (ERDF).

## **The European Commission on Smart Specialisation<sup>1</sup>**

European Cohesion Policy aims to reduce differences between regions and to ensure growth across Europe. Structural Funds are among its main tools. Its efficient use and management is a crucial factor for many regions in Europe to overcome the economic crisis.

However, with Smart Specialisation the Commission aims to go far beyond the traditional use of Structural funds; Smart Specialisation is perceived as a process that has the potential to increase regions' innovation capacity in a novel way. It is not only about single regions. Rather, it provides the framework, processes and instruments to establish collaboration and partnerships across European regions and on a global scale.

Research and innovation strategies for smart specialisation (RIS3) are an economic transformation agenda based on an entrepreneurial discovery process in the regions and relying on top research and innovation knowledge and the shared ownership and commitment of the actors – private and public – in the regions. RIS3 include a focus on identifying niche areas of competitive strength, solving major societal challenges, bringing in a demand-driven dimension, innovation partnerships emphasizing greater co-ordination between different societal stakeholders and aligning resources and strategies between private and public actors of different governance levels.

Two main tools have been developed and maintained by the Commission in order to support the implementation of RIS3. The Smart Specialisation Platform (S3P) – as established in 2011 following the Communication 'Regional Policy contributing to smart growth in Europe 2020'<sup>2</sup> – assists Member States and regions to develop, implement and review their RIS3 strategies by providing information, methodologies, expertise and advice to national and regional policy makers, as well as by contributing to academic debates around the concept of smart specialisation. The S3P is hosted by JRC's Growth and Innovation Directorate in Seville.

The Stairway to Excellence (S2E) project was originally centred on the provision of assistance to the 13 Member States who joined the European Union in 2004 and subsequent years and aims to close the innovation gap and promote excellence in Europe by promoting the combined use of two key

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<sup>1</sup> <http://ec.europa.eu/jrc/en/research-topic/smart-specialisation>

<sup>2</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52010DC0553&from=en>

European Union funding sources for research, development and innovation - the European Structural and Investment Funds (ESIF) and Horizon 2020 (H2020)<sup>3</sup>.

The Commission plans to adopt a new Communication on 'Smart Specialisation: a fresh approach to the European growth and jobs through regional innovation strategies', end of May 2017. In addition, an event is to be considered in the second half of 2017 to illustrate work-to-date and to assess perspectives. While the Communication of 2010 was the basis for the actual period, the future one should set the scene for the next years considering the fact that regions are now looking for political commitment for the post-2020 Cohesion Policy period.

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<sup>3</sup> <https://ec.europa.eu/irc/en/research-topic/stairway-excellence-s2e>

## 2 Policy questions

After the design and approval phase of the Smart Specialisation strategies, implementation has been started across Member States. The aim of the EU is to increase the effectiveness of innovative investments in all EU regions and, of course, helping the regions with more difficulties.

Smart Specialisation evidently encompasses a wide variety of implementation models in different economic sectors raising many questions for public authorities and policy-makers. The significance of a good implementation, identification and adjustment of gaps and monitoring problems are crucial. In this regard, there are some key issues summarised below in four open questions, for public authorities and policy-makers on how they could benefit from an improved and more efficient roll-out of RIS3.

- Generating better **synergies** between regional innovation and development policies and funding programmes – such as H2020 and COSME – at strategic and implementing level, have to be further analysed and strengthened. Many regions have already developed successful examples. The CoR supports the Commission's efforts in this direction, as reflected in its Staff Working Document on 'Enabling synergies between European Structural and Investment funds, Horizon 2020 and other research, innovation and competitiveness-related programmes'.

*The question therefore is, whether these synergies can be achieved and what territorial impacts do they have?*

- The same could be said in terms of **simplification**. Simplifying the regulatory framework would not only facilitate better interaction between different financial instruments but also make procedures less complex and reduce bottlenecks in the administrative process of the strategies as well as encourage investment in human capital, including via EU interregional partnerships, with a view to boosting administrative capacities.

*The question therefore is, whether smart specialisation can lead to a more simplified regulatory/policy framework and if so, what territorial impacts could be envisaged?*

- Establishing smooth links between the different levels of **governance** - EU, state, regional and, where appropriate, local - and improving on the coordination between the management authorities and the national contact points is a further target to aim at. RIS3 led in many Member States and regions to a significant change in the policy-making culture in terms of stakeholder involvement, inter-departmental cooperation, evidence-based policy making and a shift towards a holistic and systemic innovation policy concept. Such strategies are a key stepping stone towards place-specific, knowledge-based economic transformation.

However, it has to be noted, that innovation is based on experimentation; consequently, the whole idea of prioritising future-oriented actions by consensus could be contradictory. However, when need arises, priorities can be adapted, and the set-up of governance mechanisms to do so has been encouraged by the European Commission.

*The question therefore is, whether smart specialisation has led to better multi-level governance and if so, what territorial impacts can be detected?*

- Finally, further enhancing the **coordination** at EU level by simplifying the multiplicity of EU programs and initiatives will allow easier access particularly of smaller regions or those with less administrative capacity. Flexibility and coordination mechanisms to link the results of the RIS3 process to the implementation of Horizon 2020 and other EU programmes and initiatives such as the Seal of Excellence, the measures to promote the Stairway to Excellence and the regional innovation schemes for the co-location centres of the European Institute of Innovation and Technology (EIT) will encourage regions to engage in forms of transnational cooperation such as the Vanguard Initiative, the Knowledge Exchange Platform (KEP) of the CoR and the S3 platforms,. As an example, the coordinated work with the managing authorities – national and regional – to cover objectives and funds, and the assistance of the JRC-IPTS S3 Platform<sup>4</sup> in Seville are of vital importance.

*The question therefore is, whether smart specialisation has led to better policy coordination at EU level and which territorial impacts can be detected?*

These questions were put in the centre of this TIA workshop and might provide some useful insights in the further roll-out of Smart Specialisation Strategies.

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<sup>4</sup> <http://s3platform.jrc.ec.europa.eu/stairway-to-excellence>

### 3 EU Policy developments

In its 2014 resolution on '*Smart specialisation: networking excellence for a sound Cohesion Policy*'<sup>5</sup>, the **European Parliament** (EP) encouraged regions to see RIS3 as a source of opportunity rather than an obligation, and called on them to choose the 'right' priorities by focusing on strengthening their regionally based characteristics, potentials and competitive advantages. It also emphasised the importance of providing regions with support and guidance in the design and implementation of their RIS3 strategies, and the need to step up activities in this regard. The Stairway to Excellence (S2E) pilot project – significantly supported by the EP – aimed at 13 countries and was recently expanded to selected lagging regions from seven other Member States.

The report on '*Cohesion policy and research and innovation strategies for smart specialisation*'<sup>6</sup> stresses the importance of opting for a regional approach, arguing that the implementation of RIS3 can only be successful if based on local and regional assets. The report calls on the EU and the Member States to carry out periodic (annual and mid-term) monitoring of the implementation of the strategies.

The **European Committee of the Regions** (CoR) clearly supported the RIS3 at the beginning of the programming period, except the ex-ante conditionality. Since then, the CoR participates at administrative level at the S3 Steering Team run by DG REGIO and S3 Mirror Group, chaired by ERRIN director. A political backup from the CoR for the future will be very much welcomed by the Commission and the regional and local authorities.

The CoR adopted its opinion on 'Smart Specialization Strategies (RIS3): impact for regions and inter-regional cooperation' end of March<sup>7</sup>. This was the first opinion that looked explicitly on RIS3. However, the CoR has already outlined its positions as regards Smart Specialisation strategies on the occasion of other relevant opinions such as on 'Closing the innovation divide' (CdR 2414/2012<sup>8</sup>), on 'Interconnected Europe – potential of the ICT sector as a source of growth' (CdR 4165/2014<sup>9</sup>), and on 'Measures to support the creation of high-tech start-up ecosystems' (CdR 672/2014<sup>10</sup>).

The opinions' objective is to give a prompt political backup from the CoR for the future of Smart Specialisation Strategies post 2020 by analysing both the current implementation of the RIS3, as well as the pilot Smart Specialisation Platforms. In doing so, the CoR could build on the regional Research and Innovation Strategy for Smart Specialisation (RIS3) experiences in several regions, focusing on different aspects such as regional innovation ecosystems, synergies with Structural Funds and inter-regional cooperation.

