Disclaimer
This report was produced by the European Committee of the Regions secretariat to assist the rapporteur and the NAT commission in preparing the opinion *Tackling cross-border health threats* from rapporteur Olgierd Geblewicz (EPP/PL), President of West Pomerania Region. This report will be shared with the European Commission and the European Parliament.

The findings of this report are not binding upon the European Committee of the Regions and do not prejudice the final content of its opinions. This report is for information purposes only.
This territorial impact assessment report is the outcome of an expert online workshop organised by the European Committee of the Regions and ESPON EGTC on 26 and 27 January 2021.

The ESPON TIA Tool is designed to support the quantitative assessment of potential territorial impacts according to the Better Regulation guidelines. It is an interactive web application that can be used to support policy makers and practitioners when it comes to identifying, ex ante, potential territorial impacts of new EU Legislation, Policies and Directives (LPDs).

This report documents the results of the territorial impact assessment expert workshop on the implementation of preparedness and response measures to cross-border threats to health across the EU. It is for information purposes only. This report and the maps present the views and experience of the workshop participants. It is intended to be used only to support decision making and does not necessarily reflect the opinions of the members of the ESPON 2020 Monitoring Committee.

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<td>CoR</td>
<td>European Committee of the Regions</td>
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<td>EP</td>
<td>European Parliament</td>
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<td>ESPON</td>
<td>European Observation Network for Territorial Development and Cohesion</td>
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<td>LRA</td>
<td>Local and Regional Authority</td>
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<td>MS</td>
<td>Member State(s)</td>
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<td>NUTS</td>
<td><em>Nomenclature des unités territoriales statistiques</em>&lt;br&gt;Common classification of territorial units for statistical purposes</td>
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<td>OIR</td>
<td>Austrian Institute for Spatial Planning (ÖIR)</td>
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<td>TIA</td>
<td>Territorial Impact Assessment</td>
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#### Effects of the directives – colour code

- **Green**: Positive effects
- **Light Green**: Minor positive effects
- **White**: Neutral
- **Yellow**: Minor negative effects
- **Red**: Negative effects

#### Legend – direction of effects

- **↑**: Increase
- **↓**: Decrease
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1 Introduction

This report and the workshop on which it is based are intended to feed into the CoR opinion *Tackling cross-border health threats* from rapporteur Olgierd Geblewicz (EPP/PL), President of West Pomerania Region. This is a referral from the European Commission (with mandatory consultation of the European Committee of the Regions) on:


Local and regional authorities define, deliver and manage a whole range of services that can make a positive difference and affect how people use cross-border health services, as well as face threats. Through smart health, social care and healthy lifestyle promotion, awareness raising and targeted information campaigns, local and regional authorities, by cooperating with the ECDC, can reach out to EU citizens and support them by promoting a healthy lifestyle and sustainable cross-border health cooperation.

Local and regional authorities play a pivotal role in dealing with health threats and scaling up innovation in terms of cross-border health. By investing in the health sector and in measures to deal with current or potential threats, as well as supporting innovative assisted living solutions and promoting self-care and digital health expansion, LRAs across the Union together with the ECDC can thus turn the pandemic into a real opportunity to serve their citizens while stimulating the community.

The proposal for a regulation on serious cross-border threats to health (repealing Decision No 1082/2013/EU) is a building block of the European Health Union, and intends to provide a stronger and more comprehensive legal framework within which the Union can react rapidly and trigger the implementation of preparedness and response measures to cross-border threats to health across the EU. The COVID-19 pandemic has shown that the EU’s mechanisms for managing health threats suffer from general shortcomings that require a more structured Union-level approach if we are to deal more effectively with future health crises. Since the start of the outbreak, multiple discussions have taken place with Member States including at health minister level, with calls for a more consistent and coordinated approach to preparing for and managing health crises in the EU.

