

# The impact of the COVID-19 pandemic and the war in Ukraine on EU cohesion

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## Part II: Overview and outlook



**Regional Development**





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### **Abstract**

The impacts of the COVID-19 pandemic, the war in Ukraine and a range of mega-trends affect Europe's pathway and exacerbate vulnerabilities for many places and societal groups. They risk accelerating disparities between places and people.

Cohesion Policy proved to be a highly flexible instrument, reacting quickly and effectively against the effects of the pandemic. For the 2021-27 period it seems programmes are adopting a 'back to normality' approach.

To address cohesion challenges ahead and ensure the crises result in a green, digital and just transition, Cohesion Policy has to adjust.

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## AUTHORS

Spatial Foresight: Kai BÖHME, Marcela MÄDER FURTADO, Marita TOPTSIDOU, Sabine ZILLMER, Sebastian HANS

t33: Dea HRELJA, Alessandro VALENZA, Arianna MORI

Language revision: Tim WILLS

Research managers: Marek KOŁODZIEJSKI, Frédéric GOUARDÈRES

Project, publication and communication assistance: Krisztina MÁNYIK, Kinga OSTAŃSKA

Policy Department for Structural and Cohesion Policies, European Parliament

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## ABOUT THE PUBLISHER

To contact the Policy Department or to subscribe to updates on our work for the REGI Committee please write to: [Poldep-cohesion@ep.europa.eu](mailto:Poldep-cohesion@ep.europa.eu)

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## CONTENTS

<b>LIST OF ABBREVIATIONS</b>	<b>6</b>
<b>EXECUTIVE SUMMARY</b>	<b>7</b>
<b>INTRODUCTION</b>	<b>10</b>
<b>1 ANALYSIS OF COHESION POLICY DIMENSION</b>	<b>11</b>
1.1 2014-2020: effects on performance and strategies	11
1.2 2021-2027: back to normality?	21
1.3 NRRPs and Cohesion Policy: risks and opportunities	29
1.4 Cohesion Policy at a crossroads	34
<b>2 ANALYSIS OF COHESION IMPACTS</b>	<b>36</b>
2.1 Cohesion impacts of the pandemic	37
2.2 Cohesion impacts of the war in Ukraine	41
2.3 Changing future trends	53
2.4 Cohesion needs resilience	68
<b>3 CROSS ANALYSIS &amp; RECOMMENDATIONS</b>	<b>72</b>
3.1 The role of Cohesion Policy	72
3.2 Cohesion Policy 2021-2027	74
3.3 Cohesion Policy post 2027	79
<b>REFERENCES</b>	<b>86</b>
<b>4 METHODOLOGICAL ANNEX</b>	<b>90</b>
4.1 Methods of Cohesion Policy analysis	90
4.2 Cohesion impact analysis	92
4.3 Regional reference group	100

## LIST OF MAPS

Map 2.1	Impacts of the COVID-19 pandemic, May 2022.....	39
Map 2.2	Energy-related regional sensitivities to the war in Ukraine, August 2022.....	46
Map 2.3	Socio-economic regional sensitivities to the war in Ukraine, August 2022.....	47
Map 4.1	Overview of Cohesion Policy typologies.....	98
Map 4.2	Overview regional typologies.....	99

## LIST OF FIGURES

Figure 1.1	Fund reallocation between TOs - ERDF/ESF/CF all member states 2019 vs. 2021 (EUR billion).....	13
Figure 1.2	Achievements (%) COVID-19 indicators –Enterprise support.....	15
Figure 1.3	Achievements 2020 (%) COVID-19 indicators – Health.....	16
Figure 1.4	ESIF Programme amounts committed to financial instruments by product 2019 vs. 2020, EUR billion .....	18
Figure 1.5	ERDF/ESF/CF Absorption (%) all member states - 2007-2014/ 2014-2021/ 2015-2021 .....	19
Figure 1.6	Use of ‘common’ and ‘specific’ COVID19 indicators by country (excluding REACT-EU).....	20
Figure 1.7	The path toward simplification.....	28
Figure 1.8	Potential synergies between NRRP and Cohesion Policy – risks and opportunities ....	33
Figure 2.1	Impacts of COVID-19 by type of region (change in GVA 2019-2020) .....	41
Figure 2.2	Energy-related regional sensitivity to the war in Ukraine by type of region.....	48
Figure 2.3	Regional socio-economic sensitivity to the war in Ukraine by types of regions .....	49
Figure 2.4	Potential positive impacts of the war in Ukraine by type of region.....	53
Figure 2.5	Potential trend impacts on socio-economic types of regions.....	65
Figure 2.6	Potential trend impacts on Geographical types of regions.....	66
Figure 2.7	Potential cohesion impacts by type of region .....	69
Figure 4.1	Overview - Mega Trends and Specific Territories.....	100

## LIST OF TABLES

Table 1.1	Net increase in SME support (excluding REACT-EU funding) as at July 2022.....	14
Table 1.2	Net increase of planned support to the healthcare sector (excluding REACT-EU funding) in July 2022.....	16
Table 1.3	ERDF/ESF/CF Absorption Rate (Spent/Planned %) 2012 -2014 vs 2019-2021.....	19
Table 1.4	‘Sustainable and Resilient Specific Objectives’ in Regulation (EU) 2021/1060.....	25

Table 3.1	Policy Recommendation: Cohesion Policy can respond to crisis.....	73
Table 3.2	Policy Recommendation: Shift focus from short-term emergency to long-term cohesion projects.....	74
Table 3.3	Policy Recommendation: Cohesion needs multi-level governance .....	75
Table 3.4	Policy Recommendation: Administrative capacity constraints risk the quality of new programmes.....	76
Table 3.5	Policy Recommendation: Attention to areas with slower recovery prospects .....	77
Table 3.6	Policy Recommendation: Strengthening regional resilience .....	77
Table 3.7	Policy Recommendation: Strengthen cohesion as an underlying value.....	78
Table 3.8	Policy Recommendation: Need for ambitious long-term perspective.....	81
Table 3.9	Policy Recommendation: Capacity on the ground.....	82
Table 3.10	Policy Recommendation: 2023 as a moment to reflect.....	83
Table 3.11	Policy Recommendation: Rediscovering cohesion post-2027 .....	84
Table 4.1	Data sources and composition of sensitivity indexes.....	94



## LIST OF ABBREVIATIONS

<b>AI</b>	Artificial Intelligence
<b>ANCT</b>	Agence Nationale de la Cohésion des Territoires
<b>CF</b>	Cohesion Fund
<b>CLLD</b>	Community Led Local Development
<b>CO</b>	Common indicator
<b>CoR</b>	European Committee of the Regions
<b>CRII</b>	Coronavirus Response Investment Initiative
<b>CRII+</b>	Coronavirus Response Investment Initiative Plus
<b>CPMR</b>	Conference of Peripheral Maritime Regions
<b>CPR</b>	Common Provisions Regulation
<b>CV</b>	Covid indicator
<b>EAFRD</b>	European Agricultural Fund for Rural Development
<b>EAGF</b>	European Agricultural Guarantee Fund
<b>EMFF</b>	European Maritime and Fisheries Fund
<b>ERDF</b>	European Regional Development Fund
<b>ESF</b>	European Social Fund
<b>ESIF</b>	European Structural Investment Funds
<b>ETC</b>	European Territorial Cooperation
<b>FNLC</b>	Financing not linked to costs
<b>GDP</b>	Gross Domestic Product
<b>GVA</b>	Gross Value Added
<b>ITI</b>	Integrated Territorial Investment
<b>JRC</b>	Joint Research Centre of the European Commission
<b>MA</b>	Managing Authority
<b>NRRP</b>	National Recovery and Resilience Plan
<b>NUTS</b>	Nomenclature of Units for Territorial Statistics
<b>OP</b>	Operational Programme
<b>PA</b>	Partnership Agreement
<b>PO</b>	Policy Objective
<b>R&amp;D</b>	Research and development
<b>R&amp;I</b>	Research and innovation
<b>REACT-EU</b>	Recovery Assistance for Cohesion and the Territories of Europe
<b>RRF</b>	Recovery and Resilience Facility
<b>SCO</b>	Simplified Cost Option
<b>SME</b>	Small and Medium-sized Enterprise
<b>TO</b>	Thematic objective

## EXECUTIVE SUMMARY

The COVID-19 pandemic was a major shock, deeply impacting people, enterprises, public authorities, municipalities and regions. The war in Ukraine is exacerbating vulnerabilities for many places and societal groups already weakened by the pandemic.

These two external shocks have accelerated fragmentation between societal groups and between places. Many of the impacts highlight the risks of increasing inequalities.

The worst and most direct impacts have been avoided by swift policy actions where Cohesion Policy played a role.

### Cohesion Policy perspective

Cohesion Policy reacted promptly to the emergency of the pandemic. New measures to counteract socio-economic effects of the pandemic were extremely important. The three interconnected objectives of the new Coronavirus Response Investment Initiative (CRII)/Coronavirus Response Investment Initiative Plus (CRII+) measures and Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU) were to provide liquidity, simplification and flexibility, enabling actions targeting needs that emerged during the pandemic. These have been particularly effective in supporting SMEs through traditional tools (i.e. grants and financial instruments).

In the 2014-2020 period, European Regional Development Fund (ERDF), European Social Fund (ESF) and Cohesion Fund (CF) programmes responded to the emergency by shifting resources from supporting mainly long-term strategic investments such as infrastructure, R&D, energy efficiency and renewable energy operations, towards extra support to struggling SMEs, citizens and the healthcare sector.

The response to the pandemic included the Recovery and Resilience Facility (RRF) with its National Recovery and Resilience Plans (NRRPs). As investments planned in NRRPs largely coincide with Cohesion Policy strategic objectives and financial resources, there is a risk of funding competition. The high level of complementarity is not sufficiently addressed in coordination and collaboration between NRRPs and Cohesion Policy.

For the 2021-2027 period, programme authorities designing new strategies are adopting a 'back to normality' approach. The need to create new 'post-pandemic development models' has been disregarded. Current strategies are based on the same, pre-pandemic logic. However, going beyond the programmes and looking at CPR, 'territorial resilience' is embedded in ERDF and ESF+ specific objectives. Territorial resilience could also be boosted using territorially integrated strategies through a simplified and result-oriented framework thanks to Simplified Cost Option (SCO) and Financing Not Linked to Costs (FNLC).

### Cohesion perspective

The pandemic, Russia's war on Ukraine and a range of mega-trends affect Europe's pathway to cohesion. They risk further reducing cohesion in Europe and increasing disparities between places and people, as less developed regions are often more affected than more developed and affluent regions.

Gross value added (GVA) change in 2020 offers a first insight into impacts of the COVID-19 pandemic. The least decline in GVA has been around the Baltic Sea, in the Netherlands, Ireland,

Luxembourg, Romania, Poland and some regions in Bulgaria. In many cases this seems to match less COVID-19 related restrictions.

Potential impacts of the war on Ukraine depend on the energy intensity of regional economies and their reliance on energy imports from Russia. The places most sensitive to this include regions in Finland, Estonia, Poland, Czechia, Slovakia, Hungary, Bulgaria, Slovenia and Germany.

The focus on energy does not give the full picture. Other regional sensitivities such as trade relations with Ukraine, Russia and Belarus, war refugees, the share of people at risk of poverty and the share of people working in highly affected sectors especially impact regions in Finland, the Baltic States, Poland, Romania, Bulgaria, Greece, the south of Italy, and the south of Spain.

The discussion of mega-trends points to the risk of increasing inequalities between places and people in Europe, i.e. less cohesion, and the risk of a poorer, more unstable and insecure future.

To cope with the increasing disparities and increase the capacity to react to unexpected changes, strengthen recovery and proceed with a green, digital and just transition, more resilience at all levels of governance is needed. Strengthening the ability to react to changes with the flexibility to adapt and navigate under uncertainty in all regions may reduce the risk that future external shocks, trends and societal transitions increase disparities.

## Recommendations

The pandemic and Russia's war on Ukraine are two major shocks. Clearly, there cannot be a blueprint for handling such external shocks, not at least as the needs vary considerably across Europe.

Still, it is time to look beyond how to respond to the crises. It is important to shift gear and start considering the crises as a chance to accelerate the transition to a more sustainable, digital and cohesive future.

Key lessons from this study include:

- **Shift funding from emergency to cohesion projects.** The focus on high quality projects with a clear cohesion perspective needs to be strengthened again as the need for emergency interventions decreases. Under the European semester, the European Parliament should encourage a long-term perspective, targeting structural changes when debating country reports and country specific recommendations.
- **Cohesion needs multi-level governance.** Multi-level governance and partnership principles are important cornerstones of Cohesion Policy and need to be ensured and re-emphasised where they have been weakened. In the context of the European semester, the European Parliament should address the role of the local and regional level in Cohesion Policy and in NRRPs.
- **Administrative capacity constraints risk reducing the quality of new programmes.** To ensure good quality strategic programmes and overcome recent capacity constraints for time and staff, administrative support and the possibility for re-programming should be considered. The European Parliament should advocate efforts for administrative support to programme authorities and simplification. Furthermore, it should advocate the possibility for a voluntary mid-term review and for re-programming in 2023, where programmes could not devote the envisaged efforts to programming for the 2021-27 period.

- **Strengthening regional resilience.** The increasing number of crises and external shocks underline the need to become more resilient. It is impossible to have blueprints which work for all parts of Europe and for all sorts of external shocks. The main lesson from this is the need to increase resilience at all levels of governance. In this case, resilience is the ability to adapt to changing situations, rather than bouncing back to a previous equilibrium. Cohesion Policy should be used to help local and regional authorities in Europe to increase their capacities to deal with unexpected shocks and become more resilient.
- **An ambitious long-term perspective.** Cohesion Policy programmes and beneficiaries need to engage with a long-term vision for their area to ensure the transition towards a green, digital and cohesive future which brings Europe closer to citizens. The European Parliament should advocate a European strategic framework (or long-term vision) underpinning Cohesion Policy post 2027, as well as place-based development visions at the level of programmes and territorial tools to bring Cohesion Policy closer to citizens.
- **2023 as a moment to reflect.** In 2023, insights on the interplay between NRRPs and Cohesion Policy programmes, the strategic orientation of policies post-COVID, and an early review of the long-term orientation of Cohesion Policy programmes should inform a broad reflection on possible re-orientation towards more strategic long-term needs. The European Parliament should ask the European Commission to address these points in country reports and country specific recommendations in 2023. Furthermore, it should launch an EU-wide assessment on the interplay between NRRPs and Cohesion Policy.
- **Strengthen cohesion as an underlying value.** The crises challenge cohesion in Europe and broaden the gaps between prosperous and lagging regions. Many of the mega-trends affecting local and regional development in Europe are expected to further accelerate these disparities. Cohesion Policy must offer a platform for regions which risk being left behind, to increase their capacities to develop desirable future perspectives for their areas and forward-pointing projects funded by Cohesion Policy.
- **What role for Cohesion Policy post 2027?** Cohesion Policy post 2027 can be radically different from today. It could become a new era for Cohesion Policy as the driver for transition and a policy integrator. Cohesion Policy could also become a narrowly focused funding scheme among an increasing number of purpose-built policies. Alternatively, Cohesion Policy might be phased out as it lacks agility and flexibility to adjust to changing circumstances. Now is the time to shape the debate about Cohesion Policy post 2027.

## INTRODUCTION

This is the final report of the second phase of the research project on the impact of the COVID-19 pandemic crisis on EU cohesion. The study informs REGI Committee members about impacts of the COVID-19 pandemic on EU cohesion and EU Cohesion Policy. However, increasingly the impacts of the pandemic are side-lined by the impact of the war in Ukraine. Therefore, it also addresses first insights into how the war in Ukraine and selected mega-trends affect cohesion in Europe.

This report presents the pandemic's impacts on Cohesion Policy (chapter 1), impacts of the pandemic, the war and selected mega-trends on cohesion and different types of regions (chapter 2) as well as conclusions and recommendations (chapter 3). The annex provides methodological background information.

The study is based on analysis of data for EU Cohesion Policy programmes and regional data on territorial characteristics. The quantitative analysis is supported by qualitative analysis including document studies and discussions with a regional reference group linking the analysis to 'on the ground' insights. These approaches are described in further detail in the annex.

### Summary of the key methods used

The quantitative analysis of Cohesion Policy programmes uses Cohesion data for:

- Changes in budget allocation (transfer of resources) among priorities in Operational Programmes (OPs), linked to the flexibility provided through Coronavirus Response Investment Initiative (CRII) and CRII+;
- Financial performance, with a focus on absorption and spent resources and comparison with a 'no-COVID' scenario;
- Physical (output) performance, including changes in output indicator targets and achievements for the new Coronavirus Dashboard indicators;
- Changes in the use of financial instruments (e.g. increased use of guarantees).

This is supplemented by a qualitative analysis screening specific sections of the ten 2021-2027 Partnership Agreements (PAs) available as of 25 July 2022 (Austria, Denmark, Finland, Greece, Lithuania, France, Czechia, Germany, Sweden and Bulgaria), to understand changes made during the pandemic and their impacts. The analysis has been complemented with six interviews including five with programme authorities and one with a national authority elaborating the PA.

The assessment of the pandemic's impact on cohesion builds on two quantitative approaches. Firstly, this is the method to assess COVID-19 pandemic impacts, based on analysis of statistical data at NUTS2 level concerning regions' exposure and sensitivities to restrictive measures in the wake of the pandemic. The analysis of potential impacts of the war in Ukraine follows the same methodological approach. The results are cross-analysed with two regional typologies. One differentiates between more developed, transition and less developed regions – using definitions for the 2014-20 and 2021-27 programme periods. The other differentiates between geographical types of regions. These are urban, intermediate, rural, coastal, islands, outermost, very sparsely populated, sparsely populated, mountain and border regions.

The analysis of mega-trends and their impacts on cohesion are based on an extensive literature study of foresight and trend research. Trends and indications on territorial dimensions have been attributed to socio-economic and geographical types of regions and analysed using Sankey charts.

# 1 ANALYSIS OF COHESION POLICY DIMENSION

## KEY FINDINGS

- Cohesion Policy proved to be a highly flexible instrument that reacted quickly and effectively to the effects of COVID-19. It was particularly effective in increasing support for SMEs through traditional tools (i.e. grants and financial instruments).
- The pandemic seems not to have stimulated new development models in 2021-2027 programming. From a preliminary analysis at Partnership Agreement (PA) and Operational Programme (OP) level, territorial development strategies are mostly based on the same logic and principles as Cohesion Policy in the pre-pandemic period.
- In the new Cohesion Policy legislative package, the Common Provisions Regulation (CPR) 2021-27, the concept of 'territorial resilience' is embedded in the European Regional Development Fund (ERDF) and the European Social Fund's (ESF+) specific objectives. Integrated territorial development strategies should be considered as key to establishing resilient systems especially through the more simplified and result-oriented framework envisaged for 2021-2027 such as Simplified Cost Options (SCO) and Financing Not Linked to Costs (FNLC).
- The significant complementarity between National Recovery and Resilience Plans (NRRPs) and Cohesion Policy does not always match highly detailed governance mechanisms described in NRRPs, entailing a high risk of overlapping and displacement of Cohesion Policy. This stresses the necessity for regional, national and European actors to coordinate their role thoroughly to implement NRRP and Cohesion Policy.

In this second report the key guiding questions for analysis of the medium-to-long-term impact of COVID-19 on Cohesion Policy focus on the effect of the pandemic on 2021-2027 Cohesion Policy implementation and its programming process. The analysis is in three sections.

In the first, '2014-2020: effects on performance and strategies', the impact assessment of COVID-19 on Cohesion Policy financial and physical performance during 2014-2020 under the first study is updated and extended to provide a more exhaustive overview of the effects of the pandemic and whether Cohesion Policy was an effective tool to counteract these.

The second section '2021-2027: back to normality?' investigates the effects of the pandemic on preparation for the new programming period. The study team activities aimed at identifying new patterns in PAs and OPs for the 2021-2027 period compared to 2014-2020.

Finally the last section 'NRRPs and Cohesion Policy: risks and opportunities' offers a more in depth analysis of the potential risks of displacement and opportunities for synergies concerning the relation between Cohesion Policy and NRRPs a planned investments and reforms. The analysis, in particular, takes into account the level of complementarity, demarcation and coordination between the two instruments, as they are characterised in the PNNR documents.

## 1.1 2014-2020: effects on performance and strategies

The first study<sup>1</sup> presented preliminary findings on the effect of the COVID-19 pandemic on the financial and physical performance of Cohesion Policy during the programming period 2014-2020.

<sup>1</sup> Kai Böhme et al., 'The Impacts of the COVID-19 Pandemic on EU Cohesion and EU Cohesion Policy' (Brussels: Policy Department for Structural and Cohesion Policies, 2022).

In this second report, the assessment has been updated and extended to provide a more comprehensive overview of the findings.

The key aspects illustrated in this section are:

- Changes in budget allocation (transfer of resources) among priorities and intervention fields in OPs (linked to flexibility provided through CRII/CRII+).
- Physical (output) performance, regarding changes in common output indicator targets and analysis of achievements at the end of 2020 for the Coronavirus Dashboard indicators.<sup>2</sup>
- A short analysis of the use of financial instruments after the pandemic outbreak.
- The financial performance of Cohesion Policy programmes up to 2021 and comparison with a 'no-COVID' scenario (i.e., 2007-2013 programming period).

#### 1.1.1 Strategic programme reorientation

For **financial reallocation**, the first report highlighted that ERDF, ESF and Cohesion Fund (CF) programmes responded to the emergency by shifting resources from supporting mainly long-term strategic investments such as infrastructure, R&D, energy efficiency and renewable energy operations, towards extra support for struggling SMEs, citizens and the healthcare sector.

Financial reallocation is confirmed by this updated analysis. Figure 1.1 presents the updated financial breakdown and comparison of the 2014-2020 planned amount for Cohesion programmes in 2019, 2020 and 2021 per Thematic Objective (TO).

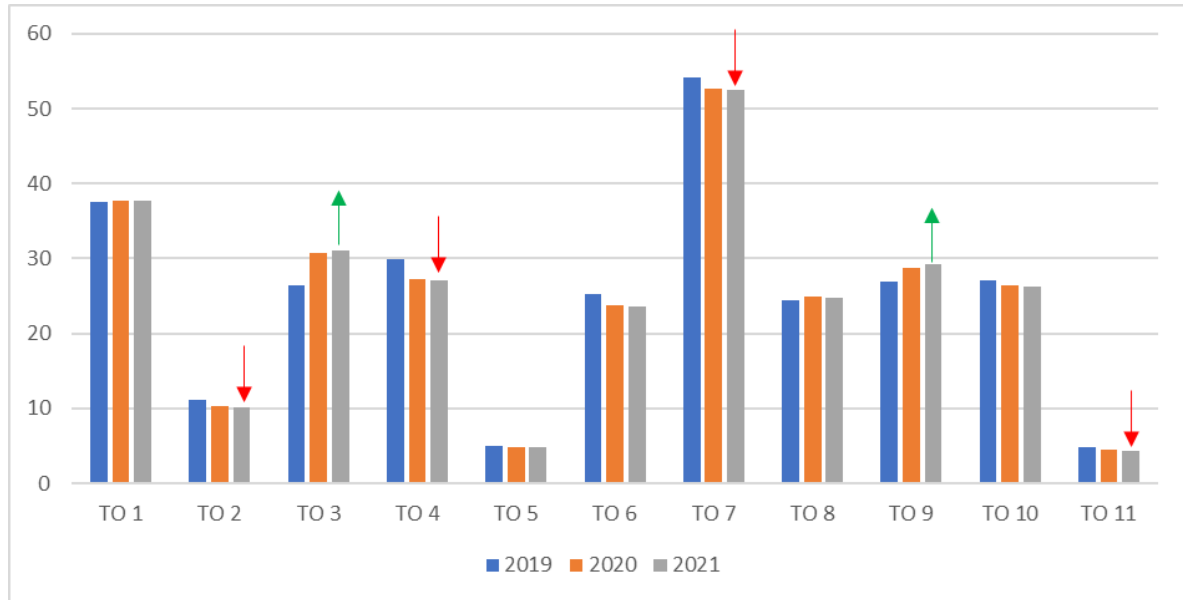
In 2020 a large portion of OP budgets were already committed, leaving little room for manoeuvre. In 2021 the allocation of resources across TOs remained mostly the same. During the past two years most of the transferred resources went to TO3 'Enhancing the competitiveness of small and medium-sized enterprises (SMEs)' and TO9 'Promoting social inclusion, combating poverty and any discrimination', whose planned amounts from 2019 to 2021 increased by 18% and 8% respectively. Most of these additional funds were taken from TO4 'Supporting the shift towards a low-carbon economy in all sectors' and TO7 'Promoting sustainable transport and removing bottlenecks in key network infrastructure'. It is also worth highlighting that TO2 and TO4 are, in relative terms, the two objectives whose planned amount decreased most over these last two years, both by 9%.

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<sup>2</sup> <https://cohesiondata.ec.europa.eu/stories/s/CORONAVIRUS-DASHBOARD-COHESION-POLICY-RESPONSE/4e2z-pw8r/>



**Figure 1.1 Fund reallocation between TOs - ERDF/ESF/CF all member states 2019 vs. 2021 (EUR billion)**



Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2022)

Also, the analysis of the **physical targets in the first report was updated** by reviewing the indicator target changes from 2019 to 2021 for 16 ERDF and ESF common output indicators. These indicators were selected as representative of interventions and outputs financed under ESIF programmes. As with the financial reprogramming, there are few differences from the 2020 data. The targets for many indicators refer to areas that have become priorities during the pandemic. The targets were raised significantly in 2020 and have continued to increase in 2021 (e.g. 'CO1 – Number of enterprises receiving support', CO36 - Population covered by improved health services). Conversely, targets for actions that do not directly tackle the COVID-19 emergency decreased further in the last year (e.g. 'CO11 - Total length of new railway line', 'CO21 - number of projects dedicated at sustainable participation and progress of women in employment').

However, the analysis revealed interesting information that did not emerge from the budget reallocation study. For some indicators there was a trend reversal in targets for 2021 compared to 2020. These variations, which can be interpreted as a return to investments typical of pre-pandemic Cohesion Policy, were in the following areas:

- **Research and Development:** The indicator 'Number of researchers working in improved research infrastructure facilities' (CO25) after a 7% decrease in 2020, last year increased by 15%. There was also a trend change for the target of CO27 'Private investment matching public support in innovation or R&D projects'. This is probably because some programmes which saw improvement during the emergency, with greater situational awareness and increased stability, could again pursue important strategic objectives.
- **Environment:** the indicator 'additional capacity of renewable energy production' (CO30) was initially reduced by 10 % in 2020 but in 2021 increased by 23%. The climatic emergency in recent years has steadily gained more political significance, which is probably why in 2021 some OPs tried to restart interventions under this key area. This trend can be also confirmed by a slight increase of 2% in the target for indicator 'CO22 - Total surface area of rehabilitated land' after the remarkable reduction observed in the previous year (-52%).



- **Unemployment** the first report illustrated decreased targets for the number of 'unemployed, including long-term unemployed' (CO01), as well as 'employed, including self-employed' (CO05) since the restrictions made participant recruitment difficult. During 2021, the loosening of restrictive measures and imposition of less stringent lockdowns by member states improved the prospects for the number of unemployed supported by ESF programmes, the target of the two indicators increased by 11% and 7% respectively.

### 1.1.2 Focus on emergency measures

The first study analysed how the extra flexibility and liquidity provided by CRII/CRII+ and REACT-EU were used to offer increased support to SMEs and the healthcare sector. Furthermore, the study team investigated the new types of interventions that became eligible with the new regulations. There was also an analysis of the targets and number of OPs adopting 'non-paper' COVID-19 indicators<sup>3</sup>. In this second report, the study team has updated the analysis concerning financial support implemented by member states during the pandemic and will also include the 2020 achievements of some COVID-19 indicators published on *Cohesion data* at the end of 2021.

For support offered to businesses, the updated analysis confirms the key findings of the previous report. More resources have been allocated to SME support and development. In particular, the comparison between the financial resources allocated in intervention fields addressing SMEs on February 2020 and the latest data (4 July 2022) reveals net increased financial resources of EUR 4.25 billion and a further increase of more than half a billion compared to the previous study referring to 15 October 2021. Many resources made available by REACT-EU have been allocated to support enterprises. Much of this funding has been used to address short-term difficulties, providing funds to 'generic productive investments' (001) and 'adapting of workers, enterprises and entrepreneurs to change' (106).

**Table 1.1 Net increase in SME support (excluding REACT-EU funding) as at July 2022**

	Increased allocation since February 2020 (EUR)
CRII/CRII+	+ 4 248 175 367
REACT-EU	+ 12 735 897 352

Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2022)

However, additional support offered to SMEs shows a twofold trend. There has been a greater allocation of resources to generic business support but significant disinvestment for more specific and innovative actions. Among the operations set aside because of the pandemic are research and innovation processes in SMEs (e.g. vouchers, process, design), the development of energy efficiency and the promotion of cooperation between SMEs and universities/research institutions.

By looking at indicators covering business support, it was possible to identify three main types of pandemic-related actions implemented by the programmes:

- **Financial support thorough grants or financial instruments.** The health emergency boosted SME needs for liquidity, not only to pay their current bills but also for new investments to adapt to the new circumstances (CV20, CV21, CV22 CV24). From analysis of the targets last year such interventions were the most implemented by OPs. From the latest information

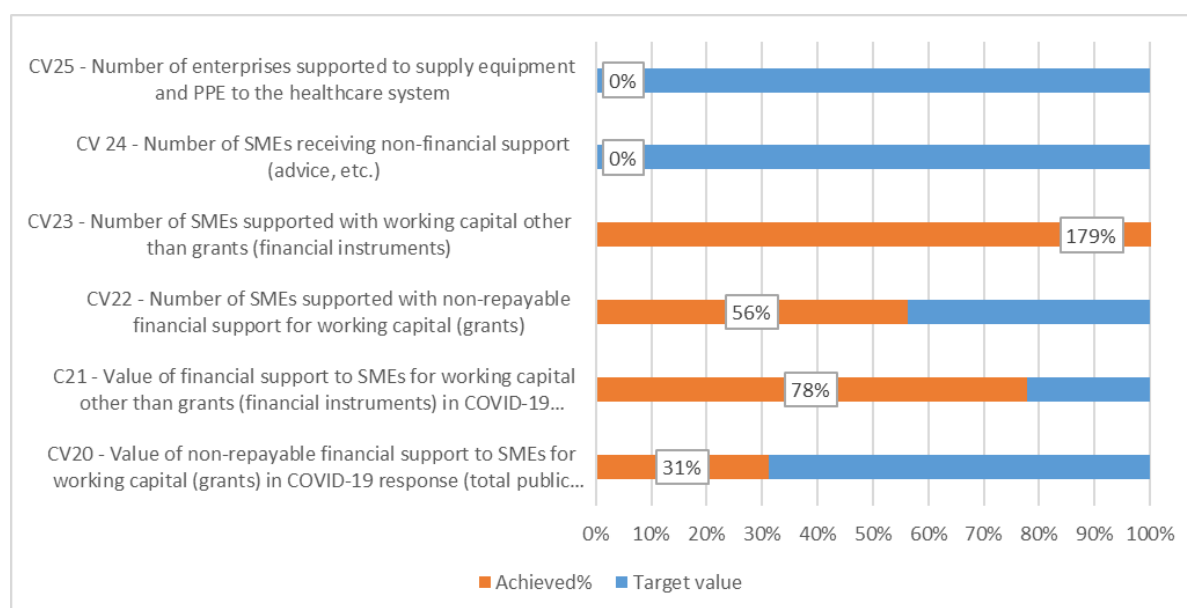
<sup>3</sup> 'NON-PAPER: List of programme specific indicators related to the cohesion policy direct response to the COVID-19 pandemic' retrieved at [https://ec.europa.eu/regional\\_policy/sources/docgener/informat/indicators\\_covid19\\_response\\_en.pdf](https://ec.europa.eu/regional_policy/sources/docgener/informat/indicators_covid19_response_en.pdf)

published on *Cohesion data*, the updated targets for financial support to SMEs for working capital through grants and financial instruments are EUR 4.6 billion and EUR 7.5 billion respectively.

- **Non-financial support** (advice, etc.) in response to COVID-19 (CV24).
- **Support for enterprises to supply medical equipment and PPE** (personal protective equipment) to the healthcare system (CV25). Since this is very specific, CV25 was one of the indicators with the lowest target and adopted by few OPs.

As can be seen in figure 1.2, the measures that were immediately implemented to help companies overcome the first pandemic wave intended to inject liquidity into the market, especially through financial instruments. These initial interventions were a response to the negative consequences of the pandemic in terms of lack of supplies and reduced demand for goods and services. The liquidity was also designed to support companies forced to adapt to new working methods. The measures will be explored in more detail in section 1.1.3.

**Figure 1.2 Achievements (%) COVID-19 indicators –Enterprise support**



Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2021)

Comparing the financial allocation for intervention fields addressing the healthcare sector for February 2020 with the latest available data (4 July 2022), there was a net increase of EUR 7.72 billion. Almost all these resources, both those reallocated and the additional REACT-EU funding, were invested in intervention field 053 'Health infrastructure' which includes the purchase of systems and equipment, and in intervention field 112 'Enhancing access to services' associated with healthcare and social services of general interest. During the last two years a very small portion of these additional resources allocated to the healthcare sector have been invested in e-health and information and communication technology solutions. In the same period, there was a net reduction of about EUR 80 million in funding to support active and healthy ageing.

