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Inspire Policy Making with Territorial Evidence

Cross-border Impact Assessment Report

European Territorial Cooperation post-2020

**Based on a workshop carried out using
ESPON TIA tool**

in cooperation with



13 April 2018

This territorial impact assessment report is the outcome of the territorial impact assessment expert workshop on European Territorial Cooperation post-2020 hosted by the European Committee of the Regions in Brussels on 14 March 2018 and commissioned by the ESPON EGTC.

The ESPON TIA tool is designed to support the quantitative assessment of potential territorial impacts in accordance with the Better Regulation guidelines. It is an interactive web application that can be used to help policy-makers and practitioners to identify, ex-ante, potential territorial impacts of new EU legislation, policies and directives (LPDs).

This report documents the results of the expert workshop and the maps therein represent the views and experiences of the workshop participants. The report is for information purposes only. It is intended to be used for decision-making support only and does not necessarily reflect the opinion of the members of the ESPON 2020 Monitoring Committee or the Committee of the Regions.

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Abbreviations

CBC	Cross-border cooperation
CLLD	Community-led Local Development
EC	European Commission
ESPO	European Territorial Observatory Network
ETC	European Territorial Cooperation
EU	European Union
IA	Impact assessment
ICT	Information and communication technology
LPDs	Legislation, policies and directives
NUTS	Nomenclature des unites territoriales Common classification of territorial units for statistical purposes
ÖIR	Österreichisches Institut für Raumplanung/ÖIR GmbH
RDTI	Research, development, technology and innovation
SME	Small and medium sized enterprises
TIA	Territorial impact assessment

1 Introduction

1.1 European Territorial Cooperation post-2020

"European Territorial Cooperation (ETC), better known as Interreg, is one of the two goals of cohesion policy and provides a framework for the implementation of joint actions and policy exchanges between national, regional and local actors from different Member States. The overarching objective of European Territorial Cooperation (ETC) is to promote a harmonious economic, social and territorial development of the Union as a whole. Interreg is built around three strands of cooperation: cross-border (Interreg A), transnational (Interreg B) and interregional (Interreg C).

*The European Committee of the Regions (CoR) was invited by DG REGIO to carry out a 'quick scan' territorial impact assessment on European Territorial Cooperation (ETC), as part of cohesion policy. This assessment will look into the cross-border territorial impact of ETC and will contribute to the impact assessment of cohesion policy that is currently being carried out by DG REGIO as part of the preparatory measures for the future cohesion policy package post 2020 expected to be presented later this year. The TIA exercise will focus only on the Interreg A component."*¹

When conducting a territorial impact assessment a clear definition of the policy to be assessed is required. Due to the ongoing policy discussions on the future European Territorial Cooperation post-2020 the detailed outline of the policy was still pending when the workshop was conducted. However, the following broad strands of the post-2020 European Territorial Cooperation were assumed to be relevant by the participants:

- The administrative burden on programme management, monitoring, project application etc. will be reduced.
- The thematic scope will concentrate on five topics:
 - Smarter Europe: SMEs, RDTI and Innovation,
 - Greener Europe: sustainability (including the circular economy),
 - Connectivity (including transport, energy and ICT),
 - Climate and low carbon economy,
 - Social and human capital.

Along with these thematic objectives it is intended to have two cross-cutting policy objectives:

- Territorial issues: urban issues, CLLD.
- Cooperation (the intention to mainstream cooperation as a principle in cohesion policy; in Interreg this objective would correspond to current TO 11).
- The budget for ETC will not be increased.

The workshop focused on the cross-border areas and as such on the INTERREG A programme only.

¹ Committee of the Regions (2018): Concept note for the Cross-border territorial impact assessment on European Territorial Cooperation post-2020. Brussels.

1.2 The approach of the ESPON TIA quick check

Territorial impact assessment (TIA) is aimed at showing the regional differentiation of the impact of EU policies. The ESPON TIA tool² is an interactive web application that can be used to help policy-makers and practitioners identify, ex-ante, 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 judgments about the potential territorial impact of an EU policy considering different thematic fields (economy, society, environment, governance) using 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 and the different sensitivity of regions into maps showing the potential territorial impact of EU policy at NUTS3 level. These maps serve as starting point for the further discussion of different impacts of a specific 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 "European Territorial Cooperation post-2020" was held on 14 March 2018 in Brussels and brought together experts representing DG Regio, the Committee of the Regions, managing authorities of cross border programmes and INTERACT.

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

Figure 1: Workshop discussion



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

² https://www.espon.eu/main/Menu_ToolsandMaps/TIA/

2 The ESPON TIA Quick Check workshop – identifying potential effects on the territory

2.1 Identifying the potential territorial effects considering economy, society, environment and governance aspects – drafting a conceptual model

In the first stage of the TIA workshop the participating experts discussed the potential effects of European Territorial Cooperation post-2020. This discussion revealed potential territorial impacts of ETC post-2020 considering economy-, society-, environment- and governance-related indicators. The participants identified potential linkages between ETC post-2020 and the effect on territories including interdependencies and feedback loops between different effects (see figure below).

Figure 2: Systemic picture identifying effects of the post-2020 European Territorial Cooperation developed in the TIA workshop



Source: Territorial impact assessment expert workshop, Brussels, March 14 2018

During the workshop session the following issues were discussed by the experts:

Governance

- Generally the experts judged the activities of cross-border projects carried out through INTERREG A as a positive factor for any cooperation across borders leading to a better quality of life in cross-border regions.
- It was assumed that in the post-2020 regulatory framework of the ETC a paradigm shift could occur,

with CBC programmes going from primarily managing and distributing funds to CBCs perhaps coming to act as a sort of institution of exchange, bringing together cross-border ideas, facilitating cross-border activity and being a centre for strategic planning.

- Different governance practices and even administrative settings are the main challenges when establishing cross-border projects. Post 2020 the major added value of the ETC will still be in the field of cross-border governance. Shared governance arrangements driven by the institutions managing cross-border programmes can contribute to improving the quality of governance. The process of harmonising these differences has to be tackled by implementing cross-border programmes.

Economy

- The experts agreed that in the economic sphere, CBC programmes do not have the power to create a direct measurable impact on jobs or growth, especially when dealing with the smaller NUTS 3 units of territories. Consequently, the success of the ETC should not be measured against the metrics of jobs and economic growth.
- However, several experts stated that a CBC project's economic effects might rather be felt in the following positive "ripple effect" they create in the wider economy. In particular, a positive indirect effect of the ETC on improving governance might strengthen the labour market in the region, therein allowing for the creation of jobs, which, in turn, provides positive economic outcomes.
- If CBC post 2020 promotes the sharing of public services in border regions CBC can lead to a more efficient use of public infrastructure and consequently it could result in cost savings for public services at national, regional and local levels.
- If the future, CBC programmes could also finance transport infrastructure; this would result in better transport links enabling strengthened economic linkages between bordering areas.

- Better regional linkages could facilitate the enlargement of market areas for SMEs. SMEs can be facilitated to work beyond the regions included in CBC programmes and reach out internationally through knowledge sharing and increased capacity.

Society

- A majority of participants stated that one of the foremost benefits of CBCs is their ability to facilitate people-to-people connections.
- People-to-people projects, economic cooperation, governance harmonisation and cross-border environmental projects lead to the multiplication and deepening of connections across borders. This reduces both psychological and physical barriers between societies. CBC programmes do have the ability to reduce prejudice between peoples across borders. However these benefits are elusively immeasurable effects of cross-border cooperation.
- If there were a renewed focus on human capital post 2020, CBC programmes could contribute to the development of the language skills, cultural intelligence and professional training of border populations. The development of these skills would improve the quality of the workforce in cross-border regions, and in particular enable greater flexibility for cross-border working.
- This investment in human capital could then contribute to a shift of the CBC paradigm to one that fosters innovation through sharing of expertise on either side of a border, sharing knowledge through people-to-people contact.

Environment

- One significant and clear impact of the ETC on the environment which was identified is the increased protection of valuable environmental areas and resources in border regions. The strength of this aspect was said to be linked with governance cooperation as the ETC has enabled strong environmental protections and standards to be applied uniformly across borders.

- In relation to future potential for the environment within the post-2020 framework, there was discussion of how the ETC could aid in increasing the resilience of border regions to natural and man-made hazards. For example, a significant number of European national boundaries lie at areas of natural and geographical importance. CBC programmes could allow the border regions to pool resources, such as emergency services, when confronted with a landslide or the long-term consequences of climate change.
- It can occur that CBC programmes are both beneficial for one aspect of cross-border life, and detrimental to another. For instance an increase of cross-border economic activities could lead to an increase in the transportation of goods which then in turn may have a negative impact on the environment in a given cross-border region.

2.2 Identifying the types of region affected

In line with the focus on the territorial impact on cross-border regions as defined by the INTERREG A programme it was decided to assess the impact of the potential effects of European Territorial Cooperation post-2020 for all cross-border regions.