The current health security arrangements, as established by Decision No 1082/2013/EU on serious cross-border threats to health, provide a limited legal framework for EU-level coordination, based essentially on the Early Warning and Response System (EWRS) and the exchange of information and cooperation in the Health Security Committee. Early lessons learnt from COVID-19 have shown that the current system failed to ensure an optimal response at EU level to the COVID-19 pandemic. Structures and mechanisms under the decision, while essential for facilitating the exchange of information on the evolution of the pandemic and supporting the adoption of national measures, could do little to trigger a timely common EU-level response, coordinate the crucial aspects of risk communication, or ensure solidarity among Member States.
2 Methodology: ESPON Quick Check

The territorial impact assessment (TIA) aims to show the regional differentiation of the impact of EU policies. The ESPON TIA Tool is an interactive web application that can be used to support policy makers and practitioners when it comes to identifying, 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 impact of an EU policy proposal by checking all relevant indicators in a workshop setting. The results of the guided expert discussion are judgements about the potential territorial impact of an EU policy from the perspective of 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 expert judgements on exposure and the sensitivity of regions into maps showing the potential territorial impact of EU policy at NUTS 3 level. These maps serve as a starting point for further discussion on the different impacts of a given EU policy on different regions. Consequently, the experts participating in the workshop provide important input into this quick check on potential territorial impacts of an EU policy proposal.

The workshop on the implementation of preparedness and response measures to cross-border health threats was held on 26 and 27 January 2021 as an online workshop and brought together a number of experts representing different organisations and LRAs.

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

2.1 Identifying the potential territorial impact in light of economic, societal, environmental and governance aspects – drafting a conceptual model

In the first step of the TIA workshop, the participating experts discussed the potential impact of implementing preparedness and response measures to cross-border threats to health across the EU, using a territorial or place-based approach.

This discussion revealed potential territorial impacts of implementing response measures to cross-border health threats, using economic, societal, environmental and governance-related indicators. The participants identified potential linkages between strategy implementation and the effect on territories, including interdependencies and feedback loops between different impacts (see figure below).

Figure 1: Workshop findings: Systemic picture

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1 https://www.espon.eu/main/Menu_ToolsandMaps/TIA/
2.2. **Picturing the potential territorial impacts using indicators**

In order to assess the potential impacts pictured in the conceptual model, suitable indicators need to be selected related to the economic, environmental, societal and governance-related parameters that the experts discussed. The availability of data for all NUTS 3 regions sets 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 ones to describe the effects identified.

**Picturing potential territorial impacts using societal indicators**

- Life expectancy at birth
- Quality of the public healthcare system
- Quality of the public healthcare system
- Health personnel

**Picturing potential territorial impacts using economic indicators**

- Economic sectors at risk of the COVID-19 pandemic (composite indicator)
- Cross-border employment
- GDP loss due to cross-border obstacles

**Picturing potential territorial impacts using governance-related indicators**

- Trust in the political system
2.3. **Judging the intensity of the potential impacts**

The workshop participants were asked to estimate the potential impacts deriving from the potential impact of implementing preparedness and response measures to cross-border threats to health. They judged the potential impact on territorial welfare using the following scores:

- **++** strong positive impact on territorial welfare (strong increase)
- **+** weak positive impact on territorial welfare (increase)
- **o** no impact/unknown impact/impact cannot be specified
- **-** weak negative impact on territorial welfare (decrease)
- **--** strong negative impact on territorial welfare (strong decrease)

2.4. **Calculating the potential ‘regional impact’ – Combining the expert judgement with regional sensitivity**

The ESPON TIA Quick Check combines the expert judgement on the potential impact deriving from the impact of implementing preparedness and response measures to cross-border health threats (exposure) with indicators picturing the sensitivity of regions. Maps are then prepared showing the differentiated territorial impact. This approach is based on the **vulnerability concept** developed by the Intergovernmental Panel on Climate Change (IPCC). In this case, the effects deriving from a particular policy measure (exposure) are combined with the characteristics of a region (territorial sensitivity) to produce potential territorial impacts (cf. following figure).

Figure 2: Exposure x territorial sensitivity = territorial impact

- ‘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 impact caused by the potential impact of implementing preparedness and response measures to cross-border threats to health on a
specific indicator. Exposure illustrates the experts' judgement, i.e. the main findings of the expert discussion at the TIA workshop.

