STUDY Requested by the REGI Committee



The impacts of the COVID-19 pandemic on EU cohesion and EU cohesion policy

Part I: Overview and first analysis





Policy Department for Structural and Cohesion Policies Directorate-General for Internal Policies PE 699.617 - January 2022

RESEARCH FOR REGI COMMITTEE

The impacts of the COVID-19 pandemic on EU cohesion and EU cohesion policy

Part I: Overview and first analysis

Abstract

The COVID-19 pandemic accelerated fragmentations between societal groups and between places. It risks reinforcing existing imbalances and inequalities in the EU.

The worst and most direct impacts have been avoided by swift policy actions. In this context Cohesion Policy played a role. The swift introduction of new measures to counteract the socioeconomic effects of the pandemic were extremely important.

To address cohesion challenges lying ahead of us and use the crisis as a chance for a transition towards a greener and more digital future, Cohesion Policy might need to adjust.

This document was requested by the European Parliament's Committee on Regional Development.

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CONTENTS

LIST	r of <i>i</i>	ABBREVIATIONS	4
LIST	r of f	IGURES	5
LIST	r of 1	ABLES	6
LIST	r of N	ЛАРЅ	7
EXE	CUTI	VE SUMMARY	8
INT	RODU	JCTION	11
1.	ANA	LYSIS OF COHESION POLICY DIMENSION	12
	1.1.	Analysis of institutional and legislative changes	13
	1.2.	Key challenges	16
	1.3.	Solutions adopted by national and regional programme authorities	18
	1.4.	Overall impact on the 2014-2020 programming period	33
	1.5.	Preliminary insights on 2021-2027 programming	41
2.	ANA	LYSIS OF COHESION IMPACTS	46
	2.1.	Impacts on regional developmenSt	46
	2.2.	First conclusions for impacts on cohesion	62
	2.3.	More nuanced considerations and territorial stories	73
	2.4.	Outlook for what may remain in the long-term	80
3.	CRO	SS ANALYSIS & RECOMMENDATIONS	83
	3.1.	The role of Cohesion Policy	83
	3.2.	Cohesion Policy 2021-2027	84
	3.3.	Cohesion Policy post 2027	87
4.	NEX	T STEPS	90
REF	EREN	CES	91
5.	MET	HODOLOGICAL ANNEX	98
	5.1.	Methods of Cohesion Policy analysis	98
	5.2.	Cohesion impact analysis	106
	5.3.	Regional reference group	114

LIST OF ABBREVIATIONS

AIR	Annual Implementation Report
CF	Cohesion Fund
CLLD	Community Led Local Development
со	Common indicator
CoR	European Committee of the Regions
CRII	Coronavirus Response Investment Initiative
CRII+	Coronavirus Response Investment Initiative Plus
CPMR	Conference of Peripheral Maritime Regions
CV	Covid indicator
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EC	European Commission
EMFF	European Maritime and Fisheries Fund
ERDF	European Regional Development Fund
ESF	European Social Fund
ESIF	European Structural Investment Funds
ETC	European Territorial Cooperation
GDP	Gross Domestic Product
ІСТ	Information and Communication Technology
ILO	International Labour Organization
IMF	International Monetary Fund
п	Information Technology
ITI	Integrated Territorial Investment
JRC	Joint Research Centre of the European Commission
JTF	Just Transition Fund
MA	Managing Authority
MICE	Meetings, Incentives, Conventions and Exhibitions/Events
NEETs	Not in Employment, Education or Training - young people, 15 to 29 years old
NRRP	National Recover and Resilience Plan
NUTS	Nomenclature of Units for Territorial Statistics
ОР	Operational Programme
R&D	Research and development
R&I	Research and innovation
REACT-EU	Recovery Assistance for Cohesion and the Territories of Europe
RIS3	Research and Innovation Strategies for Smart Specialisation
ROP	Regional Operational Programme
RRF	Recovery and Resilience Facility
SME	Small and Medium-sized Enterprise
то	Thematic objective
VOID	Non-categorised regions on cohesiondata.ec.europa.eu

LIST OF FIGURES

Figure 1.1	The calendar of key regulation changes impacting Cohesion Policy	13
Figure 1.2	Changes in planned EU support to enterprise intervention fields since 1 February 2020 - CRII/CRII+ (excluding REACT-EU Resources) – ERDF/ESF	21
Figure 1.3	Changes in planned EU support to healthcare intervention fields	24
Figure 1.4	Fund reallocation between TOs - ERDF/ESF/CF 2019 vs. 2020	28
Figure 1.5	Fund reallocation -between TOs - ERDF 2019 vs. 2020	29
Figure 1.6	Fund reallocation between TOs - ESF 2019 vs. 2020	29
Figure 1.7	Fund reallocation between TOs - CF 2019 vs. 2020	30
Figure 1.8	REACT-EU Allocations 2021 Decided Amount (%) per country	34
Figure 1.9	Changes in planned EU support to enterprises since 1 February 2020 per country (CRII/CRII+ and REACT-EU)	35
Figure 1.10	Changes in planned EU support to healthcare since 1 February 2020 per country (CRII/CRII+ and REACT-EU)	35
Figure 1.11	Changes in allocations among funds and categories of regions since 31 May 2020	36
Figure 1.12	ERDF/ESF/CF Absorption (%) all member states 2007-2013 / 2014-2020 / 2015-2020	38
Figure 1.13	ERDF/ESF/CF Absorption (%)- 2007-2013 / 2014-2020 / 2015-2020	39
Figure 1.14	ERDF/ESF/CF Absorption (%) - 2007-2013 / 2014-2020 / 2015-2020	39
Figure 1.15	ERDF/ESF/CF EU Budget Ceilings vs. Total Net Payments 2014-2020	40
Figure 1.16	Interaction of effects of long-term investments between programming periods	42
Figure 1.17	Interaction of effects of long-term investments between 2014-2020 and 2021-2027	42
Figure 1.18	Length of the Common Provisions Regulation legislative process from first EC proposal to adoption (07-13, 14-20, 21-27)	43
Figure 1.19	Pre-allocation of 21-27 funds per member state including Next Generation EU	45
Figure 2.1	Multifaceted territorial impacts of the COVID-19 pandemic	48
Figure 2.2	Changes in GDP projections due to changing conditions and unexpected developments for the Euro Area and selected member states	59
Figure 2.3	Reliance on tourism, type of Cohesion Policy regions	64
Figure 2.4	Reliance on tourism, geographical types of regions	65
Figure 2.5	Employment in risk sectors by type of Cohesion Policy region	67
Figure 2.6	Employment in risk sectors by geographical types of region	67
Figure 2.7	Low education shares by type of Cohesion Policy region	68
Figure 2.8	Low education shares by geographical types of region	68
Figure 2.9	Shares of NEETS by type of Cohesion Policy region	69
Figure 2.10	Shares of NEETs by geographical types of region	69
Figure 2.11	Risk of poverty by type of Cohesion Policy region	70

Figure 2.12	Risk of poverty by geographical types of region	70
Figure 2.13	Share of micro-enterprises by type of Cohesion Policy region	71
Figure 2.14	Share of micro-enterprises by geographical types of region	71
Figure 2.15	Share of self-employed by type of Cohesion Policy region	72
Figure 2.16	Share of self-employed by geographical types of region	72
Figure 2.17	Quality of government by type of Cohesion Policy region	73
Figure 2.18	Quality of government by geographical types of region	73
Figure 2.19	Risk of negative impacts of the pandemic by geographical types of regions	74
Figure 5.1	Visualisation of the methodology	98

LIST OF TABLES

Table 1.1	Modifications to Cohesion Policy related to liquidity	14
Table 1.2	Modifications of Cohesion Policy related to Simplification	15
Table 1.3	Modifications of Cohesion Policy related to Flexibility	15
Table 1.4	COVID-19 specific indicators 'Enterprise Support'	22
Table 1.5	COVID-19 specific indicators for 'health'	25
Table 1.6	COVID-19 specific indicators for 'COVID-19 Vaccinations'	26
Table 1.7	COVID-19 specific indicators for ESF programmes	27
Table 1.8	Changes in output indicator targets	31
Table 1.9	ERDF/ESF/CF Absorption Rate (Spent/Planned %) 2012 -2013 vs 2019-2020	38
Table 2.1	Examples of GDP forecasts	58
Table 2.2	COVID-19 impacts on tourism by type	66
Table 3.1	Policy Recommendation: Cohesion Policy can respond to crisis	84
Table 3.2	Policy Recommendation: Cohesion Policy can respond to crisis	85
Table 3.3	Policy Recommendation: Cohesion needs multi-level governance	85
Table 3.4	Policy Recommendation: Administrative capacity constraints risk the quality of new programmes	86
Table 3.5	Policy Recommendation: Attention to areas with slower recovery prospects	87
Table 3.6	Policy Recommendation: Need for ambitious long-term perspective	87
Table 3.7	Policy Recommendation: 2023 as a moment to reflect	88
Table 3.8	Policy Recommendation: Rediscovering cohesion post-2027	89
Table 5.1	Overview of the quantitative analysis	100
Table 5.2	AIR sections considered for the screening	105

LIST OF MAPS

Map 2.1	Potential negative and positive short-term impacts of COVID-19 restrictions	50
Map 2.2	Medium-term negative and positive sensitivities to COVID-19 restrictions	56
Map 5.1	Overview Cohesion Policy typologies	112
Map 5.2	Overview regional typologies	113

EXECUTIVE SUMMARY

The COVID-19 pandemic was a major shock deeply impacting people, enterprises, public authorities, municipalities and regions.

In many regards the pandemic has accelerated fragmentation between societal groups and between places. Many of the pandemic impacts highlight the risks of increasing inequalities. The worst and most direct impacts have been avoided by swift policy actions. In this context Cohesion Policy played a role.

Cohesion Policy perspective

Cohesion Policy reacted promptly to the emergency. The introduction of new measures to counteract the socio-economic effects of the pandemic were extremely important. The three interconnected objectives of the new CRII/CRII+ measures and REACT-EU, i.e. fuelling liquidity, fostering simplification and providing flexibility, enabled actions targeting needs that emerged during the pandemic.

Member states made use of these measures as far as they still had funding to allocate. In that sense Cohesion Policy played a role in cushioning socio-economic impacts in the areas most severely affected.

While the strategic re-orientation of funding helped to meet emergency needs, it diverted attention from long-term and structural issues. Resources were shifted from measures supporting mainly long-term strategic investments in national and regional development, such as infrastructure, R&D, and environment, towards extra support to struggling SMEs, citizens and the healthcare sector.

The administrative workload required to ensure that 2014-2020 Cohesion Policy programmes could swiftly respond to the emergency reduced resources available for preparing 2021-2027 programmes. This could lead to internal structural gaps hindering an effective reaction to the consequences of the pandemic and optimal use of available resources.

Although Cohesion Policy has proven that it can respond very quickly, it may face challenges in the years to come. This is partly due to increasing inequalities in Europe, but also to medium-term legacies of the new simplification and flexibility measures, as well as increasing competition with other EU funding instruments created in response to the pandemic.

Cohesion perspective

The pandemic affects development in many ways. Regions experienced it differently as the impacts on the population's health and the restrictive measures varied substantially in Europe. Beyond these immediate effects, are impacts on socio-economic developments and GDP. Taken together, negative impacts are expected in the short- and medium-term.

In the short-term, local and regional development was most affected by severe restrictions and sensitive socio-economic structures. Regions potentially hit hardest are mainly in southern Europe. The pandemic also has social impacts on people's wellbeing and quality of life. In many regards, the economic disruption caused by COVID-19 inevitably threatens the most vulnerable groups of society more.

In the medium-term, the pandemic will affect local and regional development beyond the more obvious immediate effects. Medium-term impacts will be shaped by more durable impacts on some sectors and structural elements, which affect how quickly an area can recover.

In general terms, the pandemic risks reinforcing existing imbalances and inequalities in the EU. Existing differences may also widen at lower geographical levels between places, groups of society and people

in Europe. Convergence in the EU may be reversed. Also at a societal level, the pandemic has brought underlying value conflicts to the surface.

Recovery outlooks also vary considerably. In particular regions heavily dependent on tourism might need several years to recover from the pandemic. This includes many mountainous, coastal and island regions. Also more remote (and sparsely populated) rural areas might face lasting challenges such as increasing digitalisation pressure. Many cross-border regions were heavily affected at the beginning of the pandemic due to the closure of national borders. Although many of these are on the path to recovery, the sudden disruption of cross-border interdependencies left people unsettled.

Recommendations

Cohesion Policy helped to address the immediate needs caused by the pandemic. However, to address cohesion challenges lying ahead of us and use the crisis as a chance for a transition towards a greener and more digital future, Cohesion Policy might need to adjust.

Key lessons from this study include:

- **Cohesion Policy can respond to crisis**. Addressing new challenges and crises by setting up new EU funding instruments, should only be considered when existing instruments are unable to respond. In future debates about possible new EU policy and funding instruments, the European Parliament should assess to what degree the purpose of a new instrument could be fulfilled by (adjusting) existing instruments, e.g. Cohesion Policy, in order to avoid duplication of administrative structures and competition between funding instruments.
- 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. In the context of the European semester, the European Parliament should address the need for a long-term perspective targeting structural changes, when debating the country reports and country specific recommendations.
- Attention to areas with slower recovery prospects. To reduce risks of rising regional inequalities due to different speeds in the recovery, Cohesion Policy should pay particular attention to tourism regions, remote rural areas, small towns, cross-border regions and other areas facing more long-lasting negative impacts or slower recovery paths. In the context of the European semester, the European Parliament should address the need for a particular focus on regions with slower recovery prospects, when debating the country reports and country specific recommendations.
- Need for 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 and digital cohesive future which brings Europe closer to the 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 the use of territorial tools to bring Cohesion Policy closer to the citizens.
- **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 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 the National Recovery and Resilience Plans (NRRPs).
- Administrative capacity constraints risk the quality of new programmes. To ensure good quality and strategic programmes and overcome recent capacity constraints in terms of time and

staff available, 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 the possibility for re-programming in 2023, for programmes which could not devote the efforts envisaged to the programming of the 2021-27 period.

- **2023 as a moment to reflect.** In 2023, insights on the interplay between National Recovery and Resilience Plans 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-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 recommendations in 2023. Furthermore, it should launch an EU-wide study on the interplay between NRRPs and Cohesion Policy.
- **Rediscovering cohesion post-2027.** Considering Cohesion Policy post-2027, there should be a Europe-wide debate on the understanding of cohesion and need to mitigate increasing territorial and societal fragmentation. The European Parliament could join forces with the European Committee of the Regions which has taken first steps in this direction. The European Parliament could among others initiate a European-wide debate on how to modernise the idea of cohesion both in terms of topics and understanding of cohesion.

INTRODUCTION

This is the final report of the first phase of the research project on the impact of the COVID-19 pandemic crisis on EU cohesion (IP/B/REGI/IC/2021-005).

The objective of the project is to inform members of the REGI Committee on impacts of the COVID-19 pandemic on cohesion and EU Cohesion Policy.

The project covers two studies, to be delivered one at the beginning and one at the end of 2022. Both studies shall address (a) the pandemic's impacts on cohesion, and (b) the Cohesion Policy dimension of the pandemic.

Although the project consists of two studies the analysis methodologies have been designed so the 2021 and 2022 studies are merely one study delivered in two steps.

This report presents the pandemic's impacts on Cohesion Policy in its current format (chapter 1), impacts on cohesion and different types of regions (chapter 2) as well as first conclusions and recommendations (chapter 3). The next steps of this research project are outlined in chapter 4. Chapter 5 provides methodological background information.

The study is based on the analysis of data on 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 overall analysis to on the ground insights. These approaches are described in further detail in the annex.

Short summary on the key methods applied

The quantitative analysis of Cohesion Policy programmes is based on the statistical analysis of Cohesion data concerning following elements:

- Changes in budget allocation (transfer of resources) among priorities in OPs (linked to the flexibility provided through CRII/CRII+);
- Financial performance (with a focus on absorption and spent resources) and comparison with a 'no-COVID' scenario;
- Physical (output) performance, including the achievement of targets, changes in output indicator targets and 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 annual implementation reports and programme documents of 40 programmes to understand changes made during the pandemic and their impacts.

The assessment of the pandemic's impact on cohesion builds on two quantitative approaches. This is firstly the method for the assessment of COVID-19 pandemic impacts, based on the analysis of statistical data at NUTS2 level concerning the regions' exposure and sensitivities to the restrictive measures taken in the wake of the pandemic. Secondly, this is cross-analysed with two regional typologies. One typology differentiates between more developed, transition and less developed regions – according to the definitions for the 2014-20 and 2021-27 programme periods of Cohesion Policy. The other typology differentiates between different geographical types of regions. These are urban, intermediate, rural, coastal, islands, outermost, very sparsely populated, sparsely populated, mountain and border regions.

The preliminary findings of the quantitative and qualitative analysis are then discussed and further enhanced in the regional reference group, a 'focus group'-like setting involving cohesion policy experts and programme managing authorities.

1. ANALYSIS OF COHESION POLICY DIMENSION

KEY FINDINGS

- Cohesion Policy reacted swiftly to the emergency. The introduction of new measures to counteract the socio-economic effects of the pandemic were extremely important.
- The three interconnected objectives of the new CRII/CRII+ measures and REACT-EU, i.e. fuelling liquidity, fostering simplification and providing flexibility, enabled actions targeting needs that emerged during the pandemic.
- Thanks to the greater flexibility, ERDF and ESF programmes could respond to the emergency by shifting resources from supporting mainly long-term strategic investments in national and regional development, such as infrastructure, R&D, and environment, towards extra support to struggling SMEs, citizens and the healthcare sector.
- While the strategic re-orientation of funding helped to meet emergency needs, it diverted attention from long-term and structural issues.
- The administrative workload required for programmes to respond to the emergency reduced human resources available for preparing 2021-2027 programmes. This may hinder an effective reaction to the consequences of the pandemic and optimal use of available resources.

The pandemic crisis prompted a reaction from EU institutions which had a twofold impact on the Cohesion Policy framework. These were the need for measures to both face the emergency in the short-term and to trigger the recovery in the medium-long-term. This section highlights some of the effects and potential pitfalls.

The first paragraph of this section is an analysis of institutional and legislative changes which have impacted 2014-2020 ESIF implementation. Drawing on previous studies (e.g. 'Cohesion Policy Measures in Response to the COVID-19 Pandemic') the analysis provides an overview of options offered by Coronavirus Response Investment Initiative (CRII) and CRII+ and the additional resources introduced with the Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU). This first analysis provides the legal and institutional framework for a more detailed study of the COVID-19 impact on Cohesion Policy, which is developed subsequent paragraphs.

Firstly, the key challenges encountered by ESIF OPs during the COVID-19 pandemic are shown at both programme and project levels. The main solutions adopted by national and regional authorities to address these problems are then investigated from a qualitative and quantitative perspective. In particular, the focus is on:

- administrative changes to ensure continuity of activities and progress for programmes despite COVID-19 limitations;
- new measures to target needs that emerged during the pandemic;
- the strategic re-orientation of OPs to benefit from the flexibility provided by CRII/CRII+.

First conclusions on the impact of COVID-19 on 2014-2020 programming period are then offered. The effects of the pandemic and related measures on the financial performance of OPs, and the effectiveness of the short-term modifications made to Cohesion Policy regulations in 2020 are assessed. Finally, a preliminary insight on 2021-2027 programming is provided.

1.1. Analysis of institutional and legislative changes

EU institutions aimed to boost emergency policy measures to mitigate the economic and social damages caused by the COVID-19 pandemic and tackle the most urgent needs of the Union while promoting Cohesion Policy. Hence, the CRII and CRII+ packages (EU Regulation No 558/2020) introduced exceptional measures which modify implementation rules for ERDF, ESF and Cohesion Fund OPs. In addition, as part of NextGenerationEU (NGEU) and directly impacting Cohesion Policy, the REACT-EU regulation was adopted on 23 December 2020. REACT-EU aims at extending the 2014-2020 funding period, including for ERDF and ESF. The main steps and related dates are reported in the figure below.

Figure 1.1	The calendar of key regulation changes impacting Cohesion Policy
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Source: t33 own elaboration (2021)

It is possible to identify three common aims of the modifications made by CRII, CRII+ and REACT-EU:

- fuelling **liquidity** to the private sector (e.g. SMEs) and to public authorities for health expenditure;
- **simplifying** the adaptation of OPs to the emergency;
- increasing **flexibility** by increasing the types of measures.

In terms of **increasing liquidity**, the main drivers were the possibility of:

- making available financial resources from EU programmes to pandemic related emergency national interventions without requiring national co-financing (i.e., 100% EU financing);
- reallocating financial resources to territories and interventions with the greatest need making transfers between funds, categories of regions and priorities easier;
- using financial instruments to address immediate needs of SMEs, allowing working capital to be financed.

In addition, REACT-EU added EUR 47.5 billion on top of the resources available for 2014-2020 and the negotiated amount for 2021-2027.

Art.	CRII and CRII +	Art.	REACT EU
CRII Art.1(2) CRII Art.2(3)	COVID-19 related expenditure is made eligible under the ERDF.	REACT-EU Art.1(1)	EUR 47.5 billion on top of 2014-2020 and additional to 2021-2027
CRII Art.2(5)	The Commission proposes not to request member states to reimburse unspent pre- financing for the ESIF for 2019. Member states were allowed to hold onto this money, which will provide them with a liquidity buffer of about EUR 8 billion enabling them to accelerate investments related to the COVID-19 outbreak.	REACT-EU Art.1(1)	No national co-financing is required i.e. covered by EU resources 100% high level of pre- financing (50% of REACT-EU budget for the year 2020)
CRII+ Art.2 (1)	Increased co-financing rate . For the accounting year 2020-2021, the EU resources can finance up to 100 % of ESIF OP.	REACT-EU Art.1(1)	Transfers among ERDF and ESF are always possible
CRII Art.2(1) CRII+Art2(2) CRII+Art2(3)	Flexibility for financial transfer for programming for 2020. Financial resources could be: - reallocated among funds; - transferred between categories of regions; - exempted from thematic concentration; - moved from a priority to another up to 10 % in the same programme.	REACT-EU Art.1 (1)	Additional resources are not determined by categories of regions.
CRII Art.1(1) CRII Art.2(2)	Wider use of financial instruments. The possibility to provide working capital through financial instruments.		

Table 1.1 Modifications to Cohesion Policy related to liquidity

Source: t33 own elaboration (2021)

Concerning **simplification**, the most important modification was the procedure for re-programming. Amendments to OPs and PAs require fewer procedural steps, modifications in the ex-ante assessment are no longer needed due to changes in the financial instrument. Last but not the least, REACT-EU extended eligibility of expenditure to 31 December 2023.

Art.	CRII and CRII +	Art	REACT EU
CRII Art. 2(4) CRII+Art2 (5)(6)	Simplification of the procedure for re-programming. Fewer requirements and simplified procedures were adopted OPs and partnership agreements amendments, financial instrument reporting and ex-ante assessments, verification documents, and audits.	REACT-EU Art.1 (1)	No ex-ante conditionality or thematic concentration Final date of eligibility for this expenditure is 31 December 2023

Table 1.2 Modifications of Cohesion Policy related to Simplification

Source: t33 own elaboration (2021)

For **flexibility**, CRII, CRII+ and REACT-EU have made Cohesion Policy more flexible with new measures tackling the pandemic:

- for the period 2014-2020, CRII introduced intervention eligible under ERDF also 'investment necessary for strengthening the crisis response capacities in health services'
- for the period 2021-2027, REACT-EU identified specific support for both ERDF and ESF.

Table 1.3 Modifications of Cohesion Policy related to Flexibility

REACT-EU					
ERDF	ESF				
 Investment in products and services for healthcare. Infrastructure providing basic services to citizens. Economic measures for sectors most affected by the crisis (e.g. tourism, culture). 	 Job maintenance, including through short-time work schemes and support to self-employed. 				

Source: t33 own elaboration (2021)

It is worth mentioning two other changes to regulations relevant for Cohesion Policy:

- the temporary framework for State aid measures of 19 March 2020 (C/2020/1863)¹;
- the Communication on <u>public procurement</u>² of 1 April 2020.

¹ Introducing i) additional aid measures (e.g. grants, tax advantages, repayable support, no-loss guarantees) and tax payments / social security contribution delays; ii) possibility to cover recapitalisation and subordinated debts; iii) public support for micro and small enterprises in difficulty even before 31 December 2019.

² 'Guidance on using the public procurement framework in the emergency situation related to the COVID-19 crisis' EC, 2020, 108 l/1, including three simplified options: i) alternative solutions and ways of engaging with the market ii) accelerated procedures iii) negotiated procedures without publication.

1.2. Key challenges

Key challenges reported by programmes in 2020 stemming from analysis of Annual Implementation Reports (AIRs) and discussions in the Regional Reference Group mostly refer to negative impacts on programme implementation, leading to slowdowns especially as a consequence of the restriction measures (i.e. 'lockdowns') put in place across EU member states in March-April 2020.

To best illustrate the different types of challenges, these have been divided into subcategories.

1.2.1. At project level

The restrictive measures particularly affected activities at project level, e.g. through forced interruptions of on-site activities which could not be carried out digitally. Projects which were highly dependent on international supplies of material also experienced major delays, as did those which involved international travel, such as certain Interreg projects (e.g. pilot actions of R&I projects), or those in highly affected sectors such as tourism.