2.3 Picturing the potential territorial effects through indicators

In order to assess the potential effects of European Territorial Cooperation post-2020 as pictured in the conceptual model suitable indicators were 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 on the indicators that can be used. From the available indicators that the ESPON TIA Quick Check web tool offers the experts chose the following indicators to describe the identified effects.

Picturing potential territorial impacts considering governance-related indicators

- Potential for improving the quality and accountability of government services

Picturing potential territorial impacts considering economic-related indicators

- Potential accessibility by road
- Potential accessibility by rail
- Potential for improving multimodal accessibility

Picturing potential territorial impacts considering societal indicators

- Out-migration and "shrinking" of regions

Picturing potential territorial impacts considering environmental-related indicators

- Protected areas (NATURA 2000)
- Potential dealing with landslides
- Sensitivity to floods

2.4 Judging the intensity of the potential effects

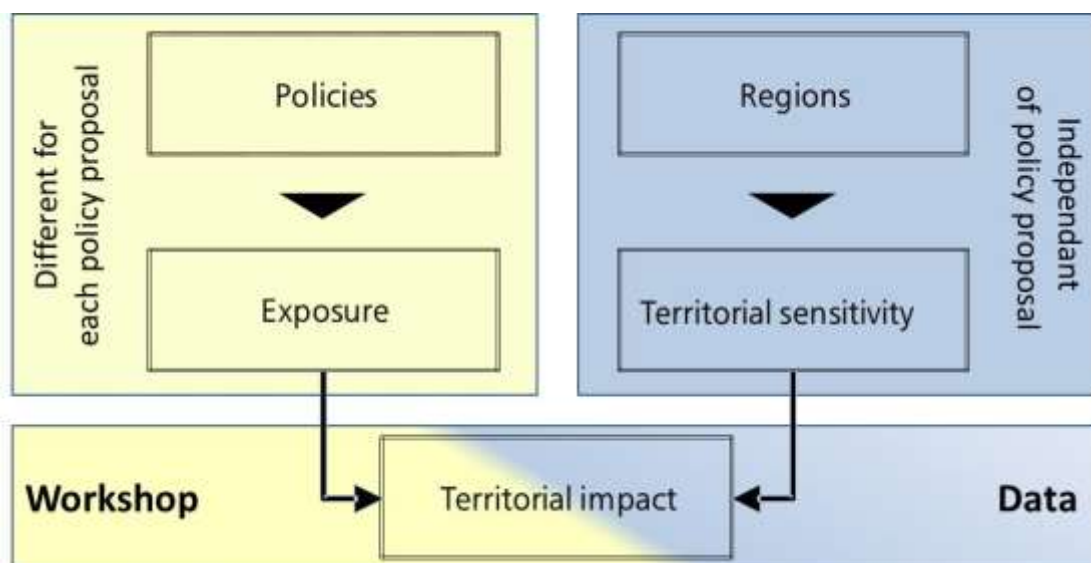
The participants of the workshop were asked to estimate the potential effects deriving from ETC post-2020. They judged the potential effect on territorial welfare on the basis of the following scores:

- ++ 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)

2.5 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 ETC post-2020 (**exposure**) with indicators picturing the sensitivity of regions, resulting in maps showing 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 (see the following figure).

Figure 3: Exposure x territorial sensitivity = territorial impact



Source: ÖIR, 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 ETC post-2020 on a specific indicator. Exposure illustrates the experts' judgement, i.e. the main findings of the expert discussion at the TIA workshop.

2.6 Mapping the potential territorial impact

The result of the territorial impact assessment of the European Territorial Cooperation post-2020 is presented in maps. The maps displayed below show potential territorial impacts based on a combination of the expert judgement on the exposure and the territorial sensitivity of a region, described by an indicator at NUTS3 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. (The detailed description is provided in the appendix.).

3 Results of the TIA quick check: potential territorial impact based on governance aspects

3.1 Descriptive detail of the experts' debate

3.1.1 Cross-border public services

In commencing a discussion around the future of the regulatory framework for European Territorial Cooperation (ETC), and specifically the INTERREG A strand, governance came to the fore as being one of the aspects of cross-border life most positively affected by the various cross-border projects carried out through INTERREG A. The formation of shared governance arrangements, in particular, was highlighted as being a highly beneficial result of CBC projects. Within this, the invited experts discussed how the future ETC regulation should indeed place a bigger focus on facilitating cross-border public services with the experts putting forward varying views as to how this could manifest itself. The ability for hospitals to provide public health services to citizens living in border regions was discussed, as well as better enabling cross-border train services. The experts also established that for these shared governance arrangements to be successful, a process of harmonising different governance practices and even administrative settings had to be tackled, as these can prove to be major obstacles.

3.1.2 Multilevel governance

The experts then deliberated on the need to also consider multilevel governance when aiming to create an area of shared and harmonised governance. One expert stated that a multilevel governance approach is needed when addressing the future governance side of CBC projects. Indeed, it was argued that a multilevel governance approach is both a pre-condition and a result of CBC. Through the example of connecting a railway system through a border region, the expert explained that, depending on the Member State, rail can be a national or regional competence. If one therefore wanted to connect two separate railways systems one would need both the authorisation and continued support of multiple levels of government in both the establishment of the line, and its ongoing maintenance. However, it was stated by the workshop experts that this question of involving multiple levels of government, and moving between different governance competences, is a delicate one as an overburdening of CBC programmes based in small territories can occur.

Continuing the discussion, several experts proposed ways in which CBC projects can address both questions around shared governance and multilevel governance. It was stated by one expert that the 2020 regulatory framework needs to take into account broader national programmes which could thereby allow CBC projects to work in conjunction with national authorities and therein allow smaller border regions to tap into these programme's goals and resources. Approaching it from another angle, another participant stated that CBC must

emerge through a bottom-up process with each region needing to form its own project responding to its own specific needs.

3.1.3 Partnership approach

A further view as to the future of the ETC was also touched upon later in the workshop through a discussion on the implementation of a "partnership approach". This partnership governance approach was explained as being when a CBC project links up with another local or regional programme which may seem to have its own separate objectives. An example was given in relation to local water management, with a CBC project dealing with cross-border river logistics management perhaps linking up with an environmental conservation programme with the joint objective of working together and pooling resources in order to achieve their mutual economic and environmental goals.

However, a view was put forward that the situation can occur when CBC programmes are both beneficial for one aspect of cross-border life, and detrimental to another. If we take for example an increase in cross-border economic activity, one might also see an increase in the transportation of goods which then in turn may have a negative impact on the environment in a given cross-border region. One expert stated that this has been the case with the borders at the former Iron Curtain. It was argued that those border areas had become a green corridor stretching through Europe, but which is now being increasingly criss-crossed by cross-border roads and railways lines. Indeed, it was stated that whenever you are intervening in an environment, building cross-border infrastructure will always have a negative effect. Through this our experts therefore found scope for potential conflict in the differing factors affecting the governance of CBC programmes.

3.1.4 Improving CBC programmes

In concluding the discussion on the future impacts on governance of the post-2020 regulatory framework of the ETC it was stated that a paradigm shift could occur, with CBC programmes going from primarily managing and distributing funds to CBCs perhaps coming to act as a sort of institution of exchange, bringing together cross-border ideas, facilitating cross-border activity and being a centre for strategic planning. Finally, it was concluded by all our experts that the major added value of the ETC would continue to be in terms of governance. For this governance to more effective, two things are needed. Firstly, proper cross-border indicators, which take into account the specificities of these projects; secondly, real cross border projects which focus on cross-border areas as one region.

