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**Cohesion in Europe towards 2050**

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**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 5 A MORE SOCIAL AND INCLUSIVE EUROPE

- Until the COVID-19 outbreak, labour markets in EU Member States and regions were on a steady path to recovery from the adverse effects of the 2008 economic and financial crisis. Only a small impact of the COVID pandemic is visible so far on the employment and unemployment figures. Between 2013 and 2020, the employment rate in the EU of those aged 20-64 rose by 5 pp to reach 72.5%, 0.7 pp lower than in 2019.
- The employment rate in 2020 was 5.5 pp below the EU 2030 target of 78%. The rate was higher in more developed regions (76%) than in transition regions (72%), and lowest in less developed regions (67%), though the latter rose by 7 pp between 2013 and 2020.
- Between 2013 and 2020, unemployment fell in all EU Member States, from a high of 11.4% to 7.1% (up from 6.7% in 2019). The rate was highest in less developed regions (8.8%), followed by transition (7.9%), and lowest in more developed regions (5.6%).
- In 2019, around 91 million people in the EU (20% of the population) were at risk of poverty or social exclusion. The rate was slightly higher in rural areas (22%) than in cities (21%) and in towns and suburbs (19%), but it declined in all three cases between 2012 and 2019.
- Migrants (defined as foreign-born) are concentrated in regions in north-western EU, mainly in cities where economic opportunities are more and support networks most developed. The employment rate of non-EU migrants has increased, but remains lower than for the native-born (62% as against 74% in 2020) in most regions, especially for those with tertiary education.
- The risk of poverty and social exclusion for the non-EU born is double that of the native born, with the rate of material deprivation being particularly high.
- Despite the strong political commitment to achieve gender equality in the EU, large differences remain between women and men in different aspects of life. In 2020, for instance, the employment rate of men aged 20-64 was 11 pp higher than for women, much the same as in 2013.
- Disadvantages faced by women and what they can achieve differ widely across the EU, with women achieving most in Nordic regions and being disadvantaged most in southern and eastern regions.
- The EU regional Social Progress Index, a measure to capture aspects of well-being not fully reflected in GDP, varies greatly across EU regions, with less developed regions scoring particularly poorly and Nordic regions performing well.

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## **5.1 Before the COVID-19 outbreak hit, labour markets across EU regions were experiencing a period of positive trends.**

In 2019, prior to the COVID-19 pandemic, the EU had the highest employment and lowest unemployment rates on record<sup>1</sup>. The pandemic had only a small impact on these rates.<sup>2</sup> The employment rate for those aged 20-64 in 2020 was only slightly lower than in 2019 (72.5%, down just 0.7 pp), but still 2.5 pp short of the Europe 2020 target of 75%. The Commission has proposed a target of increasing the employment rate to at least 78% by 2030<sup>3</sup>. As of 2020, only five EU Member States had already met this new target: Sweden, Germany, Czechia, Estonia and the Netherlands.

The employment rate in 2020 had returned to pre-crisis levels in all Member States except Greece where, at 61%, it was still 5 pp lower than in 2008. In Hungary, it was 14 pp higher than in 2008 and in Malta, 18 pp higher.

The employment rate, however, varies markedly across regions and types of region (Map 5.1 and Map 5.2). In 2020, the rate in more developed regions averaged 76%, while in less developed regions, it was well below this at 66%, though up 7 pp from 2013, with the average rate in transition regions in between (72%). The employment rate is increasing most in less developed regions - catching up in regions in the eastern EU and recovering in regions in Spain and Portugal - as well as in Ireland, which was hit hard by the economic and financial crisis (Table 5.1).

Between 2013 and 2020, unemployment fell in all EU Member States, from 11.4% to 7.1% (it was 6.7% in 2019). It declined most in Greece, Spain, and Croatia (by 10 pp or more in each case). It was highest in 2020 (at 8.8%) in less developed regions, followed by transition regions (7.9%) and more developed ones (5.6%). On average, the highest unemployment rates were in southern EU regions (12%) and the lowest in eastern ones (4.4%) (Map 5.3 and Map 5.4).

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<sup>1</sup> EC, 2020a, p. 13.

<sup>2</sup> While the labour market in the EU has been severely hit by the pandemic and associated containment measures, the impact was mainly on the quarterly (rather than annual) employment figures and on total hours worked. The increase in unemployment was kept down by the job retention schemes introduced by governments (European Central Bank Economic Bulletin 8/2020 and Eurostat Statistics Explained on *Labour markets in the light of the COVID 19 pandemic – quarterly statistics*). The impact of the COVID crisis on total hours worked in EU regions has been considered in the first chapter of this report.

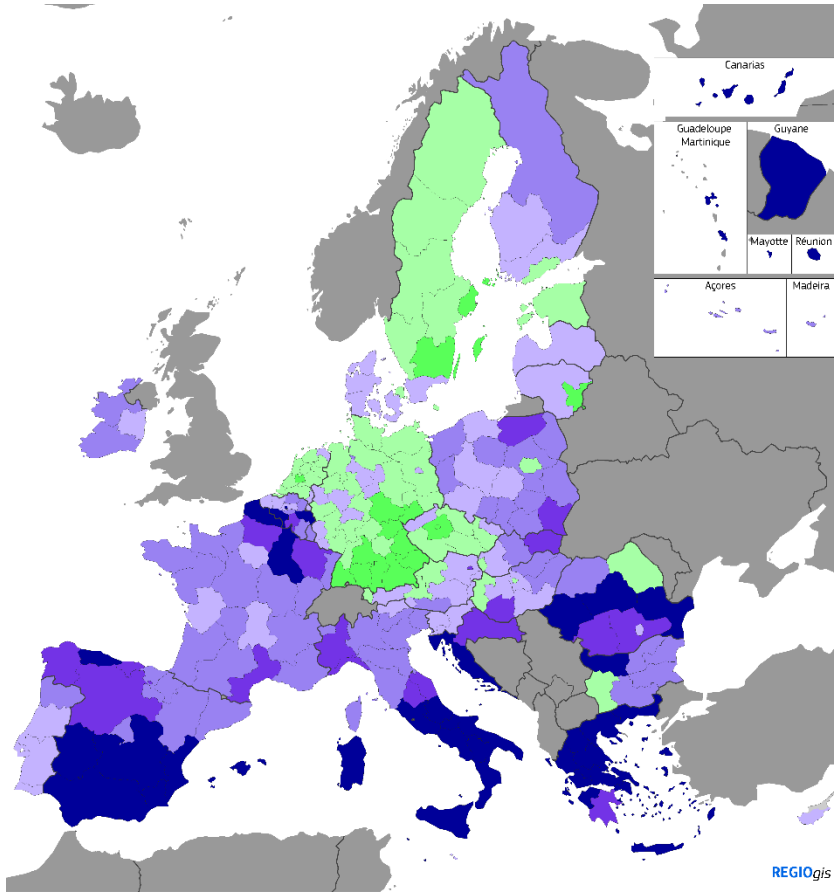
<sup>3</sup> As part of the European Pillar of Social Rights Action Plan that was welcomed by EU leaders during the Social Summit in Porto on 7-8 May 2021 and the European Council on 25 June 2021.

**Table 5.1: Employment and unemployment rates by group of regions and degree of urbanisation, 2020 and changes 2013-2020**

		<b>More developed regions</b>	<b>Transition regions</b>	<b>Less developed regions</b>	<b>EU</b>
Employment rate (% of population 20-64)	2020 (%)	76.3	71.8	66.1	72.5
	Change 2013-20 (pp)	+3.5	+4.7	+3.5	+5.0
Unemployment rate (% of labour force 15-74)	2020 (%)	5.6	7.9	8.8	7.1
	Change 2013-20 (pp)	-2.6	-5.0	-6.9	-4.4
		<b>north-western EU</b>	<b>southern EU</b>	<b>eastern EU</b>	<b>EU</b>
Employment rate (% of population 20-64)	2020 (%)	76.4	64.8	73.8	72.5
	Change 2013-20 (pp)	+2.8	+5.5	+8.3	+5.0
Unemployment rate (% of labour force 15-74)	2020 (%)	5.4	12.0	4.4	7.1
	Change 2013-20 (pp)	-2.1	-7.3	-5.7	-4.4
		<b>Cities</b>	<b>Towns and suburbs</b>	<b>Rural areas</b>	<b>EU</b>
Employment rate (% of population 20-64)	2020 (%)	72.2	72.0	73.0	72.5
	Change 2013-20 (pp)	+5.0	+4.2	+5.5	+5.0
Unemployment rate (% of labour force 15-74)	2020 (%)	8.0	6.9	5.9	7.1
	Change 2013-20 (pp)	-4.3	-3.9	-4.9	-4.4