Similarly, projects that did not play a priority role in the fight against COVID-19 were slowed down or cancelled because of the reduced resources that could be dedicated to them, for instance the construction of some infrastructure.

ROP Castilla La Mancha (Spain, ERDF)

Since 2020, the implementation of almost all the operations selected have been severely affected by the Covid-19 pandemic that has affected Spain and specifically the autonomous region in question.

OP Knowledge and education (Poland, ESF)

The programme saw many delays in the implementation of projects, in particular in the area of mobility and direct provision of services to participants, which in many cases required adjustments to the project budget and schedule. New tenders were suspended to allow to provide support for COVID-19 – related operations.

In the specific case of ESF programmes, the limitations made it difficult to recruit participants as the usual channels (e.g. events, employment centres and services or other institutions) were generally no longer available. Delays in ESF project implementation were sometimes caused by the difficulty or impossibility of target groups to participate in project activities transferred online (e.g. training) due to their lack of access to digital tools.

Federal operational programme (Germany, ESF)

The impact and limitations of the COVID-19 pandemic made participant recruitment difficult throughout the ESF federal programme, as the usual access channels (e.g. events, employment services or other institutions) were generally no longer available. Not all funding elements could be adapted to the changed framework conditions.

Even when projects could continue with implementation, restrictions limited the variety of activities that could be carried out. In general, changes in working and communication between programme and project partners, among partners and between partners and target groups was a recurrent obstacle. In certain cases, a lack of digitalisation in administrative procedures made communication with and support to beneficiaries much more difficult.

The complexity of managing these difficulties at programme level was increased as:

- 1. Under each programme there are different types of projects and not all of them were affected in the same way;
- 2. Projects, especially Interreg Programmes which involve multiple countries, are implemented in different locations, which have not been affected by COVID-19 in the same way and in which different restrictive measures were adopted.

In light of this, it would have been very difficult for Managing Authorities (MAs) to make timely and sustainable decisions at programme level that would have suited all projects.

For programmes these interruptions and delays also implied the risk of not achieving objectives for spending and other targets on time, slowing progress towards expected programme results.

1.2.2. At programme level

Programmes experienced different problems.

Reduced work capacity

Lockdowns lowered capacity at programme level for three main reasons: 1) the shift to digital tools, which took time to adjust to, 2) the need to take time off to care for family members (e.g. children at home due to school closures) and 3) internal re-organisation in some MAs, when personnel were redeployed, e.g. to manage new national emergency funds.

ROP Rheinland-Pfalz 2014-2020 (Germany, ERDF)

For several months, the existing staff responsible for the implementation of the ERDF programme were not available to the usual extent because they were in charge of managing the 'bridging aid' (*Überbrückungshilfe*) provided by the Federal State.'

Reduced work capacity at programme level had a direct impact on the programmes' ability to perform management and implementation, causing delays including in processing applications and monitoring project activities.

In this context, the work of the Monitoring Committees has also been very constrained, being limited in some cases only to the approval of control criteria through online meetings.

Unexpected changes in the number of applications

Some programmes experienced a decrease in the number of applications received during the first months of 2020, especially to calls for proposals under measures addressed to private companies (e.g. SMEs, tourism companies, etc.). Key reasons were the lack of financial capability of businesses to co-finance projects due to the economic crisis generated by the pandemic.

From the Regional Reference Group though, it emerged that the Regional Operational Programme for Mazowieckie Voivodeship 2014-2020 on the contrary experienced many more applications due to increased amount and flexibility in terms of eligibility (see section 1.3.1). However, given the above-mentioned problems of reduced work capacity, the lack of capacity to handle them turned out to be a problem.

Delays in new tenders and calls for proposals

Some Programmes reported delays or suspension of new tenders and calls for proposals. This was due to the reduced participation in calls for proposals, but also to the need to allow personnel to shift their focus to new measures tackling COVID-19.

1.3. Solutions adopted by national and regional programme authorities

After identifying the key challenges OPs encountered during the pandemic, the following paragraphs shed light on how Programme contents have been adjusted, i.e. changes made in the programmes to adapt to the new circumstances. Most of the 'content re-programming' concerns changes in eligibility and selection criteria, modified calls for proposals, changed or new indicators and, most importantly, new measures to support SMEs and the healthcare system. The re-orientation strategy behind these solutions adopted by the Managing Authorities is also analysed to identify common trends.

1.3.1. Administrative changes

To face the challenges related to the slowdown of implementation and taking advantage of the new flexibility provided by CRII/CRII+, OPs introduced changes aimed at ensuring continuity in project activities and progress despite the limitations posed by the pandemic.

Modified eligibility and selection criteria, modified calls

In many of the AIRs, OPs extended the eligibility criteria under specific axes to include new types of eligible costs, actions, beneficiaries and target groups. In particular, most of the programmes (under both ERDF and ESF) mentioning these changes concentrated on adding:

- funding for sanitary equipment linked to COVID-19 for healthcare services;
- new types of project partners;
- new types of target groups (e.g. participants in employment programmes under ESF).

Calls for proposals were modified and new calls introduced to better include activities and partners more suitable to tackle the crisis. In certain calls, especially for SME support, less strict requirements enabled greater access to funding for companies.

For ESF, new calls launched by some programmes in 2020 aimed to mitigate the effects of the pandemic on the labour market, e.g. by not requiring any co-financing from the projects.

A Danish ERDF programme launched a call for additional funds only addressed to existing projects, to finance ideas to cope with COVID-19 in the business sector.

Simplified administrative procedures for project implementation

To meet the new needs of projects and simplify procedures, programmes adopted a wide range of changes, including:

- Shortening the approval circuit for project amendments;
- A new 'emergency contracting procedure';
- Regular meetings with beneficiaries to find possible solutions and provide assistance with administration;
- Simplified reporting of activities and expenses, including simplified verification of expenditure, introduction of digital signatures;
- More advanced payment options to cope with liquidity needs;
- Allowing remote working, outside the programme area;
- Flexibility on budget shifts among project partners;
- Reimbursement of irrecoverable expenses (e.g. events cancelled due to the pandemic);

- Simplified project prolongation procedure;
- Simplified partnership changes procedure;
- Simplification of change procedures, such as budget re-allocation and revised work plans;
- Remote evaluation of applications.

Exceptional recruitment

Some programmes also reported exceptional recruitment of administrative personnel to better cope with the emergency, increased workload and reduced capacity due to internal reorganisations. New staff were hired to process the increased number of applications (e.g. due to the new measures) or to support implementation of projects in response to the pandemic.

Changes within projects

In their AIRs, programmes also reported changes in the delivery of project activities, with special regard to the shift from on-site activities and events to the use of digital tools.

Some examples of this shift are:

- Education accessibility became virtual, such as online teaching.
- Teachers trained on IT systems through informative webinars;
- Project promotion online instead of through physical events;
- ESF opportunity of getting skill certifications at distance;
- Education project beneficiaries offered remote training and courses, e-learning modules.

However, the conversion from face-to-face to digital formats (video conferencing, blended learning, etc.) has not always been possible, or in some cases only possible to a limited extent. As a consequence, some activities had to be cancelled and the budget reorganised.

Changed or new indicators

The reallocation of resources and content re-programming meant that programmes had to adjust indicator targets. Programmes also created new programme-specific indicators and introduced COVID indicators (CV) into existing or new priority axes.

In particular, the EC listed these new common indicators for actions targeting the COVID-19 response in a non-paper³, in order to capture outputs from emergency expenditure at EU level. 219 OPs have adopted at least one of these indicators.

The 48 new COVID-19 specific output and result indicators are available at the *Coronavirus Dashboard Cohesion Policy response*.

1.3.2. New measures

The new measures funded under Cohesion Policy were one of the most important tools to counteract the socio-economic effects of the pandemic especially in some countries and regions. The greater flexibility and liquidity provided by CRII/CRII+ and REACT-EU, made it possible to implement these actions specifically targeting needs that emerged during the pandemic.

³ European Commission (2021), NON-PAPER: List of programme specific indicators related to the cohesion policy direct response to the COVID-19 pandemic.

In particular, two macro-categories of support interventions can be highlighted: for SMEs and for the healthcare sector.

New measures to support SMEs

Among the most significant new or reinforced measures are the support mechanisms to provide shortterm relief to private business hit by the pandemic as a consequence of extended closures and the steep reduction in economic activity.

On the basis of the categorisation for Cohesion Policy Funds 2014-2020 - which associates a code to each of the 123 Intervention Fields used to classify actions or activities financed by ERDF, ESF and CFit was possible to identify reallocations of resources to support enterprises. Relying on data from *Cohesiondata*, the EU Planned amount on 1 February 2020 was compared with the latest data available (15 October 2021) for each intervention field related to SMEs and large enterprises. The data do not include the additional EUR 7.3 billion provided by REACT-EU to support enterprises.

For the flexibility provided by CRII, the graph below highlights that the intervention fields to which most of the resources were re-directed are 'Generic productive investment in SMEs' (001) and 'SMEs business development, entrepreneurship business and incubation' (067) which both allow for greater flexibility by not referring to specific actions. Another intervention field with a significant increase is 'Adapting of workers, enterprises and entrepreneurs to change (106)' mainly funded though ESF.

It is important to keep in mind that reductions frequently involve transfers from one intervention field to another, mostly within programmes.

Figure 1.2 Changes in planned EU support to enterprise intervention fields since 1 February 2020 - CRII/CRII+ (excluding REACT-EU Resources) – ERDF/ESF

Changes in planned EU support to enterprise intervention fields since 1 February 2020 - excludig REACT-EU resources allocation (billions EUR)



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

Analysis of the indicators confirms that the main aim of programmes was to support SMEs needing extra liquidity to offset losses and to make possibly mandatory investments to adapt to new circumstances. This was implemented:

- 1) through grants, with additional budget for existing projects or through new specific calls; especially the COVID-19 specific indicators, 'Value of non-repayable financial support to SMEs for working capital (grants) in COVID-19 response (total public cost)' (CV20), and 'Number of SMEs supported with non-repayable financial support for working capital (grants) in COVID-19 response' (CV22).
- 2) by redesigning/refinancing financial instruments to increase working capital for SMEs, mostly through guarantees, microloans and zero-interest loans. This is highlighted by the indicators 'Value of financial support to SMEs for working capital other than grants (financial instruments) in COVID-19 response (total public cost)'(CV21) and 'Number of SMEs supported with working capital other than grants (financial instruments) in COVID-19 response' (CV23).

Indicator Name	Unit of Measurement	Aggregated Target Value	No. of OPs adopting
Enterprise Support		•	
CV20 - Value of non-repayable financial support to SMEs for working capital (grants) in COVID-19 response (total public cost)	EUR	3 900 284 367	56
CV21 - Value of financial support to SMEs for working capital other than grants (financial instruments) in COVID-19 response (total public cost)	EUR	7 046 243 862	73
CV22 - Number of SMEs supported with non- repayable financial support for working capital (grants) in COVID-19 response	Enterprises	702 797	71
CV23 -Number of SMEs supported with working capital other than grants (financial instruments) in COVID-19 response	Enterprises	245 095	88
CV24 - Number of SMEs receiving non-financial support (advice, etc.) in COVID-19 response	Enterprises	10 722	22
CV25 - Number of enterprises supported to supply equipment and PPE to the healthcare system	Enterprises	32	4

Table 1.4 COVID-19 specific indicators 'Enterprise Support'

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

Analysis of the AIRs for support through grants reveals that most new measures include:

- provision of resources to specific sectors, e.g. tourism, retail, foodservice industry, through adhoc instruments such as 'business continuity vouchers';
- support to 'partial unemployment' schemes;
- coverage of costs incurred by enterprises to implement new protocols to limit the spread of COVID-19 (e.g. purchase of PPEs for employees, sanitisation of the workplace, etc.); vouchers, working capital for SMEs.

Key measures for financial instruments were:

- strengthening of resources by national governments and ESIF programmes to fund an existing or new financial instrument supporting SMEs in need;
- increased flexibility in the use of financial instruments by SMEs, e.g. simplified access to guarantee funds, wider range of beneficiaries, temporary suspension of instalments, extension of lending periods/grace periods, lower interest rates on loans.

There are interesting examples in the AIRs.

OP Wallonie2020.eu (Belgium, ERDF)

In April 2020, the Walloon Government decided to strengthen the resources of the Walloon mutual guarantee company (SOCAMUT) to enable new financing to address the effects of the Covid-19 crisis, called the '*Ricochet loan*'. The OP measure 1.1.2 '*Capital and loans in companies, spin-offs and spin-outs*' was extended to allow SOCAMUT to grant micro-loans at zero interest (for up to EUR 15 000) specifically to small enterprises impacted by the crisis and aimed at meeting immediate cash flow and working capital needs until the consequences of the crisis are overcome. These micro-credits are granted jointly with a bank loan of up to EUR 30 000 (short-term amortised investment loans), which can be automatically guaranteed by SOCAMUT (excluding ERDF) up to 75%. More than EUR 5 million have been disbursed in 2020 through these micro-loans, supporting 448 SMEs.

Modifications to the Italian Guarantee Fund to support SMEs during COVID-19

The Guarantee Fund for SMEs is an instrument with which Italy and the EU aim to support companies and professionals who face difficulties in accessing loans and financing by granting a public guarantee on financial transactions.

The 'Cura Italia' decree (National Law 18 of 17 March 2020) allocated new resources to the Guarantee Fund for SMEs and provided new rules that have strengthened the instrument. This was confirmed with National Law 23 of 8 April 2020 ('Liquidity' decree).

To address the difficulties of SMEs caused by the Coronavirus health emergency and ensure their liquidity needs, the Guarantee Fund has been enhanced with **simplified access procedures**, **higher guarantee coverage and a wider range of beneficiaries**.

These extraordinary provisions have been extended to 31 December 2021.

New measures to support the healthcare sector

Other than liquidity support to SMEs, programmes have implemented a wide range of new measures to address the unprecedented emergency in the healthcare sector.

The graph below (Figure 1.3) shows the changes in the EU Planned amount of the intervention fields related to healthcare from 1 February 2020 to 15 October 2021, excluding additional REACT-EU resources. It is possible to observe how almost all the resources relocated thanks to CRII regulations to support healthcare intervention were invested in intervention field 053 'Health infrastructure' which includes systems and equipment, and in intervention field 112 'Enhancing access to services' also covering healthcare and social services of general interest.

It is also worth mentioning that REACT-EU support related to healthcare is about EUR 6.4 billion.



Figure 1.3 Changes in planned EU support to healthcare intervention fields

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

As mentioned above, in most cases the eligibility of costs has been extended to include sanitary equipment, from personal protective equipment (CV1) to pulmonary ventilators, beds, monitors and other medical material (CV2). In many cases, new projects/measures have been introduced to allow more efficient 'centralised' management and coordinated procurement and distribution of such equipment by specific entities within national or regional healthcare systems.

ROP Regione del Veneto (Italy, ERDF)

The new Action 1.6.1 'Investments necessary to strengthen the capacity of the health services complex to respond to the crisis caused by the epidemiological emergency', for EUR 75 million, should be highlighted. Of the total, EUR 50 million are for a regional measure to support health costs incurred by Azienda Zero* and EUR 25 million for a national measure to support health costs. The regional measure of the Action was launched at the end of 2020 with the approval of methodological specifications and the appointment of the ROP-ERDF MA as coordinator of the measure.

*Public body of the Region of Veneto centralising planning, implementation and coordination of health and socio-health services, including technical-administrative management for the purchase of personal protective equipment for the healthcare-hospital sector).

The tables showing the specific COVID-19 indicators below provides a clearer idea of the types of investment funded.

Indicator Name	Unit of Measurement	Aggregated Target Value	No. of OPs adopting
Health			
CV1 - Value of personal protective equipment purchased (total public cost)	EUR	1 673 761 880	51
CV2 - Value of medical equipment purchased (ventilators, beds, monitors, etc.) (total public cost)	EUR	1 908 632 856	52
CV3 - Value of medicines purchased linked to the testing and treatment of COVID-19 (total public cost) (Including cost of testing kits, anti-virals and other consumables	EUR	136 411 253	13
CV4 - Value of IT equipment and software/licences financed in COVID-19 response (total public cost)	EUR	634 505 117	35
CV4a- Value of COVID-19 related IT for SMEs	EUR	15 000 000	4
CV4b- Value of COVID-19 related IT for health	EUR	106 591 551	22
CV4c- Value of COVID-19 related IT for education	EUR	764 578.897	25
CV5 - Value of grants for R&D into COVID- 19 treatments (medicines) and vaccines (total public cost)	EUR	72 554 217	16
CV6 - Personal protective equipment (PPE) (Including disposable masks, eye protection, coveralls, etc.)	Number of Items	3 355 439 510	60
CV7 - Ventilators to support treatment of COVID-19 (Including CPAP (positive air pressure) devices)	Number of medical devices	13 145	30
CV8 - Additional bed space created for COVID-19 patients (Including acute and ICU beds, also in field hospitals)	Bed Spaces	12 477	19
CV9 - Number of laboratories newly built, newly equipped or with expanded capacity to test for COVID-19	Laboratories	527	17
CV10 - Testing capacity supported to diagnose and test for COVID-19 (Including antibody testing)	Number of Test Possible	22 118 038	29
CV11 - Ambulances and vehicles purchased for emergency response	Vehicles	374	12

Table 1.5 COVID-19 specific indicators for 'health'

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

Indicator Name	Unit of Measurement	Aggregated Target Value	No. of OPs adopting		
COVID-19 vaccinations					
CV60 - Value of all vaccinations costs	EUR	211 368 223	9		
CV61 - COVID-19 vaccine refrigeration infrastructure (purchase or hire)	Refrigeration units	46	2		
CV62 - Vaccination centres supported (permanent, temporary or mobile centres)	Centres	46	2		
CV63 - Vaccination doses purchased	Doses	119 853 057	6		
CV64 - People vaccinated with EU support	Persons	25 863 672	6		

Table 1.6 COVID-19 specific indicators for 'COVID-19 Vaccinations'

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

Programmes sometimes introduced new specific objectives under existing healthcare-related axes including to improve healthcare system capacity to respond to the crisis (see table 1.7).

In some cases new measures included infrastructure investments such as construction and installation works for isolated structures at hospitals to treat and monitor COVID-19 patients (i.e. expansion of hospitals), or in one case co-financing a new hospital building (Latvia, ERDF-ESF-CF OP).

OP Regional Growth (Bulgaria, ERDF)

On 27 March 2020, a new tender 'Combating COVID-19' was published with the Ministry of Health as specific beneficiary and a budget of EUR 20.6 million. The main objective of the procedure was to improve the capacity of the healthcare system during the pandemic through investments in products and services to manage and respond in a timely manner to the crisis, including improving the quality of medical services in hospital and pre-hospital care. The planned eligible activities relate to the supply of products and services, including hospital equipment, inhalers, respirators, medicines, COVID tests, protective equipment and clothing, personal protective equipment, etc.

Support to citizens

Several new measures have also been implemented exclusively within the ESF framework. These actions were aimed at improving labour market conditions and supporting weaker groups.

As can be observed from the table below the indicators 'Number of participants supported in combating or counteracting the effects of the COVID-19 pandemic' (CV31) and 'Value of ESF actions to combat or counteract the effects of the COVID-19 pandemic (total public cost)' (CV30) have been adopted by many Ops.

In the AIRs are examples of initiatives to fight unemployment.

OP for investment for growth and employment (Sweden, ESF)

During spring 2020, the ESF Council decided to move about EUR 29 million from priority axis 2 'increasing working transitions' to priority axis 1 'skills provisions'. This reallocation increased support to companies and employees affected by the pandemic.

Under PA1, the call 'Competence development for laid off, notified and employed' was launched. It did not require any co-funding from the projects.

Indicator Name	Unit of Measurement	Aggregated Target Value	N. of OPs which adopted it
ESF Programmes Specific Output and Result In			
CV30 - Value of ESF actions to combat or counteract the effects of the COVID-19 pandemic (total public cost)	EUR	7 324 319 868	82
CV31 - Number of participants supported in combating or counteracting the effects of the COVID-19 pandemic	Persons	8 613 186	84
CVST - Number of participants who benefitted from support in short-time work arrangement	Persons	1 919 095	19
CVHC - Number of health care personnel who benefitted from ESF support	Persons	38 988	8
CV33 - Number of participants supported in combating or counteracting the effects of the COVID-19 pandemic	Entities	98 119	66
CVR1 - Number of participants maintaining their job 6 months after the end of support	Persons	785 061	39
CVR2 - Number of participants gaining a qualification upon leaving supported in actions combatting the effects of the COVID-19 pandemic	Persons	86 117	24

Table 1.7 COVID-19 specific indicators for ESF programmes

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

1.3.3. <u>Strategic re-orientation</u>

Following the flexibility measures introduced through CRII/CRII+ and later the new funds for Cohesion Policy through REACT-EU, ESIF Programmes could adjust their resources to better tackle the health and socio-economic crisis in their countries and regions. The following paragraphs offer an overview of OP budget reallocations to maximise the possibilities offered by these new measures. The strategic approach behind the implementation of actions targeting COVID-19 is also noted.

Budget Reallocations

The analysis of financial re-programming (budget reallocations) investigated how ESIF programmes reallocated their resources to foster crisis repair. This investigation relies on Cohesion data to show which thematic objectives (TO) were prioritised during the emergency and at the expense of which others. The breakdown per TO of the planned 2014-2020 ESIF programme amounts and the changes compared to 2019 are taken into consideration.

It is important to make a preliminary remark to clarify the data. Although the resources reallocated may not seem significant, by 2020 a large portion of OP budget was already committed, leaving little room for manoeuvre.

TOs which experienced a significant decrease in resources compared to 2019 at EU level are:

- TO 4 'Supporting the shift towards a low-carbon economy in all sectors' by 9% (- EUR 2 645 989 063)
- TO 6 'Preserving and protecting the environment and promoting resource efficiency' by 7% (-EUR 1 649 144 649)
- TO 7 'Promoting sustainable transport and removing bottlenecks in key network infrastructures' by 6% (- EUR 1 303 546 976)
- TO 10 'Investing in education, training and vocational training for skills and lifelong learning' by 2% (- EUR 585 419 738).

On the other hand, most of these resources went to finance activities under:

- TO3 'Enhancing the competitiveness of small and medium-sized enterprises (SMEs)', increased by 16% (+ EUR 4 259 013 947)
- TO 9 'Promoting social inclusion, combating poverty and any discrimination', increased by 7% (+ EUR 1 772 276 871).

Figure 1.4 Fund reallocation between TOs - ERDF/ESF/CF 2019 vs. 2020



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

In most of the ERDF programmes, these reallocations came from axes investing in research and innovation (TO1), development of broadband networks (TO2), energy efficiency (TO4) to TO3. Apart from TO1, where the Planned amount at European level seems the same, the other shifts in resources can also be seen in the graph below (Figure 1.5).

Confirming this general trend, as shown in figure 1.2 above, at EU level most of the resources were taken from intervention fields related to innovation, efficiency improvement and university cooperation, such as the categories 062, 064 and 068. These were reinvested in other actions supporting SMEs.



Figure 1.5 Fund reallocation -between TOs - ERDF 2019 vs. 2020

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

For ESF, a redistribution was often made from axes focusing on education (TO10) to employment (TO8) and new health measures under axes stemming under TO9. These reallocations also emerged from analysis of ESF OP AIRs.



Figure 1.6 Fund reallocation between TOs - ESF 2019 vs. 2020

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

Finally, as regards the Cohesion Fund, apart from the reduction to the TO6 planned amount 'Preserving and protecting the environment and promoting resource efficiency', no other significant movements were found.



Figure 1.7 Fund reallocation between TOs - CF 2019 vs. 2020

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

In some cases, particularly in multi-fund OPs, there were transfers of resources between Funds within the OP such as from CF to ESF to finance new healthcare measures.

Reallocations were mentioned also between OPs, such as in Greece from OP 'Transport, environment and sustainable development' to OP 'Competitiveness, Entrepreneurship and Innovation'. A similar reallocation was made in Ireland.

ROP Southern and Eastern Regional Operational Programme (Ireland, ERDF)

Two main types of reallocations were made to reinforce the measures to tackle the crisis and fund the new Coronavirus Response priority:

- 1) Reallocation of funding from ERDF priorities 1 'Strengthening RTDI in the S&E Region', 2 'Information and Communication Technologies', 3 'SME support, promotion and capability development' and 4 'Low Carbon Economy' to the new priority 'Coronavirus Response' (Priority 7)
- 2) Reallocation of EUR 60 million from the ESF Programme 'Employability, Inclusion and Learning (PEIL) 2014-2020' to new Priority 7.

The logic behind budget shifts (e.g. the resources to reallocate and from where) varied depending on the programme at the time of implementing the new flexibility measures. Some insights are provided by AIRs, such as:

- Savings from committed expenditure
- Funding from axes considered 'less suitable' to respond to the COVID emergency
- Residual and unused budgets from all axes were moved to a new COVID emergency specific priority.

These reallocations were meant to either reinforce existing measures or, more often, to fund the new measures (1.3.2) usually at programme level through new SOs, new measures within existing actions, or new priority axes introduced to tackle the socio-economic and health emergency.

Retargeting output and outcomes

An analysis to understand the strategic re-orientation of OPs in terms of output and outcomes, reviewed indicator target changes from 2019 to 2020. This complements the budget reallocation analysis and highlights which outputs the managing authorities invested most of their resources in and which they disinvested from.

A more in-depth study of OP performance will be carried out in the second study planned for next year when information on 2020 output indicator achievement will be published.

