

## COHESION AND TERRITORIAL DIVERSITY

- The EU contains a wide diversity of territories. Differences in population concentration and density and specific geographical features may affect their economic and socio-economic development.
- GDP per head is higher in metropolitan regions than in other regions. Over the last two decades, GDP per head has grown faster in metro regions, mainly as a result of above average growth rates in capital city regions. Other metro regions outperformed non-metropolitan regions only in the eastern and southern Member States. In capital metro regions in the eastern and southern Member States, the contribution of employment growth to GDP growth was double the average, reflecting a continuing concentration of employment there.
- Differences in economic trends are partly mirrored in labour market and education differences. In eastern countries, cities have the highest employment rate and the gap with rural and less densely populated areas widened over the 2013–2022 period. By contrast, in north-western countries, the employment rate in thinly populated areas was higher than in cities. In southern countries, though the gap narrowed over the period, the rate in thinly populated areas remained very low. The proportion of people with both tertiary and upper secondary education increased in all types of regions over the 2013–2022 period, but the substantial gap between cities and thinly populated areas widened further.
- Transport connectivity is lower in thinly populated regions, where access to education and healthcare is much more limited than in urban regions. The dispersed nature of the population in rural and less densely populated areas means that ensuring adequate connectivity requires more transport infrastructure and resources per inhabitant.
- The specific geographical features of islands, outermost regions, border regions, northern sparsely populated regions, and mountain and coastal regions may hamper their economic development. On average, outermost regions and mountain regions have GDP per head below the EU average and the gap has widened over the past 20 years. In border regions, on the other hand, GDP per head has converged towards the EU average since 2001.
- Most of the regions with specific geographical features perform below the EU average in terms of socio-economic indicators. Outermost regions in particular have low employment rates and high unemployment rates, although the latter has decreased significantly since 2001.

## Chapter 3

# Cohesion and territorial diversity

### 1. Towards more balanced and harmonious development

Territorial cohesion is about ensuring the harmonious development of the wide diversity of places in the EU and making sure that people there are able to make the most of their inherent features. It means transforming diversity into an asset that contributes to the sustainable development of both the places themselves and the EU. More balanced and sustainable development, implicit in the notion of territorial cohesion, achieves a more even and sustainable use of assets, bringing economic gains. Territorial cohesion is at the core of EU structural policies and has been so since its inception. Four concepts<sup>1</sup> play a major role in this regard: concentration, connecting territories, co-operation, and specific regional geographical features.

Concentration requires overcoming differences in population density. Economic activity is more concentrated across the EU than population. There are gains from this in terms of the increasing returns from agglomeration and from the clustering of activities in particular places. This is reflected in higher levels of GDP per head, productivity and employment in capital cities and most other densely populated conurbations. At the same time, there are also diseconomies, such as congestion, air pollution, and in some areas more poverty and social exclusion. Indeed, in rural and other thinly populated areas that are more remote from cities of any size, small and medium-sized towns often play a more important role than their size might suggest. The role these towns play in providing access to services, including the infrastructure necessary to invest in the adaptability of people and enterprises, is key to avoiding rural depopulation and ensuring these areas remain attractive places

to live. Section 2 examines economic and social trends in urban and non-urban regions and areas.

Connecting territories is about overcoming distance. Connecting places, especially urban and rural ones, requires good transport links, but also adequate access to healthcare, education and other basic services. These issues are examined in Section 3.

Co-operation is about overcoming division. The problems of connectivity and concentration can only be effectively addressed with close co-operation at various levels. This may require co-operation between neighbouring local authorities, between regions, between Member States or between the EU and neighbouring countries, or some or all of these. Section 4 examines aspects of cross-border co-operation between EU regions.

Regions with specific geographical features include islands, mountainous regions, coastal regions, and northern sparsely populated ones. Section 5 examines the strength and weaknesses of these regions.

Analysis of the territorial concepts concerned requires the use of typologies. For the analysis of territorial economic trends in Section 1, the NUTS 3 metropolitan typology<sup>2</sup> is used (see Box 3.2). This enables agglomeration effects in cities to be studied along with the wider regional benefits via spill-over effects. In addition, the degree of urbanisation<sup>3</sup> is used to examine social aspects, as it provides a sharper demarcation between urban centres and other areas. Analysis of regions with specific geographical features is based on their typological definition, which is explained in Section 5.

1 COM(2008) 616 final.

2 Eurostat (2019).

3 Idem.

### Box 3.1 Functional urban and rural areas

The nomenclature of territorial units for statistics (NUTS) results in geographical units that are based on administrative boundaries. These units differ in area and population size and may not be the most appropriate units to study concepts that transcend such boundaries. The European Commission and OECD have developed approaches to define geographical units that are based on functional spatial linkages instead of administrative boundaries.

#### Functional urban areas

In 2011, the European Commission and the OECD developed a definition of a functional urban area (FUA)<sup>1</sup>. The concept of an FUA considers the functional and economic extent of cities, beyond the consideration of density and population size only. This concept also includes other lower-density areas surrounding the city but closely linked to it from an economic and functional perspective. In essence, these FUAs combine a densely populated city with its surrounding commuting area. Such a functional approach has the benefit of capturing a single labour and housing market. It avoids fragmenting such a daily urban system into multiple municipalities (local administrative units). It also avoids combining multiple daily urban systems into a single spatial unit, which happens in some NUTS 3 regions. In addition, it helps to overcome the wide variation in the area and population size of municipalities and NUTS 3 regions. This FUA definition has since been

included in a Eurostat regulation and endorsed by the UN Statistical Commission<sup>2</sup> as part of the degree of urbanisation.

#### Functional rural areas

Work on a definition of a functional rural area (FRA) is one of the actions of the Communication on a long-term vision for the EU's rural areas<sup>3</sup>, and is currently ongoing in the European Commission<sup>4</sup>. In more rural areas, commuting between municipalities is probably less unidirectional and less focused on a single employment centre than in urban ones. As a result, commuting patterns may be less suitable for defining rural daily systems. In rural areas, services such as education and training, healthcare, shops, banks, and cultural and entertainment facilities are often clustered in a town or a village, which acts as a local centre. The objective of an FRA is to capture a daily rural system, i.e. an area that captures the vast majority of daily trips. These trips go beyond travel to work and include travel to services as well as travel to friends and family. It is likely that most non-commuting trips also occur within the same FRA boundaries. Similar to the FUA, the FRA method is constructed around a denser settlement. Instead of a city, FRAs are constructed around towns and villages as defined by the degree of urbanisation. Instead of commuting flows, this method uses driving time to the nearest town or village, and its population size, to create a functional area.

1 Dijkstra et al. (2019).

2 [https://unstats.un.org/UNSDWebsite/statcom/session\\_51/documents/2020-37-FinalReport-E.pdf](https://unstats.un.org/UNSDWebsite/statcom/session_51/documents/2020-37-FinalReport-E.pdf).

3 European Commission (2021).

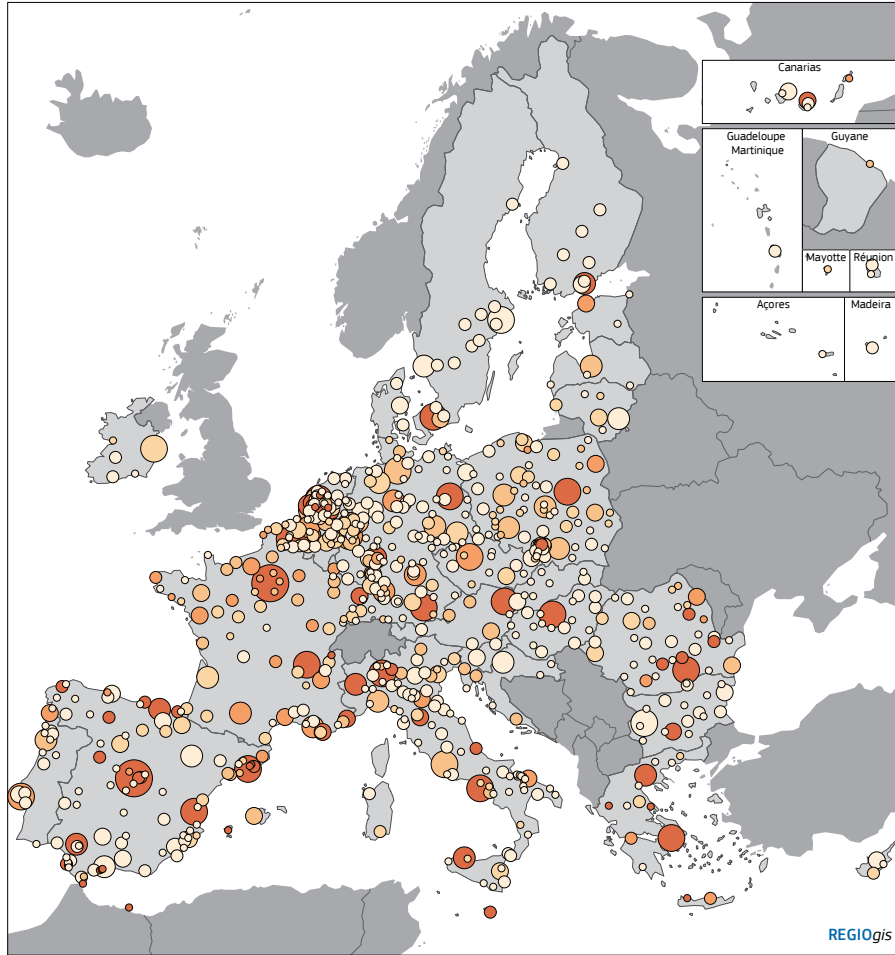
4 Dijkstra and Jacobs-Crisioni (2023).

## 2. Concentration: economic and social trends in urban and non-urban areas

Concentration means that between urban and non-urban regions there are stark differences in economic and social development, opportunities, and living standards. These arise from a complex interplay of factors, including geographical

location, infrastructure and services, access to resources, and policies.

In urban areas, economic activities are typically diverse and dynamic, with a concentration of industries, businesses and services. Urban centres often serve as hubs for commerce, finance, education and training, and technology, attracting investment and fostering innovation. Consequently,

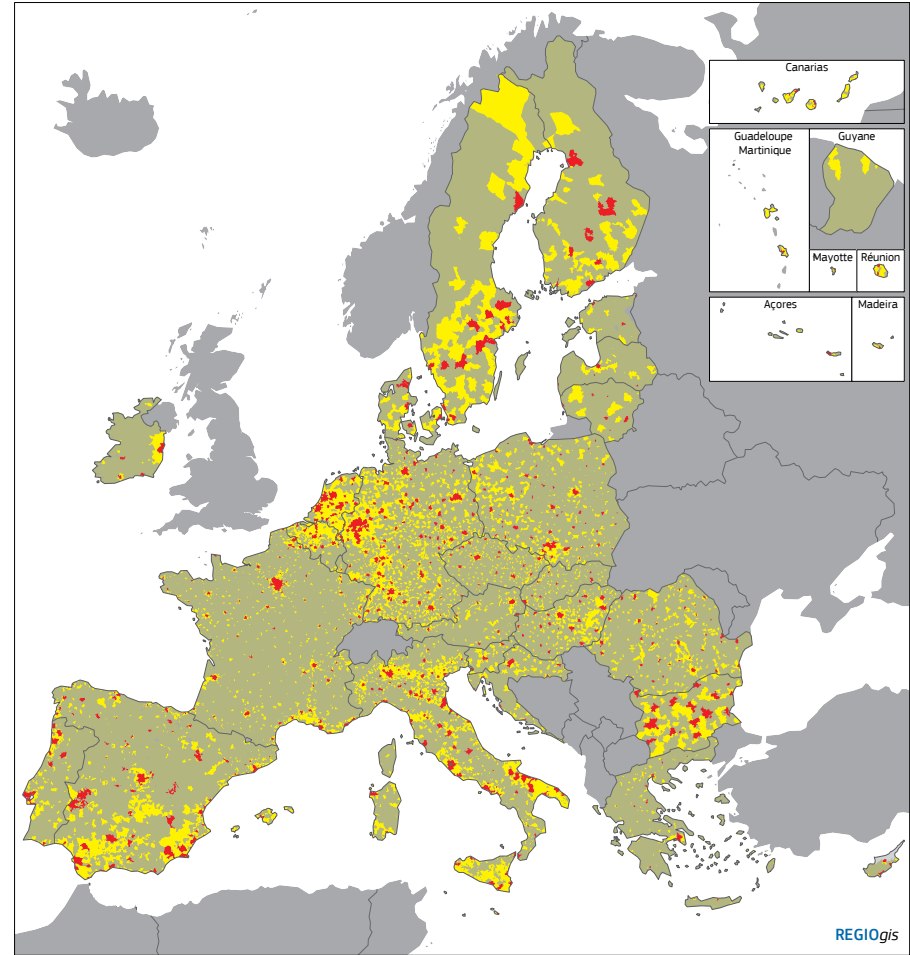


**Map 3.1 Cities in the EU, 2021**

- |  |                         |
|--|-------------------------|
| <b>Inhabitant (inh) per km<sup>2</sup></b> | <b>city population</b>  |
| ○ < 1500                                   | ○ < 100 000             |
| ○ 1500 – 2000                              | ○ 100 000 – 250 000     |
| ○ 2000 – 2500                              | ○ 250 000 – 500 000     |
| ○ 2500 – 3000                              | ○ 500 000 – 1 000 000   |
| ○ 3000 – 4000                              | ○ 1 000 000 – 5 000 000 |
| ● ≥ 4000                                   | ○ ≥ 5 000 000           |

Sources: Eurostat.

