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**Cohesion in Europe towards 2050**

*Accompanying the document*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**on the 8th Cohesion Report: Cohesion in Europe towards 2050**

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## CHAPTER 1 The regional dimension of the COVID-19 pandemic

- The outbreak of the COVID-19 pandemic has led to at least 872,000 more deaths in the EU compared to previous years. Excess mortality was higher in less developed regions than in transition and more developed ones. While the first wave affected primarily north-western regions and southern regions, the following waves led to the highest mortality in eastern regions.
- The restrictions put in place to contain the pandemic led to the deepest post-1945 recession. The impact was largest on southern regions, especially those dependent on tourism, where the reduction in hours worked and GDP were the most severe.
- The travel restrictions not only affected the tourism sector, but also border areas where people could no longer cross a national border to go to work or to access services.
- Thanks to job retention schemes the impact of employment and unemployment was much smaller compared to the reduction in hours worked and GDP. This allowed the EU to avoid a big spike in unemployment.
- The number of people usually working from home doubled. This increase was highest in many of the capital regions. These regions typically have a more developed service economy, host jobs that can more easily be done remotely, have a highly educated labour force and high quality IT infrastructure. All these factors facilitated the increase in working from home.

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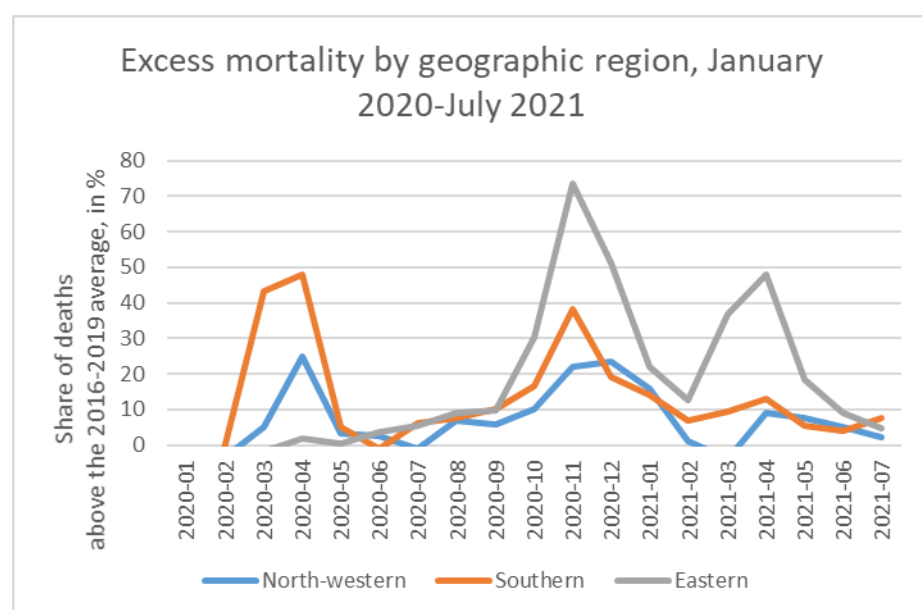
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## 1.1 The health impact of the pandemic

Between March 2020 and July 2021, the COVID-19 pandemic has led to excess mortality<sup>1</sup> in the EU of at least 872,000 deaths. In other words, compared to the average of the five previous years, the number of deaths since the start of the pandemic was 13% higher. This includes deaths directly resulting from COVID-19 and those caused indirectly because of the saturation of hospital capacity and lack of usual care. For example, half the NUTS-3 regions, for which data are available, experienced at least one week with over double the usual mortality (Map 1.1).

The excess mortality during the first wave mainly affected regions in Italy, Spain, France, Belgium and the Netherlands. During the second wave, excess mortality was highest predominantly in regions in Eastern Europe, in Poland, Bulgaria, Slovenia, Czechia, Romania and Hungary.

Figure 1.1 Excess mortality rate by geographic region, January 2020-July 2021



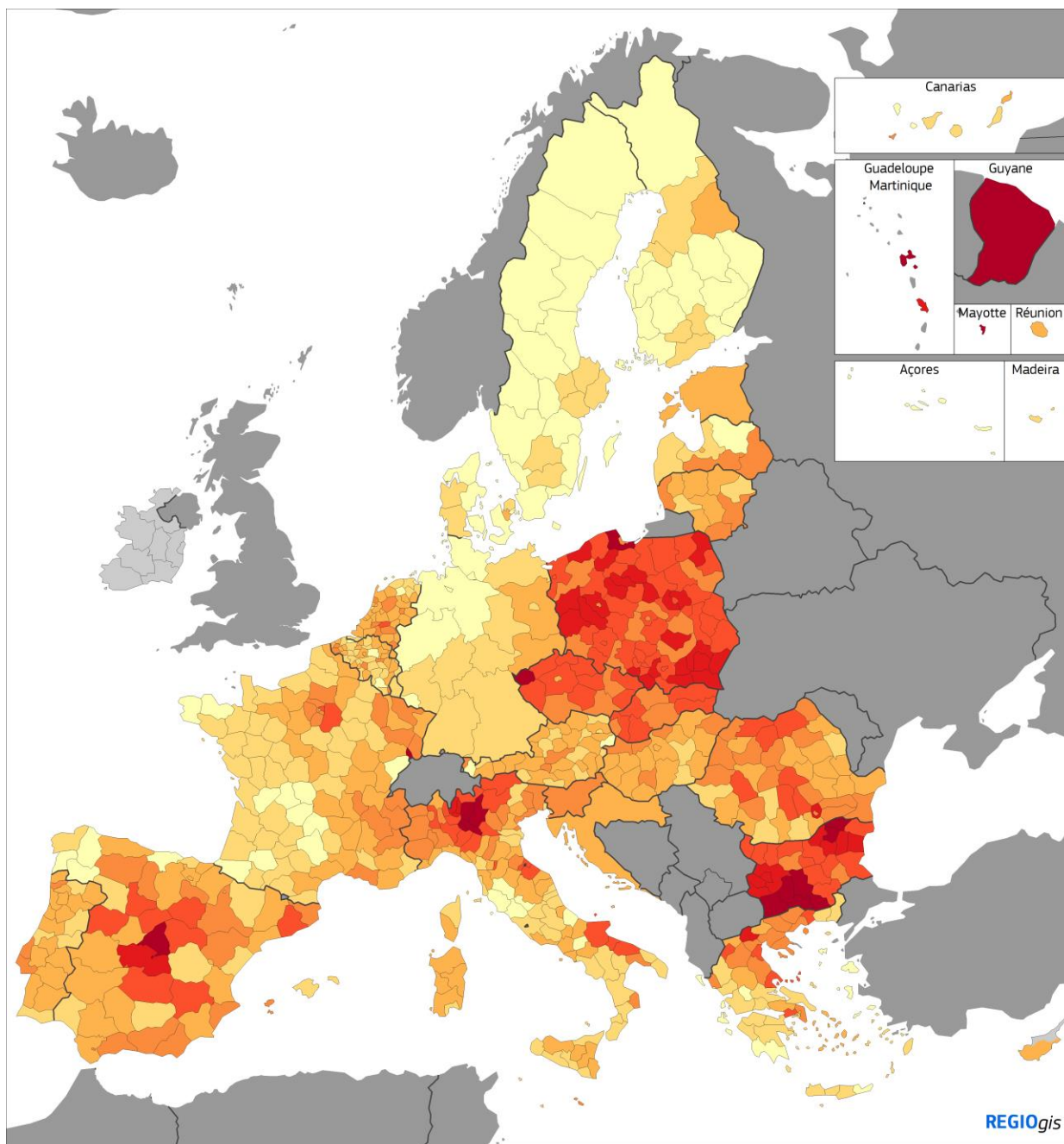
Source: Eurostat [demo\_mexrt] and REGIO calculations

Regional excess mortality since the start of the pandemic shows the cumulative impact of the different waves (Map 1.1). It reveals hotspots in northern Italy and Madrid, which were heavily affected in the first wave, as well as in Poland, Czechia, Slovakia and Bulgaria, which were more affected in later waves. Overall<sup>2</sup>, less developed regions had the highest excess mortality rate (17% higher) as compared with transition (11%) and more developed regions (12%).