3.2 The potential territorial impact in relation to the potential for improving the quality and accountability of government services

The experts assumed that the activities of cross-border projects carried out through INTERREG A could improve the quality and accountability of government services positively. Shared governance arrangements driven by the institutions managing cross-border

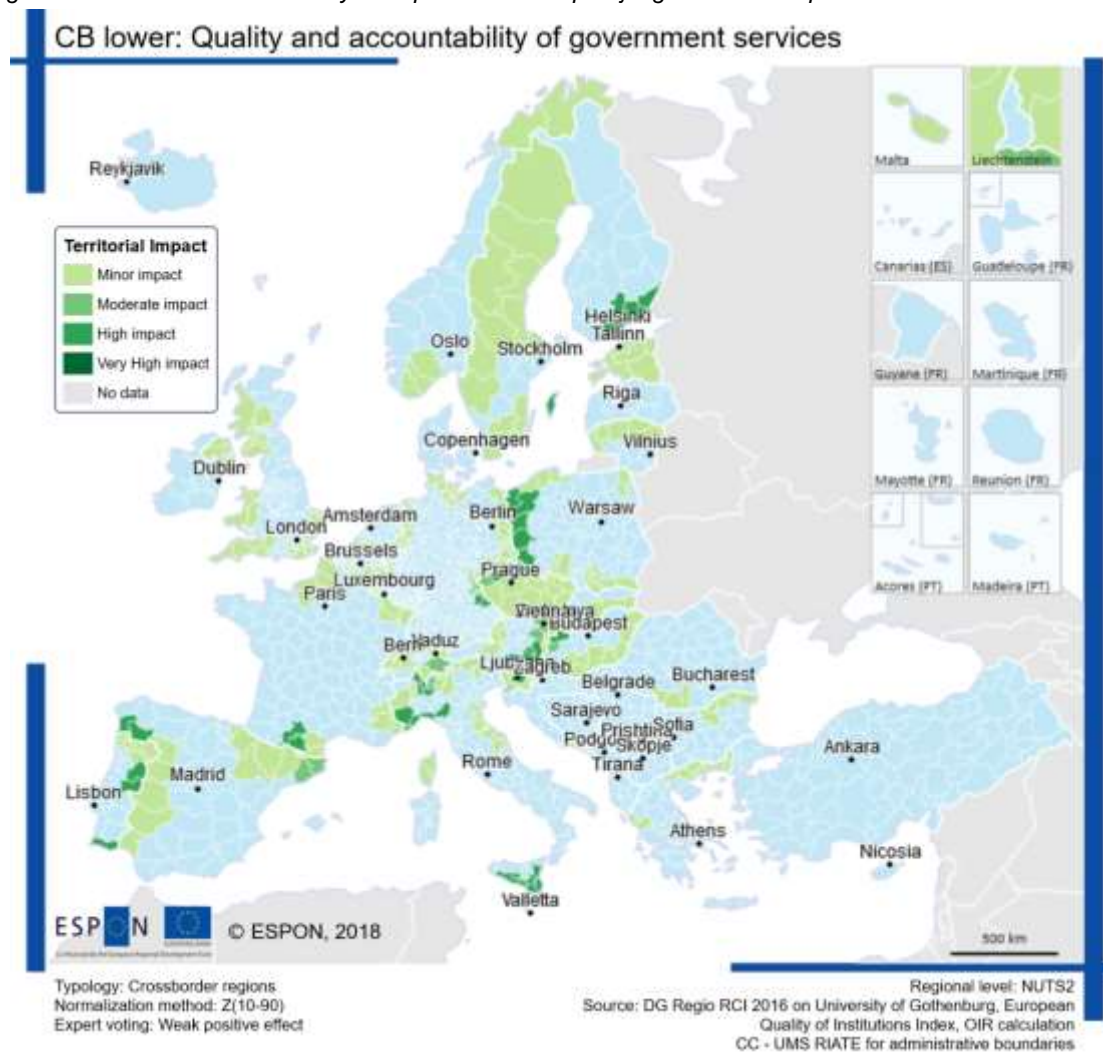
programmes contribute to improving the quality of governance. Two experts judged the effect as strongly positive and six judged it as weakly positive. Four experts did not consider this indicator as relevant.

The indicator "potential for improving the quality and accountability of government services" is calculated on the basis of the quality sub-index developed by the University of Gothenburg's Quality of Government Institute (QoG), and the national Worldwide Governance Indicators.

The spatially weighted relative cross-border indicator shows the quality and accountability of government services in comparison to the weighted average within the neighbouring cross-border regions. Sensitivity is higher the lower the quality and accountability of government services is when compared to the neighbours. If the region's value is higher, than there is no sensitivity. The hypothesis of this indicator is "levelling up"; a region is more sensitive if the neighbouring region's quality and accountability of government services is higher than that of the region itself and all the more so the more this is the case.

The following map shows the potential territorial impact of ETC post-2020 based on the relative cross-border quality and accountability of government services. It combines the expert judgement of a weakly positive effect with the given sensitivity of regions. A minority of the cross-border regions would either face a highly positive (13%) or moderately positive (4%) impact. These regions can be found in Finland, the western part of Poland, the cross-border region Germany-Czech Republic, the southern part of Austria, the north of Italy, the cross-border region in Sicily and some parts of the Iberian Peninsula.

Map 1: Result of the expert judgement: potential for improving the quality and accountability of government services affected by ETC post-2020 – expert judgement: weak positive effect



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

4 Results of the TIA quick check: potential territorial impact considering economic aspects

4.1 Descriptive detail of the experts' debate

4.1.1 Measurability of the impacts of ETC

The experts then moved on to discussing the impacts on the economic sphere of the post-2020 regulatory framework for the ETC. They agreed that there was no measurable impact on GDP from cross border cooperation especially when dealing with the smaller NUTS 3 units of territories. However, several experts did state that a CBC project's economic effects might rather be felt in the ensuing positive 'ripple effect' they create in the wider economy and that these indirect economic benefits must be taken into account in planning for their future. It was stated that if one takes the example of a CBC project between Vienna and Bratislava, improvements in governance arrangements between these two metro-regions might lead to a strengthening of the labour market in the region, thereby allowing for the creation of jobs which, in turn, provides positive economic outcomes.

Continuing the discussion on the economic impacts of CBC projects, and their future, the issue of granulation was discussed, namely, at what level the economic effects of CBC projects should be measured. It was agreed that the impacts of CBC projects are often invisible at the macro level and several alternative measurements were proposed, for instance a suggestion was made to measure the impact per euro invested.

4.1.2 The need for a long-term approach

The aspect of sustainability was seen as being missing from this metric. The participants agreed that a long-term, results-orientated outlook should be emphasised. In this regard, two examples were provided to demonstrate the differing long-terms effect of a CBC project. The first example was a three-year scholarship project between universities which was said would provide an increase in jobs during those three years, but perhaps not after the project is completed. This was then compared to the building of a cross-border cycle bridge which may, on the face of it, not provide direct and immediate benefits to the local population, but which might, in time, facilitate tourism and create long-term economic improvements which are embedded in the cross-border landscape. In short, results-orientated CBC projects with sustainable outlooks, and which are locally relevant, were proposed as being the future direction for the post-2020 regulatory framework to consider, projects with a physical impact, where citizens can experience the added value of the European Union.

4.1.3 CBC programmes as promoters of the four freedoms

In addition to the discussion on the economic return from money invested, one expert also made the point that money spent and the resulting economic impact of a CBC are not always linked. For example, CBC projects can play a role in reducing cross-border regulations, which

is an inexpensive, yet effective tool that CBC programmes can employ. This means a future focus of the ETC could be on allowing them to create spaces in which the Union's four freedoms are enhanced, so-called spaces of four freedoms +. These would be regions where CBC programmes would play their part in fostering ideas and innovation, where economic activity is facilitated by the dismantling of barriers. Connected with this idea that there is no singular link between money spent and impact was the discussion around how CBC could promote the sharing of public services in border regions. It was argued that an increased focus on the sharing of public services within CBC programmes can mean economic savings for national services, however it was also acknowledged that significant obstacles lie in the way of this happening. This in turn led the experts to link back to the intimate connection between governance and economy with regard to CBC programmes with the need to focus on the harmonisation of governance arrangements stated as being key to the post-2020 economic future of the ETC.

Further discussions took place regarding the economic aspects of the post-2020 regulatory framework. One subject touched upon was that better transport links allow for strengthened economic linkages between bordering areas. This again emphasised the point previously mentioned that locally embedded infrastructure projects, such as a rail line or cycle bridge, should be a future focus of CBC programmes and the ETC in general. These increased connections were also said to encourage the formation of shared markets for SMEs even in territorial units as small as NUTS 3. As a result of this creation of shared markets it was added that, in the experience of one attendee, several SMEs can be facilitated to work beyond the regions included in their CBC programme and reach out internationally through knowledge sharing and increased capacity.

4.1.4 Focusing on cooperation, improving governance

A word of warning did emerge from the discussion around the economic future of CBC programmes as the workshop participants pointed out that CBC can in fact lead to a danger of creating closed bubbles of cooperation. These bubbles mean that cooperation could perhaps only occur through the means of a CBC programme as it is seen as holding the money and resources which, because of the existence of INTERREG, comes at the detriment of programmes funded from national sources.

To conclude, it was agreed that in the economic sphere, CBC programmes do not have the power to have a direct impact on jobs or growth and as a result of this, going forward, ETC should not be measured against the metrics of jobs and growth. Yet the experts stated that ETC does have an indirect effect on improving governance, which, for instance, leads to an improved labour market and better economic conditions

Nevertheless, and based on an expected focus on connectivity in the post-2020 ETC programmes, the experts reckoned that it would be possible to finance the enhancement of regional cross-border transport links, especially for rail and road connections. Better transport would facilitate strengthened economic linkages between bordering areas.