0 500 km  
© EuroGeographics Association for the administrative boundaries



**Map 3.2 Degree of urbanisation of Local Administrative Units, 2020**

- Category**
- cities
  - towns and suburbs
  - thinly populated areas
  - no data

Source: Eurostat.

0 500 km  
© EuroGeographics Association for the administrative boundaries

### Box 3.2 Territorial typologies

Both typologies used in this section are based on a combination of geographical contiguity and population size or density. First, an urban centre is defined as a cluster of contiguous grid cells of 1 square kilometre (km<sup>2</sup>) (excluding diagonals) with a population density of at least 1 500 inhabitants per km<sup>2</sup> and a minimum population of 50 000 inhabitants. Second, an urban cluster is defined as a cluster of contiguous grid cells of 1 km<sup>2</sup> (including diagonals) with a population density of at least 300 inhabitants per km<sup>2</sup> and a minimum population of 5 000 inhabitants.

#### The degree of urbanisation

The degree of urbanisation classifies local administrative units into one of three classes, as follows.

- Cities (densely populated areas): at least 50 % of the population live in an urban centre (Map 3.1).
- Towns and suburbs (intermediate density areas): more than 50 % of the population live in urban clusters but less than 50 % live in urban centres.

- Rural areas (thinly populated areas): less than 50 % of population live in urban centres or clusters.

Maps showing this and other typologies can be viewed via the interactive map viewer via the following link: [https://ec.europa.eu/regional\\_policy/as-sets/scripts/map/regio-gis-maps/9cr/9cr.html](https://ec.europa.eu/regional_policy/as-sets/scripts/map/regio-gis-maps/9cr/9cr.html).

#### Metropolitan and non-metropolitan regions

Capital metro, other metro and non-metro regions are defined as follows. Metropolitan ('metro') regions are NUTS 3 regions, or groupings of NUTS 3 regions, representing FUAs (i.e. a city and its commuting zone) of more than 250 000 inhabitants. Capital metro regions are those that include the national capital. Non-metro regions are all other NUTS 3 regions.

More details can be found at: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial\\_typologies\\_for\\_European\\_cities\\_and\\_metropolitan\\_regions](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_for_European_cities_and_metropolitan_regions).

urban residents tend to have better access to employment opportunities, higher wages, and a wider range of consumer goods and services. The presence of well developed infrastructure, such as transport networks<sup>4</sup>, healthcare and long-term care, and education and training institutes, further enhances their quality of life.

Non-urban areas offer many things associated with better well-being, such as larger and cheaper housing and lower crime rates<sup>5</sup>. They are also widely valued for food production, management of natural resources, protection of landscapes, recreation and tourism<sup>6</sup>. Nevertheless, non-urban areas tend to face numerous challenges that may constrain their development. Their geographical remoteness can limit access to markets, making it difficult for agricultural and rural-based industries to thrive. Lack of infrastructure, including reliable roads and railways, electricity, and internet connectivity, hinders business expansion and inhibits the delivery of essential services and development. Addition-

ally, limited educational and training opportunities can constrain the skill set of the workforce. Together with more limited job opportunities in rural and other less densely populated areas, this can lead to higher unemployment rates and lower wages. Lack of access to care facilities may also constrain the available workforce. Many of these services and infrastructures are public in nature.

Results of the analysis in this section show that in the EU the divide in favour of cities is evident primarily in southern and eastern EU countries, where cities clearly outperform thinly populated areas. By contrast, in north-western Member States, where the overall economic and social situation is better than in other countries, cities indeed generate higher GDP, but the economic and social gains are distributed more widely to towns and suburbs, and to thinly populated areas, in part because of the more developed connectivity. Indeed, in north-western countries employment rates are highest for those living in thinly populated areas,

4 See also Section 3 of this chapter.

5 Eurostat [ilc\_mddw06].

6 COM/2021/345 final.

partly reflecting higher rates of commuting, whereas in southern and eastern Member States, employment is lower outside of cities, especially in thinly populated areas. At-risk-of poverty or social exclusion (AROPE) rates are higher, partly as a result of this, posing a challenge for social cohesion. Large disparities exist in tertiary and adult education, cities offering more opportunities for study and providing more jobs for university graduates, while thinly populated areas lag behind, which is reflected in productivity and job quality.

## 2.1 Capital metropolitan regions perform better than other regions

In 2021, metro regions accounted for 60 % of the population in the EU, 63 % of employment and 69 % of GDP. Accordingly, they are major centres of employment and business activity with higher productivity than elsewhere.

Between 2001 and 2021, real GDP per head in metro regions grew faster than in others in all parts of the EU (Table 3.1). This was a result mainly of above-average growth rates in capital city regions. Other metro regions also outperformed non-metro regions in the eastern and southern Member States, but not in the north-western Member States.

In regions in the eastern and north-western Member States, the growth of GDP per head was mainly associated with productivity growth. The pattern is different in southern Member States. Productivity growth was very low during this period and most of the (modest) growth in GDP per head was associated with growth in employment. In capital metro regions in the eastern and southern Member States, the contribution of employment growth to GDP growth was double the average, reflecting a continuing concentration of employment there.

**Table 3.1 Changes in GDP per head, productivity and employment per head by type of region, 2001–2021**

	GDP per head	Productivity	Employment relative to population*
<i>Average % change on the preceding year</i>			
<b>EU-27</b>	1.1	0.7	0.3
Capital metro regions	1.3	0.8	0.5
Other metro regions	0.9	0.5	0.3
Non-metro regions	1.0	0.8	0.2
<b>Eastern Member States</b>	3.5	2.9	0.5
Capital metro regions	3.9	2.8	1.0
Other metro regions	3.4	2.8	0.5
Non-metro regions	3.0	2.8	0.2
<b>North-western Member States</b>	1.0	0.7	0.3
Capital metro regions	1.1	0.9	0.2
Other metro regions	0.9	0.5	0.3
Non-metro regions	1.0	0.7	0.3
<b>Southern Member States</b>	0.1	-0.1	0.2
Capital metro regions	0.2	-0.2	0.4
Other metro regions	0.1	-0.1	0.1
Non-metro regions	0.0	-0.1	0.1

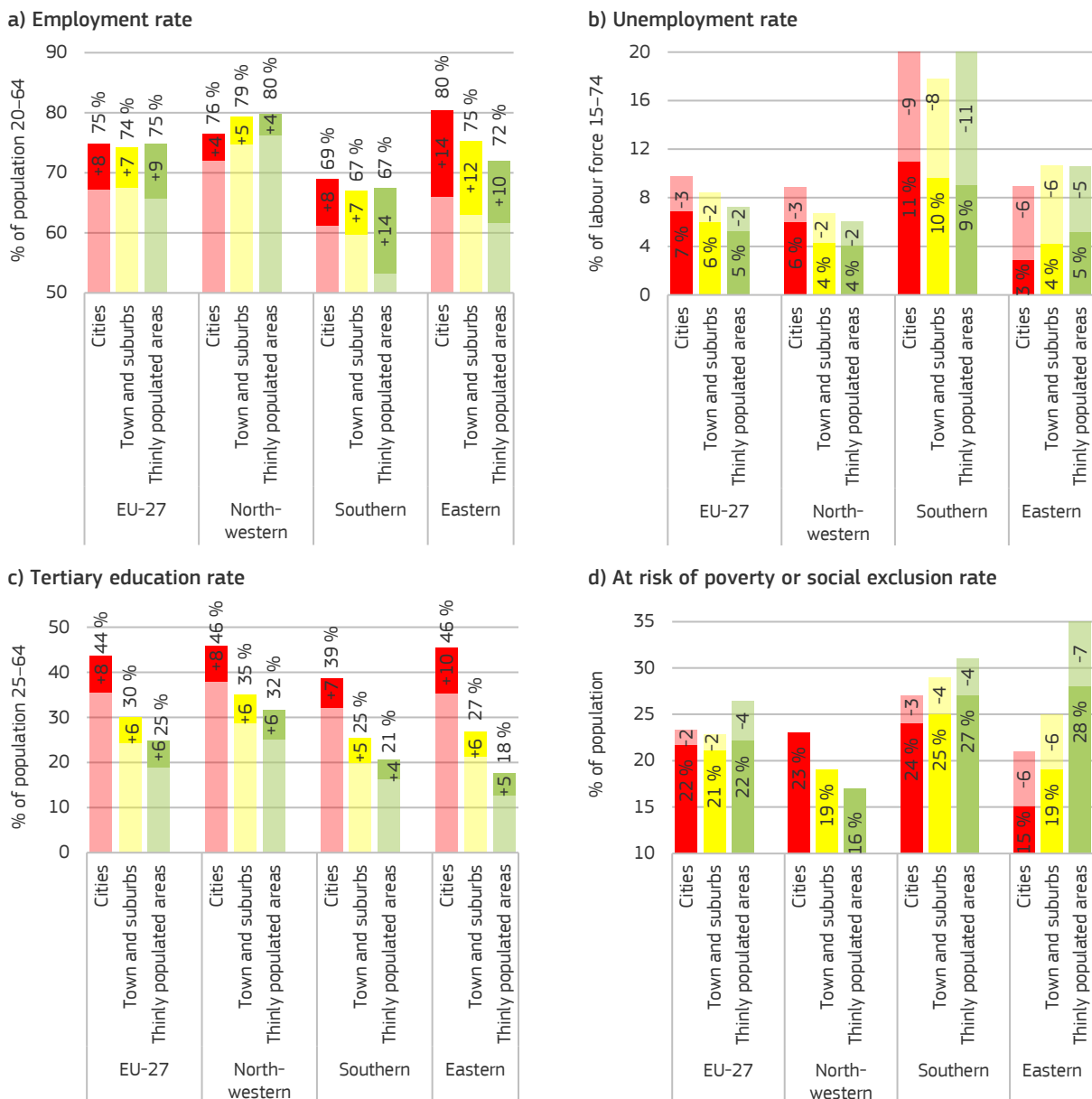
\* This combines the employment rate and working-age population as a share of the total.  
Source: DG REGIO based on Joint Research Centre (JRC) annual regional database (ARDECO) data.

## 2.2 Employment rates are higher in cities in southern and eastern Member States, and in thinly populated areas in north-western ones

As noted above, in the EU as a whole, employment rates in cities, towns and suburbs, and thinly populated areas are similar – around 75 % in 2022. There are, however, marked differences between different geographical areas (Figure 3.1a).