For the analysis, 16 ERDF and ESF common output indicators have been selected as representative of outputs under ESIF programmes. As seen in the table below, the results confirm the insights from the reallocation of resources analysis.

Indicator	Target 2019	Target 2020	Variation
ERDF			•
CO01 - Number of enterprises receiving support	1 110 661	1 779 172	+60%
CO03 - Number of enterprises receiving financial support other than grants	200 787	353 609	+76%
CO11 - Total length of new railway line	552	502	-9%
CO22 - Total surface area of rehabilitated land	13 663	6 504	-52%
CO25 -Number of researchers working in improved research infrastructure facilities	91 949	85 390	-7%
CO26 - Number of enterprises cooperating with research institutions	64 089	64 086	0
CO27 - Private investment matching public support in innovation or R&D projects	14 205 396 817	9 435 562 033	-34%
CO28 - Number of enterprises supported to introduce new to the market products	28 859	30 251	+5%
CO30 - Additional capacity of renewable energy production	5 914	5 343	-10%
CO35 - Capacity of supported childcare or education infrastructure	6 953 900	17 839 592	+157%
CO36 - Population covered by improved health services	55 502 077	66 469 968	+20%
CO46 - Number of participants in joint education and training schemes to support youth employment, educational opportunities and higher and vocational education across borders	53 261	62 761	+18%

Table 1.8Changes in output indicator targets

Indicator	Target 2019	Target 2020	Variation
ESF			
CO01 –unemployed, including long-term unemployed	9 647 031	8 518 924	-12%
CO05 –employed, including self- employed	3 152 054	2 583 743	-18%
CO18 – homeless or affected by housing exclusion	14 710	21 793	+48%
CO21 - number of projects dedicated to sustainable participation and progress of women in employment	4 305	3 166	-26%
CR02 - participants in education/training upon leaving	335 103	308 552	-8%

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

The ERDF output indicator targets for 2020 saw reductions for output indicators concerning infrastructure and R&D, e.g. CO11, CO22, CO27 and a massive increase in the targets concerning SMEs and healthcare support. The significant increase for TO 3 resources is matched by the increased of the 2020 target for 'Number of enterprises receiving support' (CO01) and 'Number of enterprises receiving financial support other than grants' (CO03). While a major financial commitment to healthcare is reflected in the 20% increase for the indicator CO36 'Population covered by improved health services'.

Notably, indicator CO35 'Capacity of supported childcare or education infrastructure' has more than doubled with a 157% increase. Across all three funds TO10 decreased by 2% however, within ERDF TO10 increased by 6%. It is likely that this increase was due to investments to new teaching methods introduced with COVID-19 such as distance learning, so also to meet extraordinary costs caused by the healthcare emergency. On the other hand, ESF result indicator CR02 'participants in education/training upon leaving', decreased by 8%. This and the decrease for TO10 in 2020 under the ESF framework is probably due to less resources expected to be spent on improving access to education/ training and improving related services.

For R&I indicators, the planned amount for TO1 'Strengthening research, technological development and innovation' did not change significantly between 2019 and 2020. The targets for 'Number of researchers working in improved research infrastructure facilities' (CO25) and '- Private investment matching public support in innovation or R&D projects' (CO27) fell by 7% and 34% respectively. This can be explained by the Amendments to Regulation (EU) No 1301/2013 of 30 March 2020 which provided that TO1 should also include actions 'fostering investment necessary for strengthening the crisis response capacities in health services'. Therefore, although investments in research and development declined significantly, the TO1 planned amount has not declined because it gathered many of the resources used to combat the pandemic.

Finally, looking at the ESF common indicators, it is possible to notice a high increase (48%) in the number of homeless or people affected by housing exclusion who are expected to be supported under ESF OPs. There was a decrease in the target 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. Moreover, the decrease in the target for the 'number of projects dedicated at sustainable participation and progress of women in employment' (CO21) shows that under the ESF framework, expenditure increased to address critical socio-economic situations created by the pandemic, but interventions to improve existing structural inequalities have been put on hold.

1.4. Overall impact on the 2014-2020 programming period

The following paragraphs provide an in-depth analysis of the impact of COVID-19 on 2014-2020 Cohesion Policy programmes. In particular, the analysis investigates two main elements: the effectiveness of the introduction of short-term measures to tackle the crisis and the impact of COVID-19 on the financial performance of ESIF programmes.

1.4.1. Effectiveness of the short-term modifications

As already mentioned, the three interconnected objectives of the CRII/CRII+ measures and REACT-EU to fight the impacts of COVID-19 are: fuelling liquidity, fostering simplification and provide major flexibility though the introduction of new measures. In the light of the analysis, this paragraph assesses the effectiveness of these short-term modifications adopted by the EC.

<u>Liquidity</u>

One aim of the CRII, CRII+ and REACT-EU was fuelling to liquidity by increasing co-financing, boosting financial transfers between programmes and providing additional resources.

In particular, the CRII/CRII+ measures resulted in 188 OPs out of 392 (48%), from 19 countries benefitting from the possibility of shifting to the EU 100% co-financing rate. The countries which did not opt for 100% EU co-financing are: Slovenia (1 OP), Netherlands (5), Lithuania (1), Belgium (7), Denmark (33), Latvia (1), Malta (3), Austria (2) and Finland (3).

In addition to CRII/CRII+, the REACT-EU package provided additional EU resources to deal with the health and socio-economic emergency and foster long-term recovery. Almost all member states have already allocated most, if not all, of the additional funds granted, Ireland is the only exception (Figure 1.8).

Many programmes introduced new priority axes using React-EU funding. Some programmes built new to foster long-term recovery from the crisis (e.g. 'Support of Crisis management in connection with the COVID-19 pandemic and its social consequences and Preparing for a green, digital and stable economic recovery'). Others designed them to provide short-term support to the healthcare system, e.g. support to the vaccination campaign and financing of large-scale testing.





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

Increased liquidity and flexibility allowed countries to invest in important areas to contrast the pandemic effect. Looking at the graphs below it is possible to see the resources countries managed to re-direct and introduce in intervention fields related to company and healthcare support from 1 February 2020 to 15 October 2021 (Figures 1.9 and 1.10).




Figure 1.10 Changes in planned EU support to healthcare since 1 February 2020 per country (CRII/CRII+ and REACT-EU)



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

However, it is important to bear in mind that despite the important role played by Cohesion Policy in providing guarantees and financial instruments to companies and supporting the health system, not all countries have decided to use ESIF funds for these purposes.

These measures have proven crucial especially in countries with structural gaps in public finances, especially Spain, Italy, Greece, Portugal and Poland.

From the Regional Reference Group, it emerged that Flanders (Belgium) strengthened the measures to help SMEs in its OPs, but the amount of EU resources compared national/regional resources is not so

significant. In Belgium most of these measures, such as direct grants, 0% interest-rate loans, tax suspension and temporary unemployment support are provided a federal level. Other measures were subsidies to SMEs capable of surviving through digital shift such as outdoor services and e-commerce as well as support to cross-border SMEs depending on foreign workers.

Simplification

In terms of simplification, the procedures for re-programming financial resources and interventions are much more streamlined. The regulations have made it possible to move large amounts of money from one TO to another, as well as between OPs and funds (Figure 1.11).



Figure 1.11 Changes in allocations among funds and categories of regions since 31 May 2020

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

However, if budget reallocation simplifications have proved to be effective, simplifications to ease administrative burden and the associated waste of resources were insufficient.

Information gathered at the Regional Reference Group showed that the complexity of these bureaucratic procedures sometimes even hindered the programmes from taking full advantage of the opportunities offered by CRII/CRII+ and REACT-EU. The greatest difficulties related to audit and control procedures. As mentioned in section 1.3.1, OPs often faced the work overload by resorting to existing procedures, such as shortening the approval circuit of project amendments.

<u>Flexibility</u>

As already discussed in paragraph 1.3.2, the major flexibility enabled investment in new measures aimed at directly addressing the emergency. Specific COVID-19 indicators makes it possible to understand the main outputs most OPs planned to invest in, such as purchasing personal protective equipment (CV1), the number of SMEs supported with working capital other than grants (financial instruments) in COVID-19 response (CV23) and the number of participants in ESF projects supported combating or counteracting the effects of the COVID-19 pandemic CV31).

However, analysis of the strategic re-orientation behind the funding of these new measures reveals a general trend. Resources were shifted from TOs supporting long-term strategic investments crucial for national and regional development, such as infrastructure, R&D, and the environment, to TOs which

offering extra support to struggling SMEs and citizens as well as to the healthcare sector. Thanks to the greater flexibility provided by CRII/CRII+, MAs used resources to try to remedy the immediate consequences of the crisis on regional and national economies, by sacrificing strategic investments that would foster socio-economic development and cohesion in the long run. Actions funded by ESF saw increased expenditure to improve the critical socio-economic conditions created by the pandemic, but interventions to improve existing structural inequalities in various countries have been put on hold.

It is important to remember though, that it is too early to draw definitive conclusions and strategies adopted by member states may be temporary, with minor impacts on longer term strategic planning.

1.4.2. Impact on financial performance

For a more accurate picture of the impact of COVID-19 on Cohesion Policy, the financial effects of the pandemic and solutions adopted by OPs need to be reviewed.

The financial performance analysis aims to identify any substantial irregularities in 2014-2020 financial absorption (i.e. spent/planned), with a focus on 2020, and whether these can be attributed to the COVID-19 emergency. For this, a comparison with a 'no-COVID scenario' was carried out using the 2007-2013 programming period absorption data as a benchmark. This provides an insight into the potential differences seen at the end of the 2014-2020 programming period.

The elaborations are based on the ERDF, ESF and CF Total Amount Planned (Planned), Total Eligible Cost Decided (Decided) and Total Eligible Spending (Spent) amounts, provided by *Cohesion data* (cohesiondata.ec.europa.eu) relating to 2014-2020. The Decided data is the amount that programmes have already chosen to commit, while 'Spent' is the expenses reported and verified during the year.

In particular, the comparison of 2007-2013 and 2014-2020 is based on the funds absorption rate using the following approach:

- For 2014 -2020 the absorption rates are the share of eligible spending of the total amount planned for each year for all member states (ERDF, ESF, CF).
- For 2007-2013 the Absorption share was provided by Cohesiondata (database on historical trends). The data is available in aggregated form for all member states for ERDF, ESF and CF.⁴

It should be noted that, as the absorption rate is based on total eligible spending, it may be slightly imprecise, when expenditure was incurred in 2019 but reported in 2020.

This first analysis shows that the 2014-2020 programming period saw a slower absorption rate for all three funds throughout the entire seven-year period. However, no significant differences can be observed in expenditure between the two programming periods, or even between 2019 and 2020. The absorption rates in the penultimate and last years for both programming periods, show no major differences to suggest a watershed event such as the COVID-19 pandemic.

⁴ <u>https://cohesiondata.ec.europa.eu/browse?category=2007+%2F+2013+Finances&tags=2007-2013</u>



Figure 1.12 ERDF/ESF/CF Absorption (%) all member states 2007-2013 / 2014-2020 / 2015-2020

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

Table 1.9ERDF/ESF/CF Absorption Rate (Spent/Planned %) 2012 - 2013 vs 2019-2020

	Absorption rate	
Programming Period	6 th Year	7 th Year
2007 - 2013	47%	62%
2014 - 2020	37%	52%

It is worth highlighting that during the 2007-2013 programming period, the decommitment rule known as 'n+2' was applied (EC Regulation 1083/2006, art. 93). This meant the budget commitment of OPs had to be used by the end of 2015, two years after the year of budget commitment under the programme. However, for 2014-2020 the 'n+3' rule was adopted (EC Regulation 1303/2013, art. 136), an additional year compared to the previous period. It is important to consider that the slower absorption of the budget observed during the 2014-2020 programming period may also have been caused by MAs having one more year to use the committed resources.

As shown in the graph below, if the absorption rates for the 2015-2020 period are theoretically shifted to begin one year later the financial absorption trends of the two programming periods almost coincide. The graph (Figure 1.13) shows that from 2018 onwards spending has even been slightly faster than in the previous period.

It should be noted that the 2021 data has not been taken into account for this analysis as the year is not over yet. However, from the Regional Reference Group it emerged that the programmes have performed well financially even during 2021 so far and no one has experienced significant slowdowns caused by the pandemic.



Figure 1.13 ERDF/ESF/CF Absorption (%)- 2007-2013 / 2014-2020 / 2015-2020

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

To further analyse the financial performance of Cohesion Policy in 2020, the Planned and Spent amounts were observed in absolute terms. The aim was to check whether the apparent lack of slowdown in absorption in 2020 could be exclusively attributed to either a continuous increase in the Spent amount, or re-programming which reduced the Planned amount.

For ERDF there was a reduction of approximately EUR 937 million in the Planned amount between 2019 and 2020 but a significant 43% increase in the Spent amount over the same period (+ approx. EUR 42 million). If we calculate the Absorption rate of 2020 using the planned amount for 2019 as a reference, which was set without taking into consideration possible delays related to COVID-19, the rate decreases only from 51% to 50%. In addition, the graphs highlight that for all funds there is a steady increase in expenditure each year, whereas planned expenditure varies slightly. This reflects the assumption that the financial performance of Cohesion Policy does not seem to have been significantly impacted by COVID-19.



Figure 1.14 ERDF/ESF/CF Absorption (%) - 2007-2013 / 2014-2020 / 2015-2020

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

During the 2007-2013 programming period expenditure was influenced by other externalities, so an additional comparison offers a more comprehensive view. It aims to verify any anomaly in the expenditure of ESIF resources between 2019 and 2020 which can be attributed to the pandemic and might not have been detected by the first comparison.

This time, the EU annual budget ceilings were used as a benchmark to analyse the gap between Commission expectations and the actual amount spent for each year.

For this calculation the following sub-headings were taken into consideration from the EU Annual Budget spending ceilings:

- 1.2.1 Investment for growth and jobs
- 1.2.2 Economic Territorial Cooperation
- 1.2.3 Technical assistance and innovative actions.

This second analysis shows there were no major deviations from predictions at the beginning of 2020, indeed the expenditure was 92% of the EU budget ceilings. These results confirm on that, from a purely quantitative point of view and on the basis of aggregated data, there were no major deviations in ESIF financial performance in 2020.



Figure 1.15 ERDF/ESF/CF EU Budget Ceilings vs. Total Net Payments 2014-2020

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

A deeper analysis of the financial performance of ESIF programmes was also carried out. The 2014-2020 financial absorption trend was studied by fund and country in isolation and then compared with the same country performance in 2007-2013, as well as with the EU average in 2007-2013 and 2014-2020. There were no major findings and member states in line with or lagging behind the average progress in expenditure were already doing so before the pandemic.

Finally, it is important to bear in mind that for the financial performance, the pandemic probably had an impact on OP expenditure but it is too early to have a detailed overview. Also, the strategies adopted by member states may be temporary, without impacting strategic planning in the longer term.

The new measures introduced in 2020 through CRII/CRII+ have certainly allowed to promptly respond to the emergency thanks to two types of flexibility:

- The flexibility of programmes in shifting resources among axes and in adjusting existing or introducing new measures ('vertical' flexibility).
- The flexibility among and within MS, i.e. the possibility to implement (or not) the options foreseen by the new regulations depending on how severely they were hit by the crisis and how much resources they could still commit to measures tackling the emergency ('horizontal' flexibility).

At the same time, while enabling a quick adaptation and support to sectors and categories in need, according to the specific situation of each member state, these two elements of flexibility also pose a possible risk in terms of continuity, i.e. there could likely be a gap between the current and next programming period due to the shift towards short-term measures at the end of 2014-2020 programmes and the delay in starting the implementation of new strategic investments in 2021-2027 programmes.

1.5. Preliminary insights on 2021-2027 programming

At the moment of drafting the present report, a very limited number of documents (i.e., Partnership agreements and Programmes) are available to make a reliable analysis on the impact of the pandemic on the 2021-2027 programming.

However, analysis of recent studies (e.g. 'Regional and local authorities and the National Recovery and Resilience Plans') and the focus group with the regional reference group revealed some preliminary insights. In particular:

- 1) The risks for continuity between programming periods.
- 2) The impact of COVID-19 on the 2021-2027 programming process
- 3) Possible relations between the NRPP and Cohesion Policy.

Risks for continuity between programming periods

The shift towards short-term investments to tackle the emergency and support sectors and categories in need could represent a risk for continuity in terms of strategic cohesion policy investments between the two programming periods. In general, the financing of long-term strategic investments generates effects beyond the end of a given programming period and into the first years of the next one, providing a 'buffer' and ensuring continuity during the first years of implementation of new programmes as they slowly pick up speed.



Figure 1.16 Interaction of effects of long-term investments between programming periods⁵

Source: own elaboration of the study team

In the current situation, the shift by many Cohesion Policy programmes to the financing of short-term measures to the detriment of long-term investments risks providing a much more limited 'buffer' and leading to a longer period of time with limited benefits from 2014-2020 long-term investments. What is more, the delays in the adoption and start of new programmes entail a longer wait until the start of new investments. These two elements point to the high possibility of discontinuity between the two programming periods and a gap in long-term cohesion policy investments for a significant period of time. In macroeconomic terms, this gap could be partially compensated by the NRRP public investments. However, most of these investments will be large and implemented at national scale. On the contrary, Cohesion Policy investments are typically place-based, having a strong territorial dimension. Thus, the gap of investments will probably affect medium and small regional and local authorities as well as peripheral and/or fragile areas to a greater extent.

Figure 1.17 Interaction of effects of long-term investments between 2014-2020 and 2021-2027



Source: own elaboration of the study team

The impact of COVID-19 on the 2021-2027 programming process

Several concerns were raised during the Regional Reference Group about the impact of COVID-19 on the current programming process. The complexity of the current period risks having serious consequences for Cohesion Policy planning over the next seven years. In addition to the challenges of today there are internal structural gaps hindering an effective reaction to the pandemic and the optimal use of resources.

⁵ The graph merely provides a conceptual visualisation and does not represent the result of a quantitative analysis.

Already in 'normal' circumstances, the drafting of new programmes involves long and burdensome design and negotiation processes which include interactions at different levels:

- The regional level with its internal stakeholders, the regional level with the national one, the national level with the European Commission services and, finally, the European Commission with the individual Regional Operational Programmes.
- There are also transition and learning costs, since regulations change in each programming period and the administrations must learn and adapt their procedures.
- There is a simultaneous conclusion of one programme and the launching of the new one due to the programming overlap.

In 2020-2021, MAs found themselves overburdened as they had to manage:

- The programming process for the 2021-2027 period;
- Additional resources and instruments provided by REACT-EU, CRII/CRII+ and Join Transition Funds (JTF);
- The development of NRRPs which required significant attention.

There was also the late approval of regulations creating a disadvantage from the outset. Indeed, the legislative process has taken much longer than for the 2007-13 and 2014-2020 programming periods.

Figure 1.18 Length of the Common Provisions Regulation legislative process from first EC proposal to adoption (07-13, 14-20, 21-27)



Source: Programming delays: a comparison with previous periods and a look at future implications, CPMR (2021)

Despite the new introduced simplification in the current programming period, the delay in comparison with other periods is already observable:

- In the 2014-2020 period, all the Partnership Agreements were already adopted by October 2014. At the time this study is being drafted, only the Greek Partnership Agreement was approved.
- Furthermore, 64% of Cohesion Policy programmes had already been approved in the first year of the 2014-2020 programming period (98% in 2007-2013).

Therefore, as already predicted in early 2020⁶, the overloading of Programme authorities and the late approval of Regulations have already delayed the start of the Cohesion Policy programming which will inevitably affect their timely and efficient spending.

⁶ t33 Paper (2020), Cohesion policy offers an effective response to the post-Covid-19 crisis... with the current regulations.

Finally, another point which was raised during the discussion at the Regional Reference Group is that little account has been taken of COVID-19 in the new programming. If there is a new pandemic wave, programmes may not be able to react quickly.

Possible relations between NRRPs and Cohesion Policy

Cohesion Policy could complement the Recovery and Resilience Facility (RRF) with both single investments and strategy. The six pillars⁷ of the RRF are tightly connected to the five Cohesion Policy objectives⁸. Also, NRRP large scale projects could be integrated in ESF, JTF and ESF interventions. Finally, the NRRP administrative reforms could enhance the implementation and impact of Cohesion Funds making national and regional administration more efficient.

However, the potential synergies between the two instruments are at risk and, more worryingly, there is a hidden danger the NRRPs could displace Cohesion Policy.

Several studies⁹¹⁰¹¹ and articles have already pointed out these risks of not exploiting synergies, complementarities and the possible displacement of Cohesion Policy; this situation is mainly due to the lack of involvement in the NRRP preparation of Cohesion Policy Programme authorities. As a matter of fact, most of the NRRPs only included formal and unilateral consultations with regional and local actors, including Managing Authorities and intermediate bodies of Cohesion Policy programmes at regional and local level. These actors might have a role in the implementation as well as in monitoring of NRRPs, but this seems to be mostly passive, i.e. to support administrative delivery of the NRRPs without any sharing of ownership. The governance process will therefore be rather hierarchical, the information flow mainly top-down, and the principle of subsidiarity applied in a very limited way¹².

These risks (of not exploiting synergies and of displacing Cohesion Policy) are mainly due to the lack of involvement of Cohesion Programme authorities in NRRP preparation. More importantly, strategic and operational coordination with Cohesion Programmes is not always clearly laid out in the NRRPs.

Furthermore, the NRRPs will probably predominate at national level, since governments will prioritise them because of shorter implementation (2026) than Cohesion Policy (2030) and higher visibility in national public opinion (and voters). The figure below shows the pre-allocation amounts of EU funds linked to regional policy (ERDF, CF, ESF+, ETC, JTF, EAGF, EAFRD, EMFF, REACT-EU, Brexit Adjustment Reserve) and the RRF grants per member state and clearly illustrates the 'weight' of RRF and its predominance in certain member states.

⁷ Green transition; digital transformation; economic cohesion, productivity and competitiveness; social and territorial cohesion; health, economic, social and institutional resilience; policies for the next generation.

⁸ A more competitive and smarter Europe; a greener, low-carbon transitioning towards a net zero carbon economy; a more connected Europe by enhancing mobility; a more social and inclusive Europe; Europe closer to citizens.

⁹ Bachtler J., Dozhdeva V., (2021). The Recovery & Resilience Fund: an economic stimulus at the expense of territorial cohesion?

¹⁰ Molica, F., Fontàs, E.L. (2020), Next Generation EU: a threat to Cohesion Policy?

¹¹ Corti, F., Nunez-Ferrer, J., (2021), Steering and Monitoring the Recovery and Resilience Plans: Reading between the Lines.

¹² European Committee of the Regions (2021), Regional and local authorities and the National Recovery and Resilience Plans.



Figure 1.19 Pre-allocation of 21-27 funds per member state including Next Generation EU

Source: Wolfgang Petzold, European Committee of the Regions, Webinar at the European Policies Research Centre (2021)

In addition, NRRP have administrative advantages (e.g. no need for national co-financing), much lighter administrative burden (e.g. no conditionalities, no consultation with stakeholders) and less controls and audit. Both factors (political predominance and administrative advantage) mean that national and local authorities could favour NRRP more than Cohesion programmes.

Lack of awareness and coordination, political predominance and administrative advantage could result in overlap and a waste of ERDF, ESF and JTF resources.

Giving less weight to Cohesion Policy interventions could have negative consequences beyond the obvious financial inefficiency and hindering Cohesion Policy intrinsic added values. Firstly, the Cohesion Policy approach and principles of programming, partnership, additionality and concentration could be seen as more demanding. At the same time, Cohesion Policy has been the largest capacity building exercise in the EU over the last 30 years. Many local, regional and national public administrations have experimented and learnt how to drive social and economic development in more innovative, effective and efficient ways (e.g., financial instruments, Smart Specialisation Strategies, integrated territorial approaches). Secondly, in many countries Cohesion Policy has led to multilevel governance which enable national, regional and local levels to interact and cooperate under the same 'rules of the game'. Last but not least, Cohesion Policy implementation entails a transparent and fair *modus operandi* in daily administration with independent evaluations, stakeholder engagement and equal opportunities. All these added values could be harmed and ultimately lost in fragile institutions.

2. ANALYSIS OF COHESION IMPACTS

KEY FINDINGS

- The pandemic risks reinforcing existing imbalances and inequalities in the EU. Existing differences may also widen at lower geographical levels between places, groups of society and people in Europe. Convergence in the EU may be reversed.
- The pandemic also has social impacts on people's wellbeing and quality of life. The economic disruption caused by COVID-19 inevitably threatens the most vulnerable groups of society more. At a societal level, the pandemic has brought underlying value conflicts to the surface.
- Regions potentially hit hardest form short-term development impacts are mainly in southern Europe.
- The pandemic will affect local and regional development beyond the more obvious immediate effects. Medium-term impacts will be shaped by more durable impacts on some sectors and structural elements, which affect how quickly an area can recover.
- In particular regions heavily dependent on tourism might need several years to recover from the pandemic. This includes many mountainous, coastal and island regions.
- More remote (and sparsely populated) rural areas might also face lasting challenges such as increasing digitalisation pressure.
- Many cross-border regions were heavily affected at the beginning of the pandemic due to the closure of national borders. Although many of these are on the path to recovery, the sudden disruption of cross-border interdependencies left people unsettled.