2.5. **Mapping the potential territorial impact**

The result of the territorial impact assessment is presented in maps. The maps displayed below show potential territorial impacts based on a combination of expert judgement on exposure and the territorial sensitivity of a region, described using an indicator at NUTS 3 level. Whereas expert judgement is a qualitative judgement (i.e. strong positive impact on territorial welfare/weak positive impact/no impact/weak negative impact/strong negative impact), sensitivity is a quantitative indicator.
3. Debate and qualitative analysis

3.1 Opening remarks

Mr Geblewicz discussed the various issues regarding cross-border health threats in the West Pomerania Region, of which he has been president since 2010. Throughout his presidency, Mr Geblewicz has sought to encourage EU good practice and incentives for cross-border cooperation and cross-border health threats. Mr Geblewicz spoke about the European Centre for Disease Prevention and Control, which he stressed should be enabled to collect data from the national NUTS 2 level.

Mr Philip (European Commission, DG Health and Food Safety) spoke about ideas relating to finance, knowledge and experience. He stressed the need to provide stronger integrated proposals, cross-referencing papers on cross-border health threats, new health security, surveillance risk and assessment preparedness. Mr Philip said that it is essential that the EU and Member States increase their capacity for accurate risk assessment in response to other actors also delivering risk assessments regarding diseases and environmental health threats. He highlighted the importance of triggering small targets for faster responses at political level. Mr Philips stressed the importance of strengthening the role of the ECDC, noting a lack of access to certain data and limited capacities. He suggested an increase in staff to help produce and reinforce recommendations on health outbreaks; this would enable the ECDC to provide more support to Member States and to coordinate advice. He also said that it might be necessary to reinforce an ECDC task force responsible for coordinating national efforts.

Ms Ammon (European Centre for Disease Prevention and Control) noted that the proposal clarifies and reinforces the mandate regarding infectious diseases. At present, the methods used are overly reliant on input from experts – who are occupied with identifying cases/contacts etc., and there is a delay in reporting at times when there is a high number of cases. She stressed that there is a strong argument for further digitalisation here. Ms Ammon also stressed that the Member States are not fully prepared for a rise in cases in the current pandemic, and this is linked to national preparedness plans. Ms Ammon highlighted the need to find better ways to support countries and make sure things are not just on paper, mentioning the network of EU reference laboratories. The proposal provides the legal basis to move forward and is thus positive.

3.2 Effects on governance

Experts underlined that communication between border regions should be strengthened. In particular, data must be more easily shared between cross-border health services. During the pandemic, there have been contact cases on both sides of the border which have not been identified by public health services. This has been a problem for cross-border health workers and the vaccination process.

This also implies that capacity-building for regional and local health authorities has to be promoted, with common cross-border health capacity where possible.

In practice, public health capacities and awareness should be implemented in medical and health education and at all healthcare levels. Furthermore, and of particular relevance in the context of a pandemic of proportions unmatched in previous decades, a cultural shift is needed where actors are
more inclined towards admitting errors and identifying lessons learned, thus not repeating mistakes made by the regions themselves or others.

An expert highlighted the need for better multilevel governance and coordination of information. For example, we need better coordination between different levels of government, but also standardisation and harmonisation between Member States in terms of practical approaches and funding.

Finally, although the current version of the directive on cross-border healthcare is not concerned with the role of or mandatory reimbursement by health insurance companies, the regulation on health insurance companies could be relevant when cross-border barriers appear, especially in those countries where health insurance companies play a key and central role in the healthcare system, such as the Netherlands.

It was noted that it is important to identify best practices on each side of the border, which are opportunities for hospitals to learn from each other and to collaborate. Experts stressed the need for reporting in disease prevention. The expert said that a framework to assess and compare different strategies and share good practices is essential.

Recognising that prevention is key, a strong contact tracing structure should be implemented, and it would be useful to have indicators dedicated to that. One expert noted that contact tracing apps mostly failed in the EU because of stringent data protection legislation (which is also enshrined in EU regulations). Experts agreed that time and resources could have been saved by combining efforts and that these apps have a very important role in cross-border regions.

### 3.3 Effects on society

Overall, experts expected an increase in the level of confidence in the government. Together with the enhancement of general health, both during and after health threats, these proposals might well also improve the perception of the value of EU membership. Nevertheless, border barriers to better cooperation will remain, leading participants to suggest establishing national contact points for cross-border health issues directly in the border zone in all Member States.