**Table 1.2 Net increase of planned support to the healthcare sector (excluding REACT-EU funding) in July 2022**

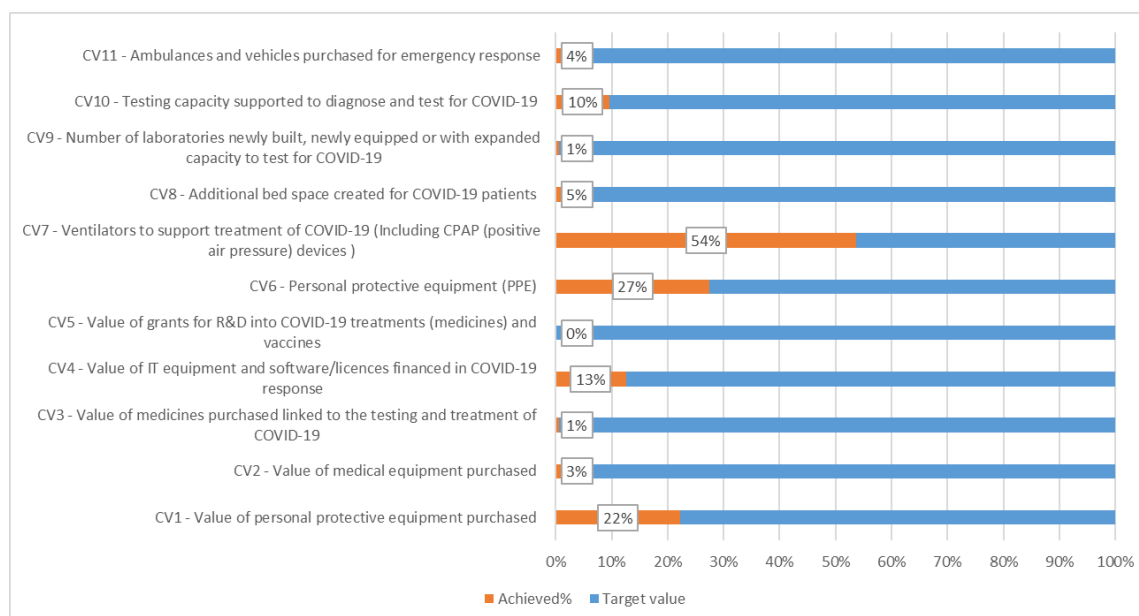
	Increased allocation since February 2020 (EUR)
CRII/CRII+	+7 713 916 111
REACT-EU	+7 935 702 838

Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2022)

With regards to the health sector, several types of interventions to combat the pandemic were implemented and made eligible under Structural and Cohesion Funds:

- The purchase of medical and personal protective equipment e.g. disposable masks, eye protection, coveralls, ventilators, beds, monitors etc. (CV1, CV2, CV3, CV5);
- The purchase of IT equipment and software/licences financed in COVID-19 response (CV4, CV4a, CV4b, CV4c);
- Additional bed space created for COVID-19 patients (CV8);
- The building and the renovation of a number of laboratories with expanded capacity to test for COVID-19 (CV9);
- The increase of the testing capacity supported to diagnose and test for COVID-19 (Including antibody testing) (CV10);
- The purchase of ambulances and vehicles (CV11);
- The funding of R&D activities for the development of effective COVID-19 treatments and medicines.

From analysis of the 2020 achievements, the first health emergencies that member states attempted to address using Cohesion Funds at the outbreak of the pandemic were shortages of ventilators (CV7) and PPE (CV6, CV1) and - to a lesser extent - increasing the number of tests to diagnose the virus (CV1).

**Figure 1.3 Achievements 2020 (%) COVID-19 indicators – Health**

Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2021)

### 1.1.3 Focus on financial Instruments

This short analysis on the use of financial instruments during the 2014-2020 programming period is based on *'Summaries of the data on the progress made in financing and implementing the financial instruments for the programming period 2014-2020'*, published in November 2021 by the European Commission<sup>4</sup>. The data in this summary shows a substantial increase in resources committed to financial instruments, together with a rapid acceleration in the implementation of financial instruments in 2020, as part of the response to the pandemic.

Regarding ERDF and CF OPs, by the end of 2020 allocations to financial instruments increased by EUR 3 billion, reaching EUR 20.8 billion. Given the late stage of the programming period and the fact that most of the allocation had already been committed before February 2020, the scale of this shift from other forms of support is remarkable. Moreover, a significant EUR 4.6 billion was paid to financial instruments in 2020, indicating that implementation of the instruments also progressed quickly.

Most of the additional resources committed to financial instruments, EUR 5.5 billion, were used to support working capital of SMEs during the liquidity crisis caused by COVID-19. The report<sup>5</sup> indicates that, by the end 2020, financial instruments supported almost 557 000 final recipients, up from 143 000 in 2019. Of the final recipients, 86% were SMEs (478 000), most of which were microenterprises (369 000). The amount of working capital support related to the COVID-19 emergency in the form of financial instruments indicated in approved programmes has already reached EUR 4.7 billion.

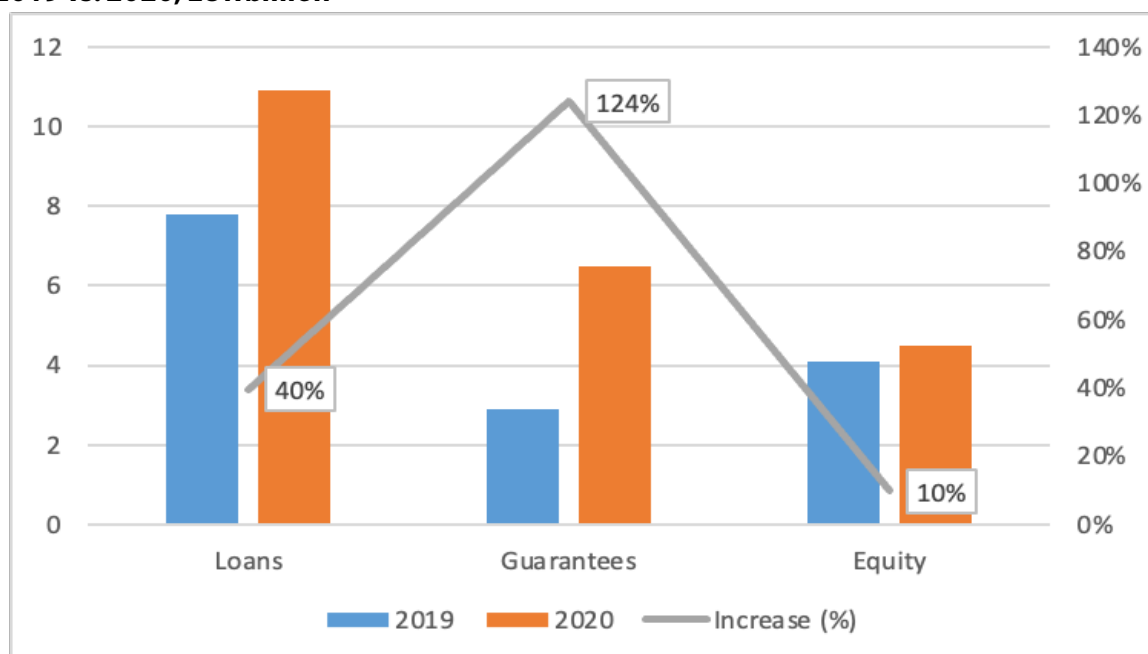
In terms of products, at the end of 2020 the largest amount of ESIF programme resources (EUR 10.9 billion) was committed to financial instruments providing loans, while EUR 6.5 billion and EUR 4.5 billion were committed to those providing guarantees and equity, respectively. Compared to the previous year, additional resources were committed mainly to guarantee and loan financial instruments, amounting to EUR 3.6 billion and EUR 3.1 billion respectively. Although there has been significant growth in the use of all financial instruments, guarantees seem to have played a key role in supporting SMEs in the last year, increasing by 129% compared to 2019. The rationale behind this approach is mainly because unfunded products, such as guarantees, require less initial support than funded products, such as loans. This can maximise private investment without asking for upfront public investment, enabling more final recipients to access credit. For this reason, guarantees were often used to help enterprises continue their day-to-day operations.

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<sup>4</sup> [https://ec.europa.eu/regional\\_policy/sources/thefunds/fin\\_inst/pdf/summary\\_data\\_fi\\_1420\\_2020.pdf](https://ec.europa.eu/regional_policy/sources/thefunds/fin_inst/pdf/summary_data_fi_1420_2020.pdf)

<sup>5</sup> Ivi, p. 29

**Figure 1.4 ESIF Programme amounts committed to financial instruments by product 2019 vs. 2020, EUR billion**



Source: [https://ec.europa.eu/regional\\_policy/sources/thesfunds/fin\\_inst/pdf/summary\\_data\\_fi\\_1420\\_2019.pdf](https://ec.europa.eu/regional_policy/sources/thesfunds/fin_inst/pdf/summary_data_fi_1420_2019.pdf)

Looking in more detail at the most used financial instrument products in 2020 within ERDF and CF, the data in the report refer exclusively to resources invested in final recipients. As with committed amounts, guarantees had the highest increase in 2020, increasing by 165%, followed by loans and equities, which increased by 118% and 60% respectively.

#### 1.1.4 Impact of COVID-19 on 2014-2020 financial performance

The financial performance analysis for the 2014-2020 programming period and the comparison with the 2007-2013 programming period carried out in the first report showed that the 2014-2020 period saw slower absorption for all Cohesion funds throughout all the seven years. This may be caused by the shift from 'n+2' to 'n+3'. Also, no significant effect on OPs financial absorption could be attributed to the pandemic. The analysis in this report has been updated by also considering data from 2021.

Looking at the absorption rates in Table 1, there was a slight slowdown in OP spending in the eight years of the 2014-20 period compared to the previous programming period. Looking at progress over the years, it is possible to notice how the 10% difference between year 6 and year 7 worsens to 14% in year 8.

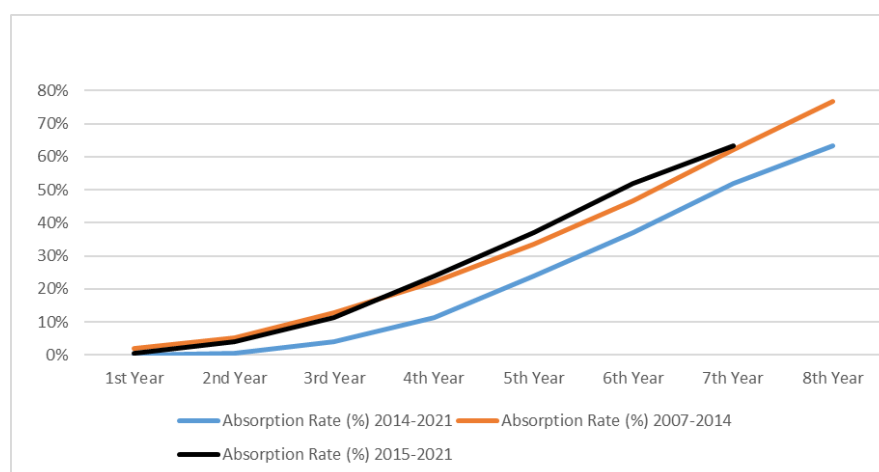
**Table 1.3 ERDF/ESF/CF Absorption Rate (Spent/Planned %) 2012 -2014 vs 2019-2021<sup>6</sup>**

Programming Period	Absorption rate		
	6 <sup>th</sup> Year	7 <sup>th</sup> Year	8 <sup>th</sup> Year
2007 - 2013	47%	62%	77%
2014 - 2020	37%	52%	63%

Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2022)

This slowdown in absorption can also be seen in Figure 1.5, which compares the two programming periods. The figure also includes a simulation where the series for 2014-2020 is moved forward by one year to mitigate the effect of the shift from 'n+2' (adopted in the previous programming period) to 'n+3'. Under this simulation, the absorption rate remains slightly higher than for 2007-2013, despite a slower pace during 2021.

It is interesting to note how the slowdown in spending occurred in the year following the pandemic outbreak. However, given the complexity of the situation and the many variables that may have influenced financial absorption, it is difficult to attribute this slowdown to a specific reason. As emerged from the analysis of the output indicator targets reported above, a change in investment strategy from being focused on emergency interventions to ordinary expenditure could have led to a slowdown in the pace of spending. At the same time, another plausible reason is that the overlapping of different instruments, such as the RRF and REACT-EU overburdened authorities, which could no longer maintain the high levels of implementation of previous years.

**Figure 1.5 ERDF/ESF/CF Absorption (%) all member states - 2007-2014/ 2014-2021/ 2015-2021**

Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2022)

### 1.1.5 Was Cohesion effective in tackling the pandemic?

During the pandemic and the following social and economic crisis, Cohesion Policy proved to be flexible enough to quickly make resources available to tackle the emergency. As already emerged

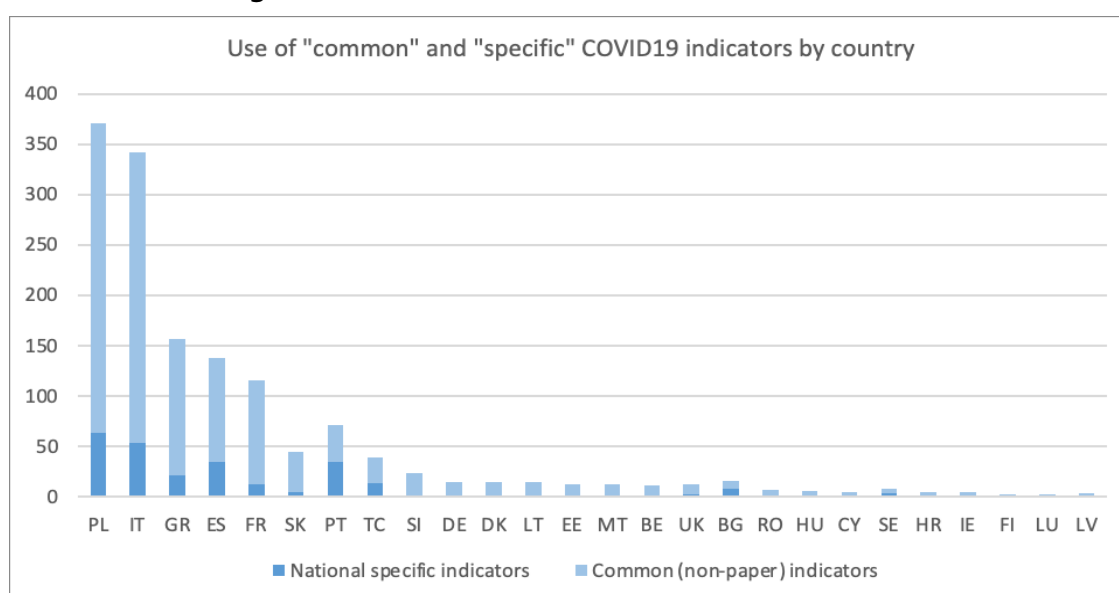
<sup>6</sup> The comparison of the two programming periods, i.e. 2007-2013 and 2014-2020, is based on a study of the funds absorption rate trends. The 2014 -2020 absorption rates were calculated as the percentage of total eligible spending of all member states (ERDF, ESF, CF) of the total amount planned for each year. For 2007-2013 the annual absorption rates (%) were provided by Cohesion data (database on historical trends). The data is available in aggregated form for all member states for ERDF, ESF and CF.

in the first report, within a few months OPs were promptly modified by introducing new measures and shifting resources to areas of intervention that covered the most affected sectors. In particular:

- EUR 7.6 billion immediate increase of liquidity;
- 179 Cohesion Policy programmes opted for 100% EU co-financing;
- EUR 5.7 billion transferred between funds and between categories of regions;
- Over EUR 20 billion were reallocated with thematic reprogramming.<sup>7</sup>

Furthermore, the introduction of new measures was extremely important for some member states that could use this option while they still had funding to cope with the emergency, especially in the economic and healthcare sectors. A great deal of financial support was offered to SMEs through grants and financial instruments and to healthcare facilities to overcome the lack of resources. As shown in Figure 1.6, almost all member states (except Czechia, the Netherlands and Austria), and Territorial Cooperation OPs have adopted COVID-19 non-paper or national specific indicators. This means that even without taking into account the additional resources provided by REACT-EU, a large number of OPs managed to implement new actions specific to the pandemic.

**Figure 1.6 Use of 'common' and 'specific' COVID19 indicators by country (excluding REACT-EU)**



Source: <https://cohesiondata.ec.europa.eu/>, own elaboration (2022)

It is also worth emphasising that all these changes did not affect the financial performance of OPs which could continue spending their resources despite the severe difficulties, avoiding the risk of significant decommitment.

Finally, analysis of sample output common indicator targets, shows that in the last few months some Managing Authorities started programming resources following the principles of Cohesion Policy again, as in the pre-pandemic period, bouncing back to normality. Some OPs resumed, at least from a strategic perspective, investments in areas such as energy efficiency and research and development, which had been side-lined in the last two years. This is further evidence of the flexibility of Cohesion Policy, making it an effective tool to overcome periods of crisis.

<sup>7</sup> <https://cohesiondata.ec.europa.eu/>

## 1.2 2021-2027: back to normality?

The second report focuses mainly on the effect of the pandemic on the 2021-2027 programming period. In particular, the main aim of this work is to assess the effect of the pandemic on the preparation of new programming, identifying new patterns in PAs and OPs for the 2021-2027 period compared to 2014-2020.

The analysis reviews:

- design of the new Programmes, including screening PAs and interviews with Programme Authorities;<sup>8</sup>
- key innovative aspects of the CPR regulation 2021-2027 which may contribute to recovery and resilience.

### 1.2.1 Impact of COVID-19 on Cohesion Policy 2021-2027 strategic approach

The document analysis focuses on:

- economic and social challenges diagnosed in the documents;
- the strategy, with new measures and actions.

In the PA, **the economic and social diagnosis** emphasises that the pandemic has mostly exacerbated weaknesses that were already intrinsic in some economic and social sectors in member states, shedding light on their fragilities. Problems highlighted in the PAs include:

- The acute crisis for tourism and the dramatic impact on regions highly dependent on it.
- Increased unemployment, especially among young people.
- Increased need for digitalisation and more digital services.
- Widening gap between urban and more developed areas and rural and less dynamic ones.

#### Insights from PA

##### Greece

In Greece, the resilience of tourism and cultural businesses was thoroughly tested during the pandemic, revealing major weaknesses which had a significant impact on both businesses and local communities.

The recession due to the pandemic was particularly intense in the Attica Region as it is very dependent on particularly affected sectors, such as trade, transport and tourism.

The island economy's heavy dependence on tourism has made local economies vulnerable to fluctuations in global tourism.

##### Germany

After the pandemic outbreak the number of short-time workers rose to around six million.

The unemployment rate increased by 21.6% during 2020 (December 2020 year-on-year), while the number of long-term unemployed rose by 33.2% over the same period.

<sup>8</sup> The sources are the 10 PAs analysed (i.e. Austria, Denmark, Finland, Greece, Lithuania, France, Czechia, Germany, Sweden and Bulgaria) and six interviews carried out by the study team (i.e. Portugal, Croatia, Interreg Central Europe, Malta, Austria and Italy).



### **Bulgaria**

The COVID-19 pandemic challenged both business and public systems and exposed some of their weaknesses and shortcomings. The insufficient level of digitalisation was one. This had a significant effect on the emergency response that could have been much faster and more effective if the economy was more digitalised. One of the main lessons of the crisis is that massive investments are needed to digitise the private and public sectors.

In terms of **strategy**, the desk analysis showed that most PAs and OPs did not explicitly embed innovative strategies or new approaches to build resilient systems. The strategy seems to be more in keeping with 2014-2020. In other words, it appears that the PAs were not designed on the basis of lessons learned from the pandemic.

Indeed, the PAs recognised the COVID-19 emergency as a major challenge but that it did not entail a revision of the overall strategical approach of Cohesion Policy. Nonetheless, more emphasis was put on interventions related to the above-mentioned areas – tourism, unemployment, digitalisation, and territorial policies - most affected by COVID-19.

Also, during the interviews some Managing Authorities confirmed that no specific new measures were included in response to the crisis. In general, during the programming phase they tried to:

- further strengthen planned investments, e.g. digitalisation, culture and tourism;
- design the program so the scope for action was as wide as possible to maximise flexibility.

Furthermore, for what concerns the new ESF+ funded interventions, the interviews showed that no major changes in programme content were necessary compared to the previous programming period. This can be attributed to the fact that the categories of people most affected by the pandemic were already targeted by the ESF programmes in the pre-pandemic period.

### **France (PO1)**

'In the post-COVID 19 crisis context, economic and innovation players must adapt to support economic, digital and ecological transitions, contributing to the competitiveness of territories. This requires increased investment in research and innovation, digital development and the strengthening and support of the sectors, particularly in the areas of excellence of each region'.

### **Finland (PO4)**

'This increased demand for digital skills and learning opportunities generated by the COVID-19 pandemic will be handled through the ESF+ actions of the 'Renewable and Skilled Finland 2021-2027' programme and will be implemented under Policy Objective 4'.

### **Greece (PO5)**

'Using integrated interventions to address the problems of dynamic outward-oriented areas, while ensuring the equal participation of non-dynamic areas- especially rural and less outward-oriented ones - in the process of economic reconstruction and social recovery. Spatial strategies designed through a 'bottom-up' approach will focus on mitigating the existing inequalities both at the inter- and intra-regional levels. This objective will also be achieved through synergy with the interventions of the other 4 Policy Objectives and with the EAFRD and EMFF.'

Most investments aimed at counteracting the consequences of the social and health crisis seem to flow into PO 4 'A more social and inclusive Europe' and concern:

- creating tourism infrastructure, which can attract private investment and strengthen employment, contributing to sustainable growth and development in areas where tourism contributes to local employment,
- socio-economic integration of vulnerable groups and related infrastructure,
- mitigating the negative effects of the pandemic on employment and enabling all working age people to enter the labour market. These changes require a new, more flexible labour market, investing in the ability of workers to adapt to new conditions (knowledge economy, digitalisation).

Other investments to counteract the effects of COVID-19 will concentrate on:

- PO 1 'A more competitive and smarter Europe' to support the digital transition, especially applied to the most affected sectors e.g. tourism, healthcare.
- PO 5 'Europe closer to citizens by fostering the sustainable and integrated development of all types of territories' to invest in public meeting spaces and mitigating inequalities at inter- and intra-regional levels as well as the implementation of integrated strategies.

One exception is investments in healthcare. The 2021-2027 Programmes have changed their approach to the health sector by moving towards a more structured approach with long-term impact such as financing new facilities (i.e. hospitals), reorganising health services, improving disease prevention systems and e-health as well as facilitating access to health care for the most vulnerable groups. The use of Cohesion resources in the healthcare sector was confirmed in interviews with Managing Authorities, as well as at the Regional Reference Group.

#### **Lithuania**

Given the poor overall health of the Lithuanian population, a review of the health system is needed to improve its efficiency. The COVID-19 pandemic has further highlighted the structural and organisational problems of the health system, which have hampered its ability to respond promptly to the challenges, especially for easy access to healthcare and the quality of services.

Furthermore, most member states decided to face pandemic-related challenges and invest in developing and creating resilient systems through other dedicated instruments, namely:

- The remaining resources of 2014-2020 made flexible by CRII/ CRII+;
- REACT-EU.

From an analysis of REACT-EU resource allocations among intervention fields, most resources were allocated to funding emergency measures (i.e. 053 - Health infrastructure, 001 - Generic productive investment in SMEs, 102 - Access to employment & labour mobility, 106 - Adapting of workers, enterprises & entrepreneurs to change). Interviews also revealed that the unexpected number of waves of the virus made it difficult to plan for remaining resources, making it essential in some cases to draw on REACT-EU to deal with the emergency. However, many resources were allocated to energy efficiency, capacity building and digitisation.

The impact of COVID-19 is less evident in terms of interventions and financial allocations on 2021-2027, because Managing Authorities mostly used REACT-EU and 2014-2020 Programmes to address the emergency.

Another aspect of the PAs is the connection with the RRF. The PAs and interviews did not provide detailed information on coordination mechanisms. Despite this, the analysis showed that Cohesion

Policy authorities are aware of the need to establish clear demarcation and coordination systems to optimise the use of resources. The PAs and interviews confirmed how elements were included to foster better resource management and lay the foundation for a well-functioning coordination system:

- A comprehensive strategy encompassing EU funds and national public policy, allowing for a long-term integrated approach as in Portugal.
- In some member states, especially those with few programmes and centralised powers at the national level, such as Croatia and Malta, the same Ministry is usually the Managing Authority of national programmes and oversees RRF programming and implementation.
- In Finland, the Managing Authorities will implement coordination mechanisms to secure complementarity and prevent double funding when evaluating project selection and payments. Similarly, the Czech PA indicates that coordination will take place at the level of the programme authorities.
- In France, the Agence Nationale de la Cohésion des Territoires which is a national interfund coordination authority, prepared a guide for the 'articulation of the recovery and resilience facility with European Cohesion Policy funds'. The same agency, in conjunction with the Managing Authorities of Cohesion Funds and line ministries, was also responsible for drafting the NRRP.

In conclusion, the pandemic has not triggered a radical change of perspective in programming new strategic approaches or solutions for the 2021-2027 period. National and Regional Authorities perceive 2021-2027 Cohesion Programming in continuity with 2014-2020 and, having tackled the emergency, they got 'back to normality'.

### 1.2.2 Looking beyond the programmes: 'resilient' specific objective, territorial integrated strategies and simplification.

As illustrated above, 2021-2027 programme strategies seem to have disregarded the lessons learned from the pandemic, especially in terms of resilience. Indeed, there is no evident 'discontinuity' with the economic development models of the past programming period. One lesson from the pandemic is the necessity to revise development models, to re-design them to tackle future global challenges, and to change paradigm from 'effectiveness and efficiency' to 'sustainable and resilient' growth. Indeed, all Commission policy is forged around the concept of transition.

The first proposals for the Cohesion Policy 2021-2027 regulatory framework were presented in 2018 (May), so almost two years before the pandemic. Among the several new features in Cohesion Policy to counteract the effects of COVID-19 was an amended proposal tabled on 28 May 2020. The revised draft law introduced amendments to the scope and specific objectives of ERDF, reinforcing support for the preparedness of health systems and exploiting the potential of culture and tourism. Despite this, few specific changes referring to COVID-19 were introduced.

However, looking beyond the programme documents to the overall 2021-2027 Cohesion Policy framework a different prospective emerges. In this regard, the emerging concept of '**territorial resilience**'<sup>9</sup> is crucial. The scientific debate largely agrees that resilience should be based on the

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<sup>9</sup> Brunetta, G.; Ceravolo, R.; Barbieri, C.A.; Borghini, A.; de Carlo, F.; Mela, A.; Beltramo, S.; Longhi, A.; De Lucia, G.; Ferraris, S.; Pezzoli, A.; Quagliolo, C.; Salata, S.; Voghera, A. Territorial Resilience: Toward a Proactive Meaning for Spatial Planning. *Sustainability* **2019**, *11*, 2286. <https://www.mdpi.com/2071-1050/11/8/2286>

capacity of local actors to identify vulnerabilities and improve the transformation of socio-ecological and technological systems in an integrated way. In the next pages, we aim to demonstrate that Cohesion Policy itself can play a decisive role in embedding 'territorial resilience' in development strategies at national, but more importantly, at local level.

The concepts of 'resilience' and 'sustainability' are embedded in the 2021/27 Cohesion Policy strategy and more specifically in its **sustainable and resilient objectives**. The regulation stipulates that 30 % of ERDF and 37 % of CF will be earmarked for climate objectives. One of the five Cohesion Policy objectives refers to a 'greener Europe', while specific actions cover areas such as energy efficiency, climate change adaptation, renewable energy, the circular economy and sustainable urban development. The Just Transition Fund will also support climate transition in regions with high industrial emissions and coal mining.

**More specifically, 'resilience' and 'sustainability' are mentioned several times in the CPR specific objectives, while re-adapting the development model is embedded in PO4.**

**Table 1.4 'Sustainable and Resilient Specific Objectives' in Regulation (EU) 2021/1060**

<b>'Sustainable and Resilient Specific Objectives'</b>
SO 1.3 Enhancing <b>sustainable</b> growth and competitiveness of SMEs and job creation in SMEs, including through productive investments
SO 1.4 Developing skills for smart specialisation, <b>industrial transition</b> and entrepreneurship
SO 3.1 Developing a climate <b>resilient</b> , intelligent, secure, <b>sustainable</b> and intermodal TEN-T
SO 3.2 Developing and enhancing <b>sustainable</b> , climate <b>resilient</b> , intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility
SO 4.2 Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering <b>resilience</b> for distance and on-line education and training
SO 4.5 Ensuring equal access to health care and fostering <b>resilience</b> of health systems, including primary care, and promoting the transition from institutional to family-based and community-based care
SO 4.6 Enhancing the role of culture and <b>sustainable</b> tourism in economic development, social inclusion and social innovation
SO 5.1 Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, <b>sustainable</b> tourism, and security in urban areas
SO 5.2 Fostering the integrated and inclusive social, economic and environmental local development, culture, natural heritage, <b>sustainable</b> tourism and security in areas other than urban areas

Source: Regulation (EU) 2021/1060 laying down Common Provisions on the ERDF, the ESF+, the CF, the JTF and the EMFAF

Likewise, interestingly, Cohesion offers several policy tools to deliver resilience in territories, i.e., **territorially integrated strategies**<sup>10</sup> (i.e., Integrated territorial investments - ITI, Community-led local development- CLLD), for more information see the box below. Member states are now obliged to earmark at least 5% of their national ERDF allocation (under the Investment for Jobs and Growth goal) to support integrated sustainable urban development strategies.

<sup>10</sup> Ref. Reg.CPR art. 28-34.



## INTEGRATED TERRITORIAL DEVELOPMENT

To engage regional and local policy makers designing regional policies for sustainable and integrated territorial development, Art. 28 of the CPR (EU Reg. 2021/1060) provides for three options; ITI, CLLD and another territorial tool supporting initiatives designed by the member state.

The implementation of these strategies requires that, once the geographical area is identified, a territorial analysis of the development needs and potential should be carried out including the economic, social and environmental links. The strategy, in addition to describing the integrated approach, should also encompass a description of the partners involved in preparation and implementation.

- ITI allows member states to implement OPs in a cross-cutting way by receiving support from different funds and to draw on funding from several priority axes of one or more OPs.
- CLLD, instead, has a bottom-up approach and focuses on a sub-regional area. The local action group composed of representatives of public and private local socio-economic interests determines the strategy content and operations financed under it.
- Member states can also design a less structured territorial strategy, while respecting the above principles.

These tools are designed to be applied at territorial level, where resilience should be grounded. Indeed, the so called 'territorial resilience'<sup>11</sup> is based on the ability of local communities to adapt to climate change. Therefore, territorially integrated strategies are an effective way to embrace 'territorial resilience', since local and regional authorities can access:

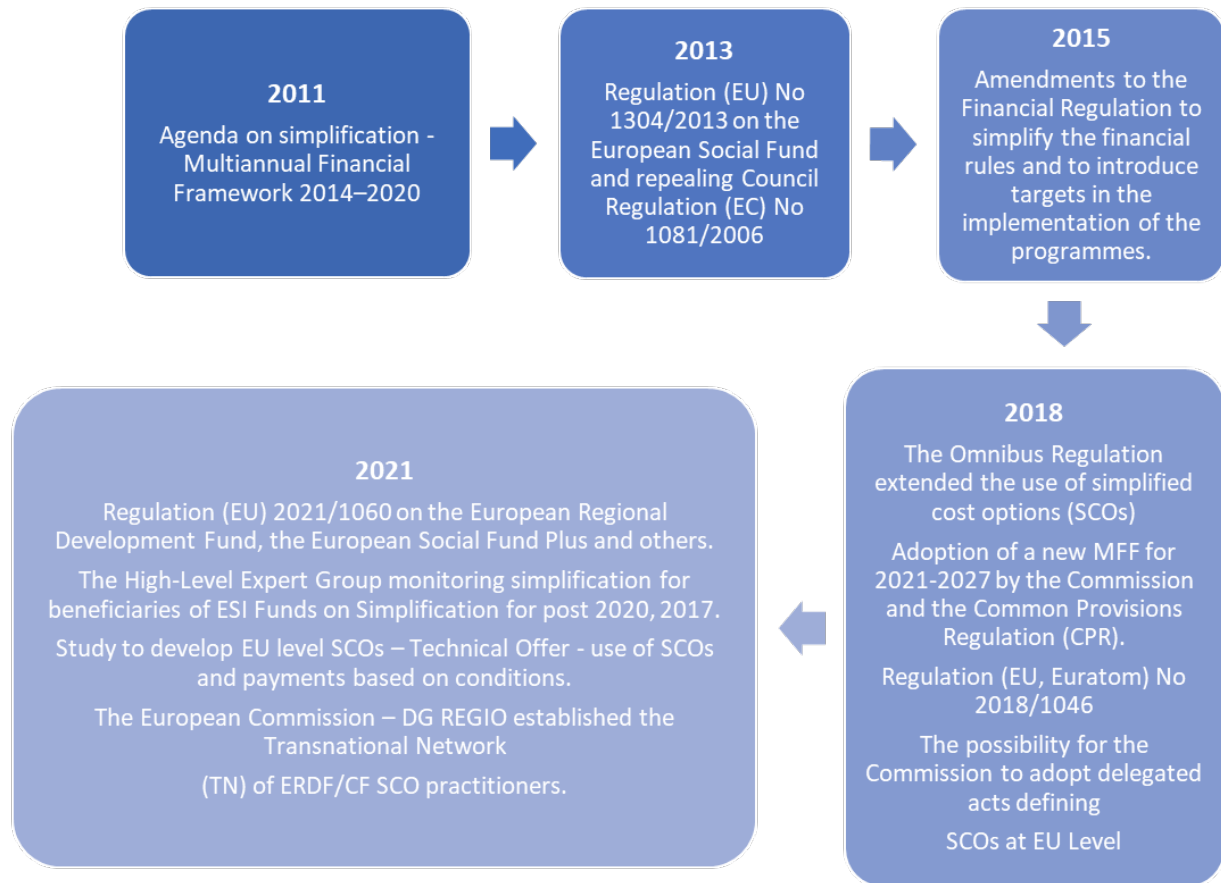
- Resources – financing from Cohesion programmes;
- Governance models – to design roles and involvement of stakeholders;<sup>12</sup>
- Analytical blueprints – to understand local needs and potential;
- Delivery tools (i.e., forms of support).

Territorially integrated strategies are not completely new, and CPR 2021-2027 is not reinventing the wheel. They were already used in the 2014-2020 period and can benefit from decades of Cohesion Policy experience in working for local development, i.e., URBAN and LEADER. Furthermore, these strategies provide a common playground for local and regional authorities which enables exchanges of experience and practice at EU level, enriching the knowledge and ability of local and regional authorities (e.g., Urban Development Network – UDN – and URBACT). Another important element of the 2021-2027 Regulation is the attention given to **simplification**. Simplification could greatly help national, regional, and local authorities to focus more on strategic and innovative aspects, rather than burdensome administrative procedures. In the last ten years, the European Commission has put simplification and an increased focus on results at the core of its policy delivery mechanism. The CPR 2021-2027 embedded this effort (see figure below).

<sup>11</sup> Brunetta, G.; Ceravolo, R.; Barbieri, C.A.; Borghini, A.; de Carlo, F.; Mela, A.; Beltramo, S.; Longhi, A.; De Lucia, G.; Ferraris, S.; Pezzoli, A.; Quagliolo, C.; Salata, S.; Voghera, A. Territorial Resilience: Toward a Proactive Meaning for Spatial Planning. *Sustainability* **2019**, *11*, 2286. <https://www.mdpi.com/2071-1050/11/8/2286>

<sup>12</sup> Ref. Reg CPR art. 29-33.

**Figure 1.7 The path toward simplification**



Source: Study team elaboration

One cornerstone of the simplification process is that SCOs are widely recognised as a very effective simplification measure under Cohesion Policy. They simplify funding applications and reporting procedures. The next step logically seems to be FNLC. The main objective of such instruments is to boost achievements, while reducing administrative burden and cost. FNLC belongs to the large family of ‘payment by results’<sup>13</sup> instruments and could revolutionise the implementation of Cohesion Policy (see more in the box below).