The COVID-19 pandemic affects cohesion in the short and medium to long-term. To better understand the expected impacts of the pandemic, section 2.1 provides a broad picture based on existing literature. Using this and more specific data analysis, sections 2.2 and 2.3 reflect on the expected impacts for (a) socioeconomic aspects which are highly sensitive to shocks brought about by the pandemic, and (b) different types of regions. Finally, section 2.4 offers an outlook on long-term development trends.

2.1. Impacts on regional development

The pandemic affects regional development in many ways. Different regions experienced the pandemic differently as the impacts on health and the related restrictions varied substantially between regions in Europe. Going beyond these immediate effects, are impacts on socio-economic developments and GDP. Based on existing studies and literature the following sections provide some insights on impacts with regional variations and on GDP.

2.1.1. Regional diversity of COVID-19 exposures and sensitivities

Many discussion papers and analyses have tried to better understand the territorial dimensions of the pandemic and policy responses. These include comparing international studies¹³, national studies¹⁴, and papers addressing the cross-border dimension¹⁵.

This study builds on comparative European regional analyses of COVID-19 impacts conducted mainly for the European Commission and European Committee of the Regions (CoR), and further complements the richness of international studies.¹⁶

Initial findings on GDP underline the importance of structural issues on short to medium-term impacts¹⁷, so we differentiate between sensitivity and exposure (see textbox). Exposure addresses the level of COVID-19 restrictions, sensitivity addresses the regional characteristics that affect how much these restrictions matter for local and regional development.

The analysis of COVID-19 impacts on regions builds on a multifaceted understanding of exposures and sensitivities which is further explained in **Error! Reference source not found.**. Elements in the blue circle are measures taken in response to the COVID-19 pandemic, but these vary between places. Each measure leads to multiple effects on local and regional development. These effects depend on socio-economic characteristics which determine sensitivities to the measures. All this comes together in a rationale of how the pandemic affects local and regional development.

¹³ 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; European Committee of the Regions, 2021 EU Annual Regional and Local Barometer', EU Annual Regional and Local Barometer (Brussels: European Committee of the Regions, 2021), https://cor.europa.eu/en/our-work/EURegionalBarometerDocs/4370-Barometer%20optimized.pdf; Eurofound, *COVID-19: Implications for Employment and Working Life* (Luxembourg: Publications Office of the European Union, 2021), https://data.europa.eu/doi/10.2806/160624; European Commission, 'European Economic Forecast. Summer 2021' (Luxembourg: Publications Office of the European Union, 2021), https://cc.europa.eu/info/publications/economic-and-financial-affairs-publications_en.; International Labour Organisation, 1LO Monitor: COVID-19 and the World of Work' (International Labour Organization, April 2020); OECD, The Territorial Impact of COVID-19: Managing the Crisis across Levels of Government' (Paris: OECD, April 2020), https://read.oecd-ilibrary.org/view/?ref=128_128287-5agkkojaaa&title=The-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government; Melanie Smith, Erin McAweeney, and Léa Ronzaud, 'The COVID-19 "Infodemic". A Preliminary Analysis of the Online Conversation Surrounding the Coronavirus Pandemic 04 • ' (Graphika, 2020).

¹⁴ Florian Dorn et al., 'Die Volkswirtschaftlichen Kosten Des Corona-Shutdown Für Deutschland: Eine Szenarienrechnung', ifo Schnelldienst (ifo, 2020); e.g. Oliver Ehrentraut, Tobias Koch, and Bernhard Wankmüller, 'Auswirkungen Des Lockdown Auf Die Regionale Wirtschaft. Welche Branchen Und Regionen Trifft Der Ausnahmezustand Besonders?' (Berlin: Prognos, 2020); OECD, 'Coronavirus (COVID-19) From Pandemic to Recovery: Local Employment and Economic Development' (OECD, 2020); Eric Seils and Helge Emmler, 'Die Folgen von Corona. Eine Auswertung Regionaler Daten', Policy Brief WSI (Hans-Böckler-Stiftung, 2020); The three regional assemblies of Ireland, 'COVID-19 Regional Economic Anlaysis' (The three regional assemblies of Ireland, 2020); Tillväxtverket, 'Pandemins Kostnader - Effekter På Produktion Och Jobb i Sveriges Regioner', Rapport (Stockholm: Tillväxtverket, 2021); Österreichisches Institut für Wirtschaftsforschung WIFO, 'Regionale Unterschiede Der Ökonomischen Betroffenheit von Der Aktuellen COVID-19-Krise in Österreich' (Österreichisches Institut für Wirtschaftsforschung, April 2020).

¹⁵ e.g. Norbert Cyrus and Peter Ulrich, 'Das Corona-Virus Und Die Grenzforschung', Viadrina Centre B/ORDERS IN MOTION (blog), 2020, https://bordersinmotion-coronablog.com/2020/05/04/das-corona-virus-und-die-grenzforschung/; European Commission, The Effects of COVID-19 Induced Border Closures on Cross-Border Regions: An Empirical Report Covering the Period March to June 2020. (LU: Publications Office, 2021), https://data.europa.eu/doi/10.2776/092793.

¹⁶ see Kai Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector', Interim Report (Brussels: European Commission, Directorate General for Regional and Urban Policy, 2021), https://ec.europa.eu/regional_policy/en/information/publications/studies/2021/regional-impacts-of-the-covid-19-crisis-on-the-touristsector; 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'; European Committee of the Regions, '2021 EU Annual Regional and Local Barometer'.

¹⁷ see e.g. André Sapir, 'Why Has COVID-19 Hit Different European Union Economies so Differently?', Policy Contribution (Brussels: Bruegel, 2020), https://www.bruegel.org/2020/09/why-has-covid-19-hit-different-european-union-economies-so-differently/.





Source: Spatial Foresight, 2021

Understanding exposure and sensitivity

Inspired by the Territorial Impact Assessment¹⁸, this analysis provides a snapshot of the exposure and sensitivity of European regions to COVID-19 policy responses. Exposure and sensitivity are understood as follows:¹⁹

- **Exposure:** Reviewing different policy components and expected medium- to long-term trends, exposure is how much a region will be affected by the policy (positively or negatively)?
- **Sensitivity:** How much regional development will be affected due to specific regional characteristics and endowments?

¹⁸ Kai Böhme and Flavio Besana, 'Understanding the Territorially Diverse Implications of COVID-19 Policy Responses', Spatial Foresight Brief (Luxembourg: Spatial Foresight, 2020); ESPON, *Territorial Impact Assessment of Policies and EU Directives* (Luxembourg: ESPON, 2013); Stephanie Essig and Jiannis Kaucic, 'ESPON TIA: Balancing between Policy Orientation, Practicability and Scientific Ambition', in *Uncovering the Territorial Dimension of European Union Cohesion Policy*, ed. Eduardo Medeiros, Routledge Advances in European Politics (Abingdon, Oxon: Routledge, 2017), 184–201; Roland Gaugitsch et al., 'State of the Art and Challenges Ahead for Territorial Impact Assessments' (Brussels: European Committee of the Region, Commission for Territorial Cohesion Policy and EU Budget, 2020).

¹⁹ Kai Böhme et al., 'Potential Impacts of COVID-19 on Regions and Cities of the EU' (Brussels: European Committee of the Regions - ECON Commission, 2020), https://cor.europa.eu/en/engage/studies/Documents/IMPACTS-COVID-19.pdf; Kai Böhme, Christian Lüer, and Frank Holstein, 'From Territorial Impact Assessment to Territorial Foresight', in *Territorial Impact Assessment*, ed. Eduardo Medeiros, Advances in Spatial Science (Cham: Springer International Publishing, 2020), 157–76, https://doi.org/10.1007/978-3-030-54502-4_9.

Building on this rationale of what shapes the pandemic's effects on cohesion in Europe, the time dimension also needs to be considered:

- **Short-term.** Restrictions, behavioural changes and compensation measures as well as changed trends will shape the pandemic's short-term impacts on cohesion.
- **Medium-term.** The impacts of restrictive measures and behavioural changes will in many areas last for years. In the tourism sector, the recovery process is expected to take 4-9 years, depending on the segment.²⁰ At the same time, the impacts of compensation measures will diminish, which may accelerate negative impacts where the recovery happens slowly, while in other cases recovery will be fast and lead to temporary booms.
- **Long-term.** After clearance and adjustments to the new post-pandemic normal, the changes in socio-economic and other trends as well as long-term recovery strategies will show results. Their territorial dimension will shape the post-pandemic cohesion landscape in the EU.

Based on previous work on impacts on regional development conducted for the European Committee of the Regions and the European Commission, regional exposures and sensitivities for potential positive and negative impacts have been mapped. The sensitivity indicators are shown in the small maps next to the potential impact maps. More information on the selection of indicators and level of analysis can be found in the annex (see section 5.2.1) and the rationale for individual indicators is addressed in section 2.2.2).

Short-term impacts

Short-term impacts vary considerably across European regions (see Map 2.1²¹). Some places faced very restrictive policies with people only able to leave their houses when absolutely necessary, as in large parts of Italy, France, Spain and Portugal. Some places saw hardly any restrictions, merely recommendations to be careful. Furthermore, even when exposed to similar restrictions the impacts on local and regional development varied due to different socio-economic structures.

Local and regional development is most affected by severe restrictions and sensitive socio-economic structures. Regions potentially hit hardest are mainly in southern Europe, especially Greek regions, the Spanish regions of Extremadura, Catalonia and Andalucía, the Balearic islands and the Portuguese regions of Algarve and Norte.

²⁰ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

²¹ The maps are based on the analysis of regional exposures and sensitivities to COVID-19 related restrictions, based on the indicators listed below the main maps. The small maps show the individual sensitivity indicators taken into account. A detailed description of the methodology is available in the annex.



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Map 2.1 Potential negative and positive short-term impacts of COVID-19 restrictions

The impacts of the COVID-19 pandemic on EU cohesion and EU cohesion policy



Sensitivity: Share of employment in manufacture of basic pharmaceutical products and preparations (Eurostat), Share of employment in information and communication (Eurostat), Share of employment in financial and insurance activities (Eurostat), Share of households with broadband access (Eurostat), Share of employed people who have sometimes or usually worked from home (Eurostat), Share of individuals who have interacted online with public authorities in the previous 12 months (Eurostat).

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Exposure: Stringency and length of government restriction (Blavatnik school of Government at Oxford University), Share of working hours lost in 2020 (ILO).

Source: Spatial Foresight, 2021

COVID-19 policy responses are a major challenge to regional and economic development. Nevertheless, for some businesses the lockdowns and policy responses also brought new opportunities. Regions that could capitalise on economic opportunities from the crisis vary considerably. They generally faced few restrictions and their socio-economic profile made it easier to adjust. This includes areas with many jobs in the information and communication (ICT) sector or people working from home prior to the pandemic. Examples of regions with a potential positive impact are in the Benelux and Nordic countries, as well as in the capital regions of Slovakia, Poland, Hungary, Czechia, and Southwestern Bulgaria.

Although some regions probably face both negative and positive impacts, these will not balance each other out. Negative impacts outweigh the positive ones as the positive impacts cover only a few sectors employing around 3.5% of people across the EU and at most 13% in one region.

Employment in risk sectors, i.e. sectors most affected by the restriction measures, is of particular importance and is also a good proxy to assess the economic impact of the crisis. Employment at risk from lockdowns varied from less than 15% to more than 35% across 314 regions in 2020, with those dependent on heavily affected sectors at NACE level 2, such as tourism, particularly exposed.²² Reviewing employment enables assessment of the relevance of each economic sector in the regional economy, capturing the strong territorial dimension underlying this crisis.²³ The analysis builds on employment and the sensitivity of each sector to COVID-19 policy responses. The indicator on employment in high and medium risk sectors is based on Eurostat data and a risk assessment by sector (see textbox).

Potential negative impacts: Risk sectors

The following sectors faced medium or high risks for economic decline during lockdowns.²⁴ Regions with high shares of people working in these sectors will be more impacted. Certainly, there is much variation within these sectors as each of them covers a broad variety of economic activities.

Tourism (high risk). Most studies point out that tourism is (one of / if not) the most affected sector.²⁵ This is also clearly shown in Eurostat's Recovery Dashboard. In January 2021, nights spent in tourist accommodation were 83% below January 2020, and commercial flights in February 2021 were 73% below February 2020.²⁶ The information is based on the DG REGIO study of regional impacts of the COVID-19 crisis on the tourism sector.²⁷

²² OECD, OECD Regional Outlook 2021: Resilience in the COVID-19 Crisis and Transition to Net Zero Greenhouse Gas Emissions (Paris: OECD, 2021), https://doi.org/10.1787/17017efe-en.

²³ Österreichisches Institut für Wirtschaftsforschung WIFO, 'Regionale Unterschiede Der Ökonomischen Betroffenheit von Der Aktuellen COVID-19-Krise in Österreich' (Österreichisches Institut für Wirtschaftsforschung, April 2020); OECD, OECD Regional Outlook 2021: Resilience in the COVID-19 Crisis and Transition to Net Zero Greenhouse Gas Emissions (Paris: OECD, 2021), https://doi.org/10.1787/17017efeen; International Labour Organisation, 'ILO Monitor: COVID-19 and the World of Work. 7th Edition Updated Estimates and Analysis' (International Labour Organization, 25 January 2021).

²⁴ for detailed discussions see 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'.

²⁵ Andrea Conte et al., The Territorial Economic Impact of COVID-19 in the EU. A RHOMOLO Analysis. Territorial Development Insights Series - July 2020', 2020; Eurofound, COVID-19; International Labour Organisation, 'ILO Monitor: COVID-19 and the World of Work. 7th Edition Updated Estimates and Analysis'; Sapir, 'Why Has COVID-19 Hit Different European Union Economies so Differently?'; Tillväxtverket, 'Pandemins Kostnader - Effekter På Produktion Och Jobb i Sveriges Regioner'.

²⁶ Eurostat, 'European Statistical Recovery Dashboard' (European Commission, 2021), https://ec.europa.eu/eurostat/cache/recoverydashboard/.

²⁷ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

Accommodation and food services (high risk). According to Eurofound²⁸ 51% of employees in the accommodation sector, 47% of employees in food and beverage services, and 40% of employees in travel agencies and tour operators did not work in Q2 2020 in the EU.

Arts, entertainment and recreation (high risk). Sectors that require physical proximity, such as the cultural and creative industries, have been hard hit by the crisis.²⁹ According to Eurofound³⁰ 34% of employees in creative, arts and entertainment activities did not work in Q2 2020 in the EU.

Agriculture, forestry and fishing (medium risk). ILO³¹ considers the loss of working hours and employment in agriculture, fishing and forestry in Q3 2020 compared to Q3 2019 as medium.

Manufacturing (medium risk). Following ILO³² manufacturing is a medium risk sector for people not working due to the pandemic. Eurostat data for industrial production shows that the sector was heavily hit in spring 2020 with a decline of 19% in April 2020 compared to April 2019 but started to recover towards the end of 2020. However, there are considerable differences between sub-sectors, as shown by Vet et al.³³ Contrary to Eurostat and de Vet et al. (2021), scenarios for recovery in the Swedish economy³⁴ are that manufacturing, with the highest monetary losses and third in terms of production losses, may need to wait until 2027.

Construction (medium risk). ILO³⁵ considers the loss of working hours and employment in Q3 2020 compared to Q3 2019 as medium. Eurostat figures on production point to a heavy decline in spring 2020 but coming close to the levels of 2019 already by early 2021. A complete recovery to pre-crisis 2019 levels will take until 2023.³⁶

Wholesale and retail (medium risk). ILO³⁷ considers the loss of working hours and employment in Q3 2020 compared to Q3 2019 as medium. Eurostat shows that the retail trade declined by 11% in April 2020 compared to April 2019. Since then, patchy ups and downs are probably caused by various lockdowns and small boosts. Generally, there is a shift to omnichannel retail, led by digital shopping. This means that retail development differs heavily between segments.

Transportation and storage (medium risk). ILO³⁸ considers the loss of working hours and employment in Q3 2020 compared to Q3 2019 as medium. According to Eurofound (2021) 45% of employees in air transport did not work in Q2 2020 in the EU27. In Sweden, the transport sector is the second most affected sector after tourism and the decline in working hours is expected to be around 17% for 2020 and 10% for 2021.³⁹

Administrative and support services (medium risk). The demand for administrative and support services to businesses and offices dived during the lockdowns. This particularly concerned rentals and leasing, employment and placement agencies, travel agencies, tour operator reservation services, private security and investigation, cleaning and organisation of conventions and trade shows. Teleworking meant that many offices were empty. Accordingly, office support was in low demand.

²⁸ Eurofound, COVID-19.

²⁹ Jan Maarten deVet et al., 'Impacts of the COVID-19 Pandemic on EU Industries', Publication for the Committee on Industry, Research and Energy, Policy Department for Economic, Scientific and Quality of Life Policies (Luxembourg: European Parliament, 2021).

³⁰ Eurofound, COVID-19.

³¹ International Labour Organisation, 'ILO Monitor: COVID-19 and the World of Work. 7th Edition Updated Estimates and Analysis'.

³² International Labour Organisation.

³³ deVet et al., 'Impacts of the COVID-19 Pandemic on EU Industries'.

³⁴ Tillväxtverket, 'Pandemins Kostnader - Effekter På Produktion Och Jobb i Sveriges Regioner'.

³⁵ International Labour Organisation, 'ILO Monitor: COVID-19 and the World of Work. 7th Edition Updated Estimates and Analysis'.

³⁶ deVet et al., 'Impacts of the COVID-19 Pandemic on EU Industries'.

³⁷ International Labour Organisation, 'ILO Monitor: COVID-19 and the World of Work. 7th Edition Updated Estimates and Analysis'.

³⁸ International Labour Organisation.

³⁹ Tillväxtverket, 'Pandemins Kostnader - Effekter På Produktion Och Jobb i Sveriges Regioner'.

Beyond these more economic impacts the pandemic also has social impacts on people's well-being, guality of life, family and social life. In many regards, the economic disruption caused by COVID-19 inevitably threatens the most vulnerable groups of society more. For instance, in the Nordic countries, the pandemic has put a new light on structural injustices inherent in society. In Copenhagen, Oslo, Helsinki, Stockholm, and Malmö, districts with a high share of residents with an immigrant background and a low socio-economic status stand out with high COVID-19 infection and mortality rates. The pandemic thus reveals the serious effects of segregation and unequal living conditions on citizens' health and ability to cope with and survive a pandemic.⁴⁰ More generally all over Europe, social inequalities within countries, regions and cities are likely to worsen because of COVID-19, partly because the pandemic disproportionately impacts the incomes of vulnerable groups including women, migrant workers and those employed in lower-skilled occupations or informal sectors.⁴¹ The low paid are hit much harder than the highly paid (even more than in the 2008 financial crisis). These differences can be explained at least in part as pandemic has mainly affected service sectors with a high level of social contact, including those dominated by women, where average pay is low.⁴² Also migrants have been disproportionally affected, as both labour market integration of immigrants and labour mobility slowed, which may have long-lasting impacts for the people concerned.⁴³

Potential positive impacts: Accelerated digitalisation in SMEs

One positive impact of the pandemic concerns accelerated digitalisation. SMEs in Europe saw an acceleration of digital transformation due to a decrease or change in (in-person) demand following the COVID-19 outbreak. While most SMEs experienced accelerated digitalisation, there is uncertainty about its lasting impact. In a recent survey about 40% reported accelerated digital transformation –more long lasting– due the pandemic, while about 50% consider digital transformations caused by the pandemic as temporary.⁴⁴

The digitalisation has also more far-reaching positive impacts on local and regional development. Indeed, the pandemic disruption may result in long-term innovation as the digital transition could accelerate and the provision of digital services has been reinforced. These developments will continue to shape the way people live and work as telework and ICT-based mobile working arrangements may provide more flexibility, job autonomy, improved work-life balance and reduced commuting time. While these shifts can provide new development opportunities for disadvantaged territories, they also have the potential to increase socio-economic and territorial discrepancies for regions with poor or no broadband access and digital skills.⁴⁵

Furthermore, the social dimension of the pandemic extends beyond disparities between high and low income and education or gender.⁴⁶ Young people have been disproportionally affected in the labour

⁴⁰ Hjördís Rut Sigurjónsdóttir, Dan Sigvardsson, and Sandra Oliveira e Costa, *Who Is Left behind? The Impact of Place on the Possibility to Follow Covid-19 Restrictions* (Copenhagen: Nordic Council of Ministers, 2021), https://doi.org/10.6027/nord2021-032.

⁴¹ World Bank, *Global Economic Prospects, January 2021*, Global Economic Prospects (The World Bank, 2021), https://doi.org/10.1596/978-1-4648-1612-3.

⁴² Eurofound, *COVID-19*.

⁴³ Nora Sánchez Gassen et al., Integrating Immigrants into the Nordic Labour Markets: The Impact of the COVID-19 Pandemic (Copenhagen: Nordic Council of Ministers, 2021), https://doi.org/10.6027/nord2021-050.

⁴⁴ Simona Cavallini and Rossella Soldi, The State of Digital Transformation at Regional Level and COVID-19 Induced Changes to Economy and Business Models, and Their Consequences for Regions.' (Brussels: European Committee of the Regions, 2021), https://data.europa.eu/doi/10.2863/37402.

⁴⁵ ESPON, 'Migration Patterns and the Knowledge Economy: Territorial Cohesion in a COVID-19-Driven Digital Era', Policy Brief (Luxembourg: ESPON EGTC, 2021), https://www.espon.eu/sites/default/files/attachments/ESPON%20Policy%20Brief%20Migration%20patterns.pdf.

⁴⁶ Ginette Azcona et al., 'From Insight to Action. Gender Equality in the Wake of COVID-19' (UN Women, 2020).

market and there is even a risk of the emergence of a lockdown generation.⁴⁷ Beyond the risk of missing out on full education, in particular in secondary and tertiary education due to home schooling, there is also a risk of disappearing creative and innovative environments due to more digital education and less social interaction. This risk may remain for some time, as the future of higher education might have a stronger focus on omni-channel offers.

Medium-term impacts

In a similar way to the short-term impacts, medium-term impacts are analysed based on previous assessments for the European Committee of the Regions and European Commission.⁴⁸ For the medium-term the focus is on sensitivities as exposure is less relevant than for the short-term impacts.

The COVID-19 pandemic will affect local and regional development beyond the more obvious immediate effects. Medium-term impacts will be shaped by more durable impacts on some sectors and structural elements, which affect how quickly an area can recover.

The regions which are expected to struggle for longer are East Macedonia & Thrace, the Ionian islands and South Aegean in Greece, the Canaries in Spain, the Aosta Valley, Liguria and Sardinia in Italy and Madeira in Portugal. These are followed by the remaining Greek and Italian regions, Croatia, Cyprus, Malta as well as most Bulgarian, Romanian and Irish regions.

As with the short-term impacts we expect negative and positive impacts in the medium-term. The regions which may see medium-term benefits from the pandemic include Prague in Czechia, Noord-Holland in the Netherlands, Greater Helsinki and Southern Finland, Stockholm in Sweden, and the Balearic Islands in Spain.

The medium-term effects will largely depend on the imprint the pandemic leaves on behaviour. Socioeconomic trends are mainly influenced by behavioural changes and restrictions. The pandemic has not so much created new trends but slowed some (e.g. cruise tourism, business travel) and accelerated others (e.g. digitalisation, home working, home schooling, streaming, online shopping) (see also section 2.4). This implies that the territorial impacts of these trends have paused or accelerated. Taking digitalisation as an example, digital infrastructure and literacy affect whether people and businesses in an area get a head start or face transition challenges.

⁴⁷ Grégory Claeys et al., 'The Great COVID-19 Divergence: Managing a Sustainable and Equitable Recovery in the European Union', Policy Contribution (Brussels: Bruegel, 2021); International Labour Organization, 'ILO Monitor: COVID-19 and the World of Work. Fourth Edition Updated Estimates and Analysis', 27 May 2020.

⁴⁸ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'; 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'.

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Share of employment in arts, entertainment and recreation (Eurostat), Share of employment in accommodation and food service activities (Eurostat), Potential negative impacts of COVID-19 lockdown on tourism regions (Spatial Foresight), Share of people (25 to 64 years) with postsecondary non-tertary education or lower (0-4 in the ISCED scale) (Eurostat), Share of young people (15-24 years) neither in employment nor in education and training (NEET) (Eurostat), European Quality of Government Index (University of Gothenburg).

The impacts of the COVID-19 pandemic on EU cohesion and EU cohesion policy

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Source: Spatial Foresight, 2021

An area where this behavioural change will be strongly felt for years is tourism. Regions potentially most affected, due to their dependency on tourism for GDP and employment, are major urban destinations, including the capital regions of Athens, Berlin, Madrid and Paris, and destinations in Southern Europe and the Alps, in particular on the Iberian Peninsula and in Italy as well as Central Macedonia in Greece and Cyprus. On the other hand, large parts of Eastern and Northwest Europe are less affected as tourism plays a smaller role in the regional economies.⁴⁹

Another medium-term change might concern the transport sector, as the pandemic might lead to behavioural changes which risk further impacting transport needs. This includes the growing importance of omni-channel shopping leading to more deliveries, the trend to move further out of a city centre for larger housing leading to more goods and people transport. Furthermore, the demand for larger housing in pleasant (rural) surroundings may also lead to increasing land use demands (e.g. urban sprawl) and subsequently the loss of biodiversity and areas providing ecosystem services.