Map 1.1 Excess mortality since week 9 of 2020

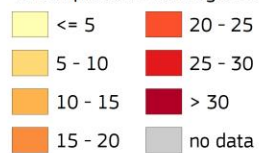
<sup>1</sup> [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Excess\\_mortality\\_-\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Excess_mortality_-_statistics)

<sup>2</sup> Data for Ireland, Slovenia and three German regions (DE9, DEB, DED) are missing at the regional level.



### Excess mortality since week 9 of 2020

% compared to average 2015-2019



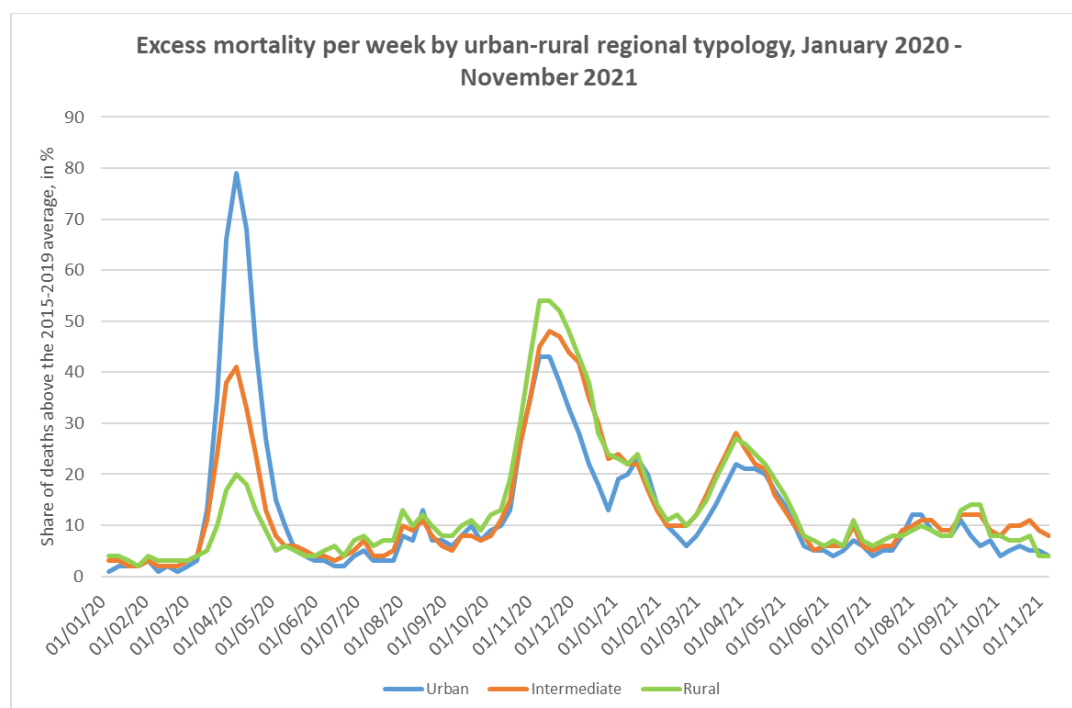
The most recent week for which data are available varies between week 38 of 2021 and week 47 of 2021.  
Source: Eurostat (demo\_r\_mweek3) - data extracted on 02/12/2021

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The excess mortality rate during the first wave was highest in urban regions and peaked at 80% in April 2020, while it was lower than 40% in intermediate regions and only 20% in rural regions. During the second wave, rural regions had the highest excess rate, which peaked at 55%, while it was somewhat lower in towns and suburbs (48%) and cities (43%) (Figure 1.2).

**Figure 1.2: Excess mortality per week by urban-rural typology, January 2020–November 2021**



Source: Eurostat demo\_r\_mweek3 and JRC modelling

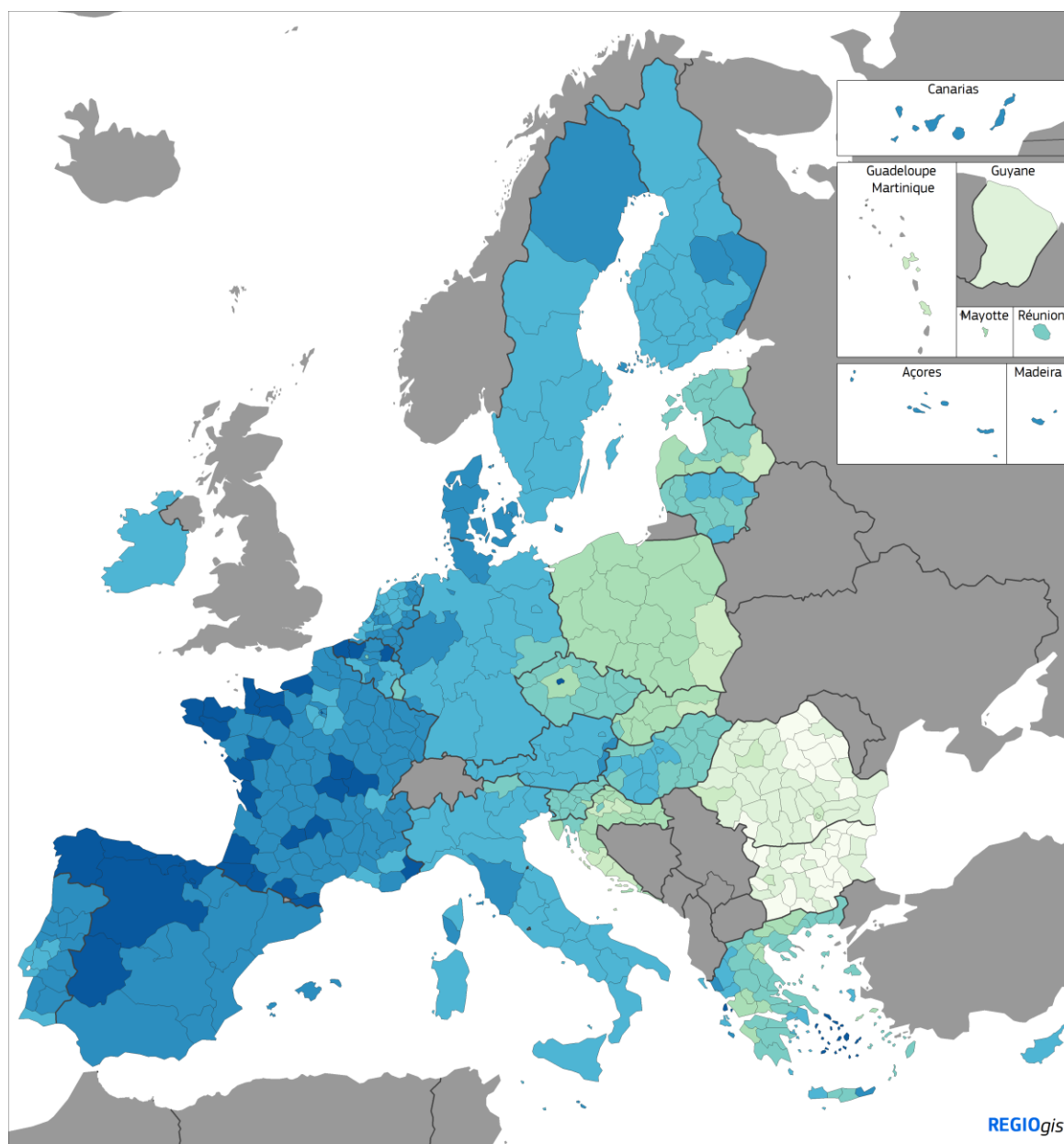
Note: Because of missing NUTS-3 data, Germany, Estonia, Ireland, Croatia, Malta and Slovenia are not included.

Because of COVID-19, life expectancy in 2020 fell in almost all Member States. The biggest reductions were in Spain (-1.6 years) and Bulgaria (-1.5 years). In only two Member States, Denmark and Finland did life expectancy increase, though only marginally<sup>3</sup>.

Vaccines offer the best way out of the pandemic. In November 2021, approximately 70% of the total population was fully vaccinated. Uptake of vaccinations, however, differed between and within Member States. Data reported in November indicated that in multiple regions in Romania and Bulgaria less than 20% of the population was fully vaccinated, while in many regions in Belgium, France and Spain more than 80% of the population was fully vaccinated (Map 1.2).