Source: Eurostat table [fst\_r\_lfe2emprt] and [fst\_r\_lfu3rt], DG REGIO calculations

**Map 5.1: Employment rate (20-64), 2020**



**Employment rate (20-64), 2020**

% of population aged 20-64

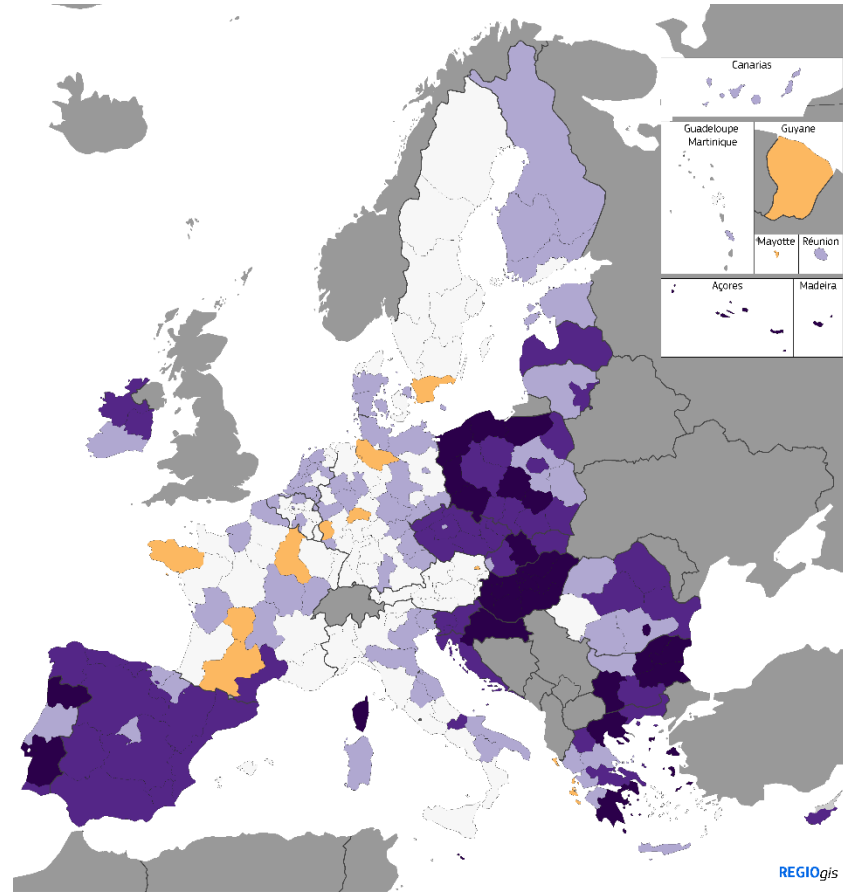
- < 66
- 66 - 70
- 70 - 74
- 74 - 78
- 78 - 82
- >= 82

EU-27 = 72.5  
 The employment rate target is 78% by 2030.  
 Source: Eurostat (lfst\_r\_lfe2emprt)

0 500Km

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**Map 5.2: Change in employment rate (20-64), 2013-2020**



**Change in employment rate (20-64), 2013-2020**

Percentage point change

- <= 0
- 0 - 3
- 3 - 6
- 6 - 9
- > 9

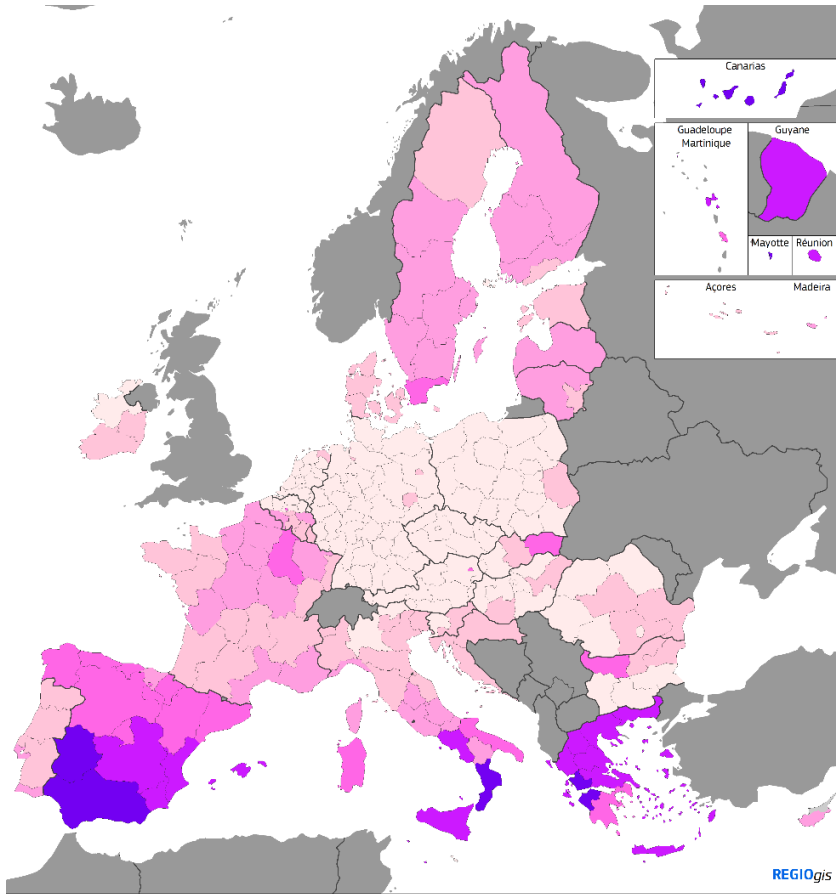
EU-27 = 5  
 Source: Eurostat (lfst\_r\_lfe2emprt)

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**Map 5.3: Unemployment rates, 2020**



**Unemployment rate, 2020**

- % of labour force
- < 5
  - 5 - 7.5
  - 7.5 - 10
  - 10 - 15
  - 15 - 20
  - > 20

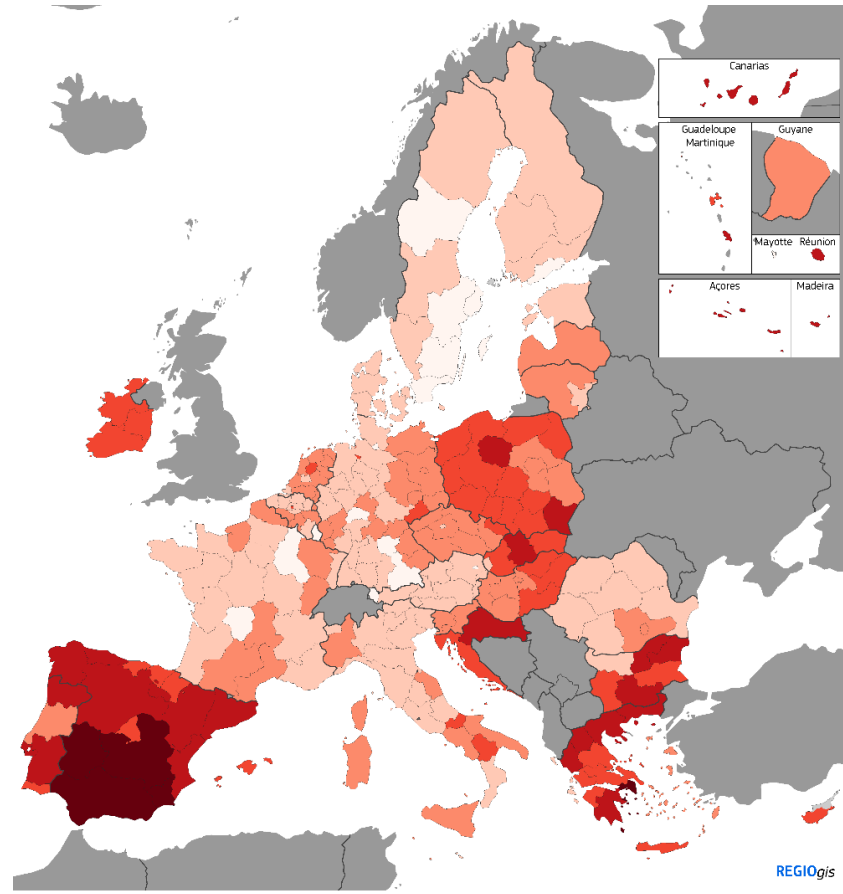
EU-27 = 7.1  
Source: DG REGIO based on Eurostat data (lfst\_r\_lfu3rt)

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**Map 5.4: Change in unemployment rates, 2013-2020**



**Change in unemployment rates, 2013-2020**

- Percentage point change
- <= -12
  - 12 - -9
  - 9 - -6
  - 6 - -3
  - 3 - 0
  - > 0

EU-27 = -4.4  
Source: Eurostat (lfst\_r\_lfu3pers, lfst\_r\_lfu2act)

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The unemployment rate is the main indicator used to measure labour under-utilisation in an economy, but it gives only a partial picture of the extent of mismatch between labour supply and demand. The concept of 'labour market slack' (see Box) is instead a measure of the full extent of labour force under-utilisation.