Overall, macro-geographical trends of the past 40 years will most likely continue. The pandemic will not end nor soften polarisation and fragmentation between societal groups and places but rather accelerate these as indicated by the short-term trends. Severe inequalities, geographies of discontent and places left behind will be with us for the foreseeable future. This could mean the divides between cities and regions that prosper and those that struggle will remain, and possibly even widen.

2.1.2. Pandemic impacts on GDP

GDP is frequently used to understand potential impacts of external shocks on regions and cities and GDP forecasts complement these assessments to anticipate future impacts. National and supranational organisations prepare these forecasts for different territorial scales.⁵⁰

Different studies (see textbox) have dealt with GDP and forecasting using different methods. Methodologies are depending on the type of model, its assumptions, size, scale and purpose (see table below), leading to different forecasts.

Author, publication	Method abstract	Latest GDP forecast (% Δ)
European Commission,	Use of European System of Accounts 2010, external	EU 2021: 4.8 / 5.0
forecasts, 2021	interest rate & oil price averages, implemented trade policies; tool to make national GDP forecasts	EU 2023: 2.5
JRC (Conte et al.), Rhomolo model, 2021	Dynamic spatial Computable General Equilibrium model; policy impact analysis tool for investments & structural reforms at regional NUTS 2 level	Scenario with policy reaction EU 2020: -7.43 / actual GDP Δ EU 2020: -6.0

Table 2.1 Examples of GDP forecasts

⁴⁹ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

⁵⁰ e.g. Conte et al., ⁷The Territorial Economic Impact of COVID-19 in the EU. A RHOMOLO Analysis. Territorial Development Insights Series -July 2020'; Deutsche Bundesbank, 'Outlook for the German Economy for 2021 to 2023', Monthly Report, 2021, https://www.bundesbank.de/resource/blob/867692/1ff89e00d6331ff1e3af438f4e1f8574/mL/2021-06-prognose-data.pdf; European Commission, 'European Economic Forecast. Summer 2021'; IMF, 'World Economic Outlook Update', 2021, https://www.imf.org/en/Publications/WEO; OECD, 'OECD Economic Outlook', 2021, https://www.oecd-ilibrary.org/economics/oecdeconomic-outlook_16097408.

OECD, Economic Outlook,	DECD, Economic Outlook, Assessment of the economic climate in individual	
2021, Issue 2	countries and the world economy, using a	Q4-2022: 103,61
	combination of model-based analyses and expert	Q4-2023: 105,80
	judgement; world regions and country forecasts	(2019Q4=100)
IMF, World Economic	IMF data base, assumptions on exchange rates, oil	Euro area:
Outlook July / October,	price & interest rates, continued national policies;	2021: 4.6 / 5.0
2021	world regions and country forecasts	2022: 4.3 / 4.3

Source: Spatial Foresight based on European Commission⁵¹, Conte et al. ⁵², OECD ⁵³ & IMF ⁵⁴

In addition to differences between most recent forecasts, GDP forecasts have changed as the pandemic evolved. Figure 2.2 illustrates the uncertainty by using quarterly updates of the IMF World Economic Outlook for selected countries and the Euro Area.

This highlights the potential and limits of these forecasts. GDP forecasts can detect the likely range of GDP development but have to be updated frequently due to numerous uncertainties. This is all the more true in times of a pandemic. At the same time, these forecasts describe only one dimension of likely socio-economic development without addressing the different dimensions of cohesion.⁵⁵





Source: Spatial Foresight based on IMF 56

⁵¹ European Commission, 'European Economic Forecast. Summer 2021' (Luxembourg: Publications Office of the European Union, 2021), https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en.; European Commission, 'European Economic Forecast. Autumn 2021', Institutional Paper (Luxembourg: Publications Office of the European Union, 2021).

⁵² Conte et al., 'The Territorial Economic Impact of COVID-19 in the EU. A RHOMOLO Analysis. Territorial Development Insights Series - July 2020'.

⁵³ OECD, 'OECD Economic Outlook', 2021, https://www.oecd-ilibrary.org/economics/oecd-economic-outlook/volume-2021/issue-2_66c5ac2c-en.

⁵⁴ IMF, 'World Economic Outlook Update', 2021, https://www.imf.org/en/Publications/WEO; IMF, 'World Economic Outlook. Recovery During A Pandemic', 2021, https://www.imf.org/en/Publications/WEO.

⁵⁵ For a discussion on cohesion see e.g. Kai Böhme et al., 'Cohesion as an Overall Value of the European Union' (Brussels: European Committee of the Regions, 2021), https://cor.europa.eu/en/engage/studies/Documents/Cohesion-as-an-Overall-Value-of-the-European-Union/cohesion-spirit.pdf.

IMF, 'World Economic Outlook. A Long and Difficult Ascent', 2020, https://www.imf.org/en/Publications/WEO; 'World Economic Outlook Update', 2021, https://www.imf.org/en/Publications/WEO; 'World Economic Outlook Update', 2021, https://www.imf.org/en/Publications/WEO; 'World Economic Outlook. Managing Divergent Recoverv' 2021, https://www.imf.org/en/Publications/WEO; IMF, 'World Economic Outlook. Recovery During A Pandemic', 2021. https://www.imf.org/en/Publications/WEO.

Selected studies of COVID-19 impacts on GDP

Claeys, G., Darvas, Z., Demertzis, M. & Wolff, G. (2021). The great COVID-19 divergence: managing a sustainable and equitable recovery in the European Union (Policy Contribution No. 11/2021). Brussels: Bruegel.

Conte, A., Lecca, P., Sakkas, S. & Salotti, S. (2020). The Territorial Economic Impact of COVID-19 in the EU. A RHOMOLO Analysis. Territorial Development Insights Series - July 2020.

Darvas, Z. (2021). The unequal inequality impact of the COVID-19 pandemic (Working Paper No. 06/2021). Brussels: Bruegel.

Deutsche Bundesbank. (2021). Outlook for the German economy for 2021 to 2023 (Monthly Report No. June 2021).

https://www.bundesbank.de/resource/blob/867692/1ff89e00d6331ff1e3af438f4e1f8574/mL/2021-06-prognose-data.pdf (accessed on:

deVet, J. M., Nigohosyan, D., Ferrer, J. N., Gross, A.-K., Kuehl, S. & Flickenschild, M. (2021). Impacts of the COVID-19 pandemic on EU industries (Publication for the committee on Industry, Research and Energy, Policy Department for Economic, Scientific and Quality of Life Policies). Luxembourg: European Parliament.

European Commission. (2021a). European Economic Forecast. Summer 2021. Luxembourg: Publications Office of the European Union. https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en. (accessed on: 2 August 2021).

European Commission. (2021b). European economic forecast: Winter 2021 (Interim). Luxembourg: Publications Office of the European Union. https://ec.europa.eu/info/sites/info/files/economy-finance/ip144_en_1.pdf (accessed on: 15 February 2021).

Fink, A., Jürgensmeier, H., Kuhle, J.-P. & Ohse, S. (2020). Post-Corona-Szenarien. Gesellschaft, Wirtschaft und Politik nach der Corona-Krise. ScMI Working paper. Paderborn: ScMI.

Florida, R., Rodríguez-Pose, A. & Storper, M. (2021). Cities in a post-COVID world. Urban Studies, p. 004209802110180. http://doi.org/10.1177/00420980211018072

IMF. (2021a). World Economic Outlook. Managing Divergent Recovery (No. April 2021). https://www.imf.org/en/Publications/WEO (accessed on:

IMF. (2021b). World Economic Outlook Update (No. July 2021). https://www.imf.org/en/Publications/WEO (accessed on:

IMF. (2021c). World Economic Outlook Update (No. January 2021). https://www.imf.org/en/Publications/WEO

IMF. (2020). World Economic Outlook. A Long and Difficult Ascent (No. October 2020). https://www.imf.org/en/Publications/WEO

ILO. (2021, January 25). ILO Monitor: COVID-19 and the world of work. 7th edition Updated estimates and analysis. ILO.

Musiałkowska, I. & Idczak, P. (2021). How COVID-19 impacted the European integration processes? The case of EU Cohesion Policy and budget. In E. Mińska-Struzik & B. Jankowska (Eds.), Toward the 'New Normal' after COVID-19 - A Post-Transition Economy Perspective, pp. 30–43. Poznań. https://www.researchgate.net/publication/352707874_Toward_the_new_normal_after_COVID-19_-_a_post-transition_economy_perspective/link/60d46b2292851c8f79980c60/download (accessed on: 4 August 2021).

OECD. (2021). OECD Economic Outlook (No. Volume 2021 Issue 1). https://www.oecdilibrary.org/economics/oecd-economic-outlook_16097408 (accessed on:

Sapir, A. (2020). Why has COVID-19 hit different European Union economies so differently? (Policy Contribution No. 2020/18). Brussels: Bruegel. https://www.bruegel.org/2020/09/why-has-COVID-19-hit-different-european-union-economies-so-differently/ (accessed on: 15 October 2020).

Terzi, A. (2021). Economic Policy-Making Beyond GDP: An Introduction (Discussion Paper No. 142).

Any GDP projection, whether at national or regional level, simplifies reality to capture the main developments and risks oversimplification.⁵⁷ Differences between forecasts over time mirror not only differences in assumptions but also uncertainties embedded in the models: "Even normally, GDP relies on a host of early estimates, which face significant revisions down the line. In 2020, due to the COVID-19 pandemic, stay-at-home orders, teleworking arrangements, and a broad sudden re-organisation of the economy, these statistics are particularly likely to be exposed to inaccuracy and large revisions"⁵⁸.

These inaccuracies may be further exacerbated by additional uncertainties.⁵⁹

- The pandemic may require further policy responses because of unexpected developments such as new virus variants, unmet vaccination targets, etc.
- Policy responses affect further behavioural changes and statistics, such as the delay of bankruptcies.
- Structural effects on the economy create additional uncertain impacts, such as changing roles of sectors or unknown net effects on productivity in view of gains due to digitisation and losses from shorter supply chains.
- There are further uncertainties e.g. related to the Brexit, that affect GDP projections.

Several studies illustrate the need to think beyond GDP to grasp COVID-19 impacts on cohesion. Rather than forecasting effects on GDP, Bruegel reviewed possible reasons for differences in impacts.⁶⁰ The analysis suggests that the stringency of lockdowns, the importance of tourism for local economies and quality of governance explain nearly 60% of GDP differences between countries. The study concludes that quality of governance explains 30-50% of the economic impact differences between southern and northern countries.⁶¹ Further shortcomings of a focus on GDP forecasts are a lack of clear unequal

⁵⁷ Alessio Terzi, 'Economic Policy-Making Beyond GDP: An Introduction', Discussion Paper, European Economy, 2021, 7.

⁵⁸ Alessio Terzi, 'Economic Policy-Making Beyond GDP: An Introduction', Discussion Paper, European Economy, 2021, 15–16.

⁵⁹ e.g. Claeys et al., 'The Great COVID-19 Divergence: Managing a Sustainable and Equitable Recovery in the European Union'; European Commission, 'European Economic Forecast. Summer 2021'; Ida Musiałkowska and Piotr Idczak, 'How Covid-19 Impacted the European Integration Processes? The Case of EU Cohesion Policy and Budget', in *Toward the 'New Normal' after COVID-19 - A Post-Transition Economy Perspective*, ed. Ewa Mińska-Struzik and Barbara Jankowska (Poznań, 2021), 30–43, https://www.researchgate.net/publication/352707874_Toward_the_new_normal_after_Covid-19_-a_post-transition_economy_perspective/link/60d46b2292851c8f79980c60/download.

⁶⁰ Sapir, 'Why Has COVID-19 Hit Different European Union Economies so Differently?'

⁶¹ Sapir.

impacts in countries and population groups and between individuals and firms⁶², impacts on the urban fabric⁶³ or impacts on environmental sustainability, non-monetary values of intangible assets & housework, etc.⁶⁴ Other ways of drawing more comprehensive pictures of cohesion impacts of COVID-19 and possible policy responses are measuring resilience⁶⁵ and scenario developments⁶⁶.

Nevertheless, forecasts indicate a range within which GDP may develop within a period of one to two years, assuming no further shocks. Without better knowledge about the future, additional modelling exercises are unlikely to yield more precise predictions.

2.2. First conclusions for impacts on cohesion

The territorial diversity of COVID-19 impacts on regions affects cohesion. The risk of increasing inequalities is at European level as well as to specific socio-economic regional characteristics and types of regions.

2.2.1. Increasing inequalities – cohesion out of sight

The territorial patterns of the COVID-19 pandemic do not strictly follow European patterns of southnorth, east-west, centre-periphery, rural-urban, etc. Still, in very rough terms the territorial impacts of the pandemic for many parts of Europe resemble growing disparities. Indeed, regions most heavily affected negatively are mainly in Southern and South-Eastern Europe, many of which already suffered heavily from the 2008 financial crisis. At the same time, many less negatively affected regions are in the economically stronger core and North of Europe.⁶⁷ With their more stable economies and greater fiscal capacities, these also had more room to help ailing businesses and make use of looser EU State aid rules.⁶⁸

At this general level, there is an overwhelming risk that socio-economic impacts of the pandemic reinforce existing imbalances and inequalities in the EU. Existing differences may also deepen between places, social groups and people in Europe. Convergence in the EU may be reversed.⁶⁹

People living in poorer areas, in crowded living conditions and working in jobs less amenable to remote working, were harder hit than people in more affluent neighbourhoods.⁷⁰ The growing inequalities and societal divides also come with increasing risks of value conflicts and visions of society, not least linked to decreasing trust.⁷¹

⁶² Zsolt Darvas, 'The Unequal Inequality Impact of the COVID-19 Pandemic', Working Paper (Brussels: Bruegel, 2021); Terzi, 'Economic Policy-Making Beyond GDP: An Introduction'.

⁶³ Richard Florida, Andrés Rodríguez-Pose, and Michael Storper, 'Cities in a Post-COVID World', Urban Studies, 27 June 2021, 004209802110180, https://doi.org/10.1177/00420980211018072.

⁶⁴ Terzi, 'Economic Policy-Making Beyond GDP: An Introduction'.

⁶⁵ 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'.

⁶⁶ e.g. Alexander Fink et al., 'Post-Corona-Szenarien. Gesellschaft, Wirtschaft Und Politik Nach Der Corona-Krise. ScMI Working Paper' (Paderborn: ScMI, Mai 2020).

⁶⁷ 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'.

⁶⁸ Claire Busse et al., 'The Crisis That Made the European Union: European Cohesion in the Age of COVID', Policy Brief (Berlin: European Council on Foreign Relations, 2020).

⁶⁹ 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'; European Committee of the Regions, '2021 EU Annual Regional and Local Barometer'.

⁷⁰ Banca d'Italia Eurosistema, 'Relazione Annuale - Considerazioni Finali Del Governatore', May 2020; Darvas, 'The Unequal Inequality Impact of the COVID-19 Pandemic'; Eurofound, 'COVID-19: Policy Responses across Europe' (Luxembourg: Publications Office of the European Union, 2020); OECD, OECD Regional Outlook 2021; Sigurjónsdóttir, Sigvardsson, and Oliveira e Costa, Who Is Left Behind?

⁷¹ See https://www.d2030.de/wp-content/uploads/2021/09/D2030_CoronaStresstest2-Ergebnisse_210905.pdf

People with low incomes are more affected

Various sources point to increasing social disparities in the wake of the COVID-19 pandemic.⁷² Withincountry income inequalities are likely to worsen, partly because the pandemic disproportionately impacts the incomes of vulnerable groups including women, migrant workers and those employed in lower-skilled occupations or informal sectors.⁷³ The low paid are hit much harder than the highly paid (even more than in the 2008 financial crisis). These differences can be explained at least in part by the sectors impacted during the crisis, especially services with a high level of social contact, including those dominated by women, where average pay is low.⁷⁴

Based on data from labour force surveys up to Q3 2020, ILO⁷⁵ highlights the contrast between massive job losses in hard-hit sectors (including accommodation and food services, arts and culture, retail, and construction) and positive job growth in higher-skilled service sectors (including ICT, finance and insurance). Since average incomes are lower in hard-hit sectors, this divergence increases inequality within countries. Furthermore, during the pandemic employment changes have declined along the job-wage distribution, with the largest increase in employment in the best paid jobs, and the sharpest losses in the lowest paid jobs, suggesting more earnings inequality.⁷⁶ At the same time there are some signs for increased bargaining power of people with at the lower end of the income ladder.⁷⁷

2.2.2. Pandemic impacts by type of region

The regional impacts of the pandemic are largely based on territorial sensitivities to the socio-economic shocks caused by the pandemic. Territorial analysis by sensitivity and characteristics shows that some types of regions are more vulnerable than others, due to their socio-economic characteristics. The analysis differentiates economic characteristics (tourism, medium-risk sectors and enterprise size), social characteristics (education levels, poverty and young people) and the level of governance.

Types of NUTS2 regions

The following sections are based on 2 typologies. As the data on COVID-19 exposure and sensitivity (see earlier sections) is only available at NUTS2 level, also the typologies needed to be applied at that level to allow for a 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 regions, intermediate regions, rural regions, coastal regions, islands regions, outermost regions, very sparsely populated regions, sparsely populated regions, mountain regions and border regions. A single NUTS2 regions can be attributed to several types, e.g. be both urban and mountainous. The details on the establishment of this typology is presented in the annex.

⁷² European Committee of the Regions, '2021 EU Annual Regional and Local Barometer'.

⁷³ Azcona et al., 'From Insight to Action. Gender Equality in the Wake of COVID-19'; Sánchez Gassen et al., Integrating Immigrants into the Nordic Labour Markets; Sigurjónsdóttir, Sigvardsson, and Oliveira e Costa, Who Is Left Behind?; World Bank, Global Economic Prospects, January 2021.

⁷⁴ Eurofound, COVID-19.

⁷⁵ International Labour Organisation, 'ILO Monitor: COVID-19 and the World of Work. 7th Edition Updated Estimates and Analysis'.

⁷⁶ Eurofound, *COVID-19*.

⁷⁷ See e.g. <u>https://www.economist.com/business/2021/06/24/workers-on-the-march</u> or <u>https://www.economist.com/finance-and-economics/2021/10/13/wages-are-surging-across-the-rich-world</u>

Tourism

Tourism is (one of / if not) the most affected sector.⁷⁸ In Eurostat's Recovery Dashboard for January 2021, nights spent in tourist accommodation were 83% below the levels of January 2020, and commercial flights in February 2021 were 73% below February 2020.⁷⁹ Studies for the European Committee of the Regions and European Commission⁸⁰ show that pandemic impacts on the tourism industry vary between regions depending on their Cohesion Policy status and geographic characteristics.

- Cohesion Policy regions. The impacts on tourism regions hit more developed and transition regions more than less developed regions which are not as reliant on tourism (see Figure 2.3). This is also reflected in a more nuanced assessment of tourism related sensitivity of Cohesion Policy regions (see Table 2.2). While about 45% of less developed regions have low sensitivity, 45% of more developed and 63% of transition regions have medium sensitivity. About 1/3 of both the more and less developed regions show high sensitivity compared to only 15% of transition regions.⁸¹
- **Geographical regions.** The pandemic impacts are particularly tough on island and mountain tourism regions, followed by coastal, urban and sparsely populated regions (Figure 2.4) as their economies are highly reliant on tourism.



Figure 2.3 Reliance on tourism, type of Cohesion Policy regions

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

⁷⁸ Conte et al., 'The Territorial Economic Impact of COVID-19 in the EU. A RHOMOLO Analysis. Territorial Development Insights Series - July 2020'; Eurofound, COVID-19; Sapir, 'Why Has COVID-19 Hit Different European Union Economies so Differently?'; Tillväxtverket, 'Pandemins Kostnader - Effekter På Produktion Och Jobb i Sveriges Regioner'.

⁷⁹ Eurostat, 'European Statistical Recovery Dashboard'.

⁸⁰ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'; 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'.

⁸¹ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.



Figure 2.4Reliance on tourism, geographical types of regions

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

COVID-19 impacts on tourism regions

Some key conclusions of the European Commission study on pandemic impacts on the tourism sector and tourism regions are:⁸²

EXPOSURE: Only a few less developed Cohesion Policy regions (13%) are highly exposed, with most having medium exposure. There is more high exposure in transition and more developed regions (40% and 25% respectively).

NEGATIVE IMPACTS: Large parts of Eastern and Northwest Europe are less affected as tourism plays a lesser role in the regional economies. This is also reflected in the sensitivity of different types of 2021-27 Cohesion Policy regions.

POSITIVE IMPACTS: For 2021-27 Cohesion Policy regions, less developed and transition regions are more likely to benefit from positive effects than developed regions. 56% of the less developed and 46% of the more developed regions have high sensitivity, while only 19% of transition regions do. This is also confirmed by 49% of transition regions showing low sensitivity, while only 12% of less developed and 19% of more developed regions do.

RESILIENCE: Less developed regions have higher resilience than more developed or transition regions, those with high shares of employment in tourism tend to also have RIS3 addressing tourism. This is the case in only 50% of more developed and transition regions. At the same time, the vast majority of less developed regions have low quality of governance, while in most of the more developed regions it is high quality. Less developed regions also usually score lower on the Regional Innovation Scoreboard, so many developed and transition regions would benefit in 2021-27 from more strategic support for their tourism ecosystems e.g. via RIS3 or specific strategies on tourism recovery. Less developed regions with strategic plans would benefit from developing better governance and innovation capacity to retain more of the tourism value chain in their region.

⁸² Böhme et al.

2021-2027 Cohesion Regions		More developed	Transition	Less developed
Exposure	High	25%	40%	13%
	Medium	58%	33%	55%
	Low	16%	27%	32%
Negative impacts	Lower sensitivity	22%	24%	45%
	Medium sensitivity	63%	45%	25%
	Higher sensitivity	15%	31%	30%
Positive impacts	Higher sensitivity	46%	19%	56%
	Medium sensitivity	34%	32%	32%
	Lower sensitivity	19%	49%	12%
Resilience	Tourism specialisation & high contribution of	24%	200/	199/
(specialisation &	tourism to employment	24%	20%	10%
tourism	No tourism specialisation & high contribution	33%	28%	5%
employment)	of tourism to employment			
	Tourism specialisation & low contribution of	9%	9%	31%
	tourism to employment			
	No tourism specialisation & low contribution of	33%	34%	46%
	tourism to employment		•	
Resilience (quality	High quality	44%	67%	1%
of government)	Medium quality	41%	21%	20%
	Low quality	15%	12%	78%

Table 2.2	COVID-19 impacts on t	tourism by type
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Source: Böhme et al.83

Employment in risk sectors

Employment is also a good proxy to assess the economic impact of the crisis and highlights the relevance of each economic sector in the regional economy, capturing the strong territorial dimension underlying this crisis. The analysis builds on employment and the sensitivity of each sector to COVID-19 policy responses (see also textbox on section 2.1.1). As high risk sectors are mainly linked to the tourism industry, which is covered above, disparities in regional employment in medium risk sectors are more interesting. Medium risk sectors include administrative and support services, manufacturing, construction, wholesale and retail, transportation and storage as well as agriculture, forestry and fishing.⁸⁴

- **Cohesion Policy regions.** The share of people employed in medium risk sectors is generally higher in more developed regions than in transition and less-developed regions. The difference is more pronounced in the 2021-27 classification of regions than in the 2014-20 classification (see Figure 2.5).
- **Geographical regions.** Employment in medium risk sectors in urban areas and in border regions is generally higher than the median for all EU27 regions (see Figure 2.6). On the other hand, outermost regions and also islands have lower shares of people employed in medium risk sectors.

⁸³ Böhme et al.

⁸⁴ International Labour Organization, 'ILO Monitor 2nd Edition: COVID-19 and the World of Work'; OECD, 'Coronavirus (COVID-19) From Pandemic to Recovery: Local Employment and Economic Development'; WIFO, 'Regionale Unterschiede Der Ökonomischen Betroffenheit von Der Aktuellen COVID-19-Krise in Österreich'.



Figure 2.5 Employment in risk sectors by type of Cohesion Policy region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)



Figure 2.6 Employment in risk sectors by geographical types of region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

Low education

The policy restrictions and changes in behaviour affect low income and low education groups i more than others. Those who could work from home were lucky during the pandemic. The share of people working from home between April and July 2020 in the EU27 reveals clear patterns in terms of education. While only 10% of people with primary education and 30% of those with secondary education were working from home, about 70% of people with tertiary education did so.⁸⁵ Furthermore, the difference between highly-educated and low-educated people in terms of job losses is correlated with the economic shock from the pandemic.⁸⁶ The pandemic further accelerated social disparities in the EU, its member states and regions. Although mitigation measures (e.g. furlough schemes) have cushioned the immediate impact, disparities have increased and the increased disparities will most likely linger.

• **Cohesion Policy regions.** The share of people with low education is generally higher in less developed regions than in transition or more developed regions (see Figure 2.7).

⁸⁵ Eurofound, COVID-19.

⁸⁶ Darvas, 'The Unequal Inequality Impact of the COVID-19 Pandemic'.

• **Geographical regions.** The share of people with low education is generally highest in outermost regions, while sparsely populated areas generally have the lowest shares of people with low education levels (which may be because these regions are primarily in Nordic countries) (see Figure 2.8). In an urban-rural context, there are generally higher shares of people with low education levels in rural than in urban NUTS2 regions, though there are considerable variations within each of these categories.