4.2 The potential territorial impact of potential accessibility by road

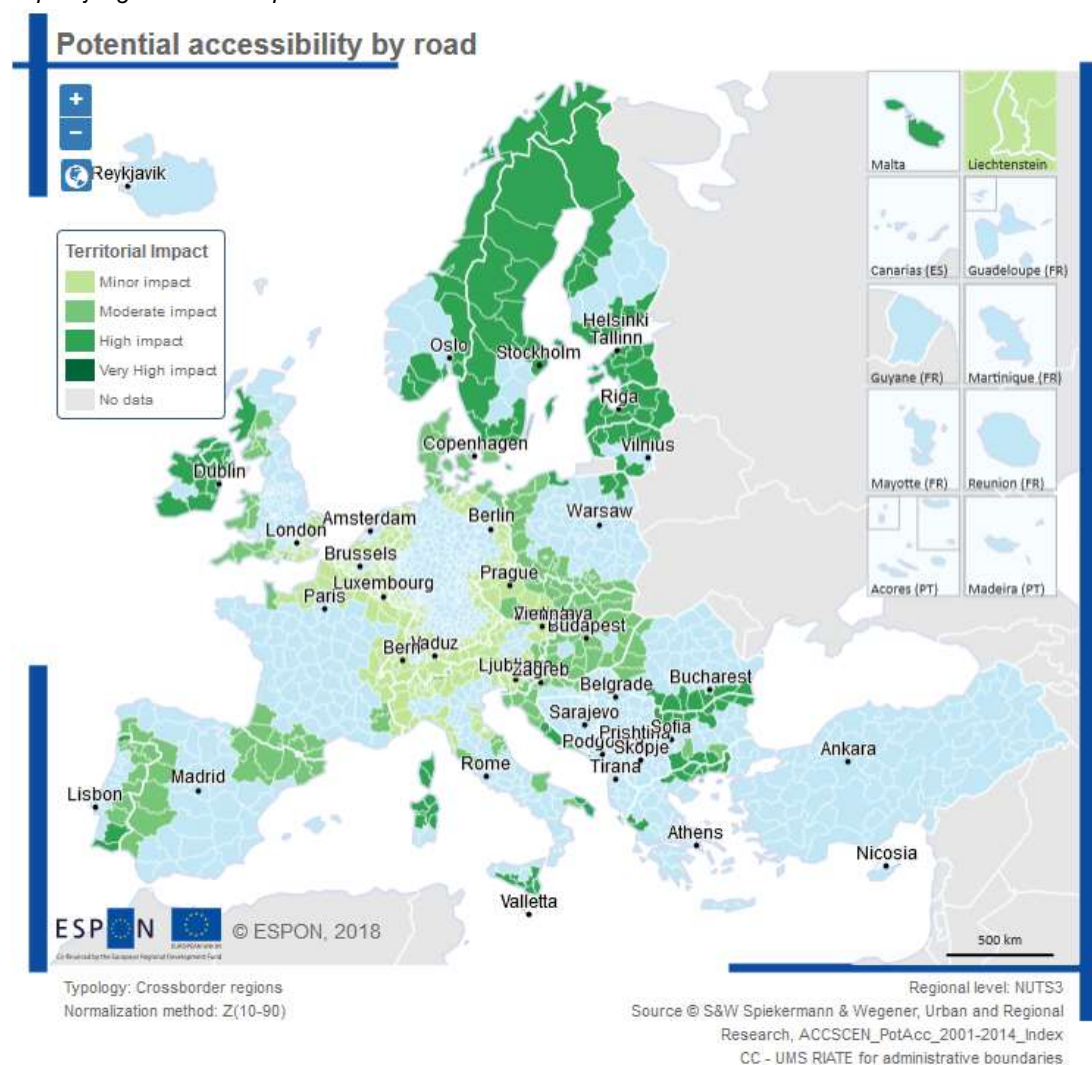
The experts concluded that there could be a positive effect of ETC post-2020 on potential accessibility by road. Five experts judged the effect strongly positive, six judged it as weakly positive. One expert did not consider this indicator as relevant.

The indicator picturing the sensitivity of a region according to potential accessibility by road is measured as follows: for each NUTS-3 region the population in all destination regions is weighted by the travel time by road to go there. The weighted population is summed up to the indicator value for the accessibility potential of the origin region. All indicator values are expressed as index, i.e. related to the ESPON average.

It is supposed that regions with lower potential accessibility by road will benefit more from its increase and be most disadvantaged by measures that lower it. Sensitivity is thus inversely proportional to potential accessibility by road.

The following map shows the potential territorial impact of ETC post-2020 based on potential accessibility by road. It combines the expert judgement of a weak positive effect with the given sensitivity of regions. 20% of the cross-border regions would face a highly positive impact. These regions are located in the periphery of Europe that is facing a generally lower accessibility than the European core. Cross-border regions with a potentially highly positive impact are located, for example, in Scandinavia, the Baltic countries, some northern parts of Poland, some Eastern Europe countries, parts of Italy and Portugal and Ireland. Cross-border regions in the core of Europe with its high accessibility are expected to gain a moderately (27%) or minor (53%) positive impact.

Map 2 - Result of the expert judgement: potential accessibility by road affected by ETC post-2020 – expert judgement: weak positive effect



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

4.3 The potential territorial impact in relation to potential accessibility by rail

Another accessibility indicator that the experts considered relevant in the analysis of the potential territorial impacts of ETC post-2020 is potential accessibility by rail. Three experts voted for a strongly positive effect and seven for a weakly positive effect. Two did not see a relevant effect on the potential territorial impacts of ETC post-2020.

The indicator picturing the sensitivity of a region according to potential accessibility by rail is calculated as follows: for each NUTS-3 region the population in all destination regions is weighted by the travel time by rail to go there. The weighted population is summed up to the indicator value for the accessibility potential of the origin region. All indicator values are expressed as index, i.e. related to the ESPON average.

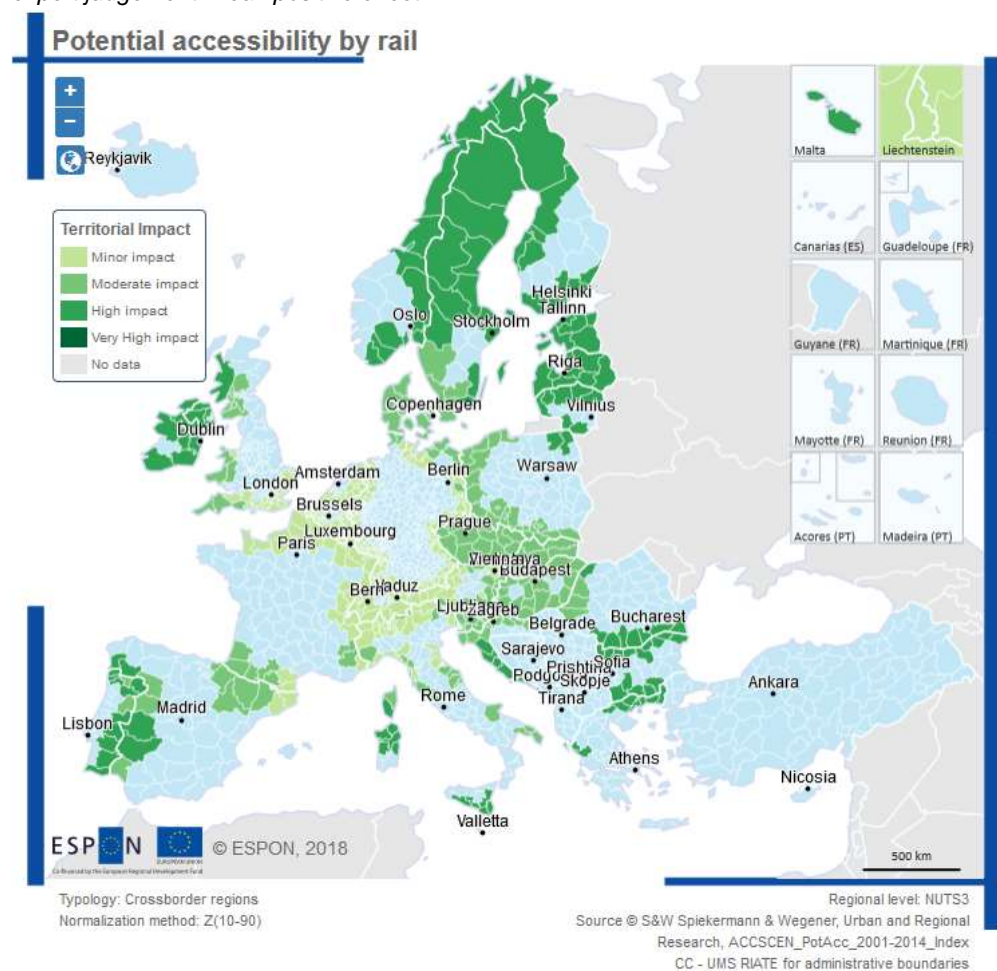
Regions with lower potential accessibility by rail will benefit more from its increase and be most disadvantaged by measures that lower it. Sensitivity is thus inversely proportional to potential accessibility by rail.