### **What is labour market slack?**

Labour market slack is defined as the sum of those aged 15-74 who are unemployed, under-employed part-time workers, and the potential additional labour force. The latter includes people who are available for work but not actively seeking a job – the so-called 'discouraged' workers – and those seeking work but not immediately available, e.g. those waiting for the results of a job interview.

Labour market slack can be expressed as a share of the extended labour force, the latter including the potential entrants as well as the employed and unemployed as conventionally defined.

For more details, see *Eurostat Statistics Explained*:

[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour market slack %E2%80%93 annual statistics on unmet needs for employment](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour_market_slack_%E2%80%93_annual_statistics_on_unmet_needs_for_employment)

In 2020, labour market slack in the EU amounted to 14.5% of the extended labour force (as against 13.4 % in 2019); more than double the unemployment<sup>4</sup>, one of its components, which accounted for 6.7 % of the extended labour force.<sup>5</sup>

Labour market slack exceeds 20% of the extended labour force in a number of regions in southern Italy, Greece and Spain. In the economic recovery from 2013 to 2020, labour market slack diminished in almost all EU regions, particularly those in Spain (Map 5.5 and Map 5.6).

The weight of those not counted as unemployed in labour market slack is substantial in some countries, implying a need for labour market policies to target those concerned. In 2020, in the Netherlands, Ireland and Finland, those not counted as unemployed accounted for over 60% of the slack, whereas in Lithuania, Greece and Slovakia, they made up less than a third.

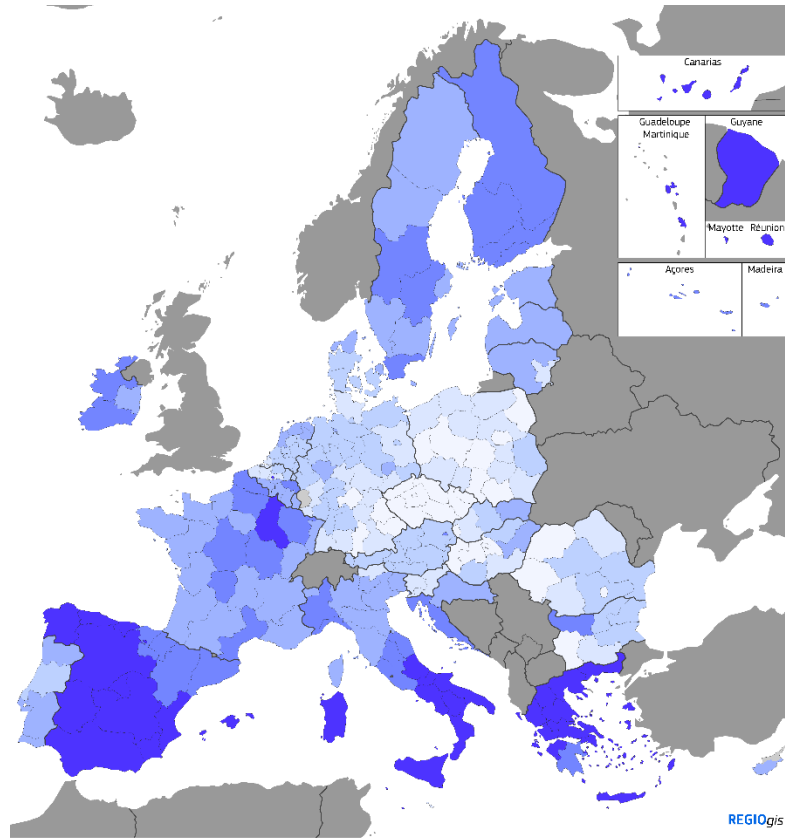
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<sup>4</sup> As share of the extended labour force

<sup>5</sup> For more information, see:

[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour market slack %E2%80%93 annual statistics on unmet needs for employment#Focus on the potential additional labour force](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour_market_slack_%E2%80%93_annual_statistics_on_unmet_needs_for_employment#Focus_on_the_potential_additional_labour_force)

**Map 5.5: Labour market slack, 2020**



**Labour market slack, 2020**

% of the extended labour force

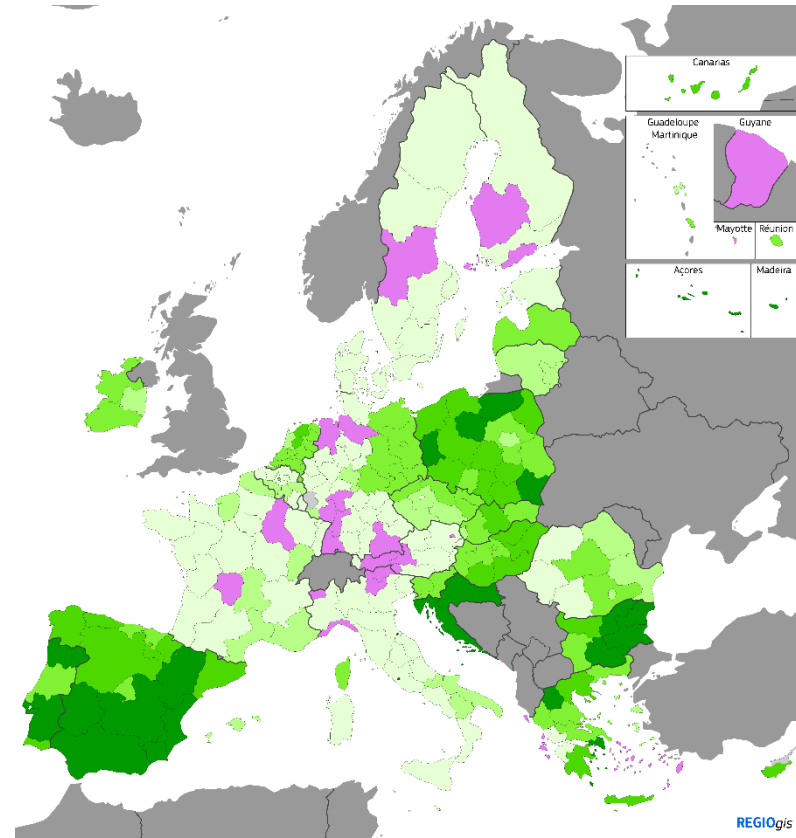
- <= 6
- 6 - 9
- 9 - 12
- 12 - 16
- 16 - 21
- > 21

EU-27 = 14.5  
Source: Eurostat (lfst\_r\_sla\_ga)

0 500 Km

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**Map 5.6: Change in labour market slack, 2013-2020**



**Change in labour market slack, 2013-2020**

Percentage point change

- <= -12
- 12 - -9
- 9 - -6
- 6 - -3
- 3 - 0
- > 0

EU-27 = -4.8  
Source: Eurostat (lfst\_r\_sla\_ga)

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**Table 5.2: Labour market slack in the EU by group of regions, 2020 and change 2013–2020**

		<b>More developed regions</b>	<b>Transition regions</b>	<b>Less developed regions</b>	<b>EU</b>
Labour market slack (% of extended labour force)	2020 (%)	12.9	16.4	11.9	14.5
	Change 2013–20 (pp)	-4.2	-10.1	-9.6	-4.8
		<b>north-western EU</b>	<b>southern EU</b>	<b>eastern EU</b>	<b>EU</b>
Labour market slack (% of extended labour force)	2020 (%)	13.2	11.8	12.3	14.5
	Change 2013–20 (pp)	-1.7	-18.0	-3.5	-4.8

Source: Eurostat table [lfst\_r\_sla\_ga], DG REGIO calculations

## **5.2 Regions with large cities have a better-educated labour force, a smaller share of school drop-outs and higher student achievements**

With its European Green Deal and Digital Decade, the EU has set ambitious plans to shift towards a climate neutral, fair and digital economy. At the same time, the ongoing digital transformation, speeded up by the COVID pandemic, is changing the way people work (European Commission, 2020a; OECD, 2020). The green and digital transition will create new opportunities but also new challenges.