Figure 2.7 Low education shares by type of Cohesion Policy region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)





Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

Young people without occupation

The social dimension of the pandemic extends beyond disparities between high and low income and education, or gender.⁸⁷ 'Young people are facing multiple shocks from the COVID-19 crisis, which could lead to the emergence of a lockdown generation' (ILO, 2020a). Young people have been disproportionally affected in the labour market.⁸⁸ This has two very different dimensions. Firstly, young people have a difficult start and secondly, they miss out on full education due to home schooling. Compared to the 2008 financial crisis, the share of young people – between 15 and 29 years – who are not in employment, education or training (NEETs), did not jump as much in the pandemic. However, this may change once multiple furlough schemes end.

⁸⁷ Azcona et al., 'From Insight to Action. Gender Equality in the Wake of COVID-19'.

⁸⁸ Claeys et al., 'The Great COVID-19 Divergence: Managing a Sustainable and Equitable Recovery in the European Union'.

- **Cohesion Policy regions.** The share of NEETs is lowest in more developed regions, while the highest shares are in less developed regions (see Figure 2.9). Differences between these regions are however not as pronounced as the other differentiations above (e.g. tourism, low education). However, the differences are slightly more pronounced in the 2021-27 classifications than in the 2014-20 classifications.
- **Geographical regions.** In general, the shares of NEETs are highest in outermost regions followed by islands (see Figure 2.10). However, there are considerable variations within all types of geographical regions.



Figure 2.9 Shares of NEETS by type of Cohesion Policy region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)



Figure 2.10 Shares of NEETs by geographical types of region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

At risk of poverty

The economic disruption caused by COVID-19 inevitably threatens the most vulnerable groups of society more (see earlier textbox on low income). People at risk of poverty and social exclusion may face difficulties from job losses that could exacerbate an already problematic situation. Families at risk of poverty before the crisis may face serious difficulties in making ends meet, and more persistent effects in the longer term when opportunities may be scarcer than before. The impacts will be much harder on poorer families, increasing disparities to an unprecedented level.⁸⁹

⁸⁹ Banca d'Italia Eurosistema, 'Relazione Annuale - Considerazioni Finali Del Governatore'.

- **Cohesion Policy regions.** Following the 2021-27 classification, the highest shares of people at risk of poverty are in less developed regions, while transition regions and more developed regions show similar shares (see Figure 2.11). The picture is more blurred for the 2014-20 classification.
- Geographical regions. In general terms, the median share of people at risk of poverty and social exclusion is above the EU average in islands, outermost, sparsely populated and mountainous regions (see Figure 2.12). However, there are considerable variations within almost all types of geographical region, in particular urban and mountainous regions.



Figure 2.11Risk of poverty by type of Cohesion Policy region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)



Figure 2.12 Risk of poverty by geographical types of region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

Micro-enterprises

COVID-19 has particularly impacted sectors with many SMEs.⁹⁰ The same applies for micro-enterprises which are often even more vulnerable to shocks. Current debates suggest that micro-enterprises are particularly challenged by economic developments caused by the pandemic and many may close. The importance of micro-enterprises in a regional economy provides additional insights into the territorial

⁹⁰ ESRB, 'Prevention and Management of a Large Number of Corporate Insolvencies' (Frankfurt am Main: European Systemic Risk Board, 2021),

 $https://www.esrb.europa.eu/pub/pdf/reports/esrb.report210428_PreventionAndManagementOfALargeNumberOfCorporateInsolvencies ~cf33e0285f.en.pdf?351f85b1f1648308508846cc8c4dd0bf.$
diversity of impacts. The more an economy relies on micro-enterprises, the greater the risk of disruption, at least in the short-term.

- **Cohesion Policy regions.** In general, the share of micro-enterprises among all enterprises is highest in less developed regions and lowest in more developed regions (see Figure 2.13). In the 2021-27 classification transition regions rank in-between, while in the 2014-20 classification they are more comparable to less developed regions.
- **Geographical regions.** Islands and outermost regions have the highest shares of microenterprises and urban areas the lowest (see Figure 2.14).



Figure 2.13 Share of micro-enterprises by type of Cohesion Policy region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)



Figure 2.14 Share of micro-enterprises by geographical types of region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

Self-employed

Self-employed workers are among the most vulnerable in the current crisis as shown in a study by Bruegel.⁹¹ Self-employed people work disproportionately in sectors hardest hit by the lockdowns: 44% versus 37% for employees. The median self-employed person earns 18% less than the median employee. Moreover, state assistance is consistently lower for the self-employed than for employees.⁹²

⁹¹ Julia Anderson, 'OVID-19: The Self-Employed Are Hardest Hit and Least Supported', *Bruegel Blog Post* (blog), 2020, https://www.bruegel.org/2020/04/covid-19-the-self-employed-are-hardest-hit-and-least-supported/.

⁹² Anderson.

In light of this, the share of self-employed compared to total employees captures regional variations across the EU.

- **Cohesion Policy regions.** The share of self-employed people does not vary substantially between more developed, transition and less developed regions. However, it is generally slightly higher in less developed regions (see Figure 2.15).
- **Geographical regions.** The median ratio of self-employed people is highest in mountainous regions, followed by islands and coastal regions (Figure 2.16). The lowest ratio is in very sparsely populated areas. However, the median does not vary significantly between the different types.



Figure 2.15 Share of self-employed by type of Cohesion Policy region



Figure 2.16 Share of self-employed by geographical types of region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

Quality of government⁹³

In general, government quality matters for the effectiveness of public policies and return on public investment.⁹⁴ The pandemic has shown that it also affects the impact of COVID-19 on regional development. The quality of government explains 30-50% of the difference in the economic shock.⁹⁵

⁹³ This indicator is based on the European Quality Index (EQI 2021), University of Gothenburg

⁹⁴ Andrés Rodríguez-Pose, 'Institutions and the Fortunes of Territories', *Regional Science Policy & Practice*, 2020, https://doi.org/10.1111/rsp3.12277.

⁹⁵ Sapir, 'Why Has COVID-19 Hit Different European Union Economies so Differently?'

The marginal utility of investment in infrastructure, human capital and technology for regional economic development is lower in areas with poor government.⁹⁶ Furthermore, high quality regional governments have a trust and skills advantage for handling the recovery. The capacity and processes on which they rely helps implement policies quicker and more effectively. Regions with lower quality government face a bigger threat of being trapped by uncertainty.

- **Cohesion Policy regions.** Generally, the quality of government is highest in more developed regions, followed by transition and less developed regions (see Figure 2.17).
- **Geographical regions.** The lowest median quality of government is in mountain regions, followed by islands and outermost regions (see Figure 2.18). Very sparsely populated areas have the highest levels.



Figure 2.17 Quality of government by type of Cohesion Policy region

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)





^{4.0} 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 EU 27 Rural Regions Urban regions Intermediate Coastal regions Island regions Outermost regions Very sparsely populated regions populated regions Mountainous Border regions

2.3. More nuanced considerations and territorial stories

At a very general level it appears that the risk factors for potential negative impacts of the pandemic are more pronounced in some types of regions than in others. Summarising the analysis of different types of impacts per type of regions (see above) to an analysis of how different types of regions are

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

⁹⁶ Rodríguez-Pose, 'Institutions and the Fortunes of Territories'; Andrés Rodríguez-Pose and Tobias Ketterer, 'Institutional Change and the Development of Lagging Regions in Europe', *Regional Studies* 54, no. 7 (2020): 974–86, https://doi.org/10.1080/00343404.2019.1608356.

impacted, Figure 2.19 shows for which sensitivities a type of region is at risk of facing negative impacts. At NUTS 2 level it appears that mountain regions, islands and coastal areas are more generally at risk (see Figure 2.19). As the geographical types cover a wide range of regions and impacts of the pandemic vary even between neighbourhoods (and not just regions), more nuanced reflections are needed.

	Urban regions	Intermediate regions	Rural Regions	Coastal regions	Island regions	Outermost regions	Very sparsely populated regions	Sparsely populated regions	Mountainous regions	Border regions
Reliance on tourism	1000	000	000	.00	.000	.00	.00	.00	.010	000
Employment in risk sectors	100	000	000	000	0 00	.oO	.00	.00	.0 0	000
Low education levels	100	00	000	000	. O D	.00	.00	.00	.cl	000
Young people without occupation	1000	000	000	.00	.oD	.00	.00	.00	.all	000
At risk of poverty	100	000	.0 0	.00	.oO	.00	.0 II	.00	.oll	000
Micro-enterprises	100	000	.0 0	. 00	.00	.00	.0 II	.00	.010	000
Self-employed	100	000	000	.00	.00	.00	. 00	.00	.010	000
Low quality of government	all	all	.0 0	. 00	.oO	.00	•0II	.00	.010	.oll
low risk	between 80	% and 93% of the	EU median valu	e						
medium risk	between 93	between 93% and 107% of the EU medan value								
higher risk	between 10	between 107% and 120% of the EU median value								
high risk	above 1209	above 120% of the EU median value								

Figure 2.19 Risk of negative impacts of the pandemic by geographical types of regions

Source: Spatial Foresight, 2021 (for detailed data sources and calculations see annex 5.2.1 for the sensitivity indicator an annex 5.2.2 for the regional classification)

The following casts some light on different types of geographical region drawing on qualitative information and other studies.

2.3.1. Spotlight on urban-rural

The pandemic seems to highlight agglomeration disadvantages and the advantages of less densely populated areas. During the pandemic, city centres became less attractive as people refrained from city trips (for business or leisure), office buildings were empty as people shifted to remote working and the housing market saw a surge in demand for more spacious housing outside city centres. This could be a trend break with a more permanent readjustment of urban-rural relations or a temporary phenomenon, which will not matter in the longer term.

The degree that metropolitan areas are impacted by COVID-19 effects varies widely. Strongly impacted areas seem to bounce back quickly due to their economic structures, so a harsh impact on urban areas is followed by a quicker recovery compared to many non-metropolitan areas.⁹⁷ Or, as Florida et al.⁹⁸ put it, although the pandemic has affected some development trends, it seems it did not dramatically alter expected developments. Indeed, there is a risk the pandemic did not cushion inequalities between societal groups and places but rather has accelerated trends spurring inequalities, including divides between prosperous and struggling cities and regions (Florida et al., 2020). Agglomeration advantages and the attraction of major cities are expected to stay. However, social fragmentation within urban areas might grow further. High-end central locations where it is possible to walk or bike to work and other places important in one's daily life might increase in attractiveness, as well as green and more generous housing areas further out of the city may become more attractive. – increasing spreading into rural areas for people who no longer need to come to the office every day. Urban districts where public transport is needed more and less spacious and green living areas may become less sought after.

⁹⁷ 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'.

⁹⁸ Richard Florida, Andrés Rodríguez-Pose, and Michael Storper, 'Cities in a Post-COVID World', *Papers in Evolutionary Economic Geography*, Papers in Evolutionary Economic Geography, no. 20.41 (2020), ttps://ideas.repec.org/p/egu/wpaper/2041.html.

The trend towards second homes in the countryside may further increase for those who can afford it. During the pandemic there was increased demand for (second) homes in rural areas and smaller cities in many countries. Those who 'moved' to their second homes during the pandemic were often met with ambivalent feelings. Some were welcome guests who helped compensate for the loss of tourists. Others were seen as health risks carrying the pandemic from more infected urban areas to the countryside and as an additional burden on already constrained healthcare systems in rural areas.

This general picture is underpinned by the shift towards teleworking in different types of places. Metropolitan areas and urban centres are more likely to host jobs which can be done via teleworking than smaller towns and rural areas. Cities have more teleworking employment (44%) than towns or suburbs (35%), or rural areas (29%).⁹⁹ Even between cities, the potential for remote or teleworking is not evenly distributed across regions.¹⁰⁰ This depends on the type of job, the ease of conducting remotely and infrastructure. For example, about 50% of jobs can potentially be done from home in Luxembourg, Stockholm, Île de France, Brabant in the Netherlands or Prague, but only about 25% in Basilicata in Italy or the Balearic Islands in Spain.¹⁰¹ Generally, places that already had high levels of remote working prior to the pandemic, faced less transition time and efforts when the lockdowns kicked in. This gave them a comparative advantage in adjusting.¹⁰²

Looking beyond the immediate effects, urban-rural impacts are ambiguous due to different and partially opposing trends. It will be more challenging for intermediate cities, towns and rural areas to benefit much from remote work especially when few people work in agglomeration economies.¹⁰³ Network infrastructure (highspeed broadband and mobile phone network coverage) and economic activities in an area are expected to increase disparities in the next few years, as people in Europe's main cities can switch to 5G internet services.

On the positive side, there are indications that the accelerated digitalisation may cushion inequalities between places. Increased needs can facilitate distributed remote working, contributing to a more balanced spatial distribution of employment and population.¹⁰⁴ This may help some places extended commuting distance, as people might be willing to commute longer if they only have to go to the office once or twice a week, increasing the attraction of medium-sized cities.

2.3.2. Spotlight on islands and coastal regions

The effects of the pandemic differ between well-connected places and more peripheral and isolated places (e.g. islands). For many more isolated places, lockdowns implied restricted connectivity and supply chains, especially flight connections. They were cut off with good (less infections) and bad (supply difficulties) impacts.¹⁰⁵

In addition to the geographical lack of connectivity, islands often also have structural characteristics which make them very vulnerable to the socio-economic impacts of the pandemic. Among these are a high reliance on tourism for many islands and coastal areas, which often goes hand in hand with high

⁹⁹ ESPON, 'Migration Patterns and the Knowledge Economy: Territorial Cohesion in a COVID-19-Driven Digital Era'; Matteo Sostero et al., 'Teleworkability and the COVID-19 Crisis: A New Digital Divide?', JRC Technical Report (Seville: JRC - European Commission, 2020).

¹⁰⁰ Florida, Rodríguez-Pose, and Storper, 'Cities in a Post-COVID World', 2020; OECD, 'Capacity for Remote Working Can Affect Lockdown Cost Differently across Places' (Organisation for Economic Co-operation and Development, 2020), https://read.oecdilibrary.org/view/?ref=134_134296-u9iq2m67ag&title=Capacity-for-remote-working-can-affect-lockdown-costs-differently-acrossplaces.

¹⁰¹ OECD, 'Capacity for Remote Working Can Affect Lockdown Cost Differently across Places'.

¹⁰² 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'.

¹⁰³ Richard Florida, Andrés Rodríguez-Pose, and Michael Storper, 'Cities in a Post-COVID World', Papers in Evolutionary Economic Geography, Papers in Evolutionary Economic Geography, no. 20.41 (2020), ttps://ideas.repec.org/p/egu/wpaper/2041.html.

¹⁰⁴ ESPON, 'Migration Patterns and the Knowledge Economy: Territorial Cohesion in a COVID-19-Driven Digital Era'.

¹⁰⁵ 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'.

shares of people working in micro-enterprises and seasonal employment. Comparably high levels of people at risk of poverty and higher shares of young people without occupation are also more common in islands and coastal regions (see Figure 2.19).

Consequently, many island and coastal regions potentially suffer significant socio-economic impacts from the pandemic. As shown in Map 2.1 (see page 50), Greek regions, the Balearic islands, and the Algarve are among the regions most severely hit in the short-term. In the medium-term are the Ionian islands and South Aegean in Greece, the Canaries in Spain, Sardinia in Italy and Madeira and Azores in Portugal, as well as Cyprus, Malta (see Map 2.2).

The reliance on tourism seems to be decisive for negative impacts on islands and coastal regions. Coastal and maritime tourism account for 42% of nights-spent in the EU-27, that is 12.3 nights per inhabitant, by far the highest intensity of tourism types. On average some 45% of tourists in coastal areas are foreign, considerably higher than for other types of destination, which means they suffered more from international and intra-European travel restrictions during the pandemic.¹⁰⁶

A lot of island and coastal tourism is around the Mediterranean, the southern part of the Atlantic coast, the Black Sea coast, as well as the Canary Islands and other outermost European territories. Usually, this is high volume mass tourism and relatively high seasonality (less in the outermost regions). There is more individual and domestic coastal and beach tourism in other European coastal and maritime regions, for example near the Atlantic, the North Sea coast or around the Baltic Sea. This type of tourism is even more seasonal, though there are efforts to reduce that. In general, coastal regions are also the most seasonal, with a very marked peak in summer.¹⁰⁷

The Balearic Islands show how severely the pandemic has impacted places with a high reliance on tourism.¹⁰⁸ The islands experienced a 41% drop in GDP between April and June 2020 compared to 2019. From January to September 2020 there was a drop of 81% in the number of tourists, compared to 2019. This was more accentuated among foreign tourists (87%), than nationals (49%). The decrease in tourism is unprecedented and the forecast fall in value added for the Balearic Islands in 2020 was 29% (Spain: 12%, Eurozone: 8%, as of November 2020). First crisis response measures ensured some activity in summer 2020. This included the first safe travel corridor within Spain, as well as an air bridge between the Balearic Islands and Germany. In addition, the Balearic Islands Agency for Tourism launched two online marketing campaigns.¹⁰⁹

2.3.3. Spotlight on outermost regions

The sensitivities to COVID-19 impacts of islands and coastal regions due to their geographical specificities and socio-economic structures is even more valid for outermost regions. Although most of these regions (apart from French Guiana) faced medium level restrictions, they are highly sensitive to these measures. For short-term impacts, this concerns in particular the Canaries, Azores and Madeira (see Map 2.1). The Canaries, Madeira, the Azores, Guadeloupe and French Guiana are expected to struggle most with long-lasting effects (see Map 2.2). Martinique is the only outermost region with low sensitivity.

The high sensitivity of outermost territories is partly due to the high share of people working in microenterprises, high shares of young people without occupation and comparably low quality of

¹⁰⁶ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

¹⁰⁷ Filipe Batista e Silva et al., 'A New European Regional Tourism Typology Based on Hotel Location Patterns and Geographical Criteria', Annals of Tourism Research, November 2020, 103077, https://doi.org/10.1016/j.annals.2020.103077.

¹⁰⁸ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

¹⁰⁹ NECSTouR, 'Balance of the Tourism Season 2020 in NECSTouR Regions' (Network of European Regions for a Sustainable and Competitive Tourism, 2020).

government (see Figure 2.19). In addition, geographical distance and interrupted flight connections often led to disruptions in the supply chain. This not only concerned shopping and manufacturing but even caused significant problems for essential equipment, such as protective gear. In the Azores, this led to the development of supply chain contingency plans. Air and maritime transport is vital due to the geographic situation of the Azores as an outermost region and the distance between individual islands. There need to be sufficient stocks of personal protective equipment and other materials on each island.¹¹⁰

A recent study on the pandemic's impacts on tourism regions¹¹¹ highlights the negative impact of COVD-19 on tourism in Madeira. Between April and June 2020 there was practically no tourism on Madeira. Occupancy at tourism accommodation recovered to some 30% between August and October 2020 and dropped again to 15-20% in November 2020. In February 2021, there were an estimated 57,000 overnight stays in tourist accommodation, a decrease of 90% compared to the same month in 2019. The decrease was mostly due to the UK, Nordic Countries and non-European markets which dropped by more than 90%. The number of Portuguese hotel guests declined only by 56%. Various immediate measures have avoided a further collapse of the tourism sector in Madeira. This included a Contingency Plan for Emerging Infections, the 'Madeira Safe To Discover' logo and app, as well as related marketing efforts. Most local companies are also adopting the CLEAN & SAFE stamp, created by VisitPortugal.

2.3.4. Spotlight on mountain regions

Mountain regions are very diverse as are the pandemic's impacts on their development. In that sense the high levels of sensitivity for mountain regions embrace a wide diversity with some of these regions heavily affected by the pandemic and others only mildly affected.

Some examples concern the high reliance on tourism in mountain regions which often comes with strong seasonality, but also the importance of agri-food production has been affected by the pandemic. With the closure of markets and disruption of cross-border transport, many farmers lost sales.¹¹²

A recent study on the pandemic's impacts on tourism regions¹¹³ underlines the economic importance of tourism in mountain areas, especially in the Alps. In economic terms, mountain tourism remains mostly in the valleys and basins, where it can make significant contributions to the economy. In the Alps, tourism is the main economic sector in 10% of municipalities (which are home to 8% of the Alpine population). 46% of beds are in 5% of the municipalities, while 37% of Alpine municipalities have no tourist beds.¹¹⁴

Tyrol is an example of mountain tourism which suffered heavily from the impacts of the pandemic.¹¹⁵ The first four months of the 2019/20 winter season from November to February saw a significant increase in both arrivals and overnight stays compared to the previous year. Then, on 13 March 2020, COVID-19 brought an early end to the winter season in Tyrol. As a result, the winter season had 22.9 million overnight stays (-17%) and almost 5 million arrivals (-20%). This was a significant decline compared to the previous year. From May until July there was a constant improvement, so in August there was a drop of only 7% compared to the previous year. This was led mainly by the high

¹¹⁰ 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'.

¹¹¹ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

¹¹² See https://www.euromontana.org/en/how-to-support-mountain-agriculture-during-the-covid-19-crisis-get-inspired-by-some-initiatives/

¹¹³ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

¹¹⁴ Permanent Secretariat of the Alpine Convention, 'Sustainable Tourism in the Alps. Report on the State of the Alps', Alpine Signals, 2013.

¹¹⁵ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

performance of rural areas with domestic and European (mainly German) visitors who were not allowed or did not want to travel to other destinations. The number of infections rose in September, which led to further travel warnings. As a result, the industry again had to accept significant declines compared to the previous year with 15.6 million overnight stays (-30%) and almost 3.8 million arrivals (-39%). However, the average length of stay significantly increased in the summer from 3.6 to 4.1 days. With on-going travel restrictions and warnings in place, the winter season 2020/2021 was highly affected. For November to December 2020, 265,700 overnight stays (-95% compared to 2019) and 49,400 arrivals (-97%) were registered. Tyrol has been very active in finding response and recovery measures, for example, designing and implementing health and safety guidelines for the winter season 2020/2021, communicating health and safety measures and focusing on safety marketing.¹¹⁶

2.3.5. Spotlight on border regions

The pandemic illustrated how fragile EU internal borders can be and how quickly we can lose the benefit of freedom of movement, albeit temporarily.¹¹⁷ Border regions were in many regards at the forefront of areas affected by the political responses to the pandemic. Decades of cross-border integration and the forming of cross-border functional areas were put into question during the first wave of infections in spring 2020, when some national borders were suddenly closed. The effects of the pandemic in border regions did not vanish once the borders reopened and many border crossings do not require COVID-19 related paperwork (tests or vaccine certificates, etc.).¹¹⁸

The immediate impact of the policy responses affected cross-border region economic, social and cultural integration and in many cases cut off cross-border services and posed enormous difficulties for employees and employers relying on cross-border commuting.¹¹⁹ This made the interdependencies in border regions visible and raised questions as to how to ensure these independencies will not be easily interrupted in future crises, as well as how to reduce cross-border interdependencies (i.e. reduce functional cross-border integrations within the Schengen area).

Some effects of pandemic related closures were:¹²⁰

- On the borders with the strictest controls, some employers relying on cross-border commuters (hospitals, retirement & nursing homes, businesses, etc.) provided accommodation for those who had to self-isolate in their home country or face increased travel times due to fewer border crossings or reduced cross-border public transport.
- Cross-border remote working affected tax and social security payments for cross-border commuters, including additional charges and administrative burden.
- Economic impacts on shops, businesses and tourism were severe in cross-border regions with non-domestic customers, some customers did not return after the borders reopened.
- People with businesses across the border experienced a difficult time, especially the selfemployed, who sometimes did not receive any help from the national government because of their specific cross-border situation.

¹¹⁶ NECSTouR, 'Balance of the Tourism Season 2020 in NECSTouR Regions'.

¹¹⁷ European Commission, 'Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. EU Border Regions: Living Labs of European Integration', 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM:2021:393:FIN&from=EN.

¹¹⁸ 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'; mot, 'Synthèse Des 4 Premières Séances Du Groupe de Travail « Solidarités Territoriales »: Quelles Crises Vécues En 2020 Aux Frontières Françaises et Quelles Leçons En Tirer ?' (Paris: Mission opérationnelle transfrontalière, 2021).

¹¹⁹ European Commission, The Effects of COVID-19 Induced Border Closures on Cross-Border Regions.

¹²⁰ European Commission.

This shock to the system and the impact on cross-country value chains may have lasting effects. Based on analysis of the Nordic countries, Giacometti & Wøien Meijer¹²¹ underline companies and commuters operate less across borders. In some cases, companies have started to relocate because of restrictions. It seems the lack of coordination between neighbouring countries generated uncertainty and local polarisation, which threatens the resilience of border communities.

The pandemic highlighted the sensitivity of border communities to power recentralisation and unilateral decision-making. Decisions at national level often neglected regional needs and their dependence on areas beyond their immediate territory. This makes integrated cross-border functional areas and communities vulnerable and prevents them from becoming more resilient.¹²² The negative experience during the pandemic may also affect people's willingness to continue commuting across borders.

2.3.6. Impacts on a foundation of cohesion: trust

The pandemic had consequences for us as human beings and for our communities as well as on the functioning of our economies. The responses and wide range of effects also concern societal value conflicts and trust.