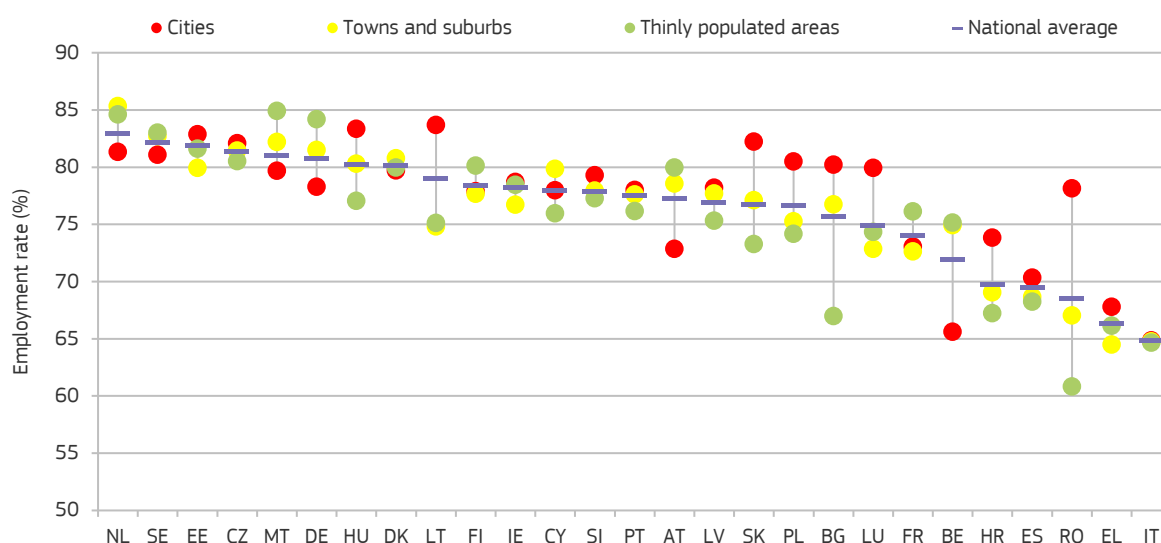
In north-western Member States, the employment rate for those aged 20 to 64 was 80 % in thinly populated areas and towns and suburbs in 2022, as opposed to 76 % in cities. The difference largely reflects differences in Germany, Austria, France and especially Belgium (of 10 percentage points – pp) (Figure 3.2). In southern countries, the employment rate in thinly populated areas increased markedly between 2013 and 2022 (by 14 pp) to almost the same level as in cities (to 67 % as

**Figure 3.1 Employment, education and social indicators in regions by degree of urbanisation, 2013 (2015 for AROPE) and 2022**



Note: For employment and tertiary education rates: lighter parts of bars are for 2013, darker parts for the increase in 2013–2022, bar heights show the % for 2022. For unemployment and AROPE rates: the heights of bars denote % for 2013 (2015 for AROPE), lighter parts of bars show the reduction 2013–2022 (2015–2022 for AROPE), darker parts and % figures are for 2022. 2021 break in LFS series, 2020 break in EU-SILC series. Source: Eurostat [lfst\_r\_pgauwsc, edat\_lfs\_9915, ilc\_peps13n] and DG REGIO calculations.

Figure 3.2 Employment rate by degree of urbanisation in EU Member States, 2022



Source: Eurostat [lfst\_r\_ergau].

against 69 %). In eastern countries, the employment rate in rural areas also increased over the period (by 10 pp to 72 %) but by less than in cities (by 14 pp to 80 %), so the gap between the two widened (to 8 pp from 4 pp). In Bulgaria and Romania, the employment rate in cities was higher than the EU average and much higher than in thinly populated areas (13 pp higher in Bulgaria, 17 pp in Romania).

Unemployment rates to a large extent mirror these differences. In north-western and southern Member States, rates are lower in thinly populated areas than in cities, while the opposite is the case in eastern Member States (Figure 3.1b).

### 2.3 Tertiary education favours cities, especially in eastern Member States

Around 34 % of people aged 25 to 64 in the EU had tertiary education in 2022. However, there are substantial differences between different types of regions. The proportion was much higher in cities (44 %) than in towns and suburbs (30 %) and thinly populated areas (25 %), reflecting the strong demand for workers with tertiary education there. The average difference, moreover, widened between 2013 and 2022 (from 11 to 14 pp in towns and suburbs, and from 17 to 19 pp in thinly populated areas). The difference was substantial-

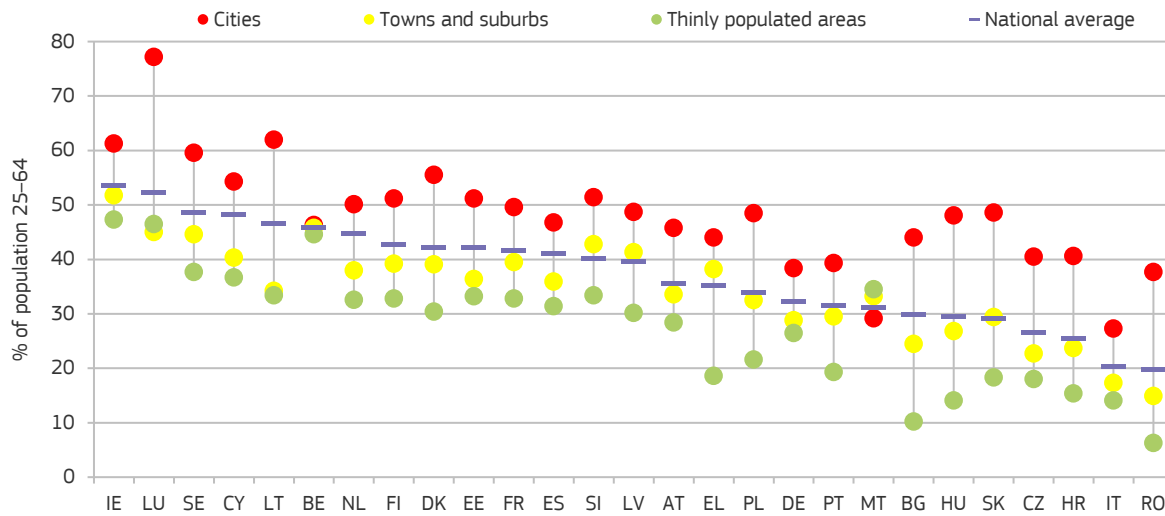
ly wider in eastern Member States (46 % in cities against 18 % in rural areas), giving rise to a large difference in employment and social outcomes (Figure 3.1c).

This pattern of difference was common across all Member States. In 10 EU Member States, over 50 % of the population aged 25 to 64 in cities – and over 60 % in Luxembourg, Lithuania, Ireland and Sweden – had tertiary education. Conversely, the proportion was below 20 % in thinly populated areas in 10 Member States and around 10 % or below in Bulgaria and Romania. The disparities between cities and thinly populated areas were particularly pronounced in these two countries, as well as in Hungary, Luxembourg and Slovakia (Figure 3.3). To some degree, these disparities reflect the difference in the structure of economic activity and the consequent difference in the mix of skills demanded, though they also act as a constraint on the extent to which activity can shift into higher value-added sectors in rural areas.

Vocational education and training (VET) complements tertiary education and equips the economy with high skills that are essential to address labour shortages and deliver on the green and digital transitions (see Chapter 2). Its contribution is evident in thinly populated areas, where those with VET qualifications accounted for 46 % of the pop-



Figure 3.3 Tertiary education attainment by degree of urbanisation in EU Member States, 2022



Source: Eurostat [edat\_lfs\_9915].

ulation aged 25–64, compared with 27 % in cities and 38 % in towns and suburbs.

A low level of tertiary education coupled with a limited increase in this between 2015 and 2020 and an accelerating decline in the working-age population are features of regions in a ‘talent development’ trap, as discussed in Chapter 5. This affects 16 % of the population in the EU, mainly in eastern Member States, especially Bulgaria, Romania, Hungary and Croatia, as well as in the south of Italy, eastern Germany and the north-east of France.

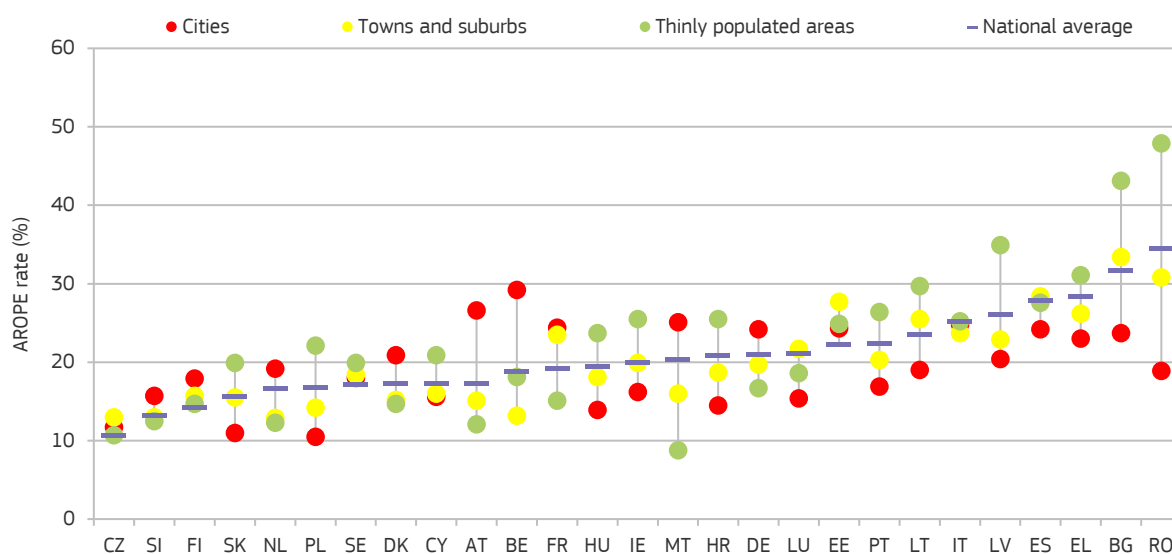
#### 2.4 Poverty and social exclusion are more prevalent in thinly populated areas of eastern and southern Member States and in cities in north-western ones

The AROPE rate declined in the EU over the period 2015–2019 and remained unchanged from then until 2022 in cities, towns and suburbs, and thinly populated areas alike. The reduction in the rate, down on average by 2.4 pp to 22 % over the seven years to 2022, was especially large in rural areas (4.3 pp), particularly in eastern Member States (7.4 pp).

At EU level, the difference between cities, towns and suburbs, and thinly populated areas is notably smaller than between more developed and less developed regions (11 pp) or between north-western and southern Member States (5 pp) (as described in Chapter 2). Indeed, the difference in the rate between cities, towns and suburbs, and thinly populated areas in the EU narrowed over the period, largely as a result of the reduction in rural areas (of 4 pp to 22 %) (Figure 3.1d).

The geographical breakdown highlights the relatively high AROPE rates in thinly populated areas in eastern Member States, despite a large reduction over the 2015–2022 period (of 7 pp to 28 %). In Romania and Bulgaria in particular, the difference in the AROPE rate between thinly populated areas and cities was especially wide (29 pp in the former, 19 pp in the latter). In Austria and Belgium, by contrast, the difference was especially wide in the opposite direction (15 pp and 11 pp, respectively) (Figure 3.4).

Figure 3.4 AROPE rates by degree of urbanisation in EU Member States, 2022



Source: Eurostat [ilc\_peps13n].

### 3. Connecting territories

Mobility is important for both the economy and social life. Cohesion Policy is aimed at improving links between Member States and regions in the EU, in part by supporting the development of the trans-European transport network (TEN-T), especially in regions where transport infrastructure remains under-developed<sup>7</sup>. Promoting sustainable transport and removing transport bottlenecks was one of 11 thematic objectives for Cohesion Policy in the 2014–2020 period and is part of one of the five Policy Objectives for the 2021–2027 period.

Well targeted infrastructure investment and network design are crucial for a transport system that provides accessibility to people and businesses and reduces regional disparities in connectivity. Public transport (especially railways) tends to be less developed outside cities in terms of network density and service frequency. Distances travelled are typically too great to use a bicycle or to walk. As a result, dependency on road transport tends to be higher.

#### 3.1 Road networks are sparser in eastern Member States and infrastructure needs per head are higher in thinly populated areas regions<sup>8</sup>

Road accessibility depends on a sufficiently dense and fast road network that connects places and people. Various other factors also affect accessibility, including the distribution of the population, the efficiency of the layout of the road network, and geophysical features such as mountains, rivers and lakes. Nevertheless, all other things being equal, greater road length per head and more roads that are motorways can be expected to result in greater accessibility and better road performance.