The adoption of SCOs and even more important of FNLC should be an incentive for EU public authorities. They can dedicate more time to planning and programming rather than controls and administrative procedures. This might help embed a lesson from the pandemic in new, resilient territorial strategies.

However, grasping Cohesion ‘resilient’ specific objective opportunities, implementing territorially integrated strategies and exploiting simplification requires not only the active involvement of local and regional authorities but also sufficient capacity at local and municipal level.

For 2021–2027, Cohesion Policy will provide administrative capacity building differently from 2014–2020 period. Technical assistance might support capacity building in public administration, but

<sup>13</sup> For example: <https://www.niqp.org/docs/default-source/New-Site/global-bestpractices/performancebased.pdf?sfvrsn=https://www.researchgate.net/publication/236606749> PerformanceBased Contracting as an Enabler of Innovation <https://www.payforsuccess.org/learn/basics/>



under each programme rather than under Cohesion Policy TO11. So, technical assistance can be delivered by the specific priority or, strictly linked to the investments, by each specific objective.<sup>14</sup> Managing Authorities are also encouraged to develop a **roadmap for administrative capacity building**.<sup>15</sup> These are strategic documents which rationalise the different capacity building actions under different sources and programmes (not only CPR or Cohesion but also RFF, for example). They can include all types of capacity building to manage and use funds by combining options in the CPR as well as national resources.

Roadmaps could be a unique opportunity for local and regional authorities to acquire knowledge and skills to implement territorially integrated strategies, optimise Cohesion Policy resources and thus adopt a territorial resilience approach. However, the first drafts of the roadmaps are more focused on 'Cohesion delivery mechanisms' such as financial flows, monitoring, controls, etc. rather than strategic planning. Also, Roadmaps risk targeting bodies functional to OP implementation more than local and regional authorities. This is due partially to the new capacity building approach which limits its scope to technical assistance and support to investment delivery. Although such an approach is more pragmatic it also risks cutting off local and regional authorities from more strategic skills and competencies.

### 1.3 NRRPs and Cohesion Policy: risks and opportunities

This chapter illustrates and further deepens the analysis in the first study on potential overlapping and the consequent risk of displacing Cohesion Policy in relation to investments and reforms planned in NRRPs. The six RRF policy pillars are tightly connected to the five Cohesion Policy objectives. Several studies and articles<sup>16</sup> have already pointed out the risks of not exploiting the potential synergies and complementarities as well as the possible displacement of Cohesion Policy. The lack of awareness and coordination among funds, political predominance and administrative advantage could result in overlaps and a waste of Cohesion Policy resources.

This chapter reviews potential complementarities between NRRPs and Cohesion Policy, as well as risks or opportunities for member states exploiting, or not, financial resources to deliver and implement NRRP and Cohesion Policy investments. This analysis considers governance models in the NRRPs to favour collaboration and communication among public and private actors involved in NRRP and Cohesion Policy implementation.

The methodology for the analysis is illustrated in Annex 4.1

#### 1.3.1 Complementarity by policy area

This section illustrates potential complementarities between NRRPs and Cohesion Policy interventions. The study team clustered 12 policy areas where interventions are likely to happen, according to the RFF policy pillars and Cohesion Policy objectives. It then analysed and assessed the NRRPs to investigate complementarity with Cohesion Policy, namely areas where member states have planned interventions that could be realised through both instruments.

<sup>14</sup> Ref. Reg. CPR art. 36 – Reg ERDF art. 3.4.

<sup>15</sup> Ref. REG CRP recital 35.

<sup>16</sup> European Committee of the Regions, Valenza, A., Amichetti, C., Iacob, A., et al., Regional and local authorities and the national recovery and resilience plans, European Committee of the Regions, 2021, <https://data.europa.eu/doi/10.2863/978895>, Implementation of the Recovery and Resilience Facility: The Perspective of Local and Regional Authorities. Results of the CoR-CEMR targeted consultation, April 2022, Briefing note on the involvement of cities in the governance of National Recovery and Resilience Plans, Eurocities, September 2021, CPMR analysis on the National Recovery and Resilience Plans. Technical note, June 2021.



**Table 1.3.1 Number of member states that include investments in each policy area**

1. Research and Innovation	2. Digital connectivity	3. SMEs competitiveness	4. Green transition	5. Climate change and adaptation	6. Transport networks and urban mobility	7. Employment and labour market	8. Education, training, and skills	9. Access to social services	10. Access to health care system	11. Integration of third-country nationals	12. Local and urban
24	27	21	26	25	24	17	26	22	25	4	12

Source: Study team elaboration

The analysis shows that:

- Policy areas where member states have the most interventions are ‘Digital connectivity’, ‘Green transition’, and ‘Education, training and skills’. Digital connectivity and green transition are the most strategic policy pillars for current and upcoming EU policies. This is not surprising as they requested an allocation at least 20% and 37%, respectively.
- There are other policy areas where most NRRPs envisage several investments, namely ‘Climate change and adaptation’, ‘Access to health care services’ and ‘Transport networks and urban mobility’. The relevance and prioritisation given to ‘Access to health care services’ in the NRRPs is strictly linked to the pandemic emergency. The pandemic has highlighted the importance of the health sector, but also the need to upgrade and improve health institutions and their governance.
- ‘Integration of third-country nationals, including migrants, refugees, asylum seekers’ has very few interventions planned in NRRPs, even though migration has affected Europe for several decades and has been at the centre of several investments and reforms.

All in all, 15 member states have high or very high potential complementarities between Cohesion Policy and NRRP policy areas, in particular Czechia, Spain, Italy, Poland and Romania have planned investments in almost all the policy areas.

### 1.3.2 Demarcation

The analysis considers the quality and quantity of information provided, namely whether the NRRPs identify also beneficiary(ies) and policy tool(s) to implement the interventions. This level of analysis is relevant because the policy areas have been selected according to 2021-2027 Cohesion Policy objectives and the RFF policy pillars with beneficiaries and policy tools identified according to the 2021-2027 CPR. So, identifying NRRP beneficiaries and policy delivery tools could be relevant for policy and decision-makers. This is significant to fully understand which complementarities and synergies can be exploited and which areas of intervention should be closely monitored.

The table below illustrates the complementarity and the level and quality of information per member state (demarcation).

**Table 1.3.2 Complementarity and information scores**

MEMBER STATE	Level of Complementarity	Level of demarcation
AT	HIGH	VERY HIGH
BE	HIGH	HIGH
BG	HIGH	MEDIUM
CY	HIGH	VERY HIGH
CZ	VERY HIGH	VERY HIGH
DE	LOW	HIGH
DK	VERY LOW	MEDIUM
EE	VERY LOW	HIGH
ES	VERY HIGH	VERY HIGH
FI	HIGH	HIGH
FR	HIGH	VERY HIGH
GR	MEDIUM	MEDIUM
HR	HIGH	HIGH
HU	MEDIUM	HIGH
IE	LOW	VERY HIGH
IT	VERY HIGH	LOW
LT	MEDIUM	LOW
LU	LOW	MEDIUM
LV	MEDIUM	HIGH
MT	VERY LOW	MEDIUM
NL	HIGH	VERY HIGH
PL	VERY HIGH	HIGH
PT	MEDIUM	MEDIUM
RO	VERY HIGH	HIGH
SE	LOW	VERY HIGH
SI	HIGH	HIGH
SK	HIGH	VERY HIGH

Source: Study team elaboration

The EU member states with 'very high' demarcation mostly detail beneficiaries and policy delivery tools in their NRRPs. When both the complementarity and information are 'high' and 'very high', the strategic document delineates that NRRP and Cohesion Policy programmes could potentially intervene in the same policy areas, and the actors and policy tools are clearly defined.

### 1.3.3 Coordination

The level of coordination in the NRRPs refers to the institutional and administrative organisation planned for NRRP implementation and monitoring to ensure coordination and communication between the actors to manage NRRP and Cohesion Policy funds. The level of coordination is measured through collaboration and communication.

The term **collaboration** refers to the structure created to manage and implement the NRRPs and whether the plan envisages a system of coordination with the structures implementing Cohesion Policy funds. The term **communication** refers to data management and exchanges of information

between the NRRP and Cohesion Policy administrative structures. A high level of collaboration and communication are assigned if the NRRP has a permanent structure managing governance and communication which explicitly involve Cohesion Policy staff.

The coordination score is given by the compound values of collaboration and communication where the former is assigned more weight. A permanent management structure and implementation of the plan is considered more important for synergies between the funds. Indeed, the clear division of responsibilities and level of collaboration in implementation is a prerequisite for avoiding overlapping measures and displacement.

The following table presents the results for each member state:

**Table 1.3 Level of coordination of the NRRPs**

MEMBER STATE	Level of Collaboration	Level of Communication	MEMBER STATE	Level of Coordination
AT	LOW	LOW	AT	LOW
BE	HIGH	HIGH	BE	VERY HIGH
BG	HIGH	MEDIUM	BG	VERY HIGH
CY	MEDIUM	LOW	CY	MEDIUM
CZ	HIGH	HIGH	CZ	VERY HIGH
DE	LOW	MEDIUM	DE	MEDIUM
DK	N/A	LOW	DK	VERY LOW
EE	HIGH	HIGH	EE	VERY HIGH
ES	MEDIUM	LOW	ES	MEDIUM
FI	LOW	LOW	FI	LOW
FR	MEDIUM	HIGH	FR	HIGH
GR	HIGH	MEDIUM	GR	VERY HIGH
HR	MEDIUM	HIGH	HR	HIGH
HU	HIGH	HIGH	HU	VERY HIGH
IE	LOW	LOW	IE	LOW
IT	LOW	LOW	IT	LOW
LT	LOW	LOW	LT	LOW
LU	MEDIUM	HIGH	LU	HIGH
LV	HIGH	N/A	LV	MEDIUM
MT	HIGH	MEDIUM	MT	VERY HIGH
NL	MEDIUM	HIGH	NL	HIGH
PL	HIGH	MEDIUM	PL	VERY HIGH
PT	HIGH	MEDIUM	PT	VERY HIGH
RO	HIGH	MEDIUM	RO	VERY HIGH
SE	LOW	MEDIUM	SE	MEDIUM
SI	MEDIUM	MEDIUM	SI	HIGH
SK	HIGH	HIGH	SK	VERY HIGH

Source: Study team elaboration

As can be seen in the table above, many of the plans have good coordination with 16 member states having a high or very high score. Only six plans have a low or very low level of coordination.

### 1.3.4 Risk and opportunities

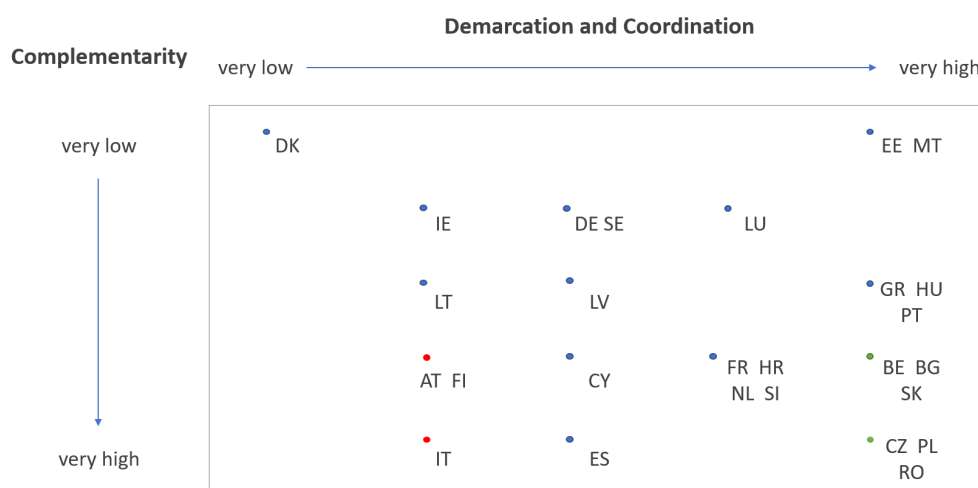
This section provides an overview of the potential level of synergy between the NRRPs and Cohesion Policy funds. In the previous sections, the analysis delineates the main policy areas where both policy instruments could intervene, how the member states delineate who will carry out the interventions, and whether the member states have governance models that ensure the institutions in charge of NRRP and Cohesion Policy interventions coordinate their actions.

The intersection of all these aspects reveals the potential risks and opportunities for member states in ensuring policy complementarities and exploitation of synergies to carry out interventions and benefit from the massive financial resources at their disposal until 2026.

The 'best-case scenario' is when member states have high complementarity - NRRP and Cohesion Policy programmes could potentially intervene in same policy areas - and there are clear details of who will oversee the implementation of investments and how they will ensure coordination among the policy instruments to avoid overlapping and double funding. The more information the NRRPs provide regarding the quality and quantity of investments, the governance model to implement them and the way they intend to avoid overlapping with Cohesion Policy interventions, the lower the risk of implementation uncertainty. The 'best-case scenario' therefore, delineates distinct demarcation between the policy instruments, with well-structured mechanisms to implement interventions in the same policy areas and avoid double funding. In this scenario, opportunities to pool financial resources for long (Cohesion Policy) and short (NRRP) term investments are likely, and the displacement of funds is not a risk.

On the other hand, a 'high-risk scenario' is when the NRRP registers potentially high complementarity with Cohesion Policy programmes, but the quantity and quality of information on beneficiaries, policy tools to implement investments, as well as coordination among the actors in charge of the respective policies are not detailed. In this case, the governance model is unclear and national, regional and local actors do not have a clear idea of how to manage interventions. This scenario presents a high potential for double funding and displacement of resources, as the NRRP actor(s) do not delineate the demarcation. Neither the criteria to guide which investments fall under NRRP, and which under Cohesion Policy, nor the coordination mechanisms are clearly presented.

**Figure 1.8 Potential synergies between NRRP and Cohesion Policy – risks and opportunities**



Source: Study team elaboration

The figure above positions each member state according to complementarity, demarcation and coordination.

Czechia, Poland and Romania, followed by Belgium, Bulgaria and Slovakia have the 'best-case scenario', as:

- the NRRP intervenes in most of the policy areas, demarcation for beneficiaries and policy delivery instruments are detailed,
- the governance as well as the instruments to ensure information and data exchange between NRRP and Cohesion Policy programmes are detailed, and
- the NRRP specify how national and/or regional institutions should coordinate to avoid overlapping.

The 'high-risk scenario' could be in Italy, followed by Austria, Finland, as well as Cyprus and Spain.

These countries have designed interventions in most of the identified policy areas, thus the potential complementarities between NRRP and Cohesion Policy are high. However, the quality and quantity of information on recipients and policy tools to deliver investments, as well as coordination mechanisms between NRRP and Cohesion Policy governance is not detailed, and in some cases is not even mentioned in the strategic documents. Governance models are not clear, and actors do not know 'who-does-what-and-how'.

#### 1.3.5 Preliminary takeaways from the analysis

The analysis illustrates that investments planned in NRRPs largely coincide with Cohesion Policy strategic objectives and financial resources, thus political will is concentrated in specific policy areas, namely green transition and digital connectivity, followed by climate change and adaption, education and training, and access to health care services.

The high complementarity between NRRPs and Cohesion Policy does not always match highly detailed governance mechanisms described in NRRPs to ensure coordination and collaboration between NRRPs and Cohesion Policy. The intersection of the two elements discloses the relevance, as well as the necessity, for regional, national and European actors to coordinate carefully and thoroughly in implementing NRRP and Cohesion Policy. These actors should also closely monitor the interventions to ensure they can intervene in the same policy areas at the same time, and bring different value added in terms of timing, territorial coverage, typology of beneficiaries and target groups.

### 1.4 Cohesion Policy at a crossroads

Cohesion Policy has proved to be flexible enough to support member states tackling the global crisis generated by the pandemic. Resources have been shifted from long term investments (e.g. large transport infrastructure, R&D, renewable energy facilities) to short term response measures (e.g. personal protective equipment, ventilators, medicines). Cohesion proved to be particularly effective in supporting SMEs during the economic crisis through traditional tools such as grants and financial instruments.

For the programming period 2021-2027 programmes authorities are designing the new strategies adopting a 'back to normality' approach. In other words, it seems that the need generated by the pandemic to create new development models was disregarded and the strategies are based on the same logic as the pre-pandemic period.

However, going beyond the programmes and looking at the new Cohesion framework, 'territorial resilience' is embedded in ERDF-ESF specific objectives. Furthermore, territorial resilience could also be boosted using territorially integrated strategies through a more simplified and result-oriented framework thanks to SCO and FNLC.

However, Cohesion Policy, to become a territorial resilience-driver, should tackle two main challenges, one internal and the other external:

- The internal challenge is the lack of capacity and skills to fully exploit the opportunities offered by the 2021-2027 framework in terms of policy orientation (i.e. specific objectives), territorially integrated strategies and simplification. In this context, roadmaps oriented toward local and regional authorities and a territorial resilience approach can play a decisive role.
- The external challenge is the RRF. In the short term, a lack of coordination can bring unfair 'competition' between the two tools. NRRPs require less administrative effort and no co-financing. Furthermore, they have the advantage of starting earlier. The risk is that Cohesion Policy interventions might be not only overlapped but also displaced. In the long run, although superficially perceived as more efficient, RRF might subtract resources or jeopardise post 2027 Cohesion Policy. Indeed, for some aspects, RRF is more effective than Cohesion Policy, e.g. in supporting national reform or large infrastructure. On the other hand, to address the need to prepare and adapt EU communities and policies to future global challenges, Cohesion is still the most adequate policy driver due to its multilevel governance and territorial dimension.

## 2 ANALYSIS OF COHESION IMPACTS

### KEY FINDINGS

- The pandemic and the war in Ukraine risk further reducing cohesion in Europe and increasing disparities between places and people.
- Gross Value Added (GVA) change in 2020 allows for a first insight into the impacts of the pandemic. The least decline in GVA is around the Baltic Sea, as well as in the Netherlands, Ireland, Luxembourg, Romania, Poland and some regions in Bulgaria. In many cases this seems to go hand in hand with less COVID-19 related restrictions.
- Potential impacts of the war in Ukraine are visible in the emerging energy crisis. The places most sensitive to this include regions in Finland, Estonia, Poland, Czechia, Slovakia, Hungary, Bulgaria and Slovenia.
- The focus on energy does not provide the full picture. Adding other regional sensitivities such as trade with Ukraine, Russia and Belarus, war refugees, people at risk of poverty and those working in highly affected sectors, shows that regions in Finland, the Baltic States, Poland, Romania, Bulgaria, Greece, the south of Italy, and the south of Spain are highly sensitive.
- The discussion of mega-trends points to the risk of increasing inequalities between places and people in Europe, i.e. less cohesion, and an overall risk of a poorer, more unstable and insecure future.
- To cope with the increasing disparities and increase the capacity to react to unexpected changes, strengthen recovery and proceed with a green, digital and just transition, resilience at all levels of governance needs to be increased.

Cohesion Policy is an important instrument to steer Europe towards more cohesion. However, there are many more factors shaping local and regional development in Europe and possibilities to decrease disparities between places and people. Most of these are exogenous factors over which policy makers have very limited influence – if any. The impacts of the pandemic, Russia's war on Ukraine and a range of mega-trends will affect Europe's pathway to more or less cohesion in the medium-term.

To better understand the expected impacts, this chapter provides further insights based on existing literature.

Chapter 2.1 looks at the impacts of the pandemic on different types of regions. It first measures regional exposure to external shocks and then assesses the regional sensitivities. Following up on last year's work<sup>17</sup> on potential regional impacts of the pandemic, this year's study looks at actual impacts in terms of GVA changes and policy measures linked to this crisis.

In light of the war in Ukraine, Chapter 2.2. offers first reflections on possible impacts the war may have on local and regional development in the EU. This chapter looks at the impacts for different types of regions, it estimates regional sensitivities related to their energy dependences and their socio-economic profiles. The impacts of the war in Ukraine are mainly negative. However, a few sectors also experience an upswing and see no potential emerging in the wake of the war. These are reflected in a first attempt to consider potential positive sensitivities.

Chapter 2.4 summarises the results of sections 2.1 and 2.2 by type of region. The chapter shows there are severe differences in the expected negative impacts of the shocks on regions. However,

<sup>17</sup> Kai Böhme et al., 'The Impacts of the COVID-19 Pandemic on EU Cohesion and EU Cohesion Policy' (Brussels: Policy Department for Structural and Cohesion Policies, 2022).

there are also potential positive effects in some areas. Findings have been cross-analysed to geographical types of regions (according to the Terms of Reference) and Cohesion Policy types of region.

### Types of NUTS2 region

The 'Impacts by type of region' sections are based on two types. As the data on exposure and sensitivity are only available at NUTS2, the types are applied at that level to allow cross-analysis:

- **Cohesion Policy regions.** These are the official categorisations of more developed, transition and less developed regions used in Cohesion Policy. As there are some differences between the 2014-20 and 2021-27 programme periods, both typologies are used.
- **Geographical regions.** This typology differentiates between urban, intermediate, rural, coastal, island, outermost, very sparsely populated, sparsely populated, mountain and border regions. A single NUTS2 region can be attributed to several types, e.g. be both urban and mountainous. Details on the types are in the annex.

Chapter 2.3 looks into some medium-term trends which will shape Europe's development beyond the current focus on recovery and green, digital and just transitions. Many of the ecological, demographic, economic, societal, technological and political trends have been altered by the pandemic and the war in Ukraine. Some have accelerated and others paused. The chapter provides an overview of some mega-trends. This is followed by a discussion of how these trends affect different types of regions and what that means for cohesion. Finally, there is a section on possible wildcards which may alter Europe's development in unexpected ways.

## 2.1 Cohesion impacts of the pandemic

The COVID-19 pandemic affects local and regional development, and thus cohesion in Europe. To better understand the regional diversity of these impacts, this chapter looks first at the territorial impacts of the pandemic through an exposure and sensitivity analysis, illustrated by a map (see section 2.1.1). Then it looks at these impacts by type of region (see section 0).

### 2.1.1 Territorial impacts of the pandemic

A widely discussed impact of the pandemic is the excess death rate.<sup>18</sup> In Europe, excess death rates are largely related to a region's geographical and institutional characteristics. Larger metropolitan areas were usually more vulnerable, as well as areas with less effective national governments. Regional income levels or the quality of regional governments have been less decisive. Although there are some variations related to the level of devolution and multi-level governance across Europe.<sup>19</sup> Furthermore, regions with comparably high shares of elderly people are more likely to have experienced higher excess death rates.<sup>20</sup>

For the debate about the impacts on cohesion, however, the focus is not the pandemic impacts on death rates, but rather on the socio-economic development and prospects of regions in Europe.

<sup>18</sup> see e.g. Philip McCann, Raquel Ortega-Argilés, and Pei-Yu Yuan, 'The Covid-19 Shock in European Regions', *Regional Studies* 56, no. 7 (2022): 1142–60, <https://doi.org/10.1080/00343404.2021.1983164>; ESPON, 'Territorial Impacts of COVID-19 and Policy Answers in European Regions and Cities - Interim Report' (Luxembourg: ESPON EGTC, 2022).

<sup>19</sup> McCann, Ortega-Argilés, and Yuan, 'The Covid-19 Shock in European Regions'.

<sup>20</sup> Eurostat, *Eurostat Regional Yearbook: 2021 Edition*. (Luxembourg: Publications Office of the European Union, 2021), <https://data.europa.eu/doi/10.2785/894358>.



Earlier in 2022, Eurostat published regional data on GVA in 2020. This allows a comparative regional analysis of changes in the wake of the pandemic and not just on sensitivities and impacts. In very rough terms and without controlling for other development factors, cross-analysing the change in GVA in 2020 with the stringency of COVID-19 related restrictions reveals short-term economic impacts of the pandemic.<sup>21</sup>

The picture of economic change during 2020, suggests that these impacts are worst in Southern Europe, while large parts of Northern and Eastern Europe were less affected.

The lowest declines in GVA are around the Baltic Sea, as well as in the Netherlands, Ireland, Luxembourg, Romania and some regions in Bulgaria. In many cases this seems to go hand in hand with less COVID-19 related restrictions. Still, this data is for 2020 only. Changes in development during 2021 and early 2022 are not taken into account.

The GVA changes in the wake of the pandemic are similar to the economic impacts of the 2008 financial crisis. This confirms earlier findings, that the pandemic risks reinforcing existing North-South imbalances and inequalities in the EU. Existing differences may also widen at lower geographical levels between places, groups of society and people. Convergence in the EU may be reversed.

Labour market figures for 2021 show that 5.2 million jobs were created and nearly 3.5 million more people moved into the labour market, unemployment rates fell. This strong performance was broad-based across countries, sectors and socio-economic groups.<sup>22</sup>

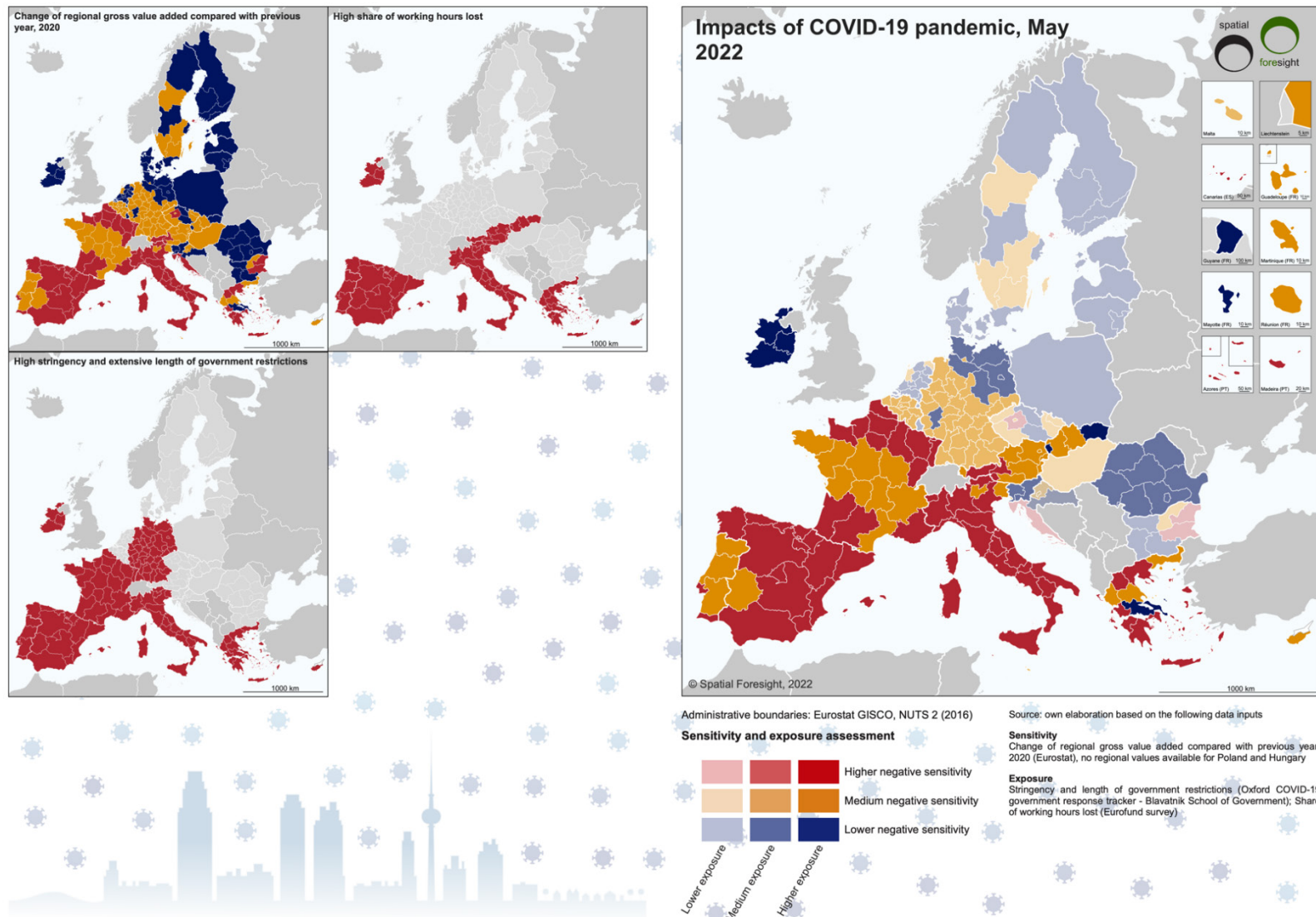
Nevertheless, this strong economic focus risks ignoring social impacts of the pandemic. The pandemic also impacts people's wellbeing and quality of life while the economic disruption inevitably threatens vulnerable groups of society more. The pandemic has brought underlying social value conflicts to the surface.

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<sup>21</sup> CoR, *The State of the Regions, Cities and Villages in the Areas of Socio-Economic Policies*. (Luxembourg: Publications Office of the European Union, 2022), <https://data.europa.eu/doi/10.2863/00247>.

<sup>22</sup> European Commission, 'European Economic Forecast. Summer 2022 (Interim)' (Luxembourg: Publications Office of the European Union, 2022), [https://economy-finance.ec.europa.eu/document/download/cbc24af5-782d-461c-aabd-312793120e2e\\_en?filename=ip183\\_en.pdf](https://economy-finance.ec.europa.eu/document/download/cbc24af5-782d-461c-aabd-312793120e2e_en?filename=ip183_en.pdf).

Map 2.1 Impacts of the COVID-19 pandemic, May 2022



Source: Study team elaboration and CoR (2022)

Furthermore, the pandemic will affect local and regional development beyond the more obvious immediate effects. Medium-term impacts will be shaped by more durable effects on some sectors and structural elements which affect how quickly an area can recover. Regions heavily dependent on tourism might need several years to recover from the pandemic, especially many mountainous, coastal and island regions.

### **Exposure to COVID-19 related restrictive measures**

Places have been subject to different restrictions for different periods of time, which affects the impacts on local and regional development. The strictness of lockdowns is one of three factors accounting for most of the differences. Furthermore, the regional diversity of lockdown measures is essential to understand a region's structural sensitivities. A European-wide comparative analysis of exposure can only capture some elements of regional exposure to restrictive measures but unfortunately not the regional diversity of exposure within individual member states. Map 2.1 is based on comparable data sets addressing different types of exposure to COVID-19 restrictions: Overall stringency (1 March 2020 to 31 December 2020); Working hours lost (2021).

### **Sensitivity to COVID-19 related restrictive measures**

Restrictions and lockdowns in the wake of the pandemic have had negative effects on local and regional development throughout Europe. However, there are considerable regional variations for these impacts based on two factors. Firstly, the severity of restrictions varied, which has been captured in the exposure assessment. Secondly, some economic sectors and social groups have been more heavily affected by restrictions than others. So, structural characteristics affect how hard a region has been hit by the pandemic.

Focusing on the economic impacts, Eurostat data on GVA in 2020, for the first time enables discussions of actual changes instead of sensitivities at NUTS2 level. Change in GVA was the only economic indicator available at regional level suitable for the analysis. GVA is a measure of contribution to GDP. It is equivalent to the region's production output (at basic prices) minus the value of goods and services consumed by the production process. The change in GVA is the relative difference between each region's GVA in 2019 and 2020. This illustrates each country's development compared to previous years, excluding taxes but including subsidies.

Nevertheless, this is only a rough estimate, as it does not control for changes in GVA caused by non-pandemic factors. Furthermore, it does not take into account impacts not reflected in GVA, such as the increase in public debt, or other social aspects and long-term perspectives.

#### **2.1.2 Impacts of the pandemic by type of regions**

The impact of the pandemic was calculated using only the percentage change in GVA.

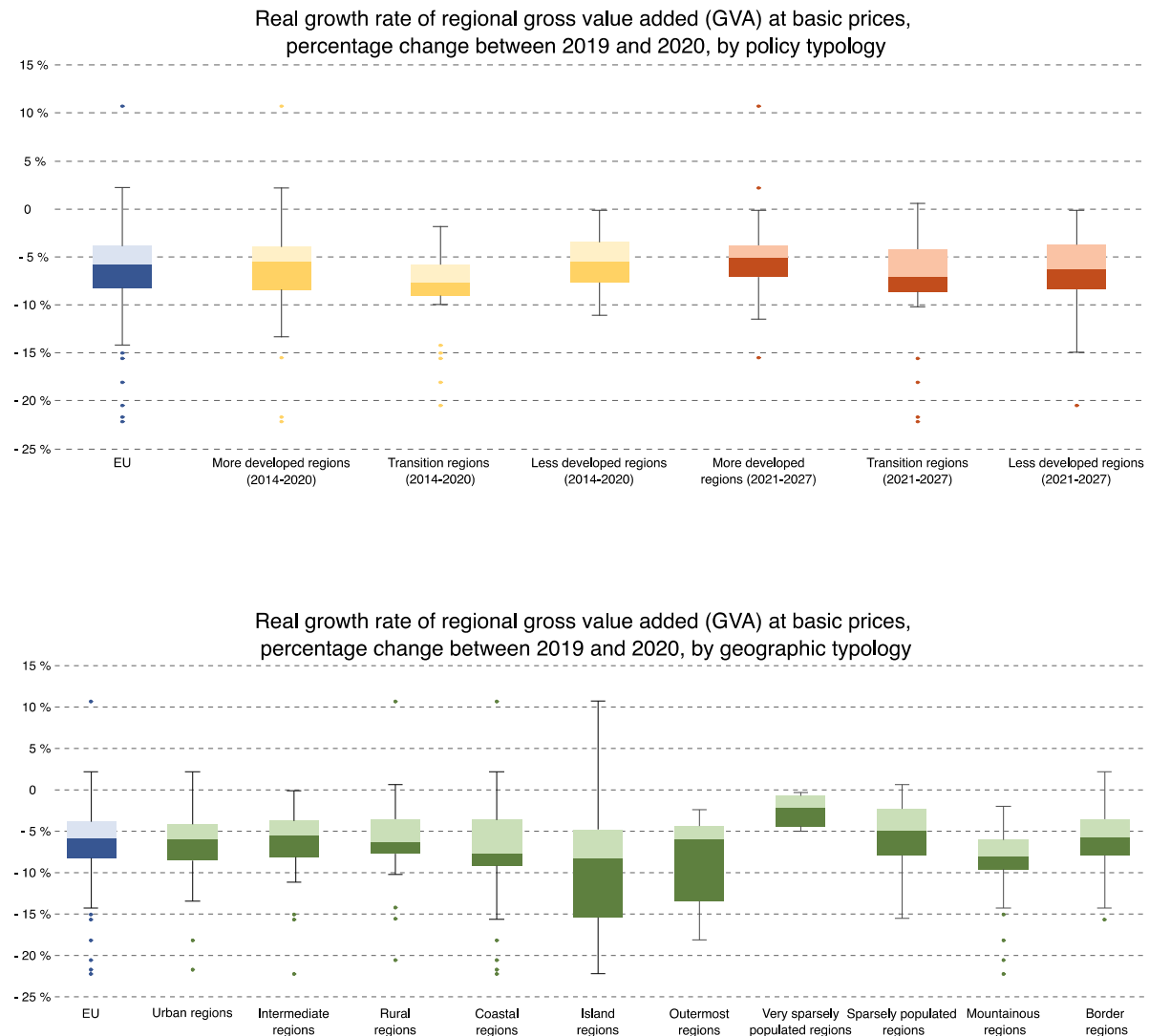
**Cohesion Policy regions.**<sup>23</sup> The GVA change median values are constant across different cohesion policy regions, between -5 and -10% (see Figure 1). In other words, all regions seem to have suffered a similar negative impact from the pandemic. More developed regions in the 2014-2020 period, outliers of more developed regions for the 2021 – 2027 period and transition regions for the 2021-2027 period, are the only ones with a positive change in GVA between 2019 and 2020. However, these regions make up less than 25% of each type.