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<sup>5</sup> <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0002+0+DOC+XML+V0//EN>

<sup>6</sup> <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P8-TA-2016-0320&language=EN&ring=A8-2016-0159>

<sup>7</sup> <http://cor.europa.eu/en/activities/opinions/pages/opinion-factsheet.aspx?OpinionNumber=CDR%206963/2016>

<sup>8</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52012AR2414>

<sup>9</sup> <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52014IR4165>

<sup>10</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52014IR0672>

The **European Council** stated in its conclusions in March 2016 that *'smart specialisation should be promoted at all levels, including through the efficient use of public investment in research. This will facilitate contacts between firms and clusters and improve access to innovative technologies.'*

Moreover, the General Affairs Council (GAC) adopted conclusions on 'A more R&I friendly, smart and simple Cohesion Policy and the European Structural and Investment Funds more generally'<sup>11</sup> on 24 June 2016. Among other statements, the GAC supported the concept of Smart Specialisation and the inclusion of the ex-ante conditionality regarding Smart Specialisation in the Common Provisions Regulation and stressed that RIS3 could be a powerful instrument for contributing to tackling societal challenges, and boosting innovation, investment and competitiveness, based on socio-economic and territorial specificities. The Commission was invited to further explore some points for the future, especially the cooperation between countries and regions.

As mentioned above, the **European Commission's** new Communication on "Smart Specialisation: a fresh approach to the European growth and jobs through regional innovation strategies" is expected by May 2017. In addition, the Commission is also expected to follow the EP request to organise, prior to the Seventh Cohesion Report, a Europe-wide conference on the subject matter with the EP, the CoR and other stakeholders. Moreover, the Commission has established a network, with information available on the JRC website. Regions are invited to submit Expressions of interest for setting-up new partnerships in specific thematic areas. <http://s3platform.jrc.ec.europa.eu/s3-themes>

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<sup>11</sup> <http://data.consilium.europa.eu/doc/document/ST-9863-2016-INIT/en/pdf>

## 4 Territorial Impact Assessment (TIA) Approach: ESPON Quick Check

The concept of territorial impact assessment (TIA) aims at showing the regional differentiation of the impact of EU policies. The ESPON TIA Tool<sup>12</sup> is an interactive web application that can be used to identify, ex-ante potential territorial impacts of new EU Legislations, 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 on the territorial effects of an EU policy proposal by checking all relevant indicators in a workshop setting. The results of the guided expert discussion are judgments about the potential impact of an EU policy in 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 judgments on exposure with the different sensitivity of regions into maps showing the territorial impact of EU policy on NUTS-3 level<sup>13</sup>. These maps serve as starting point for the further discussion of different impacts of a concrete EU policy on different regions. Consequently, the experts participating in the workshop provide the main input for this quick check on territorial effects of an EU policy proposal.

### 4.1 Identifying the potential territorial effects considering economy, society, environment and governance related indicators – drafting a conceptual model

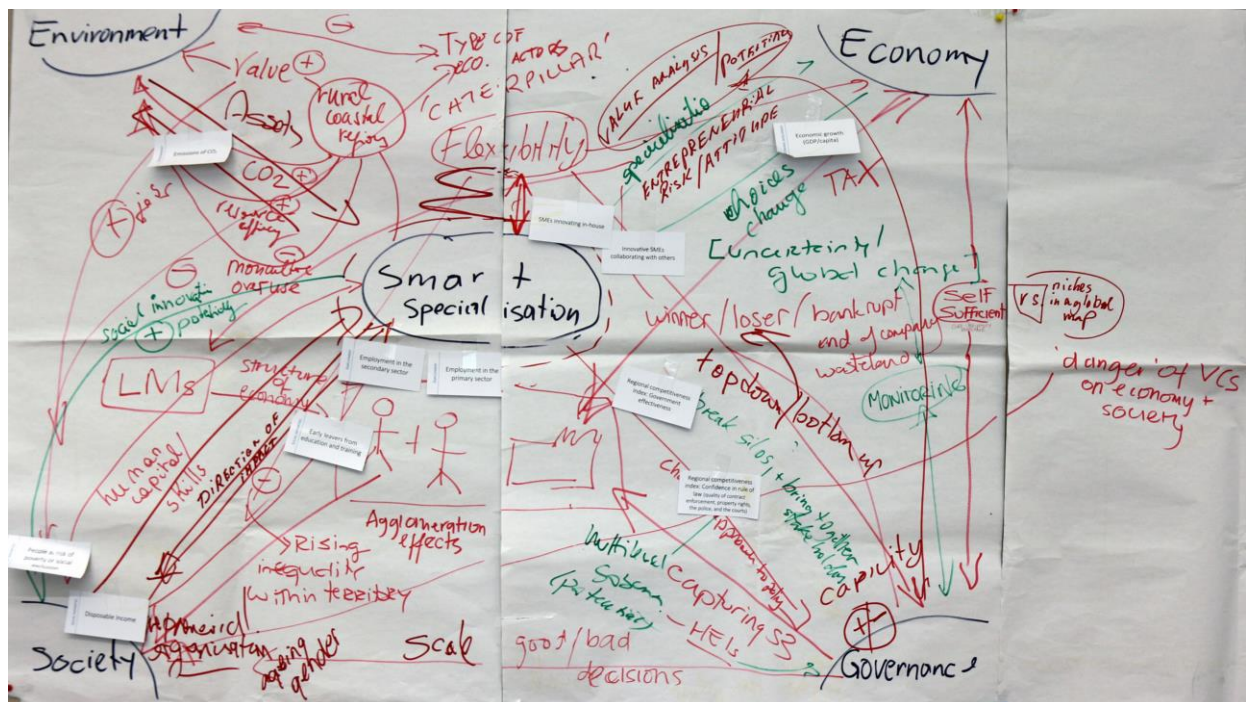
In the first part of the workshop, a conceptual model was prepared on the basis of the experts' opinions, with the objective of identifying the future potential territorial impacts of Smart Specialisation. In an interactive discussion, the participants drew a systemic picture linking the potential effects of Smart Specialisation in the fields of environment, society, economy and governance. They identified potential linkages and feed-back-loops between different effects. The following diagram visualises the experts' interaction:

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<sup>12</sup> [https://www.espon.eu/main/Menu\\_ToolsandMaps/TIA/](https://www.espon.eu/main/Menu_ToolsandMaps/TIA/)

<sup>13</sup> For information on the NUTS classification: <http://ec.europa.eu/eurostat/web/nuts/overview>

Figure 1: Workshop findings: conceptual model



Source: Territorial impact assessment expert workshop: Smart Specialisation, Brussels, 6 March 2017

The next step was to select indicators to describe the identified effects. The following indicators available at NUTS-3 level were selected and discussed:

- ECONOMY
  - Economic growth (GDP/capita)
  - Number of SMEs innovating in-house
  - Number of Innovative SMEs collaborating with others
- GOVERNANCE
  - Regional competitiveness index: confidence in rule of law
  - Regional competitiveness index: government effectiveness
- SOCIETY
  - Employment in primary sector
  - Employment in secondary sector
  - Disposable income
  - People at risk of poverty and social exclusion
  - Early leavers from education and training
- ENVIRONMENT
  - CO<sub>2</sub> emissions

In order to measure the added value of RIS3, the experts would have liked to have access to more data on sectors and individual strategies and their indicators, owing the specific nature of smart specialisation.

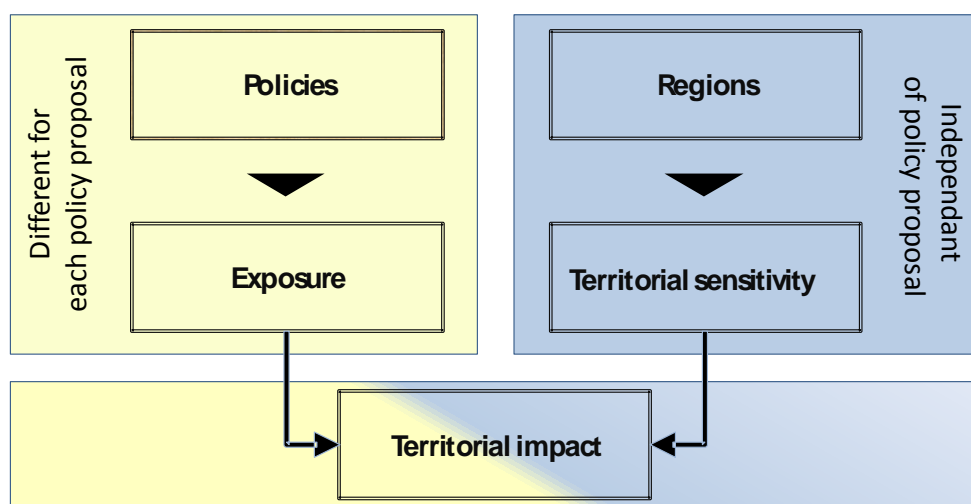
## 4.2 Identifying the types of region affected

The ESPON TIA tool provides a set of regional typologies<sup>14</sup> for analysing the territorial impact of a policy. As Smart Specialisation strategies may have an impact on the EU as a whole, for the purposes of this TIA, all regions were selected and consequently the expert judgement expressed during this workshop was applied to the whole EU.