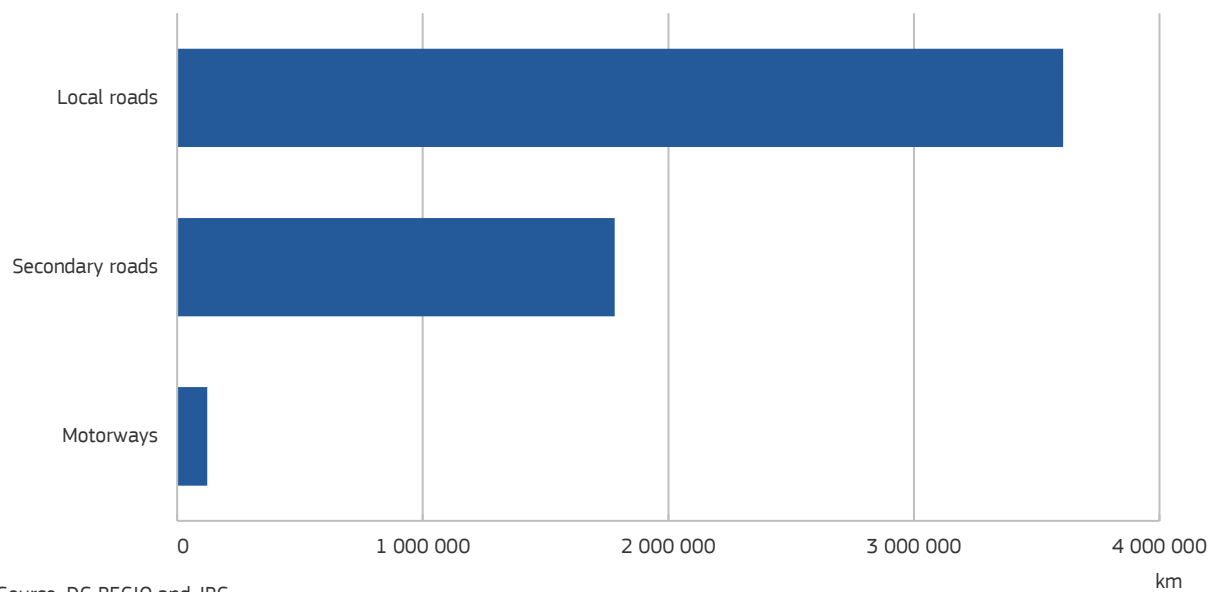
Over the past decade, public investment in transport amounted to around EUR 112 billion a year, accounting for roughly a quarter of total public investment<sup>9</sup>. According to data from the International Transport Forum, the greater part of this went on roads.

<sup>7</sup> European Commission (2021).

<sup>8</sup> This sub-section is largely based on Brons et al. (2022).

<sup>9</sup> This concerns total gross fixed capital formation (Eurostat GOV\_10A\_EXP).

Figure 3.5 Total road length by road class in the EU (km), 2019



Source: DG REGIO and JRC.

Two thirds of the road network in the EU consists of local roads in terms of length, just under a third of secondary roads, and only 2 % of motorways (Figure 3.5). This breakdown is much the same in all Member States.

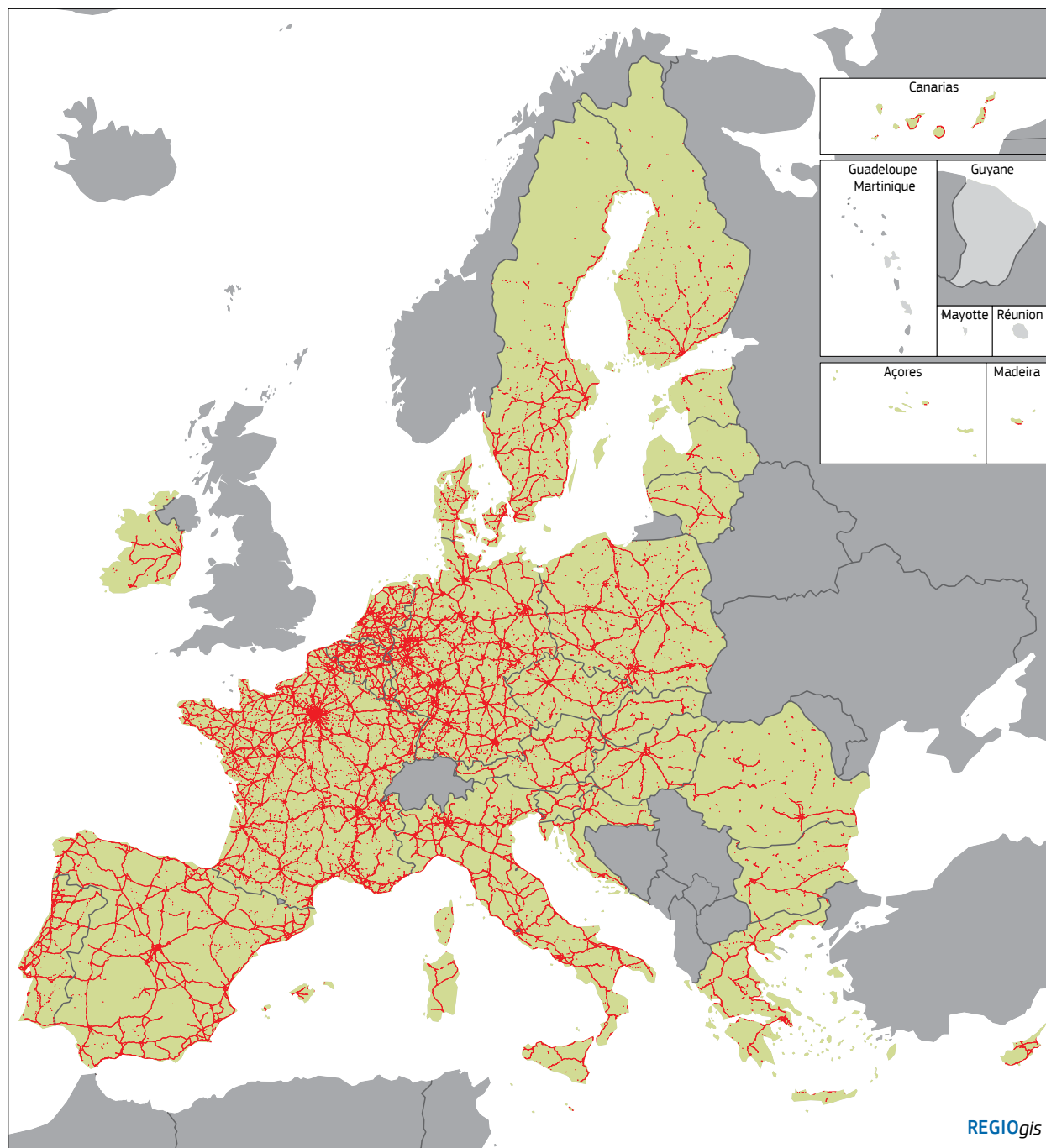
Despite the very small part of the network made up of motorways, they are important in providing fast road connections, particularly for intermediate and long-distance journeys. The motorway network is well developed in most north-western and southern Member States, but much less developed in Romania, Bulgaria, Estonia and Latvia, especially in the more rural parts (Map 3.3). Although these areas are served by secondary and local roads, the lack of motorways tends to imply lower speeds and so lower accessibility.

The length of roads per head differs according to the degree of urbanisation. Because of the dispersed nature of the settlements in thinly populated areas, much greater road lengths per head are required to connect them (Table 3.2). For example, local road length per head is 10 times greater in thinly populated areas than in cities (19 versus 1.8 km per inh), with towns and suburbs in an intermediate position (just under 3 times the length per head in cities, but a quarter of the length in rural areas). The length of motorways and secondary roads per head is also greater in thinly populated areas (though these roads are frequently used by people living outside these areas).

Table 3.2 Road length per inhabitant by road class and degree of urbanisation, 2018

	Thinly populated areas	Towns/suburbs	Cities
All roads (m/inh)	31.0	5.5	2.1
Motorways (m/inh)	0.78	0.10	0.07
Secondary roads (m/inh)	11.3	1.00	0.3
Local roads (m/inh)	19.1	4.4	1.8

Note: Data presented here are based on grid-level classification by degree of urbanisation.  
Source: DG REGIO, JRC.



Map 3.3 Motorways and major roads

- Roads
- No data

Source: JRC based on Tom Tom data.

0 500 km

© EuroGeographics Association for the administrative boundaries

### 3.2 Road performance remains low in some eastern Member States and thinly populated areas

Transport performance by car, defined here as the share of population within 120 km that can be reached within 90 minutes<sup>10</sup>, varied substantially between Member States in 2021. It is highest in Cyprus and only slightly lower in Malta, both relatively small islands, where most destinations can be reached within 90 minutes. It is also high in Belgium and the Netherlands, countries that are also relatively small and highly urbanised, with dense road networks. In Portugal and Spain, where there have been several decades of substantial investment in transport infrastructure<sup>11</sup>, road performance has increased markedly as a result and is now above the EU average and higher than Germany and France. Road performance is lowest in Slovakia and Romania, where road networks remain underdeveloped, and mountainous areas make road construction difficult and costly.

Road performance by car also varies substantially between regions within Member States, both in less developed (especially in Greece, Bulgaria and Slovakia), moderately developed (Portugal) and more developed (Austria) ones (Map 3.4).

Road performance tends to be low in thinly populated areas, especially in eastern Europe, and high in more densely populated regions, particularly in the Netherlands and Belgium, but also in many Spanish regions. In several of the latter, the population is concentrated in densely populated cities – decent road networks, accordingly, providing access to large populations within 90 minutes of driving. Most of the capital city regions have high road transport performance, including in Bulgaria, Croatia, Romania and Slovakia, where overall road performance is low.

### 3.3 Passenger rail performance is poor compared with road, particularly in thinly populated areas

For journeys between urban areas, trains tend to be the main alternative to cars, provided there is a railway station within easy reach and the journey is affordable. As a sustainable means of transport, rail is pivotal in the design and construction of the TEN-T, because it is integral to EU climate policy. Besides the costs involved, the extent to which travellers are willing to consider using trains depends in large measure on the time journeys take as compared with using a car. It also depends on the ease of reaching the departure station and of reaching the final destination from the arrival station<sup>12</sup>.

#### Box 3.3 Measuring transport performance based on accessibility and proximity indicators

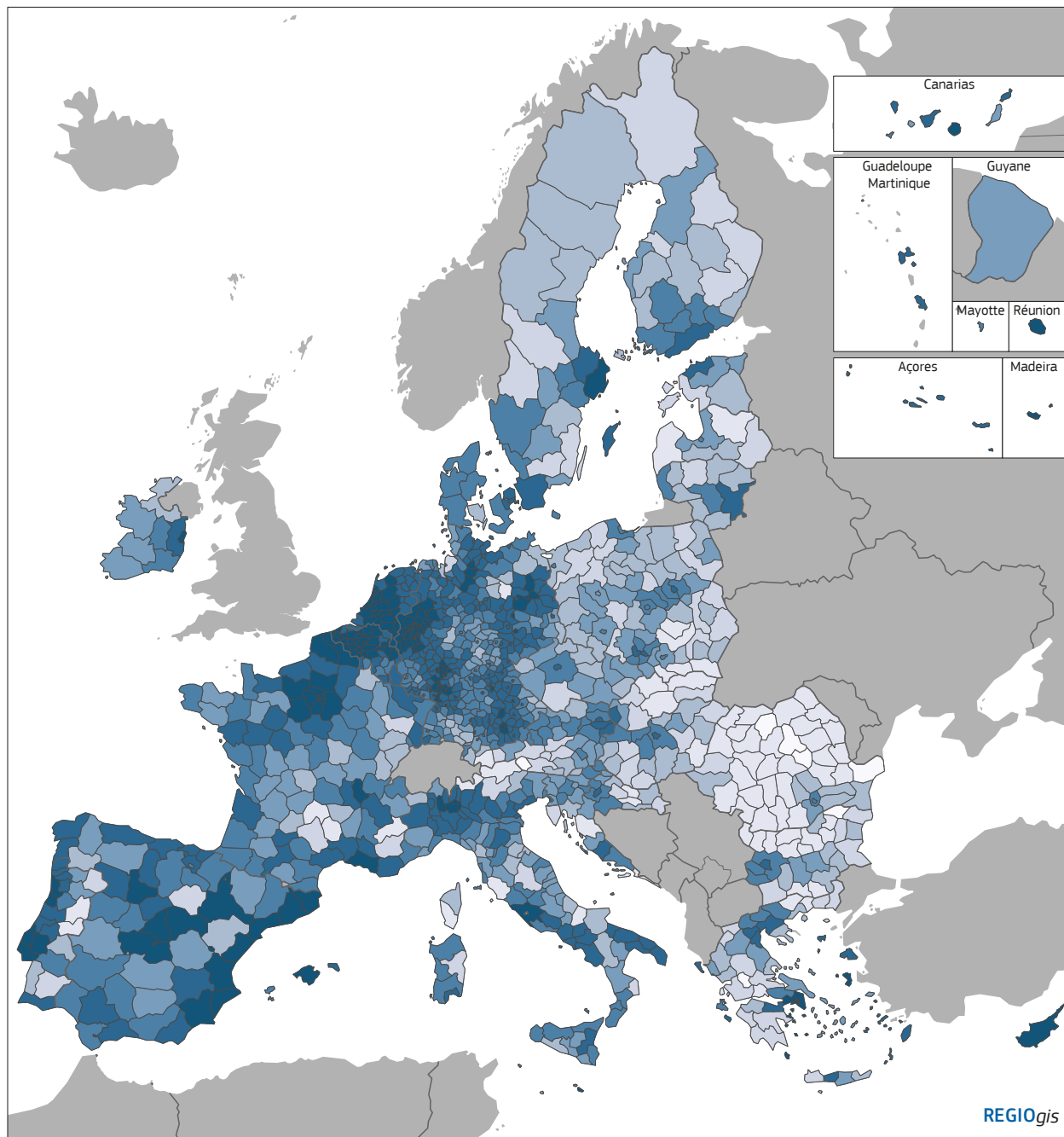
Transport performance is measured here based on a methodology developed by the International Transport Forum together with the European Commission and the OECD. The indicators used and their precise operationalisation in this analysis are as defined in the following table.