With adequate accompanying policies in place, this twin transition can boost sustainable competitiveness and create new quality jobs. The impact on employment, however, will vary by occupation, sector, region and country. As a direct and indirect result of the transition, job losses are expected in mining and the extractive industries and in traditional energy production (Kapetaki *et al.*, 2021; Mandras and Salotti, 2021). In addition, other energy-intensive, or hard-to-abate, sectors such as transport and the automotive and steel industries are facing major challenges of restructuring, implying job changes within sectors and regions as well as massive labour reallocation between them. The green transition also poses major social challenges, which will affect disproportionately particular population groups, notably those already in vulnerable situations. For instance, energy poverty affects around 7% of the EU population, i.e. over 30 million people, who are unable to keep their homes adequately warm, many of them living in cities (EC, 2019). This form of poverty affects not only low-income households but also lower middle-income households in many Member States.

To realise the opportunities and mitigate the risks, both digital skills and skills needed for sustainability will become increasingly indispensable not only in nearly all jobs but also in everyday life (for instance, in education and health).

The importance of education and continuing training for economic growth and productivity is also widely recognised in empirical economic research (Mankiw *et al.*, 1992; Hanushek and Woessmann, 2007; Gennaioli *et al.*, 2012; Woessmann, 2016; EC, 2019<sup>6</sup>; EC 2021b<sup>7</sup>). In 2020, the European Commission launched its New Skills Agenda and set a number of target indicators for 2025 to

<sup>6</sup> Chapter 3, Section 2.

<sup>7</sup> Chapter 3, Sections 3.3 and 3.4.

improve the skills of the work force<sup>8</sup>, to support the green and digital transitions and to achieve a fast recovery from the socio-economic impact of the pandemic. On adult learning, for instance, the objectives to be achieved by 2025, as proposed in the Skills Agenda, include at least 50% of people aged 25-64 participating in training during the previous 12 months<sup>9</sup> by 2025 and at least 20% of unemployed adults having recent experience of training. By 2030, it is proposed under the European Pillar of Social Rights Action Plan that at least 60% of people aged 25-64 should participate in training every year.<sup>10</sup>

### **The 2020 European Skills Agenda for Sustainable Competitiveness, Social Fairness and Resilience**

The 2020 European Skills Agenda is a five-year plan to help individuals and businesses develop more and better skills and put them to use, by:

- Strengthening fairness and sustainable competitiveness, as set out in the European Green Deal.
- Ensuring social fairness, putting into practice the first principle of the European Pillar of Social Rights: access to education, training and lifelong learning for everybody, everywhere in the EU.
- Building resilience to react to crises, based on the lessons learnt during the COVID-19 pandemic.

It builds upon the 10 actions of the Commission's 2016 Skills Agenda. It also links to the:

- European Green Deal
- European Digital Strategy.
- Industrial and Small and Medium Enterprise Strategy.
- Recovery Plan for Europe.
- Increased support for youth employment.

It sets clear and measurable objectives to be achieved by 2025, based on a set of quantitative indicators:

- At least 50% of adults aged 25-64 participating in learning during the last 12 months
- At least 30% of low-qualified adults aged 25-64 participating in learning during the last 12 months
- At least 20% of unemployed aged 25-64 having a recent learning experience
- At least 70% of those aged 16-74 having at least basic digital skills

For more details: <https://ec.europa.eu/social/main.jsp?catId=1223&langId=en>

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<sup>8</sup> COM (2020)274 final, *The European Skills Agenda for Sustainable Competitiveness, Social Fairness and Resilience*.

<sup>9</sup> The *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030)* has reduced the reference level to 47%. The indicator measures the share of adults aged 25-64 who report participating in at least one form of formal or non-formal education or training over the 12 months. This is currently measured by the EU Adult Education Survey, which is conducted every 5 years (most recently in 2016). From 2022, this information will also be available from the EU LFS every other year.

<sup>10</sup> The headline target for adult learning welcomed by EU leaders at the Social Summit in Porto in May 2021 and at the European Council in June 2021.

In 2020, around 9% of those aged 25 to 64 participated in lifelong learning<sup>11</sup>. The proportion was largest in the years 2018-2020 in more developed and transition regions, at 13% on average, as against only 5% in less developed regions (Table 5.3). This only partly reflects national tendencies (Map 5.7). In less developed regions, the figure was the same as in 2011-2013, so there was no increase over this 7-year period.

**Table 5.3: Life-long learning and early leavers from education and training by group of regions and degree of urbanisation**

	<b>More developed regions</b>	<b>Transition regions</b>	<b>Less developed regions</b>	<b>EU</b>
Participation of adults in education and training (% aged 25-64), 2018-2020	12.2	12.4	4.9	9.2
Early leavers from education and training (% aged 18-24), 2018-2020	9.4	9.5	12.1	9.9
	<b>north-western EU</b>	<b>southern EU</b>	<b>eastern EU</b>	<b>EU</b>
Participation of adults in education and training (% aged 25-64), 2018-2020	14.0	8.8	4.5	9.2
Early leavers from education and training (% aged 18-24), 2018-2020	8.9	13.8	8.8	9.9
	<b>Cities</b>	<b>Towns and suburbs</b>	<b>Rural areas</b>	<b>EU</b>
Participation of adults in education and training (% aged 25-64), 2018-20	11.5	8.1	6.8	9.2
Early leavers from education and training (% aged 18-24), 2018-20	8.7	11.2	10.5	9.9

Source: Eurostat tables [tmg\_lfse\_04] and [edat\_lfse\_16], DG REGIO calculations

The proportion is smallest in regions in eastern EU (only 4.5% of those aged 25-64 participating in education and training during the preceding 4 weeks in 2018-2020), with no visible change in recent years (Map 5.7 and Map 5.8). It is largest in regions in France, Netherlands, Belgium, Denmark, Finland and Sweden, at over 25%, and larger in cities than other areas.

Reducing high rates of early leaving from education and training should help to improve labour market outcomes and eradicate pockets of socio-economic deprivation (De Witte and Rogge, 2013; Hanushek and Woessmann, 2007). Research shows that those dropping out of education prematurely have a

<sup>11</sup> The indicator measures the share of people who participated in education or training in the preceding 4 weeks. It differs significantly from the target of 'taking part in learning during the last 12 months.'

higher risk of being unemployed, working part-time or having a fixed-term contract than those completing secondary education. It also shows that they tend to earn less (Campolieti et al., 2010; Falch et al., 2010; Brunello et al. 2012) and are in poorer health (Arendt 2005; Kempter et al. 2011; Brunello et al. 2013).

A newly-agreed target at EU level is to reduce the share of early leavers - those aged 18-24 with no qualifications beyond basic schooling and no longer in education or training – to 9% or less by 2030.<sup>12</sup> This compares with 9.9% in 2020, though with wide differences between and within countries, the share ranging from 3.8 % in Greece to 16.7 % in Malta.

At regional level, the largest shares of early leavers are in Spain, southern Italy, Bulgaria and Romania, with figures of around 25% in Ceuta and Melilla in Spain, Yugoiztochen in Bulgaria and the two outermost regions of Açores in Portugal and Guyane in France (Map 5.9). Nevertheless, the share fell substantially (by over 10 pp) in regions in Spain and Greece as well as in Portugal between 2011-2013 and 2018-2020 (Map 5.10).<sup>13</sup> It increased - with increases of more than 4 pp - in the regions of Dél-Dunántúl and Észak-Magyarország in Hungary, Yugoiztochen in Bulgaria, Východné Slovensko in Slovakia and Severozápad in Czechia.

The share also varies between cities (8.7 % in 2020), where it is already below the 2030 target, towns and suburbs (11.2 %) and rural areas (10.5 %).