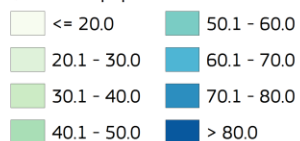
<sup>3</sup> Data for Ireland were not yet available for 2020.

Map 1.2 People fully vaccinated against COVID-19, November 2021



**People fully vaccinated against COVID-19, November 2021\***

% of total population \*



\* Data have been accessed early November 2021. Due to the variety in sources, the actual periods covered and the definitions used are not necessarily harmonised.

Source: DG REGIO calculation based on data from ECDC, national sources and Eurostat

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## **Cities and regions in the frontline to fight the pandemic**

The Annual EU Regional and Local Barometer report by the European Committee of the Regions highlights the current and future challenges for cities and regions in the European Union. The latest edition<sup>4</sup> of this report covers a wide range of issues including the potential asymmetric financial and health impacts of the pandemic<sup>5</sup> and the Recovery and Resilience Plans.

The report highlights the concern that the pandemic may reduce subnational finance through a combination of falling revenues and rising expenditures<sup>6</sup>. A first rough estimate indicates that this could lead to a funding gap of €180 billion for EU local and regional authorities, if left unaddressed. Fortunately, significant EU and national support to local and regional authorities is likely to have mitigated this effect, but it may still leave some regions and cities more exposed than others. The report also discusses the multiple causes of the asymmetric health impact of the pandemic, ranging from different age structure, mobility, restrictions, underlying health issues, the difference in healthcare capacity and the varied uptake of the vaccines. The report concludes only a place-sensitive policy response can factor in these big spatial differences.

The report argues that local and regional authorities should be closely involved in the preparation and implementation of the national Recovery and Resilience Plans. A first assessment indicates that local and regional authorities were not consistently consulted during the preparation of these plans and that some of these consultation only had a limited impact on the final plans.

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<sup>4</sup> CoR, EU Annual Regional and Local Barometer, October 2021. Available online: <https://cor.europa.eu/en/our-work/Documents/barometer-fullreport%20web.pdf>

<sup>5</sup> The territorial impact of COVID-19: Managing the crisis across levels of government, November 2020. Available online: <https://www.oecd.org/coronavirus/policy-responses/the-territorial-impact-of-COVID-19-managing-the-crisis-across-levels-of-government-d3e314e1/>

<sup>6</sup> CoR, Study: Local and regional finances in the aftermath of COVID-19. June 2021. Available online at: [https://cor.europa.eu/en/engage/studies/Documents/Local%20and%20regional%20finances%20in%20the%20aftermath%20of%20COVID-19/CoR\\_Local\\_and\\_regional\\_finances\\_after\\_Covid-19.pdf](https://cor.europa.eu/en/engage/studies/Documents/Local%20and%20regional%20finances%20in%20the%20aftermath%20of%20COVID-19/CoR_Local_and_regional_finances_after_Covid-19.pdf)



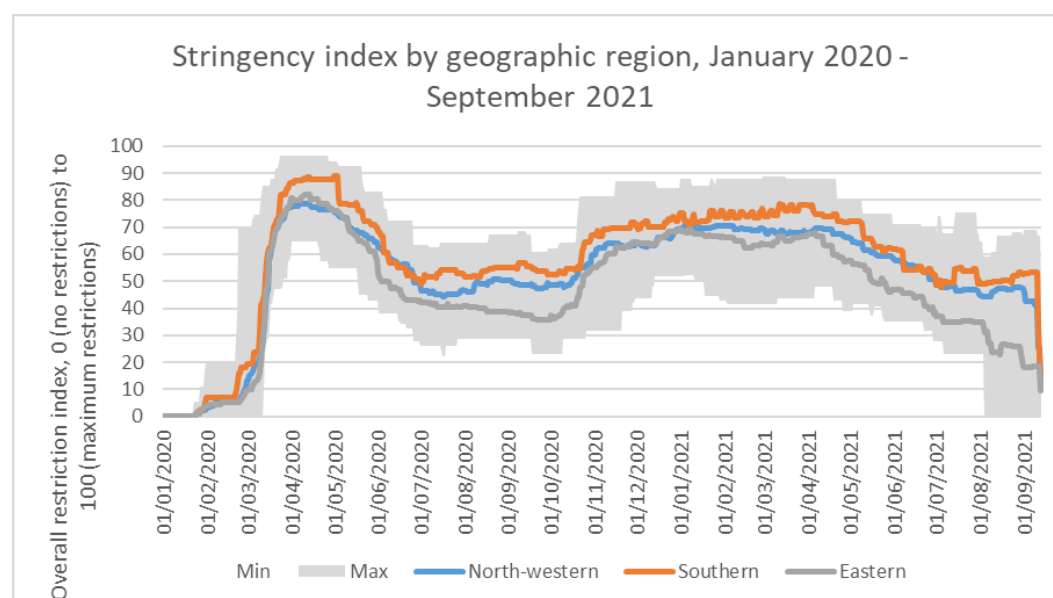
## 1.2 The economic impact of the pandemic

The depth of the economic recession during the pandemic was affected by three main factors. First, the length and the strictness of lockdown measures implemented by national, regional and local authorities to limit the spread of the virus. The places with stricter lockdown measures tended to experience a deeper recession<sup>7</sup>. Second, some types of economic activities were much more affected than others. Services, notably accommodation and those relating to culture, leisure, tourism and activities requiring proximity generally have particularly suffered from the containment measures. Member States and regions that are more dependent on these sectors, have seen a bigger drop in their economic activity. Third, the policy response of Member States, regions and local authorities varied in scope and intensity, in part reflecting the differential impact of the pandemic.

### 1.2.1 Pandemic restrictions

Restrictions imposed in response to the pandemic did not differ greatly between EU Member States (Figure 1.3). Restrictions peaked in April 2020, were relaxed in summer 2020, and were increased again during autumn and winter 2020-2021. Restrictions started to recede slowly in May 2021 and continued to do so up to September. On average, restrictions in eastern Member States were slightly less strict, while southern Member States had the tightest ones and north-western Member States were in between the two.

Figure 1.3 Stringency index by geographic region, January 2020 - September 2021



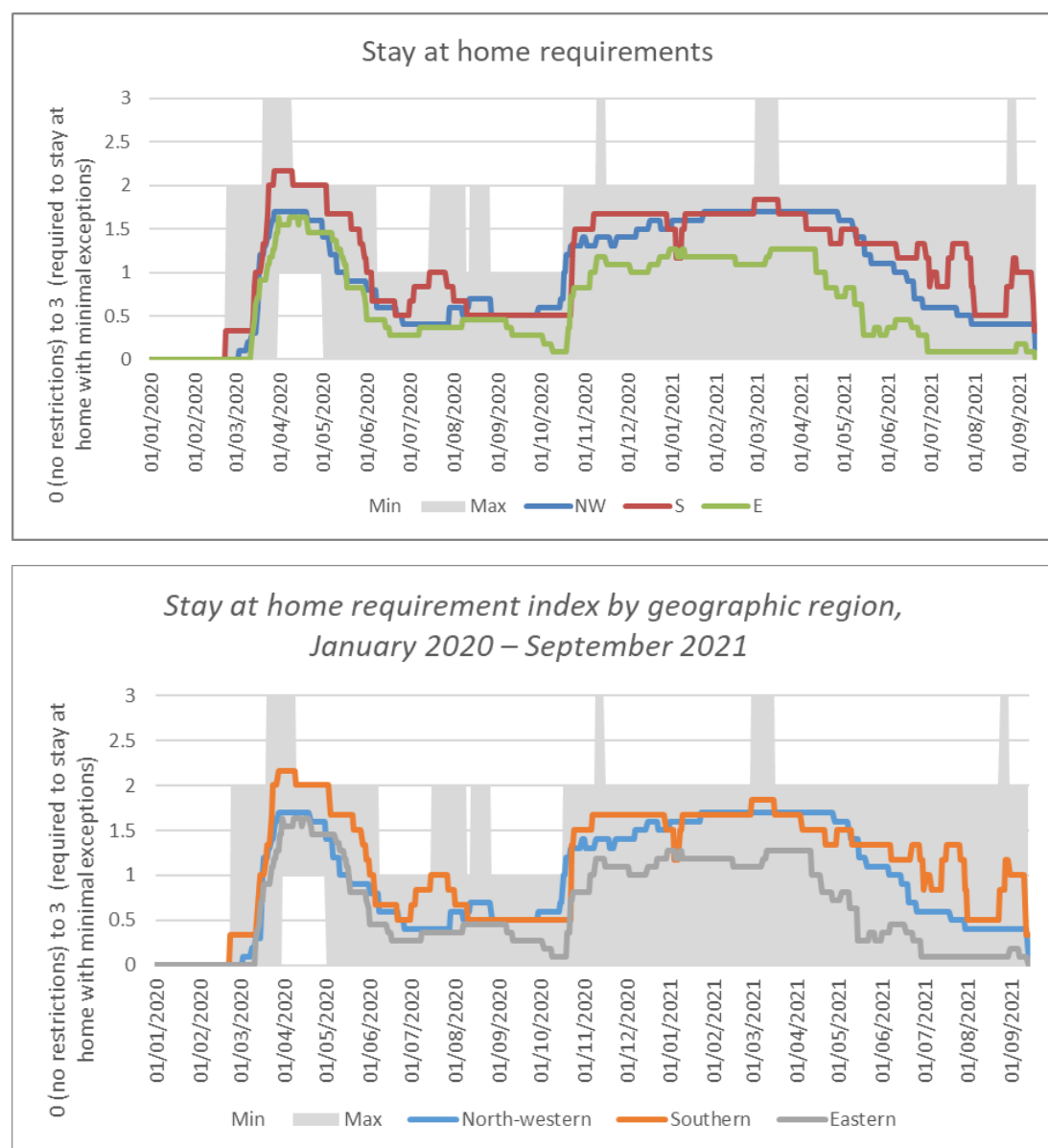
Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford.  
Unweighted averages of country indices.