Indicator	Description
Proximity	Total population within 120 km (i.e. 'nearby' population).
Absolute accessibility	Population within 120 km that can be reached within 90 minutes by either road or rail (i.e. accessible population).
Transport performance	Ratio of accessibility to proximity, or the share of population within 120 km that can be reached within 90 minutes.

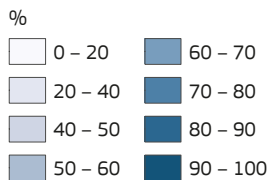
10 For a description of the transport performance indicator see Box 3.3.

11 European Commission (2016); cohesion open data platform (<https://cohesiondata.ec.europa.eu/>).

12 The focus of the analysis here is on accessibility and travel times and does not take account of other factors determining travel choice, including the cost – i.e. ticket price – safety and comfort.



**Map 3.4 Road transport performance (% of population within a 120-km radius that can be reached in 90 minutes) by NUTS 3, 2021**

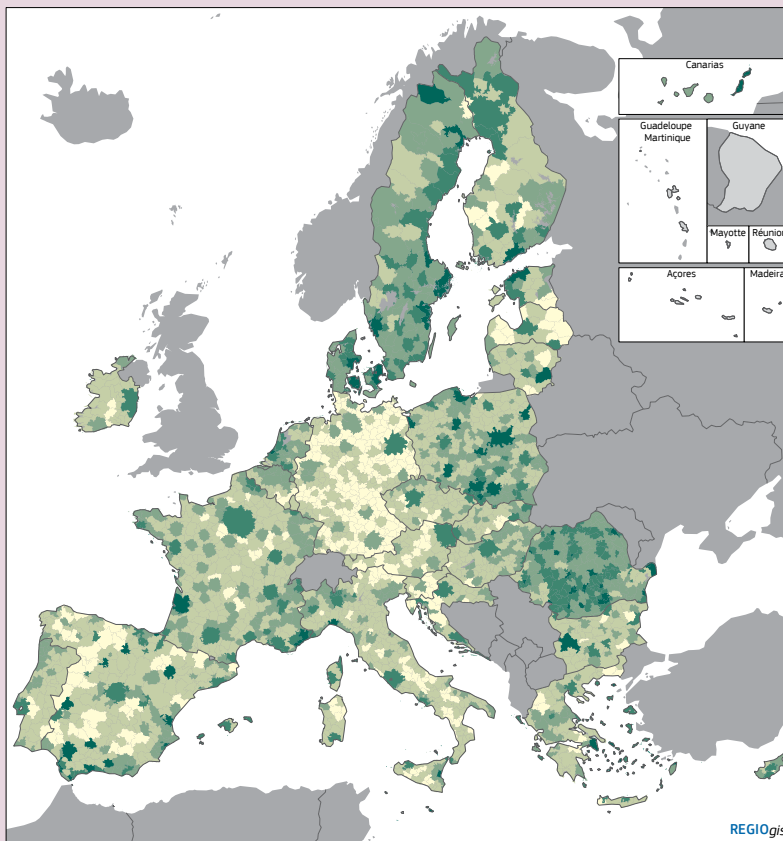


EU-27 = 77.2  
 Share of population within a 120-km radius that can be reached within 90 minutes by car.  
 Source: DG REGIO, based on Eurostat and TomTom data (FR (RUP): JRC and IGN-F).

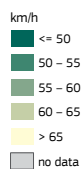
0 500 km

© EuroGeographics Association for the administrative boundaries

### Box 3.4 Estimating the impact of traffic congestion on car travel time in the EU



Map 3.5 Estimated average free-flow travel speed by functional urban and rural area (km/h)



Source: JRC based on TomTom data.

0 500 km

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A recent analysis by the JRC estimates the reduction in speed and increase in travel time on the European road network due to congestion. As a first step, the approach<sup>1</sup> uses an 'origin-constrained spatial interaction model', which produces a distribution of passenger car trips from every inhabited 1-km origin grid cell to all inhabited grid cells that are:

(i) within national borders; and  
(ii) within 60 minutes driving in free-flow conditions, i.e. without congestion. As a next step, the free-flow speed<sup>2</sup> and travel time on the quickest routes from an origin to all destinations are considered. In order to track changes in speed and travel time in the morning commute, the analysis calculates the travel time on the same route when the network speeds reflect those of a regular weekday at 8:30 in the morning<sup>3</sup>.

Map 3.5 and Map 3.6 show, for FRAs and FUAs<sup>4</sup>, the estimated average speed of travelling in free-flow conditions and the loss in average travel speeds in weekday 8:30 am driving conditions. Free-flow speeds depend inter alia on national regulations, which explains the fact that some of the variation shows up at the country level (Map 3.5).

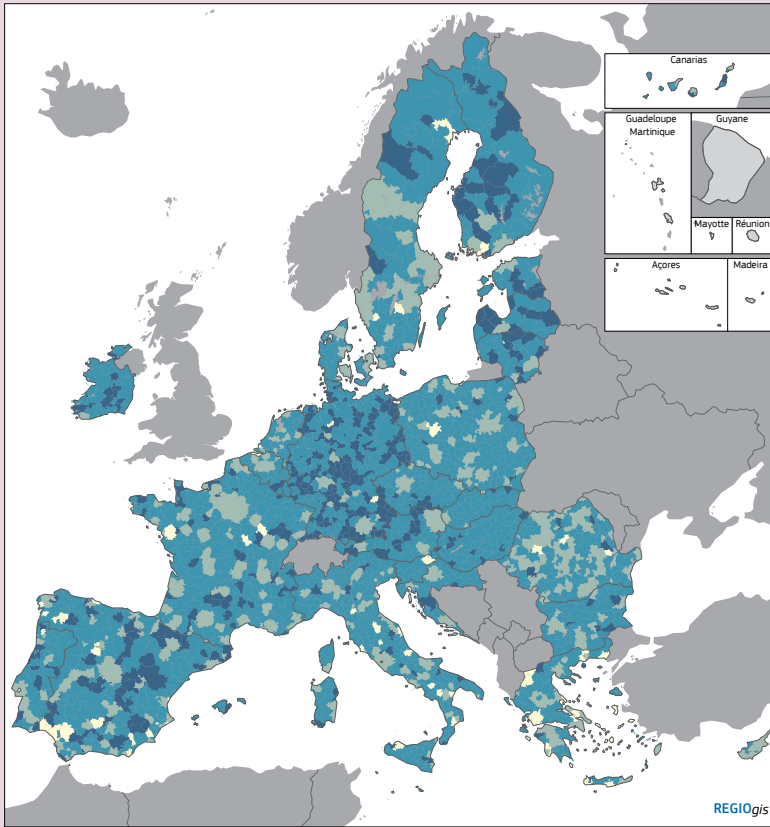
For example, in areas of Germany, Italy, Spain and Latvia speeds tend to be higher than in most other Member States. Nevertheless, there are significant regional variations in most countries, indicating in particular lower free-flow speeds in urban areas. The loss in travel speed in morning peak conditions is largest in FUAs in Spain, Germany, Finland and Latvia (Map 3.6). As a general rule, reductions in speed tend to be larger in areas where the free-flow speed is higher.

1 The approach is based on Jacobs-Crisioni et al. (2015), using data from Batista e Silva et al. (2021).

2 Travel speeds are obtained from speed profiles recorded in the TomTom data.

3 8:30 in the morning is selected because, across Europe, this is when most time is lost (Christodoulou et al., 2020).

4 FUAs are defined using the provisional boundaries of the 2021 Geostat grid. The specification of FRAs is an ongoing task. The definition used here is the currently preferred one but is provisional.



Map 3.6 Estimated average loss in travel speed with 8:30 am driving conditions by functional urban and rural areas (km/h)

km/h  
 <= 5.0  
 5.0 - 7.5  
 7.5 - 10.0  
 > 10.0  
 no data

Averages in functional urban and rural areas  
 Source: JRC based on TomTom data.

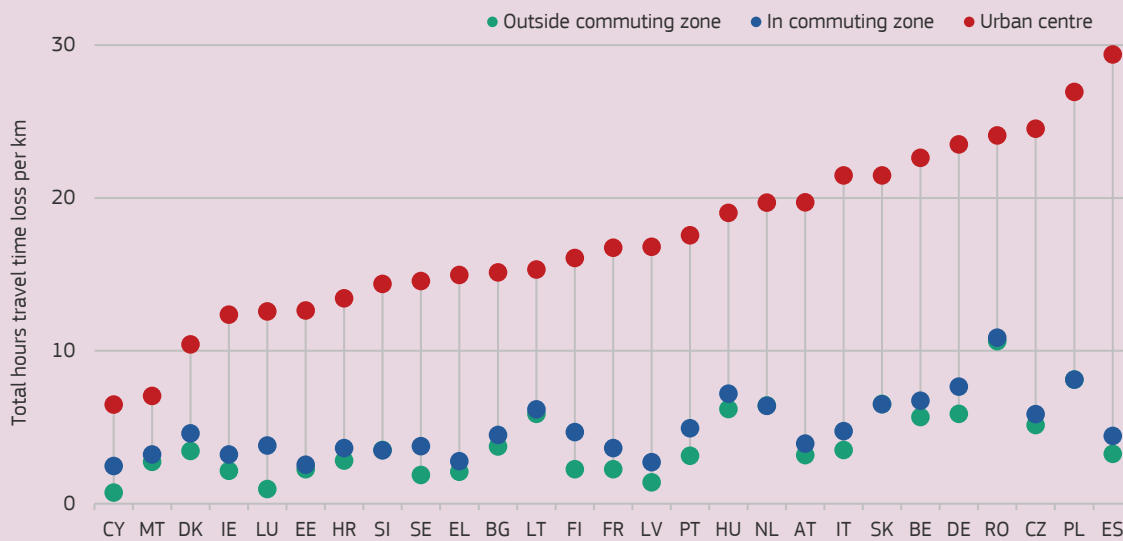
0 500 km

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Lower car travel speeds during the morning rush hour lead to losses in travel time<sup>5</sup>. Figure 3.6 shows, by Member State and urban audit zone, the amount of travel time lost. This is calculated as the total estimated amount of time residents would lose when travelling their modelled journeys at 8:30 am travel speeds instead of free-flow speeds, relative to the kilometres of road in a specific zone. In all Member States, the impact of traffic congestion on travel time is much greater in urban centres than in other areas. Outside urban centres, the impact of congestion in commuting zones is only slightly higher than in non-commuting ones.

<sup>5</sup> Time losses need to be measured appropriately, as they depend among other things on factors such as average travel speeds and lengths of travel, which vary considerably across the EU. To indicate the territorial scale of time loss, hours lost are therefore normalised by road lengths per urban audit zone.

Figure 3.6 Travel time hours lost due to morning peak traffic per km of road length



Source: Batista e Silva and Dijkstra (2024), JRC based on TomTom.