## 4.3 Calculating the potential 'regional impact' – Combining the expert judgement with the regional sensitivity

The ESPON TIA Quick Check combines the expert judgement on the potential effect of Smart Specialisation (exposure) with indicators picturing the sensitivity of regions resulting in maps showing a potential territorial 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 RIS3 (exposure) are combined with the characteristics of a region (territorial sensitivity) to produce potential territorial impacts (cf. following figure):

Figure 2:  $Exposure \times territorial\ sensitivity = territorial\ impact$



As the figure shows, territorial impact (which is visualised in the set of maps presented later in the report) depicts a combination of so-called regional sensitivity and the exposure caused by the implementation of the policy initiative. Regional 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 and it can be described independently of the policy measure analysed.

The exposure describes the intensity of the effect caused by the policy initiative on a specific indicator. It is the effect of the implementation of the policy. Exposure illustrates the experts' judgement, i.e. the main findings of the expert discussion at the TIA workshop. The participants of the workshop judged the potential effect on the territorial welfare along the following scores:

<sup>14</sup> [https://www.espon.eu/main/Menu\\_ToolsandMaps/ESPONTypologies/index.html](https://www.espon.eu/main/Menu_ToolsandMaps/ESPONTypologies/index.html)

- ++ 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)

The TIA Quick Check shows the potential territorial impact in the selected types of region by combining the experts' judgement with the given sensitivity of a region within the selected exposure fields.

#### **4.4 Mapping the impact**

The result of the territorial impact assessment is presented in maps. The maps displayed below show potential territorial impacts based on the combination of the expert judgement on the exposure with the territorial sensitivity of a region, described by an indicator on NUTS-3 level. (A detailed description of the indicators is provided in the annex.)

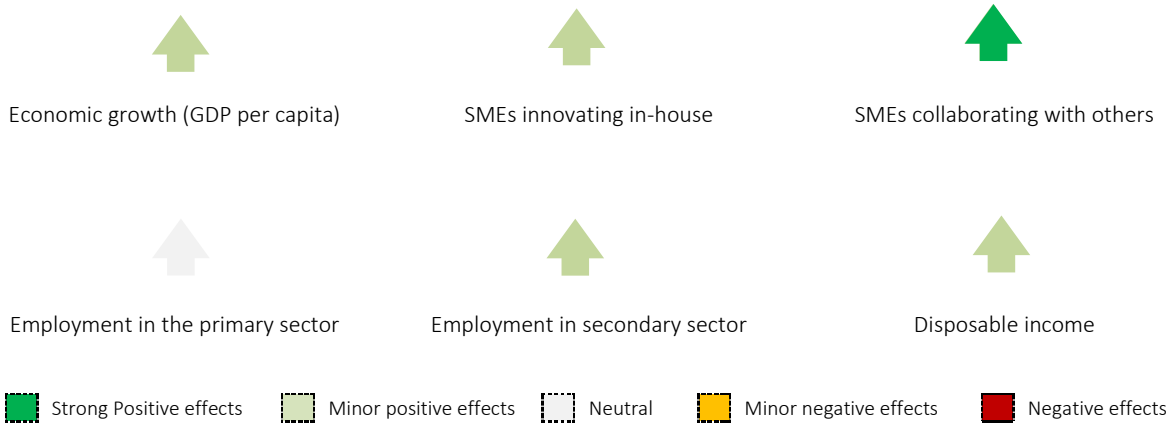
#### **4.5 Data availability**

The experts pointed out that the ESPON TIA Quick Check could only be used for a general assessment. To elaborate the impact of Smart Specialisation strategies in more depth, a clearer set of initiatives of smart specialisation and consequently more data was needed on sectors and individual strategies and their indicators, as the implementation of strategies is very specific.

The ESPON TIA Quick Check can only show the potential impact of the policy on individual indicators, given existing regional characteristics. It has no explanatory power in terms of detecting causalities. Given that Smart Specialisation is a strategy to be fulfilled as part of an investment, rather than a straightforward project, the quality of implementation can vary enormously. Therefore, predicting its impact is particularly complicated.

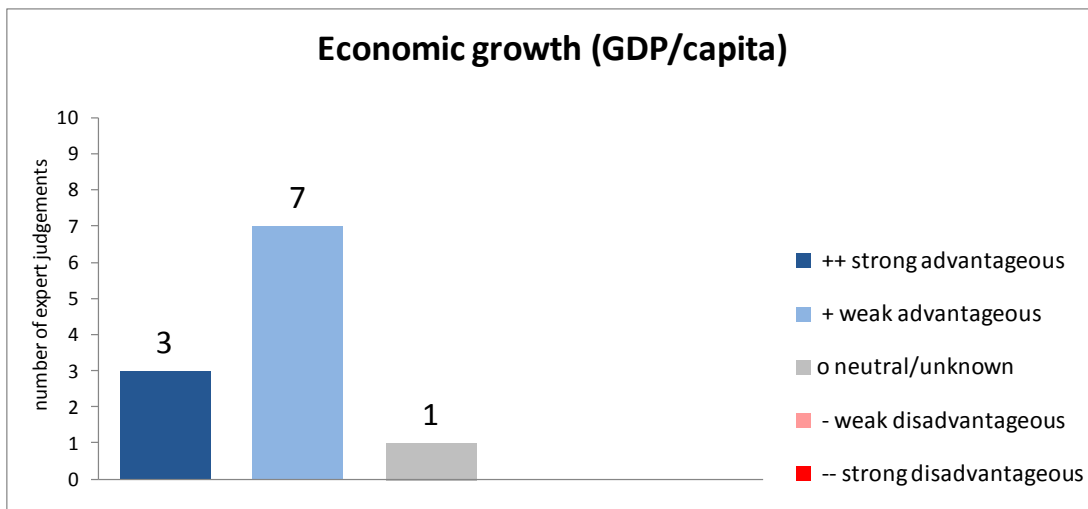
The maps in this report will also show the impacts on non-EU countries (ESPON area) but the report is based on EU-28 countries.

## 5 Economic and social effects



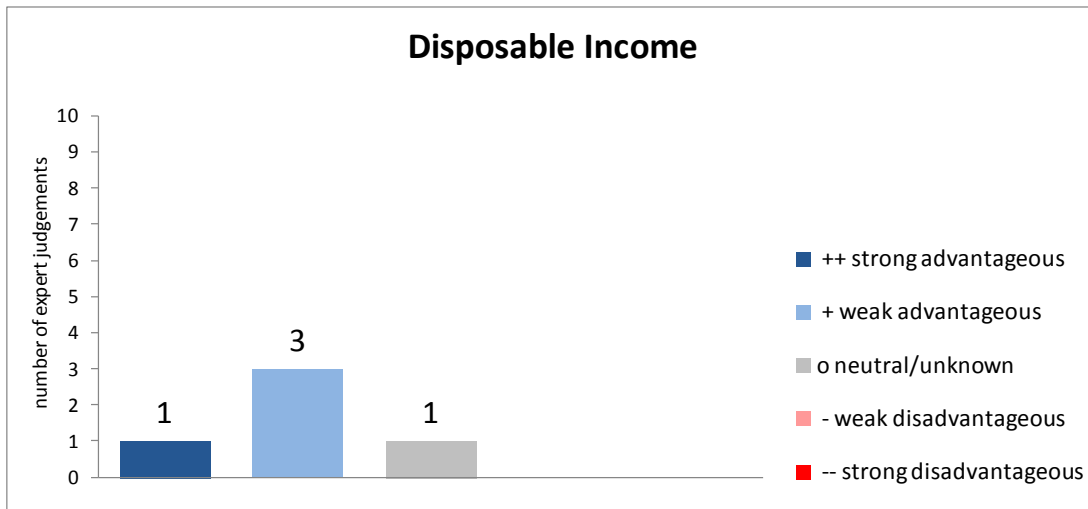
The majority of the experts present at the workshop saw the role of Smart Specialisation in creating jobs and inducing growth by encouraging innovation. Thanks to Smart Specialisation, experts expect economic growth, higher employment in the secondary sector, more innovation activities and a rise of disposable income in the society.