The difference between Member States, however, was greater as regards specific kinds of restriction. For example, some Member States had long periods during which people were required not to leave their homes except for a short period of daily exercise, grocery shopping or essential trips (Figure 1.3). On the other hand, some Member States imposed no stay-at-home requirements for almost the whole period, while others imposed only modest restrictions. Eastern Member States tended to have the least restrictions and the southern ones the most. During the first wave, north-western Member

<sup>7</sup> Sapir, A. (2020), "Why has COVID-19 hit different European Union economies so differently", Bruegel, Issue 18

States imposed similar restrictions to the eastern ones, while during the second and third waves, they had a stricter approach more similar to southern Member States.

Figure 1.4 Stay at home requirement index by geographic region, January 2020 – September 2021

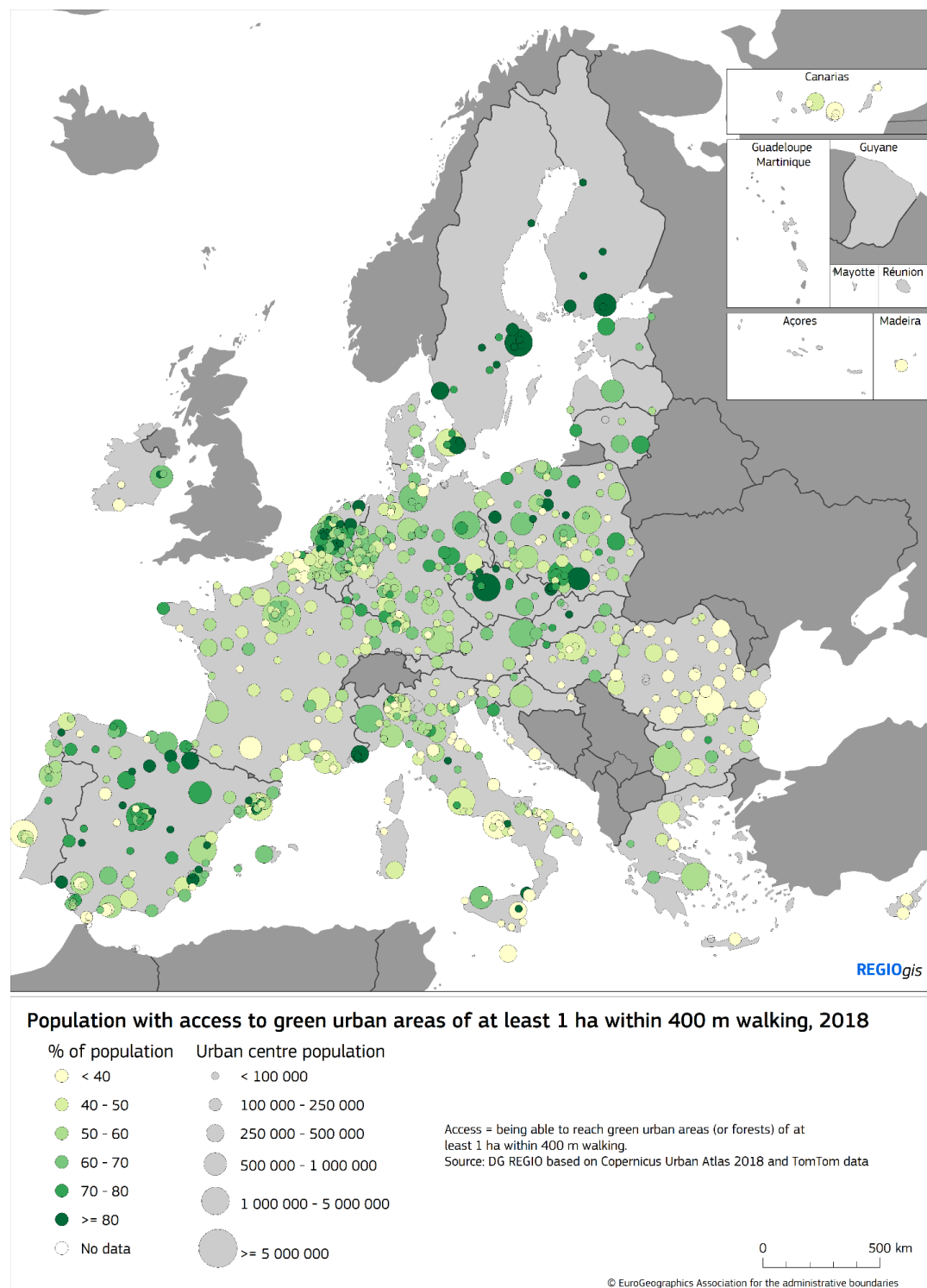


Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford.  
Unweighted averages of country indices.

The stay-at-home requirements and the internal movement restrictions meant that people had to rely more on local facilities and amenities. The requirement to work from home and the closure of schools meant that many people in cities were crowded into small living spaces during the day. This highlighted the benefit of nearby green areas that were open to the public. In most cities the majority of the residents can reach at least one hectare of green urban area by walking a short distance. In a number of cities, however, less than half of the people have easy access to green urban spaces. This is the case in all the cities in Cyprus, Malta and Romania, and some big cities in Italy, France and Portugal, where less than half the residents have a green urban area within 400 metres of their home (Map 1.3). The working

from home requirements and remote lessons also posed challenges for households without fast internet connections, which is more often the case in rural areas.