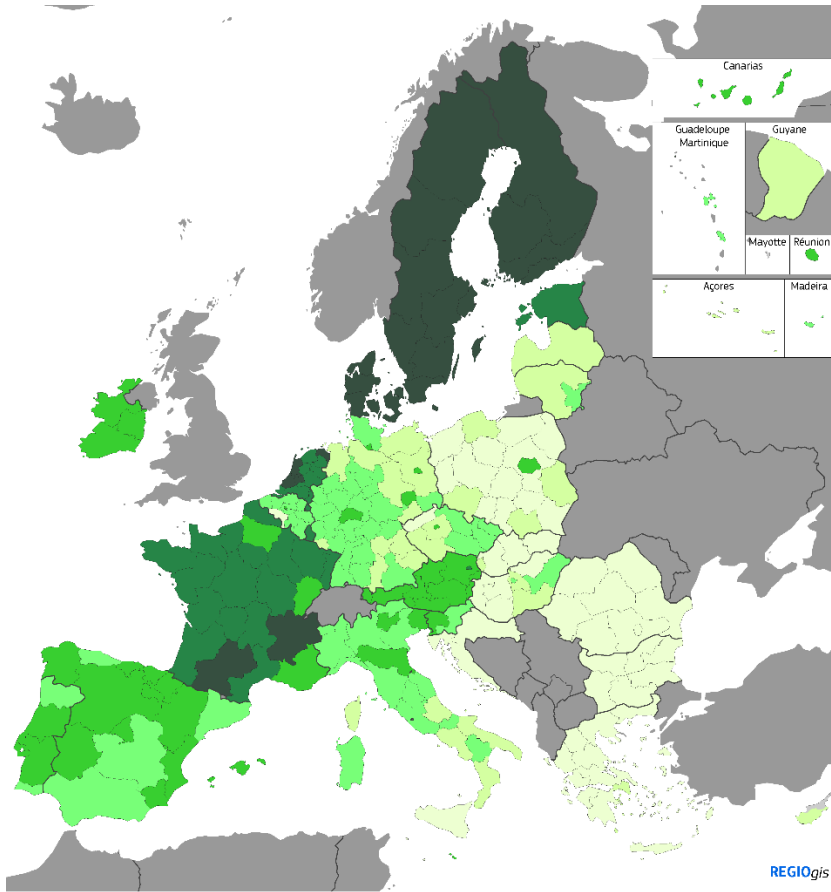
In more developed and transition regions, the share is only slightly above the target (around 9.5% in both in 2018-2020), while in less developed regions, it is much further above (12.1%), due to a high share of early leavers in regions in southern EU (Table 5.3). Early leavers increased in all three regional groups between 2011-13 and 2018-20.

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<sup>12</sup> Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) 2021/C 66/01.

<sup>13</sup> A 3-year average has been used because of data reliability issues at NUTS2 level.

**Map 5.7: Participation of adults aged 25-64 in education and training, average 2018-2020**



**Participation of adults aged 25-64 in education and training, average 2018-2020**

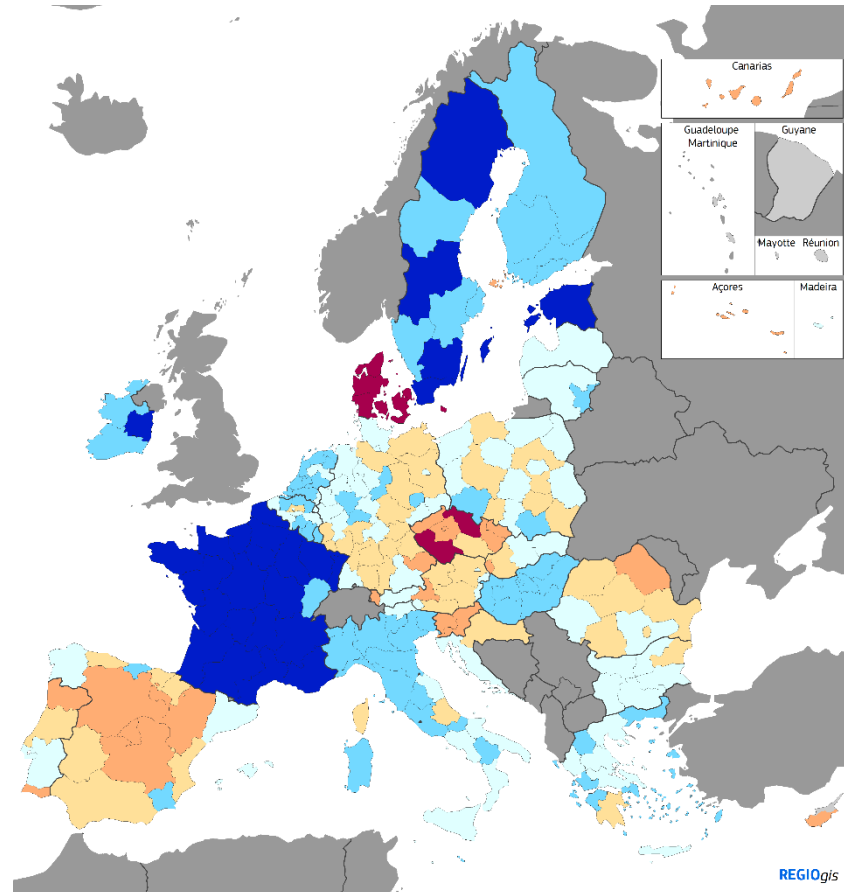
- % of population aged 25-64 years
- < 5
  - 5 - 7
  - 7 - 10
  - 10 - 15
  - 15 - 20
  - > 20

EU-27 = 9.2  
Source: Eurostat (tmg\_lfse\_04)

0 500 km

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**Map 5.8: Participation of adults aged 25-64 in education and training, change since 2011-13**



**Change in the participation of adults aged 25-64 in education and training, average 2011-2013 to 2018-2020**

- % of population aged 25-64
- < - 5
  - 5 - - 1
  - 1 - 0
  - 0 - 1
  - 1 - 5
  - > 5
  - no data

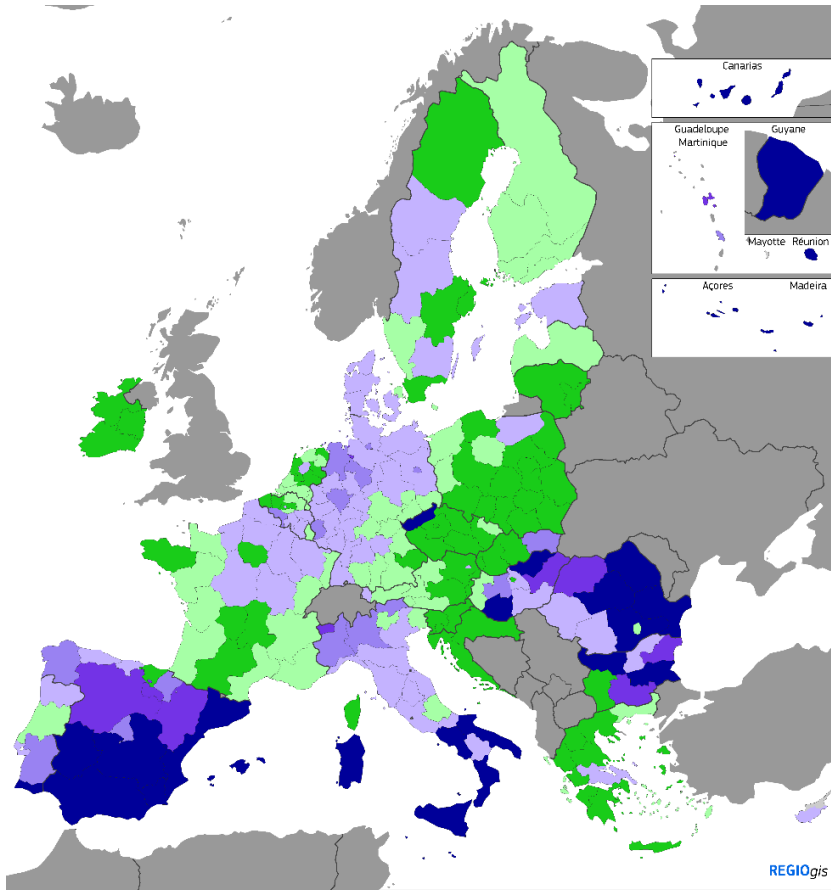
EU-27 = 1.52  
Source: Eurostat (tmg\_lfse\_04)

0 500 Km

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**Map 5.9: Early leavers from education or training aged 18-24, average 2018-2020**