Figure 5.1: Workshop findings: Expert judgement: Effect of smart specialisation on economic growth (GDP/capita)



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2017

Figure 5.2: Workshop findings: Expert judgement: Effect of smart specialisation on disposable income

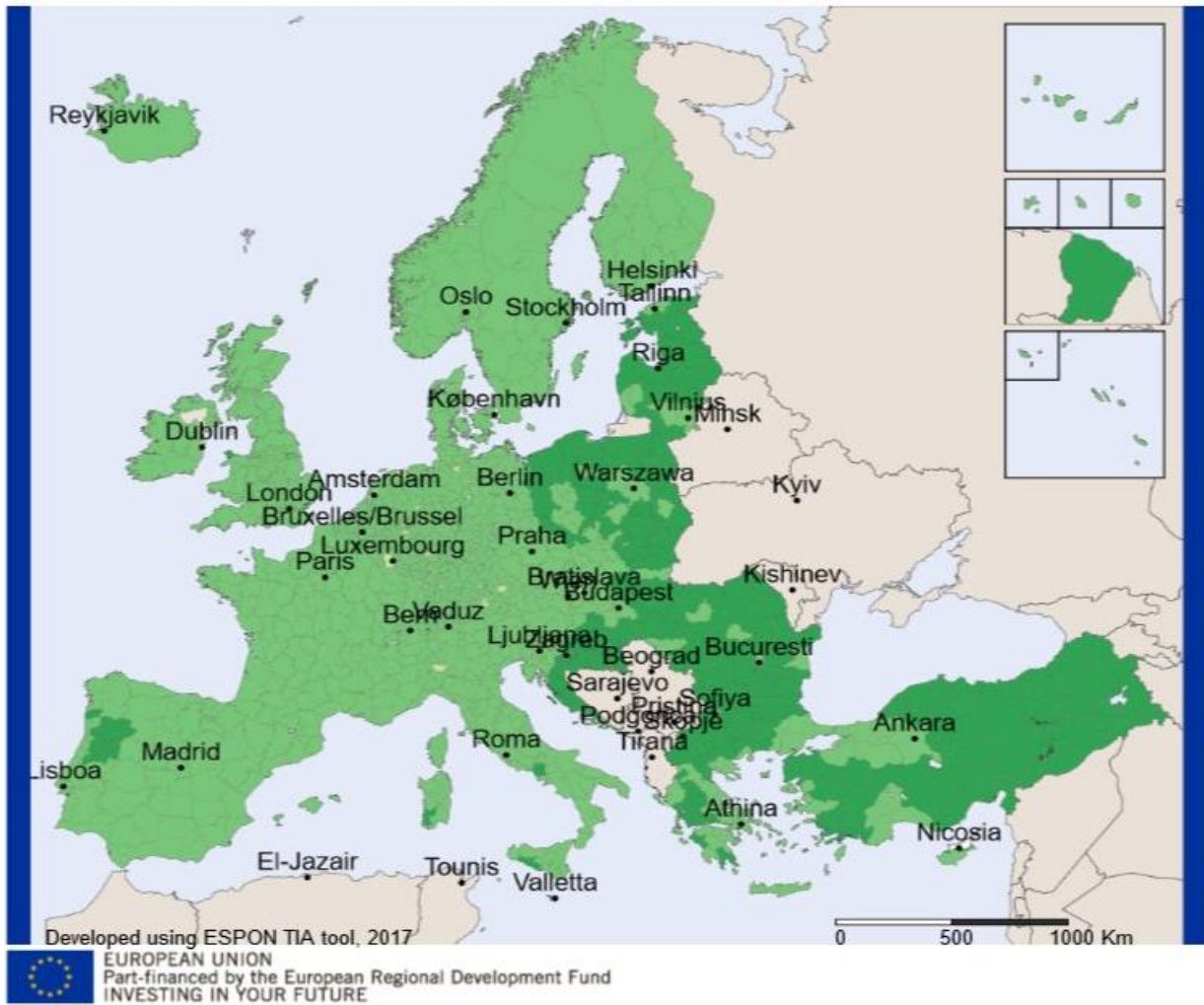


Source: Territorial impact assessment expert workshop, Brussels, 6 March 2017

The following map shows the impact of Smart Specialisation on the economy growth by combining the judgement of the majority of the experts (weakly advantageous effect) with the corresponding sensitivity. (The sensitivity of the regions is measured by the GDP per capita. Regions with lower GDP per capita are expected to benefit more from policy measures aimed at GDP growth increase and that inadvertently harm economic growth.) It is assumed that especially regions in Eastern Europe and some regions in the south of Europe (in Greece, Italy and Portugal) and in Turkey could potentially benefit with a high positive impact, when they are able to use the opportunities the Smart Specialisation approach can offer.

**Map 1: Economic growth (GDP/capita)**

Source: Territorial impact assessment expert workshop: Smart Specialisation, 6 March 2017



Regional level: NUTS3  
Source: ESPON Database  
© EuroGeographics Association for administrative boundaries

**LEGEND**

**Positive values**

- Minor impact
- Moderate impact
- High impact
- Very high impact

**Negative values**

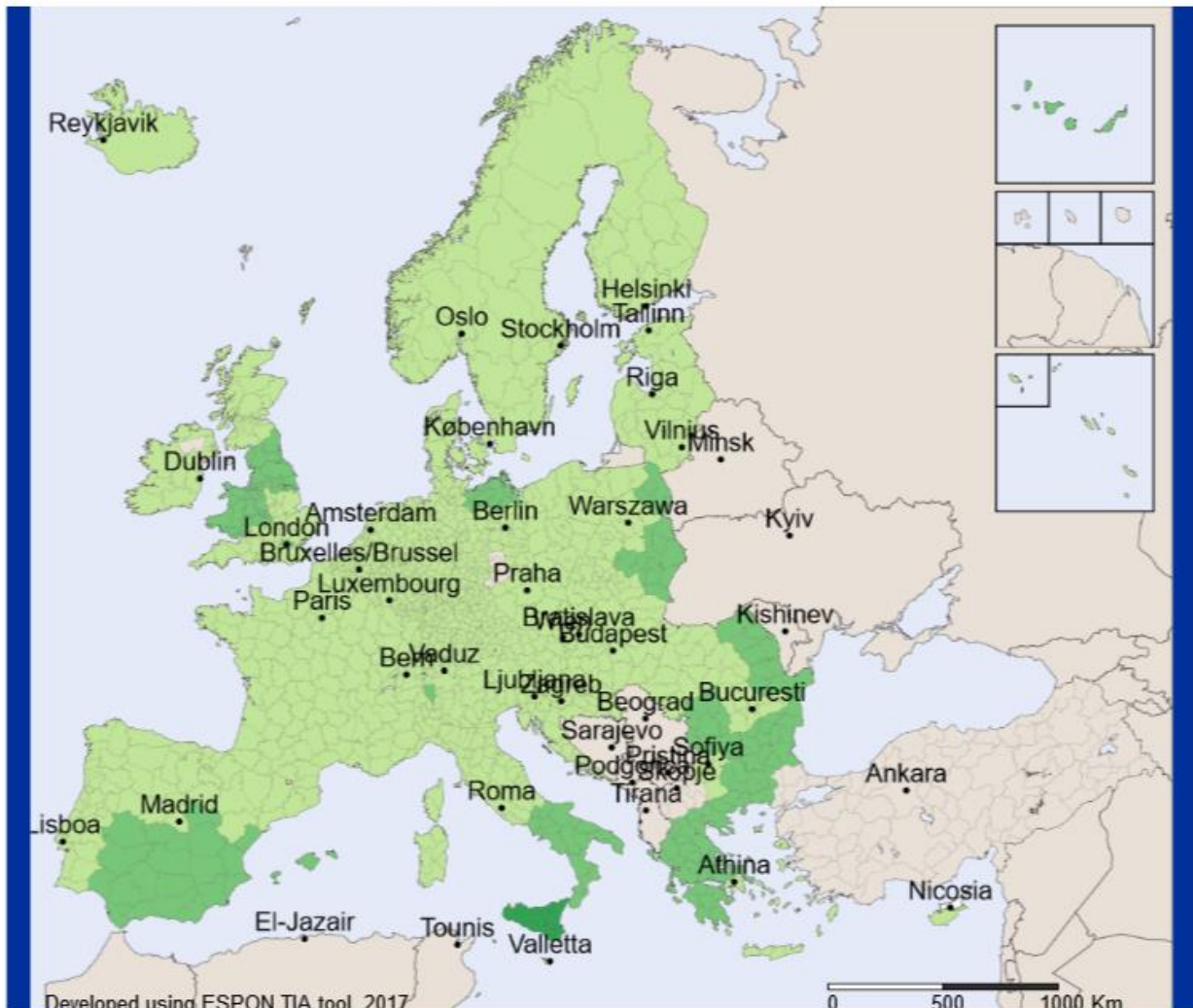
- Minor impact
- Moderate impact
- High impact
- Very high impact

- No impact
- No data available

The next map shows the impact of smart specialisation on the disposable income economy deriving from a weakly advantageous effect of Smart Specialisation with the corresponding sensitivity. It is assumed that regions with lower disposable income per capita are expected to benefit more from initiatives raising it. Regions benefitting with a moderate positive impact are situated in the south of Europe (south of Spain, South of Italy and Greece) and at the eastern border auf the EU (Poland, Romania and Bulgaria) and some regions in the North-East of Germany, Wales and North of England.