Map 1.3 Population with access to green urban areas of at least one hectare within 400 metres of walking, 2018

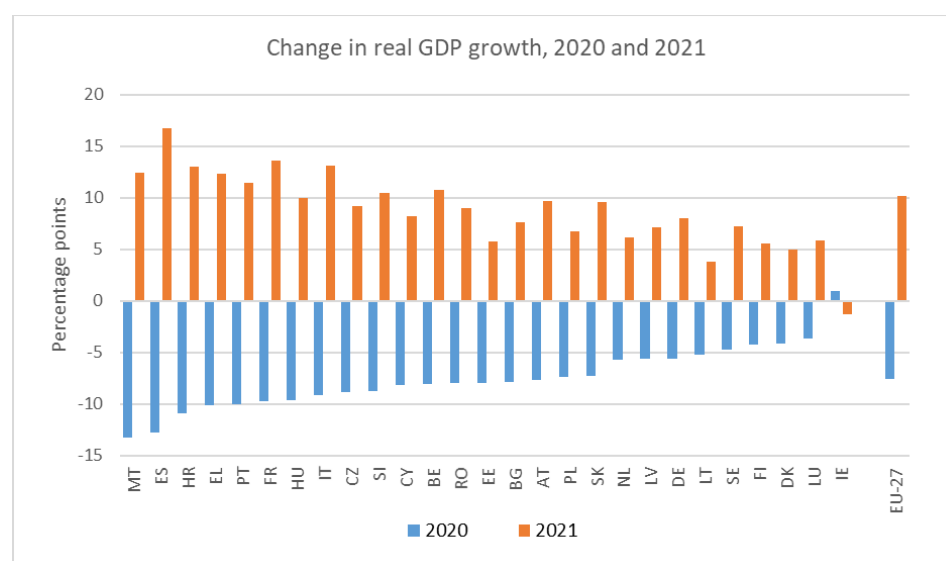


### 1.2.2 The biggest post-war recession

The COVID-19 pandemic triggered the deepest post-war recession in Europe. Real GDP growth averaged 2.1% a year between 2014 and 2019. In 2020, real GDP fell by 6.0%. All economic sectors were affected by the consequences of containment measures, the disruption of global supply chains, the sharp reduction in demand for goods and services, and the fall in tourism, business travel and recreation. Across Europe and the rest of the world, the crisis led to unprecedented policy responses to mitigate the effects of the shock and strengthen the recovery.

The economic impact of the COVID crisis varies widely across Member States. Between 2019 and 2020, there was a reduction in real GDP growth of 13 percentage points (pp) in Malta and Spain (GDP increasing by 5.5% in 2019 and falling by 7.8% in 2020 in the first and increasing by 2.0% in the second and falling by 10.8% in the second) while the reduction was less than 5 pp in Finland, Denmark and Luxemburg, and in Ireland, there was even a small increase (Figure 1.5). Economic activity rebounded in 2021, in particular in the Member States where it fell the most<sup>8</sup>.

Figure 1.5: Change in real GDP growth relative to the previous year, 2020 and 2021



Source: EUROSTAT table nama\_10\_gdp and ECFIN Spring 2021 forecast

### 1.2.3 The tourist sector was most affected

Restrictions on movement within countries and limits on non-essential travel brought tourism to a standstill. The number of nights spent by tourists plummeted with the outbreak of the pandemic and the strict travel restrictions (Figure 1.6), falling by more than 90% compared to the same month in the previous year. The nights spent by domestic tourists recovered in the summer of 2020 but then fell again. The nights spent by international tourists remained extremely low throughout 2020 and the first half of 2021. Overall in 2020, nights spent dropped by 54% in relation to 2019, but those spent by international tourists fell by far more (70%) than those spent by domestic ones (39%).

Figure 1.6: Change in the number of nights spent in tourist accommodation, January 2020 to June 2021

<sup>8</sup> European Commission (2021), “European Economic Forecast Spring 2021”, Directorate-General for Economic and Financial Affairs, Institutional Paper 149, : Publications Office of the European Union, Luxemburg.

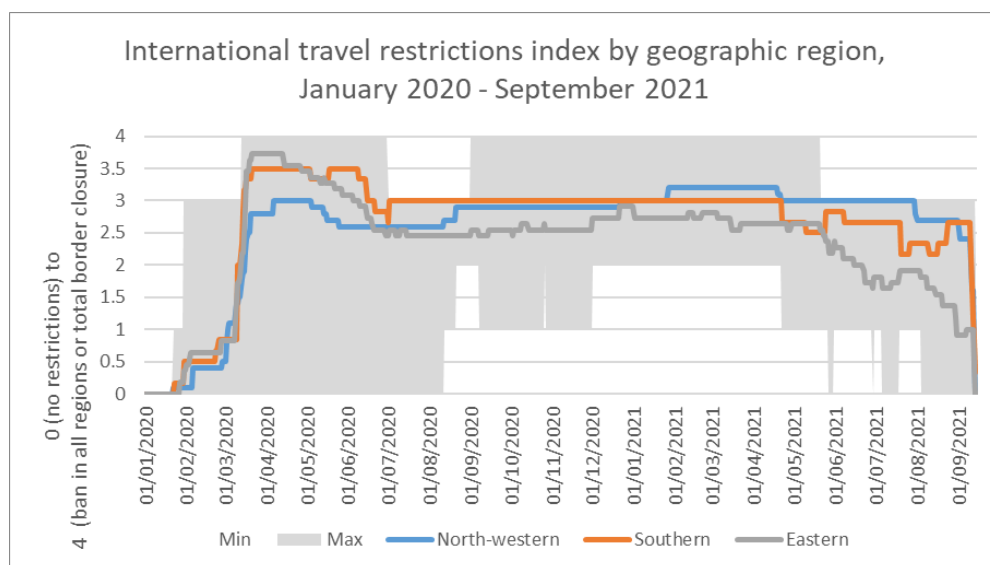


Source: EUROSTAT table TOUR\_OCC\_NIM

These reductions were primarily caused by the restrictions on international travel that were introduced after the start of the pandemic. By the summer of 2020, all Member States had instituted some restrictions and these mostly stayed in place until summer 2021 (Figure 1.7). The restrictions on internal movement were part of the response to the first wave of the pandemic, but were loosened in summer 2020. During the second and third waves, internal restrictions remained much laxer. This allowed domestic tourism to recover somewhat during the summer of 2020, but the number of nights spent by tourists in the winter and spring of 2021 remained much less than in 2019.

The restrictions on international travel also disproportionately affected border areas. People who usually crossed a national border for work, education, healthcare or other services were suddenly no longer able to do so. After the initial restrictions were put in place, while some borders made allowance for cross border commuting, many did not, which underlines the need for a better governance system for functional border areas.

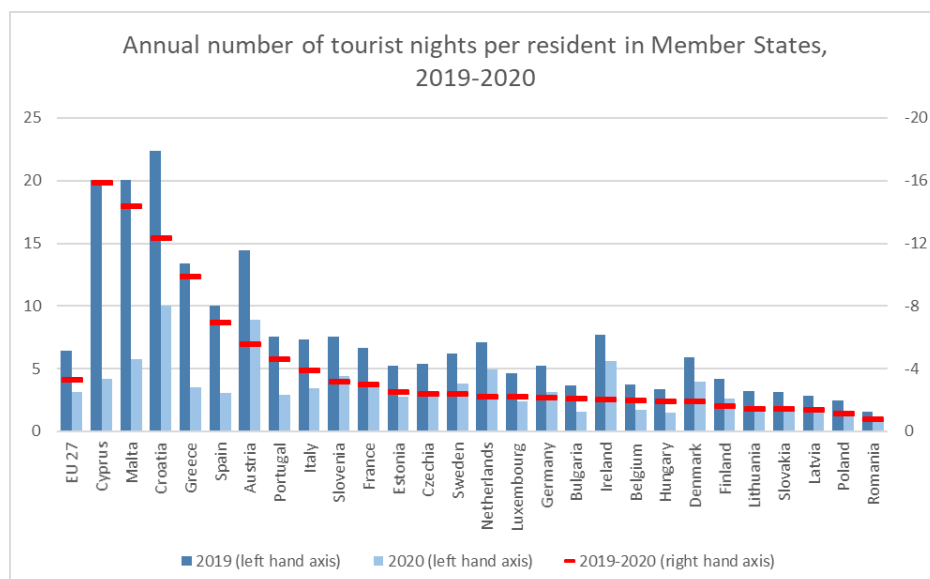
Figure 1.7 International travel restrictions index by geographic region, January 2020 – September 2021



Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford. Unweighted averages of country indices.

The countries with the biggest reductions in the number of nights spent per resident were Cyprus, Malta, Croatia, Greece and Spain, with reductions of more than double the EU average (Figure 1.8). The reductions were much smaller in countries with generally relatively few tourist nights per resident.