**Early leavers from education or training, average 2018-2020**

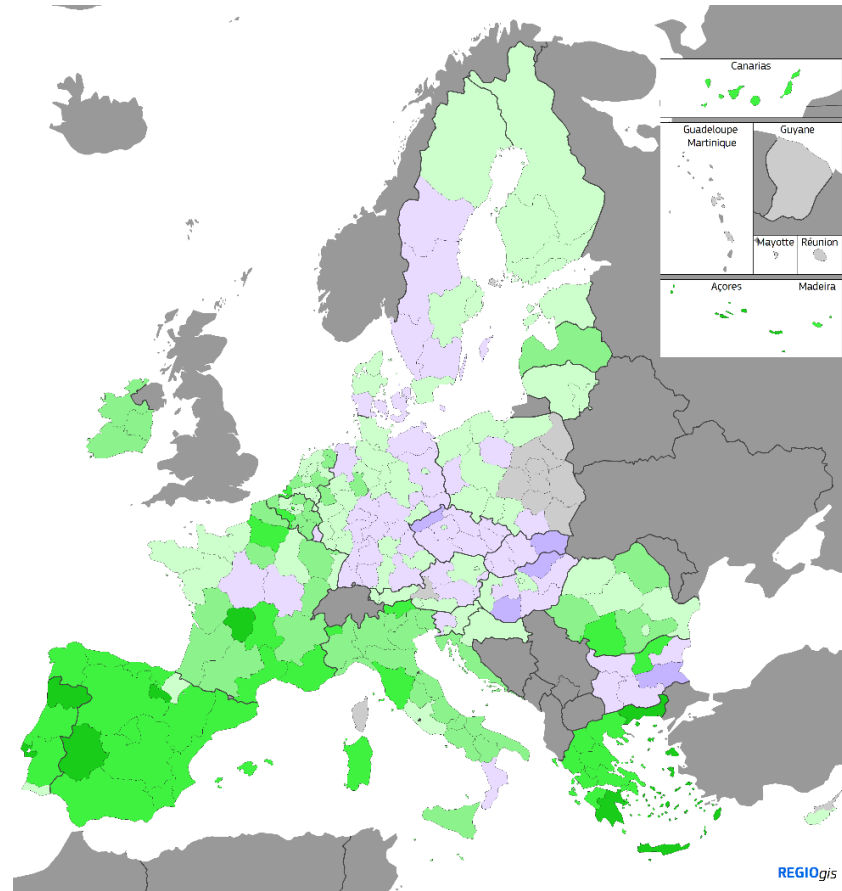
- % of population aged 18-24
- < 7
  - 7 - 9
  - 10 - 12
  - 12 - 14
  - 14 - 16
  - > 16

EU-27 = 9.9  
 The target is less than 9% by 2030.  
 Source: Eurostat (edat\_ifse\_16)

0 500 km

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**Map 5.10: Early leavers from education or training aged 18-24, change since 2011-2013**



**Change in share of early leavers from education and training, average 2011-2013 to 2018-2020**

- Percentage point change
- < -10
  - 10 - -5
  - 5 - -2
  - 2 - 0
  - 0 - 4
  - > 4
  - no data

EU-27 = -2.3  
 Source: Eurostat (edat\_ifse\_16)

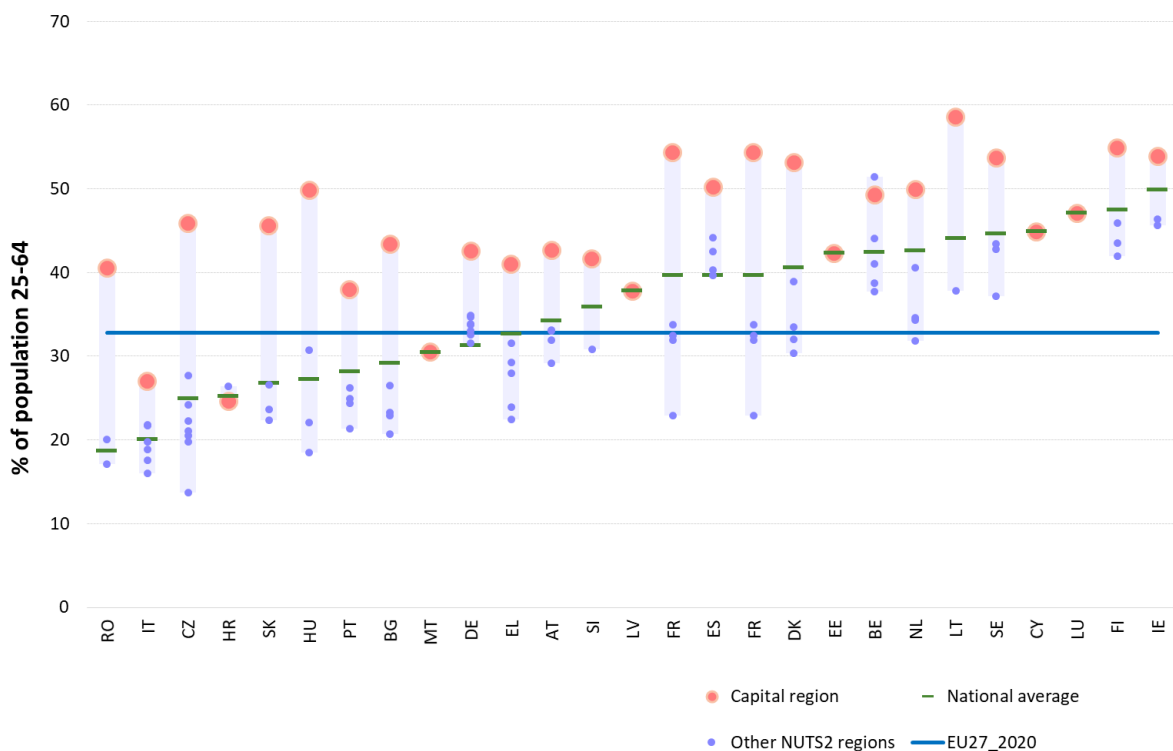
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Highly skilled workers live mainly in EU capital city regions.

A well-educated work force is key to economic development and prosperity. University education boosts upward social mobility and improves employment prospects. The share of those aged 25-64 with tertiary education, however, varies markedly across regions (Figure 5.1). Capital city regions tend to have a more highly-educated population than others.<sup>14</sup> Demand for highly-skilled labour attracts those with tertiary education and makes it easier for them to find a job matching their skills. At the same time, firms are also more likely to find the skills they need in such areas. In most Member States, therefore, university graduates are concentrated in and around the capital city region.

**Figure 5.1: Regional variations in shares of those aged 25-64 with tertiary education (ISCED 5-8), 2020**



Note: Member States are ranked by national averages

Source: Eurostat table [edat\_lfse\_04], DG REGIO calculations

<sup>14</sup> European Union and UN-HABITAT (2016).

### Main labour market and education indicators in EU outermost regions

The EU has 9 outermost regions (grouped into 8 NUTS 2 regions), where around 5 million people live.\* They are geographically remote from the continent in the Caribbean basin, Macaronesia and the Indian Ocean. In 2020, employment rates in all outermost regions were below the EU average, ranging from 43% in Mayotte to 71% in Região Autónoma dos Açores. Only the latter had an unemployment rate below the EU average (6.1%), rates in Canarias and Mayotte being over three times higher than the average. Despite high unemployment rates, Canarias is the only outermost region where the proportion of those aged 25-64 with tertiary education is above the EU average (34.4% in 2020); in all other regions, it is well below (see table below).

	Employment rate (%population aged 25-64), 2020	Unemployment rate (% of labour force), 2020	Tertiary educated (% population aged 25-64), 2020
<b>EU-27</b>	<b>72.3</b>	<b>7.1</b>	<b>32.8</b>
Canarias	57.1	22.6	34.4
Guadeloupe	56.3	17.5	23.3
Martinique	62.4	12.4	27.1
Guyane	49.5	16.1	18.7
La Réunion	54.0	17.4	22.9
Mayotte (2019)	43.3	30.1	not available
Região Autónoma dos Açores	71.1	6.1	15.8
Região Autónoma da Madeira	70.9	8.1	22.9

\* The 9 outermost regions (Saint-Martin is part of the NUTS 2 region of Guadeloupe) are governed by the provisions of the Treaties and form an integral part of the Union.