Highly relevant in the context of national health systems is the movement of the labour force, with a significant amount of brain drain from poorer Member States to more affluent ones. Population ageing has a major impact on care for the elderly throughout the Union. Demand increase and limited financial resources have resulted in significant pressure on the quality of services provided in this sector. The experts considered whether some improvement in brain drain in healthcare sector jobs was to be expected. They concluded that that is not clear, since the reasons behind brain drain go far beyond public health issues.

Finally, participants recommended that more efforts be made to improve public health education, raising awareness of the root causes of health problems.
3.4 Effects on the economy

On the economic side and regarding cross-border losses, one expert said that regions are already suffering from cross-border issues which are hampering development. Experts agreed that such obstacles have negative economic consequences.

The closing of borders during the pandemic drastically exacerbated the existing losses in border regions. By facilitating the coordination of cross-border threats, the proposed regulations would allow borders to stay open. This, in turn, would have significantly positive effects at economic level, as well as stimulating trust-building and maintaining the social bonds that exist in these regions.

Besides the economic benefits resulting from avoiding border closures, the experts also reflected on costs. On the one hand, authorities will be faced with rising costs of information collection. On the other hand, cooperation in the healthcare sector between border regions would imply the redistribution of administrative costs. Nevertheless, these factors would not reduce the economic benefits resulting from better management of cross-border health threats. Furthermore, joint procurement of medicines and vaccines could confer economic benefits on regions.

3.5 Effects on the environment

Successful cross-border management of health threats could have spillover effects in terms of environmental management. Nevertheless, the experts did not identify any direct effects on the environment to be expected from the two legislative proposals being studied.
4. Expected societal effects

4.1 Life expectancy at birth

Life expectancy as a statistical measurement is (among other factors) significantly determined by the risk of the population dying prematurely due to illnesses. The experts felt that fighting the prevalence of illnesses in all age groups, and thus promoting enhanced population health and increase in life expectancy, was one of the main impacts of the regulations. Most of the experts judged that there would be a weak positive impact. Two experts voted for a weak negative impact, two did not see any relevant impact and one voted for a strong positive impact.

Figure 3: Result of the expert judgement: regions in light of life expectancy at birth and the impact of implementing preparedness and response measures to cross-border health threats

This indicator depicts life expectancy at a given exact age (reference year: 2015). Regions in which life expectancy is lower are assumed to benefit more from the implementation of preparedness and response measures to cross-border health threats. Sensitivity is thus inversely proportional to life expectancy at birth.

The following map shows the potential territorial impact of the cross-border threats to health across the EU on life expectancy. It combines the expert judgement of a weak positive effect with the given sensitivity of regions. 13% of regions would experience a very positive impact and 9% a moderate positive impact. The majority of these regions can be found in Eastern Europe. A few regions experiencing a moderate positive impact are located in southern Belgium and in the eastern part of Germany. 78% of regions in mainly Central, Southern and Northern Europe are expected to experience a minor positive impact.
4.2 Quality of the public healthcare system

Regions with a good healthcare system are better prepared to combat health threats. They are supposed to be able to maintain their healthcare services even if there is a serious health crisis. The higher the quality of a healthcare system, the less reliant it is on external support, be it from a national government or from EU level. Nevertheless, all healthcare systems benefit from stronger cooperation between and coordinated action by the Member States. Consequently, the majority of the experts considered that the regulations would have a weak (2 votes) or strong (8 votes) positive effect. One expert did not expect any relevant effect.

Figure 4: Result of the expert judgement: regions in light of the quality of their public healthcare systems and the implementation of preparedness and response measures to cross-border health threats
The indicator depicts the sensitivity of a region according to the quality of its public healthcare system (reference year: 2013, data transformed from NUTS Version 2006 and 2010 to Version 2013 by OIR). It shows the average score on a scale of "1" (extremely poor quality) to "10" (extremely high quality) of the quality of the healthcare system as rated by inhabitants. Regions with a low quality healthcare system are expected to be more sensitive to cross-border health threats. Sensitivity is thus inversely proportional to the quality of the public healthcare system.