Figure 1.8: Annual number of tourist nights per resident in Member States, 2019-2020



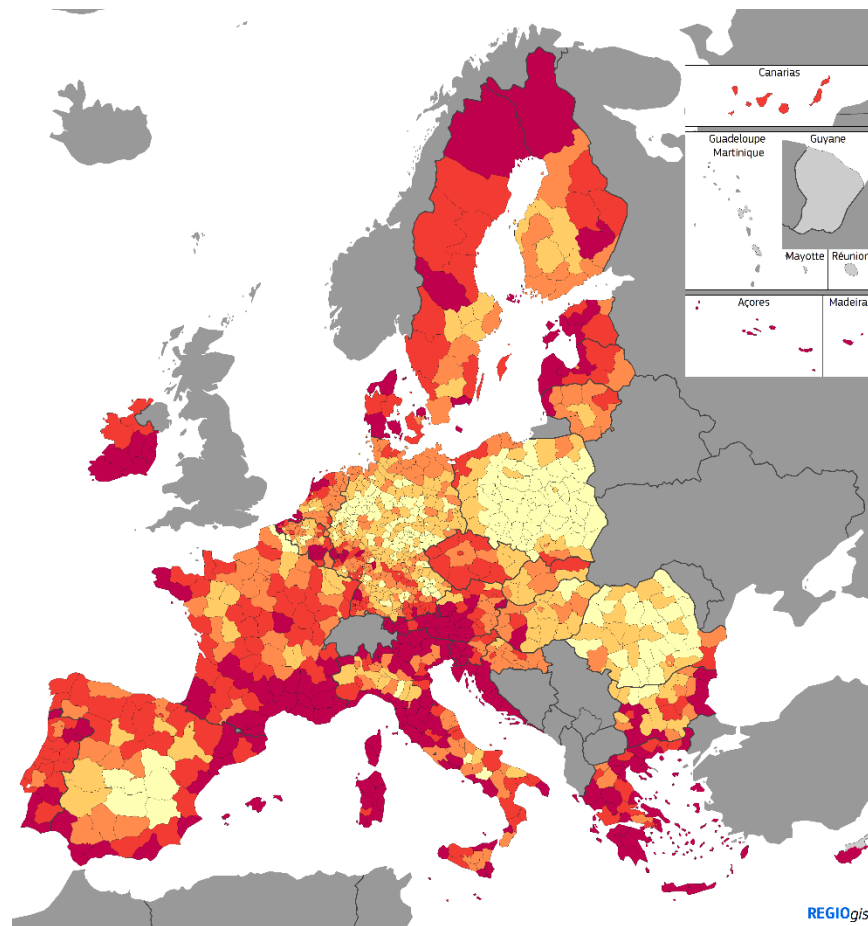
Source: EUROSTAT TOUR\_OCC\_NIM, REGIO calculations.

Some regions are particularly dependent on tourism, including many of the Mediterranean islands and some coastal regions, the Alpine regions, the Black Sea Coast, Algarve and the Canary Islands. Some capitals and large cities also attract many tourists, but they are less dependent on tourism than coastal or mountain destinations because of much

stronger and more diversified economies. To identify the regions most dependent on tourism, three indicators can be combined: nights spent per resident, seasonality of nights spent and the share of foreign tourists<sup>9</sup> (

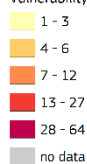
**Map 1.4).** Regions scoring highly on all three indicators are likely to have been more affected by the reduction in travel and nights spent. For example, the Mediterranean coastal and island regions are likely to have been particularly heavily affected.

**Map 1.4: Tourism vulnerability index, 2018, NUTS 3**



**Tourism vulnerability of NUTS3 regions, 2018**

Vulnerability score



Source: JRC, F. Batista e.a. (2018)

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<sup>9</sup> Batista e Silva F, Marin-Herrera MA, Rosina, K, Barranco R, Freire S, Schiavina M (2018), “Analysing spatiotemporal patterns of tourism in Europe at high resolution with conventional and bit data sources”. *Tourism Management* 68: 101-115. doi:10.1016/j.tourman.2018.02.020

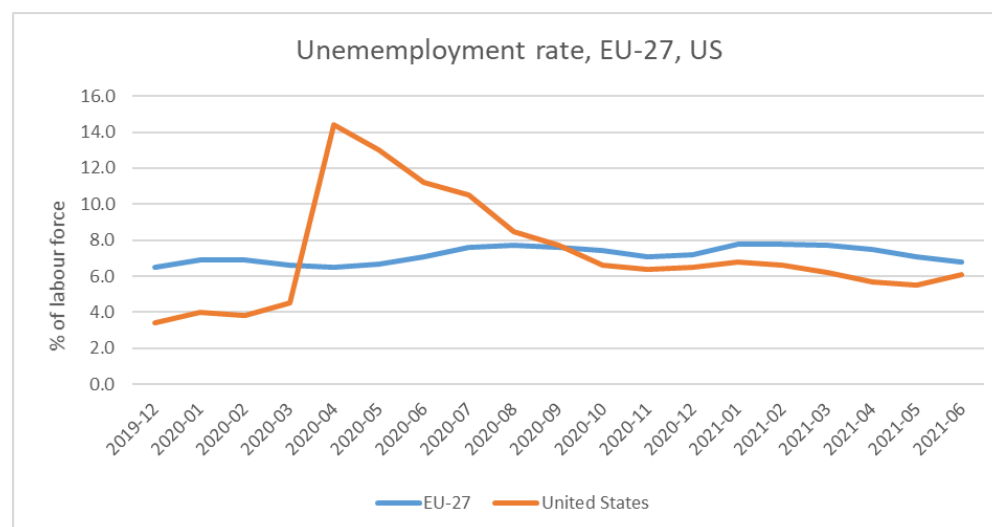
The tourism is not the only sector to have suffered from the economic downturn triggered by the pandemic. Contact-intensive services<sup>10</sup> were also severely affected. In the second quarter of 2020, activity in these sectors was 25% below pre-COVID-19 levels<sup>11</sup>. Other sectors were less affected but still experienced a sharp drop in activity, notably manufacturing (down by 19%) and construction (down by 15%). Services with significant scope for working remotely and with high-skilled workers, like ICT, banking and finance, contracted much less (by less than 10%) and these activities tended to rebound more quickly.

#### 1.2.4 The impact on the EU labour market was muted

The pandemic's impact on the labour market was much more limited due to the many job retention schemes put in place shortly after the outbreak of the crisis. As a result, the economic slowdown did not lead to large increases in unemployment. The EU unemployment rate only went up by 0.5 pp between December 2019 and June 2021, from 6.6% to 7.1% with a peak at 7.7% in September 2020. By contrast, in the United States, which did not rely as much on job retention schemes, the unemployment rate doubled from 3% to 6% between December 2019 and June 2021, with a peak of 14% in April 2020 (Figure 1.9).

At the EU level, employment<sup>12</sup> fell by 3 million, or 1.5%, between 2019 and 2020. Southern EU lost the most employment (2.7%). The reduction in eastern EU was smaller (1.2%), while in north-western EU, it fell by least (0.9%). Employment started to recover in the second quarter of 2021 but has not yet reached its 2019 level.

Figure 1.9: Monthly unemployment rate in the EU and United States, 2019 and 2020



Source: EUROSTAT table une\_rt\_m

As reflected by the unemployment figures, the employment rate (of those aged 20-64) in the EU also fell by relatively little, by 0.7 pp between 2019 and 2020. The reduction was largest (1.4 pp) in the southern EU, followed by the north-western EU (0.6 pp) and the eastern EU (0.2 pp).

<sup>10</sup> Trade, transport and accommodation, and arts, entertainment and other service activities

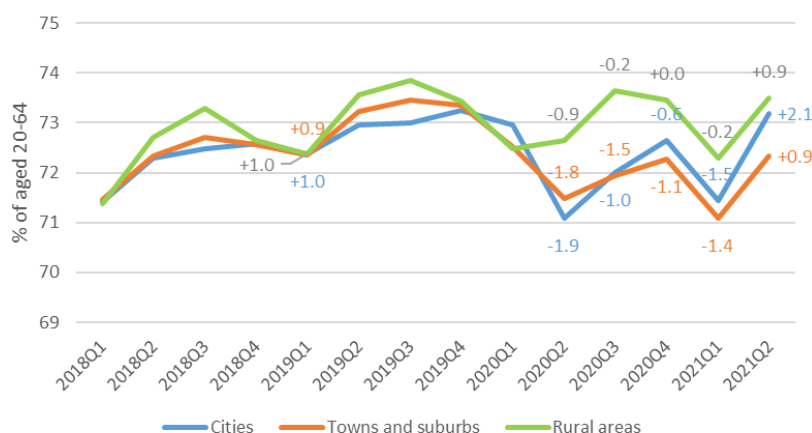
<sup>11</sup> European Commission (2021), "The sectoral impact of the COVID-19 crisis", Technical Note for the Eurogroup.