The following map shows the potential territorial impact of ETC post-2020 based on potential accessibility by rail. It combines the expert judgement of a weak positive effect with the given sensitivity of regions.

Half of the cross-border regions would expect a highly positive or moderately positive impact. These regions are located mainly in the periphery of Europe, which generally has weaker accessibility by rail. They are, for example, along the Norway-Sweden border, along the borders of the Eastern European countries, along the Romania-Bulgaria and Bulgaria-Greece borders and, along the Portugal-Spain and UK-Ireland borders.

The other half of the regions located in the highly accessible core of Europe would gain a minor positive impact. These regions can be found, for example, along the western and southern borders of Germany, in the Alpine region, in the border regions of the Benelux States and also comprise most of the French and southern UK border regions.

Map 3 - Result of the expert judgement: potential accessibility by rail affected by ETC post-2020 – expert judgement: weak positive effect



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

4.4 The potential territorial impact in relation to the potential for improving multimodal accessibility

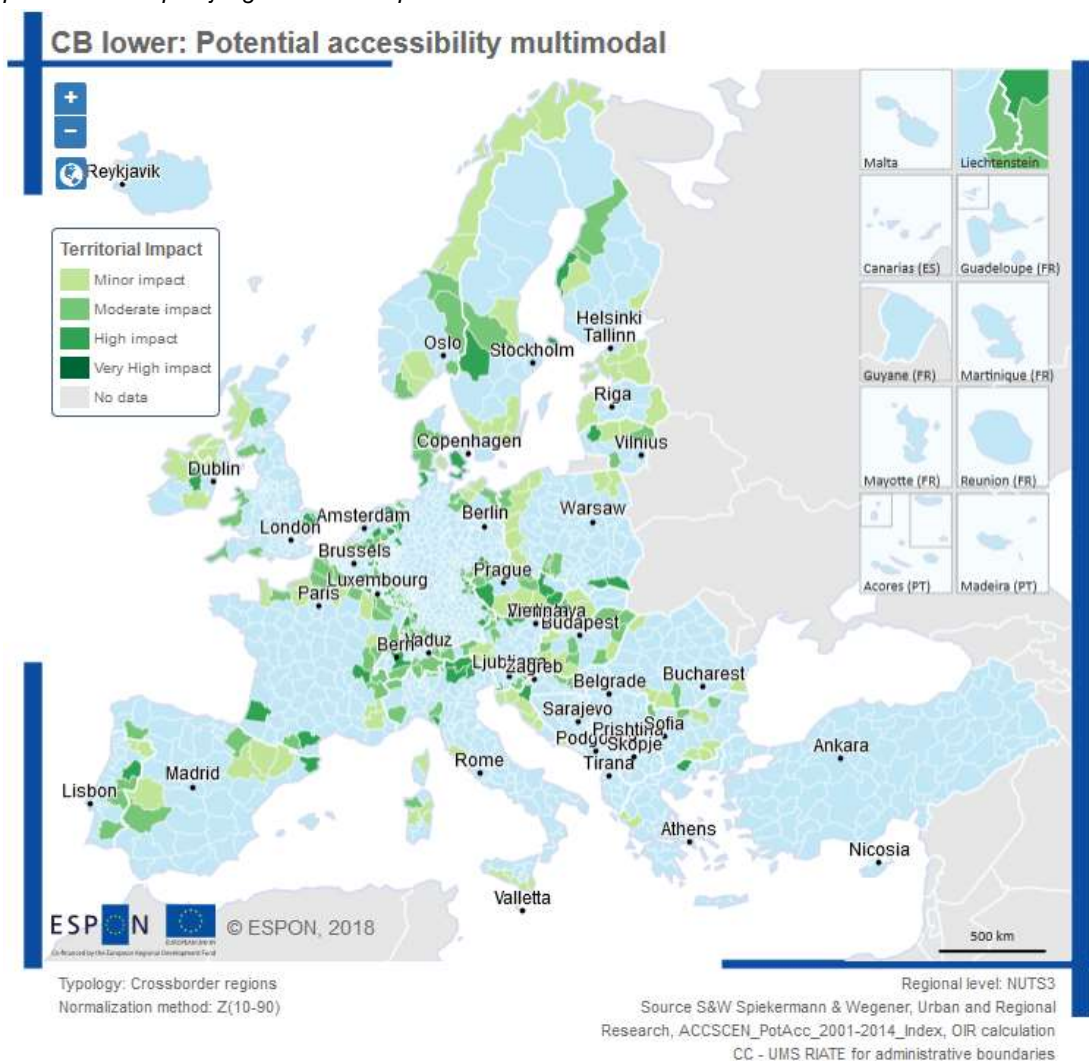
The experts assumed that ETC post-2020 may improve the potential multimodal accessibility. Four experts judged the effect strongly positive and seven judged it as weakly positive. One expert did not consider this indicator as relevant.

The basic indicator picturing the potential multimodal accessibility is calculated as follows: for each NUTS-3 region the population in all destination regions is weighted by the multimodal travel time to go there. The weighted population is summed up to the indicator value for the accessibility potential of the origin region. All indicator values are expressed as index, i.e. related to the ESPON average. Multimodal accessibility is an aggregation of road, rail and air accessibility.

The spatially weighted relative cross-border indicator "potential for improving multimodal accessibility" shows the potential multimodal accessibility in comparison to the weighted average within the neighbouring cross-border regions. Sensitivity is higher the lower multimodal accessibility is when compared to the neighbours. If the region's multimodal accessibility is higher, than there is no sensitivity. The hypothesis of this indicator is "levelling up"; a region is more sensitive if the neighbouring region's accessibility is higher than the accessibility of the region itself and the larger the difference the more this is the case.

The following map shows the potential territorial impact of ETC post-2020 based on the spatially weighted relative potential multimodal accessibility. It combines the expert judgement of a weak positive effect with the given sensitivity of regions. 26% of the relatively lower regions could gain a high, 42% a moderately and 32% a minor positive impact. These regions are rather scattered across the EU countries.

Map 4 - Result of the expert judgement: potential for improving multimodal accessibility affected by ETC post-2020 – expert judgement: weak positive effect



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

5 Results of the TIA quick check: potential territorial impact based on societal aspects

5.1 Descriptive detail of the experts' debate

5.1.1 A people-to-people approach

As the initial discussion on the post-2020 regulatory framework began, a majority of participants stated that one of the foremost benefits of CBCs was their ability to facilitate people-to-people connections. Indeed throughout the discussion this subject emerged as a consistent benefit – yet perhaps an elusively immeasurable aspect – of cross-border cooperation. It was agreed that CBC programmes do have the ability to reduce prejudice between peoples across borders. Whether in terms of people-to-people projects, economic cooperation, governance harmonisation or cross-border environmental projects, the multiplication and deepening of connections across borders was said to lead to a reduction in both psychological and physical barriers between societies. From transport links allowing for increased people-to-people contact, to a better understanding of the administrative procedures of another region. Yet it was also argued by one expert that despite these multiple connections, whenever you are conducting a CBC project you are dealing with people, therefore it was said that these projects are inherently risky and experimental.

5.1.2 An investment in human capital

It was stated that even if bringing people together is not highly innovative, by bringing people together incrementally, CBC projects can and are allowing for an alignment in differing perspectives. It was agreed that whilst this feature of CBC projects is intangible, it is nonetheless important in considering their future shape post 2020.

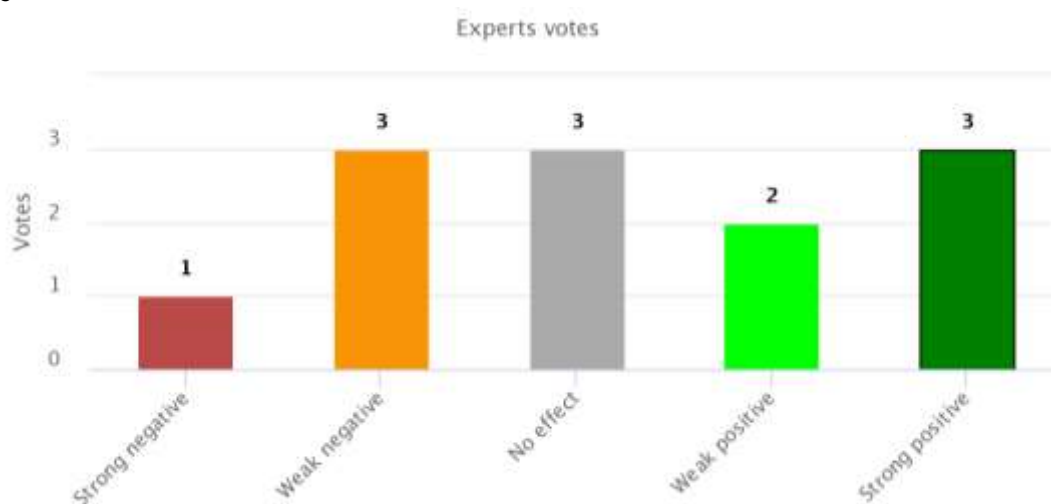
Despite this acknowledged intangibility of the societal effects of CBC projects, the experts did discuss the ways in which, with a renewed focus on human capital post 2020, CBC programmes could contribute to the development of language skills, cultural intelligence and professional training of bordering populations. It was suggested that development of these skills was needed and that they would in turn aid in developing other aspects of CBC programmes. This investment in human capital could then contribute to the aforementioned shifting of the CBC paradigm to one which fosters innovation through sharing of expertise on either side of a border, sharing knowledge through people-to-people contact.