The following map shows the potential territorial impact of health threats in light of the regional quality of the public healthcare system. It combines the expert judgement of a strong positive impact with the given sensitivity of regions. 25% of regions could experience a very high positive impact, 60% of regions would still experience a high positive impact and 15% a moderate positive impact.

Map 2: Regions in light of the quality of their public healthcare system and the implementation of preparedness and response measures to cross-border health threats – expert judgement: strong positive effect

The map shows that the proposed regulations could result in a kind of “catching-up effect”. Regions with lower quality healthcare systems could benefit more than regions with an already high quality due to the lower marginal benefit of already well performing regions. Consequently, the regions
experiencing a very high positive impact are located in Eastern Europe (Poland, Slovakia, Hungary, Bulgaria and parts of Romania), Southern Europe (Sicily and Southern Italy, Sardinia, Corsica, Greek Aegean Islands) and parts of the Iberian peninsula (central and northwest Spain, Portugal) as well as parts of Ireland. Most regions in Central Europe show a high impact, with only parts of northern Italy, northern Finland, Greece, the Netherlands, Belgium and Denmark showing a moderate impact.

4.3 Cross-Border quality of the public healthcare system

In the event of a serious health situation, a low quality regional healthcare system could quickly be overstrained if the number of patients to treat exceeds the treatment capacity in terms of doctors, beds or healthcare personnel generally. Regions with comparable lower quality healthcare systems are expected to tap their neighbours’ capacities if they themselves cannot cope. Participants considered that the proposed regulations would have a positive impact on this varying quality of healthcare across borders. Thus, most of the experts judged the effect to be positive (6 weak, 3 strong positive votes), while one expert expected that it would be negative. One expert did not see it as relevant.

![Figure 5: Result of the expert judgement: regions in light of the quality of their public healthcare system and the implementation of preparedness and response measures to cross-border health threats](image-url)

This spatially weighted relative cross-border indicator shows the quality of the public healthcare system (reference year: 2013) in comparison with the weighted average within neighbouring cross-border regions. Sensitivity is higher the lower the quality of public healthcare system is in comparison with its neighbours. If the region has a higher quality healthcare system, then there is no sensitivity (non cross-border regions also have no sensitivity). The hypothesis of this indicator is "levelling up": a region is more sensitive if the neighbouring region’s public healthcare system is of a higher quality than that of the region itself; the larger the difference, the more this applies.

The following map shows the potential territorial impact of health threats if the quality of a region’s public healthcare system is lower than that of its neighbour(s). It combines the expert judgement of a weak positive impact with the given sensitivity of regions. 12% of regions would experience a high positive impact. These regions are located in areas such as Sweden, Germany, Poland and the Czech Republic, Austria, Slovakia, Hungary, Romania, Bulgaria, Greece, Italy, Spain, Portugal and Ireland. 5% are expected to experience a moderate positive impact and 83% a minor positive impact.
Map 3: regions in light of the quality of their public healthcare system and the implementation of preparedness and response measures to cross-border health threats – expert judgement: weak positive effect

4.4 Health personnel

Health personnel is one aspect of the overall quality of a healthcare system relevant to a region’s capacity to deal with a health crisis. It is a crucial resource limiting the number of patients that can be treated at the same time and thus determines the overall capacity of the system. The participants judged that the potential availability of personnel would be positively affected by the regulations and the related measures albeit mainly indirectly, as a consequence of increased awareness and emphasis on disaster-preparedness. Consequently, the majority of the experts saw this aspect as positive (6 weak positive, 4 strong positive votes) and one expert did not consider it to be relevant.

Figure 6: Result of the expert judgement: regions in light of their health personnel and the implementation of preparedness and response measures to cross-border health threats
This indicator shows the number of medical doctors per 100,000 inhabitants (reference year: 2014). Regions with a low number of health personnel are more likely to be affected negatively by health threats. Sensitivity is thus inversely proportional to the number of medical doctors per 100,000 inhabitants.