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<sup>23</sup> Cohesion Policy regions and geographical regions are defined in the 'Types of NUTS2 regions' box, on page 42.

**Geographical regions.**<sup>23</sup> The pandemic impact on GVA seems to have been strongest in island and outermost regions. Very sparsely populated, sparsely populated and rural regions seem to have been least affected. The largest spread in GVA change is for island regions, underlining the huge diversity of this geographic type, as it includes both the largest positive and negative change. Very sparsely populated regions seem to have been the least impacted by the pandemic, with the narrowest spread and highest median value. Other sparsely populated regions and rural regions, also have higher median values than the other types. Urban regions seem to mimic the sum of all EU27 regions, with all quartiles in the same quadrants.

**Figure 2.1 Impacts of COVID-19 by type of region (change in GVA 2019-2020)**



\* The data is from 25 of the 27 EU countries, due to the lack of regional data for Poland and Hungary.

Source: Study team elaboration

## 2.2 Cohesion impacts of the war in Ukraine

The discussion of possible regional impacts of the war in Ukraine, first looks at the territorial impacts of the war through an exposure and sensitivity analysis (see section 2.2.1). The analysis is split into sensitivities based on a region's energy dependency and a region's socio-economic profile. This is

followed by an assessment of the impacts by type of region in section 2.2.2. Finally, sections 2.2.3 and 2.2.4 show potential positive territorial impacts by type of region respectively.

### 2.2.1 Negative territorial impacts of the war in Ukraine

Increasingly the impacts of the pandemic are side-lined by the impact of the war in Ukraine. This will change a wide range of future development perspectives and trends. The impacts on local and regional development will affect cohesion in Europe. This raises the question of whether it is still possible and sensible to focus solely on the impacts of the pandemic on cohesion, as this would ignore new realities.

The EIB report ‘How bad is the Ukraine war for the European recovery’<sup>24</sup> and the European economic forecast from Summer 2022<sup>25</sup> expect severe impacts on the European economy and its recovery from the pandemic. Estimates for GDP growth in Europe have been revised downwards a number of times since the war started. EU firms – especially smaller ones – which have suffered from the pandemic, are at particular risk from the impacts. Their vulnerabilities are exacerbated by: (1) reduced exports, (2) lower profit due to higher energy prices, and (3) difficulty finding funding as banks avoid risk.<sup>26</sup> In addition firms depending on gas or high energy inputs for their production are particularly challenged by increasing energy prices and the expected energy crisis. The impacts are also clearly felt by citizens, not at least due to inflation which in particular hits households with lower incomes and those already at risk of poverty.

While most of the European analysis of impacts of the war are at macroeconomic or national level, the following sections will depict differences between regions.

As long as the nature and timing of the war’s end and the geopolitical situation after the war is unknown, there is a considerable uncertainty about the future. A first aggregated picture of regional sensitivities to the consequences shows a clear East-West divide. Running from Finland in the North to Greece in the South, almost all regions in countries along the eastern border of the EU and Czechia are highly sensitive. Regions with medium high sensitivities are mainly along the Mediterranean, including Cyprus, most of Italy, large parts of Spain and Portugal, but also in Germany.

This assessment presents, in Map 2.2 and Map 2.3, first inputs to the discussion on regionally diverse implications of the war in Ukraine. These are however affected by the limited availability of data at regional level (for most indicators only national data is available) and the weight given to individual indicators. The maps on the left side show single sensitivity indicators and the map on the right shows the aggregated picture.

### Exposure to the war in Ukraine

Places have been exposed in various ways. Bordering Ukraine or Russia certainly means a different level of exposure than being in the far west of the EU. Being a former part of the Soviet Union implies more risk, as is being outside NATO. In short, there are various levels of exposure.

However, one single exposure factor dominates all others, an act of war on one’s own territory. Therefore, we run this first potential impact analysis based on whether a country is involved in the

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<sup>24</sup> EIB, ‘How Bad Is the Ukraine War for the European Recovery?’ (Luxembourg: European Investment Bank, 2022), <https://data.europa.eu/doi/10.2867/945503>.

<sup>25</sup> European Commission, ‘European Economic Forecast. Summer 2022 (Interim)’.

<sup>26</sup> EIB, ‘How Bad Is the Ukraine War for the European Recovery?’

war or not. This means only Ukraine is directly exposed, whereas all EU member states are indirectly exposed.

### Negative sensitivity to the war in Ukraine

A first assessment of the national vulnerability to impacts of the war are in the European economic forecast (summer 2022). This focuses on energy, trade & value chains and assets at national level. Latvia, Estonia, Bulgaria, Lithuania, Czechia, Slovakia, Hungary, Poland, Slovenia, Cyprus, Croatia and Greece are the most affected countries.<sup>27</sup> Focusing on the vulnerability of firms, the EIB estimates particularly high stress levels for Lithuania, Greece, Latvia, Poland, Hungary, Croatia and Spain.<sup>28</sup> Further developing this to address regional rather than national vulnerabilities requires a broader understanding of sensitivities to the effects of the war.

A region's sensitivity is extremely multifaceted and depends largely on its socio-economic profile and energy dependency. For each of these we selected a few sensitivity indicators to provide first insights.

**Energy dependency.** The war has sent energy prices to new heights, which particularly affects energy intensive industries. Furthermore, the war illustrates Europe's dependency on energy imports from Russia, especially gas. This has been translated into five sensitivity indicators<sup>29</sup>: Energy intensity; share of gas imports from Russia; share of oil imports from Russia; share of solid fossil fuel imports from Russia; and the share of employment in energy-intensive manufacturing sectors. According to the OECD<sup>30</sup>, the five most energy-intensive manufacturing industries are coke and refined petroleum products, chemicals and chemical products, basic metals, paper and paper products, and non-metallic minerals. These sensitivities have been translated into indicators for which EU-wide data is available and brought together in a combined energy-related negative sensitivity index displayed in Map 2.2.

The envisaged energy – or rather gas supply – crisis shows how vulnerable the economy is to checks in commodity markets. Possible shortages of gas, increasing prices and risks of rationing show the vulnerability of Europe's economy<sup>31</sup>. To better illustrate which regions are particularly sensitive to these developments, energy related sensitivities have been mapped separately.

Poland seems to be the most sensitive to the energy crises. Bulgaria is also highly sensitive, especially due to high energy intensity and a high share of gas and solid fossil fuels imports from Russia. Finland has a high share of gas and oil imports from Russia, and a high share of employment in gas-intensive manufacturing sectors in most of its regions, resulting also in high energy-related sensitivities. Other highly sensitive places are in Greece, Slovenia, Hungary, Slovakia, Czechia, Germany and Estonia.

The least sensitive regions are in Ireland, Spain, France, the region around the Tyrrhenian Sea in Italy, Cyprus, Zagreb region in Croatia, parts of Austria, the north of Germany, all of Denmark, and regions around Stockholm and Gothenburg in Sweden.

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<sup>27</sup> European Commission, 'European Economic Forecast. Summer 2022 (Interim)'.

<sup>28</sup> EIB, 'How Bad Is the Ukraine War for the European Recovery?', 16.

<sup>29</sup> Information on indicators composition and sources is provided in the annex.

<sup>30</sup> OECD, 'How Vulnerable Is European Manufacturing to Gas Supply Conditions? A Regional Approach', 22 July 2022, <https://www.oecd-ilibrary.org/docserver/01278ba3-en.pdf?expires=1660230598&id=id&accname=quest&checksum=75F6CA13FF465DB7C87CB2E3775568CF>.

<sup>31</sup> European Commission, 'European Economic Forecast. Summer 2022 (Interim)'.



**Socio-economic profile.** The war in Russia affects a wide range of economic operators. In particular those trading with Ukraine, Russia and Belarus are affected since their value chains are very disrupted because of the war or sanctions. Furthermore, impacts affect a range of economic sectors including agriculture and tourism. This has been translated into four sensitivity indicators<sup>32</sup>: Trade exports to Ukraine, Russia and Belarus; trade imports from Ukraine, Russia and Belarus; share of employment in agriculture; and tourism dependent areas with a high share of flights affected by the war.

The countries with the highest share of exports to Ukraine, Belarus and Russia are Finland, Estonia, Latvia, Lithuania, and Poland. These, along with Bulgaria, also have the highest shares of imports from Ukraine, Belarus and Russia. It is also important to mention that the countries with the largest share of imports and exports to/from Russia are not, however, the ones with the largest foreign direct investment flows. According to data published by EUROSTAT<sup>33</sup> the largest of these flows from Russia go to the Netherlands. The largest direct investments in stocks and income from Russia go to Cyprus.

The highest shares of employment in agriculture are in regions in the south of Spain, the south of Portugal, the south of Italy, Greece, Bulgaria, Romania, parts of Croatia, Hungary, Poland, Lithuania, Finland, and Ireland. And the highest share of affected tourism areas are seen also in the south of Portugal, across Spain, Cyprus, Greece, Bulgaria, Croatia, Slovenia, Hungary, Austria, Italy and Finland.

There are strong human and social impacts in the EU. This is especially the case for refugees, also affecting the cities and regions they go to. It also affects people living in the EU by increasing inflation, which makes life more difficult especially for the less well-off. The social dimension has been translated into two sensitivity indicators<sup>34</sup>: People at risk of poverty; and main destinations of Ukrainian refugees.

The regions with the highest shares of people at risk of poverty are in the south and north of Spain, the south of Italy, Greece, Bulgaria, Romania, eastern Poland, Lithuania, Latvia, Estonia and the central part of Sweden.

The largest numbers of Ukrainian refugees registered for temporary protection or similar national protection schemes are in Poland, Germany, and Czechia.<sup>35</sup> To accommodate such large numbers of refugees it is necessary to invest in access to health, education and child protection. Since February, thousands of Ukrainian children have flooded the school system in Warsaw, challenging education professionals and infrastructure.<sup>36</sup> Other regions, further from the borders, which also prepared to receive large numbers of refugees have seen their investments underutilised. Flanders only received one third of the expected number of Ukrainian refugees.

These sensitivities have been translated into indicators for which EU-wide data is available and brought together in a combined socio-economic negative sensitivity index. This index is displayed in Map 2.3 and shows accumulated socio-economic negative sensitivity.

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<sup>32</sup> Information on indicators composition and sources is provided in the annex.

<sup>33</sup> Eurostat, 'EU Direct Investment Positions, Flows and Income, Breakdown by Partner Countries (BPM6), BOP\_FDI6\_GEO. [Dataset]', 2022, [https://ec.europa.eu/eurostat/databrowser/view/BOP\\_FDI6\\_GEO\\_custom\\_3191489/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/BOP_FDI6_GEO_custom_3191489/default/table?lang=en).

<sup>34</sup> Information on indicators composition and sources is provided in the annex.

<sup>35</sup> UNHCR, 'Ukraine Refugee Situation, Operational Data Portal.', 2022, <https://data.unhcr.org/en/situations/ukraine>.

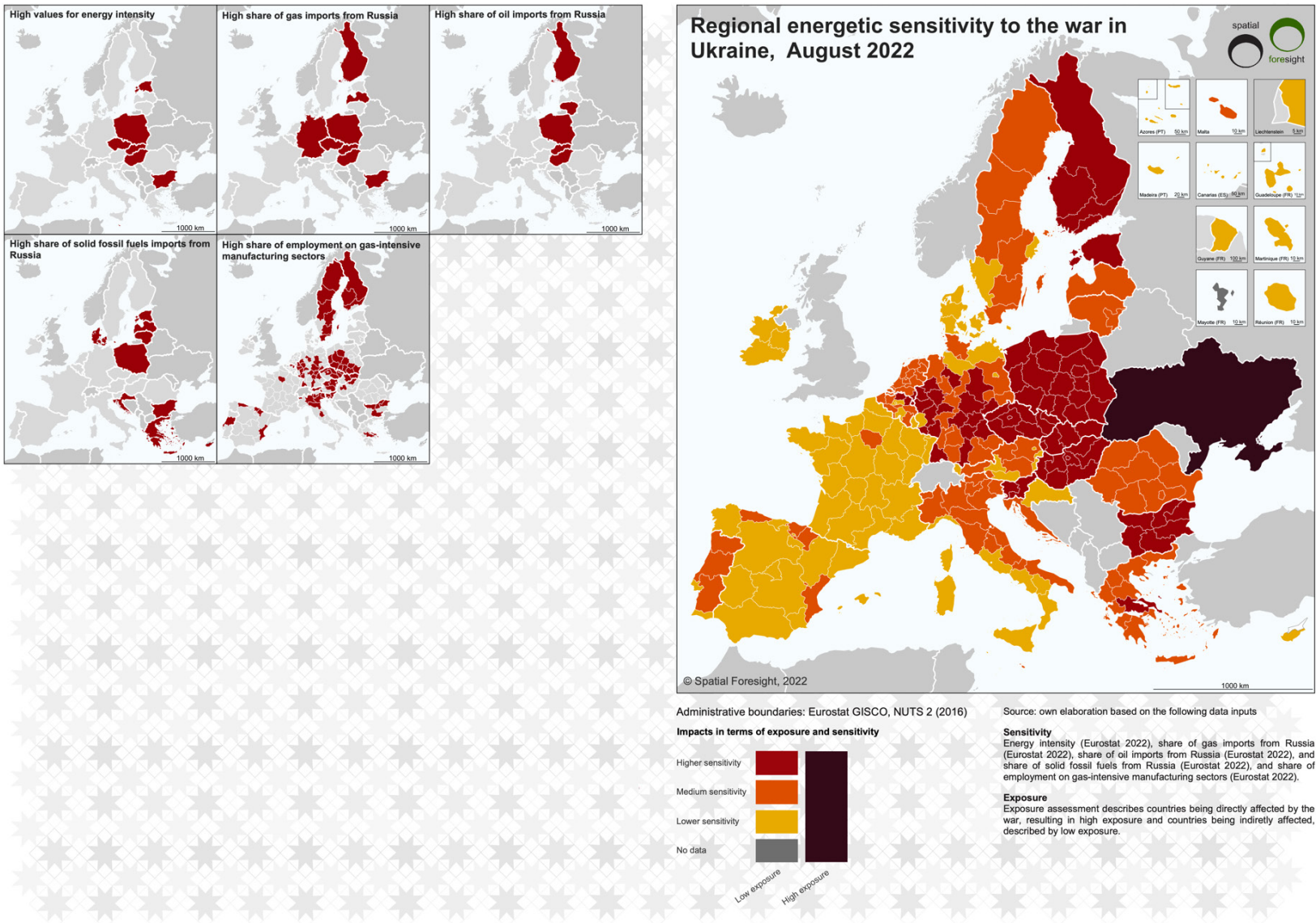
<sup>36</sup> The Wall Street Journal, 'Scale of Refugees From Ukraine War on Display in Poland's Public Schools', 25 April 2022, <https://www.wsj.com/articles/scale-of-refugees-from-ukraine-war-on-display-in-polands-public-schools-11650884400>.

Poland and the Baltic countries are especially sensitive. Other very sensitive regions are in Romania, Bulgaria, Greece, the north of Finland, the south of Italy, the south of Spain, some regions in Austria and Hungary.

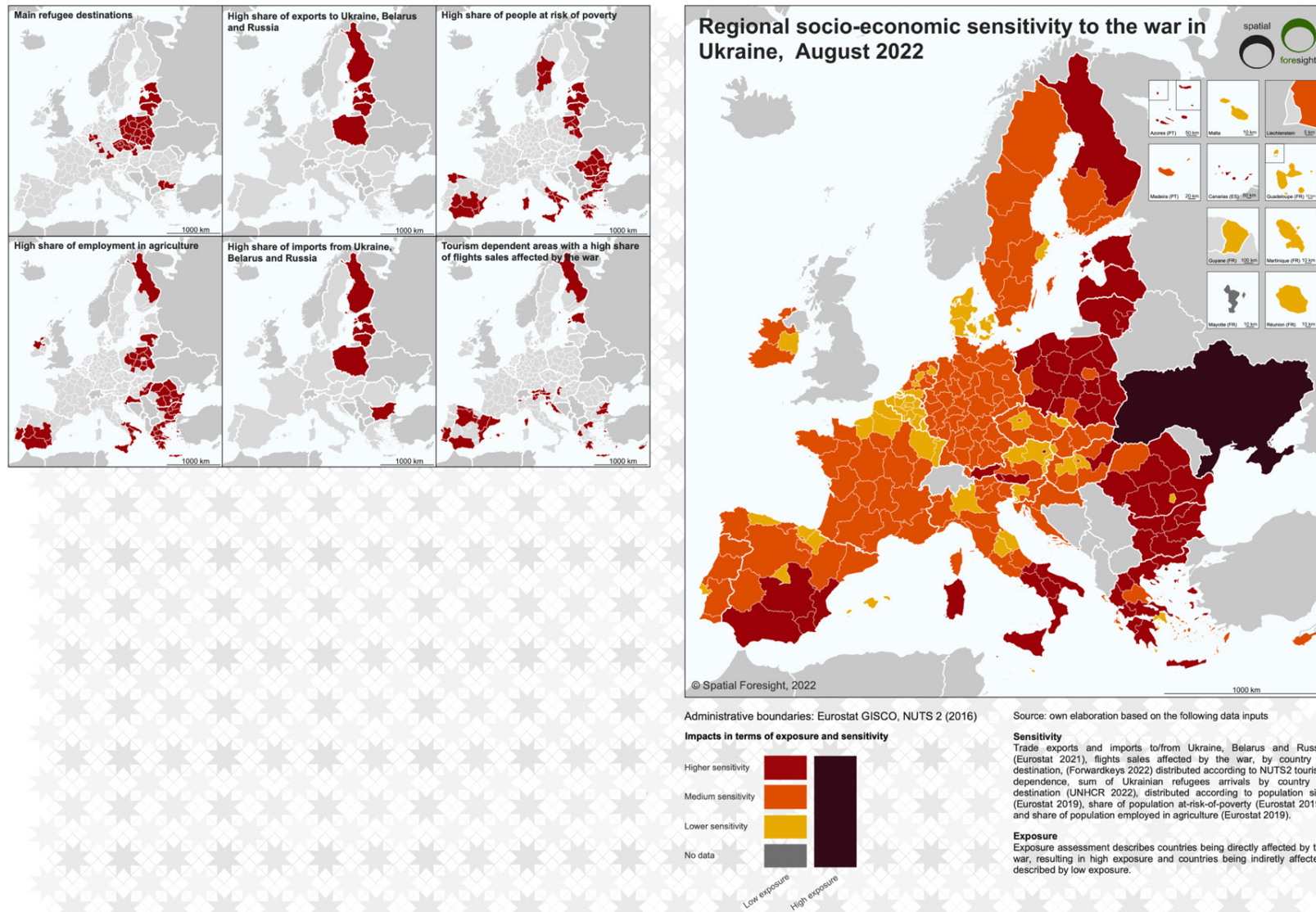
All regions in Belgium and Denmark seem to be the least sensitive with no high values for any of the socio-economic indicators. Other less affected regions are Dublin, across the Netherlands, the centre and north of Italy, the north of France, the region of Lisbon, the region of Madrid and the northwest of Spain, the region of Athens, Bucharest, the surrounding areas of Budapest, Prague and Vienna and the region of Stockholm.



Map 2.2 Energy-related regional sensitivities to the war in Ukraine, August 2022



**Map 2.3** Socio-economic regional sensitivities to the war in Ukraine, August 2022



Source: Study team elaboration

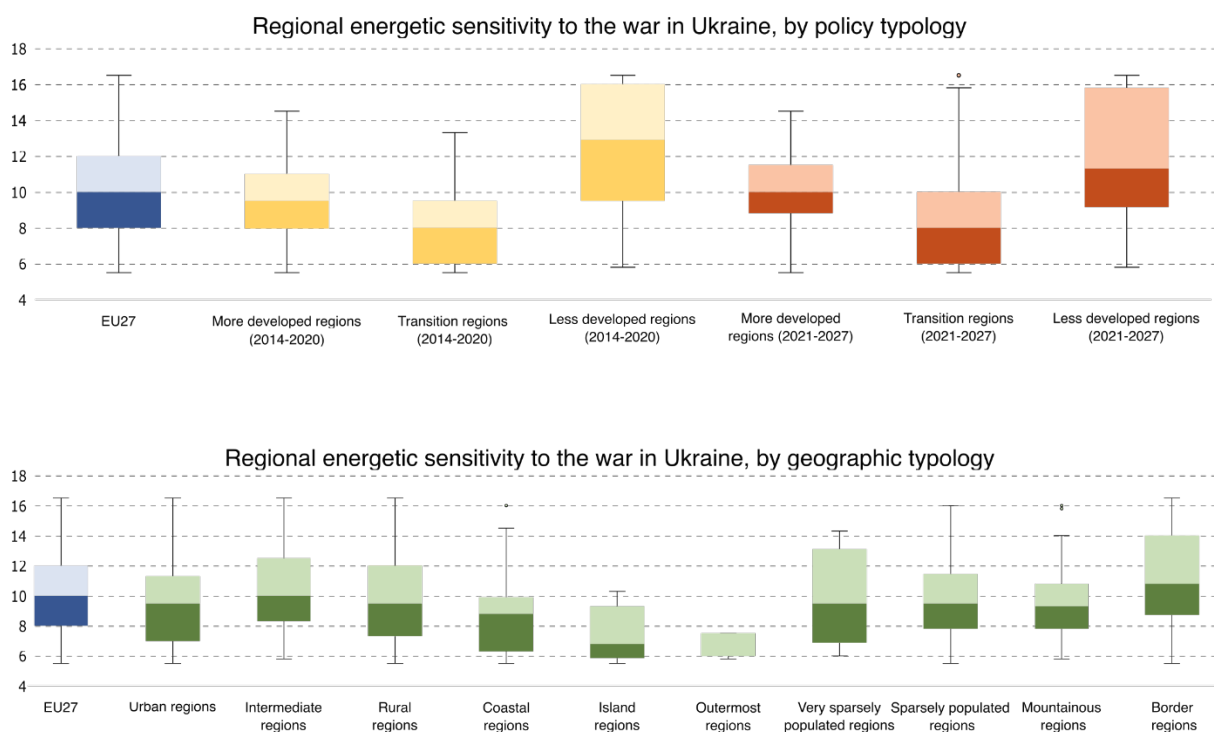
## 2.2.2 Negative impacts of the war by type of region

The negative impacts of the war by type of region were analysed by energy dependency and socio-economic profile.

### Energy dependency

The different types of negative regional impacts related to energy dependencies are a result of aggregating different energy related sensitivity indicators. Each indicator was normalised and weighted based on perceived relevance. The transformed indicators were summed, resulting in a regional sensitivity score. The higher the score, the higher the negative sensitivity. The indicators<sup>37</sup> used to calculate negative sensitivity are: Energy intensity; share of gas imports from Russia; share of oil imports from Russia; share of solid fossil fuel imports from Russia; and the share of employment in energy-intensive manufacturing sectors (coke and refined petroleum products, chemicals and chemical products, basic metals, paper and paper products, and non-metallic minerals).

**Figure 2.2 Energy-related regional sensitivity to the war in Ukraine by type of region**



Source: Study team elaboration

**Cohesion Policy regions.**<sup>38</sup> Less developed regions are the most sensitive to energy supply changes. They have the highest median value, as well as the highest third and fourth quartiles. Transition regions are the least negatively sensitive, with the smallest spread (2014-2020 period) and lowest median value (both periods).

**Geographical regions.**<sup>39</sup> Outermost regions are the least sensitive to energy supply changes, followed by island regions, with median values far below the EU average. Border regions have the highest median value, i.e. are the most sensitive.

<sup>37</sup> Information on indicators composition and sources is provided in the annex.

<sup>38</sup> Cohesion Policy regions and geographical regions are defined in the 'Types of NUTS2 regions' box, in page 42.

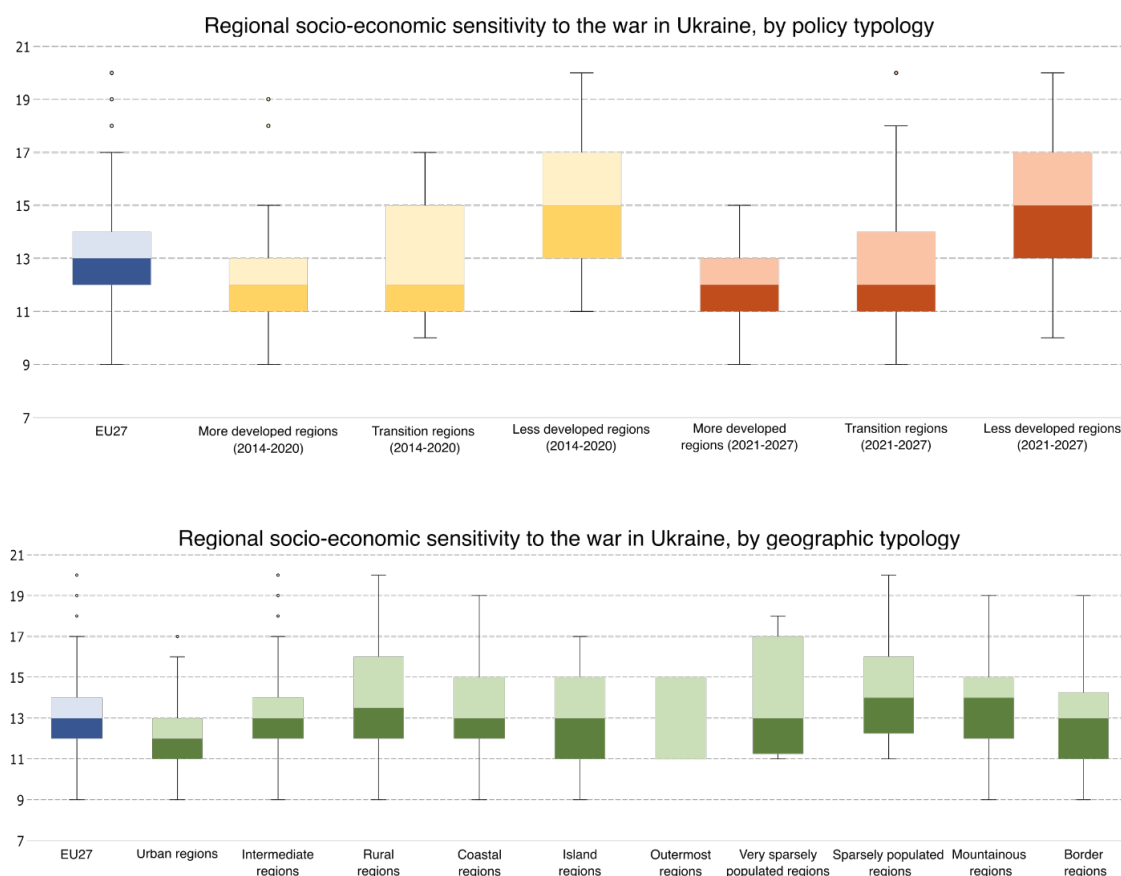
<sup>39</sup> Cohesion Policy regions and geographical regions are defined in the 'Types of NUTS2 regions' box, in page 42.



## Socio-economic profile

The negative socio-economic impacts of the war by type of region are illustrated by aggregating the socio-economic sensitivity indicators. Each indicator was normalised and weighted based on perceived relevance. The transformed indicators were summed, resulting in a regional sensitivity score. The higher the score, the higher the negative sensitivity. The indicators<sup>40</sup> used to calculate negative sensitivity are: Trade exports to Ukraine, Russia and Belarus; trade imports from Ukraine, Russia and Belarus; share of employment in agriculture; tourism dependency; share of population at risk of poverty; and the main destinations of Ukrainian refugees.

**Figure 2.3 Regional socio-economic sensitivity to the war in Ukraine by types of regions**



Source: Study team elaboration

**Cohesion Policy regions.**<sup>41</sup> Less developed regions are again the most sensitive, with a median far higher than the EU average. In addition to the highest median, they have the highest third and fourth quartiles. More developed regions are the least sensitive, with the smallest spreads (variation across the same type of region) and lowest median in both periods.

**Geographical regions.**<sup>42</sup> Urban regions are the least negatively sensitive socio-economically to the war. The sensitivity of rural regions varies greatly, which is shown by the spread (variation across the same type of region). The highest median for socio-economic sensitivities are for sparsely populated and mountainous regions.

<sup>40</sup> Indicative information on indicators composition and sources is provided in the annex.

<sup>41</sup> Cohesion Policy regions and geographical regions are defined in the 'Types of NUTS2 regions' box, on page 42.

<sup>42</sup> Cohesion Policy regions and geographical regions are defined in the 'Types of NUTS2 regions' box, on page 42.

### 2.2.3 Potential positive territorial impacts of the war in Ukraine

The war has considerable negative impacts on local and regional development in Ukraine and to a certain degree also in the EU. At the same time, some regions might benefit from the war. These potential positive sensitivities are certainly not of the same magnitude as the negative ones, furthermore, they concern specific economic sectors. The potential positive dimension has been translated into the following indicators<sup>43</sup>: Military supply and weapon industry (measured by the values of export licences); potential renewable energy production; energy efficiency; potential agricultural replacement; and potential labour force from inflow of Ukrainian population.

These sensitivities have been translated into indicators for which EU-wide data is available and brought together in a combined potential positive sensitivity index. This index is displayed in Map 2.4 and shows accumulated potential sensitivity. Some indicators were only available for the 2013 version of the NUTS 2 level, therefore Map 2.4 was produced with the same definitions.

France and Spain are expected to profit the most with their weapons industries, as these had the highest values of arms export licences. The war in Ukraine has raised the awareness of several countries for military protection, increasing military equipment production. Even though the weapons industry is largely profitable, the political context might dictate the trade, therefore, some European countries might have lost revenue due to EU sanctions on Russia after the occupation of Crimea in 2014.

**Long term impacts.** Some of the positive impacts are medium to long term, in opposition to the negative impacts. While the gas crisis is already heavily affecting the economy, renewable energy adaptation will be costly and lengthy, however its great benefits will be long term. Regions with the highest potential for solar energy production are in the south of Portugal, across Spain and Italy, the northwest of France, parts of Belgium, the Netherlands and Greece, Cyprus, the north of Bulgaria, the south of Romania and the south of Hungary. Potential wind energy production is seen across Spain, France, Ireland, the Netherlands, Denmark, Lithuania, Latvia, the south of Italy, and the south of Greece. Potential for energy production from biomass is in the north of France, Belgium, the Netherlands, the north of Germany, west of Poland, across Hungary, parts of Romania, and the north of Italy.

Countries with low energy intensity might benefit in the short term, since these will be less affected by the increase in the energy prices. These are Spain, France, Italy, Austria, Luxembourg, Germany, Denmark, Sweden, and Ireland.

The refugee inflow might also bring medium to long term positive impacts, as new Ukrainian residents might be a positive addition to regional labour markets. They may also lead to better staffing and equipment for international organisations, such as the EU, NATO and the International Court of Justice. However, this could raise a moral dilemma of possible labour and brain drain harm in post war Ukraine.

Another potential is for agricultural replacement. Since Ukraine is one of the greatest producers of grain and other foods, the reduction of its exports might open doors for other countries to enter the market. Regions with large amounts of agricultural land might benefit and expand their market shares. Such regions are in Ireland, across France, the north of Belgium, the Netherlands, Denmark, across Germany, Lithuania, the east and the centre of Poland, the centre of Czechia, west of Slovakia, Hungary, the south of Romania, the north of Bulgaria and in Italy.

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<sup>43</sup> Information on indicators composition and sources is provided in the annex.

Regions with the highest positive sensitivity are in the centre of Spain, the centre and north of France, the south of Italy, the north of Belgium, the Netherlands, Denmark, the north of Germany, Lithuania, Poland, Czechia, the west of Slovakia, Hungary, the south of Romania, and the north of Bulgaria.

#### 2.2.4 Potential positive impacts of the war by type of region

Positive sensitivity to the war in Ukraine was calculated using different indicators. Each indicator was normalised and weighted, based on perceived relevance. The transformed indicators were summed, resulting in a regional sensitivity score. The higher the score, the higher the positive sensitivity. The indicators<sup>44</sup> used to calculate positive sensitivity are: Solar energy potential production; onshore wind energy potential production; potential energy production from biomass; military supply and weapon industry (value of arms export licenses); energy efficiency; potential agricultural replacement (share of agricultural land); and potential labour force from inflow of Ukrainian population.