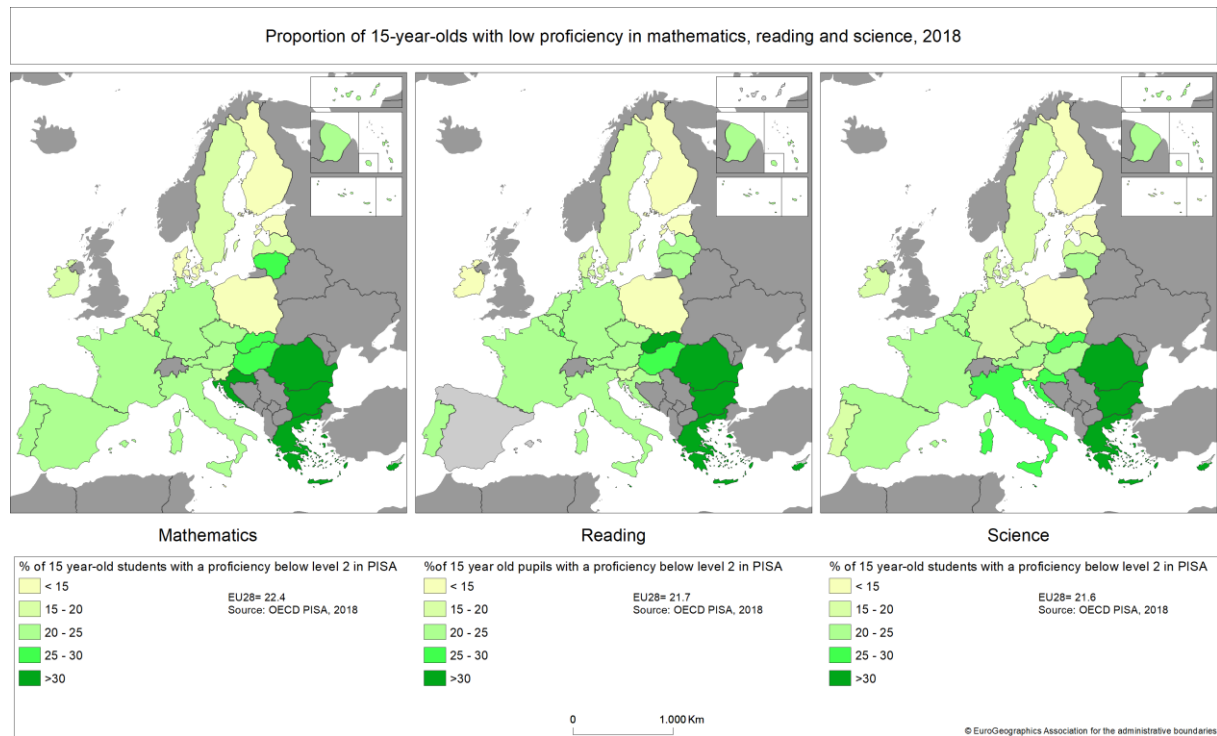
Note: Employment and unemployment rates for Mayotte are from 2019 for reliability issues.  
Source: Eurostat tables [fst\_r\_lfe2emprr] and [fst\_r\_lfu3rt], DG REGIO elaboration

The strategic framework for European cooperation in education and training (ET2020) sets a target of reducing the underachievement of 15 year-olds in reading, maths and science to 15% or less, on the grounds that: “underachieving in basic skills implies not being equipped to thrive in the labour market and the broader society. Therefore, the cost of underachievement is significant both for the individual and for society at large” (Source: 2020 European Education Monitor).<sup>15</sup>

According to the 2018 PISA survey (the OECD Programme for International Student Assessment) the majority of EU Member States have not yet reached this target, with around 22% of those tested having a low proficiency in each of maths, reading and science (Map 5.11). The largest proportions with low proficiency (over 38% in all three disciplines) were in Bulgaria, Romania and Cyprus, while, at the other end of the scale, Finland, Estonia, and Poland had reached the 15% target and Denmark, Ireland and Slovenia were close to it. Achievement levels also differ between schools in rural areas and cities.

<sup>15</sup> Source: European Commission, 2020 European Education Monitor, available at: <https://op.europa.eu/webpub/eac/education-and-training-monitor-2020/en/>

**Map 5.11: Proportion of 15-year-old with low proficiency in mathematics, reading and science.**



Source: OECD, PISA 2018, DG REGIO calculations

The OECD assessed performance by school location in 2015 for science and in 2018 for reading.<sup>16</sup> Performance in science was higher in cities than in rural areas and villages in all Member States covered by the survey, except for Belgium (Figure 5.2).<sup>17</sup> The urban-rural divide in this regard is particularly marked for schools in Bulgaria and Hungary. Students in city schools score up to around 30 points higher in science than those in rural schools (roughly equivalent to one year of schooling). The gap remains significant (around 16 points), after allowing for differences in the economic status of schools and students.<sup>18</sup>

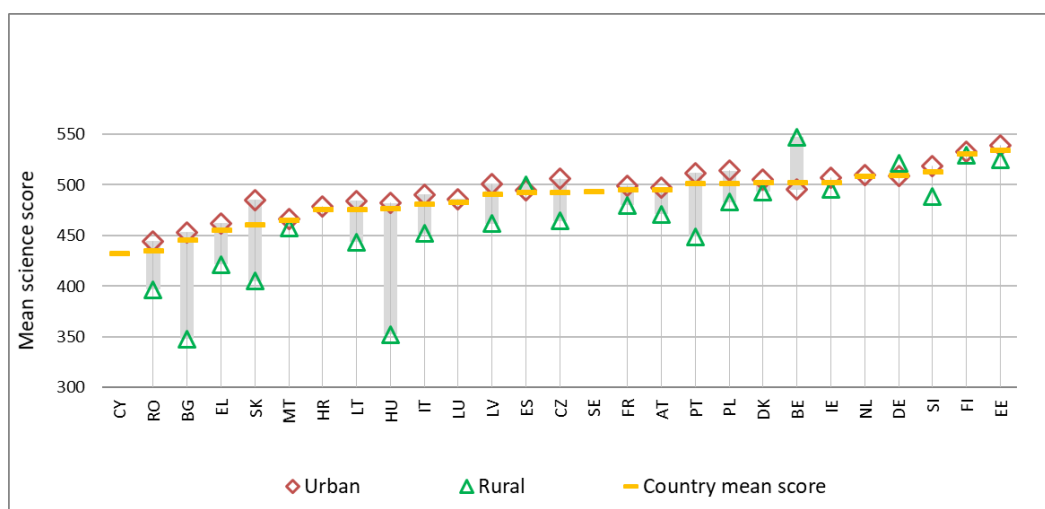
Reading performance in 2018 was higher in urban than in rural areas in all Member States covered by the survey, though there were marked differences in the size of the gap. While it was negligible in Austria, Sweden, Denmark and Ireland, it was substantial in Romania, Bulgaria, Hungary, Slovakia and Portugal (Figure 5.3).

<sup>16</sup> The OECD-PISA approach allocates schools to rural areas if they are in “a village, hamlet or rural area with fewer than 3 000 people”, to towns if they are in settlements with between 3 000 and 100 000 inhabitants; and in cities if they are in settlements with more than 100 000 people. Performance in science was not assessed by school location in 2018.

<sup>17</sup> ‘Urban’ is the average of scores in towns and cities.

<sup>18</sup> For more detail, see: Echazarra, A., and Radinger, T. (2019).

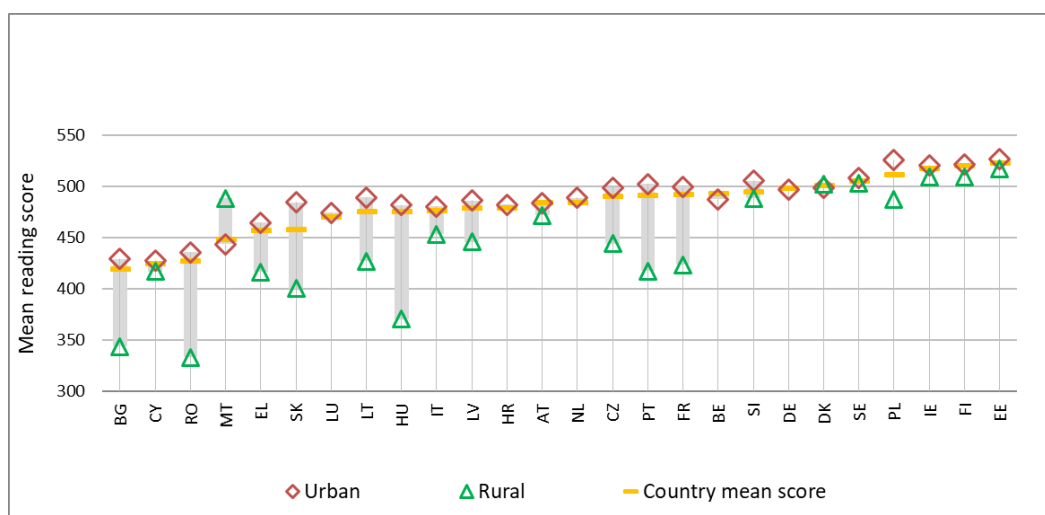
**Figure 5.2: Science performance by school location, PISA 2015**



Note: Member States ranked by country mean scores. CY and SE: no data by school location; HR, NL and LU: no data for rural areas. 'Urban' is the average of scores in cities and towns.

Source: OECD, PISA 2015. DG REGIO calculations

**Figure 5.3: Reading performance by school location, PISA 2018**



Note: Member States ranked by country mean scores. ES: no data. BE, NL, DE, HR, and LU: no data for rural areas. 'Urban' is the average of scores in cities and towns.