<sup>12</sup> Source: Eurostat, National Accounts; domestic employment



Across the EU, the employment rate declined by most in towns and suburbs (1.1 pp) between 2019 and 2020, followed by cities (0.7 pp) and it barely fell at all in rural areas (by 0.3 pp). The quarterly figures show that the reduction was largest in cities in the second quarter, but it was then overtaken by the fall in towns and suburbs (Figure 1.10).

Figure 1.10: Quarterly employment rate by degree of urbanisation, 2018-2021



Source: Eurostat, LFS (non-seasonally adjusted) table lfsq\_pgauws

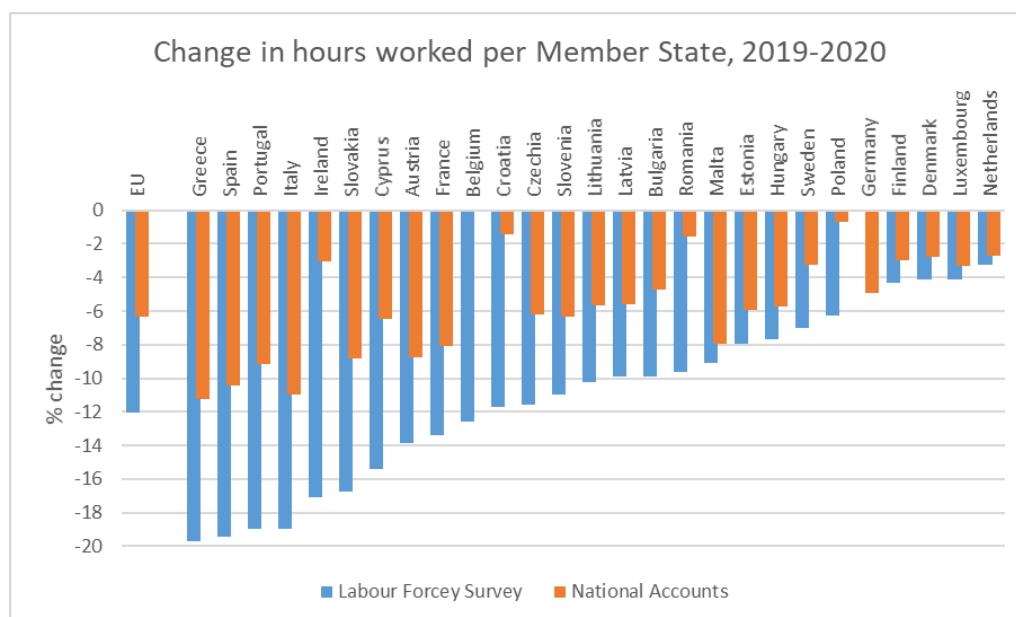
Note: Labels show y-on-y change in pp.

### 1.2.5 Hours worked dropped substantially

Because of the pandemic, the number of hours worked declined significantly in the EU between 2019 and 2020, though the scale of the reduction depends on the source of the data used and the working time for which hours are measured. The Labour Force Survey (LFS), which measures weekly hours, indicates a reduction in the EU of 12%, whereas the national accounts data<sup>13</sup>, which measures annual hours, shows a reduction of 6% (Figure 1.11). Both sources agree, however, that the biggest reductions occurred in Greece, Spain, Portugal and Italy. The LFS data also show that regions with large tourist economies were especially affected (Map 1.5). More developed regions were slightly less affected (with a reduction of 10% based on LFS data) than transition and less developed regions (a fall of 13% in each).

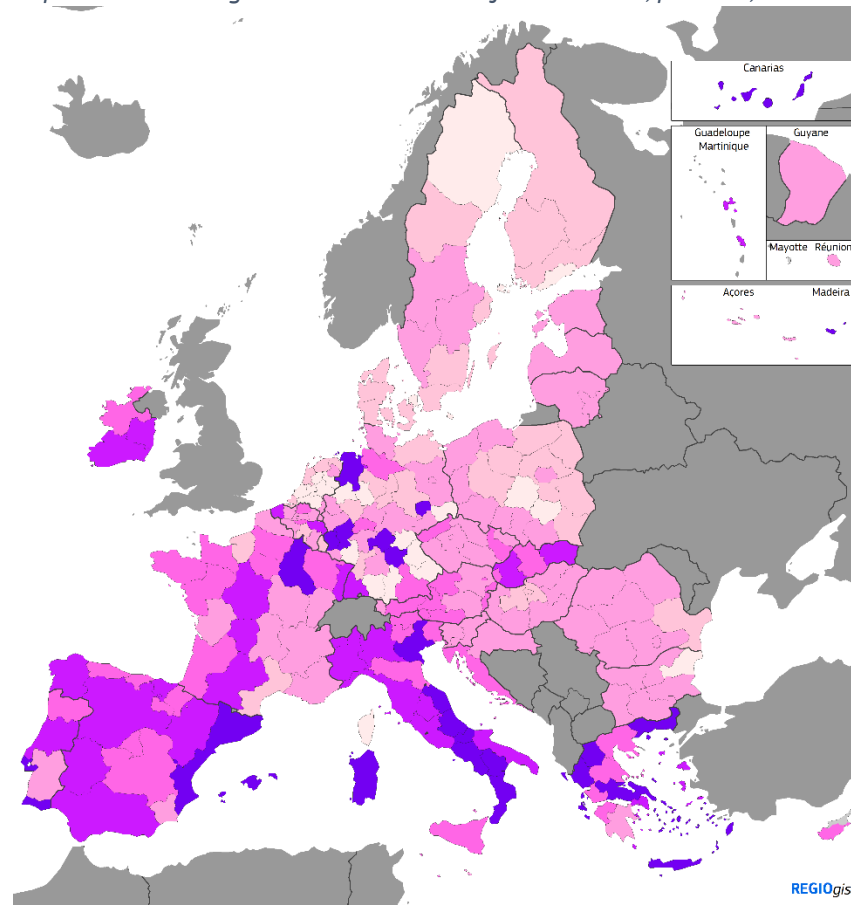
<sup>13</sup> 2020 data for 11 Member States is flagged as provisional.

Figure 1.11 Change in hours worked in Member States, 2019-2020

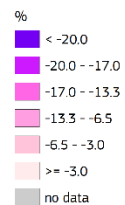


Source: Eurostat LFS ad hoc extraction and table NAMA\_10\_A10\_E

Map 1.5 Annual change in the actual number of hours worked, per week, 2020



Annual change in the actual number of hours worked, 2020

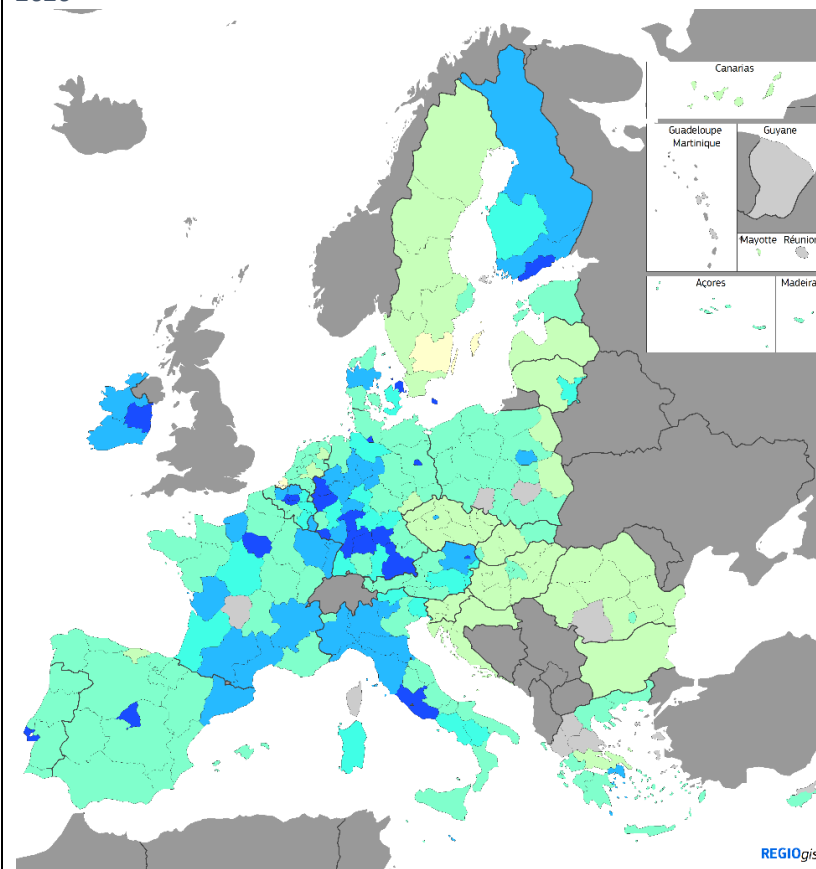


EU-27 = -13.3  
People aged 20-64 years.  
Source: Eurostat Labour Force Survey

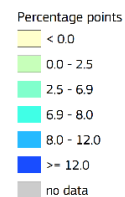
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Map 1.6 Annual change in the share of people usually working from home, 2020