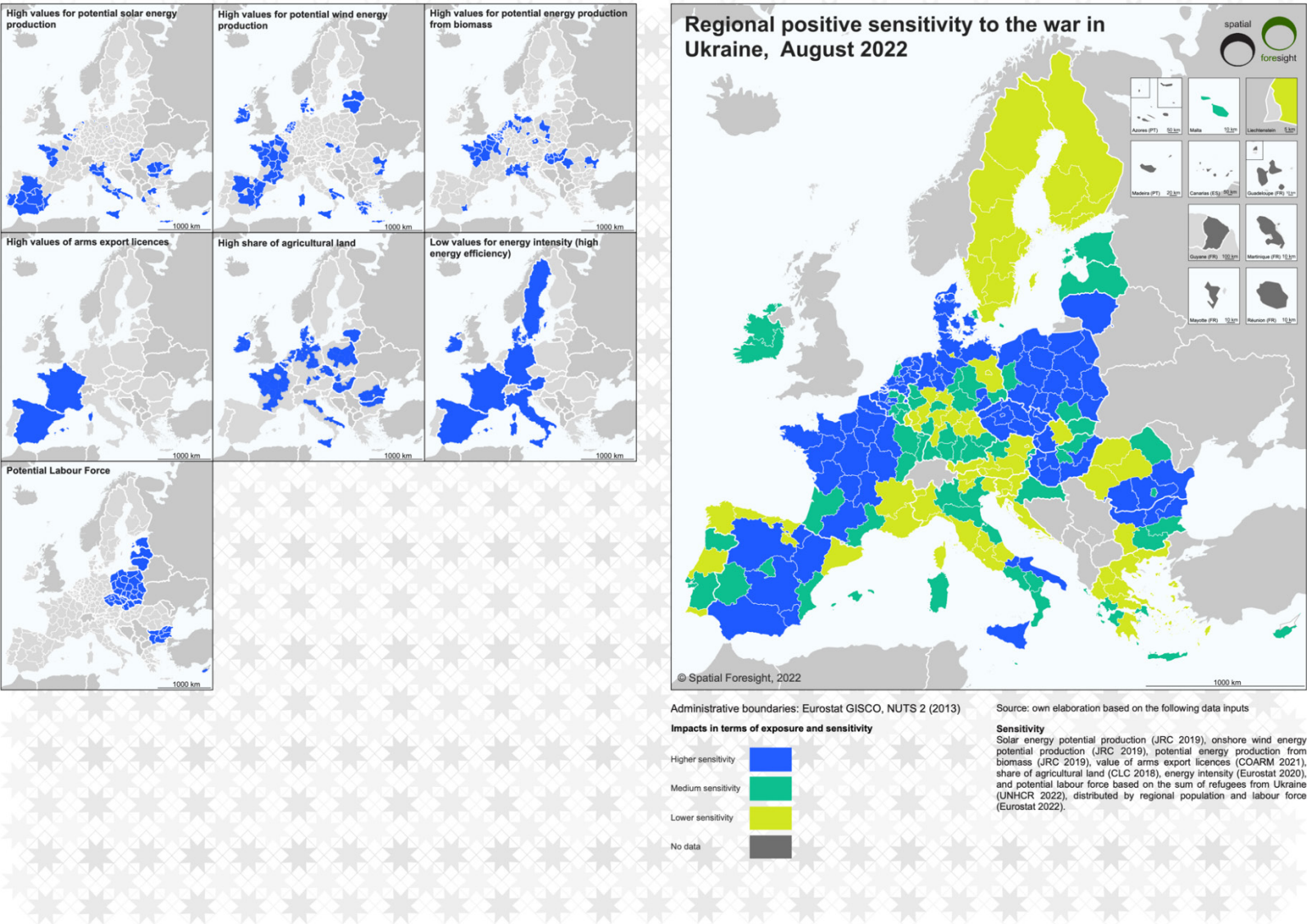
**Cohesion Policy regions.** Transition regions are the most positively sensitive to the war, followed by less developed regions. These have the highest median, as well as third and fourth quartiles. More developed regions have the lowest median, seemingly less positively affected.

**Geographical regions.** The most positively sensitive are intermediate regions, followed by border regions. Island regions have the shortest spread and the highest third and fourth quartiles, demonstrating also positive sensitivity. There is not enough data for outermost regions, or for very sparsely populated regions.

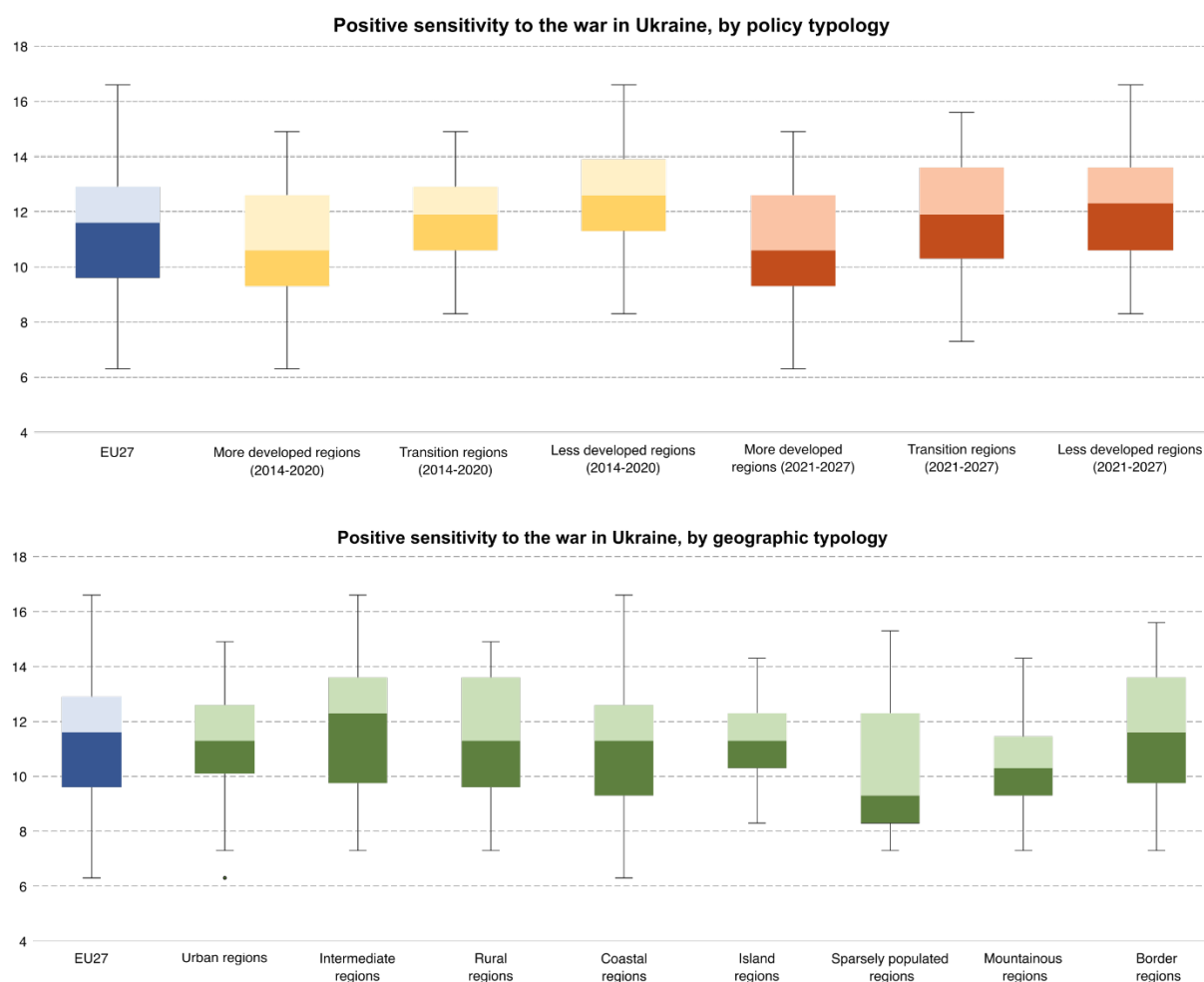
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<sup>44</sup> Information on indicators composition and sources is provided in the annex.

Map 2.4 Potential positive regional sensitivities to the war in Ukraine – August 2022



Source: Study team elaboration

**Figure 2.4 Potential positive impacts of the war in Ukraine by type of region**

Source: Study team elaboration

## 2.3 Changing future trends

Human beings have always wanted to know what will happen in the future. Nevertheless, it is still hard for people to think long-term and take forward-looking decisions about longstanding challenges. The future is seen as a 'tempus nullius', 'nobody's time', resulting in political myopia where short sighted political decisions may jeopardise the future of following generations.

Approaches like foresight and scenario building may be an antidote to presentism, helping to look into different big picture futures. Horizon and trend scanning in particular can stimulate future thinking and help decision makers have a more informed understanding about the present and the future, as well as take more sound and future-oriented decisions. Looking at different trends, either mega-trends with big socio-economic challenges, or other trends with longer- or shorter-term consequences, can help show what is 'out-there' and how different elements can be influenced. What is more, in today's interconnected and interdependent world, changes take place constantly, influencing people and territories in different ways, influencing the economy, policies and the global power balance.



Recent examples of sudden changes are the COVID-19 pandemic and the war in Ukraine, which have shown how much two unexpected events can influence and change personal lives and global events:

**The COVID-19 pandemic** has been the most disruptive crisis in living memory for most Europeans. It has had dramatic consequences for many regions and further consequences for local and regional development, leaving scars on our lives and behaviour. The pandemic has not so much created new socio-economic and development trends, but slowed existing trends (e.g. cruise tourism, business travel) and accelerated emerging trends (e.g. digitalisation, home working, streaming, online shopping). Digital infrastructure and literacy have helped people and businesses get a head start or face transition challenges.

**The Russian invasion in Ukraine** proves that big changes can happen at any time and bring tectonic shifts in the global world order. The war has already put its mark on global changes and our daily lives. Although it is too early to judge how things will develop, the immediate trends and changes have substantially influenced the economic, political and social spheres. Examples are the emerging energy crisis and the Finnish and Swedish applications for NATO membership.

Despite those short-term developments, depending of course on the duration of the war, they have so far brought immense changes from which the world may need years to recover and for which political leaders need to take important decisions.

In addition to these external shocks general developments also make trends emerge or disappear. Already some of the trends hyped during the pandemic may become obsolete while others continue and new ones pop up. The pandemic and the war in Ukraine have influenced mega-trends in different ways. Existing or seed trends have been accelerated or decelerated, changing global and local balances.

Therefore, both events should not be seen in isolation, but in the context of other factors and trends. It is important to highlight that trends should not be seen alone. They are elements in an interrelated and interconnected system, combining with other trends and developments they are influenced and can influence others.

The following section provides an overview of some mega-trends addressing the main areas of global trend research, i.e. ecological, demographic, economic, societal, political and technological changes. For each of these dimensions key trends are highlighted which will shape local and regional development in Europe in the medium-term. Discussion of the trends is followed by a section linking them to different types of territories and showing how much they may have positive or negative effects on development in various types of territories. The discussion focuses on territories with particular socio-economic characteristics as well as geographical types. The trends do not tell the future, as unexpected events change development paths, e.g. pandemics and war. Therefore, the section on wildcards opens the eyes to possible events which are unlikely to happen but which would have substantial impacts if they did. Finally, the chapter closes with a short reflection on what the trends mean for cohesion.

Overall, the discussion points to the risk of more inequality between places and people in Europe, i.e. less cohesion, and an overall risk of a poorer, more unstable and insecure future.

### 2.3.1 Ecological change – Who likes it hot?

The consequences of climate change, with all its effects in terms of extreme weather, heatwaves and sea level rises will affect local and regional development in the coming decades. The effects of the

Anthropocene era, the latest epoch where humans are responsible for climatic changes, has caused dramatic consequences for the environment. Increased growth, overproduction and overconsumption, overexploitation of natural resources, pollution and high energy demands all characterise this era. Humans have failed to engage in a sustainable way with nature, their demands exceed what nature can supply, putting future generations at risk.<sup>45</sup> This human induced climate change has increased the frequency of extreme and intense events such as floods, droughts, forest fires and increased earth and sea temperatures, damaging both nature and people. In the short term, global warming will cause multiple climate hazards, putting ecosystems and people at risk. Even if there is immediate action, not all damage can be fully reversed.<sup>46</sup>

In addition to climate change, the loss of biodiversity will shape the future of our environment and affect people's livelihood. Human activities, including pollution and soil sealing, have caused a continuous and rapid decline in biodiversity. Current extinctions are 100-1 000 times higher than the baseline. Many ecosystems have been degraded beyond repair or are at risk of 'tipping points' which can be catastrophic for the economy and wellbeing.<sup>47</sup> In addition, the threat of pollinator extinction due to environmental pollution, climate change, intensive agriculture and land use change poses additional risks for global food production, as well as the production of cotton, linen, biofuel and construction material. Insects are vital for 78% of wildflower species and 84% of crop species seed production.<sup>48</sup>

**Ecological gap year.** The pandemic briefly paused human activities contributing to climate change and biodiversity loss, it could be considered as an 'ecological gap year'. However, these changes were not lasting. The war in Ukraine, in addition to environmental damage from the war itself on land and at sea<sup>49</sup>, has affected existing trends that influence climate change.

### Emerging energy and food crises

In the wake of the war, trends towards a green transition in Europe – especially linked to renewable energy – to address climate change have a new impetus. On the one hand the war has underlined the necessity to save energy and accelerate the production of renewable energy. On the other hand it has also meant postponing phasing out for some coal power plants. This increases challenges towards a greener future, at least in the short to medium-term.

**Increasing energy insecurity.** The energy shocks caused by the war in Ukraine are profound. Energy prices are soaring due to sanctions on Russia, the EU's main oil, gas and coal supplier. Prices are the highest since the 1973 oil crisis and the World Bank expects a 50% rise in 2022.<sup>50</sup> The war has reversed the trend of lower energy prices from the beginning of the pandemic and shown the high dependency of the EU on Russian energy.<sup>51</sup> This may impact the EU's climate policy and carbon

<sup>45</sup> Partha Dasgupta, *The Economics of Biodiversity: The Dasgupta Review: Full Report*, Updated: 18 February 2021 (London: HM Treasury, 2021).

<sup>46</sup> IPCC, 'AR6 Climate Change 2021: The Physical Science Basis', 7 August 2021.

<sup>47</sup> Dasgupta, *The Economics of Biodiversity*.

<sup>48</sup> European Parliament, 'What's behind the Decline in Bees and Other Pollinators?', European Parliament News, 9 June 2021, <https://www.europarl.europa.eu/news/en/headlines/society/20191129STO67758/what-s-behind-the-decline-in-bees-and-other-pollinators-infographic>.

<sup>49</sup> Marc Santora, 'Dolphins Dying in Black Sea, and May Be Casualties of War, Scientists Say', *The n*, 2 June 2022, <https://www.nytimes.com/2022/06/02/world/europe/dolphins-dying-ukraine-war.html?smid=url-share>.

<sup>50</sup> Larry Elliott, 'Ukraine War 'Will Mean High Food and Energy Prices for Three Years'', *The Guardian*, 26 April 2022, <https://www.theguardian.com/business/2022/apr/26/ukraine-war-food-energy-prices-world-bank> <https://www.theguardian.com/business/2022/apr/26/ukraine-war-food-energy-prices-world-bank>.

<sup>51</sup> European Parliament EPRS, 'Future Shocks 2022. Addressing Risks and Building Capabilities for Europe in a Contested World', April 2022.

neutrality plans for 2050, as high energy prices could reduce the capacity and willingness of consumers and businesses to cover the energy transition costs or subsidise clean energy projects. It could also challenge governments choosing energy sources, taxation and subsidies.<sup>52</sup> Further negative effects regard the delay in the green transition, with several member states prolonging coal production.<sup>53</sup> The EU is already planning to label as 'green' energy production from gas and nuclear investments to speed up the Green Deal<sup>54</sup>, while at a global level, OPEC has agreed to increase oil production, after US pressure.<sup>55</sup>

**Increasing shift to renewables.** On the other hand, these developments may have an opposite effect and accelerate the green transition. The shift towards more renewable energy production finds itself at a 'make or break' point. The EU has already published a plan, RePowerEU, aiming to reduce energy dependency on Russia, increase the uptake of renewable resources, accelerate hydrogen production and decarbonise industry.<sup>56</sup> Such investments and actions should consider biodiversity, as energy installations and infrastructure may pose risks to natural habitats.

**Exacerbated food crisis.** Food security is also a higher risk. Although this is already challenged by climate change, extensive droughts and intense agriculture, the war has exacerbated the risk. Ukraine is a key food basket providing the EU and large parts of the world with cereal. Exports and production are currently limited, while Russia is a key exporter of both cereal and fertilizers but faces sanctions. This may cause a global food crisis, with higher food prices and inflation also in the EU.

### Behavioural changes shaping environmental developments

Ecological trends are closely linked to human behaviour and our use of natural resources. Changing lifestyles and human behaviour towards more sustainable living may have consequences for climate change. A few examples are presented below.

**A new age for transport.** Driven by our behavioural changes, post-pandemic scenarios project important transformations in transport. In particular, a decrease in road passengers while the market for electric vehicles is projected to grow by 65% over the next decade. In such a scenario, electric vehicles would constitute 16% of the fleet by 2030. This trend is clearly accelerated in comparison to a no-pandemic scenario, but its certainty remains tied to many parameters.<sup>57</sup> The trend could be mitigated by an expected decline in private car ownership.<sup>58</sup> Air passenger transport is projected to decrease by 21% by 2030 compared to a no-pandemic scenario. This would be due to energy

<sup>52</sup> European Parliament EPFRS.

<sup>53</sup> Aneta Zachová, 'Some EU Members Turn Back to Coal to Cut Reliance on Russian Gas', Climate Home News, 15 March 2022, <https://www.climatechangenews.com/2022/03/15/some-eu-members-turn-back-to-coal-to-cut-reliance-on-russian-gas/>.

<sup>54</sup> Kate Abnett and Simon Jessop, 'EU Drafts Plan to Label Gas and Nuclear Investments as Green', Reuters, 1 January 2022, <https://www.reuters.com/markets/commodities/eu-drafts-plan-label-gas-nuclear-investments-green-2022-01-01/>.

<sup>55</sup> Financial Times, 'Opec Agrees to Accelerate Oil Production Following US Pressure', Financial Times, 1 June 2022, <https://www.ft.com/content/bb130bb9-4b75-4626-961a-2c1ed9b0e7f9>.

<sup>56</sup> European Commission, 'Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. REPowerEU: Joint European Action for More Affordable, Secure and Sustainable Energy. COM(2022) 108 Final', 8 March 2022.

<sup>57</sup> European Commission. Joint Research Centre., *Global Energy and Climate Outlook 2020: A New Normal beyond Covid 19 : Estimating the Effects of the Pandemic on the Energy System, with a Focus on the Transport Sector*. (LU: Publications Office, 2021), <https://data.europa.eu/doi/10.2760/608429>.

<sup>58</sup> ESPAS, 'Global Trends to 2030: Challenges and Choices for Europe' (European Strategy and Policy Analysis System, 2019).

efficiency and declining activity, as technological innovation in aviation such as electric or hydrogen powered aircraft is expected to have an impact only from 2030 on.<sup>59</sup>

**Local food systems.** During the pandemic mobility was restricted and many shops closed so people often turned to local producers who developed their offer for local customers, sometimes starting local delivery services. This change initiated in consumer behaviour and producers reorganised their businesses. Shorter agricultural production chains and local circuits could continue, especially if this is supported by local policies.<sup>60</sup>

### 2.3.2 Demographic change – The more the merrier?

Aging and demographic decline are a growing challenge for European municipalities, regions and even countries. Eurostat's long-term population projections are for a small population increase in the EU-27, from 447 million inhabitants in 2019 to peak around 449 million in 2026. Thereafter numbers are expected to decline, gradually decreasing to 441 million in 2050 and 416 million in 2100.<sup>61</sup> In territorial terms, this means by 2050, 77% of European NUTS3 areas will be dealing with population decline or shrinkage.<sup>62</sup> These demographic changes influence the labour market, health and social care, the quality of life of citizens, the housing market, education and childcare, as well as the EU's place in the world.

At the same time, Europeans live longer, healthier and safer lives.<sup>63</sup> Life expectancy at birth has increased by about 10 years, while the projection for 2070 is expected to reach 86.1 years for men and 90.3 for women.<sup>64</sup> This trend highlights that the EU is on the verge of a silver tsunami, where elderly occupy the majority of the demographic picture. By 2070, an estimated 30% of people will be over 65, while the working age population is projected to decrease to 51% by 2070. At the same time, the birth rate continues to decrease, making it difficult to keep a constant population size in the absence of migration.<sup>65</sup>

Certainly, all this puts pressure on public budgets, social inclusion, education and the labour market. It also sets further challenges to the position of the EU in the world, with Europe's share of world population reducing while, at the same time, there are implications on its GDP.

The pandemic has already influenced healthcare and life expectancy. At the same time, the pandemic might also help some areas postpone an expected decline as some people moved from metropolitan areas to small urban or rural areas.

The war in Ukraine also challenges existing EU demographic trends with an influx of migrants. The first short-term trends show an increase in migration, from Ukraine the Middle East and Africa, which may put additional pressure on the labour and welfare system in the EU. On the other hand, the influx may in the long run not only have a positive effect on economic growth, by increasing the labour market power, but also reverse the negative aging trend.

<sup>59</sup> European Commission. Joint Research Centre., *Global Energy and Climate Outlook 2020: A New Normal beyond Covid 19 : Estimating the Effects of the Pandemic on the Energy System, with a Focus on the Transport Sector*. (LU: Publications Office, 2021), <https://data.europa.eu/doi/10.2760/608429>.

<sup>60</sup> Serafim Bakalis et al., 'Perspectives from CO+RE: How COVID-19 Changed Our Food Systems and Food Security Paradigms', *Current Research in Food Science* 3 (2 June 2020): 166–72, <https://doi.org/10.1016/j.crf.2020.05.003>.

<sup>61</sup> See [https://ec.europa.eu/eurostat/statistics-explained/index.php?oldid=497115#Population\\_projections](https://ec.europa.eu/eurostat/statistics-explained/index.php?oldid=497115#Population_projections)

<sup>62</sup> See <https://steadyhq.com/en/spatialforesight/posts/99a3b4a3-00f5-47f8-a45d-d1c36ea631e0>

<sup>63</sup> European Commission, 'European Commission Report on the Impact of Demographic Change', 2020.

<sup>64</sup> European Commission.

<sup>65</sup> European Commission.

**Increasing number of migrants from Ukraine.** Millions of Ukrainians have fled their country since the outbreak of war. By early August 2022, about 11 million people had left their country, with over six million going to Europe.<sup>66</sup> In the short term, such an influx puts additional pressure on EU countries hosting refugees. In addition, support requires extra efforts from administrations and people in the regions where they arrive first and then where they end up living. However, as stated above, in the medium- to long-term the refugees might also be a welcome addition to the labour market and cushion some effects of demographic aging and decline.

**Increasing number of migrants due to the impending food crisis.** Large migration waves from neighbouring countries are also expected. The war risks initiating a food crisis, triggering major migration waves from Africa and the Middle East to Europe. Half of Africa's wheat imports come from Ukraine and Russia, which also supplies fertilisers.<sup>67</sup> This worsens the situation, creating a shockwave in food markets and exacerbating existing global hunger. This has direct implications for poorer and famine-hit places in the world that highly depend on Russian and Ukrainian imports.<sup>68</sup> To counterbalance the trend, more support from the EU to these countries may be necessary to cope with destabilisation and mass migration.

### 2.3.3 Economic change – From growth to de-globalisation?

Economic changes are subject to external and internal shocks and global interrelations. Already before the pandemic and the outbreak of war, new economic and trade trends were under discussion. Notions such as de-globalisation or slowbalisation<sup>69</sup> have appeared in recent years. Technological developments that replace low-skilled staff, in combination with the gradual convergence of unskilled workers between Europe and Asia, as well as the overall U-turn of public opinion against globalisation, evident in elections and protectionist choices, have made de-globalisation a current trend. Proposing to move towards a less connected world, with powerful nation states, deglobalisation became more popular after events such as BREXIT and Trumpism.<sup>70</sup>

At the same time, the pandemic has brought a shock to the global economic outlook, with commodity prices and global value chains being disrupted, lowering EU growth. The war in Ukraine worsens these trends by increasing inflation and upsetting global markets.

**Increasing de-globalisation.** Although the seeds of this trend were seen earlier<sup>71</sup>, the pandemic and then the war in Ukraine have accelerated it. Sanctions on Russia, disruptions in value chains, increased energy prices and the unavailability of products have increased the impacts of this trend. Already during the pandemic, companies started to reorganise their value chains due to increasing costs and unpredictable delays in supply chains. Increasing global tensions, the outbreak of war and increasing competition have pushed companies to focus on specific economic blocs and shorten their supply chains.<sup>72</sup> This has increased repatriation, onshoring, reshoring and nearshoring for

<sup>66</sup> See <https://data.unhcr.org/en/situations/ukraine>

<sup>67</sup> Eddy Wax, 'Get Ready for 'Hell'', UN Food Chief Warns amid Ukraine Shockwaves', POLITICO, 22 March 2022, <https://www.politico.eu/article/world-food-programme-eu-fund-us-food-aid-ukraine-russia/>.

<sup>68</sup> Wax.

<sup>69</sup> European Parliament Research Service, 'Slowing down or Changing Track? Understanding the Dynamics of 'Slowbalisation'', December 2020.

<sup>70</sup> Markus Kornprobst and Jon Wallace, 'What Is Deglobalisation?', Chatham House, 18 October 2021, <https://www.chathamhouse.org/2021/10/what-deglobalization>.

<sup>71</sup> Kai Böhme, 'What Does 'Slowbalisation' Mean for Intra European Flows and Cooperation?', KREMER - the Territorial Thinkers' Blog (blog), 2019, <https://territorialthinkers.eu/id-2019-05-kremer.html>.

<sup>72</sup> The Economist, 'Slowbalisation. The Steam Has Gone out of Globalisation. A New Pattern of World Commerce Is Becoming Clearer - as Are Its Costs', 24 January 2019, <https://www.economist.com/leaders/2019/01/24/the-steam-has-gone-out-of-globalisation>; Edgar

strategic goods, returning to the nation state as the key economic power. Already such effects were noticed during the pandemic, which accentuated the strategic importance of value chains for material such as medical equipment, microelectronics and batteries. This reduced globalisation, including within Europe with the repatriation, onshoring and nearshoring of production and building more resilience.<sup>73</sup>

**Increasing stagflation.** Inflation in the euro area is expected to surge to 10% in September 2022,<sup>74</sup> the highest in recent history, mainly due to surging energy and food prices, as well as supply and logistics bottlenecks. The latter are projected to increase further and challenge growth stability.<sup>75</sup> In addition, the war has magnified the slowdown in global growth, which is expected to fall from 5.7% in 2021 to 2.9% in 2022, with immense consequences for middle and low income economies.<sup>76</sup> Such developments intensify stagflation, as inflation peaks and growth decreases, risking a global recession.

**Increasing economic state power.** To counterbalance the economic effects measures will need to be taken including tighter subsidy and monetary policies.<sup>77</sup> There may also be stricter national policies, with more involvement to ensure economic and political stability, as well guarantee social welfare and related benefits.

**Shortage of production materials.** For some time the supply of several resources has clearly been depleting due to population growth, environmental stress, etc.<sup>78</sup> The war in Ukraine affects agricultural products, but also materials necessary for industrial production, such as palladium and neon.<sup>79</sup> Shortages of wood have led to slowdowns in construction and a lack of microchips has affected car production. Temporary shortages of parts and raw materials may continue if we have seen a 'peak of everything'.

**Working from anywhere.** A completely different trend concerns people's working life which changed during the pandemic. Further effects on the economy may come from the changing nature of work, whose effects and consequences may only be visible in the very long-term. Working from home or teleworking is a trend that accelerated substantially during the lockdowns. Demand has increased over the decades, with more than 54% of the workforce already in the 2020s looking for more opportunities to work from home.<sup>80</sup> With the support of technology, some people can work from anywhere, anytime, putting a new geography of work in place, while many countries are seeing tests for a 4-day workweek.

### 2.3.4 Societal change – Who are more equal than others?

Tribalism, cocooning or 'home-nesting', digitalisation of society or e-society and inertia to change are just some of the overarching social trends shaping future developments. Discussions about

Wong and Ana Swanson, 'Ukraine War and Pandemic Force Nations to Retreat from Globalisation', The New York Times, 22 March 2022, <https://www.nytimes.com/2022/03/22/us/politics/russia-china-global-economy.html>.

<sup>73</sup> Committee of the Regions, *The State of the Regions, Cities and Villages in the Areas of Socio-Economic Policies: Contribution to the 2021 EU Annual Regional and Local Barometer*. (LU: Publications Office, 2021), <https://data.europa.eu/doi/10.2863/153679>.

<sup>74</sup> Eurostat: Harmonised index of consumer prices (HICP) – monthly data (annual rate of change) [https://ec.europa.eu/eurostat/databrowser/view/prc\\_hicp\\_manr/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/prc_hicp_manr/default/table?lang=en)

<sup>75</sup> European Commission, 'European Economic Forecast. Spring 2022. Institutional Paper 173.', May 2022.

<sup>76</sup> World Bank Group, 'Global Economic Prospects', June 2022.

<sup>77</sup> World Bank Group.w

<sup>78</sup> Institute for Futures Studies and Technology Assessment, 'Meetings and Conventions 2030: A Study of Megatrends Shaping Our Industry' (German Convention Bureau, 2014).

<sup>79</sup> European Commission, 'European Economic Forecast. Spring 2022. Institutional Paper 173.'

<sup>80</sup> World Economic Forum, 'The Future of Jobs Report 2020', 2020.



increasing inequalities have risen in recent years in the EU. The economic crisis and BREXIT are two examples which triggered inequalities. Discourses over ‘places that don’t matter’ and ‘leaving no one behind’<sup>81</sup> have dominated, reflecting people’s dissatisfaction with different policies. This dissatisfaction has been evident in elections and the rise of populism across the EU. This has sparked a fresh way of thinking, with a new approach to policies, adding the ‘just’ element to their design. Examples are the green and just transitions, where ‘just’ aims at not leaving anyone behind in the transition process, and the territorial agenda that aims for a green and just Europe.

At the same time, trends and developments have emerged such as the ‘the tyranny of merit’, arguing that the pursuit of meritocracy has betrayed the working class, putting them aside. A populist backlash is a revolt against this ‘tyranny’, which implies that if one has not succeeded it is due to one’s lack of abilities.<sup>82</sup> This has implications on the way people see inequality in a wider perspective, also in relation to their work.

Although the increase in inequalities is not a new phenomenon, the pandemic added new challenges, while further discussions even pointed at ‘new social contracts’ towards a better and more equal world. The pandemic has also been the spark for new ideas about the working environment, while the war has intensified inequalities, mainly through higher living costs.

**Increasing social unrest.** A possible trend due to the war is an increased risk of poverty. The surge in commodity prices including energy and food is bringing higher living costs and possibly a risk of ‘social instability’ driven by the high prices.<sup>83</sup> An example is the widespread social unrest of the ‘yellow vest’ movement in France, where people protested against high prices.

**Civil society opposing sustainable development policies.** Another take on social unrest is how much change people are willing to accept to shift towards a more sustainable society. Often this boils down to how much people are ready to sacrifice. Elections in recent years across the world have shown that people have the power to change systems and make an impact on decision making. The decade prior to the pandemic saw a rise in civil society opposition to sustainable development policies, such as the ‘yellow vests’ in France in 2018.<sup>84</sup> These movements concern policies targeting households but also sometimes economic activities, such as truck drivers mobilising against carbon taxes. Although very uncertain, this could be influenced by pandemic-related trends, such as increasing social, economic and spatial disparities, or growing awareness of the need for a transition toward sustainability. However, this trend seems not to be highly affected by the pandemic.

**Increased focus on wellbeing.** Another trend that points to a shift in the way of life, is the increasing focus on people’s wellbeing. Especially during the pandemic and continuing today, people have realised the importance of a good quality of life. There is talk even about the ‘end of ambition’ where employees quit their jobs in pursuit of better or less stressful ones, changing the presumption that work is the most important thing in life.<sup>85</sup>

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<sup>81</sup> Andrés Rodríguez-Pose, ‘The Rise of Populism and the Revenge of the Places That Don’t Matter’, *LSE Public Policy Review* 1, no. 1 (20 July 2020): 4, <https://doi.org/10.31389/lseppr.4>.

<sup>82</sup> Julian Coman, ‘Michael Sandel: The Populist Backlash Has Been a Revolt Against the Tyranny of Merit’, *The Guardian*, 6 September 2020, <https://www.theguardian.com/books/2020/sep/06/michael-sandel-the-populist-backlash-has-been-a-revolt-against-the-tyranny-of-merit>.

<sup>83</sup> Joshua Askew, ‘How Is the War in Ukraine Affecting the Cost of Living Crisis?’, *euronews*, 1 June 2022, <https://www.euronews.com/my-europe/2022/05/31/how-is-the-war-in-ukraine-affecting-the-cost-of-living-crisis>.

<sup>84</sup> Thomas Douenne and Adrien Fabre, ‘French Attitudes on Climate Change, Carbon Taxation and Other Climate Policies’, *Ecological Economics* 169 (1 March 2020): 106496, <https://doi.org/10.1016/j.ecolecon.2019.106496>.

<sup>85</sup> Noreen Malone, ‘The Future of Work Issue. The Age of Anti-Ambition.’, *The New York Times*, 15 February 2022, <https://www.nytimes.com/2022/02/15/magazine/anti-ambition-age.html?referrer=masthead>.

### 2.3.5 Political changes – World order or disorder?

In recent decades the global world order has been shifting to the east with China becoming a global economic player. This has changed the predominant western power status quo, with the US considering China as one of the biggest threats.

The war in Ukraine further adds to global power imbalances, creating precedents for countries to claim different territories, but also initiating a new global nuclear balance.

**Increasing global instability.** The Russian invasion may trigger further global instability and increased global tensions. Discussions have increased about a potential invasion of Taiwan by China.<sup>86</sup> At the same time, Turkey is planning an attack on Syria to push back Kurdish fighters, taking advantage of the war in Ukraine to push its own goals.<sup>87</sup>

**New world nuclear balance.** Nuclear weapons have for long been a balancing act for global powers. The Russian invasion puts a new element to this nuclear order, as Russia has repeatedly used a nuclear attack as a threat. This threat was growing before the Russian invasion, with North Korea, Iran, Pakistan and China expanding their arsenal. The war adds to this, putting no-nuclear countries more at risk and possibly adding incentives to 'go nuclear' or create additional precedents for countries with nuclear weapons to attack others.<sup>88</sup>

### 2.3.6 Technological change – Entering a new era?

Technological developments are inevitable and currently involve especially artificial intelligence, automation and bio-tech. Technological developments can happen rapidly and they constantly influence people's lives and work. Already the world finds itself in a technological realm, with virtual reality mingling with real life. The Internet of Things and artificial intelligence pick up more and more, while job automation and high internet connectivity change people's daily lives.

**Accelerated digitalisation: Omnichannel future.** The pandemic restrictions gave a tremendous boost to digitalisation in Europe. This ranges from home working, videoconferencing, online education and e-governance to online shopping and e-entertainment. In some areas, the push towards digital solutions might be temporary and fade with the pandemic. In other areas, long anticipated developments have accelerated and changed mainstream behaviour, which will be further shaped in years to come. An increasing shift towards a co-existence of digital and physical offers will be pronounced in the retail sector. The pandemic has brought a shift to omnichannel retail, led by digital shopping, which will be further developed and refined. Omnichannel approaches are also expected to be used more in education, in particular tertiary education.

**New technologies.** New technologies and a 4<sup>th</sup> industrial revolution blurring the lines between physical, digital and biological systems are expected to be disruptive. Working methods, social engagement as well as industry, health and education will be transformed. Industrial transformation is expected to accelerate 'winner takes all', fuelled by low institutional capacity in many lagging

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<sup>86</sup> Stuart Lau, 'Ukraine War Highlights Stakes of Chinese Attack on Taiwan', POLITICO, 7 June 2022, <https://www.politico.eu/article/ukraine-war-highlights-stakes-of-china-attack-on-taiwan/>.