5.2 The potential territorial impact in relation to the crude rate of net migration

The experts concluded that ETC post-2020 will help to stimulate a positive economic climate in cross-border regions that often are also peripheral regions located quite a distance from the national agglomeration areas. Thus, it was argued that ETC post-2020 could affect the crude rate of net migration. The expert judgement was diverse though. Three experts voted for

strongly and two for weakly positive, three for weakly and one for strongly negative. Three experts did not see a relevant effect.

Figure 4: Workshop findings: expert judgement: effects of ETC post-2020 on the crude rate of net migration



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

The indicator picturing the sensitivity of a region according to out-migration is measured by the crude rate of net migration including statistical adjustment per thousand inhabitants. The crude rate of net migration is equal to the difference between the crude rate of population change and the crude rate of natural change. Regions experiencing brain drain are expected to benefit more from the potential effects of ETC post-2020 causing their reduction or suffer most from their exacerbation.

The very divergent opinions from experts concerning the effects of ETC in border regions results from differences in the interpretation of the indicator (out-migration/ brain drain). Indeed, while some experts interpreted the phenomenon as negative because it would mean that *within* each cross-border region we would see a *brain-drain* from the poorer to the richer regions, others interpreted the phenomenon as positive because *out-migration* from the cross-border *region as a whole* would be lower.

In this sense, the two positions are not per se contradictory and might indeed be complementary, as both can in fact take place simultaneously. Due to this difference in interpretation we chose nevertheless not to integrate any maps for this indicator.

6 Results of the TIA quick check: potential territorial impact considering environmental aspects

6.1 Descriptive detail of the experts' debate

6.1.1 Protection of environmental resources

The workshop also focused upon the environmental aspects of the post-2020 regulatory framework. The discussion around the environment began with one expert stating that a healthy environment must remain a fundamental principle when considering the framework within which the ETC is perceived now and in the future, labelling a healthy environment an overarching principle.

As the discussion continued, one significant and clear impact of the ETC on the environment which was identified was the increased protection of valuable environmental areas and resources in border regions. The strength of this aspect was said to be linked with governance cooperation as the ETC has enabled strong environmental protections and standards to be applied uniformly across borders. In this regard, the workshop group also stated that CBC programmes also have the potential to further harmonise economic and environmental interests in the areas where they are found, creating platforms upon which differing groups can form projects which serve the goals of both sectors.

6.1.2 Improving the resilience of border regions

In relation to future potential for the environment within the post-2020 framework, the workshop turned to consider how the ETC could aid in increasing the resilience of border regions to natural and man-made hazards. For example, a significant number of European national boundaries lie at areas of natural and geographical importance, for instance the border between France and Spain in the Pyrenees. The experts speculated as to how CBC programmes might allow border regions to pool resources, such as emergency services, when confronted with a landslide or the long-term consequences of climate change.

6.2 The potential territorial impact in relation to protected areas (NATURA 2000)

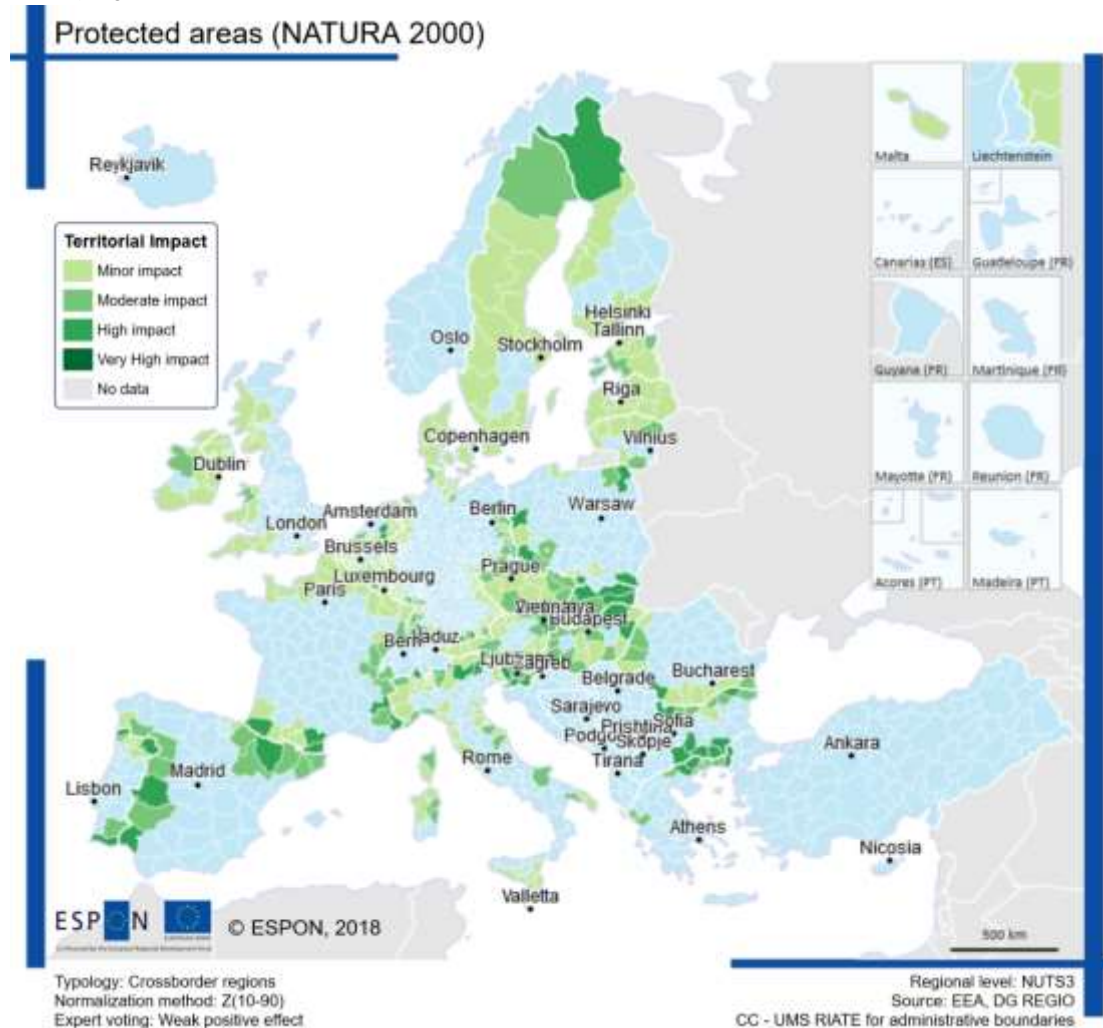
As the ETC has enabled strong environmental protections and standards to be applied uniformly across borders, experts expected increased protection of valuable environmental areas and resources in border regions. The experts assumed that ETC post-2020 will influence the quality and management of protected areas. Five experts judged the effect strongly positive, five judged it as weakly positive. Two experts did not consider this indicator as relevant.

The indicator picturing the sensitivity of a region according to protected areas is measured by the share of Natura 2000 areas on a total NUTS 3 area. Regions showing a greater share of protected nature areas are expected to be more sensitive to the territorial impact of ETC post-

2020. Sensitivity is thus directly proportional to the share of areas protected under the Natura 2000 programme.

The map shows the potential impact in the event of a weakly positive effect. Cross-border regions in northern Scandinavia, the Baltic States, Poland, Slovakia, Hungary, Bulgaria, Greece, Slovenia, Italy, France, Spain and Portugal could gain a moderately to highly positive impact on protected areas. Most of the other regions would gain a minor positive impact.