The pandemic has revealed underlying value conflicts in our societies. The growing inequalities and societal divides also come with increasing risks of value conflicts and visions of society, not least linked to decreasing trust.¹²³

The former dominance of global and open approaches has been broken – even discussions about desirable futures, have seen more regressive views. There is a massive split in perception of the pandemic: belief in politics to find solutions versus policy failure; higher importance of science versus lack of media independence; solidarity versus division and selfishness; digitisation boost versus inadequate digitisation; COVID-19 has shown the ability to change versus perseverance.¹²⁴

This reflects also decreased trust – trust in institutions as well as in fellow human beings. Trust in others is a key element of our economic and governance systems and a key feature unleashing development potential. The pandemic and its social distancing measures have in many places led to trust being replaced by suspicion. Suspicion if others are following the rules, staying safe and not posing a risk to others, suspicion of being punished for behaving (according to the old regime) 'normally' and not following the new rules. There is a return to tribalism and distrust, which comes with growing acceptance of the curtailing of fundamental citizens' rights in Western democracies and, exceptionally, exploitation of the crisis to side-line democratic principles and the system of checks and balances in some EU member states.¹²⁵ This links also to the earlier discussion about the lasting impacts of border closures on cross-border integration and the trust that cross-border interdependencies will not be easily interrupted to pose existential challenges in future crises.

Decreasing trust and growing value conflicts also impact people's engagement with the future and hopes for a better life. In this respect, the European Council on Foreign Relations Cohesion Monitor¹²⁶

¹²¹ Alberto Giacometti and Mari Wøien Meijer, 'Closed Borders and Divided Communities: Status Report and Lessons from Covid-19 in Cross-Border Areas', Nordregio Report (Stockholm: Nordregio, 2021), https://doi.org/10.6027/R2021:6.1403-2503.

Alberto Giacometti and Mari Wøien Meijer, 'Closed Borders and Divided Communities: Status Report and Lessons from Covid-19 in Cross-Border Areas', Nordregio Report (Stockholm: Nordregio, 2021), https://doi.org/10.6027/R2021:6.1403-2503.

¹²³ See https://www.d2030.de/wp-content/uploads/2021/09/D2030_CoronaStresstest2-Ergebnisse_210905.pdf

¹²⁴ See https://www.d2030.de/wp-content/uploads/2021/09/D2030_CoronaStresstest2-Ergebnisse_210905.pdf

¹²⁵ Kaisa Lähteenmäki-Smith and Kai Böhme, 'Corona Crisis - the End of Hypermobility and Its Territorial Repercussions?', *Phenomenal Finland* (blog), 2020, https://phenomenalfinland.blog/.

¹²⁶ See https://ecfr.eu/publication/the-crisis-that-made-the-european-union-european-cohesion-in-the-age-of-covid/

paints a bleak picture with little hope for overcoming today's 'future fatigue'¹²⁷. It seems the pandemic has affected people's confidence about the future and views about the EU more than their views of their own countries. This may lead to an increasing deterioration of people' willingness to engage with the EU. The consequences for structural cohesion are likely to be negative, with pandemic impacts straining economies. For individual cohesion, however, change could be positive if shared experiences of lockdowns and common suffering generate new support for the European project.

At the same time the Eurobarometer provides a more optimistic reading that the Cohesion Barometer. The Eurobarometer records an increase in trust in EU institutions during the pandemic.¹²⁸ It actually recorded the highest level of trust in European institutions since spring 2008. At the same time the trust in national have lost grounds since autumn 2019.

2.4. Outlook for what may remain in the long-term

The COVID-19 pandemic has accelerated disparities between people and places. The risk is that these disparities will grow in future, fuelled by demographic, technological, economic and societal trends in Europe and globally.¹²⁹

The following provides a first glimpse on the long-term development trends and how they may affect cohesion in Europe. The full analysis is subject of the next study. This section serves mainly as advertisement of the work to be conducted next years.

The COVID-19 pandemic has been the most disruptive crisis in living memory for most Europeans. Until 2020 it was just one of many wild cards that could bring about substantial changes and affect expected trends. Then the unexpected and – in recent past – unprecedent event happened with dramatic consequences in many regions and possible further consequences for local and regional development. It will leave an imprint on our behaviour and collective psyche.¹³⁰

The effects on socio-economic trends are mainly fed by behavioural changes and restrictions. The pandemic has not so much created new socio-economic and development trends, but slowed down existing trends (e.g. cruise tourism, business travel) or accelerated emerging trends (e.g. digitalisation, home working, streaming, online shopping). For digitalisation, digital infrastructure and literacy affect whether people and businesses in an area get a head start or face transition challenges.

Trends which have been accelerated by the pandemic

The pandemic has accelerated trends which were already around in 2019. In that sense, the pandemic did not really bring any new trends, but rather functioned as accelerator for a number existing trends. Examples for these trends are e.g. digitalisation, hyperconnectivity¹³¹ and the shift to omnichannel futures with a co-existence of digital and physical offers which might be most pronounced in the retail sector but are also expected in the education sector, in particular for tertiary education. Other accelerated trends concern the retreat to the private and cocooning, where e.g. high-income households prefer to work from home and low-income households retrain low cost at-home

¹²⁷ Busse et al., 'The Crisis That Made the European Union: European Cohesion in the Age of COVID'.

¹²⁸ See https://europa.eu/eurobarometer/surveys/detail/2532

¹²⁹ European Committee of the Regions, '2021 EU Annual Regional and Local Barometer'.

¹³⁰ McKinsey, 'The Consumer Demand Recovery and Lasting Effects of COVID-19' (San Francisco: McKinsey Global Institute, 2021).

¹³¹ ESPAS, 'Global Trends to 2030: Challenges and Choices for Europe' (European Strategy and Policy Analysis System, 2019).

alternatives such as digital entertainment (McKinsey, 2021). This trend goes together with tendencies towards widened social gaps and increased inequalities between social groups.¹³²

In territorial terms these trends are expected to further accelerated urban sprawl as the pandemic accelerated aspirations for larger homes and proximity to nature. Combined with the continuing increase in housing prices, the pandemic could accelerate moves to green high standard suburban and rural areas, increasing artificial land and biodiversity loss.¹³³ This might result in both city centres and rural areas becoming more attractive. City centres can offer access to amenities in close proximity, and facilitate neighbourhood life, while green suburban and rural areas could also appear attractive, for their proximity to nature, which is in line with the suburbanisation trend.¹³⁴ This urban sprawl will increasing road transport and car dependency.¹³⁵ At the same time, this trend could be either mitigated by remote working, which reduces the need for daily commuting, or accelerated as home working allows people to live further from downtown areas.¹³⁶ However, the increasing use of online shopping may also increase the transport volume of delivery services.

Trends which have been slowed down by the pandemic

The pandemic has slowed down some trends, perhaps only for a short period of time. The most obvious trend put on hold by the pandemic concerns traveling. The tourism and travel sector has been highly affected by the pandemic and many segments may take a few years to recover to pre-pandemic levels. In the short-term there will be fewer tourists and much less business travel including Meetings, Incentives, Conventions and Exhibitions/Events (MICE). Intercontinental tourism and the aviation sector may need several years to regain previous levels of activity¹³⁷. At the same time a stronger focus on domestic tourism might stay around for a while.¹³⁸

Another trend which seems to be put on hold temporarily by the pandemic is the increasing internationalisation of value chains. The pandemic has shown that our economies are highly interconnected, and how vulnerable complex value chains are. The pandemic also accentuated political discussions about ensuring that essential goods can be produced within the EU. These are matched by discussions in the private sector about reorganising international value chains and onshoring of production sites, to increase resilience and diversify activities.¹³⁹ Often this relates to reduced internationalisation of value chains at global level and also within Europe. Even if the pandemic led to considerations about economic vulnerabilities, the EU continues to rely on global

¹³² Tine Buffel et al., 'Locked down by Inequality: Older People and the COVID-19 Pandemic', *Urban Studies*, 6 September 2021, 00420980211041018, https://doi.org/10.1177/00420980211041018.

¹³³ Amin Rastandeh and Meghann Jarchow, 'Urbanization and Biodiversity Loss in the Post-COVID-19 Era: Complex Challenges and Possible Solutions', *Cities & Health* 0, no. 0 (28 July 2020): 1–4, https://doi.org/10.1080/23748834.2020.1788322.

¹³⁴ Richard Florida, Andrés Rodríguez-Pose, and Michael Storper, 'Cities in a Post-COVID World', *Urban Studies*, 27 June 2021, 00420980211018072, https://doi.org/10.1177/00420980211018072.

¹³⁵ Anurag Thombre and Amit Agarwal, 'A Paradigm Shift in Urban Mobility: Policy Insights from Travel before and after COVID-19 to Seize the Opportunity', *Transport Policy* 110 (1 September 2021): 335–53, https://doi.org/10.1016/j.tranpol.2021.06.010; Kaili Wang et al., 'COVid-19 Influenced Households' Interrupted Travel Schedules (COVHITS) Survey: Lessons from the Fall 2020 Cycle', *Transport Policy* 112 (1 October 2021): 43–62, https://doi.org/10.1016/j.tranpol.2021.08.009.

¹³⁶ Muhammad Ahsanul Habib and Md Asif Hasan Anik, 'Examining the Long Term Impacts of COVID-19 Using an Integrated Transport and Land-Use Modelling System', *International Journal of Urban Sciences* 25, no. 3 (3 July 2021): 323–46, https://doi.org/10.1080/12265934.2021.1951821.

¹³⁷ EUROCONTROL, 'Five-Year Forecast Update 2020-2024' (Brussels: EUROCONTROL, 2021), https://www.eurocontrol.int/sites/default/files/2021-05/eurocontrol-four-year-forecast-2021-2024-full-report.pdf.

¹³⁸ Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector'.

¹³⁹ Richard Baldwin and Simon J. Evenett, COVID-19 and Trade Policy: Why Turning Inward Won't Work, Centre for Economic Policy Research Press, 2020.

supply chains and other countries on the EU. Still, the pandemic might lead to adjustments in some sectors.¹⁴⁰

Trends which will shape the future regardless the pandemic

There are also trends and changes which will continue to shape our futures regardless of the pandemic. These include technological trends (e.g. digital society, post-carbon and circular economy), social change (e.g. migration, ageing, fluid social institutions and shifts in values) and environment (e.g. climate change and loss of biodiversity).

In territorial terms the pandemic is not expected to affect macro development patterns and the growing importance of metropolitan areas. As such, global cities are expected to retain their importance and pre-eminence over secondary urban hubs, with a persistent 'winner-take-all' economic geography.¹⁴¹

Outlook

The above are just first teasers of the collection of long-term trends and the analysis of their impacts on cohesion. This work will be an important element of the next study in 2022.

¹⁴⁰ International Finance Corporation, 'The Impact of COVID-19 on Logistics', 2020, https://www.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Infrastructure/Resources/The+Impact+of+ COVID-19+on+Logistics.

¹⁴¹ Florida, Rodríguez-Pose, and Storper, 'Cities in a Post-COVID World', 27 June 2021.

3. CROSS ANALYSIS & RECOMMENDATIONS

KEY FINDINGS

- Cohesion Policy helped to address the immediate needs caused by the pandemic.
- Addressing new challenges and crises by setting up new EU funding instruments, should only be considered when existing instruments are unable to respond.
- To address cohesion challenges lying ahead of us and use the crisis as a chance for a transition towards a greener and more digital future, Cohesion Policy might need to adjust.
- As the need for emergency interventions in response to the pandemic decreases, the focus on high quality projects with a clear cohesion perspective should be strengthened.
- Cohesion Policy should pay particular attention to the areas facing long-lasting negative impacts or slower recovery paths, e.g. tourism regions, remote rural areas, cross-border regions.
- Cohesion Policy programmes and beneficiaries need to engage with a long-term vision for their area to ensure the transition towards a green and digital cohesive future.
- Multi-level governance and partnership principles are important cornerstones of Cohesion Policy and need to be ensured and re-emphasised where they have weakened.
- A review of the interplay between National Recovery and Resilience Plans 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 re-orientations towards more strategic long-term needs, already in 2023.
- In light of Cohesion Policy post-2027, there should be a Europe-wide debate on the understanding of cohesion and need to mitigate increasing territorial and societal fragmentation.

Taken together the analysis presented in previous chapters shows that Cohesion Policy helped to address the immediate needs caused by the pandemic. However, to address cohesion challenges lying ahead and use the crisis as a chance to transition to a more sustainable, digital and cohesive future, Cohesion Policy might need to adjust.

3.1. The role of Cohesion Policy

The pandemic was a major shock and put many people, enterprises, public authorities and also municipalities and regions at risk. Clearly, there was no blueprint for this in the recent past unprecedented crisis and the needs varied considerably across Europe.

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

Cohesion Policy responded very quickly with increased flexibility to allow the use of available funding for the most urgent needs. The continued high absorption rate and speed of directing resources to the immediate needs illustrate that this was a successful strategy. Indeed, it shows that Cohesion Policy can respond to unexpected crises by swift changes and increased flexibility. This certainly played a role in cushioning some of the most devastating effects of a pandemic including by helping the health care sector to manage and keeping companies afloat.

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

Possibly even a scenario where all EU emergency funding was scheduled via Cohesion Policy mechanisms rather than new instruments, such as the Recovery and Resilience Facility (RRF), would have worked. Using a system that is in place and has the necessary capacity and flexibility to react to the crisis might have had the advantage of avoiding new administrative procedures and workloads for new instruments. Such a scenario would also have avoided funding instruments overlapping and possible competition between EU funding instruments. Indeed, the pandemic has accelerated trends towards creating new EU policy instruments that partially overlap with existing Cohesion Policy instruments. This risks to weaken the role of Cohesion Policy and increase the complexity of the system of EU policy instruments. In the worst case, the increasing complexity counteracts efforts for administrative simplification, increases confusion about the multitude of funding instruments, creates competition between funding instruments and affects the citizens' general acceptance and understanding of EU policies.

Recommendation	Possible actions by the European Parliament	When
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 duplication of 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 to what degree the purpose of the new instruments could be fulfilled by (adjusting) existing instruments, e.g. Cohesion Policy	The summary report of the Commission (CPR Art. 53(1)) might be already an opportunity for the EU institutions to discuss on the effectiveness of the current Cohesion OPs in facing the COVID-19 Crisis. Furthermore, the publication of the 8th Report on Economic, Social and Territorial Cohesion can offer the possibility to the European Parliament to open and lead a public debate about possible new EU policy and funding instruments. The European Parliament should investigate to what extent the purpose of a new instrument could have been fulfilled by (adjusting) existing instruments, e.g. Cohesion Policy.	1⁵t quarter 2022

Table 3.1Policy Recommendation: Cohesion Policy can respond to crisis

3.2. Cohesion Policy 2021-2027

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

It is important to shift gear and start considering the crisis 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 the quantity (absorption) over the quality and method of spending Cohesion Policy funding. This was appropriate during the crisis where urgency 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, incl. 'micro-spending' favouring small players and small places. Otherwise, Cohesion Policy

risks to increase inequalities and to disadvantage the development of small towns and rural places. Subsequently this will also increase cohesion challenges for people living in these areas.

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 with high quality of spending, when debating the	Parliament In the context of the European semester Economic dialogue, the EC country reports (and, more specifically, Annex D) represent a pivotal event in the life-cycle of Cohesion Policy. The European Parliament may invite the President of the Commission or the relevant Commissioner to discuss the Cohesion prospective and, if needed,	2 nd quarter 2022
recommendations.	programming.	

 Table 3.2
 Policy Recommendation: Cohesion Policy can respond to crisis

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. This increasing complexity calls for ensuring the involvement of the insights of a wide range of players in decisions about how to best address cohesion challenges. Especially players from the local and regional level are important for understanding how to best strengthen cohesion. At the same time, during the crisis decision making 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 allow 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 placebased responses understanding the particularities of an area.

Recommendation	Possible actions by the European Parliament	When
Multi-level governance and	In the context of the European Semester , the	
partnership principles are important	European Parliament should address the role of	
cornerstones of Cohesion Policy and	the local and regional level in Cohesion Policy	
need to be ensured and re-	and in the National Recovery and Resilience Plans	
emphasised in cases where they have	(NRRPs). The European Parliament should	
weakened. In the context of the	promote the principle of 'active subsidiarity' EU-	Every
European semester, the European	wide with the aim of achieving a full	year as
Parliament should address the role of	endorsement, by member states and European	of 2023
the local and regional level in	Commission, of the Code of Conduct on the	
Cohesion Policy and in the National	involvement of the Local and Regional	
Recovery and Resilience Plans (NRRPs).	Authorities (LRAs) in the European Semester and	
	advocate for a deeper involvement of LRAs in the	
	Semester.	

 Table 3.3
 Policy Recommendation: Cohesion needs multi-level governance

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

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

Recommendation	Possible actions by the European Parliament	When
To ensure good quality and strategic	The European Parliament should verify (and in	
programmes and overcome recent	case advocate for) efforts for administrative	
capacity constraints, the European	support to programme authorities and	
Parliament should advocate efforts for	simplification both in scrutinising the Country	
administrative support to programme	Reports and Country-Specific	
authorities and ensure that	recommendations as part of its involvement in	
simplification efforts are carried	the European Semester. The Parliament shall	
through (also considering that any	specifically focus on ANNEX D of the country	Evory
changes in the regulation usually	report and verify the commitment of member	LVELY
increase administrative workload before	states and support provided by the European	year as
it can result in a reduction).	Commission in terms of capacity building and	01 2023
Furthermore, for programmes which	simplification. Another occasion for the	
could not devote the efforts envisaged	European Parliament is given by the Annual	
to the programming of the 2021-27	monitoring report on the implementation of	
period, the option for a voluntary mid-	the Structural Reform Support Programme.	
term review and possibility for re-	This again might provide a view in how much	
programming in 2023 should be	and how far Local and regional authorities are	
considered.	supported in enhancing their capacity.	

Attention to areas with slower recovery prospects. COVID-19 has not made disappear long-term challenges such as cohesion, climate change, energy transition, digitalisation or biodiversity. At the same time, the impacts of the pandemic on local and regional development vary between different types of regions. Recovery outlooks also vary considerably. Regions heavily depending on tourism might need several years to recover from the pandemic. This includes many mountainous, coastal and island regions including small towns. Also more remote (and sparsely populated) rural areas might face lasting challenges especially related to increasing digitalisation pressures. Many cross-border regions were heavily affected at the beginning of the pandemic due to the closure of national borders. Although many cross-border regions are on the path to recovery, the sudden disruption of cross-border interdependencies left people unsettled.

Recommendation	Possible actions by the	
Recommendation	Furopean Parliament	When
To vaduce visite of vising versional inequalities due to	In December 2022 Managing	
To reduce risks of rising regional inequalities due to	in December 2022, Managing	
different recovery speeds, Cohesion Policy should help	Authorities should submit a	
regions with slower recovery prospects to both recover	report to the Commission	
and deliver on long-term challenges (structural change,	summarising the findings of	
climate change, digitalisation, biodiversity etc.). This	2014-2020 evaluations (2014-	
concerns in particular tourism regions, remote rural	2020 CPR, Art. 114(2)). This might	3 rd
areas, small towns, cross-border regions and other	be an opportunity for the	quarter
areas facing more long-lasting negative impacts or	European Parliament together	2022
slower recovery. In the context of the European	with the CoR to focus on regions	
semester, the European Parliament should address the	with slower recovery prospects	
need for a particular focus on regions with slower	and to verify the commitment of	
recovery prospects, when debating the country reports	the Commission concerning the	
and country specific recommendations.	new 2021-2027 Programmes.	

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

3.3. Cohesion Policy post 2027

Need for ambitious long-term perspective. To use the pandemic 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 programming area and engaging with citizens, projects and financial instruments which are more complex and cumbersome. Both programmes and beneficiaries must explore the possibilities, including for territorial tools such as ITI or CLLD, even in the light of less burdensome funding possibilities.

Table 3.6 Policy Recommendation: Need for ambitious long-term perspective

2023 as a moment to reflect. The pandemic has caused a wide range of actions to cushion the most immediate cohesion challenges and support recovery. As outlined above, many of these initiatives have also drained administrative capacities needed for the strategic development of the programme period 2021-27. By 2023 most of the additional pressure caused by the pandemic should be gone and the first results of the efforts undertaken should become visible. 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 post-COVID, including the transition to a green, digital and cohesive future which could be done in the context of the European semester.

Recommendation	Possible actions by the European Parliament	When
In 2023, insights on the effects of the interplay	The European Parliament should ask the	
between National Recovery and Resilience	European Commission to address these	
Plans and Cohesion Policy programmes, and	points in the country reports and	
the strategic orientation of policies post-	country-specific recommendations in	
COVID should inform a broad reflection on	2023. Furthermore, it should launch an	
possible re-orientations towards more	EU-wide study on the interplay	
strategic long-term needs. The European	between NRRPs and Cohesion Policy.	2022
Parliament should ask the European	Furthermore, it should advocate the	2025
Commission to address these points in the	possibility for a voluntary mid-term	
country reports and country specific	review and the possibility for re-	
recommendation in 2023. Furthermore, it	programming in 2023, for programmes	
should launch a EU-wide study about the the	which could not devote the efforts	
interplay between NRRPs and Cohesion Policy	envisaged to the programming of the	
programmes.	2021-27 period.	

Table 3.7	Policy Recommendation: 2023 as a moment to reflect
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Rediscovering cohesion post 2027. Larger structural and cohesion challenges got more pressing in recent years. This includes structural issues such as societal and territorial inequalities, climate change, loss of biodiversity, energy transition, or digital transition. At the same time, the need for emergency actions often meant that the idea of 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 which have been 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. As outlined in a recent study by the European Committee of the Regions¹⁴² it might be worthwhile stressing the interpersonal, digital and ecological dimension of cohesion beyond the economic, social and territorial dimension. Given the need to support place-based development in smaller and shrinking places, even the micro-enterprise dimension might be considered. Furthermore, multi-level governance of policies delivering cohesion is important to ensure a place-based approach which meets the increasing complexity and granularity of cohesion challenges.

¹⁴² See https://cor.europa.eu/en/engage/studies/Documents/Cohesion-as-an-Overall-Value-of-the-European-Union/cohesion-spirit.pdf

Recommendation	Possible actions by the European Parliament	When
In the light of Cohesion Policy post 2027, a Europe-	The European Parliament could,	
wide debate on the understanding of cohesion and	among others (e.g. the	
need to mitigate increasing territorial and societal	#CohesionAlliance), keep alive a	
fragmentation might be required. The European	European-wide debate on how to	
Parliament should join forces with the European	modernise the idea of cohesion –	
Committee of the Regions which has taken first	both in terms of topics and	
steps in this direction. Among others, the European	understanding of cohesion. The	3 rd
Parliament could initiate a broad European debate	European Week of Regions and	quarter
about how to modernise the idea of cohesion, both	Cities might be an occasion where	2022
in terms of topics which are important for cohesion	the Parliament, together with the	
beyond GDP, growth and jobs, and in terms of the	European Committee of the	
understanding of cohesion. Such a debate should	Regions (CoR), can make the	
involve all levels of governance from the local to the	political debate vibrant on the need	
European, and address citizens and civil society	to rediscover Cohesion as a value .	
players.		

Table 3.8 Policy Recommendation: Rediscovering cohesion post-2027

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

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.

4. NEXT STEPS

This research project is not finished. In 2022, the work on COVID-19 pandemic impacts on EU cohesion will continue and deepen. The focus will be more future oriented, looking into impacts on Cohesion Policy 2021-2027 and beyond and the long-term impacts on cohesion including a more elaborate analysis of trends. The balance of the report will emphasise the impact on cohesion.

Also in 2022, the work will be accompanied by three meetings of the Regional Reference Group. A meeting in June will focus on cohesion impact and development trends, one in July will address Cohesion Policy & beyond for recovery, and a final meeting in September will discuss post-pandemic policy needs.

The second study should be ready in October 2022.

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5. METHODOLOGICAL ANNEX

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

5.1. Methods of Cohesion Policy analysis

This Annex aims to outline the methodology for the EU-wide analysis of the impact of COVID-19 on Cohesion Policy, focusing on the methodological approach to answer the guiding questions.

5.1.1. Methodology and rationale

The figure below illustrates the overall methodology for the EU-wide analysis of Cohesion Policy.

Figure 5.1 Visualisation of the methodology



The guiding questions for the analysis focus on the impact of the pandemic on 2014-2020 Cohesion Policy implementation as well as the short-term adaptation measures and their effectiveness.

The technical offer also envisages an initial analysis of the Programmes and Partnership Agreements 2021-2027. However, at the moment only one Partnership Agreement has been finalised but not yet published. It is therefore proposed to postpone this analysis to the second study.

The first analysis concerns institutional and legislative changes which have impacted 2014-2020 ESIF implementation. It provides an overview of operational options offered by the CRII and CRII+ packages,

which introduced exceptional measures modifying the implementation rules for ERDF, ESF and CF Programmes. These measures have a twofold aim: to fuel liquidity to the private sector (SMEs) and to public authorities for health expenditure and to simplify the adaptation of OPs to the emergency. Other measures, such as the temporary frameworks for State aid measures and public procurement, as well as the introduction of REACT-EU, were thoroughly considered.

This first analysis provides the legal and institutional framework for the following two analyses: the quantitative analysis of ESIF financial and physical performance and effectiveness, considering all ESIF OPs, and a qualitative analysis of a sample of 40 OPs.

The key aspects considered in the **quantitative analysis** are:

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

The **qualitative analysis** includes the following steps:

- Identification of a sample of 40 OPs;
- Screening specific sections of the AIRs of these OPs, in particular those with a detailed description of changes, their impact on the OP and beneficiaries and the challenges;
- Creation of a database including salient information from the AIR screening enabling systematic categorisation of trends and the identification of possible 'regularities' such as recurring trends across OPs.