## Map 2: Disposable income

Source: Territorial impact assessment expert workshop: Smart Specialisation, 6 March 2017



EUROPEAN UNION  
Part-financed by the European Regional Development Fund  
INVESTING IN YOUR FUTURE

Regional level: NUTS3  
Source: ESPON Database  
© EuroGeographics Association for administrative boundaries

### LEGEND

#### Positive values

- Minor impact
- Moderate impact
- High impact
- Very high impact

#### Negative values

- Minor impact
- Moderate impact
- High impact
- Very high impact

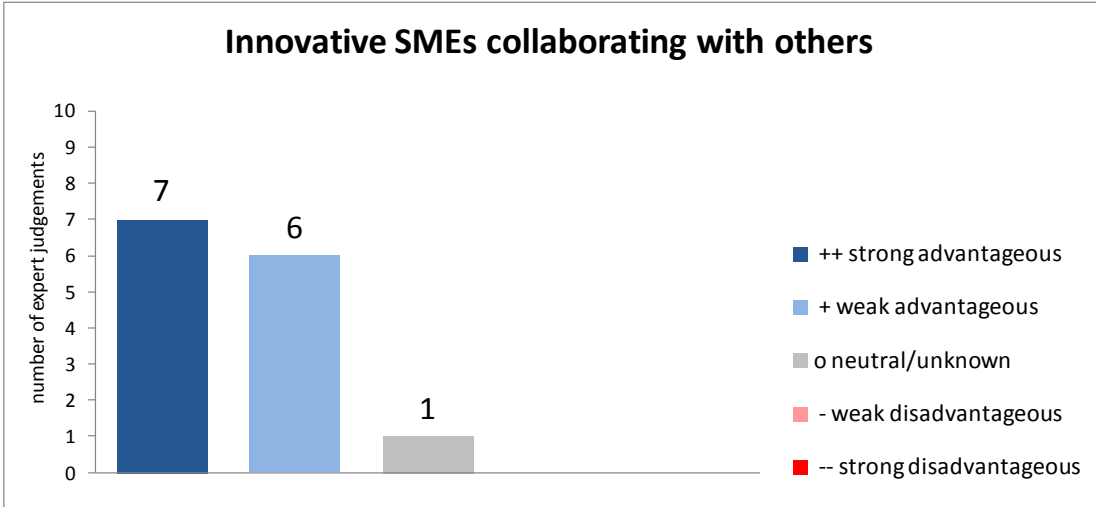
- No impact
- No data available

However, experts expressed their concern that specialisation has also the potential of redirecting (financial and non-financial) economic stimulation measures in a region. Consequently, specialisation can have not only positive but also negative impacts on a region i.e. decrease the backing of the development of certain sectors and business activities. As a matter of fact, within a region, smart specialisation might not only create winners of an innovation strategy but also losers. Especially business activities that have not been identified as best options for improving growth, employment and competitiveness can get less support. This is why a bottom-up specialisation approach and an inclusive process of entrepreneurial discovery in the region that would focus on creating the relevant framework conditions for identifying the endogenous competitive strength seems to be more

appropriate than the top-down picking of the winners. Effective multilevel governance needs to be in place to enable such a bottom-up approach. Under such circumstances, the experts expect that especially economically weaker regions with an average lower in-come benefit from Smart Specialisation.

Experts also discussed that self-sufficiency is an outcome of global specialisation. While it is in the interest of regions to identify the market niches where they are best placed to be competitive in a globalised world, it is also important to open up and link local specialisations in order to be aware what other regions are specialising in. It is against this background, that experts expect a strong positive impact of Smart Specialisation on collaboration among entrepreneurs.

Figure 5.3: Workshop findings: Expert judgement: Effect of smart specialisation on innovative SMEs collaborating with others

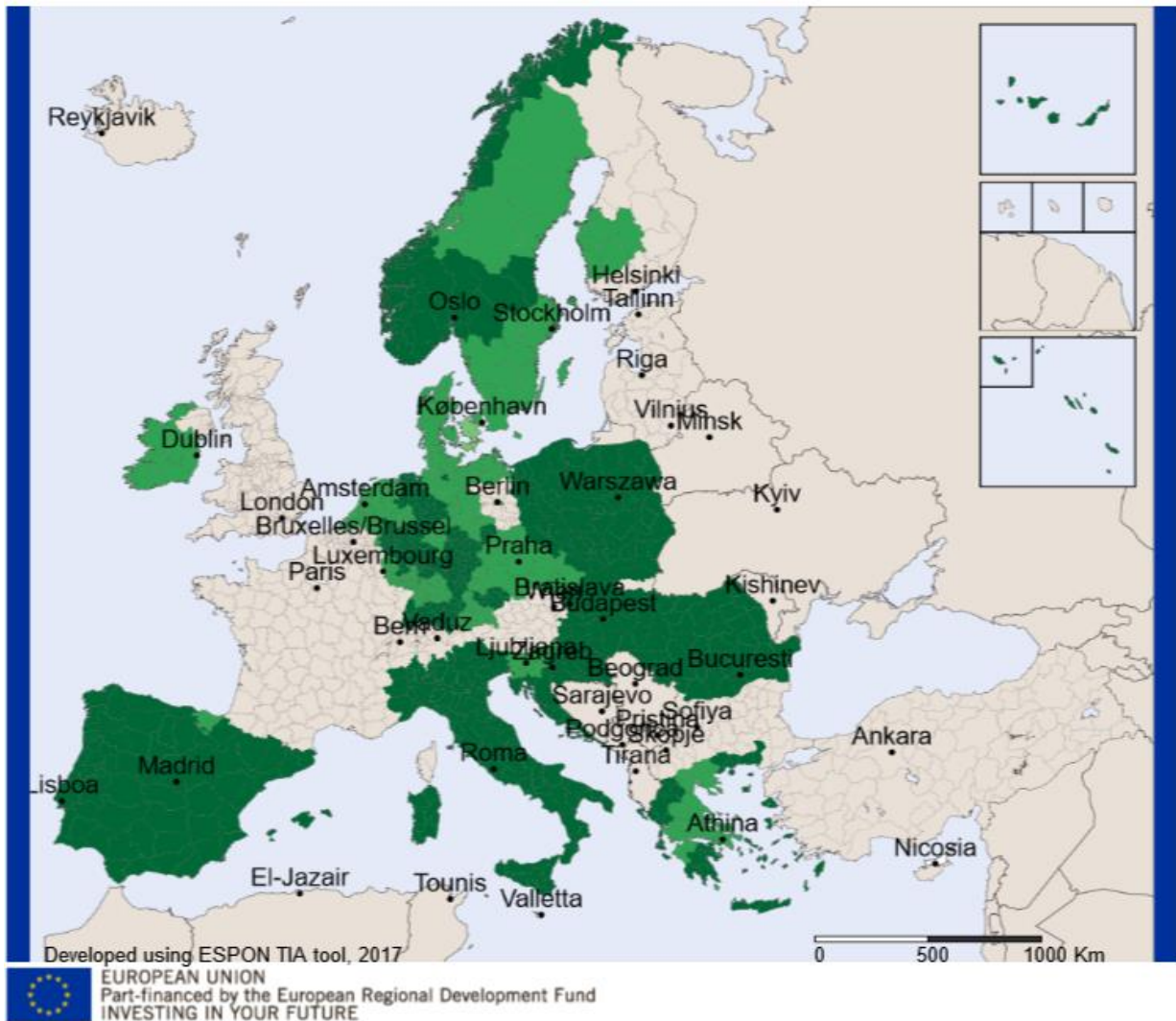


Source: Territorial impact assessment expert workshop, Brussels, 6 March 2017

The map shows the impact of Smart Specialisation on the collaboration of SMEs with others by combining the judgement of the majority of the experts (strongly advantageous effect) with the corresponding sensitivity. (The sensitivity of the regions is measured by the existing share of collaboration between SMEs. Regions with a higher share of innovative SMEs collaborating with others are expected to be more sensitive to policy measures influencing innovation.) Due to the lack of data in some core countries (France, UK, Austria) a general interpretation of the results is quite challenging.

### Map 3: SME collaboration with others

Source: Territorial impact assessment expert workshop: Smart Specialisation, 6 March 2017



Regional level: NUTS3  
Source: ESPON Database  
© EuroGeographics Association for administrative boundaries

#### LEGEND

##### Positive values

- Minor impact
- Moderate impact
- High impact
- Very high impact

##### Negative values

- Minor impact
- Moderate impact
- High impact
- Very high impact

- No impact
- No data available

However, experts noted that currently Europe is more made up of individual islands of specialisation than of following a coordinated approach. Therefore, coordination is not only needed among the multiple initiatives and programmes promoting specialisation (Vanguard Initiative, the Seal of Excellence, the Knowledge Exchange Platform (KEP), the S3 platforms, the Stairway to Excellence etc.) but also among the roll-out of the different regional strategies. Therefore, in addition to the collaboration of entrepreneurs, experts also pointed out the importance of partnerships between policy makers and business developers.