Map 5 - Result of the expert judgement: protected areas (NATURA 2000) affected by ETC post-2020 – expert judgement: weak positive effect



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

6.3 The potential territorial impact in relation to potential dealing with landslides

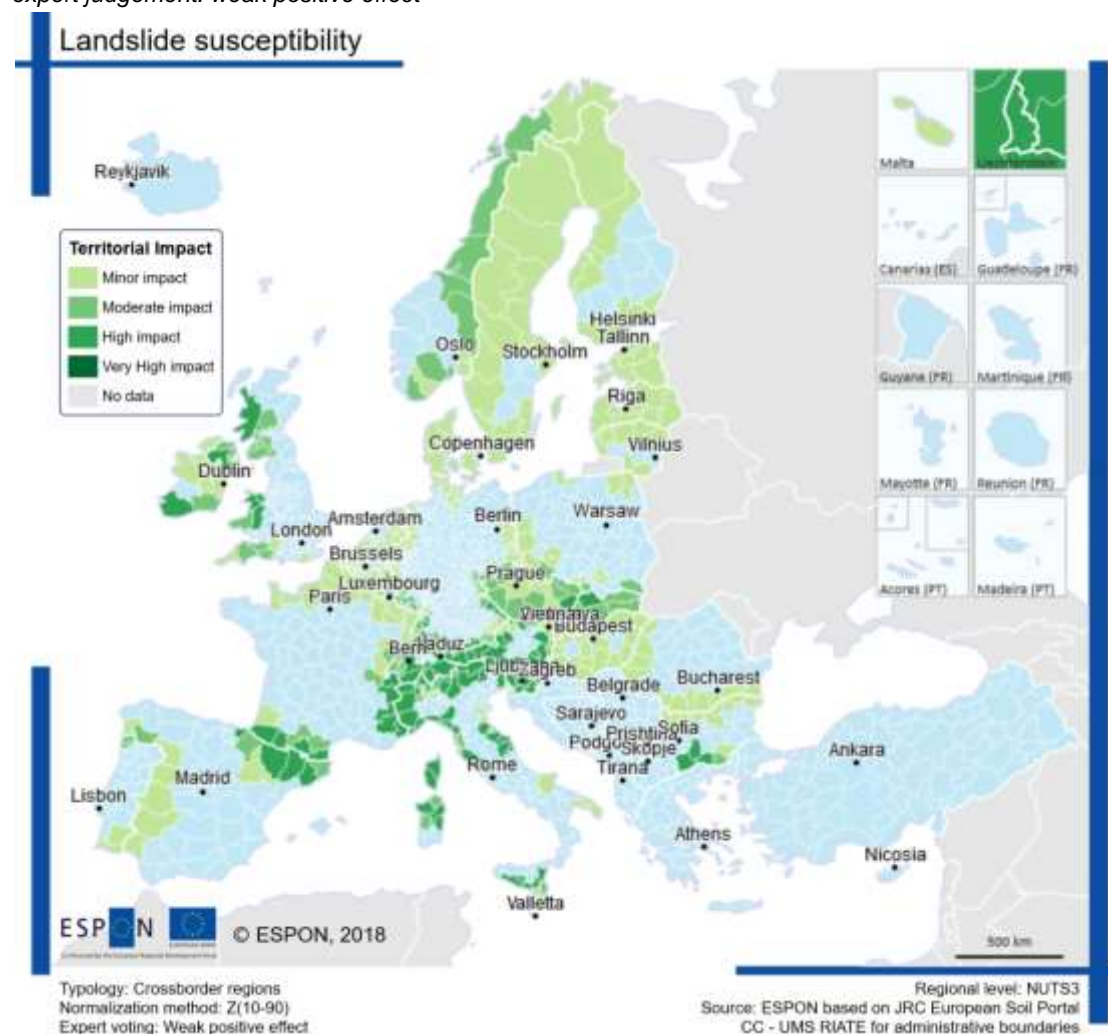
In relation to future potential for the environment within the post-2020 framework, the workshop participants took into consideration that the ETC could aid in increasing the resilience of border regions to natural hazards by pooling resources, such as emergency services, when confronted with a landslide. Consequently, some experts expected that ETC

post-2020 will affect regions threatened by landslides. Five experts judged the effect weakly positive and one judged it as strongly positive. Four experts did not see a relevant effect.

The indicator picturing the sensitivity of a region according to potential dealing with landslides is measured by landslide susceptibility presented as the spatial likelihood of landslide occurrence. It is expected that regions showing higher landslide susceptibility are more sensitive to the potential territorial impact of ETC post-2020. Sensitivity is thus directly proportional to landslide susceptibility.

The following map shows the potential territorial impact of ETC post-2020 based on landslide susceptibility. It combines the expert judgement of a weakly positive effect with the given sensitivity of regions. The regions in the south-west of Ireland, parts of Norway, the Spanish-French cross-border regions, Corsica, parts of Italy, parts of Bulgaria and Slovakia as well as the Alpine regions would face a moderately or even highly positive impact. 57% of the cross-border regions would get a minor positive impact.

Map 6 - Result of the expert judgement: potential dealing with landslides affected by ETC post-2020 – expert judgement: weak positive effect



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

6.4 The potential territorial impact in relation to sensitivity to floods

The experts expected an improvement in the adaptation of cross-border regions to the risk of flooding through flood management activities in river basins and pooling of emergency services in the event of flooding. Six experts voted for a strongly positive effect and five for a weakly positive effect.

The indicator picturing the sensitivity of a region according to sensitivity to floods shows the spatial likelihood of flood occurrence. Regions showing higher flood risk are expected to be more sensitive to the potential territorial impact of ETC post-2020. Sensitivity is thus directly proportional to flood risk.

The following map shows the potential territorial impact of ETC post-2020 based on sensitivity to floods. It combines the expert judgement of a strong positive effect with the given sensitivity of regions. Almost 70% of the regions would experience a very highly positive impact. These regions are located in Central Europe, the cross-border regions in Romania and Bulgaria, northern Italy, the cross-border regions in the northern and eastern parts of France, the Benelux states as well as parts of the Spain-France and Spain-Portugal cross-border regions.

Map 7 - Result of the expert judgement: sensitivity to floods affected by ETC post-2020 – expert judgement: strong positive effect



Source: Territorial impact assessment expert workshop, Brussels, 14 March 2018

7 Conclusions and policy implications

7.1 Findings based on the results of the TIA quick check

It is assumed that shared governance arrangements and common cross-border projects driven by the institutions managing cross-border programmes will further contribute to improving the quality of governance. The quality and accountability of government services would increase especially in cross-border regions where the quality of government index is lower compared to the neighbouring regions due to the equal standards of the implementation of EU cross-border programmes and a learning-from-each-other effect.

Other territorial impacts of the ETC post-2020 depend on the final decision on the fields in which projects could be financed:

If it is possible to finance projects aimed at increasing connectivity in cross-border regions by rail and road, cross-border regions in the periphery of Europe, in particular, would gain a positive impact in terms of accessibility by rail and road. Such regions are located, for example, in Scandinavia, the Baltic countries, some northern parts of Poland, some Eastern Europe countries, parts of Italy, Portugal and Ireland. All these regions have in common that they are currently facing lower accessibility than regions in the European core. Within a specific cross-border region NUTS3 regions with a relatively lower accessibility would benefit more.

An overall higher accessibility of cross-border regions, better education of the people, especially related to skills demanded by enterprises in the cross-border regions, and projects enlarging the market area could contribute to overall positive economic effects. Even if these effects were considered as non-measurable, the positive economic climate could affect the crude rate of net migration. Regions experiencing a strongly negative migratory trend would be more affected. These effects could take two directions: on one hand the positive economic climate and higher accessibility could reduce out-migration as more jobs are offered in cross-border regions. On the other, it is possible that through improved accessibility the pull effect of agglomeration areas within a cross-border region could increase as could migration from poorer parts of the border region to the richer parts.

If it is still possible to finance projects managing the natural heritage in cross-border regions through the ETC post-2020 programmes, the protection of valuable environmental areas and resources and their management will get a positive impact: Cross-border regions with high natural assets could benefit more, in particular. These regions are located, for example, in the northern Scandinavia, the Baltic States, Poland, Slovakia, Hungary, Bulgaria, Greece, Slovenia, Italy, France, Spain and Portugal.

The common management of natural hazards as part of ETC programmes can allow CBC programmes to better coordinate adaptation measures, for example through projects managing land use in river basins, and to organise the pooling of emergency service resources. In terms of landslide susceptibility, the cross-border regions in mountainous areas,

such as in the Alps, the Pyrenees, the Carpathian mountains etc. could particularly benefit. In terms of the reduction of the risk of flooding, cross-border regions in the river basins, such as those of the Danube and the Rhine would be highly positively impacted.

7.2 Findings and recommendations from the expert discussion

It was agreed by the experts that in the future the ETC will increasingly act as a door opener, opening up cross-border barriers for SMEs and people to their neighbouring regions. Post 2020, CBC programmes should become more and more platforms for strategic exchange, and not a simple management institution which handles money. It should be a barter institution and a platform of exchange.

When managing cross-border programmes, "hidden" market boundaries such as different procurement procedures, different regulations for public transport etc. become visible. Those obstacles to cooperation need to be addressed. It was suggested that if CBC programmes are to act as platforms working to remove cross-border obstacles it is evident that such tasks rely on strategy-building and must be understood in the formulation of the post-2020 regulatory framework.

A potential reduction of the financial resources for CBC programmes was discussed. The experts agreed that CBC still needs adequate resources to fulfil its functions. However, some experts reckoned that reduced financial resources for CBC programmes might lead to a thematic concentration on the really relevant issues. A consequently higher co-financing rate from national sources could help increase the ownership of the projects by the regional stakeholders.