Rail performance is defined here as the proportion of the population living within a 120-km radius that can be reached by rail within 90 minutes (see also Box 3.3). This proportion lies between 0 and 100 % but has positive values only for people living in locations where they have access to a rail station (see Box 3.5).

In all NUTS 3 regions, transport performance by rail remains lower than by road, which hardly encourages people to travel by train, especially if they need to travel frequently or quickly.

At the EU level the average rail performance is 15.7, which means that, on average, around just under 16 % of the population living within a 120-km radius can be reached within 90 minutes by rail. However, there is substantial variation across EU regions (Map 3.7). Around a quarter of people in the EU have access to a reasonable rail service (rail performance indicator above 20). Most of these live in urban areas. Only some 6 % of people, all living in capital city or other metro regions, can reach over half of the population living in a 120-km radius within 90 minutes. The top-performing regions include Paris and surrounding regions, Berlin, Copenhagen and the surrounding region, and Barcelona, where more people live close to a station and where there are more, and faster, train connections. In thinly populated areas, rail performance tends to be lower because the population is more dispersed and stations are fewer

### Box 3.5 Determining who has access to a rail station

To assess whether or not a person has access to a rail station, the approach followed is, first, to determine the area that can be reached within 15 minutes by:

- walking at a moderate speed;
- a bike ride at a realistic speed;
- a car ride, including time for parking and allowing for possible congestion; or
- a short trip by public transport.

All people living in a 200 x 200 m grid cell that has its centre in the area reachable within 15 minutes are considered to have access to the station for the purpose of this analysis.

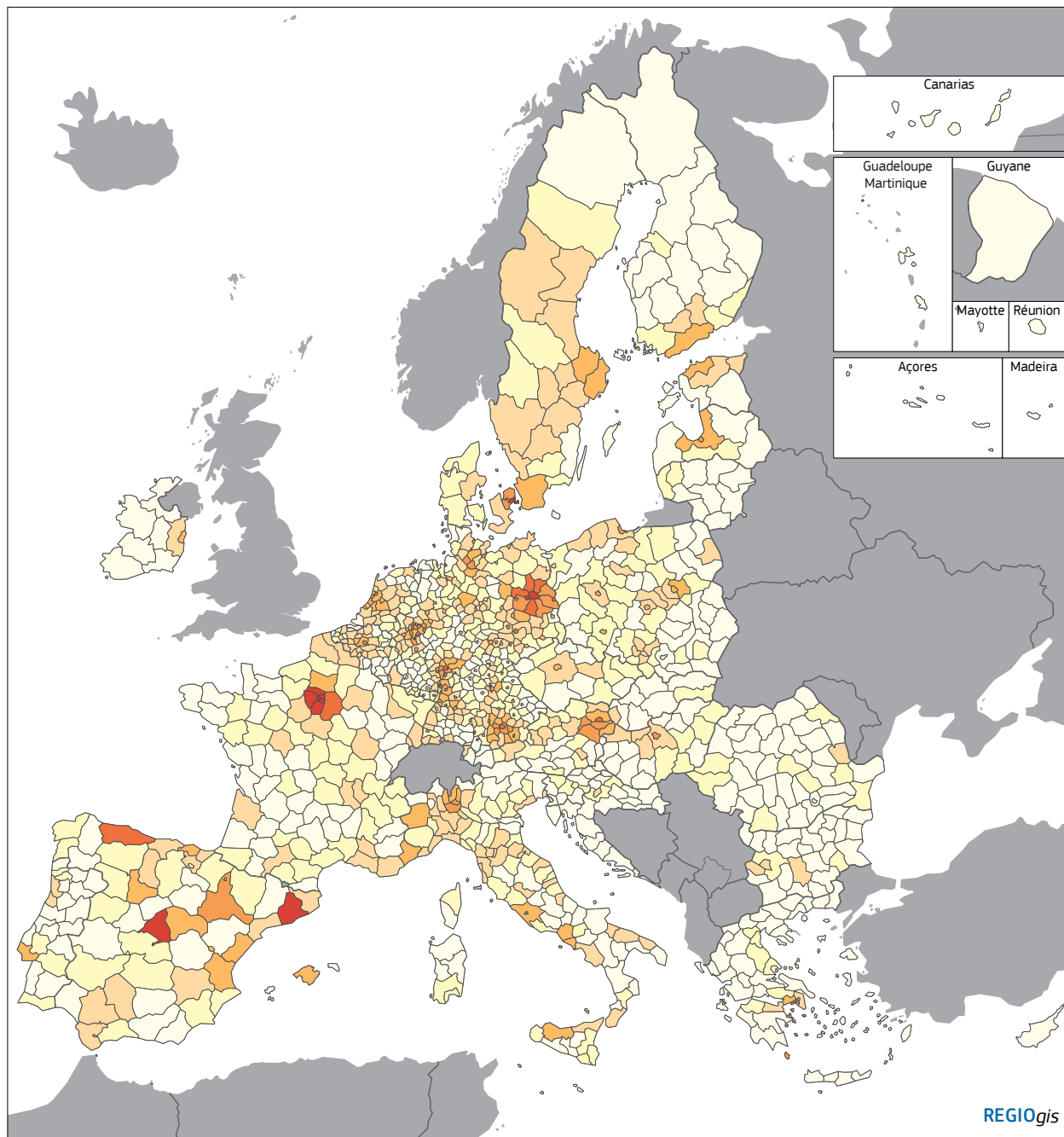
and farther between. Indeed, many people in rural regions do not have access to a rail station at all.

Rail performance also tends to be lower in eastern EU regions, particularly in Lithuania and Romania. This is partly linked to the fact that eastern regions tend to be less densely populated and have a larger proportion of people living in rural regions. However, rail performance is also low in urban regions as compared with urban regions in other parts of the EU, which reflects the low investment in the rail network before EU accession.

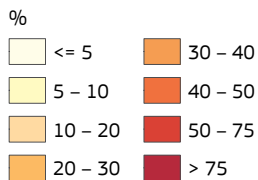
**Table 3.3 Access to primary schools (2018), universities (2020) and healthcare centres (2021–2022) by urban-rural typology including closeness to a city**

	Primary school < 15 min walking	University < 45 min driving	Distance to nearest healthcare centre
<b>Urban</b>	77.9	98.6	6.4
<b>Intermediate</b>	58.0	89.8	10.3
Intermediate – close	58.6	91.7	10.1
Intermediate – remote	48.6	61.9	13.6
<b>Rural</b>	45.3	69.1	14.0
Rural – close	44.7	73.9	13.0
Rural – remote	47.3	55.6	16.8

Source: DG REGIO calculations based on data from Eurostat, JRC and TomTom.



**Map 3.7 Rail transport performance (% of population within a 120-km radius that can be reached in 90 minutes) by NUTS 3, 2019**



EU-27 = 15.7  
 Taking into account population living within 15 minutes at 15 km/h around stations.  
 Sources: REGIO-GIS, International Union of Railways, railway operators, JRC, TomTom.

0 500 km

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### 3.4 Urban regions have better access to education and healthcare services<sup>13</sup>

If transport networks provide poor connectivity, this typically translates into poor access to essential services such as education and healthcare (Map 3.8).

For children in primary education, access to school varies considerably across regions. The proportion of the population living within a 15-minute walk of a primary school is over 80 % in several regions in the south and east of Spain, south and north-west of Italy, north of France and the Netherlands. It also tends to be higher in capital city regions than others. The smallest proportions are in southern and eastern regions of Germany, and in Croatia, Latvia and Lithuania. While the average proportion is 80 % in urban areas across the EU, in rural regions and in remote intermediate regions it is less than half (Table 3.3). This might well reduce the attractiveness of such regions as places to live for families with young children.

Access to universities tends to follow a similar pattern. The share of the population that can reach a university within a 45-minute drive is close to 100 % in many regions in most Member States. On average, access is less in eastern Member States, but not markedly so. Regions with low access are mostly in Finland, Romania and Poland. More generally, access is better in more densely populated areas. In urban regions, close to 100 % of the population can reach a university within a 45-minute drive. In rural regions, it is only 69 %, and in remote rural regions, only just over half. Proximity to a university may affect the number of students needing to leave their home region to follow a university course of study, which may be reflected in higher outward migration of young people from remote rural regions than others.

Access to healthcare centres varies substantially across regions, but this partly seems to be because of differences at Member State level. Regions where the distance to the nearest healthcare centres is on average longest, over 35 km, are in Greece, Sweden and Romania. Most centres are located in or near cities, the average distance in urban regions being 6.4 km. In rural regions, the average distance is over twice as long, and 16.8 km in remote ones. At the same time, the proportion of the population aged over 65, who are those most often in need of medical treatment, is largest in these regions (see Chapter 5).

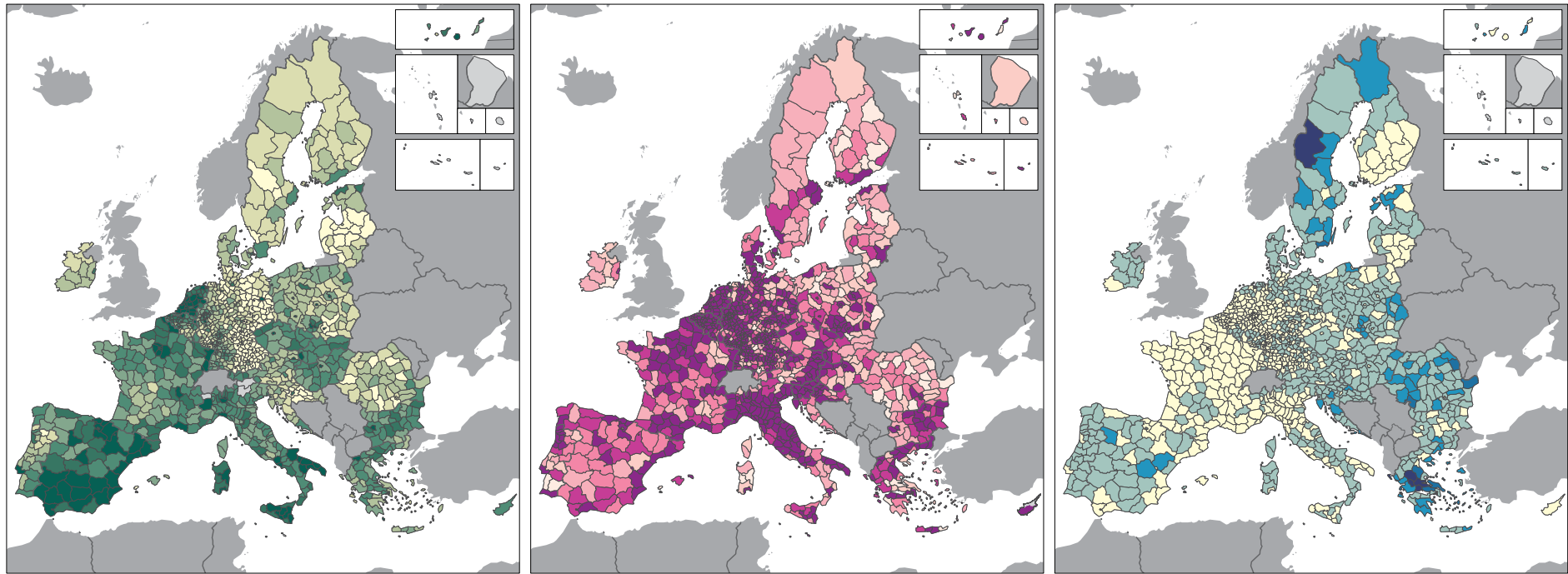
## 4. Border regions and cross-border co-operation

Border regions account for more than 40 % of the EU's landmass, 30 % of its GDP and 30 % of its population, some 150 million people. Almost 2 million people live in one country in the Schengen area and work in another, and some 3.5 million people cross one of the 38 internal borders of the EU every day. Many border regions are peripheral, distant from metropolitan centres, with more limited access to healthcare and other essential services than others. Border regions can also face specific challenges in times of crises, whether linked to restrictions on cross-border movement during pandemics or a sudden influx of refugees from a conflict zone on the other side of the border. Disaster prevention and precautionary action tend to be more difficult because of differences in governance, and administrative and legal systems. Co-operation across borders may be a way of escaping a development trap or demographic decline. Additionally, border areas are places with high growth potential, where cultural and linguistic diversity encourages intense social and economic interaction, where many people carry out daily activities on both sides of the border and where cross-border co-operation between towns and cities provides opportunities for multipolar growth<sup>14</sup>.