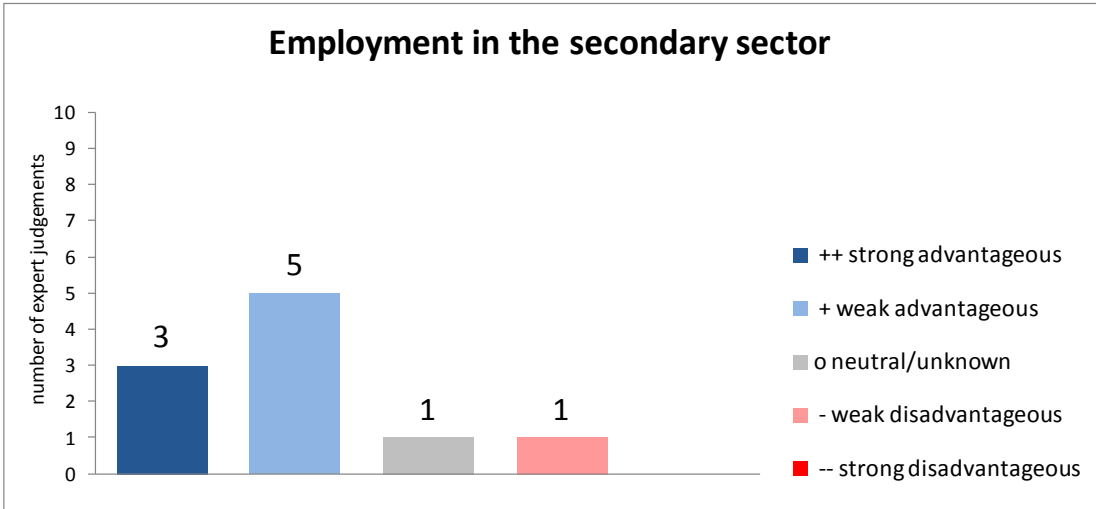
Experts also discussed the socioeconomic impact of specialisation leading to local winners and losers, as outlined above in more detail. They agreed in this regard, that the concentration of efforts on

selected niche areas can have a negative effect on companies of long standing local sectors. Such sectors need to be adapted to specialisation trends in the region in order to avoid negative social impact such as unemployment or depopulation.

As regards human capital, the experts went more into detail and emphasised the importance of education and training in providing the necessary supply of a highly educated and well trained workforce able to contribute with its knowledge and skills in the field of specialisation. On this note, experts criticised that the current design of Smart Specialisation doesn't take social innovation into account seriously enough. This was regarded being irresponsible towards a society with serious demographic challenges such as ageing, depopulation and a large number of migrant population.

There was a general consensus about the fact that if social innovation is adapted to the local society, the impact of specialisation can be maximised. Even the primary sector in rural areas could benefit from specialisation provided that the strategy takes the social angle into account. Otherwise, localisation of industries leads potentially to a trade-off between trade and efficiency on the one hand, and social inequality on the other. If this happens, there is a need to compensate for inequality effects as the common assumption that everyone benefits from specialisation is only true in the long run. On short and medium term, specialisation often requests serious investment in local skills to avoid social inequality.

Figure 5.4: Workshop findings: Expert judgement: Effect of smart specialisation on employment in the secondary sector



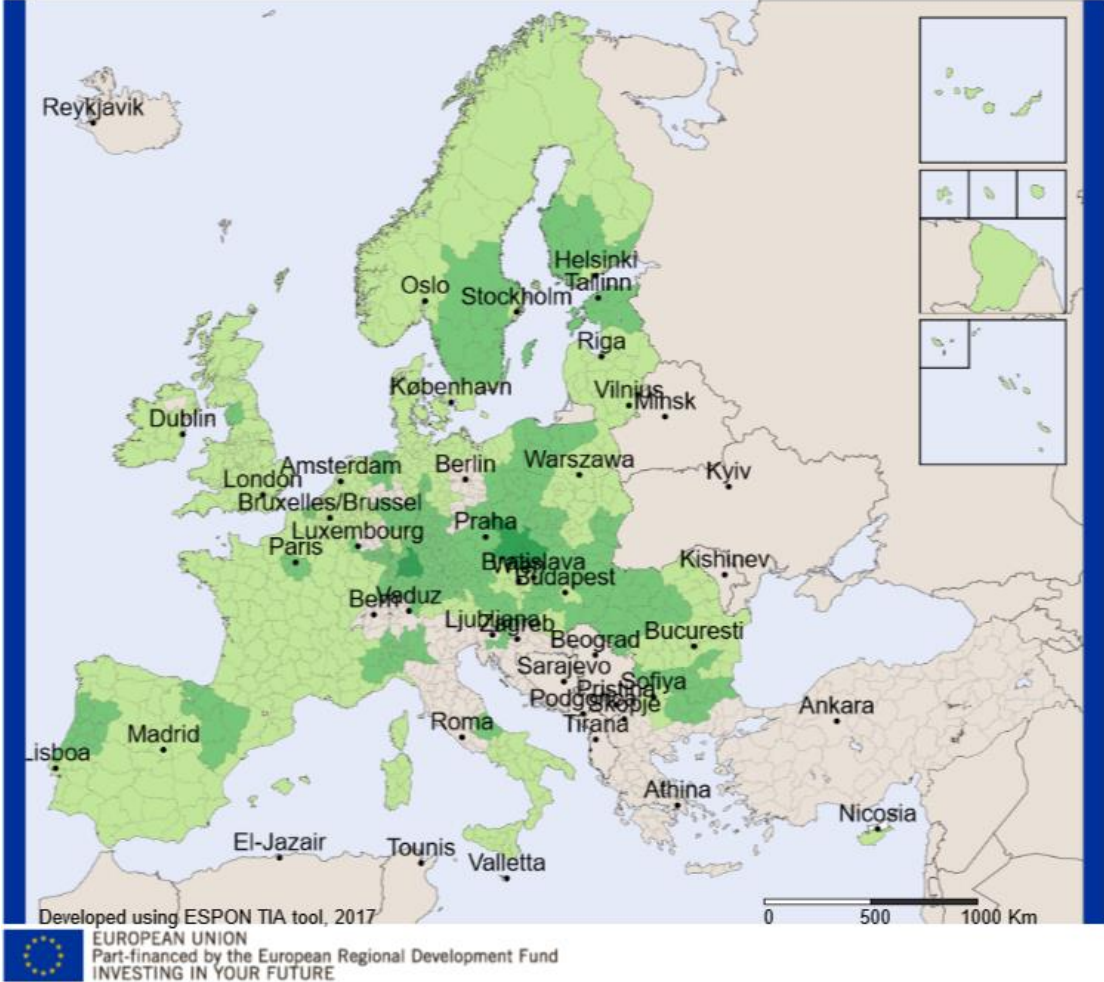
Source: Territorial impact assessment expert workshop, Brussels, 6 March 2017

For picturing the sensitivity of the employment in the secondary sector the underlying hypothesis presumes that regions with a greater share of employment in the secondary sector are likely to be affected from changes in the level of employment resulting from a policy measure than regions with a lower share. The following map shows the impact of Smart Specialisation on the employment in the secondary sector by combining the judgement of the majority of the experts (weakly advantageous effect) with the corresponding sensitivity.

Most regions would gain a minor positive effect. Amongst others especially regions in the European Pentagon, in the south of Sweden and Finland, in the North of Spain, Portugal and Italy and in the West of Poland, Bulgaria and Romania could gain a moderate positive impact.

**Map 4: Employment in secondary sector**

Source: Territorial impact assessment expert workshop: Smart Specialisation, 6 March 2017



Developed using ESPON TIA tool, 2017  
 EUROPEAN UNION  
 Part-financed by the European Regional Development Fund  
 INVESTING IN YOUR FUTURE  
 Regional level: NUTS3  
 Source: ESPON Database  
 © EuroGeographics Association for administrative boundaries

**LEGEND**

<b>Positive values</b>		<b>Negative values</b>		No impact
Minor impact	Minor impact	Moderate impact	Moderate impact	No data available
Moderate impact	Moderate impact	High impact	High impact	
High impact	High impact	Very high impact	Very high impact	
Very high impact	Very high impact			

On a more general note, experts came to the conclusion that there is no mechanism so far for measuring the economic impact of smart specialisation on the Union. The reason being that specialisation is a natural economic evolution process that can be only supported (or in worth case hindered) by policy measures. However, it is not possible to quantify the share that Smart Specialisation contributes to economic growth.