Throughout the workshop discussion and the presentation and application of a variety of indicators, the gathered experts reflected upon how to measure the effects of CBC programmes. Although the TIA tool provides several indicators picturing the effects of cross-border programmes, some aspects of CBC programmes could not be captured by the usual available indicators. This holds true especially for the main purpose of CBC programmes: bringing people together, strengthening cross-border linkages and reducing mental barriers with a view to fostering cooperation and overcoming prejudices. Additional indicators that are relevant (though in no way should this list be considered exhaustive) as regards measuring the effects of cross-border programmes are educational standards, vocational training and language knowledge, comparison of education systems, quality of SGEIs and commuting. Furthermore, a long-term results-orientated outlook should be emphasised, as, for example, the effects of an exchange of students or of the construction of cross-border cycle roads usually cannot be captured within a programming period.

The impact of the specific measures and projects financed by ETC on the development of cross-border regions will ultimately depend on the thematic specifications provided by the new regulation. Result-orientated CBC projects with sustainable outlooks, which are locally relevant, were proposed as being the future direction for the post-2020 regulatory framework. Projects should have a clear impact, where citizens can experience the added value of the European Union.

The experts' discussions focused mainly on the following topics:

- The future ETC regulation should enable a focus on facilitating cross-border public services (e.g. hospitals, etc.).
- Locally embedded infrastructure projects to improve connectivity in cross-border regions, such as a rail line or cycle bridge, should be a future focus of CBC programmes and the ETC. These increased connections were also said to encourage the formation of shared markets for SMEs even in territorial units as small as NUTS 3.
- It should still be possible to jointly manage cultural heritage in cross-border regions, also with a view to improving "cultural tourism" in these often peripheral regions.

Finally, it was concluded by all participating experts that the major added value of the ETC will continue to be in terms of governance. To make this governance more effective, two things are needed: firstly, proper cross-border indicators, that take into account the specificities of these projects. Secondly, real cross-border projects which focus on cross-border areas as one region should be implemented through post-2020 CBC programmes.

Appendix 1: Territorial impact assessment workshop agenda

Cross-border impact assessment expert workshop

European Territorial Cooperation post-2020

Brussels, 14 March 2018

09:30	Registration and welcome Coffee
10:00	Welcome and introduction Thomas Wobben, Director, Legislative works, CoR Short introduction of the experts
10:20	Introduction to the topic Bernhard Schausberger and colleagues: sketch of a scenario for the post-2020 ETC
11:30	Explanation of the ESPON Quick Scan TIA tool Erich Dallhammer, OïR GmbH
11:45	Interactive discussion <ul style="list-style-type: none"> • Dealing with cause/effect chains • Defining the types of regions affected and estimating the intensity of the regional exposure
13:15	Lunch break
14:45	Coffee served in front of the conference room
14:45	Interactive discussion (on the findings, results and hypothesis)
16:30	Policy recommendations
17:00	End of the workshop

Appendix 2:

Description of the indicators used and regional sensitivity

Following the interactive discussion among the experts, the following indicators were selected and introduced into the ESPON TIA Quick Check model:

Protected areas (NATURA 2000)

Definition of sensitivity	Regions with a greater share of protected nature areas are expected to be more sensitive to the territorial impact of ETC post-2020 as regards biodiversity.
Description	NATURA 2000 areas in % of total NUTS 3 area 2012
Source	EEA, DG REGIO
Reference year	2012
Original indicator	NUTS3, 2013
Spatial reference	

Potential dealing with landslides

Definition of sensitivity	Regions showing higher landslide susceptibility are considered to be more sensitive to the potential territorial impact of ETC post-2020.
Description	This European landslide susceptibility typology presents the spatial likelihood of landslide occurrence in 5 classes: very low, low, moderate, high and very high.
Source	ESPON based on JRC European Soil Portal
Reference year	2012
Original indicator	NUTS3, 2013
Spatial reference	

Sensitivity to floods

Definition of sensitivity	Regions showing higher flood risk are expected to be more sensitive to the potential territorial impact of ETC post-2020.
Description	Spatial likelihood of flood occurrence in 5 classes
Source	ESPON on Dartmouth Flood Observatory
Reference year	2012
Original indicator	NUTS3, 2013
Spatial reference	

Potential accessibility by road

Definition of sensitivity	Regions with lower potential accessibility by road will benefit more from its increase and be most disadvantaged by measures that lower it. Therefore they are considered to be more sensitive to the territorial impact of ETC post-2020.
Description	For each NUTS-3 region the population in all destination regions is weighted by the travel time by road to go there. The weighted population is summed up to the indicator value for the accessibility potential of the

	origin region. All indicator values are expressed as index, i.e. related to the ESPON average.
Source	S&W Spiekermann & Wegener, Urban and Regional Research, ACCSCEN_PotAcc_2001-2014_Index
Reference year	2014
Original indicator	NUTS3, 2013
Spatial reference	

Potential accessibility by rail

Definition of sensitivity	Regions with lower potential accessibility by rail will benefit more from its increase and be most disadvantaged by measures that lower it. Therefore they are considered to be more sensitive to the territorial impact of ETC post-2020.
Description	For each NUTS-3 region the population in all destination regions is weighted by the travel time by rail to go there. The weighted population is summed up to the indicator value for the accessibility potential of the origin region. All indicator values are expressed as index, i.e. related to the ESPON average.
Source	S&W Spiekermann & Wegener, Urban and Regional Research, ACCSCEN_PotAcc_2001-2014_Index
Reference year	2014
Original indicator	NUTS3, 2013
Spatial reference	

Potential for improving multimodal accessibility

(= CB lower: Potential accessibility multimodal)

Definition of sensitivity	The spatially weighted indicator shows the potential multimodal accessibility in comparison to the weighted average within the neighbouring cross-border regions. Sensitivity is higher with higher relative distance to the neighbours. If the region's value is higher, then there is no sensitivity in the neighbouring regions. The hypothesis of this indicator is "levelling up"; a region is more sensitive to the territorial impact of ETC post-2020 if the neighbours are higher on this indicator value than the region itself and all the more so the more this is the case.
Description	For each NUTS-3 region the population in all destination regions is weighted by the multimodal travel time to go there. The weighted population is summed up to the indicator value for the accessibility potential of the origin region. All indicator values are expressed as index, i.e. related to the ESPON average. Multimodal accessibility is an aggregation of road, rail and air accessibility.
Source	S&W Spiekermann & Wegener, Urban and Regional Research, ACCSCEN_PotAcc_2001-2014_Index
Reference year	2014
Original indicator	NUTS3, 2013

Spatial reference

Out-migration/"shrinking" of regions

Definition of sensitivity	Regions experiencing brain drain are expected to benefit more from the potential effects of ETC post-2020 causing their reduction or suffer most from their exacerbation.
Description	The crude rate of net migration is equal to the difference between the crude rate of population change and the crude rate of natural change (that is, net migration is considered as the part of population change not attributable to births and deaths).
Source	EUROSTAT
Reference year	2015
Original indicator	NUTS3, 2013
Spatial reference	

Potential for improving the quality and accountability of government services

Definition of sensitivity	The spatially weighted indicator shows the quality and accountability of government services in comparison to the weighted average within the neighbouring cross-border regions. Sensitivity is higher with higher relative distance to the neighbours. If the region's value is higher, than there is no sensitivity in the neighbouring regions. The hypothesis of this indicator is "levelling up"; a region is more sensitive to the territorial impact of ETC post-2020 if the neighbours are higher on this indicator value than the region itself and the more so the more this is the case.
Description	This indicator is calculated on the basis of the quality sub-index developed by the University of Gothenburg's Quality of Government Institute (QoG), and the national Worldwide Governance Indicators. In particular, the regional QoG quality sub-index is anchored at national level to the average of the WB-WGI indicators on "government effectiveness" and "voice & accountability". Data is standardised as z-scores.
Source	DG Regio RCI 2016 on University of Gothenburg, European Quality of Institutions Index
Reference year	2013
Original indicator	NUTS3, 2013
Spatial reference	

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 the exposure caused by the policy proposal could be judged by the experts 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 to upload new indicators. It provides a template, where for each NUTS 3 region the values of the indicator can be filled in.

For the new indicator, it has to be defined whether the exposure field needs to be evaluated as being either harmful ("cost") or favourable ("benefit") for the region's welfare. Then the tool will automatically transform the experts' rating into numbers for further calculation (= normalisation).

Normalisation of indicators

The normalisation follows a linear procedure. Normalised values range from 0.75 up to 1.25. Basically, 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

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:

$$X_{norm_i} = 0,75 + ((1.25 - 0.75) * ((X_i - X_{min_i}) / (X_{max_i} - X_{min_i})))$$

Source: ESPON TIA Quick Check moderator's guide and methodological background



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ESPON 2020

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