The following map shows the potential territorial impact of cross-border threats to health in light of the number of health personnel. It combines the expert judgement of a weak positive effect with the given sensitivity of regions. The patterns of regions are comparably uneven across Europe and do not show clear hotspots. 19% of regions could potentially experience a high positive impact. These regions tend to be mostly in Eastern Europe (Poland, central Czech Republic, Hungary, border regions of Romania and central regions of Slovenia), as well as in the Grande Region (Netherlands, Belgium). The other regions would either experience a moderate positive impact (33%) or a minor positive impact (48%), but there are no distinct patterns or concentrations.
Map 4: Regions in light of their health personnel and the implementation of preparedness and response measures to cross-border health threats – expert judgement: weak positive effect

Source: Territorial impact assessment expert workshop, 26 & 27 January 2021
5. Expected economic effects

5.1 Economic sectors at risk of the COVID-19 pandemic (composite indicator)

For various reasons, global health threats have a major impact on the economy. For example, value chain disruptions create issues for industrial production of goods, disruptions on the demand side create issues for production, distribution and sales sectors, while travel restrictions impact sectors relying on commuters, foreign workers or tourists. Only a few sectors (e.g. the IT sector) have the potential to profit from a health crisis on a large scale, but generally such a crisis has a negative impact on many economic sectors to a varying degree. The majority of the experts agreed that cross-border measures to enhance response capacity to such health threats would have a positive impact on sectors which are vulnerable to health crises. One expert however considered that the effect would be negative and two experts did not see any relevant effect.

Figure 7: Result of the expert judgement: economic sectors at risk of the COVID-19 pandemic (composite indicator) affected by the implementation of preparedness and responses measures to cross-border health threats

This composite indicator shows the risk level of the COVID-19 pandemic for the regional economy. The total number of jobs in each sector by NACE Rev. 2 activity (reference year: 2017) has been grouped by “medium” and “high” risk level, based on an assessment by the UN International Labour Organization\(^2\) with an additional adaptation by Böhme et al (2020)\(^3\). The mining and quarrying, construction, transportation and storage sectors, as well as the financial sector are considered to be at medium risk. “High risk” sectors are manufacturing, wholesale and retail trade, repair of motor vehicles, accommodation and food service activities and real estate activities. The normalised share of employment in these two risk categories has been weighted with 1 (medium risk) or 2 (high risk) and then summed up. Regions with a higher share of jobs in a medium or high risk sector are expected to benefit more from the implementation of preparedness and response measures to cross-border threats to health. Sensitivity is thus directly proportional to the share of jobs in these sectors.


The following maps show the potential territorial impact of the implementation of preparedness and response measures to cross-border health threats on the economic sectors at risk of the COVID-19 pandemic. The first map combines the expert judgement of a strong positive effect with the given sensitivity of regions. 63% of regions would experience a very high positive impact. These regions can be found spread over most of the EU countries, but they are more prevalent in Central and Western Europe as well as the Baltics. 24% of regions are expected to experience a high positive impact and 13% only a minor positive impact – these are mainly concentrated in Greece, Bulgaria, Romania, the eastern parts of Germany and Poland, and Southern Italy.

Map 5: Economic sectors at risk of the COVID-19 pandemic (composite indicator) affected by the implementation of preparedness and response measures to cross-border health threats – expert judgement: strong positive effect

The second map combines the expert judgement of a weak positive effect with the given sensitivity of regions. 19% of regions would have a high positive impact. These regions can be found in areas such as Latvia, Lithuania, the western and southern part of Germany, Austria, Northern Italy, Portugal and a few coastal regions in South-Eastern Spain. The other regions are expected to experience a moderate positive impact (44%) or minor positive impact (37%), with a minor positive impact again prevalent mainly in Southern Italy, Greece, Bulgaria, Romania, Poland, eastern parts of Germany, Denmark and parts of Sweden and Finland.
5.2 Cross-border employment

In the event of a global health crisis, countries are very likely to tighten their border controls or even close their borders completely as has occurred during the COVID-19 pandemic. These actions have a direct impact on people working abroad, as their daily (or in some cases weekly or less frequent) commute requires them to cross a national border. These people will be affected by other measures such as travel warnings or mandatory quarantines, as well as by total border closures. The workshop participants considered that improved coordination of responses to health crises is likely to reduce the frequency or severity of border closures or travel restrictions and would thus have a positive impact on cross-border employment. Six experts identified a likely weak positive effect and four experts saw a strong positive effect. One expert did not see any relevant effect.