<sup>87</sup> Bassem Mroue and Zeynep Bilginsoy, 'Explainer: What Is behind Turkey's Syria Incursion Threats?', Associated Press, 3 June 2022, <https://apnews.com/article/russia-ukraine-islamic-state-group-politics-middle-east-a1293989c40712ae4a789311f88bcb45>.

<sup>88</sup> The Economist, 'A New Nuclear Era', The Economist, 2 June 2022, <https://www.economist.com/leaders/2022/06/02/a-new-nuclear-era>.



places.<sup>89</sup> Early adopters are likely to lead the way. In addition, new digital environments, such as the metaverse, a combination of virtual reality and a digital second life,<sup>90</sup> will change social interactions substantially.

Technological trends influenced by the war are especially linked to security and protection.

**Increasing cyber-attacks and e-insecurity.** Increasing cyber security is necessary, including reducing third party dependence.<sup>91</sup> Attacks concern not only the digital world, but also the physical (e.g. infrastructure and technological supply chains).<sup>92</sup>

**Increasing splinternet events.** Frictions between governmental territoriality and technical fluidity fuels expectations of the internet moving from a world-wide-web into a splinternet or cyber-balkanisation. Here, parallel transnational networks connect like-minded parts of the world.<sup>93</sup> Splinternet events may not be new, however they may intensify in future. Internet fragmentation or 'splinternets' based on political and commercial interests may put different restrictions on free use of the tool. This may also lead to different limits to services, or risks of complying with regulations, such as the General Data Protection Regulation.<sup>94</sup>

### 2.3.7 Trends and how they affect different types of regions

As seen in the previous chapter, regions can be categorised according to their socio-economic and geographic type. Each region is likely to fit more than one type, i.e. one region can be urban and coastal, innovative and global. Therefore, the same trend might affect a region positively and negatively.

How trends affect a place depends on its exposure to the trend as well as its sensitivity to the change the trend brings about.<sup>95</sup> Summing up key characteristics of specific territories as well as key features of selected trends enables a discussion of what future trends might bring to specific territories.

The following two Sankey charts illustrate how the trends discussed above might affect different types of regions. Figure 2.5 illustrates how trends might affect socio-economic areas, and Figure 2.6 illustrates possible effects on geographical areas. The mostly negative influences are in red and the mostly positive in blue. The Sankey charts are based on a qualitative assessment of how trends affect different types of socio-economic areas, focussing on the most prominent effects. In a second step the socio-economic areas have been linked to different types of geographical areas. This allowed for a rough estimation on the most relevant effects a trend may have on a particular type of geographical area.<sup>96</sup> The charts are by no means all comprehensive, in particular as most trends affect all types of areas albeit to different degrees and each types comprises a vast diversity of

<sup>89</sup> Dominique Foray, Kevin Morgan, and Slavo Radošević, 'From Rivalry to Synergy: R&I Policy and Cohesion Policy' (European Commission, 2018), [http://ec.europa.eu/regional\\_policy/en/information/publications/brochures/2018/from-rivalry-to-synergy-r-i-policy-and-cohesion-policy](http://ec.europa.eu/regional_policy/en/information/publications/brochures/2018/from-rivalry-to-synergy-r-i-policy-and-cohesion-policy).

<sup>90</sup> X. Brian Chen, 'What's All the Hype about the Metaverse?', The New York Times, 18 January 2022, <https://www.nytimes.com/2022/01/18/technology/personaltech/metaverse-gaming-definition.html>.

<sup>91</sup> European Parliament EPFRS, 'Future Shocks 2022. Addressing Risks and Building Capabilities for Europe in a Contested World'.

<sup>92</sup> European Commission, 'AI. The Future of Work? Work of the Future! On How Artificial Intelligence, Robotics and Automation Are Transforming Jobs and the Economy in Europe.', 30 April 2019.

<sup>93</sup> Kai Böhme et al., 'The State of the Regions, Cities and Villages in the Area of Socio-Economic Policies. Contribution to the 2021 EU Annual Regional and Local Barometer' (Brussels: Committee of the Regions, 2021), <https://op.europa.eu/en/publication-detail/-/publication/d497d413-53ec-11ec-91ac-01aa75ed71a1/language-en/format-PDF/source-244809746>.

<sup>94</sup> European Parliament EPFRS, 'Future Shocks 2022. Addressing Risks and Building Capabilities for Europe in a Contested World'.

<sup>95</sup> Frank Holstein, Kai Böhme, and Christian Lüer, 'Future-Oriented Approaches - the Case of Territorial Foresight', in *Building the next Generation of Research on Territorial Development*, ed. ESPON, 2019, 76–81.

<sup>96</sup> For more information on the rationale behind the trend assessment see chapter 4.2.3 in the annex.

different places. The main purpose of the charts is to highlight the territorial diversity of possible impacts future trends by pinpoint the most important influences to be expected.

Regions that are considered socio-economically poor seem to be the most negatively sensitive to the trends (see Figure 2.5). The population at risk of poverty is more likely to suffer from stagflation, the increasing energy insecurity, and the food crises. As prices go higher, basic needs will become less affordable, reducing overall quality of life and hindering daily activities. Such type of pressure might also result in an increase of social unrest, as previously mentioned in the example of the yellow vests, in France. The watering down of the Schengen agreement would also affect socio-economically poor regions, by reducing the redistribution of resources, therefore affecting measures for social cohesion, increasing disparities within countries, and across the EU. Poor regions tend to be urban, rural, or/and outermost (see Figure 2.6).

Innovative and e-frontrunner regions are also mostly negatively affected by cyber-attacks and e-insecurity, as their connected nature increase their susceptibility. Splinternet events are also a relevant threat, considering the possible fragmentation, and eventual raise of limits and regulations, over systems that were designed to be world-wide. These can reduce the markets and the reach power innovative and e-frontrunner regions own at the moment. Similar consequences might result from the tightening of subsidies and monetary policies, characterised by an increasing state power in the economy (see Figure 2.5). These regions are mostly urban areas (see Figure 2.6).

Old industrial and energy intensive regions will be mostly negatively affected as well, specially by energy insecurity, due to their low energy efficiency and strong energy dependence. These characteristics make them more susceptible to increases in the energy prices, and pushes these regions further away from the carbon neutrality objectives (see Figure 2.5). Old industrial and energy intensive regions can be intermediate, urban, rural, and/or sparsely populated (see Figure 2.6).

Regions well connected to the global economy will likely be negatively affected by the increasing global instability, as these could become targets to attacks due to their visibility, and role in the global economy. These regions are also susceptible to cyber-attacks and e-insecurity, not only caused by global instability, but also due to the international nature of their businesses and, therefore, highly reliance on e-tools. The watering down of the Schengen agreement would also have negative impacts since these regions are strongly dependent on international networks of resources and trade. However, they might be positively affected by repatriation of research and development, and strengthening of the EU in the wake of de-globalisation (see Figure 2.5). The regions that are most well connected to the global economy are more likely to be urban areas (see Figure 2.6).

Agricultural regions will most likely benefit from the food crisis and the increasing number of migrants. The prices of the commodities should increase, increasing the appreciation of agricultural production and giving people with access to agricultural production a comparative advantage, along with an increase in the labour force generated by the migration. However, the agricultural regions might suffer from energy insecurity, due to costly network connections and infrastructure, which can, eventually, increase social unrest (see Figure 2.5). These regions are generally rural and sparsely populated; but they can also be intermediate, coastal, mountainous, island border and/or outermost regions (see Figure 2.6).

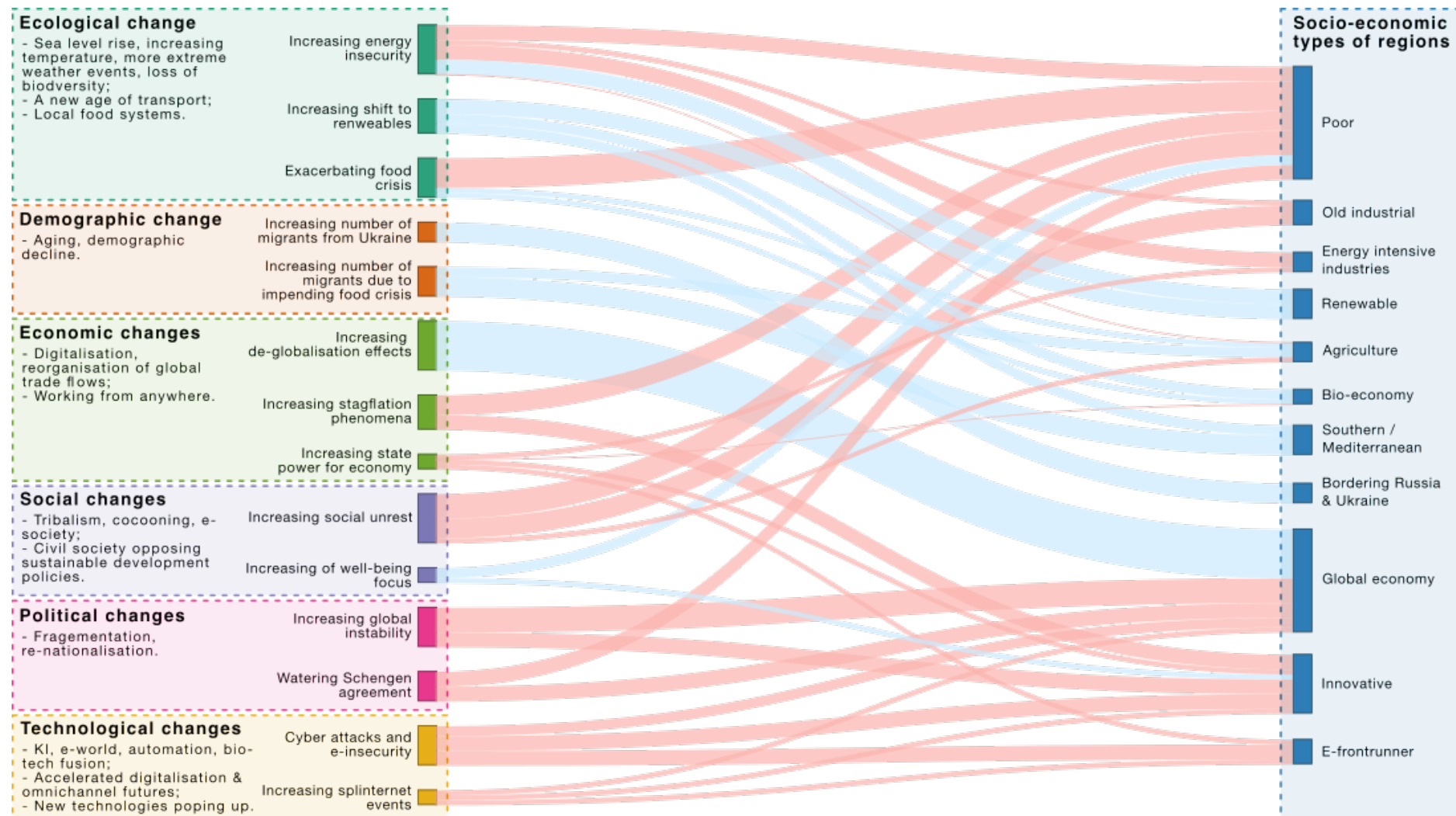
Bio-economies and regions with high potential for renewable energy production will mostly benefit from the increasing shift to renewables and the food crisis (see Figure 2.5). The demand for energy and food will increase, and renewable resources will be most valued, in order to achieve the carbon neutrality objectives. These regions' strongest characteristics will assist other regions to solve the

negative impacts of these trends. These regions can be rural, intermediate, coastal and/or sparsely populated (see Figure 2.6).

Some border regions, especially along external borders of Eastern Europe, will benefit from the increasing number of migrants from Ukraine. Even though the support for the migrants might be costly, the benefits of the new labour force will be relevant in the long-term. It will soften the effects of demographic aging and increase the averages of highly educated workers. Border regions might be urban, rural, or intermediate geographical regions (see Figure 2.5).

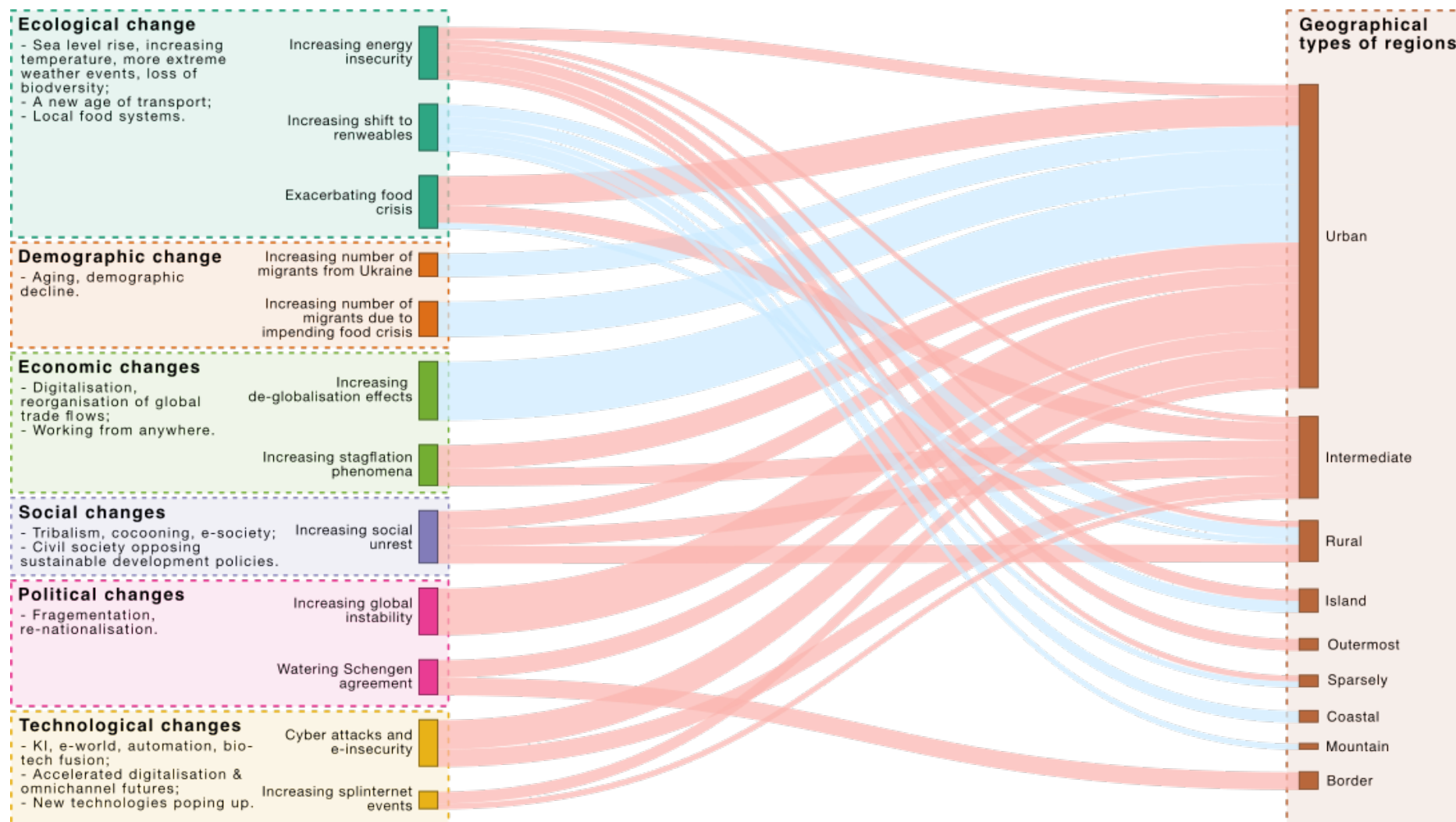
Southern and Mediterranean regions will benefit from the increasing shift to renewables, due to their advantageous geographical position, and natural resources suitable for the production of renewable energy. These regions will also benefit from the increasing number of migrants, similarly to the border regions. In the long-term, the impact of the population aging will be softened by the increase in labour force, which will also increase the rates of highly educated population (see Figure 2.5). The Southern and Mediterranean regions might be urban, rural, or intermediate, also coastal, island, or mountainous (see Figure 2.6).

Some of the mentioned trends might bring benefits for regions that are generally less cohesive, to balance current socio-economic issues, such as the ageing population. However, most of the trends have a general negative impact. The regions most negatively impacted are the ones considered socio-economically poor, and the global economies. These two types of socio-economic regions are translated into mostly urban geographical type of regions. This means urban regions are the ones most negatively affected by all types of changes: ecological, demographic, economic, social, political, and technological.

**Figure 2.5** Potential trend impacts on socio-economic types of regions

Source: Study team elaboration

**Figure 2.6 Potential trend impacts on Geographical types of regions**



Source: Study team elaboration



### 2.3.8 Possible wildcards

Wildcards are speculations or warnings about the future of improbable but deeply disruptive and sudden events. They underline the uncertainty of future developments as low probability but high impact events can cause sudden and fundamental changes.<sup>97</sup>

Examples are the fall of the Berlin Wall in 1989, the 2008 financial crisis, the Eyjafjallajökull volcano eruption in 2010, the Fukushima nuclear disaster in 2011, the COVID-19 pandemic in 2020 and the war in Ukraine in 2022.

The war in Ukraine is expected to have fundamental impacts on globalisation and global value chains, energy security, the future of the energy sector in Europe and the transition to carbon neutrality, as well as the future of a wide range of other sectors such as agriculture & food processing, chemistry, pharmaceuticals and manufacturing. Shortage in supply chains and rising prices for a range of products are just the first immediately visible impacts.

The discussion of wildcards aims to provoke thinking out-of-the-box and engage in discussions about different possibilities for significant change.<sup>98</sup>

Below are several wildcards that may influence the future in the EU.

- A new 'May of 1968', i.e. a big social movement with people reacting to social inequality in different regions across the EU.
- A sudden baby boom, i.e. experiencing a new baby boom after several crises, which would counterbalance aging and the birth deficit.
- A major cyber world war, influencing elections and threatening democratic procedures, but also the economy and peoples' everyday work.
- The end of the digital age, i.e. becoming fed up with the immense technological changes that challenge ethics and human development leading to a shift towards analogue solutions.
- Nuclear fusion technology, an innovation in energy production producing immense amounts of energy, with little environmental consequences, which could bring a breakthrough in energy production.
- A nuclear war with the use of nuclear weapons in a new conflict, jeopardising peace and global health.
- Major outmigration from the EU of young and skilled people, with economic growth in the EU stagnating and unemployment rising, young and skilled people search for new opportunities on other continents.
- The collapse of the United States as a global power, with the shift of global powers to the east.
- The collapse of the flora and fauna ecosystem, where increasing use of natural resources without taking any action towards climate change and restoring biodiversity may have severe consequences on ecosystems.
- Conflicts and wars over access to fewer and fewer natural resources, including water.
- Russia entering a period of democratisation and peaceful cooperation with its neighbours.

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<sup>97</sup> Angela Steinmüller and Karlheinz Steinmüller, *Ungezähmte Zukunft: Wild cards und die Grenzen der Berechenbarkeit* (München: Gerling Akademie Verlag, 2003).

<sup>98</sup> European Strategy and Policy Analysis System, 'Global Trends to 2030: Can the EU Meet the Challenges Ahead?' (European Strategy and Policy Analysis System, 2015).

## 2.4 Cohesion needs resilience

The pandemic and the war impact Europe's cohesion prospects as they risk further accelerating existing disparities between places and people. Looking towards the future, trends and their possible territorial implications point to increasing instability and insecurity. In short, cohesion has suffered from the pandemic, suffers furthermore from the war in Ukraine and will not be helped by future trends which bring more instability.

To address the risks of growing disparities, and the prospects of an increasingly unstable and insecure future, regions need to become more resilient. They need to be better equipped to react to changes and have the flexibility to adapt and navigate under uncertainty. This should reduce the risk that future external shocks, major trends and societal transitions increase disparities.

### 2.4.1 Risks of increasing disparities

The following provides a quick summary of the analysis of different impacts per type of region (see above). Figure 2.7 shows the risk that a region is affected by the pandemic or the war in Ukraine. At NUTS 2 level it appears that rural, island, coastal, mountainous and less developed regions of the 2014-2020 and 2021-2027 periods are more generally at risk. However, as NUTS 2 regions are large and do not well match the geographical types of regions – and as impacts vary even between neighbourhoods (and not just regions) – this is only a rough indication.

The result of adding the negative impact of the pandemic and the war is likely to be a less cohesive European territory. Mediterranean regions suffered most during the pandemic, while Eastern and Baltic countries seem to be more negatively sensitive to the war. Greece, especially, suffered strongly from the pandemic and is very negatively sensitive to the war.

**Geographical regions.**<sup>99</sup> Among the geographical types of regions, sparsely populated and mountainous regions seem to be the mostly negatively affected and also have the lowest positive sensitivity. Rural regions are also strongly negatively sensitive, however there is some mild positive sensitivity. Even though all of these regions are very diverse within their own typology, generally they seem to have been strongly affected by the pandemics and the war and do not show strong positive sensitivities. Intermediate regions have the strongest positive sensitivities, with mild sensitivity to the war and the pandemic.

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<sup>99</sup> Cohesion Policy regions and geographical regions are defined in the 'Types of NUTS2 regions' box, in page 42.

**Figure 2.7 Potential cohesion impacts by type of region**

	COVID exposure + sensitivity	War energetic sensitivity	War socio-economic sensitivity	War positive sensitivity
<b>Geographical types of regions</b>				
Urban regions	Medium	Medium	Medium	Low
Intermediate regions	Medium	Medium	Medium	Medium
Rural Regions	High	Medium	High	Low
Coastal regions	High	Low	Medium	Low
Island regions	High	Low	Medium	Low
Outermost regions	High	Low	Low	
Very sparsely populated regions	Low	Medium	Medium	
Sparsely populated regions	High	Medium	High	Low
Mountainous regions	High	Medium	High	Low
Border regions	Medium	High	Medium	Low
<b>Cohesion Policy 2014-2020</b>				
More developed regions	Medium	Medium	Medium	Low
Transition regions	High	Low	Medium	Medium
Less developed regions	Low	High	High	Medium
<b>Cohesion Policy 2021-2027</b>				
More developed regions	Medium	Medium	Medium	Low
Transition regions	High	Low	Medium	Medium
Less developed regions	Low	High	High	Medium

<b>Legend</b>				
Low	Low	Low	Low	Low
Medium	Medium	Medium	Medium	Medium
High	High	High	High	High

Source: Study team elaboration



**Cohesion Policy regions.**<sup>100</sup> Among the cohesion policy regions, less developed regions are the most negatively affected. Transition regions were strongly sensitive to the pandemic, however less sensitive to the war in Ukraine. Less developed and transition regions have higher positive sensitivities than more developed regions, nevertheless, it is most likely that their recovery from the negative impacts will be more difficult than recovery for more developed regions.

Overall, the pandemic and the war in Ukraine risk increasing regional disparities in Europe. In many regards more developed and better off regions are less affected by these external shocks than less developed regions. This is clear from analysis by type of Cohesion Policy region, but it also concerns geographical regions, such as urban regions that are less affected than rural and sparsely populated regions. As shown earlier, in many cases these were also regions particularly hard hit by the financial crises in 2008.

#### 2.4.2 Increasingly unstable outlooks

Looking beyond recent developments shaped by the pandemic and the war in Ukraine, trends and wildcards help to ignite out-of-the-box and creative thinking. They do not aim to make predictions or provide an accurate prognosis of the future. Trends help to see what future developments could be and then make good choices and take appropriate action. It is in the hands of policy makers to observe and have a better understanding of trends and developments and make the most beneficial choices for their citizens. These choices matter for the generations to come, to create more a positive future.

The trends in this chapter are largely affected by the war, while additional trends show further developments. Trends linked to the war highly depend on its duration as well as the decisions and actions taken as a consequence.

Following the trend review, the future seems more unstable, more insecure and more challenging for the welfare of people. Development depends on decisions and choices to be made in the coming years, as humanity finds itself in a world of dilemmas. Should world and European leaders focus on protection of the environment and biodiversity, at the expense of renewable energy? Or should they invest in clean energy, bearing the cost of putting biodiversity under threat? Should the global economy be stabilised with the risk of putting more people at risk of poverty? Would the maintenance of global power for several countries be of greater importance than internal power and the common good of their people? How willing should people be to sacrifice their way of life, in view of resource scarcity, price increases and food shortages?

All these pose ethical questions which people and policy makers need to reflect on and take action. In the end, it is all about our choices, how to turn the gloomy short-term picture into a bright long-term future.

The trends also raise questions concerning the future of cohesion in Europe. Many trends risk accelerating disparities between places and people. Should policy makers give more emphasis to cohesion to avoid a fragmentation of the EU? Or should Europe rethink its cohesion objective and vision for the future to accommodate increasing disparities between places and people? Would it be possible to identify trends which address disparities between places and people and accelerate these trends in the context of a digital, green and just transition?

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<sup>100</sup> Cohesion Policy regions and geographical regions are defined in the 'Types of NUTS2 regions' box, in page 42.

### 2.4.3 Need for resilience

To address the risks of growing disparities and the prospects of an increasingly unstable and insecure future, policies at all levels need to be resilient.

Resilience is often understood as the ability of a system to ‘bounce-back’ or return to its pre-shock state. For regional development, resilience describes an economy’s adaptive capacity, which affects its ability to maintain long-term growth. Accordingly, key ingredients in the resilience debate are economic diversity and openness, innovation, social capital, quality of governance and access to funding and resources.

However, the pandemic and the war have shown that external shocks shape new realities which make the idea of bouncing back to a pre-shock state obsolete.<sup>101</sup> Decision makers have to accept and embrace the new realities. This means resilience must be about the ability to reorganise after a shock to the system. Thinking about increasing resilience along these lines leads to completely different conclusions:<sup>102</sup>

- Resilience requires decision-making recognising that costs and benefits can be separated by long time-lags.
- Resilience implies handling complex intertwined social–economic–ecological systems.
- Resilience is about added value which goes beyond the unilateral ‘single-best efforts’ of any player.

This also means that resilience is the ability to react to changes with the flexibility to adapt and navigate under uncertainty. This requires the capacity to understand emerging topics and the willingness to change.

Strengthening this type of resilience in all regions may also help to reduce the risk that future external shocks or wildcards, major trends and social transitions increase disparities. Strengthening resilience in terms of the ability to react to changes with the flexibility to adapt and to navigate under uncertainty at all levels of governance might be the best way to support cohesion between places and people in the EU.

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<sup>101</sup> CoR, *The State of the Regions, Cities and Villages in the Areas of Socio-Economic Policies*. (Luxembourg: Publications Office of the European Union, 2022), <https://data.europa.eu/doi/10.2863/00247>.

<sup>102</sup> Andreas Duit et al., ‘Governance, Complexity, and Resilience’, *Global Environmental Change, Governance, Complexity and Resilience*, 20, no. 3 (2010): 363–68, <https://doi.org/10.1016/j.gloenvcha.2010.04.006>; Böhme et al., ‘The State of the Regions, Cities and Villages in the Area of Socio-Economic Policies. Contribution to the 2021 EU Annual Regional and Local Barometer’.

### 3 CROSS ANALYSIS & RECOMMENDATIONS

#### KEY FINDINGS

- Cohesion Policy helped to address the immediate needs caused by the pandemic. Therefore, addressing new challenges and crises by setting up new EU funding instruments, should only be considered when existing instruments are unable to respond.
- To increase resilience and address future cohesion challenges, Cohesion Policy needs to adjust. It needs to refocus from short-term emergencies to long-term projects and strengthen cohesion and governance capacity at local, regional, national and programme levels.
- A review of the interplay between NRRPs and Cohesion Policy programmes, the strategic orientation of policies post-COVID and the long-term orientation of Cohesion Policy programmes should inform a broad reflection on possible reorientation towards more strategic long-term needs, already in 2023.
- Cohesion Policy post 2027 can be radically different from today. It could be the driver for transition and policy integration in a new era. Cohesion Policy could also become a narrowly focused funding scheme among an increasing number of purpose-built policies. Or, Cohesion Policy might be phased out as it lacks the agility and flexibility to adjust to changing circumstances. Now is the time to shape the debate about Cohesion Policy post 2027.
- Assessing possibilities for FNLC, stronger capacity building at all levels, an ambitious long-term perspective and the interplay between NRRPs and Cohesion Policy can provide important steppingstones to shape the future of Cohesion Policy.

Taken together the analysis in previous chapters shows that Cohesion Policy helped address immediate needs in the wake of the pandemic. However, to address cohesion challenges lying ahead and use the crises as a chance to realise a green, digital and just transition, Cohesion Policy needs to adjust.

This study supports calls for a more resilient Europe post COVID-19 in an earlier paper by the European Parliament.<sup>103</sup> Focusing on cohesion and Cohesion Policy this study provides additional, more detailed reflections and recommendations. These are further developed in the following sections, also building on the conclusions from the first part of this study.<sup>104</sup>

#### 3.1 The role of Cohesion Policy

The pandemic and the war on Ukraine were two major shocks putting many people, enterprises, public authorities including municipalities and regions at risk. Clearly, there was – and still is – no blueprint for handling external shocks such as these and needs vary considerably across Europe.

In many regards the crises have accelerated fragmentation between societal groups and between places. Many impacts point to the risk of increasing inequality. The worst and most direct impacts have been avoided by swift policy action. In this context Cohesion Policy also played a role.

Cohesion Policy responded very quickly to the pandemic, with increased flexibility to allow the use of funding for the most urgent needs. The continued high absorption rate and speed of directing

<sup>103</sup> European Parliament, Directorate-General for External Policies of the Union, Directorate-General for Parliamentary Research Services, Finance, S., Schmertz, L., Bentzen, N., et al., *Towards a more resilient Europe post-coronavirus: Options to enhance the EU's resilience to structural risks*, Debié, F.(editor), Bassot, É.(editor), European Parliament, 2021, <https://data.europa.eu/doi/10.2861/675160>

<sup>104</sup> Kai Böhme et al., 'The Impacts of the COVID-19 Pandemic on EU Cohesion and EU Cohesion Policy' (Brussels: Policy Department for Structural and Cohesion Policies, 2022).

resources to immediate needs illustrate that this was a successful strategy. It shows that Cohesion Policy can respond to unexpected crises with swift changes and increased flexibility. This certainly played a role in cushioning some of the most devastating effects of the pandemic, including by helping the healthcare sector to manage and by keeping companies afloat.

Member states with funding to allocate made most use of the increased flexibility, and most countries facing the most severe impacts of the pandemic benefitted from the new Cohesion Policy rules.

In light of the war in Ukraine, instruments such as REPowerEU have been launched to support the diversification of energy sources, accelerate the production of clean energy and incentivise energy saving. The financing of REPowerEU builds largely on RRF, especially in terms of loans to member states.

As pointed out in the previous study,<sup>105</sup> even a scenario where all EU emergency funding was scheduled via Cohesion Policy mechanisms rather than new instruments, such as the RRF, would probably have worked. Using a system that is in place and has the capacity and flexibility to react to the crisis might have the advantage of avoiding new administrative procedures and workloads for new instruments. Such a scenario would also have avoided EU funding instruments overlapping and possible competition between instruments. Indeed, the pandemic has accelerated trends towards creating new EU policy instruments that partially overlap with existing Cohesion Policy instruments. This risks weakening the role of Cohesion Policy and increases the complexity of EU policy instruments. In the worst case, increasing complexity counteracts efforts for administrative simplification, increases confusion about the multitude of funding instruments, creates competition between these instruments and affects citizens' general acceptance and understanding of EU policies.

**Table 3.1 Policy Recommendation: Cohesion Policy can respond to crisis**

Recommendation	Possible actions by the European Parliament	When
<p>The NRRPs clearly risk overlapping with Cohesion Policy or of even replacing Cohesion Policy in the long run.</p> <p>Responding to new challenges and crises by setting up new EU funding instruments should only be considered when existing instruments (e.g. Cohesion Policy) are not in a position to react. To avoid duplicate administrative structures and competition between funding instruments, priority should be given to enlarge and adjust existing instruments, rather than setting up new ones. In future debates about setting up new EU policy and funding instruments, the European Parliament should assess how much the new instruments could be fulfilled by (adjusting) existing instruments, e.g. Cohesion Policy.</p>	<p>The <b>summary report of the Commission</b> (CPR Art. 53(1)) might be an opportunity for EU institutions to discuss the effectiveness of current Cohesion Policy programmes in facing the crises.</p> <p>The European Parliament should ask for an assessment of the <b>coordination and synergy potential between NRRF incl. the RRFs and Cohesion Policy</b>. To understand whether the emerging multitude of policies is justified, such an assessment needs to work in both directions, i.e. in terms of integrating funds and policies in Cohesion Policy and NRRPs.</p> <p>The European Parliament should investigate how much a new instrument could be fulfilled by (adjusting) existing instruments, e.g. Cohesion Policy.</p>	<p><b>1<sup>st</sup> quarter 2023</b></p>

<sup>105</sup> Böhme et al.

### 3.2 Cohesion Policy 2021-2027

While Cohesion Policy reacted swiftly and smoothly to the emergency, it is important not to stay in emergency mode for longer than necessary. To allow for swift responses, funding has been diverted from strategic long-term needs to more short-term ones and decision-making processes have been simplified, often meaning even more decision making at national level.

It is important to shift gear and start considering the crises as a chance to accelerate the transition to a more sustainable, digital and cohesive future. There is a risk that this chance might be missed.

**Shift focus from short-term emergency to long-term cohesion projects.** The pandemic emergency favoured existing trends of prioritising quantity (absorption) over quality for spending Cohesion Policy funding. This was appropriate during the crisis which required immediate action and a strong focus on short-term support. However, as the emergency eases it is important to refocus on long-term perspectives addressing structural change with high quality spending, including ‘micro-spending’ favouring small players and small places. Otherwise, Cohesion Policy risks increasing inequalities to the disadvantage of small towns and rural places. This would also increase cohesion challenges for people living in these areas. In light of the growing impacts of climate change and the war in Ukraine on the energy sector in Europe, more focus on a green transition is needed even within Cohesion Policy. A stronger alignment of all Policy Objectives to a green transition is needed to combat the impacts of climate change, reduce Europe’s energy demands, as well as increase energy efficiency and the use of renewable energy. As outlined in the EU Strategic Foresight Report,<sup>106</sup> to be successful the green and digital transitions must work together. Cohesion Policy can be pivotal to support this twin transition and even ensure cohesion and a just transition, without which a grand social transition will not be possible.<sup>107</sup>

**Table 3.2 Policy Recommendation: Shift focus from short-term emergency to long-term cohesion projects**

Recommendation	Possible actions by the European Parliament	When
The focus on high quality projects with a clear cohesion perspective needs to be strengthened again as the need for emergency interventions decreases. Funding place-based projects in smaller towns and rural areas is important for long-term cohesion. In the context of the European semester, the European Parliament should address the need for a long-term perspective targeting structural change towards a green, digital and just transition, with high quality spending, when debating country reports and country specific recommendations.	In the context of the European semester, economic dialogue, the European Commission country reports (and, more specifically, Annex D) are pivotal in the life-cycle of Cohesion Policy. The <b>European Parliament may invite the President of the Commission or the relevant Commissioner</b> to discuss the Cohesion perspective and, if needed, advocate the possibility for reprogramming.	<b>2<sup>nd</sup> quarter 2023</b>

<sup>106</sup> European Commission, ‘2022 Strategic Foresight Report. Twinning the Green and Digital Transitions in the New Geopolitical Context’, June 2022.