## 6 Effects on governance

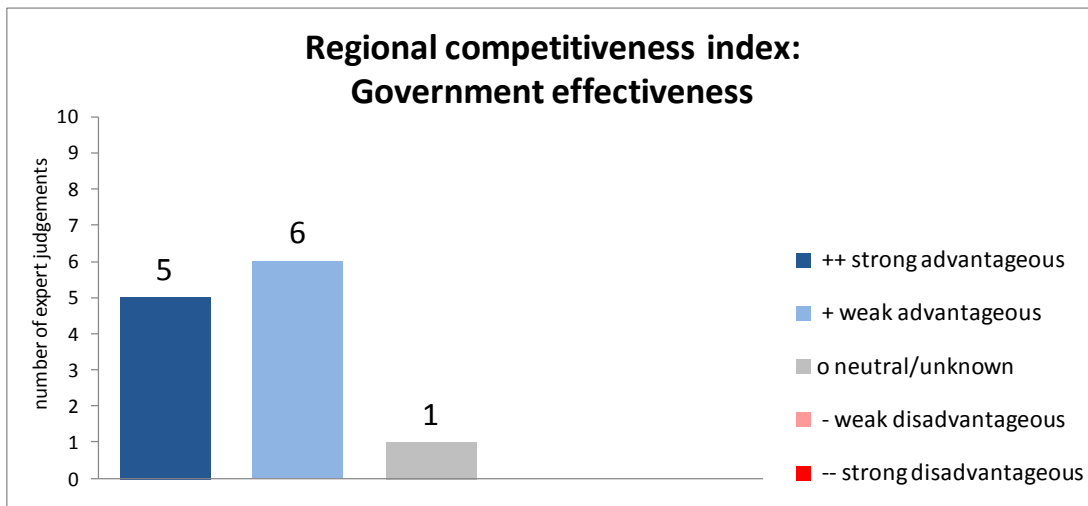


Government effectiveness (Regional competitiveness index)

Strong Positive effects
  Minor positive effects
  Neutral
  Minor negative effects
  Negative effects

Experts agreed that regions featured by weaker governmental effectiveness have the chance to benefit from the design and implementation of Smart Specialisation strategies compared to regions where governance structures work already very efficiently.

Figure 6.1: Workshop findings: Expert judgement: Effect of smart specialisation on government effectiveness



Source: Territorial impact assessment expert workshop, Brussels, 6 March 2017

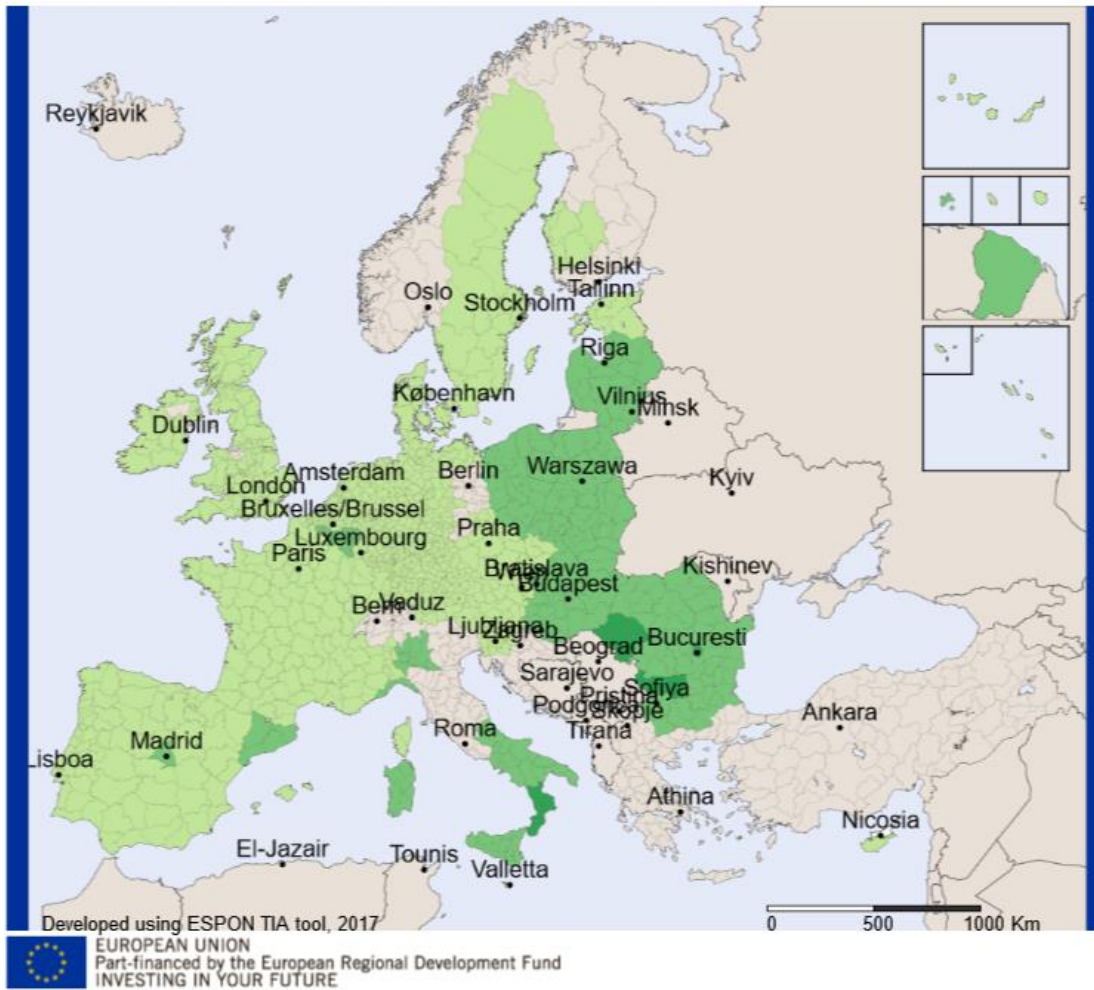
The sensitivity of the government effectiveness is measured by the Regional Competitiveness Index<sup>15</sup> (RCI). Regions with a low RCI could benefit more from an improvement of government effectiveness by implementing new standards of administration than regions that already have high standards of their administration. The following map shows the impact of Smart Specialisation on the government effectiveness combining the expert judgement of the weakly advantageous effect with the corresponding sensitivity. When policy measures are implemented efficiently, Eastern European regions in Latvia, Lithuania, Poland, Romania and Bulgaria as well as Italian and Greek regions and some Spanish regions could gain a moderate to high positive impact on government effectiveness. Most of the other regions would gain a minor positive impact.

<sup>15</sup> For information on RCI:

[http://ec.europa.eu/regional\\_policy/en/information/maps/regional\\_competitiveness/](http://ec.europa.eu/regional_policy/en/information/maps/regional_competitiveness/)

**Map 5: Government effectiveness (Regional competitiveness index)**

Source: Territorial impact assessment expert workshop: Smart Specialisation, 6 March 2017



Regional level: NUTS3  
 Source: ESPON Database  
 © EuroGeographics Association for administrative boundaries

**LEGEND**

Positive values		Negative values			
<span style="display:inline-block; width:15px; height:15px; background-color:#d9ead3;"></span>	Minor impact	<span style="display:inline-block; width:15px; height:15px; background-color:#f4cccc;"></span>	Minor impact	<span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span>	No impact
<span style="display:inline-block; width:15px; height:15px; background-color:#c7e9c0;"></span>	Moderate impact	<span style="display:inline-block; width:15px; height:15px; background-color:#f4b084;"></span>	Moderate impact	<span style="display:inline-block; width:15px; height:15px; background-color:#cccccc;"></span>	No data available
<span style="display:inline-block; width:15px; height:15px; background-color:#a1d99b;"></span>	High impact	<span style="display:inline-block; width:15px; height:15px; background-color:#e41a1c;"></span>	High impact		
<span style="display:inline-block; width:15px; height:15px; background-color:#74c476;"></span>	Very high impact	<span style="display:inline-block; width:15px; height:15px; background-color:#c00000;"></span>	Very high impact		

The main concern of the experts was to avoid Smart Specialisation strategies being one-off exercises. Obviously, a continuous evaluation of choices and monitoring of impacts is needed to follow up the economic, social and environmental evolution. In particular, innovation can become very dynamic if the growth in niche areas of competitive strength is supported by conditions such as beneficial investment environment, available human capital and short supply chains. In turn, the continuous evaluation and monitoring is expected to have beneficial impact on the efficiency of governance.

Another concern of the experts is that the regulatory framework (including taxation and procurement rules) can both attract as well as deter businesses to invest in innovation or even to relocate to other parts of the world. In this respect, the experts considered that Smart Specialisation will put pressure on the regulatory framework to encourage that business and innovation friendly regulation is in place in the regions that provide the conditions for successful specialisation and innovation.

## 7 Experts policy recommendations

The experts came to three main conclusions:

Firstly, in principle, smart specialisation should be able to contribute positively to territorial cohesion. However, it was emphasised that timing was crucial, as it is difficult to change aspects of an ongoing programme. Now is the time to debate smart specialisation post-2020, before the programming period actually starts. Conferences with industry and regional representatives, as well as training and capacity building, were needed to develop new partnerships and to allow a coherent and coordinated inclusion of these ideas in the future programming documents. The EU level could add value by improving governance and connectivity. Capacity must be built at the local level. However, stimulation for change through information, forecasting and co-operation can come also from the EU level.