Figure 8: Result of the expert judgement: cross-border employment affected by the implementation of preparedness and response measures to cross-border health threats
The indicator depicting cross-border employment shows the share of persons aged between 15 to 64 years working abroad out of the total workforce (reference year: 2019). Regions with a higher share of people working in a foreign country are expected to suffer more from the impact of cross-border health threats and benefit more from measures aiming to tackle them. Sensitivity is thus directly proportional to the share of cross-border employment.

Map 7: Cross-border employment affected by the implementation of preparedness and response measures to cross-border health threats – expert judgement: strong positive effect

The maps above and below show the potential territorial impact of implementing preparedness and response measures to cross-border health threats on cross-border employment. The first map combines the expert judgement of a strong positive effect with the given sensitivity of regions. 19% of regions facing a very high positive impact are in border areas, for instance between France and Italy or
Austria and its eastern neighbouring countries. Other regions with the highest impact are located in Estonia, Latvia and Sweden as well as in Romania and Bulgaria, where many people work in a foreign country (e.g. Germany, Austria) in various sectors such as nursing, elderly care, tourism or agriculture. 43% of regions are expected to experience a high positive impact. The other regions would only experience a moderate positive impact and these are mostly located in the central parts of Germany, France and Spain as well as Greece, Southern Italy and Finland.

The second map combines the expert judgement of a weak positive impact with the given sensitivity of regions. 11% of regions facing a high positive impact are in border areas, for instance between Germany and its neighbouring countries, between France and Italy or Austria and its eastern neighbouring countries. Other regions can be found in Estonia, Romania and Bulgaria. Another 8% of regions are expected to experience a moderate positive impact, and these are located in the abovementioned border areas as well as parts of Latvia, Romania, Bulgaria and Sweden. The majority of regions would only experience a minor positive impact.

Map 8: Cross-border employment affected by the implementation of preparedness and response measures to cross-border health threats – expert judgement: weak positive effect
5.3 GDP loss due to cross-border obstacles

The experts concluded that regions which suffer to a more significant extent from cross-border obstacles have greater potential to benefit from better coordination across borders in general, not just in the health sector. Thus regions with a higher GDP loss due to cross-border obstacles in the form of legal restrictions and institutional and cultural differences could benefit from the implementation of cooperation and coordination measures. Most of the experts considered that this would have a positive impact (4 weak, 2 strong positive) and two experts a negative one. Three experts did not see any relevant impact.

The indicator depicting the sensitivity of a region according to the GDP loss due to cross-border obstacles is measured by the direct and indirect economic costs due to suboptimal use of assets, which are important for growth (reference year: 2017). These are urban agglomeration, productive capacity, accessibility and trust. Regions with a higher GDP loss due to cross-border obstacles are expected to benefit more from the implementation of coordinated response measures to cross-border health threats. Sensitivity is thus directly proportional to the level of GDP loss.

The following map shows the potential territorial impact of the implementation of preparedness and response measures to cross-border threats to health on regions in light of their GDP loss due to cross-border obstacles. It combines the expert judgement of a weak positive effect with the given sensitivity of regions. 12% of regions could experience a high positive impact, 20% a moderate positive impact and 68% a minor positive impact. Cross-border regions experiencing the highest impacts are located in Central Europe, mainly along France's eastern borders, Germany's western and southern borders, Austria's borders and to some extent the borders of the Czech Republic and Poland.
Map 9: Regions in light of their GDP loss due to cross-border obstacles affected by the implementation of preparedness and response measures to cross-border health threats – expert judgement: weak positive effect.

6. Expected impact on governance

6.1 Trust in the political system

The experts discussed the frequent lack of trust in the political system, especially in the EU-level system, across Europe. They concluded that strengthening EU-level coordination and making that coordination visible has the potential to improve the perception of the added value of EU membership and subsequently increase trust in the political system in general. All experts considered that this would have a positive impact, with the majority expecting that it would have a weak positive effect.

Figure 10: Result of the expert judgement: regions in light of trust in the political system affected by the implementation of preparedness and response measures to cross-border health threats

This indicator shows the share of people who have a low level of trust in the political system (reference year: 2013). Regions with a higher percentage of people with a low level of trust in the political system are expected to benefit more from the implementation of coordination measures for cross-border health threats. Sensitivity is thus directly proportional to the share of people who have a low level of trust in the political system.