13 This subsection uses the urban-rural typology. This typology classifies NUTS 3 regions in three types: (i) urban regions: more than 80 % of the population live in an urban cluster; (ii) intermediate regions: 50–80 % live in urban clusters; (iii) rural regions: less than 50 % live in urban clusters. For a definition of urban clusters see Box 3.2.

14 Strasbourg-Kehl, Gorizia-Nova Gorica, Cieszyn-Český Těšín, Tui-Valencia, Frankfurt an der Oder-Slubice, etc.

Map 3.8 Access to education and healthcare services in EU regions by NUTS 3 region

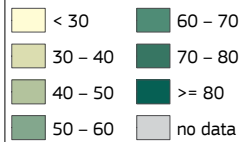


Primary schools

Universities

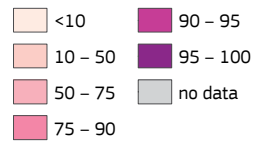
Healthcare centres

Share of population in a region, in %



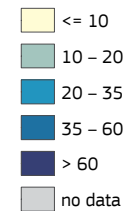
EU-27 = 64.0  
 Share of population within a 15-minute walk of a primary school, 2018.  
 Source: DG REGIO based on data from Eurostat, JRC and TomTom.

Share of population in a region, in %



EU-27 = 89.0  
 Access to a university campus within 45 minutes of travel by car, 2020.  
 HU: 2019; CZ: 2018; SI: 2016.  
 Sources: ETER register, OpenStreetMap, TomTom, Eurostat, IGN-F, REGIO-GIS.

Travel time by car (minutes)



Data collected in 2021–2022.  
 Healthcare centres are hospitals or similar centres. No harmonised source of geolocation data of health services exists. This potential lack of comparability should be kept in mind when comparing the figures for different countries.  
 Sources: Location of healthcare centres – Eurostat (GISCO) based on national authoritative sources; driving time – TomTom network; population – Eurostat 2021 population grid.



These opportunities are behind the logic of Interreg<sup>15</sup> intervention, both at the cross-border and transnational level. Interreg intervention supports co-operation by linking resources and people and helping to remove barriers to interaction, and building trust and a common identity.

**Towards citizen-driven and people-to-people projects**

Interreg has been pioneering closer involvement of citizens in Cohesion Policy. There is an increasing number of programmes promoting citizen-led initiatives and participation, through cross-border

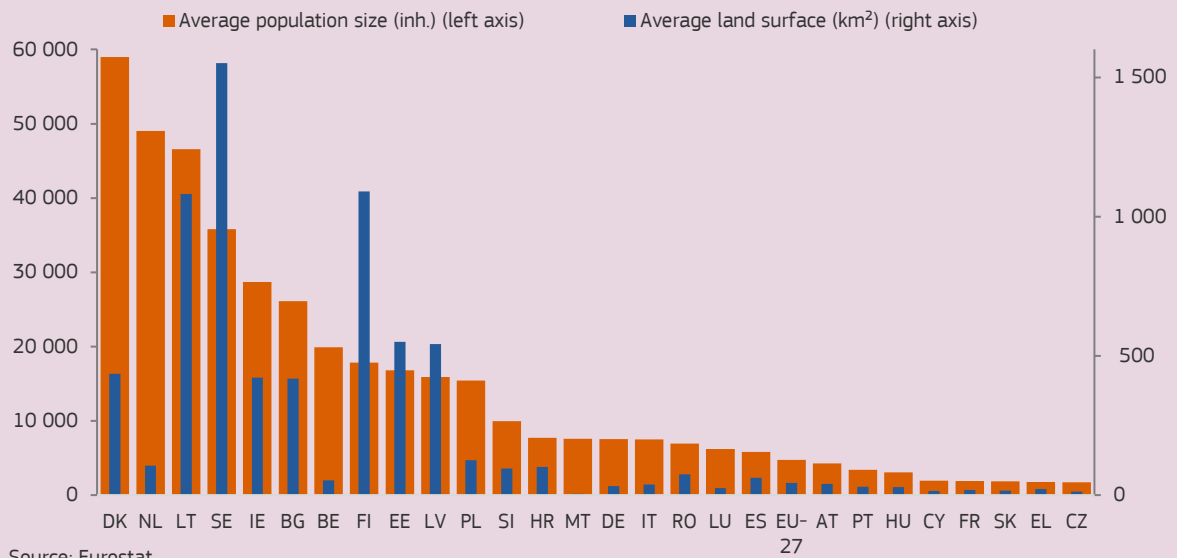
**Box 3.6 The need for inter-municipal cooperation**

The average size of municipalities and communes in the EU displays large variation between Member States, both in terms of their population size and their surface area (Figure 3.7). The average population size varies between 1 710 in Czech municipalities to almost 60 000 inhabitants in Danish municipalities. The variation in the average surface area is even more pronounced, ranging from 4.6 km<sup>2</sup> in Malta to 1 551 km<sup>2</sup> in Sweden.

Efficiency and scale concerns are at the core of territorial reforms in Europe, including at the local level. Control over a complex network of service delivery

institutions, organisational fragmentation and multi-territorial public and private entities, with overlapping territories and areas of responsibility that do not always coincide, are, from a governance efficiency point of view, some of the justifications for territorial and functional reforms<sup>1</sup>. Alternative strategies to deal with the challenges of local governance size include inter-municipal co-operation, amalgamation and competition. In general, inter-municipal co-operative arrangements are seen as a way of addressing the challenges of sub-optimal municipal size and can serve as functional substitutes for territorial consolidation<sup>2</sup>.

**Figure 3.7 Average population size and land surface size per municipality by Member State, 2021**



1 Teles (2016).  
2 Koprić (2012).

15 Interreg is a key EU instrument that strengthens co-operation between regions and countries within the EU. As part of the EU's Cohesion Policy, Interreg plays a vital role in promoting regional development and cohesion, and reducing economic disparities. For the 2021–2027 period, Interreg runs with a budget of EUR 10 billion and is focused on addressing current challenges such as climate change, digital transformation, and social inclusion.

‘people-to-people’ projects and civil society engagement<sup>16</sup>. At the same time, these projects help to build solidarity and change attitudes towards neighbours living on the other side of the border. This is particularly true of projects under the first Interreg specific objective (‘a better cooperation governance’) introduced in the 2021–2027 period, to improve governance for better territorial co-operation.

### Removing obstacles to co-operation

While Interreg support for cross-border interaction increases, co-operation encounters obstacles because of legal and administrative differences on the two sides of the border, which, inter alia, affect the functioning of the Single Market. The removal of these barriers requires decisions well beyond programme management but has potential benefits. It has been estimated that removing 20 % of the obstacles would generate a gain of 2 % in GDP and over 1 million jobs in border regions<sup>17</sup>. On the other hand, the economic impact of border restrictions introduced because of COVID-19 was for border regions more than twice the average in other regions. In 2020, 44 % of respondents in border regions identified legal and administrative differences as the most important obstacle to cross-border co-operation<sup>18</sup>. The Commission has recently adopted a Regulation on facilitating cross-border solutions<sup>19</sup> to reduce the effect of these differences.

### Still missing transport links

While Interreg is not designed for funding large infrastructure projects, there is a clear gap in small-scale cross-border transport connections, as illustrated by an inventory of 57 legal and administrative obstacles affecting public transport<sup>20</sup>. Not all of these take the form of missing infrastructure – in many cases they involve lack of coordination in timetables or ticketing.

### Paving the way for enlargement

The EU has land borders with 23 countries, including the candidate countries. Participation in Interreg programmes, in which they are equal partners, and in macro-regional strategies gives the countries concerned an opportunity to build their capacity to participate in Cohesion Policy programmes not only at the central but also at the local and regional level, so preparing them for accession.

## 5. Regions with specific geographical features

This section examines the socio-economic performance of areas with specific geographical characteristics, such as island regions, outermost regions, border regions, mountain and coastal regions, and northern sparsely populated regions.

The unique features of these regions can have a significant effect on their economic development, requiring a more specific approach than other regions at a similar level of development. Islands, for example, may have higher transport costs, which affect the competitiveness of their industries. Mountainous regions tend to be limited in terms of available arable land and transport infrastructure. Coastal regions have issues arising from climate change, such as rising sea levels and increased vulnerability to natural disasters. Outermost regions, geographically distant from the European mainland, have issues of isolation and reduced access to markets. Sparsely populated northern regions have problems of connectivity and accessibility.

Examining the economic dynamics of these regions enables a fuller assessment to be made of regional disparities across the EU. Differences in economic performance between regions can be significant, and disparities can lead to outward migration, social inequalities and political tension. By comparing these regions with others, a deeper understanding can be gained of the factors affecting regional development.

16 Ninka et al. (2024).

17 Camagni et al. (2017).

18 European Commission (2020).

19 European Commission (2023).

20 European Commission (2022).

### Box 3.7 Regional typologies based on specific geographical features

The different types of regions examined in this section are defined as follows.

- Border regions are NUTS 3 statistical regions with an international land border, or regions where more than half of the population live within 25 km of such a border. Two categories can be distinguished: external border regions – those sharing a border with countries that are not in the EU, which are mostly located along its eastern border and the border with the western Balkans; and internal border regions – those sharing a border with other EU Member States or the four members of EFTA, Iceland, Liechtenstein, Norway and Switzerland. These categories are not mutually exclusive in that a region may have both an internal and an external border.
- Island regions are NUTS 3 statistical regions that consist entirely of one or more islands, islands being defined here as having: (i) a minimum surface area of 1 square km; (ii) a minimum distance of 1 km between the island and the mainland; (iii) a resident population of more than 50; and (iv) no fixed link (e.g. bridge, tunnel or dam) with the mainland.
- Mountain regions are NUTS 3 statistical regions in which more than half of the land area is mountain or in which more than half of the population live in mountain areas<sup>1</sup>.
- Coastal regions are defined as NUTS 3 statistical regions that have a coastline, or in which more than half of their population live less than 50 km from the sea.
- Outermost regions are defined in Articles 349 and 355 of the Treaty on the Functioning of the European Union and are Guadeloupe, Guyane, Réunion, Martinique, Mayotte and Saint-Martin (France), Açores and Madeira (Portugal) and Canarias (Spain). In the outermost regions the NUTS 2 and NUTS 3 levels coincide, except for Canarias, which are comprised of six NUTS 3 regions.
- Northern sparsely populated regions are 11 NUTS 3 statistical regions covering the four northernmost counties of Sweden (Norrbotten, Västerbotten, Jämtland and Västernorrland) and the seven northernmost and easternmost regions of Finland (Lapland, Northern Ostrobothnia, Central Ostrobothnia, Kainuu, North Karelia, Pohjois-Savo and Etelä-Savo). Together with the northernmost regions of Norway, they formed the 'northern sparsely populated areas' network in 2004.

<sup>1</sup> The definition of topographic mountain areas is largely based on Nordregio (2004).

At the same time, the specific characteristics of these regions are a source economic potential that can be harnessed for sustainable development not only of the regions themselves but also of the wider EU. Coastal areas, for example, as well as islands and mountainous regions, can capitalise on their natural resources and tourism potential.

Table 3.4 summarises the number of NUTS 3 regions included in each of these types of regions as well as the share of the EU population living in them, GDP at current prices in 2021 and GDP per head in purchasing power standards (PPS) in 2021.

It should be noted that several regions are in fact included simultaneously in different categories. For example, the number of regions with internal and external borders does not add up to the total number of border regions. Mountain regions and

sparsely populated ones are often border regions. In several cases, island regions are also mountain regions, and more than half of their population live in a border region; in some cases, island regions are also outermost regions, all of the latter, except Guyane, being islands.

In terms of population, the group of coastal regions is by far the largest, with almost 37 % of the EU population in 2021. This is followed by border regions (28 %) and mountain regions (26 %). The remaining groups have much smaller proportions of EU the population: only 5 % in island regions, 1 % in outermost regions, and 0.5 % in northern sparsely populated regions. Between 2008 and 2021, the proportion of the population living in these regions remained remarkably stable, except for coastal and mountain regions, in which it increased (by 3 pp and 1 pp, respectively).