<sup>107</sup> See <https://steadyhq.com/en/spatialforesight/posts/353cb14d-b526-4a27-95f5-61ac0100ba90>

**Cohesion needs multi-level governance.** Cohesion challenges are becoming increasingly complex and granular. Inequalities and fragmentation that challenge cohesion are not just a matter between member states or between regions in Europe. Increasingly, inequalities are growing between places and between societal groups. Increasing complexity calls for insights from a wide range of players in decisions about how to best address cohesion challenges. Local and regional levels are especially important for understanding how to best strengthen cohesion, is holds especially true for cross-border regions. At the same time, decision making during the crisis seems to have increasingly moved to the national level with decreasing influence and involvement of local and regional decision makers. This is notable with the NRRPs. More centralised decision making may enable swifter reactions in times of crises. However, centralisation risks increasing the distance between cohesion problems and the decision-making level. This will make it more difficult to address cohesion challenges with place-based responses understanding the particularities of an area.

**Table 3.3 Policy Recommendation: Cohesion needs multi-level governance**

Recommendation	Possible actions by the European Parliament	When
<p>Multi-level governance and partnership principles are important cornerstones of Cohesion Policy and need to be ensured and re-emphasised where they have weakened. In the context of the European semester, the European Parliament should address the role of the local and regional level – and cross-border structures – in Cohesion Policy and in the National Recovery and Resilience Plans (NRRPs).</p> <p>More generally, also the way of how civility society and citizens are considered in the governance of Cohesion Policy deserves more reflections. This does also include the function of the Structured Dialogue at EU-level.</p>	<p>In the context of the <b>European Semester</b>, the European Parliament should address the role of the local and regional level in Cohesion Policy and in NRRPs. The European Parliament should promote ‘active subsidiarity’ EU-wide with the aim of achieving full endorsement by member states and European Commission, of the Code of Conduct on the <b>involvement of the local and regional authorities</b> in the European Semester. Particular attention should also be paid to cross-border structures.</p> <p>The European Parliament should also ask the European Commission for an assessment of how the European Code of Conduct on partnership is applied in the implementation of Cohesion Policy.</p>	<p><b>Every year as of 2023</b></p>



**Administrative capacity constraints can impact the quality of new programmes.** Responding to the crisis and adjusting to emergency needs in countries, regions and municipalities have often demanded significant administrative resources from programme authorities and other players contributing to the success of Cohesion Policy. Reprogramming, sometimes for regional and national support schemes, as well as NRRPs drained already stretched administrative capacities in terms of manpower. This also led to constraints – in terms of time and staff available – to programme a strategic and forward-looking 2021-27 period. There is a risk that particular programmes, which were already lagging behind and fighting a lack of staff and time prior to the pandemic, face cascade effects of this pressure, leading to less strategic programming. To ensure high quality programmes and programme management, administrative capacity support and ‘simple’ reprogramming options might help.

**Table 3.4 Policy Recommendation: Administrative capacity constraints risk the quality of new programmes**

Recommendation	Possible actions by the European Parliament	When
To ensure good quality and strategic programmes and to overcome recent capacity constraints, the European Parliament should advocate efforts for administrative support to programme authorities and ensure that simplification efforts are carried out (also considering that any changes in regulations usually increase administrative workload before resulting in a reduction). Furthermore, for programmes which could not devote the expected efforts to programming for the 2021-27 period, the option for a voluntary mid-term review and possibility for reprogramming in 2023 should be considered.	The European Parliament should verify (and advocate) efforts for <b>administrative support to programme authorities</b> and simplification in scrutinising country reports and country specific recommendations as part of its involvement in the European Semester. The Parliament should focus on ANNEX D of the country report and verify the commitment of member states and support provided by the European Commission for capacity building and simplification. Another occasion for the Parliament is the annual monitoring report on the <b>implementation of the Structural Reform Support Programme</b> . This might provide a view of how much and how far local and regional authorities are supported to enhance their capacity.	<b>Every year as of 2023</b>

**Attention to areas with slower recovery and transition prospects.** COVID-19 and the war in Ukraine have not made long-term challenges such as cohesion, climate change, energy transition, digitalisation or biodiversity disappear. At the same time, the impacts of these crises on local and regional development vary between different types of regions. For the pandemic, recovery outlooks vary considerably. For the war in Ukraine, the severe impacts in terms of gas shortages and skyrocketing energy prices, might only be felt by business and inhabitants in winter 2022/23. This may impact in particular regions with energy intensive industries and rural or peripheral regions with higher transport needs. This includes many mountainous, coastal and island regions including small towns – and most of all regions with a high share of people at risk of poverty.



**Table 3.5 Policy Recommendation: Attention to areas with slower recovery prospects**

Recommendation	Possible actions by the European Parliament	When
To reduce risks of increasing regional inequalities due to different recovery speeds, including the expected energy crisis and risks of an economic recession, Cohesion Policy should help regions with less prospects to both recover and deliver on long-term challenges (structural change, climate change, digitalisation, biodiversity, etc.) including regions particularly affected by the war in Ukraine.	In late 2023 first results of the ex-post evaluation of 2014-2020 Cohesion Policy will become available. This might be an opportunity for the European Parliament together with the Committee of the Regions to strengthen the focus on regions with <b>slower recovery and transition prospects</b> and to verify the commitment of the Commission concerning 2021-2027 Programmes.	3 <sup>rd</sup> quarter 2023

**Strengthening regional resilience.** The increasing number of crises and external shocks underline the need to become more resilient. Climate change, loss of biodiversity, the financial crisis in 2008, migration crisis in 2015, the on-going pandemic and war in Ukraine, and the expected energy and migration crises in 2022/23, have very diverse impacts on local and regional development and thus on cohesion in Europe. Given the complexity of these developments, it is impossible to have blueprints which work for all parts of Europe and for all external shocks. The main lesson to be drawn from this is the need to increase resilience at all levels of governance. In this case, resilience is the ability to adapt to changing situations (rather than bouncing back to a previous equilibrium).<sup>108</sup> Cohesion Policy, in particular PO5, should be used to help local and regional authorities in Europe to increase their capacities to deal with unexpected shocks and become more resilient.

**Table 3.6 Policy Recommendation: Strengthening regional resilience**

Recommendation	Possible actions by the European Parliament	When
Make better use of territorial tools such as ITI and CLLD to strengthen local and regional resilience, by building up capacities and designing transition strategies which are future-oriented and flexible living documents that can respond to emerging changes.	The European Parliament could <b>raise awareness about the territorial tools</b> in Cohesion Policy to boost governance innovations which help local and regional authorities to become more resilient. This could include a roadmap among regions, member states and Managing Authorities on how to boost the use of territorial tools to increase resilience.	As of 2023
The existing roadmaps on capacity building (ERDF article 3.4) are not only intended to increase efficiency of programming but also to support capacity building for local and regional governance, i.e. to help plan better and more.	The European Parliament should ask the European Commission for an <b>assessment of how much article 3.4 has been used to boost capacity building</b> – e.g. in PO5 – to improve administrative capacities beyond Cohesion Policy, i.e. strengthen local and regional capacities to plan better and plan	Late 2023/early 2024

<sup>108</sup> See <https://steadyhq.com/en/spatialforesight/posts/75c41b20-24f2-4593-8b08-532d1c9fb857>

Recommendation	Possible actions by the European Parliament	When
	more. This could be done in preparation for reprogramming in 2024.	
As the future is uncertain, increased flexibility is needed to respond to unexpected developments. Allowing for more flexibility in Cohesion Policy needs to balance accountability with a strategic long-term perspective. Otherwise, flexibility risks undermining the credibility of Cohesion Policy.	The European Parliament should ask the European Commission for an <b>analysis of Cohesion Policy regulations concerning flexibility</b> and how they are used, also considering long-term cohesion objectives.	<b>2023</b>

**Strengthen cohesion as an underlying value.** Both the pandemic and the war in Ukraine challenge cohesion in Europe and broaden the gaps between prosperous and lagging regions. Many of the mega-trends affecting local and regional development in Europe are expected to further accelerate these increases in disparities. Cohesion Policy must offer a platform for regions which risk being left behind to increase their capacities to develop desirable future perspectives for their areas and forward-looking projects funded by Cohesion Policy.

**Table 3.7 Policy Recommendation: Strengthen cohesion as an underlying value**

Recommendation	Possible actions by the European Parliament	When
Remember the cohesion objective of Cohesion Policy. Cohesion Policy is not only important as a funding scheme, but also because it provides tools to tackle emergencies, as well as local and regional development linked to economic, social and territorial cohesion. However, there is a risk that the focus on other policy objectives and the need for simplification sideline the purpose of Cohesion Policy	The European Parliament should advocate a shift in the predominant narrative of Cohesion Policy. This needs to go from administrative simplification to a <b>narrative focusing again on the need for cohesion and place-based policy-making in Europe</b> . The debate should be about how, to whom and for what money is distributed, and less about simply how much money is handed out and how. This could be done in cooperation with the Committee of the Regions who are already stressing the need for cohesion as a value. <sup>109</sup>	<b>As of 2023</b>
With a new narrative Cohesion Policy will still need to balance cohesion objectives and efforts to keep administrative costs and burden in check. Possible lessons from the NRRP in terms of FNLC could be learned.	The European Parliament could advocate the use of parametric governance to balance results (not outcomes) related to cohesion objectives, and the simplified management of funds. It could launch a <b>study analysing options for stronger parametric governance in Cohesion Policy</b> and develop a proposal for Cohesion Policy post 2027.	<b>As of 2023</b>

<sup>109</sup> European Committee of the Regions et al., *Cohesion as an Overall Value of the European Union* (Luxembourg: Publications Office, 2021), <https://data.europa.eu/doi/10.2863/9390>.

Recommendation	Possible actions by the European Parliament	When
	Furthermore, the European Parliament could push the European Commission to <b>increasingly use CPR article 95 to experiment and develop guidance</b> on how to use parametric governance (FNLC) (following a similar path to the evolution of SCO).	

### 3.3 Cohesion Policy post 2027

The fate and direction of Cohesion Policy post 2027 is still to be decided, although the debate has already started. To support municipalities, regions and member states responding to unexpected external shocks and mega-trends, shape Europe's green, digital and just transition, as well as face increasing competition from funding instruments which appear simpler to manage such as RRF, Cohesion Policy will have to change. This change could take radically different directions.<sup>110</sup> Based on the findings presented above, three radically different future scenarios can be imagined for Cohesion Policy post 2027:

- **A New Era for Cohesion Policy.** In this scenario, EU policy making is driven by an economic mission approach<sup>111</sup> which is underpinned by optimistic outlooks towards a green, digital and just transition, i.e. moving 'from what is to what if'<sup>112</sup>. This also means that recovery and resilience are not seen as bouncing back to equilibrium. They are rather understood as a constant need to find new ways to balance the needs for stability and flexibility. Most of all this requires the capacity to react to changes, while keeping to the overall mission of a green, digital and just transition. Cohesion Policy is an important driver in this transition and can be a 'policy integrator'. Its shared management approach and focus on local and regional development ensure that the potential of all places and regions are utilised. It also helps to substantially increase governance capacity to navigate under uncertainty at all administrative levels. Balancing flexibility, accountability and long-term transition and cohesion objectives, Cohesion Policy turns into an agile multi-stakeholder instrument with a strong involvement of local, regional, and cross-border representatives. It also learns from the experience with the RRF and integrates some of the positive features. In addition, it gradually becomes a parametric governance system providing funding not linked to costs (FNLC) but for clear outcome-impact objectives. Defining measurable outcome (not result) indicators for transition and cohesion has been a bumpy road. However, experimental trials have finally succeeded and the pattern for a more simplified but accountable policy delivery seems to be there. The financing not linked to costs (FNLC) approach is a breakthrough in policy delivery. This is key to Cohesion Policy becoming essential to Europe's transition mission and being able to respond to future crises. It manages to steer towards targets, involve local, regional and national players, ensure economic, social and territorial cohesion which keep the EU together, as well as progressively reduce administrative costs and burden but maintain accountability. All in all, it allows Europe

<sup>110</sup> See <https://steadyhq.com/en/spatialforesight/posts/0c45f6b7-e45c-4aae-a839-71e4aff5ca87>

<sup>111</sup> Mariana Mazzucato, *Mission: Economics: A Moonshot Approach to the Economy* (London, UK: Allen Lane, 2021).

<sup>112</sup> Rob Hopkins, *From What Is to What If: Unleashing the Power of Imagination to Create the Future We Want* (White River Junction: Chelsea Green Publishing, 2019).

to move forward and becomes an important vehicle in Europe's transition and fit for the future ambitions, including a more cohesive EU.

- Cohesion Policy, *primus inter pares*.** In this scenario, the EU has learned from its handling of the COVID-19 pandemic and the war in Ukraine. This means it got better and swiftly responded to new external shocks, mega-trends and changing circumstance, by targeted emergency policies and initiatives. The growing number of such emergencies has led to a range of new EU policies, each of which demonstrate the capability to respond to challenges and come with their own funding and governance arrangements. In this environment of purpose-built policies various sector policies grow stronger and more influential, e.g. for innovation, SMEs, the environment, digitalisation, etc. In a way it resembles the proposal in the 'Spair report'<sup>113</sup> in the early 2000s. However, instead of challenging Cohesion Policy, it allows Cohesion Policy to focus again on its main purpose of economic, social and territorial cohesion, rather than being a financing vehicle for all sorts of policy objectives and priorities. Regaining its core objectives also helps concentrate the Cohesion Policy narrative and energy on cohesion objectives, rather than on misunderstood attempts at administrative simplification. This allows Cohesion Policy to become an important 'flanking policy'<sup>114</sup> which ensures that despite all the shocks and changes, Europe is not breaking apart. After all cohesion is the glue which makes the EU, its people and places, hold together and ensures a shared management approach involving also local and regional levels. Still, there are some disputes between Cohesion Policy and smart innovation and SME policies about who is most important to keep all regions in Europe alive. These are however friendly. All in all, the emerging melange of policies allows the EU to stand out as agile and active, as new policies and instruments are launched, while Cohesion Policy ensures that it all hangs together in the background. Also in this scenario the management of Cohesion Policy has evolved and includes elements of FNLC.
- Post Cohesion Policy.** In this scenario, Cohesion Policy sticks to its principles. It perceives itself as the last guarantor of financial accountability, shared management, measurable outcomes monitoring, long-term thematic objectives, and – in short – evidence-based and stable policy making. From the outside these merits are increasingly considered as lacking agility and flexibility to react to changing circumstances, and unnecessary administrative burdens. This became a particular challenge in the mid-2020s when Europe experienced increasing societal, economic and territorial fragmentation driven by mega-trends and crises challenging cohesion. Cohesion Policy was not strong enough to ensure cohesion and keep Europe, its people and places together in these times. Consequently, Cohesion Policy was no longer considered adequate and was replaced by a range of other policies after 2027. The fading away of Cohesion Policy also implies a diminishing of local and regional governance levels in European policy making, as most of the new policies are centrally managed. Indeed, many of the new policies were modelled on the experiences gained from the RRF and other thematic emergency policies e.g. covering energy and migration. As Cohesion Policy loses its foothold in the European community and is phased out, the idea of cohesion also falls out of fashion. In the beginning there are still strong arguments for cohesion remaining an important objective of EU policies, as economic, social and territorial cohesion are mentioned as aims of the EU in

<sup>113</sup> André Sapir et al., 'An Agenda for a Growing Europe. Making the EU Economic System Deliver.', 2003, [https://www.ine.pt/ngt\\_server/attachfileu.jsp?look\\_parentBoui=143217715&att\\_display=n&att\\_download=y](https://www.ine.pt/ngt_server/attachfileu.jsp?look_parentBoui=143217715&att_display=n&att_download=y)

<sup>114</sup> Marjorie Jouen, 'The Single Market and Cohesion Policy Dyad: Battered by the Crisis of Globalisation', Policy paper (Paris: Jacques Delors Institute, 2014), <https://institutdelors.eu/wp-content/uploads/2020/08/singlemarketandcohesionpolicy-jouen-ne-jdi-apr14-1.pdf>.

the Treaty (Art. 3 TEU). Still, soon it became evident that having cohesion mentioned in the treaty without a clear policy to ensure it, does not help. Economic, social and territorial disparities increase at all levels from the sub-local to the European, and more and more people and places in the EU feel left behind.<sup>115</sup> However, this does not undermine the fundamentals of the EU, as larger upheavals of this sort are recognised as crises by policy-makers and met with new purpose-built policy initiatives.

The three scenarios may exaggerate some of the recent developments concerning a possible future of Cohesion Policy. In doing so, they showcase possible pathways the debate about Cohesion Policy post-2027 may take. Each of the three scenarios can either be perceived as a risk or an opportunity. This largely depends on a person's values and political standpoint. Indeed, the future of Cohesion Policy – in general and in relation to other EU policies – is very much a political issue. The European Parliament is an appropriate place to shape this debate.

Based on the findings of the report, the sections below put forward recommendations on features which can help to shape the debate, for consideration by Parliament.

**Need for ambitious long-term perspective.** To use the recent crises as a chance for change and transition it is important that Cohesion Policy programmes have clear strategic orientations and ambitious long-term perspectives. The programmes can play a crucial part in adjusting local and regional development to the post-pandemic 'new normal' and start the transition towards future-wise and more cohesive socio-economic developments. This requires efforts and resources to identify place-specific paths towards a sustainable, climate neutral and digital vision for the area and engage with citizens, projects and financial instruments which are more complex and cumbersome. Both programmes and beneficiaries must explore the possibilities, including territorial tools such as ITI or CLLD – and develop new territorial tools corresponding to the particular context of cross-border regions – even in the light of less burdensome funding possibilities.

**Table 3.8 Policy Recommendation: Need for ambitious long-term perspective**

Recommendation	Possible actions by the European Parliament	When
Cohesion Policy programmes and beneficiaries need a long-term vision for their area to ensure the transition towards a cohesive green and digital future which brings Europe closer to citizens. The European Parliament should request a strategic framework (or long-term vision for Europe) to underpin Cohesion Policy post 2027, e.g. comparable to the Europe 2020 strategy for the 2014-20 programming period, though with a stronger territorial perspective. Furthermore, the European Parliament should promote and support work on long-term place-based	According to the 2021-2027 CPR (Article 8(5)), at least once a year the European Commission should <b>consult organisations which represent partners at Union level on the implementation of programmes</b> , and report to the European Parliament and Council on the outcome. This represents an opportunity where the European Parliament could advocate a European strategic framework (or long-term vision) underpinning Cohesion Policy post 2027, as well as place-based development visions at the level of programmes, and the use of	<b>Every year as of 2023</b>

<sup>115</sup> Simin Davoudi, 'From 'Left behind' to 'Kept behind' Places: Re-Imagining Territorial Cohesion' (Key note speech, ESPON Seminar on the role of functional areas for territorial cohesion, Iași, Romania, 19 June 2019), [https://www.youtube.com/watch?time\\_continue=3799&v=9XqHhgZbA34](https://www.youtube.com/watch?time_continue=3799&v=9XqHhgZbA34); Lewis Dijkstra, Hugo Poelman, and Andrés Rodríguez-Pose, 'The Geography of EU Discontent', *Regional Studies* 54, no. 6 (2020): 737–53, <https://doi.org/10.1080/00343404.2019.1654603>.

Recommendation	Possible actions by the European Parliament	When
development visions at the level of programmes, and the use of territorial tools such as ITI or CLLD – including also new territorial tools more suitable for cross-border regions – across the EU, to better reflect Europe's territorial diversity and bring Cohesion Policy closer to citizens.	territorial tools to bring Cohesion Policy closer to citizens.  The European Parliament might also advocate the development of larger place-based visions for cross-border, transnational or macroregional contexts, drawing on lessons learned from the transnational spatial visions under Interreg IIc. Such visions could offer positive future outlooks which coalesce the objectives of European integration, green, digital and just transition.	

**Capacity on the ground.** As anticipated above, Cohesion Policy offers local and regional authorities unique tools and methods to forge a long-term vision and design resilient territorial strategies, not only through territorial development (CPR articles 28-34) and PO 5 a 'Europe closer to citizens' but also with other schemes such as smart specialisation.

However, these tools and methods, including ITI, CLLD and integrated territorial strategies, demand skills and competences at local level. Cohesion Policy has developed capacity building tools at central level (e.g., Regio Community of Practices, TAEX, Transnational networks) and at national and regional levels. But looking at the targets and object of these tools, they are more oriented toward managing programmes rather than developing strategies. To exploit all the opportunities to ensure resilience in the territories, an additional effort to steer capacity building tools towards local and regional needs is crucial.

**Table 3.9 Policy Recommendation: Capacity on the ground**

Recommendation	Possible actions by the European Parliament	When
Cohesion Policy capacity building tools should target not only Programme Authorities and implementation issues. They should also involve local and regional public authorities designing territorial strategies. The European Parliament should also include in the scope of Cohesion Policy monitoring capacity building schemes at EU, national and regional levels.	The REGI Committee should include a specific focus in relation to Cohesion Policy capacity building tools delivered at national level as required by the CPR (article 8 (2)) in the work agenda: <b>'Member states shall, where relevant, allocate an appropriate percentage of the resources coming from the Funds for the administrative capacity building of social partners and civil society organisations.'</b>  More specifically the REGI Committee <b>should enquire if the national and regional programme authorities provide sufficient support (CPR reg 36, reg ERDF article 3.4) to local and regional authorities</b> for 'territorial development' (ref. reg CPR articles	<b>Every year as of 2023</b>



Recommendation	Possible actions by the European Parliament	When
	<p>28-34) also through the roadmaps (ref. CPR recital 33). To strengthen European integration, this should also involve Interreg programmes.</p> <p>At the same time the REGI Committee <b>could ask the Commission (DG REGIO) if centrally managed capacity building also targets local and regional authorities</b> and territorial resilient strategy design.</p>	

**2023 as a moment to reflect.** Many of the responses to the current crises have drained administrative capacities needed for strategic development in the 2021-27 programme period. By 2023 most of the additional pressure caused by the pandemic should be gone and the first results of the efforts should become visible. There should also be more clarity about the impacts of the war in Ukraine on the energy sector, economic stagflation and other developments in the EU. This is a good opportunity to step back and see what kind of readjustments might be needed. Such a reflection should review (a) the effects of NRRPs on Cohesion Policy, and (b) the strategic orientation of national and European policies, including the transition to a green, digital and cohesive future which could be done in the context of the European semester.

**Table 3.10 Policy Recommendation: 2023 as a moment to reflect**

Recommendation	Possible actions by the European Parliament	When
In 2023, insights into the interplay between NRRPs and Cohesion Policy programmes, and the strategic orientation of policies post-COVID should inform a broad reflection on possible re-orientations towards more strategic long-term needs. The European Parliament should ask the European Commission to address these points in the country reports and country specific recommendation in 2023. Furthermore, it should launch an EU-wide study about the interplay between NRRPs and Cohesion Policy programmes, and lessons to be learned from the RRF for future Cohesion Policy.	The European Parliament should ask the European Commission to address these points in the country reports and country-specific recommendations in 2023. Furthermore, it should launch an EU-wide <b>assessment on the interplay between NRRPs and Cohesion Policy</b> , and lessons to be learned from the RRF for future Cohesion Policy (e.g. FNLC, performance budgeting, reconciliation of flexibility and structural change, visibility of RRF, multi-level governance, handling of the programming negotiations within the European Commission). It should also advocate the possibility for a voluntary mid-term review and the possibility for re-programming in 2023, for programmes which could not devote the efforts envisaged to programming for the 2021-27 period.	<b>2023</b>



**Rediscovering cohesion post 2027.** Larger structural and cohesion challenges have become more pressing in recent years. This includes structural issues such as societal and territorial inequalities, climate change, loss of biodiversity, energy supply and transition, as well as the green, digital and just transition. At the same time, the need for emergency actions often meant cohesion as a guiding principle or overall value of Cohesion Policy was simplified, if not forgotten. To meet the increasing and increasingly complex cohesion challenges exposed and accelerated by the pandemic, Cohesion Policy – if not all EU policies – should consider a reorientation towards cohesion. This may even include a broader debate on the understanding of cohesion in relation to today's challenges. Following the EU Strategic Foresight report 2022, this implies a twin green and digital transition.<sup>116</sup> Given the increasing cohesion challenges this should probably be extended to a triplet transition of green, digital and just.<sup>117</sup> As outlined in a recent study by the European Committee of the Regions, it might be worthwhile stressing the interpersonal, digital and ecological dimension of cohesion beyond the economic, social and territorial dimension.<sup>118</sup> Given the need to support place-based development in smaller and shrinking places, even micro-enterprises might be considered. Furthermore, multi-level governance of policies delivering cohesion is important to ensure a place-based approach which addresses the increasing complexity and granularity of cohesion challenges.

**Table 3.11 Policy Recommendation: Rediscovering cohesion post-2027**

Recommendation	Possible actions by the European Parliament	When
For Cohesion Policy post 2027, a Europe-wide debate on the understanding of cohesion and needs to mitigate increasing territorial and societal fragmentation might be required. The European Parliament should join forces with the European Committee of the Regions which has taken first steps in this direction. Among others, the Parliament could initiate a broad European debate about how to modernise the idea of cohesion, both in terms of topics which are important for cohesion beyond GDP, growth and jobs, and in terms of the understanding of cohesion. Such a debate should involve all levels of governance from local to European, and address citizens and civil society players.	The European Parliament could, among others (e.g. the #CohesionAlliance), keep alive a <b>European-wide debate</b> on how to modernise the idea of cohesion – both in terms of topics and understanding of cohesion. The <b>European Week of Regions and Cities</b> might be an occasion where the Parliament, together with the Committee of the Regions, can have a vibrant political debate on the need to rediscover <b>Cohesion as a value</b> .	3 <sup>rd</sup> quarter 2023

**Better European data.** To increase understanding of cohesion challenges as well as impacts of various policies (e.g. Cohesion Policy) and major events (e.g. COVID-19 pandemic, the war in Ukraine, energy dependencies) on cohesion in Europe, the granularity of European data needs to be improved. For this study comparable analysis of most Europe-wide quantitative data information relied on NUTS2 data and NACE level 2. European statistics enabling more detailed NACE levels at NUTS3 would allow for more nuanced Europe-wide analysis of cohesion and cohesion challenges.

<sup>116</sup> European Commission, '2022 Strategic Foresight Report. Twinning the Green and Digital Transitions in the New Geopolitical Context', June 2022.

<sup>117</sup> See <https://steadyhq.com/en/spatialforesight/posts/353cb14d-b526-4a27-95f5-61ac0100ba90>

<sup>118</sup> See <https://cor.europa.eu/en/engage/studies/Documents/Cohesion-as-an-Overall-Value-of-the-European-Union/cohesion-spirit.pdf>

To support policy making for cohesion, more Europe-wide data at NUTS3 level is needed, especially for more detailed NACE levels. This would be a task for Eurostat, JRC and ESPON.

## REFERENCES

- Abnett, Kate, and Simon Jessop. 'EU Drafts Plan to Label Gas and Nuclear Investments as Green'. Reuters, 1 January 2022. <https://www.reuters.com/markets/commodities/eu-drafts-plan-label-gas-nuclear-investments-green-2022-01-01/>.
- Askew, Joshua. 'How Is the War in Ukraine Affecting the Cost of Living Crisis?' euronews, 1 June 2022. <https://www.euronews.com/my-europe/2022/05/31/how-is-the-war-in-ukraine-affecting-the-cost-of-living-crisis>.
- Bakalis, Serafim, Vasilis P. Valdramidis, Dimitrios Argyropoulos, Lilia Ahme, Jianshe Chen, P.J. Cullen, Enda Cummins, et al. 'Perspectives from CO+RE: How COVID-19 Changed Our Food Systems and Food Security Paradigms'. *Current Research in Food Science* 3 (2 June 2020): 166–72. <https://doi.org/10.1016/j.crfs.2020.05.003>.
- Böhme, Kai. 'What Does 'Slowbalisation' Mean for Intra European Flows and Cooperation?' *KREMER - the Territorial Thinkers' Blog* (blog), 2019. <https://territorialthinkers.eu/id-2019-05-kremer.html>.
- Böhme, Kai, and Flavio Besana. 'Understanding the Territorially Diverse Implications of COVID-19 Policy Responses'. Spatial Foresight Brief. Luxembourg: Spatial Foresight, 2020.
- Böhme, Kai, Christian Lür, Flavio Besana, Sebastian Hans, Bernd Schuh, Arndt Münch, and Helene Gorny. 'The State of the Regions, Cities and Villages in the Area of Socio-Economic Policies. Contribution to the 2021 EU Annual Regional and Local Barometer'. Brussels: Committee of the Regions, 2021. <https://op.europa.eu/en/publication-detail/-/publication/d497d413-53ec-11ec-91ac-01aa75ed71a1/language-en/format-PDF/source-244809746>.
- Böhme, Kai, Sabine Zillmer, Sebastian Hans, Dea Hrelja, Valenza Alessandro, and Arianna Mori. 'The Impacts of the COVID-19 Pandemic on EU Cohesion and EU Cohesion Policy'. Brussels: Policy Department for Structural and Cohesion Policies, 2022.
- Chen, X. Brian. 'What's All the Hype about the Metaverse?' The New York Times, 18 January 2022. <https://www.nytimes.com/2022/01/18/technology/personaltech/metaverse-gaming-definition.html>.
- Coman, Julian. 'Michael Sandel: 'The Populist Backlash Has Been a Revolt Against the Tyranny of Merit''. The Guardian, 6 September 2020. <https://www.theguardian.com/books/2020/sep/06/michael-sandel-the-populist-backlash-has-been-a-revolt-against-the-tyranny-of-merit>.
- Committee of the Regions. *The State of the Regions, Cities and Villages in the Areas of Socio-Economic Policies: Contribution to the 2021 EU Annual Regional and Local Barometer*. LU: Publications Office, 2021. <https://data.europa.eu/doi/10.2863/153679>.
- CoR. *The State of the Regions, Cities and Villages in the Areas of Socio-Economic Policies*. Luxembourg: Publications Office of the European Union, 2022. <https://data.europa.eu/doi/10.2863/00247>.
- Dasgupta, Partha. *The Economics of Biodiversity: The Dasgupta Review: Full Report*. Updated: 18 February 2021. London: HM Treasury, 2021.
- Davoudi, Simin. 'From 'Left behind' to 'Kept behind' Places: Re-Imagining Territorial Cohesion'. Key note speech presented at the ESPON Seminar on the role of functional areas for territorial cohesion, Iași, Romania, 19 June 2019. [https://www.youtube.com/watch?time\\_continue=3799&v=9XgHhgZbA34](https://www.youtube.com/watch?time_continue=3799&v=9XgHhgZbA34).
- Dijkstra, Lewis, Hugo Poelman, and Andrés Rodríguez-Pose. 'The Geography of EU Discontent'. *Regional Studies* 54, no. 6 (2020): 737–53. <https://doi.org/10.1080/00343404.2019.1654603>.

- Douenne, Thomas, and Adrien Fabre. 'French Attitudes on Climate Change, Carbon Taxation and Other Climate Policies'. *Ecological Economics* 169 (1 March 2020): 106496. <https://doi.org/10.1016/j.ecolecon.2019.106496>.
- Duit, Andreas, Victor Galaz, Katarina Eckerberg, and Jonas Ebbesson. 'Governance, Complexity, and Resilience'. *Global Environmental Change, Governance, Complexity and Resilience*, 20, no. 3 (2010): 363–68. <https://doi.org/10.1016/j.gloenvcha.2010.04.006>.
- EIB. 'How Bad Is the Ukraine War for the European Recovery?' Luxembourg: European Investment Bank, 2022. <https://data.europa.eu/doi/10.2867/945503>.
- Elliott, Larry. 'Ukraine War 'Will Mean High Food and Energy Prices for Three Years''. *The Guardian*, 26 April 2022. <https://www.theguardian.com/business/2022/apr/26/ukraine-war-food-energy-prices-world-bank>.
- ESPAS. 'Global Trends to 2030: Challenges and Choices for Europe'. European Strategy and Policy Analysis System, 2019.
- ESPON. 'Territorial Impacts of COVID-19 and Policy Answers in European Regions and Cities - Interim Report'. Luxembourg: ESPON EGTC, 2022.
- European Commission. '2022 Strategic Foresight Report. Twinning the Green and Digital Transitions in the New Geopolitical Context', June 2022.
- 'AI. The Future of Work? Work of the Future! On How Artificial Intelligence, Robotics and Automation Are Transforming Jobs and the Economy in Europe.', 30 April 2019.
- 'Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. REPowerEU: Joint European Action for More Affordable, Secure and Sustainable Energy. COM(2022) 108 Final', 8 March 2022.
- European Commission Report on the Impact of Demographic Change, 2020.
- 'European Economic Forecast. Spring 2022. Institutional Paper 173.', May 2022.
- 'European Economic Forecast. Summer 2022 (Interim)'. Luxembourg: Publications Office of the European Union, 2022. [https://economy.finance.ec.europa.eu/document/download/cbc24af5-782d-461c-aabd-312793120e2e\\_en?filename=ip183\\_en.pdf](https://economy.finance.ec.europa.eu/document/download/cbc24af5-782d-461c-aabd-312793120e2e_en?filename=ip183_en.pdf).
- European Parliament. *Towards a More Resilient Europe Post-Coronavirus: Options to Enhance the EU's Resilience to Structural Risks*. Brussels: European Parliament, 2021. <https://data.europa.eu/doi/10.2861/675160>.
- European Parliament News, 9 June 2021. 'What's behind the Decline in Bees and Other Pollinators?' <https://www.europarl.europa.eu/news/en/headlines/society/20191129STO67758/what-s-behind-the-decline-in-bees-and-other-pollinators-infographic>.
- European Parliament EPRS. 'Future Shocks 2022. Addressing Risks and Building Capabilities for Europe in a Contested World', April 2022.
- European Parliament Research Service. 'Slowing down or Changing Track? Understanding the Dynamics of 'Slowbalisation'', December 2020.
- European Strategy and Policy Analysis System. 'Global Trends to 2030: Can the EU Meet the Challenges Ahead?' European Strategy and Policy Analysis System, 2015.
- Eurostat. 'EU Direct Investment Positions, Flows and Income, Breakdown by Partner Countries (BPM6), BOP\_FDI6\_GEO. [Dataset]', 2022. [https://ec.europa.eu/eurostat/databrowser/view/BOP\\_FDI6\\_GEO\\_\\_custom\\_3191489/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/BOP_FDI6_GEO__custom_3191489/default/table?lang=en).
- Eurostat Regional Yearbook: 2021 Edition. Luxembourg: Publications Office of the European Union, 2021. <https://data.europa.eu/doi/10.2785/894358>.