The following map shows the potential territorial impact of the implementation of preparedness and response measures to cross-border health threats on regions in light of trust in the political system. It combines the expert judgement of a weak positive effect with the given sensitivity of regions. 13% of regions could experience a high positive impact. These regions are located in Scandinavian countries, the Netherlands, Austria and parts of Romania. 46% of regions experiencing a moderate positive impact are in countries such as Estonia, Lithuania, Germany, Poland, Hungary, Ireland and parts of Romania. The other regions are expected to experience a minor positive impact.
Map 10: Regions in light of trust in the political system affected by the implementation of preparedness and response measures to cross-border health threats – expert judgement: weak positive effect

Source: Territorial impact assessment expert workshop, 26 & 27 January 2021
7. Conclusions and recommendations

7.1 A possible link to cohesion

The results of the debate and the analysis of the statistical indicators led to two major conclusions. Firstly, in principle, the implementation of the proposed regulations would contribute to territorial cohesion in the broadest sense in the fields of employment, health personnel, quality of life and healthcare systems. Secondly, cross-border regions in particular would benefit with regard to the quality of public healthcare systems and employment.

Some experts noted that the literature shows that ‘equal distance from health and employment’ means equal distance in terms of resources. The experts suggested that if disparities could be balanced, we would see cross-sectoral improvements. Whilst some experts would encourage the idea that the EU proposals fosters cohesion, others wondered if we have unrealistic expectations of what these regulations can achieve. They said that without major intervention in healthcare systems, wage levels and social security, there will always be gaps. Brain drain will continue regardless of the establishment of common standards.

The experts also noted that the cross-border analysis focuses only on neighbouring countries. The reality is more complex. Migrants do not only work in border regions. The experts stressed that we should not forget that cross-border employment is not confined to border regions.

7.2 Challenges to implementation

One expert said that national preparedness plans and general reliance on healthcare systems depend on how involved the regions are in implementing these plans and organising the healthcare systems. The experts raised the question of legislation that could do with fleshing out, noting that a resilience test is being prepared. One expert noted that the legislation is generic and practical implementation takes precedence in terms of impact on the ground. Implementation guidelines for Member States could play a crucial role, because cross-border cooperation will imply ‘meeting in the middle’, closing gaps between national and regional strategies, negotiating power, and willingmess and ability to cooperate.

7.3 Bottom-up approaches

The participants said that involving citizens and local governments would make it possible to build resilience more effectively. They argued for a horizontal approach, agreeing that it is important to include regional and local authorities in the planning and implementation of the legislation. Practitioners should also be given a genuine voice in the process, since their perspective might well be different from that of legislators.

The experts also approached the issue of education and promotion of public health topics. This could greatly facilitate the implementation of the proposed regulations.
7.4 Cross-border obstacles

The cross-border mechanism, which was still under discussion, would provide a stable legal framework to coordinate healthcare across borders. Despite the existence of good practices in this field, there are still significant barriers. The experts agreed that while it is always positive to share good practices and learn from other border regions, it is also important to identify the differences in healthcare systems that hamper the implementation of cross-border health initiatives, projects or programmes. Without a mechanism to give legal certainty to this cooperation, the number and reach of such initiatives will remain limited.

7.5 Summary

The experts concluded that the proposals still fail to properly address the regional and local level:

1. cross-border issues are tackled from the perspective of national borders and not the specific needs of border regions;
2. effectiveness of implementation depends on the extent to which national governments involve the regional level. Border regions need to be involved from the outset of discussions on cross-border strategies and legislation; this is crucial for national preparedness plans and resilience testing;
3. the regional level must be involved in developing implementation mechanisms;
4. we need flexibility to combine the top-down approach with local/regional knowledge and activities.

Regarding implementation, there are issues that require further attention. These include:

1. enabling regions to take the lead in implementation;
2. people from border regions need to be more involved (e.g. by evaluating people's needs and perceptions);
3. learning communities/mechanisms are needed to share experiences and best practices across national, local and regional authorities;
4. the potential success of the proposed regulations is limited by legal obstacles, and mechanisms are needed to address cross-border barriers.