Finally, the cross-analysis of data and trends emerging from the quantitative analysis and AIR information in the database helps to answer two research questions linked to the short-term impact of COVID-19 on Cohesion Policy:

- How adequate were the changes in Cohesion Policy to address the pandemic's impacts on (a) Cohesion Policy implementation, and (b) regional development needs and cohesion?
- How can Cohesion Policy 2021-2027 be better adapted to mitigate the impacts of the pandemic?

Furthermore, these analyses investigate not only whether short-term measures have been adequate to respond to the health and socio-economic emergency. They also review how much this response has (negatively) affected strategic and long-term investments of ESIF programmes across the EU and the regional development needs they aimed to address to strengthen economic and social cohesion. Analyses and conclusions on these aspects will be further developed in the second study in 2022.

The following paragraphs provide further insights into the methodology.

5.1.2. Quantitative analysis

The quantitative analysis investigated the financial and physical performance of all ESIF programmes and to answer the following questions:

- 1. Are there specific trends in the transfer of resources between Thematic Objectives (TO)?
- 2. Has financial absorption of ESIF OPs slowed down in comparison with past programming periods and with EU forecasts for the 2014-2020 programming period?
- 3. Has Programme implementation slowed in terms of progress towards output targets?
- 4. Has there been a decrease or increase in the use of financial instruments? Which financial instruments have been used most (financial summary of data)?

Each of these questions was answered using specific data sources and types of analysis. The table below provides an overview of the approach.

Table 5.1Overview of the quantitative analysis

Q	Data sources	Type of analysis
1	cohesiondata.ec.europa.eu – data on financial implementation 2014-2020	Analysis of budget transfer among TOs (planned amounts 2019 vs 2020)
2	cohesiondata.ec.europa.eu – data on financial implementation 2014-2020 and on 2007-2013 ESIF spending trends Forecasts on Cohesion Policy spending 2014- 2020 (e.g. adopted EU Annual Budgets)	Analysis of current level of absorption (spending) vs. historical trends and EU forecasts for 2020
3	cohesiondata.ec.europa.eu – ESIF 2014-2020 achievement details, Coronavirus dashboard	Analysis of progress of key indicators and target changes in 2020. Analysis of progress of Coronavirus dashboard indicators
4	EC Annual summary of data on the use of financial instruments	Analysis of increase/decrease in use of financial instruments (e.g. guarantees)

Analysis of changes in budget allocation (resource transfer)

This analysis aims to investigate how ESIF programmes, following the flexibility options provided by CRII/CRII+, reallocate their resources to deal with the pandemic emergency. This analysis relying on *Cohesion data*¹⁴³ revealed which TOs were given higher priority during the emergency and at the expense of which others. The breakdown per TO of the planned amounts of 2014-2020 ESIF programmes and changes compared to the years before 2020 were considered.

This analysis was then complemented by screening the 40 OPs in the qualitative analysis, showing what type of actions have been financed with the reallocated resources.

5.1.3. Analysis of financial performance and comparison with no-COVID scenario

The financial performance analysis aims to identify any substantial differences in 2014-2020 financial absorption, with a focus on 2020, and whether these can be attributed to the COVID-19 crisis.

¹⁴³ https://cohesiondata.ec.europa.eu

The analysis was carried out on the ESIF Spent amount, provided by Cohesion data on 2014-2020 financial implementation.

To understand the differences with a no-COVID scenario, two comparisons were carried out:

- A first analysis used the aggregated data for the 2007-2013 programming period¹⁴⁴ as a benchmark. This analysis provided an insight into major differences and potential gaps compared to the previous programming period. However, in 2007-2013 other phenomena influenced the flow of expenditure, so the comparison did not provide sufficient information to draw conclusions.
- A comparison was therefore be drawn with the spending forecasts for 2014 2020, e.g. taking the adopted EU annual budget spending ceilings by heading and sub-heading and analysing the gap between these and actual spending for each year, aiming to verify any substantial deviations for 2020.

Analysis of physical performance

In parallel to the financial performance, the physical (output) performance was analysed to investigate the potential impact of the COVID-19 crisis on ESIF output targets. Depending on the availability of data for the year 2020, the cohesiondata database 'ESIF 2014-2020 achievement details' was used to analyse output indicator targets, in particular to verify any significant adjustments following the diversion of resources from long-term investments (e.g. in infrastructure) towards short-term support measures to tackle the health and socio-economic emergency (e.g. support to SMEs, health services, etc.). A set of common output indicators was selected as below.

Common output indicators analysed

- CO01 Number of enterprises receiving support
- CO03 Number of enterprises receiving financial support other than grants
- CO11 Total length of new railway line
- CO22 Total surface area of rehabilitated land
- CO25 Number of researchers working in improved research infrastructure facilities
- CO26 Number of enterprises cooperating with research institutions
- CO27 Private investment matching public support in innovation or R&D projects
- CO28 Number of enterprises supported to introduce new to the market products
- CO30 Additional capacity of renewable energy production
- CO35 Capacity of supported childcare or education infrastructure
- CO36 Population covered by improved health services
- CO46 Number of participants in joint education and training schemes to support youth employment, educational opportunities and higher and vocational education across

The analysis also taken into account the 48 new COVID-19 specific output indicators available at the 'Coronavirus Dashboard - EU Cohesion Policy response to the crisis' platform. A significant number of programmes took up these specific indicators.

¹⁴⁴ <u>https://cohesiondata.ec.europa.eu/browse?category=2007+%2F+2013+Finances&tags=2007-2013</u>

Main challenges for the quantitative analysis

- Availability of information on EU financial absorption forecasts for 2014-2020
- Timely availability of the 2020 Annual Summary of Data on the use of financial instruments.

Proposed solutions

With limited or no availability of data concerning the year 2020, the analysis has been postponed to the second study to be delivered in 2022.

5.1.4. Qualitative analysis

To complement the quantitative data and capture the necessary information to understand how the OPs adapted to short-term needs caused by the pandemic, a sample of 40 ERDF, CF, ESF and Interreg OPs for the 2014-2020 programming period was analysed in detail.

Once the general trends affecting the OPs during the pandemic were identified through quantitative analysis, a qualitative analysis helped describe the specific context of these phenomena. e.g. administrative changes, management problems, specific actions to face the pandemic and the reasons behind them.

A cross-analysis of changes, difficulties and solutions integrated the results of both quantitative and qualitative analyses offering a comprehensive picture which takes into account the programmes in their entirety from management to implementation.

Identification of the sample (40 OPs)

The sample aimed to be representative and balanced, to provide a comprehensive picture of the key impacts of COVID-19 on Cohesion Policy all over the EU, at national and regional level. The table below provides the full list of the identified and analysed sample.

MS	Fund	CCI	OP name	Туре	Type of region
Austria	ERDF	2014AT16RFOP001	ERDF Growth and Jobs (IWB/EFRE) Programme 2014-2020	National	
Belgium	ERDF	2014BE16RFOP003	Operational Programme ERDF Wallonie2020.eu	Regional	Transition
Bulgaria	ERDF	2014BG16RFOP001	OP Regional Growth 2014-2020	National	
Croatia	ESF	2014HR05M9OP001	Operational programme efficient human resources 2014-2020	National	
Cyprus	ESF	2014CY05M9OP001	Operational programme Employment, Human Resources and Social Cohesion	National	
Czech Republic	Multi-fund	2014CZ05M2OP001	Operational programme Research, Development and Education	National	
Denmark	ERDF	2014DK16RFOP001	Innovation and sustainable growth in companies. National Program of the European Regional Fund - 2014-2020	National	
Estonia	Multi-fund	2014EE16M3OP001	Operational programme for Cohesion Policy Funds 2014-2020	National	
Finland	Multi-fund	2014FI16M2OP001	Sustainable growth and work 2014-2020 Finnish Structural Funds programme	National	
France	Multi-fund	2014FR16M0OP003	Operational programme ERDF-ESF Centre 2014-2020	Regional	Transition
France	Multi-fund	2014FR16M0OP015	Operational programme ERDF-ESF Lorraine et Vosges 2014-2020	Regional	Transition
Germany	ESF	2014DE05SFOP002	Operational programme ESF federal government 2014-2020	National	
Germany	ERDF	2014DE16RFOP010	Operational programme Rheinland-Pfalz EFRE 2014-2020	Regional	More developed
Germany	ERDF	2014DE16RFOP002	Operational programme Bayern 2014-2020 des EFRE	Regional	More developed
Greece	ERDF	2014GR16M10P001	Operational programme Transport Infrastructure, Environment and Sustainable Development	National	
Ireland	ERDF	2014IE16RFOP002	Southern & Eastern Regional Operational Programme	Regional	More developed
Italy	ERDF	2014IT16RFOP003	Operational programme entreprises and competitiveness	National	
Italy	ERDF	2014IT16RFOP021	Operational Programme Region of Veneto 2014-2020	Regional	More developed
Italy	ERDF	2014IT16RFOP004	Operational Programme Abruzzo 2014-2020	Regional	Transition
Latvia	Multi-fund	2014LV16MAOP001	Operational Programme Growth and Jobs	National	
Lithuania	ESF	2014LT16MAOP001	Operational Programme for EU Structural Funds Investments for 2014-2020	National	
Luxembourg	ESF	2014LU05SFOP001	ESF operational programme 2014-2020	National	
Malta	Multi-fund	2014MT16M10P001	Operational programme Fostering a competitive and sustainable economy to meet our challenges	National	

MS	Fund	CCI	OP name	Туре	Type of region
Netherlands	ESF	2014NL05SFOP001	Annual report ESF 2014-2020 execution year 2020	National	
Poland	Multi-fund	2014PL05M9OP001	Operational Program Knowledge, Education and Development 2014 - 2020 (PO WER)	National	
Poland	Multi-fund	2014PL16M2OP010	Regional Operational programme Podlaskie Voivodeship	Regional	Less developed
Portugal	CF	2014PT16CFOP001	Operational programme Sustainability and Efficiency in the Use of Resources (POSEUR)	National	
Romania	ESF	2014RO05SFOP001	Operational programme Administrative Capacity 2014-2020	National	
Romania	ERDF	2014RO16RFOP002	Operational programme Regional	National	
Romania	ERDF	2014RO16M10P001	Operational programme Large Infrastructure	National	
Slovakia	ERDF	2014SK16RFOP002	Integrated Regional Programme 2014-2020	National	
Slovakia	ESF	2014SK05M0OP001	Operational programme Human resources	National	
Slovenia	Multi-fund	2014SI16MAOP001	Operational Programme for the implementation of European cohesion policy 2014-2020	National	
Spain	ERDF	2014ES16RFSM001	SME Initiative 2014-2020	National	
Spain	ESF	2014ES05SFOP009	Programa Operativo Fondo Social Europeo 2014-2020 Galicia	Regional	More developed
Spain	ERDF	2014ES16RFOP010	Operational programme Castilla-La Mancha ERDF 2014-20	Regional	More developed
Sweden	ESF	2014SE05M9OP001	National Social Fund programme for investment for growth and employment 2014-2020	National	
Interreg cross-border	ERDF	2014TC16RFCB035	Interreg Italy-Switzerland 2014-2020	Interreg	
Interreg cross-border	ERDF	2014TC16RFCB042	Interreg Italy-Croatia 2014-2020	Interreg	
Interreg transnational	ERDF	2014TC16M5TN001	Interreg Baltic Sea Region 2014-2020	Interreg	

<u>AIR Screening</u>

The analysis of AIRs was pivotal to gather qualitative information about management and implementation criticalities in 2020 and to what extent they can be attributed to the pandemic. In particular, the AIR screening shed light on challenges related to internal organisation, OP adaptation and difficulties experienced by final beneficiaries.

The table below lists the main sections of the AIR which were considered in the analysis and the information are expected to be found in each of them.

Table 5.2	AIR sections considered for the screening
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AIR Section	Information
Chapter 2 – Overview of OP implementations	Key information and overview of programme implementation, including financial information related to programming and co-financing changes.
Chapter 3 - Implementation of Priority Axes	Specific measures implemented for each PA, including new actions motivated by the crisis.
Chapter 4 - Summary of evaluations	Key information from the OP evaluation during the reference year.
Chapter 6 – Issues affecting programme implementation and adopted measures	Aspects affecting the results of the programme and measures undertaken to face them. The main COVID-19 negative impacts on internal procedures and interventions.

<u>Database set-up</u>

The key information emerging from AIRs was then organised in a database, allowing a more systematic analysis and identification of recurring features and differences in programme reactions. The database enables a comprehensive and ordered collection and visualisation of the changes, measures and difficulties experienced by OP MAs, facilitating conclusions related to their adaptation to challenges brought about by the COVID-19 crisis.

The information was gathered in six themes as follows:



- 1. **General Information:** related to the programme and the area it addresses (CCI, NUTS, Member state, COVID-19 Impact on the area strong/moderate/low, Fund).
- 2. **Financial Re-programming:** concerning financial reallocations, increase of EU co-financing rate, financial resources to fund new measures related to COVID-19.
- 3. **Content Re-programming:** changes at programme level to deal with the pandemic (indicators and target changes, new selection criteria in calls, specifications on what the reallocated or additional financial resources have been used for).
- 4. **Administrative Changes:** at programme administrative level and concerning the internal organisation, e.g. postponing call deadlines, increasing budget for specific projects, administrative, management and procedural changes, etc.

- 5. **Project Changes:** such as a shift to digital tools or cancellation of activities, to understand the COVID-19 impact on the quantity and quality of the financed operations.
- 6. **Challenges**: COVID-19 related issues affecting the OPs such as negative impact on implementation, delay in new tendering, difficulties in meeting call for proposals requirements, lack of resources, fewer applications.

Main challenges for the qualitative analysis

- Sometimes scarce information related to the COVID-19 impact on OPs in AIRs.
- Many OPs have not yet published their 2020 AIR.
- Potential difficulties in 'standardising' information found in the 40 AIRs

Proposed solutions

In case of limited or no availability of data concerning the year 2020, the analysis has been postponed to the second study to be delivered in 2022.

5.1.5. Cross-analysis of changes, difficulties and solutions

All the elements in the database stemming from in-depth screening of the AIRs were cross-analysed with the quantitative analysis to draw conclusions on short-term impacts on 2014-2020 Cohesion Policy in terms of key changes, challenges and the adequacy and effectiveness of new measures to tackle the crisis. As outlined above, this exercise also provided first insights on whether and how these responses have (negatively) affected strategic and long-term investments of ESIF programmes across the EU and the regional development needs they aimed to address to strengthen economic and social cohesion.

All these aspects were also verified, discussed and further developed through the Regional Reference Group meetings.

5.2. Cohesion impact analysis

The assessment of the impact on cohesion builds on two quantitative approaches. This is firstly the method for the assessment of COVID-19 pandemic impacts and secondly the regional typology used to analyse impacts by types of regions.

5.2.1. Quantitative impact assessment

The method for assessing potential regional impact of the COVID-19 pandemic at regional scale was developed by Spatial Foresight in early 2020¹⁴⁵ and further developed in various studies for the European Committee of the Regions and the European Commission¹⁴⁶.

The table below show the indicators, calculations, and weightings for the exposure and sensitivity indices used in the study.

¹⁴⁵ Böhme and Besana, 'Understanding the Territorially Diverse Implications of COVID-19 Policy Responses'.

¹⁴⁶ Kai Böhme et al., 'Regional Impacts of the COVID-19 Crisis on the Tourist Sector', Interim Report (Brussels: European Commission, Directorate General for Regional and Urban Policy, 2021),

https://ec.europa.eu/regional_policy/en/information/publications/studies/2021/regional-impacts-of-the-covid-19-crisis-on-the-tourist-sector.
Composition of the exposure index: short-term							
Торіс	Exact indicator	Source	Year of publication	Scoring	Weight		
Stringency and length of government restrictions, 2020- 2021	Average value of the stringency index of restrictive measures in the period 1 March 2020 – 15 May 2021.	Blavatnik school of Government at Oxford University	2020/2021	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	3 (high) 2 (medium) 1 (low)		
Share of lost working hours in the first pandemic year, 2020	Percentage of lost working hours in the first pandemic year 2020, cumulated for all economic sectors.	International Labour Organisation (ILO)	2021	+/- half the standard deviation: $\overline{X} = \frac{\text{ST.DEV}}{2}; \ \overline{X} = \frac{\text{ST.DEV}}{2}.$ Low is below the lower threshold: $<\overline{X} = \frac{\text{ST.DEV}}{2}$ High is above the upper threshold: $>\overline{X} = \frac{\text{ST.DEV}}{2}$	3 (high) 2 (medium) 1 (low)		

Source: Böhme, Lüer, Besana, Hans, Schuh, Münch, & Gorny (2021)

Composition of the negative sensitivity index: short-term							
Торіс	Exact indicator	Source	Year of publication	Scoring	Weight		
Employment in risk sectors	Shares of employment in in medium and high risk economic sectors, 2018. See above textbox on risk sectors (Risk 2021).	Employment data: Eurostat Risk: ILO and own assessment	Employment: 2021 Risk: 2021	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: $\overline{X} - \frac{\text{ST.DEV}}{2}$; $\overline{X} + \frac{\text{ST.DEV}}{2}$. Low is below the lower threshold:	3 (high) 2 (medium) 1 (low)		
Tourism regions highly negatively affected	Potential negative impacts of COVID-19 lockdown on tourism regions, 2021.	Spatial Foresight for DG REGIO	2021		1 (high)		
People with low education levels	Share of people (25 to 64 years) with post- secondary non-tertiary education or lower (0-4 in the ISCED scale), 2020.	Eurostat	2021		1 (high)		
NEETs	Share of young people (15-24 years) neither in employment nor in education and training (NEET), 2020.	Eurostat	2021	$< \overline{X} - \frac{\text{ST.DEV}}{2}$ High is above the upper threshold: $> \overline{X} + \frac{\text{ST.DEV}}{2}$	1 (high)		
People at risk of poverty or social exclusion	Share of people at risk of poverty or social exclusion, 2020.	Eurostat	2021	2	1 (high)		

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People working in micro-enterprises	Share of employment in Micro-enterprises (1-9 employees), 2014.	ESPON	2018	1 (high)
Self-employed	Ratio of self-employed people over employed people (15-64 years), 2020.	Eurostat	2021	1 (high)
Quality of governance	European Quality Index (EQI 2021), combining corruption, impartiality and quality pillars, 2021.	University of Gothenburg	2021	1 (low)
Limited financial measures	Financial measures in response to COVID-19 including (a) additional spending or forgone revenue, (b) accelerated spending / deferred revenues and (c) liquidity support) as share of GDP, 2020.	IMF	2021	1 (low)

Source: Böhme, Lüer, Besana, Hans, Schuh, Münch, & Gorny (2021)

Composition of the positive sensitivity index: short-term							
Торіс	Exact indicator	Source	Year of publication	Scoring	Weight		
Employment in pharmaceuticals	Share of employment in manufacture of basic pharmaceutical products and preparations (NACE: C.21), 2018.	Eurostat	2021	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: $\overline{X} - \frac{\text{ST.DEV}}{2}; \ \overline{X} + \frac{\text{ST.DEV}}{2}.$ Low is below the lower threshold: $<\overline{X} - \frac{\text{ST.DEV}}{2}$ High is above the upper threshold: $>\overline{X} + \frac{\text{ST.DEV}}{2}$	1 (high)		
Employment in communication	Share of employment in information and communication (NACE: J), 2018.	Eurostat	2021		1 (high)		
Employment in finance and insurance	Share of employment in financial and insurance activities (NACE: K), 2018.	Eurostat	2021		1 (high)		
Broadband access	Share of households with broadband access, 2020.	Eurostat	2021		1 (high)		
Teleworking	Share of employed people who have sometimes or usually worked from home, 2020.	Eurostat	2021		1 (high)		
E-government level	Share of individuals who have interacted online with public authorities in the previous 12 months, 2020.	Eurostat	2021		1 (high)		

Source: Böhme, Lüer, Besana, Hans, Schuh, Münch, & Gorny (2021)

Composition of the negative sensitivity index: medium-term								
Торіс	Exact indicator	Source	Year of publication	Scoring	Weight			
Tourism regions highly negatively affected	Potential negative impacts of COVID-19 lockdown on tourism regions, 2021.	Spatial Foresight for DG REGIO	2021		1 (high)			
Employment in accommodation & food	Share of employment in accommodation and food service activities (NACE: I), 2018.	Eurostat	2021	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: $\overline{X} - \frac{\text{ST.DEV}}{2}; \overline{X} + \frac{\text{ST.DEV}}{2}$. Low is below the lower threshold: $< \overline{X} - \frac{\text{ST.DEV}}{2}$ High is above the upper threshold:	1 (high)			
Employment in arts and cultural activities	Share of employment in arts, entertainment and recreation (NACE: R), 2018.	Eurostat	2021		1 (high)			
Young NEETs	Share of young people (15-24 years) neither in employment nor in education and training (NEET), 2020.	Eurostat	2021		1 (high)			
People at risk of poverty or social exclusion	Share of people at risk of poverty or social exclusion, 2020.	Eurostat	2021		1 (high)			
Quality of governance	European Quality Index (EQI 2021), combining corruption, impartiality and quality pillars, 2021.	University of Gothenburg	2021	$> \overline{X} + \frac{\text{ST.DEV}}{2}$	1 (low)			

Source: Böhme, Lüer, Besana, Hans, Schuh, Münch, & Gorny (2021)

Composition of the positive sensitivity index: medium-term							
Торіс	Exact indicator	Source	Year of publication	Scoring	Weight		
Employment in construction	Share of employment in the construction sector (NACE: F), 2018.	Eurostat	2021	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	1 (high)		
Employment in communication	Share of employment in the information & communication sector (NACE: J), 2018.	Eurostat	2021		1 (high)		
Self-employed	Ratio of self-employed people to employed people (15-64 years), 2020.	Eurostat	2021	+/- half the standard deviation: $\overline{X} = \frac{\text{ST.DEV}}{2}; \ \overline{X} = \frac{\text{ST.DEV}}{2}.$	1 (high)		

Quality of governance	European Quality Index (EQI 2021), combining corruption, impartiality and quality pillars, 2021.	University of Gothenburg	2021	Low is below the lower threshold: $< \overline{X} - \frac{\text{ST.DEV}}{2}$ High is above the upper threshold:	1 (high)
Broadband access	Share of households with broadband access, 2020.	Eurostat	2021	$> \overline{X} + \frac{\text{ST.DEV}}{2}$	1 (high)
Teleworking	Share of employed people who have sometimes or usually worked from home, 2020.	Eurostat	2021		1 (high)
E-government	Share of individuals who have interacted online with public authorities in the previous 12 months, 2020.	Eurostat	2021		1 (high)
EU recovery funding	Ratio of the EU recovery and resilience facility (grants) over countries' GDP pre- pandemic, 2021.	EU Commission and Eurostat	2021		1 (high)

Source: Böhme, Lüer, Besana, Hans, Schuh, Münch, & Gorny (2021)

5.2.2. Regional typologies

'Nomenclature of territorial units for statistics' (NUTS) is a hierarchical system for dividing the territory of Member states and EFTA countries. Its purpose is the collection, development, and harmonisation of 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 decision-making processes for regional policies as NUTS2 regions apply regional policies. Recent studies analyse the territorially differentiated effects of public measures in response to the COVID-19 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 either 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 COVID-19 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. Therefore, 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 available at NUTS2 and information on territorial typologies at

NUTS3. The availability of information at different NUTS levels makes matching the information impossible.

However, and due to the interlinked nature of the NUTS system, data from NUTS3 can be transposed to 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 the underlaying 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.

Because of these reasons, the authors of the study aggregated the information about territorial typologies from NUTS3 to NUTS2:

- 1. 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.
- 2. 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.
- 3. Other information could be upscaled without using population figures as a proxy. This included territorial typologies for all NUTS3 is the same (e.g. an island for Azores). These concern a) insularity and b) outermost regions.
- 4. Other territorial typologies were provided at NUTS2 including a) Sparsity of regions, measured through low population densities (<= 12.5 and <= 50 inhabitants per square kilometre) and 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.

For each of these territorial typologies, a boxplot chart shows numerical indicators. These charts show the maximum spread of the distribution for each territorial typology, with the lower and upper quartile as well as the median.



Overview Cohesion Policy typologies Map 5.1



C Spatial Foresight, 2021

Source: Spatial Foresight, 2021



Map 5.2 Overview regional typologies

Source: Spatial Foresight, 2021

5.3. 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 focus on cohesion impacts of the pandemic, meetings 2 and 5 focus on Cohesion Policy in the light of the pandemic and meetings 3 and 6 focus 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** (planned for mid-July 2022): Cohesion impact and development trends.
- **Meeting 5** (planned for late July 2022): Cohesion Policy & beyond for recovery.
- **Meeting 6** (planned for late-September 2022): Forecathon on post-pandemic policy needs.

So far the first three meetings have taken place. Each discussed preliminary findings and helped to nuance the findings taking into account different perspectives. The meetings were attended by 10 and 11 persons from the Regional Reference Group plus colleagues from the study team.

Among the members of the regional reference group are Andrea Pellei (Marche), Anna Olofsson (Örebro), Dolores Ordónez (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).

The COVID-19 pandemic accelerated fragmentations between societal groups and between places. It risks reinforcing existing imbalances and inequalities in the EU.

The worst and most direct impacts have been avoided by swift policy actions. In this context Cohesion Policy played a role. The swift introduction of new measures to counteract the socio-economic effects of the pandemic were extremely important.

To address cohesion challenges lying ahead of us and use the crisis as a chance for a transition towards a greener and more digital future, Cohesion Policy might need to adjust.

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