- Financial Times. 'Opec Agrees to Accelerate Oil Production Following US Pressure'. Financial Times, 1 June 2022. <https://www.ft.com/content/bb130bb9-4b75-4626-961a-2c1ed9b0e7f9>.
- Foray, Dominique, Kevin Morgan, and Slavo Radošević. 'From Rivalry to Synergy: R&I Policy and Cohesion Policy'. European Commission, 2018. [http://ec.europa.eu/regional\\_policy/en/information/publications/brochures/2018/from-rivalry-to-synergy-r-i-policy-and-cohesion-policy](http://ec.europa.eu/regional_policy/en/information/publications/brochures/2018/from-rivalry-to-synergy-r-i-policy-and-cohesion-policy).
- Holstein, Frank, Kai Böhme, and Christian Lüer. 'Future-Oriented Approaches - the Case of Territorial Foresight'. In *Building the next Generation of Research on Territorial Development*, edited by ESPON, 76–81, 2019.
- Hopkins, Rob. *From What Is to What If: Unleashing the Power of Imagination to Create the Future We Want*. White River Junction: Chelsea Green Publishing, 2019.
- Institute for Futures Studies and Technology Assessment. 'Meetings and Conventions 2030: A Study of Megatrends Shaping Our Industry'. German Convention Bureau, 2014.
- IPCC. 'AR6 Climate Change 2021: The Physical Science Basis', 7 August 2021.
- Jouen, Marjorie. 'The Single Market and Cohesion Policy Dyad: Battered by the Crisis of Globalisation'. Policy paper. Paris: Jacques Delors Institute, 2014. <https://institutdelors.eu/wp-content/uploads/2020/08/singlemarketandcohesionpolicy-jouen-ne-jdi-apr14-1.pdf>.
- Kornprobst, Markus, and Jon Wallace. 'What Is Deglobalisation?' Chatham House, 18 October 2021. <https://www.chathamhouse.org/2021/10/what-deglobalization>.
- Lau, Stuart. 'Ukraine War Highlights Stakes of Chinese Attack on Taiwan'. POLITICO, 7 June 2022. <https://www.politico.eu/article/ukraine-war-highlights-stakes-of-china-attack-on-taiwan/>.
- Malone, Noreen. 'The Future of Work Issue. The Age of Anti-Ambition.' The New York Times, 15 February 2022. <https://www.nytimes.com/2022/02/15/magazine/anti-ambition-age.html?referrer=masthead>.
- Mazzucato, Mariana. *Mission: Economics: A Moonshot Approach to the Economy*. London, UK: Allen Lane, 2021.
- McCann, Philip, Raquel Ortega-Argilés, and Pei-Yu Yuan. 'The Covid-19 Shock in European Regions'. *Regional Studies* 56, no. 7 (2022): 1142–60. <https://doi.org/10.1080/00343404.2021.1983164>.
- Mroue, Bassem, and Zeynep Bilginsoy. 'Explainer: What Is behind Turkey's Syria Incursion Threats?' Associated Press, 3 June 2022. <https://apnews.com/article/russia-ukraine-islamic-state-group-politics-middle-east-a1293989c40712ae4a789311f88bcb45>.
- OECD. 'How Vulnerable Is European Manufacturing to Gas Supply Conditions? A Regional Approach', 22 July 2022. <https://www.oecd-ilibrary.org/docserver/01278ba3-en.pdf?expires=1660230598&id=id&accname=guest&checksum=75F6CA13FF465DB7C87CB2E3775568CF>.
- Rodríguez-Pose, Andrés. 'The Rise of Populism and the Revenge of the Places That Don't Matter'. *LSE Public Policy Review* 1, no. 1 (20 July 2020): 4. <https://doi.org/10.31389/lseppr.4>.
- Santora, Marc. 'Dolphins Dying in Black Sea, and May Be Casualties of War, Scientists Say'. The n, 2 June 2022. <https://www.nytimes.com/2022/06/02/world/europe/dolphins-dying-ukraine-war.html?smid=url-share>.
- Sapir, André, Philippe Aghion, Giuseppe Bertola, Martin Hellwig, Jean Pisani-Ferry, Dariusz Rosati, José Vinals, and Helen Wallace. 'An Agenda for a Growing Europe. Making the EU Economic System Deliver.', 2003. <http://www.euractiv.com/ndbtext/innovation/sapirreport.pdf>.
- Steinmüller, Angela, and Karlheinz Steinmüller. *Ungezähmte Zukunft: Wild cards und die Grenzen der Berechenbarkeit*. München: Gerling Akademie Verlag, 2003.

- The Economist. 'A New Nuclear Era'. The Economist, 2 June 2022.  
<https://www.economist.com/leaders/2022/06/02/a-new-nuclear-era>.
- 'Slowbalisation. The Steam Has Gone out of Globalisation. A New Pattern of World Commerce Is Becoming Clearer - as Are Its Costs', 24 January 2019.  
<https://www.economist.com/leaders/2019/01/24/the-steam-has-gone-out-of-globalisation>.
- The Wall Street Journal. 'Scale of Refugees From Ukraine War on Display in Poland's Public Schools', 25 April 2022. <https://www.wsj.com/articles/scale-of-refugees-from-ukraine-war-on-display-in-polands-public-schools-11650884400>.
- UNHCR. 'Ukraine Refugee Situation, Operational Data Portal.', 2022.  
<https://data.unhcr.org/en/situations/ukraine>.
- Wax, Eddy. 'Get Ready for 'Hell', UN Food Chief Warns amid Ukraine Shockwaves'. POLITICO, 22 March 2022. <https://www.politico.eu/article/world-food-programme-eu-fund-us-food-aid-ukraine-russia/>.
- Wong, Edgar, and Ana Swanson. 'Ukraine War and Pandemic Force Nations to Retreat from Globalisation'. The New York Times, 22 March 2022.  
<https://www.nytimes.com/2022/03/22/us/politics/russia-china-global-economy.html>.
- World Bank Group. 'Global Economic Prospects', June 2022.
- World Economic Forum. 'The Future of Jobs Report 2020', 2020.
- Zachová, Aneta. 'Some EU Members Turn Back to Coal to Cut Reliance on Russian Gas'. Climate Home News, 15 March 2022. <https://www.climatechangenews.com/2022/03/15/some-eu-members-turn-back-to-coal-to-cut-reliance-on-russian-gas/>.

## 4 METHODOLOGICAL ANNEX

The following provides further insights into the methodologies applied for the analysis of Cohesion Policy and cohesion impacts, as well as the regional reference group.

### 4.1 Methods of Cohesion Policy analysis

Interventions financed under the RRF and CPR funds framework intersect with each other when intervening in same policy area. This could offer a great opportunity to implement integrated and more effective strategies, but it also requires a major effort to coordinate governance mechanisms and build strategic and operational complementarity.

For this reason, the study team has identified 12 policy areas to consider when assessing the level of coordination and complementarities between CPR funds and RRF investments. These thematic fields coincide with the main areas of Cohesion Policy intervention and cover all the main themes addressed by Cohesion Policy fund Specific Objectives provided for in the CPR Regulation.<sup>119</sup> The policy areas are:

- Research and Innovation
- Digital connectivity
- SME competitiveness
- Green transition
- Climate change and adaptation
- Transport networks and urban mobility
- Employment and labour market
- Education, training and skills
- Access to social services
- Access to health care system
- Integration of third-country nationals, including migrants, refugees, asylum seekers
- Local and urban development (excluding mobility and transport)

The three factors addressed through this analysis are:

- **Complementarity** which entails strategic integration at the level of policy themes.
- **Demarcation** which assesses whether the NRRP gives complete information on the use of RRF and ESI funds when the two instruments intervene in the same thematic areas.
- **Coordination** concerning institutional arrangements / administrative mechanisms or procedures put in place to align the implementation.

The study team has assigned evaluation criteria to assess these factors based textual analysis of the NRRPs.

#### 4.1.1 Evaluation criteria for complementarity and demarcation

Along with policy areas, the study team has also identified beneficiaries and policy tools in line with the CPR 2021/2027.<sup>120</sup> The beneficiaries are entities that manage the funds to implement the investments.

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<sup>119</sup> Regulation (EU) 2021/1060 laying down Common Provisions on the ERDF, the ESF+, the CF, the JTF and the EMFAF.

<sup>120</sup> Ibid.



The table below shows an example of this kind of analysis, where the investment in R&I, in the form of a grant, is managed by a national institution:

	Large enterprises	SMEs	Research centres / Universities	NGOs / Third sector entities	Municipalities	Local public institutions	Regional institutions / development agencies	National institutions	National agencies	Public utilities	Financial intermediaries
1. Research and Innovation								Grant			

The study team also reports where the beneficiary or policy tool is not identified. The first level evaluation of complementarity is based on the number of policy themes where the NRRP foresees an intervention, even if the beneficiary or policy tools are not specified. Every member state is therefore classified by the degree of complementary whose scale is: very low, low, medium, high, very high.

The second step entails identifying the level of demarcation. This is assessed as the quality of information the member state provides considering the policy themes where the NRRP intervenes. This aspect is also analysed on a graded scale between very low and very high. The rating is based on the percentage of measures that do not indicate beneficiaries or policy tools, as this missing information causes uncertainty and possible overlapping of the measures. Where the NRRP includes all information regarding beneficiary(ies) and policy tool(s) for its investments, showing no level of uncertainty, its demarcation score is very high.

#### 4.1.2 Evaluation criteria for Coordination

The level of coordination is based on two aspects: collaboration and communication. The scoring method is presented in the tables below:

##### Scoring for Collaboration

HIGH	There is a permanent structure also involving Cohesion Policy members with a clear description of the governance and decisional mechanisms
MEDIUM	There is a permanent structure also involving Cohesion Policy members but without a clear description of the governance and decisional mechanisms
LOW	There is a permanent structure, but Cohesion Policy is not mentioned
N/A	There is no permanent structure

##### Scoring for Communication

HIGH	There is a structured communication system also involving Cohesion Policy and its mechanism is clearly described
MEDIUM	There is a structured communication system also involving Cohesion Policy but its mechanism is not clearly described
LOW	There is a structured communication system but this does not involve Cohesion Policy
N/A	There is no communication system

To merge these two types of information and define a total level of coordination, the following numerical scores are assigned:

	Collaboration	Communication	Collaboration + Communication	Score Coordination
HIGH	4.5	3	6 – 7.5	VERY HIGH
MEDIUM	3	2	4.5 – 6	HIGH
LOW	1.5	1	3 – 4.5	MEDIUM
N/A	0	0	1.5 – 3	LOW
			<1.5	VERY LOW

The collaboration score has a higher weight, as it is considered more important. The sum of the collaboration and communication scores provides a scale of values for coordination.

#### 4.1.3 Methodology for assessing risk and opportunities

The taxonomy elaborated for complementarity, demarcation and coordination reports crucial information on the possible risk of displacement of funds or conversely the opportunity for synergy between NRRPs and Cohesion Policy. An overview of these combined scores is presented to show possible risks and opportunities:

Complementarity	Demarcation & coordination	
	very low	very high
very low	Low opportunities for synergies	Opportunities for synergies on limited areas
very high	High risk of overlapping measures	High opportunities for synergies

The infographic above shows the possible combination of complementarity against demarcation and coordination. The value of demarcation & coordination is assessed by calculating the average maximum values of demarcation, collaboration and communication.

For each member state, the combination of complementarity scores and demarcation plus coordination scores highlights possible risks or opportunities to exploit NRRP and Cohesion Policy financial resources to implement interventions in the same policy areas.

## 4.2 Cohesion impact analysis

The assessment of the impact on cohesion builds on two quantitative approaches. This is firstly the method to assess the impacts of the COVID-19 pandemic and the war in Ukraine and secondly the regional typology used to analyse impacts by type of region.

#### 4.2.1 Quantitative impact assessment

The method for assessing potential regional impact of the pandemic was developed by Spatial Foresight in early 2020<sup>121</sup> and further developed in various studies for the European Committee of the Regions and the European Commission.

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<sup>121</sup> Kai Böhme and Flavio Besana, 'Understanding the Territorially Diverse Implications of COVID-19 Policy Responses', Spatial Foresight Brief (Luxembourg: Spatial Foresight, 2020).

**Table 4.1 Data sources and composition of sensitivity indexes**

Data sources and composition of sensitivity indexes							
Index	Indicator Name	Exact indicator	Source	Level	Year of the data	Scoring	Weight
Impacts of COVID-19	GVA percentage of change	Percentage change on previous year's GVA	Eurostat: NAMA_10R_2GVAGR.	NUTS 2	2020	<p>Each indicator has been divided into three categories based on the European average; Low, Medium, and High. Medium covers the interval between the EU average and +/- half the standard deviation:</p> <p>Low is below the lower threshold: &lt;</p> <p>High is above the upper threshold: &gt;</p>	1
Socio-economic	Share of population at risk of poverty	Percentage of population at risk of poverty	Eurostat: ilc_li41.	NUTS 2	2021		2
	Share of employment in agriculture	Percentage of persons employed in the agricultural sector at NUTS 2 level, based on total employed and people employed in agriculture.	Eurostat: LFST_R_LFE2EN2.	NUTS 2	2021		1
	Trade exports and imports to/from Ukraine, Belarus and Russia	Percentage exports and imports to/from Ukraine, Belarus and Russia against global imports and exports	Eurostat: DS-645593.	NUTS 0	2022		Exports: 1. Imports: 1.
	Main refugee destination based on density	Main refugee destinations according to country of arrival (UNHCR 2022) distributed to NUTS 2 level according to density (EUROSTAT 2019)	UNHCR: number of refugees registered for temporary protection or similar national protection schemes. Eurostat: demo_r_d3dens.	UNHCR: NUTS 0. Eurostat: NUTS 2	UNHCR: 2022. Eurostat: 2019		1
	Tourism dependency	Flight sales affected by the war, by country of destination (Forwarkeys, 2022), distributed according to NUTS2 tourism dependence (JRC, 2020)	Forwarkeys and JRC	Forwardkeys: 2022 JRC: NUTS 2	Forwarkeys: 2022. JRC: 2020		1
Energy dependency	Energy intensity	Energy intensity of GDP in chain linked volumes (high values).	Eurostat: nrg_ind_ei.	NUTS 0	2020		2
	Gas imports from Russia	Percentage of natural gas imported from Russia based on the total imported by each country and that imported from Russia.	Eurostat: NRG_TI_GAS.	NUTS 0	2020		1
	Oil imports from Russia	Percentage of oil and petroleum products imported from Russia based on the total tons imported by each country and those imported from Russia.	Eurostat: NRG_TI_OIL.	NUTS 0	2020		0,25
	Solid fossil fuels imports from Russia	Percentage of solid fossil fuels imported from Russia based on the tons imported by each country and those imported from Russia.	Eurostat: NRG_TI_SFF.	NUTS 0	2026		0,25
Positive sensitivity	Military supply and weapon industry	Values of arms export licences.	COARM	NUTS 0	2020		1
	Share of agricultural land	Percentage of agricultural land over total land in each region	COPERNICUS	NUTS 3	2018		1
	Solar energy production	Potential solar energy production in GWh/km <sup>2</sup>	JRC	NUTS 2	Projection for 2050		1
	Onshore wind energy potential production	Potential wind energy production in GWh/km <sup>2</sup>	JRC	NUTS 2	Projection for 2050		1
	Potential energy production from biomass	Potential energy production from biomass in GWh/km <sup>2</sup>	JRC	NUTS 2	Projection for 2050		0,3

Data sources and composition of sensitivity indexes							
Index	Indicator Name	Exact indicator	Source	Level	Year of the data	Scoring	Weight
	Share of employment in most gas-intensive manufacturing sectors	Share of workers regionally employed in gas-intensive sectors over total regional employments	Eurostat: SBS_R_NUTS06_R2 and LFST_R_LFE2EN2.	NUTS 2	2019		2
	Potential labour force	Potential labour force in country of arrival for Ukrainian refugees (UNHCR 2022) distributed to NUTS 2 level according to share of economically active population (EUROSTAT 2019)	UNHCR: number of refugees registered for temporary protection or similar national protection schemes. Eurostat: LFST_R_LFP2ACT.	UNHCR: NUTS 0. Eurostat: NUTS 2	UNHCR: 2022. Eurostat: 2021.		1
	Energy intensity	Energy intensity of GDP in chain linked volumes (low values).	Eurostat: nrg_ind_ei	NUTS 0	2020		1

#### 4.2.2 Regional typologies

‘Nomenclature of territorial units for statistics’ (NUTS) is a hierarchical system to divide the territory of member states and EFTA countries. Its purpose is to collect, develop and harmonise European regional statistics. Data is collected at different levels: NUTS0: national, NUTS1: major socio-economic regions, NUTS2: regions for the application of regional policies and NUTS3: small regions at district level.

Analysis of NUTS2 data is most meaningful for EU regional policy decision-making processes. Recent studies analyse the territorially differentiated effects of public measures in response to the pandemic at NUTS2 level. Information at this level shows the status and past developments of many socio-economic indicators, e.g. employment in certain sectors, education level, people at risk of poverty or social exclusion, etc.

In this study, we look at different types of regions based on geographic, demographic, economic or policy characteristics. Such types, often referred to as ‘territorial typologies’, group regions based on a shared affiliation in one or more categories. These categories can describe different features such as geographical (e.g. settlement patterns) or policy features (structural funds distribution). An analysis of policy measures in response to the pandemic helps to understand what types of territories have been particularly affected by measures.

However, territorial typologies, such as mountainous areas, proximity to coast or urban / rural characteristics are mostly geographical. This means their territorial extent is limited. The Commission and international researchers gather this information at NUTS3 level, resulting in more granularity.

Therefore, we are dealing with information at two NUTS levels with socio-economic statistics to support regional decision-making processes at NUTS2 and information on territorial typologies at NUTS3. The availability of information at different NUTS levels makes matching the information impossible.

Due to the interlinked nature of the NUTS system, data from NUTS3 can be transposed to the NUTS2 level and vice versa. In this case, disaggregating socio-economic information from NUTS2 to NUTS3 would result in a statistical bias. Aggregating information from NUTS3 to NUTS2 provides higher reliability but is a suboptimal solution. For this process it is the best choice, as no other method to harmonise the information could be used.

For the analysis of results, indicators showing different values per territorial typology at NUTS2, are likely to show even more differences at NUTS3. This is because NUTS2 regions include different types of NUTS3.

An aggregation at NUTS2 is also a form of normalisation. By choosing an approach that renders the distribution of a phenomenon more regular (e.g. through the procedure described below), extreme observations are softened and a distribution is more reliable due to less influence of extreme observations.

These reasons resulted in the authors of the study aggregating information about territorial typologies from NUTS3 to NUTS2:

To upscale most information on territorial typology from NUTS3 to NUTS2, the 2019 NUTS3 population figures are used as a proxy. If more than 40% of the population in a NUTS2 region resides in NUTS3 regions with a shared territorial typology, the population was upscaled from NUTS3 to NUTS2.

This way, NUTS3 territorial typologies provided by the Commission and European research projects have been produced at NUTS2 for a) urban-intermediate and rural regions for settlement patterns, b) coastal regions for proximity to the coast, c) mountainous regions regarding the geography, and d) regions that border another country.

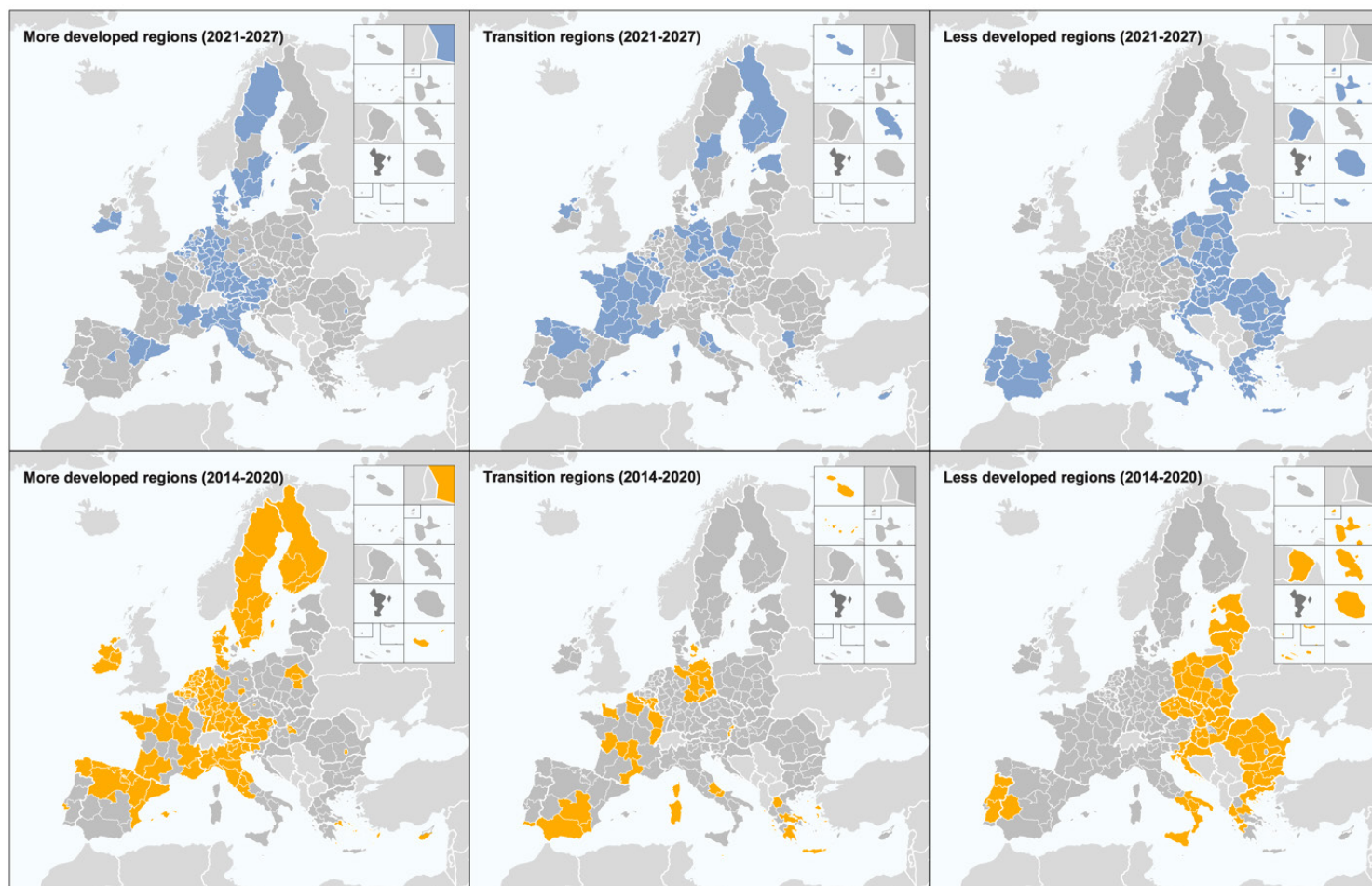
Other information has been upscaled without using population figures as a proxy. This included the same territorial typologies for all NUTS3 (e.g. an island for Azores). These concern insular and outermost regions.

Other territorial typologies were provided at NUTS2 including a) Sparsity of regions, measured through low population densities ( $\leq 12.5$  and  $\leq 50$  inhabitants per square kilometre), b) cohesion regions as more developed, transition and less developed regions for the 2014-2020 ESIF programming period and c) cohesion regions for the 2021-2027 ESIF programming period.

A boxplot chart shows numerical indicators for each of these territorial types. These charts show the maximum spread of distribution for each territorial type, with the lower and upper quartile as well as the median.



**Map 4.1 Overview of Cohesion Policy typologies**



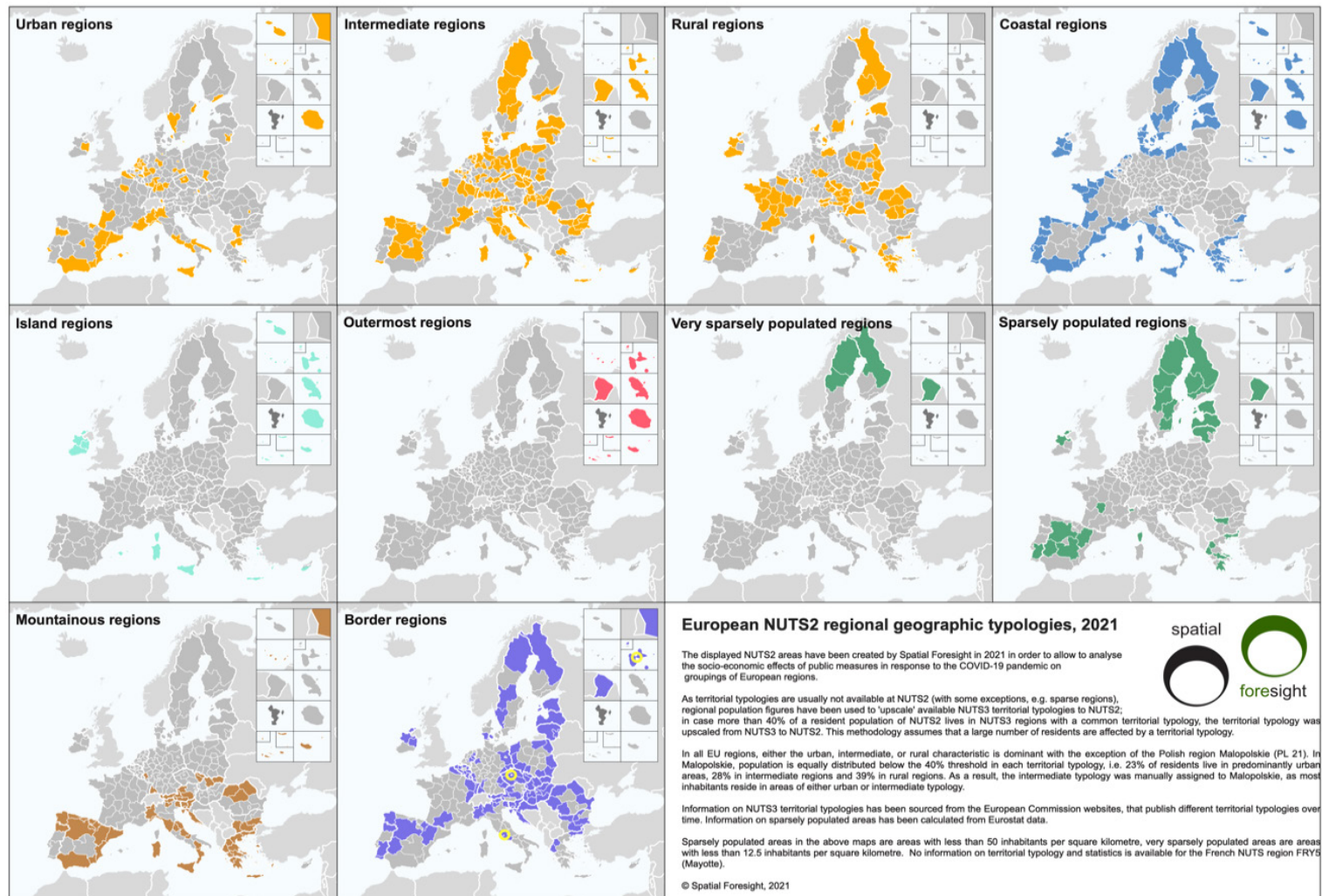
### European NUTS2 regional policy typologies, 2021

The displayed NUTS2 areas have been mapped by Spatial Foresight in 2021 in order to allow to analyse indicators to assess the socio-economic effects of public measures in response to the COVID-19 pandemic on groupings of European regions. The regional typologies have been provided by the European Commission (2021) and show the affiliation of European regions in either more developed regions, transition regions and less developed regions for the 2014-2020 and 2021-2027 programming period.

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Source: Study team elaboration

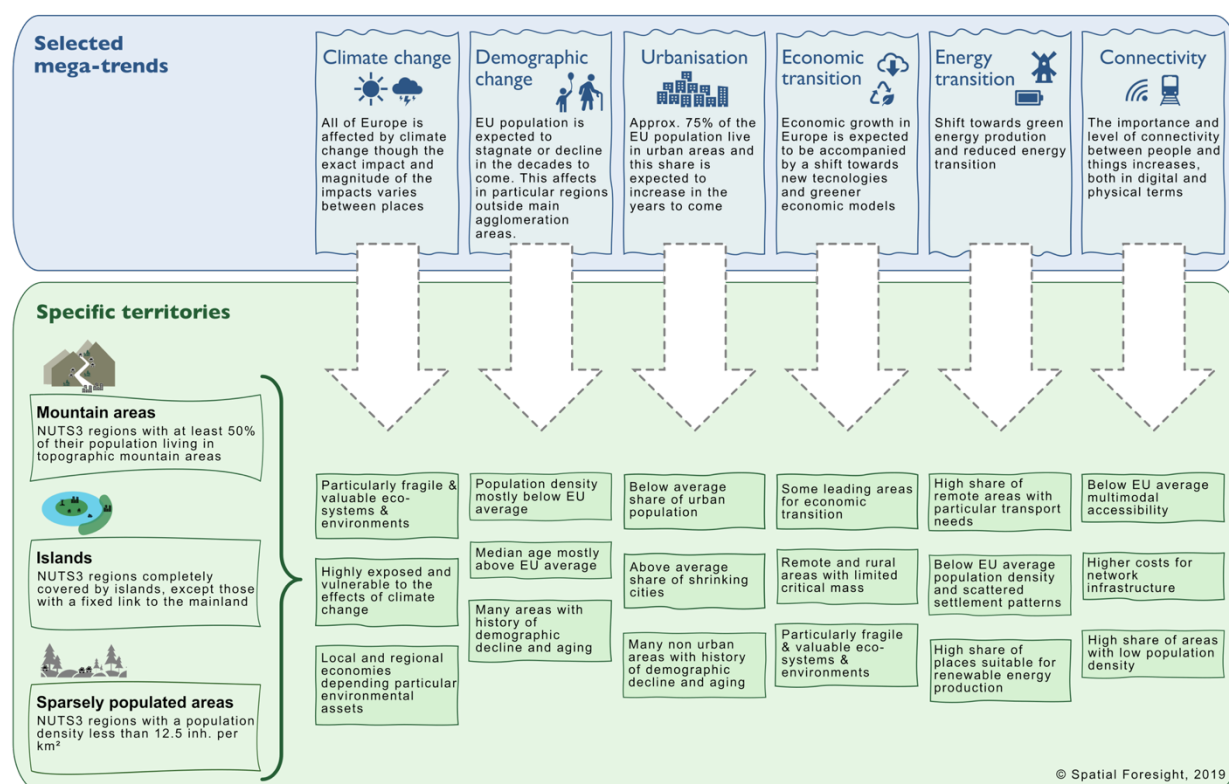
**Map 4.2 Overview regional typologies**

Source: Study team elaboration

### 4.2.3 Mega trends and specific territories

Summing key characteristics of specific territories as well as key features of selected trends enables a discussion of what future trends might bring to specific territories. Figure 4.1 illustrates how climate, demographic, urbanisation, economic, energy transition and connectivity changes can affect mountain, island and sparsely populated areas. This figure, from a Spatial Foresight exercise in 2019, illustrates the rationale to territorialise trends, and was the base for the development of the two Sankey charts, Figure 2.5 and Figure 2.6, presented in Chapter 2 - Analysis of Cohesion Impacts.

**Figure 4.1 Overview - Mega Trends and Specific Territories**



Source: Spatial Foresight, 2019

## 4.3 Regional reference group

The regional reference group has four aims: validating the desk research findings, identifying causality links, forecasting possible future consequences and designing solutions. The Regional Reference Group supports proper reflection of the local and regional perspective.

This group meets six times via Zoom in the course of the study to discuss the findings, providing insights from different parts of Europe, thematic backgrounds and types of territories. At these meetings study findings are presented and discussed. Inputs from the group members can also be used for regional flashlights (e.g. textboxes with regional insights or examples) in the reports.

The six meetings are divided into two sequences of three meetings. Each meeting has a thematic focus. Meetings 1 and 4 focused on cohesion impacts of the pandemic, meetings 2 and 5 focused on Cohesion Policy in the light of the pandemic and meetings 3 and 6 focused on conclusions and recommendations.

The timing of the meetings is:

**Meeting 1** (Thursday, 30 September 2021; 14h00 - 17h00 CET):

Cohesion impact assessment of the pandemic.

**Meeting 2** (Monday, 18 October 2021; 14h00 - 17h00 CET):

Appraisal of Cohesion Policy responses to the pandemic.

**Meeting 3** (Wednesday, 17 November afternoon; 14h00 - 17h00 CET):

Forecathon on conclusions and policy recommendations.

**Meeting 4** (Monday 20 June 2022 morning; 09h30 – 12h30 CET):

Cohesion impact and development trends.

**Meeting 5** (Tuesday, 19 July 2022 morning; 09h30 – 12h30 CET):

Cohesion Policy & beyond for recovery.

**Meeting 6** (planned 28 September 2022 morning; 09h30 – 12h30 CET):

Forecathon on post-pandemic policy needs.

Among the members of the regional reference group are Andrea Pelli (Marche), Anna Olofsson (Örebro), Dolores Ordóñez (Balearic Islands), Edgars Sadris (Latvia), Franceso Molica (CPMR), Gyula Ocskay (CESCI), Jean Peyrony (MOT), Luminita Zezeanu (Sud Muntenia), Marcin Wajda (Mazowieckie), Marianne Denoeu (Interreg 2 Seas), Marine Gaudron (CEMR), Melinda Benczi (CESCI), Nick Brookes (CPMR), Peter Hansen (Syddenmark-Nordholstein), René van der Lecq (Flanders), Roland Engkvist (Gotland) and Tayrne Butler (Balearic Islands).



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The impacts of the COVID-19 pandemic, the war in Ukraine and a range of mega-trends affect Europe's pathway and exacerbate vulnerabilities for many places and societal groups. They risk accelerating disparities between places and people.

Cohesion Policy proved to be a highly flexible instrument, reacting quickly and effectively against the effects of the pandemic. For the 2021-27 period it seems programmes are adopting a 'back to normality' approach.

To address cohesion challenges ahead and ensure the crises result in a green, digital and just transition, Cohesion Policy has to adjust.

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