Table 3.4 Main characteristics of regions with specific territorial characteristics, 2021

	No of NUTS 3 regions (% EU-27)	Population, million (% EU-27)	GDP million EUR (% EU-27)	GDP/head EUR PPS (% EU-27)
EU-27	1166 (100)	446.5 (100)	14 524 809 (100)	32 524 (100)
<b>Border regions</b>	384 (33.0)	124.6 (27.9)	3 412 107 (23.5)	27 923 -85.9
Internal border	332 (28.5)	108.7 (24.3)	3 147 885 (21.7)	28 998 (89.2)
External border	81 (7.0)	25 (5.6)	392 579 (2.7)	20 059 (61.7)
<b>Island regions</b>	58 (5.0)	20.6 (4.6)	748 688 (5.2)	33 578 (103.2)
<b>Coastal regions</b>	339 (29.1)	163.7 (36.7)	5 337 003 (36.7)	31 014 (95.4)
<b>Mountain regions</b>	309 (26.5)	115.7 (25.9)	2 915 947 (20.1)	26 741 (82.2)
<b>Outermost regions</b>	14 (1.2)	5 (1.1)	98 368 (0.7)	19 947 (61.3)
<b>Northern sparsely populated regions</b>	11 (0.9)	2.2 (0.5)	93 898 (0.6)	33 995 (104.5)

Source: DG REGIO calculations based on Ardeco.

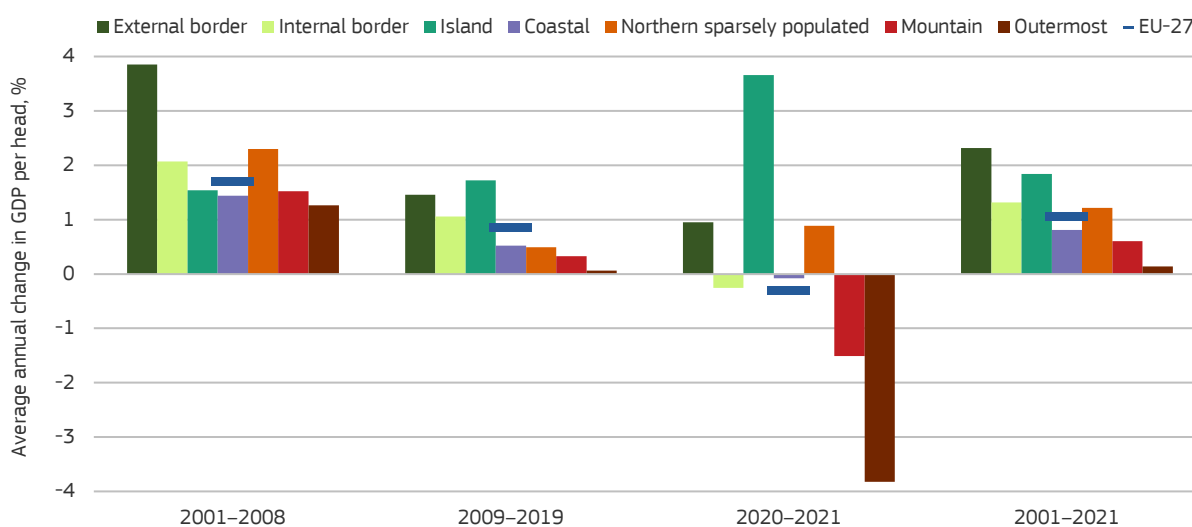
In 2021, coastal regions accounted for the same share of EU GDP as their population, while border, mountain and outermost regions accounted for smaller shares, and island and northern sparsely populated regions larger shares.

GDP per head in PPS in island regions and sparsely populated northern regions was higher than the EU

average in 2021 (3.2 % and 4.5 % higher, respectively), while in the other regions it was below the average, most especially in external border regions and outermost regions (both 38–39 % below).

In terms of growth of GDP per head in real terms, border regions, islands and northern sparsely populated regions had average growth rates higher

Figure 3.8 Growth rates of GDP per head (at constant prices) in regions with specific territorial characteristics in different time periods during 2001–2021



Source: DG REGIO calculations based on Ardeco.



than the EU average over the period 2001–2021 (Figure 3.8). In the external border regions, the growth rate averaged 2.3 % a year, twice the EU average (1.1 %). This is in part because of the regions concerned being mostly less developed regions with higher growth potential than others.

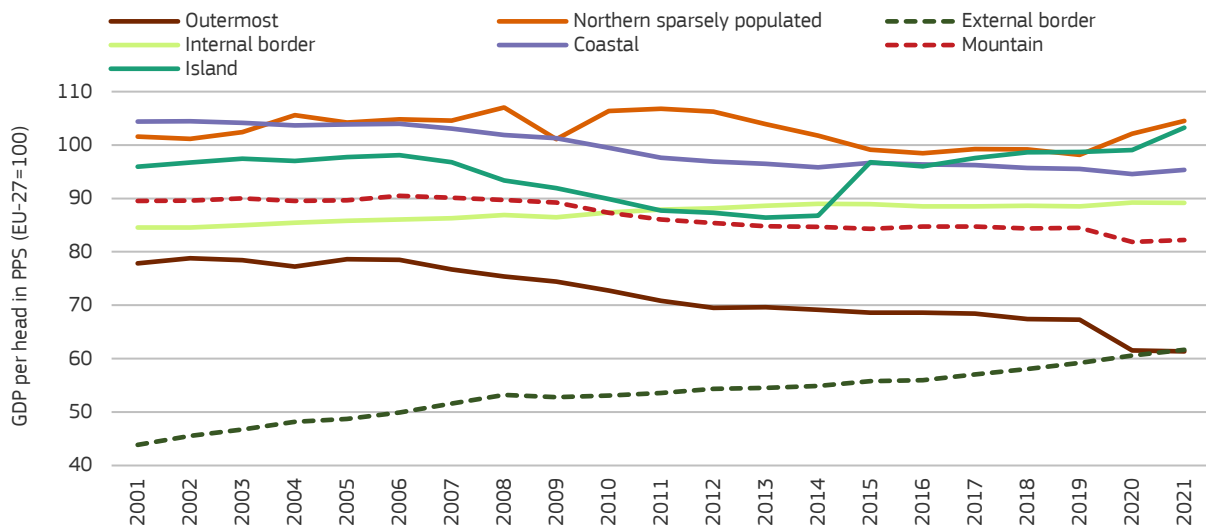
The figures for the island regions must be treated with caution, as they are distorted by the fact that Ireland had a significantly higher growth rate than the EU average, especially after 2014, because of the presence of large multinational companies, whose profits form a significant share of GDP. In all island regions apart from Ireland, GDP per head declined slightly in real terms over the 20-year period, especially after 2008, which clearly reflects structural weaknesses. GDP per head in the outermost regions was also less than the EU average after 2008.

Dividing the period before and after the COVID-19 pandemic, i.e. 2009–2019 and 2020–2021, growth of GDP per head was above the EU average in both sub-periods in external border regions and island regions. The latter, however, is because of Ireland. In the other island regions, GDP per head fell in both the years before the pandemic and the years after (by 2.7 % between 2019 and 2021). The outermost regions were affected most by the pan-

dem, with GDP per head falling by 3.8 % between 2019 and 2021, while mountain regions also experienced a decline (of 1.5 %). The northern sparsely populated regions had higher growth than the EU average in both the 2001–2008 and 2020–2021 periods.

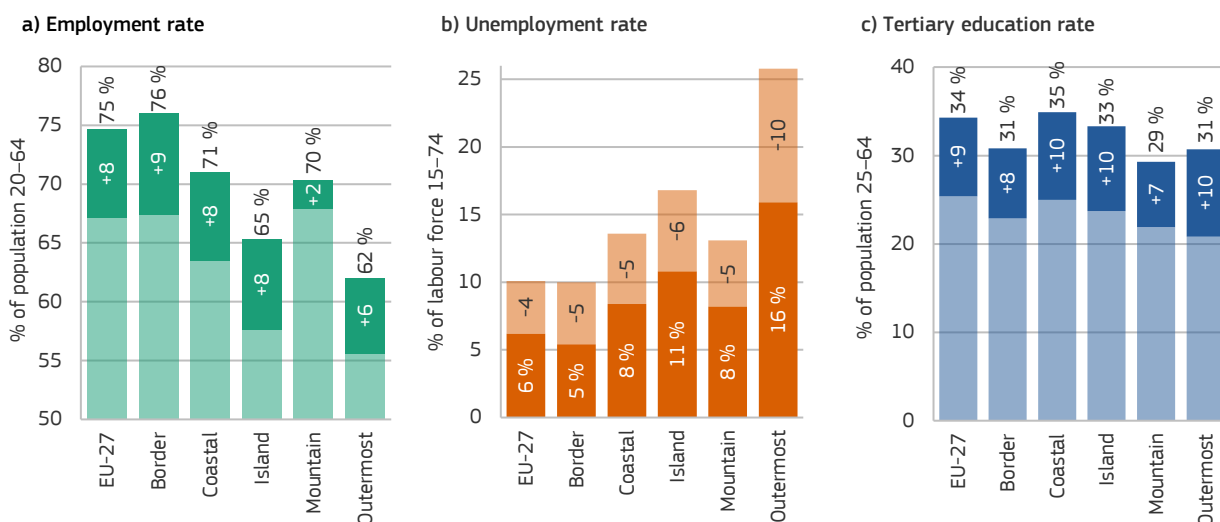
GDP per head in PPS was above the EU average in northern sparsely populated regions in 2021 and for most of the 2001–2021 period (Figure 3.9). In island regions, it converged to the average after 2014 and exceeded it in 2021, again solely because of Ireland. In the other island regions, there was a steady and progressive reduction in GDP per head relative to the EU average over the period (from 84 % in 2001 to 66 % in 2021). In coastal regions, GDP per head declined relative to the average from 2010 onwards, in the aftermath of the Great Recession of 2008–2009. The same is the case for mountain regions, though at a lower level. In the outermost regions, GDP per head began to fall relative to the EU average from 2006, and in the following 15 years it fell by 17 % of the average. In internal and especially external border regions, on the other hand, GDP per head increased continuously relative to the EU average – especially in the latter, the level rising from 44 % of the average to 62 % over the period.

Figure 3.9 GDP per head in PPS, EU=100 in regions with specific territorial characteristics, 2001–2021



Source: DG REGIO calculations based on Ardeco.

Figure 3.10 Change in social indicators in regions with specific territorial characteristics, 2011–2021



Note: For employment rate and tertiary education rate: lighter bar parts are for 2011, darker parts for increase 2011–2022, and bar heights show the percentage for 2021. For unemployment rate: the bar heights show the percentage for 2011, lighter bar parts show the reduction 2011–2022 and darker parts the percentage for 2022.

Source: DG REGIO calculations based on Eurostat [urt\_lfe3emp].

The different indicators of the socio-economic situation in regions with specific territorial characteristics help to give a better understanding of their performance and situation relative to that of other parts of the EU<sup>21</sup>. Figure 3.10a shows that border regions (including both internal and external border regions) performed slightly better than the EU average in terms of the employment rate, in terms of both the level in 2021 (76 % compared with 75 %) and the growth over the period 2011–2021 (9 pp compared with 8 pp). Coastal and mountain regions had a lower employment rate of around 70 %, but while the former have seen a substantial increase over the decade, the latter have seen only a slight rise. Island and outermost regions lag behind the other categories, with employment rates of 65 % and 62 % respectively, although both showed a marked improvement over the decade.

All categories of regions show a reduction in the unemployment rate over the period 2011–2021, ranging from a third to a half (Figure 3.10b).

In 2021, the border regions had a lower rate of unemployment (5 %) than the EU average, while in coastal and mountain regions it was above the average (8 %), and in the islands further above (10 %). The outermost regions had the highest rate in 2011, and although it fell by 10 pp over the following decade, it still stood at 16 % in 2021.

The share of the population aged 25–64 with tertiary education also varies between these categories of regions and others (Figure 3.10c). In 2021, the average share was marginally larger than the EU average in coastal regions, though smaller than the average in all the other categories, if only slightly so in island regions. Mountain regions had the smallest share (29 %). Between 2011 and 2021, the share of the population with tertiary education increased in all categories of regions and by much the same as the EU average, by slightly less in mountain and border regions, and by marginally more in coastal, island and outermost ones.

21 Data on these indicators were not available for the categories of northern sparsely populated regions and internal and external border regions.

## References

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