Source: OECD, PISA 2018. DG REGIO calculations

*“Rapid digitalisation over the past decade has transformed many aspects of work and daily life. [...] Basic digital skills should become part of the core transferable skills that any citizen should have to be able to develop personally; engage in society as an active citizen; use public services; and exercise basic rights”.<sup>19</sup>*

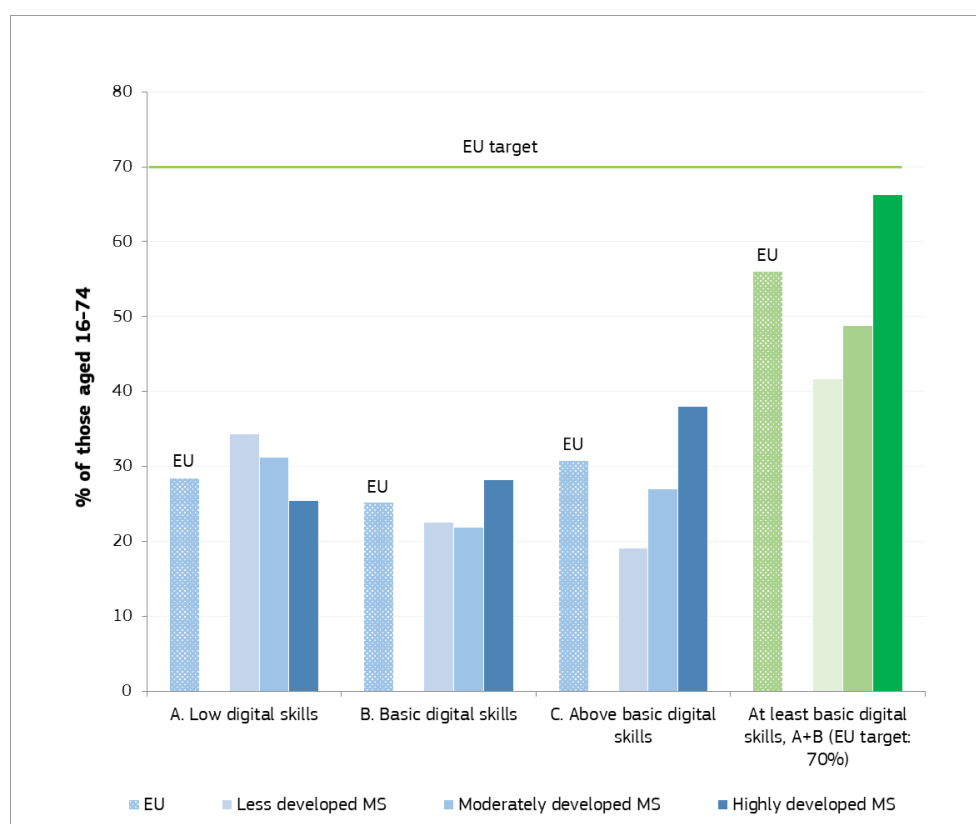
Ensuring that everyone has the right skills for an increasingly digital world is essential for an inclusive labour market and to spur innovation, productivity and growth (OECD, 2016). The newly agreed target at the EU level is that by 2025, at least 70% of those aged 16-74 should have at least basic digital skills. In 2019, the proportion was only 56%. The proportion in more developed Member States alone (66%) was close to the target, while in moderately developed (49%) and less developed Member

<sup>19</sup> European Commission (2021), Digital Education Action Plan 2021-27, pages 3 and 9.

States (42%) it was well below (bars in green in Figure 5.4). In the EU, around 29% of those aged 16-74 reported having a low level of digital skills and 25% a basic level, only 31% reporting having a level higher than basic (Figure 5.4). The difference in the latter proportion between highly developed Member States and less developed was especially pronounced –43% as against only 24%. The share of rural residents that have at least basic digital skills is 14 pp lower than of city residents.

These differences are a matter of concern. As the demand for digital skills and educated workforce increases, areas with poor performance risk missing out from being able to take advantage of new economic opportunities and may limit the uptake of e-services. This also depends on the availability and affordability of high-speed infrastructure.

**Figure 5.4: People’s levels of digital skills, by Member State level of economic development, 2019**



Source: Eurostat tables [isoc\_sk\_dskl\_i] and [demo\_pjan], DG REGIO calculations

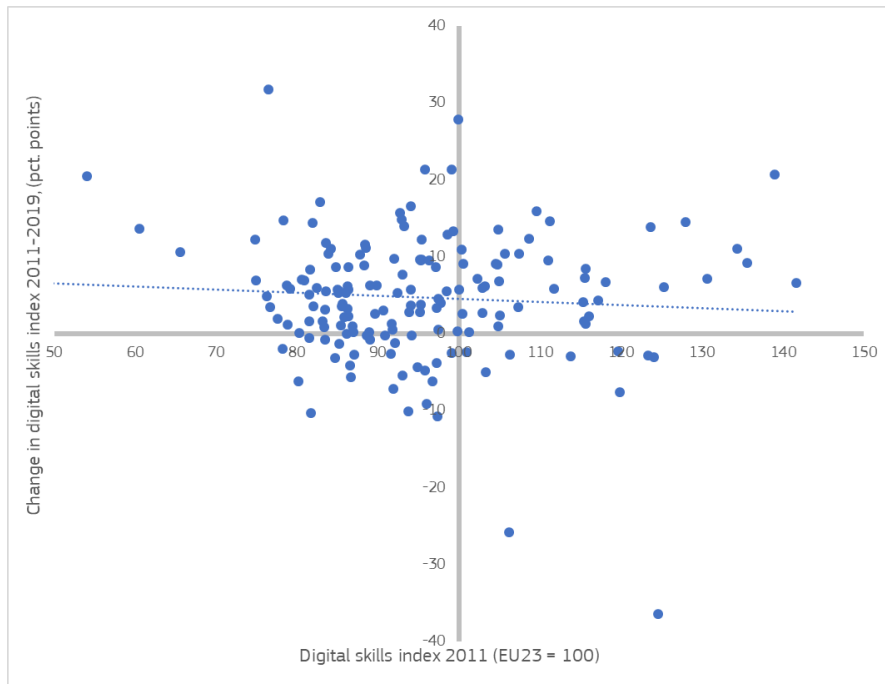
Note: Except for the EU average, darker colours denote higher levels of economic development. For country groupings by level of development, see Glossary. Latest year available: 2019

Average digital skills intensity<sup>20</sup> of occupations in the labour market varies markedly between EU Member States (EC, 2021b). Over the past decade, signs of convergence can be seen at country level but this is not so at regional level (Figure 5.5). Across EU regions, there is no evidence over the period 2011-2019 of a faster growth in digital skills in regions with low initial levels (in 2011).<sup>21</sup>

<sup>20</sup> The *digital skills intensity* indicator measures the average number of digital skills used by a worker based on his or her ISCO occupational classification. For more details on the index, see Barslund (2021, *forthcoming*).

<sup>21</sup> Source: EC (2021b), chapter 3.

**Figure 5.5: Change in digital skills in NUTS 2 regions, 2011-2019 relative to digital skills in 2011**



Source: Barslund (2021, *forthcoming*)

### **The Skills-OVATE tool**

Better skills intelligence can channel migration towards the regions and occupations experiencing skill shortages. The EU aims to make skills intelligence more accessible by publishing online ‘real-time’ information on skills demand at regional level. The Skills-OVATE tool, developed with CEDEFOP, provides detailed information on jobs and skills published by employers in online job adverts and indicates the intensity of demand for different occupations in all EU countries, broken down by sector and NUTS 2 region. As such, it potentially provides a way of tackling regional skills disparities on the labour market. The tool, which has recently been improved, is to be included in the Europass portal.

For more details: <https://www.cedefop.europa.eu/en/data-visualisations/skills-online-vacancies>

### **EU support for strategic national upskilling action (Action 3 of the 2020 European Skills Agenda)**

The Commission plans to help Member States to prepare holistic, all-of-government national skills strategies, building on the work already undertaken with the OECD in 11 Member States as well as on existing national strategies. It will help to establish or review strategies where needed and to monitor progress in implementing them. It will encourage the rejection of gender and other discriminatory stereotypes and put a particular emphasis on the importance of transversal and entrepreneurial skills, as well as the skills needed for digital and green transitions, such as those acquired through Science, Technology, Engineering and Mathematics (STEM) studies.

The Commission will join forces with the European Network of Public Employment Services to develop peer learning events to spotlight skills needed on the labour market, particularly for the unemployed and those in short-time work and to strengthen skills intelligence and skill matching in the light of the long-term challenges stemming from the green and digital transitions. Activities will focus on increasing the provision of guidance services, including for those in employment, particularly vulnerable groups, and on closing skills gaps, notably digital. The opportunities offered by cross-border cooperation will also be explored.

Through the recently adopted Pact on Migration and Asylum, the Commission will aim to improve legal pathways to the EU, including by relaunching the negotiations on the Blue Card Directive to attract highly skilled workers. The Pact will provide credible offers of legal migration places as part of new talent partnerships with third countries and explore new means of legal migration.