For the next smart specialisation programmes, it was argued that funding could be pulled together, like in the Horizon 2020 programme or in the ESI funds, or funding could be coordinated and pledged by different Member States, like in the ERANET programme. This should also be connected with a strong place based approach in the future EU industrial strategy, even if the experts acknowledged that for the time being, there is little appetite for such a strategy across all Member States. Participants agreed that the power of institutions in promoting specialisation lies also in the way the entrepreneurial discovery process is managed.

The conclusion is that there is need to simplify the tools available at EU, national and regional level for designing and implementing Smart Specialisation strategies, and to endorse synergies between different policies promoting regional and innovation policies as well as the financial instruments and programmes backing those policies. It was argued that transparency in all the available support mechanisms and programmes would make them easier to use; they are currently too complex especially for small actors.

Secondly, it was noted that there are many opportunities for cooperation in smart specialisation, but there is currently no coordinated way to guide the overall direction of Europe. Experts called for a stronger involvement of companies and industry on all governance levels, to make smart specialisation more productive and efficient by also defining the future European economic and innovation strategy. It was noted that companies were generally very open to dialogue, but that tools were needed to persuade them to cooperate. Without such tools, the gap between the policy level and the implementation level will persist.

Moreover, experts pointed out that SMEs often do not engage in smart specialisation strategies because there is a lack of understanding of the policymakers' objectives and argumentation. Unfortunately, regional administrations usually don't have the networks or capacity to reach these SMEs. Sector representatives and intermediaries are sometimes present to bridge the gap, and SMEs could be accessed through them. However, these intermediaries are often perceived following their own interests, and often lack expertise.

The experts argued that policymakers must assume SMEs have no time to invest into researching public initiatives and programmes addressing their needs. The problems faced by SMEs should be detected by pro-active communication activities of public administration reaching out to business, rather than just by presenting an offer of a range of potential solutions. Links between SMEs and local academic institutions can be effective, but currently businesses often are not aware what local academia can do for them, so relationships need to be developed. It was argued that actors would engage if they could see the benefits. However, the experts also emphasised that legislation to force coordination would likely put people off, even if regulation is not only about obligations but also about rights.

Thirdly, experts stated that although it is much easier to achieve smart specialisation if a region already has a vibrant industry or innovation eco-system, there are, to some extent thanks to smart specialisation, new opportunities for rural areas to find new niches and to bring new businesses and economic activities to these regions. On the mid and long term such a trend will help to achieve territorial cohesion. However, the experts also named some preconditions for successful innovation strategies in rural areas, such as access to education and skills and the capacity of upscaling once the niche area is proven to be competitive. In any case, it was noted that a different approach to smart specialisation might be needed to suit different regions, which might require different types of support – for example, administration, information, governance, networks and contacts.

All in all the TIA workshops has shown that smart specialisation strategies can have a significant territorial impact, particularly with regard to economic, social and territorial cohesion. It can be a tool to improve the competitiveness and performance of rural areas in Europe and through the S3 platform smart specialisation is an excellent tool for knowledge sharing and innovation also in the public sector. The territorial impact of smart specialisation in also improving local governance and improving public services – if it is done in the right way by nurturing economic eco-systems – can be clearly detected.

## Annex 1: Explanation of the indicators used

### 1. Economic growth (GDP per capita)

<b>Definition of sensitivity</b>	<b>Regions with lower GDP per capita were expected to benefit more from policy measures aimed at GDP growth increase and that inadvertently harmed economic growth. Sensitivity was thus inversely proportional to the level of GDP per capita</b>
<b>Description</b>	Gross domestic product (GDP) at current market prices; Purchasing Power Standard per inhabitant
<b>Source</b>	EUROSTAT
<b>Reference year</b>	2011
<b>Original Indicator Spatial Reference</b>	NUTS-3, 2010

### 2. SMEs innovating in-house

<b>Definition of sensitivity</b>	<b>Regions with a higher share of SMEs innovating in-house are expected to be more sensitive to policy measures influencing innovation.</b>
<b>Description</b>	Share of SMEs innovation in-house on total number of SMEs
<b>Source</b>	Regional Innovation Scoreboard - EC
<b>Reference year</b>	2016
<b>Original Indicator Spatial Reference</b>	NUTS-2, 2010

### 3. SMEs collaborating with others

<b>Definition of sensitivity</b>	<b>Regions with a higher share of innovative SMEs collaborating with others are expected to be more sensitive to policy measures influencing innovation.</b>
<b>Description</b>	Share of innovative SMEs collaborating with others on total number of SMEs
<b>Source</b>	Regional Innovation Scoreboard - EC
<b>Reference year</b>	2016
<b>Original Indicator Spatial Reference</b>	NUTS-2, 2010

#### 4. Employment in the primary sector

<b>Definition of sensitivity</b>	Regions with a higher share of employment in the primary sector are expected to be influenced more by changes concerning this sector resulting from a policy measure. Sensitivity is thus directly proportional to the share of employment in this sector.
<b>Description</b>	Share of persons employed in agriculture, hunting and forestry as well as mining and quarrying on total employment
<b>Source</b>	EUROSTAT, LFS and SBS, ÖIR calculation
<b>Reference year</b>	2011
<b>Original Indicator Spatial Reference</b>	NUTS-3, 2010

#### 5. Employment in secondary sector

<b>Definition of sensitivity</b>	Regions with a higher share of employment in the secondary sector are expected to be influenced more by changes concerning this sector resulting from a policy measure.
<b>Description</b>	Share of persons employed in manufacturing on total employment
<b>Source</b>	EUROSTAT, LFS and SBS, ÖIR calculation
<b>Reference year</b>	2011
<b>Original Indicator Spatial Reference</b>	NUTS-3, 2010

#### 6. Disposable income

<b>Definition of sensitivity</b>	Regions with lower disposable income per capita are expected to benefit more from policy measures raising disposable income and more harmed by potential decreases. Sensitivity is thus inversely proportional to the level of disposable income per capita in PPS.
<b>Description</b>	Disposable income per capita in purchasing power standard based on final consumption per inhabitant
<b>Source</b>	EUROSTAT
<b>Reference year</b>	2010
<b>Original Indicator Spatial Reference</b>	NUTS-3, 2010

## 7. Government effectiveness (Regional competitiveness index)

<b>Definition of sensitivity</b>	Regions with a low Regional Competitiveness Index will benefit more from an improvement of the government effectiveness by implementing new standards of administration than regions that have already high standards of their administration.
<b>Description</b>	EU Regional Competitiveness Index 2013
<b>Source</b>	DG Regio project on QoG
<b>Reference year</b>	2009
<b>Original Indicator Spatial Reference</b>	NUTS-3, 2010

### Definition of additional indicators

During the TIA Quick Check it is possible to identify additional fields of exposure which are affected by the policy proposal and which are not provided by the tool as standard. Whereas it was possible for the experts to assess the exposure caused by the policy proposal during the workshop, a valid indicator for describing the sensitivity of regions needs to be defined in advance. The TIA Quick Check offers the possibility of uploading new indicators. It provides a template where the values of the indicator can be filled in for each NUTS-3 region.

For the new indicator it must be established whether the exposure field needs to be rated as either harmful ('cost') or favourable ('benefit') for the region's welfare. The tool will then automatically transform the experts' ratings into numbers for further calculation (= normalisation).

### Normalisation of indicators

The normalisation follows a linear procedure. Normalised values range from 0.75 to 1.25. In basic terms, normalised sensitivity indicators represent coefficients that can increase (if greater than 1) or decrease (if lower than 1) each policy proposal's impact on a specific field.

#### ***Methodology for normalisation of regional sensitivity values***

Source: ESPON TIA Quick Check Moderator's Guide and Methodological Background

For this step the following definitions are needed:

$X_{norm_i}$  the normalized value of the sensitivity indicator for impact field i

$X_i$  the original value of the sensitivity indicator for impact field i

$X_{min_i}$  the minimum original value of the sensitivity indicator for impact field i

$X_{max_i}$  the maximum original value of the sensitivity indicator for impact field i

Then, normalization follows this formula:

$$X_{norm_i} = 0,75 + ((1,25 - 0,75) * ((X_i - X_{min_i}) / (X_{max_i} - X_{min_i})))$$



## European Committee of the Regions

June 2017

Created in 1994 following the signing of the Maastricht Treaty, the European Committee of the Regions is the EU's assembly of 350 regional and local representatives from all 28 Member States, representing over 507 million Europeans. Its mission is to involve regional and local authorities and the communities they represent in the EU's decision-making process and to inform them about EU policies. The European Commission, the European Parliament and the Council are obliged to consult the Committee in policy areas affecting regions and cities. It can appeal to the Court of Justice of the European Union if its rights are infringed or it believes that EU law infringes the subsidiarity principle or fails to respect regional or local powers.

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