Annual change in the share of persons usually working from home, 2020



EU-27 = 6.9  
People in employment aged 20-64 years.  
Source: Eurostat Labour Force Survey

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The biggest reduction in hours worked over the period occurred in the accommodation and food services sector (by 52%) and the arts, entertainment and recreation sector (by 36%). The two most affected broad occupational groups were service and sales workers (which showed a fall of 27%) and elementary occupations (one of 23%).

#### 1.2.6 A big shift to working from home

In 2019<sup>14</sup>, 5.5% of the employed population in the EU usually worked from home. Because of the pandemic, and the requirement to work from home where possible, the proportion more than doubled to 12.4% in 2020. The capacity to work from home depends on the type of activity concerned. Some jobs can only be performed in person, as noted above, such as many jobs in healthcare, manufacturing and agriculture. Many of the regions with large cities saw big increases in the proportion of people working from home, reflecting the large share of economic activities which can be performed remotely (usually by high-skilled workers). In particular, the increases were over 15 pp in the Brussels, Helsinki, Dublin, Paris, Cologne and Vienna regions (Map 1.5). The distribution of critical<sup>15</sup> and 'teleworkable' jobs strongly depends on the degree of urbanisation. Rural areas tend to have a larger share of 'non-teleworkable' jobs than cities, towns and suburbs<sup>16</sup>.

#### 1.2.7 Regional impact is likely to be highly variable

Regional GDP data for 2020 is not yet available, which limits the extent to which the impact of the COVID pandemic on the economies of the EU regions can be assessed. A modelling exercise<sup>17</sup> using national data and the RHOMOLO regional model, however, gives an indication of the potential regional impact. It shows a particularly severe impact on southern European regions and France, and less effect on Nordic and eastern regions (Map 1.7). The model suggests that in Spain, Italy, France, and Greece, some regions are likely to experience a particularly sharp reduction in GDP. This is especially so for those with a large share of value-added in wholesale and retail trade, transport and accommodation, i.e. in the sectors where tourism is important, which is line with the actual changes in hours worked in 2020 indicated above.

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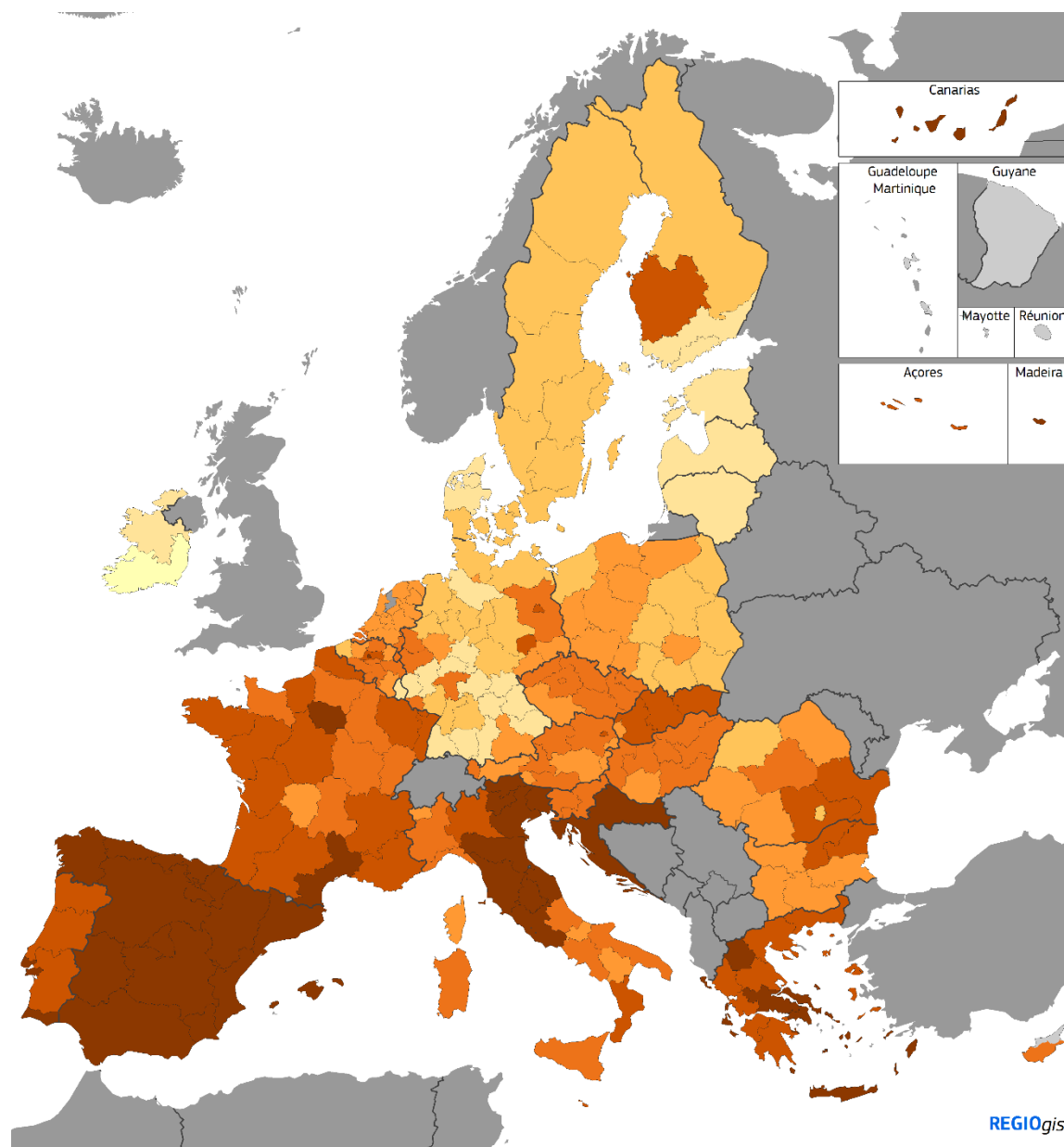
<sup>14</sup> Source: Eurostat, LFS ad-hoc module 2019

<sup>15</sup> Critical jobs can be defined as all those occupations that need to be performed even during a pandemic in order to keep citizens healthy, safe and fed.

<sup>16</sup> Employment and Social Developments in Europe 2021.

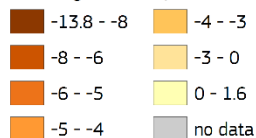
<sup>17</sup> Based on national figures for 2020 on employment, output in the various NACE sectors, exports and the rise in uncertainty assumed to be reflected in an increase in interest rates, Sakkas et al. (2021) used the RHOMOLO model to estimate the impact of the crisis on NUTS-2 regions. The magnitude of the shocks are calibrated so that the ranking of countries in terms of output loss is, so far as possible, in line with the latest real GDP growth figures for 2020 published in the Spring 2021 European Economy Forecast .

**Map 1.7: Simulated regional GDP impact of the crisis in 2020**



**Simulated regional GDP impact of the crisis in 2020**

% change with respect to baseline



Source: JRC and RHOMOLO

0 500 Km

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