

Education

3





Introduction

Education, vocational training and more generally **lifelong learning** play a vital role in the economic and social strategies of the **European Union (EU)**. This chapter presents a selection of the regional education and training statistics that are available within **Eurostat**.

Each EU Member State is largely responsible for its own education and training systems and its content of teaching programmes (curricula). The EU supports national actions and helps its Member States to address common challenges through what is known as the open method of coordination: the EU provides a policy forum for discussing topical issues (for example, ageing societies, skills deficits, or global competition), allowing its Member States to exchange best practices and to share the burden of gathering information.

Education opportunities for all

From early childhood ...

In February 2011, the European Commission adopted a communication titled '**Early childhood education and care: providing all our children with the best start for the world of tomorrow**' (COM(2011) 66). This noted that **early childhood education** and care is an essential foundation for successful lifelong learning, social integration, personal development and later employability and that it is particularly beneficial for the disadvantaged and can help to lift children out of poverty and family dysfunction.

... through school leavers ...

Around one in seven children leave education or training early and this has the potential to impact on individuals, society and economies. In January 2011, the European Commission adopted a communication titled '**Tackling early school leaving: a key contribution to the Europe 2020 agenda**' (COM(2011) 18). This outlined the reasons why pupils decide to leave school early and gave an overview of existing and planned measures to tackle this issue across the EU.

... to mature students

Most Europeans spend significantly longer in education than the legal minimum requirement. This reflects their choice to enrol in higher education, as well as their wider participation in lifelong learning initiatives, such as mature (adult) students returning to education, often in order to retrain or equip themselves for a career change. The opportunities which the EU offers its citizens for living, studying and working in other countries have the potential to make a significant contribution to cross-cultural understanding and personal development, which could in turn help raise the EU's economic performance.

Education and training 2020 (ET 2020)

A **strategic framework for European cooperation in education and training** (known as ET 2020) was adopted in May 2009 and set out four strategic objectives for education and training in the EU:

- making lifelong learning and mobility a reality;
- improving the quality and efficiency of education and training;
- promoting equity, social cohesion and active citizenship; and
- enhancing creativity and innovation at all levels of education and training.

To reach these objectives, ET 2020 set a number of benchmarks which are subject to regular statistical monitoring and reporting, including the following targets to be achieved by 2020, namely that:

- at least 95 % of children between the age of four and the age for starting compulsory primary education should participate in early childhood education;
- the share of 15-year-olds with insufficient abilities in reading, mathematics and science should be less than 15 %;
- the share of **early leavers from education and training** should be less than 10 %;
- the share of 30–34 year-olds with tertiary educational attainment should be at least 40 %;
- an average of at least 15 % of adults aged 25–64 should participate in lifelong learning.

Two additional benchmarks on learning mobility (also to be achieved by 2020) were adopted in November 2011, and a further benchmark on employability was added in May 2012, namely that:

- an average of at least 20 % of higher education graduates should have had a period of higher education-related study or training (including work placements) abroad, representing a minimum of 15 **European credit transfer and accumulation system (ECTS)** credits or lasting a minimum of three months;
- an average of at least 6 % of 18–34 year-olds with an initial vocational education and training qualification should have had an initial **vocational education and training (VET)** related study or training period (including work placements) abroad lasting a minimum of two weeks;
- the share of employed graduates (20–34 year-olds) having left education and training no more than three years before the reference year should be at least 82 %.

In 2013, the European Commission's Directorate-General for Education and Culture released an **Education and training monitor, 2013** (the second edition of this annual publication). It provides an analysis of the progress being made towards the headline target on early school leaving and tertiary education attainment, as specified within the Europe 2020 strategy. While the report considered that

the first half of the target was achievable, namely, that the share of early school leavers should decrease to below 10 % by 2020, it confirmed that around 5.5 million students in the EU were still leaving school prematurely. Secondly, the report found that the EU was 'making good progress towards the target to increase tertiary attainment to 40 %' (again by 2020). The report also found that the EU's education and training systems faced a challenge as a result of the consolidation of public finances and youth unemployment levels, while underlining the need to link the worlds of work and education more closely.

Main statistical findings

Figures for the EU-28 for 2011 indicate that there were 93.7 million students enrolled in regular education systems covering all levels of education from primary to postgraduate studies; there were an additional 15.4 million children enrolled in pre-primary education.

Eurostat compiles and publishes education and training statistics for EU regions, the individual EU Member States, as well as the EU-28 aggregate; in addition, a subset of information is available for EFTA and candidate countries. These statistics are generally available for NUTS 2 regions and this chapter presents data relating to educational participation and early leavers from education and training, enrolments and attainment, and adult lifelong learning. Statistics for the participation rates of four year-olds and the number of students in tertiary education are only available at the national level for Croatia, while these indicators are presented for NUTS 1 regions across Germany and the United Kingdom.

Participation of four year-olds in education

The legal age to start education varies across the EU Member States: in Luxembourg and Northern Ireland (in the United Kingdom) compulsory education starts at age four, while in other EU regions it starts between five and seven years of age; enrolment in pre-primary education is generally voluntary across most EU Member States. The Europe 2020 strategy emphasises raising participation rates of young children in preparation for the start of compulsory education. One of its headline targets is to raise the share of children participating in pre-primary education to at least 95 % by the year 2020.

The proportion of four year-olds who were in pre-primary or primary education across the whole of the EU-28 in 2012 was 91.7 %. Participation rates for four year-olds in pre-primary or primary education were generally high and rose to 95.0 % or more in Germany, Italy, Ireland, Denmark, Belgium, Luxembourg, the United Kingdom, Spain, the Netherlands, France and Malta; they were also over 95.0 % in Iceland and Norway (among the EFTA countries). By contrast, Greece, Croatia, Finland and Poland reported that fewer than 70.0 % of four year-olds were enrolled in pre-primary or primary education in 2012; relatively low rates were also recorded in the EFTA countries of Liechtenstein and Switzerland (both below 60.0 %), while rates were even lower in the candidate countries of the former Yugoslav Republic of Macedonia (24.5 %) and Turkey (19.2 %).



SPOTLIGHT ON THE REGIONS: ATTIKI (EL30), GREECE

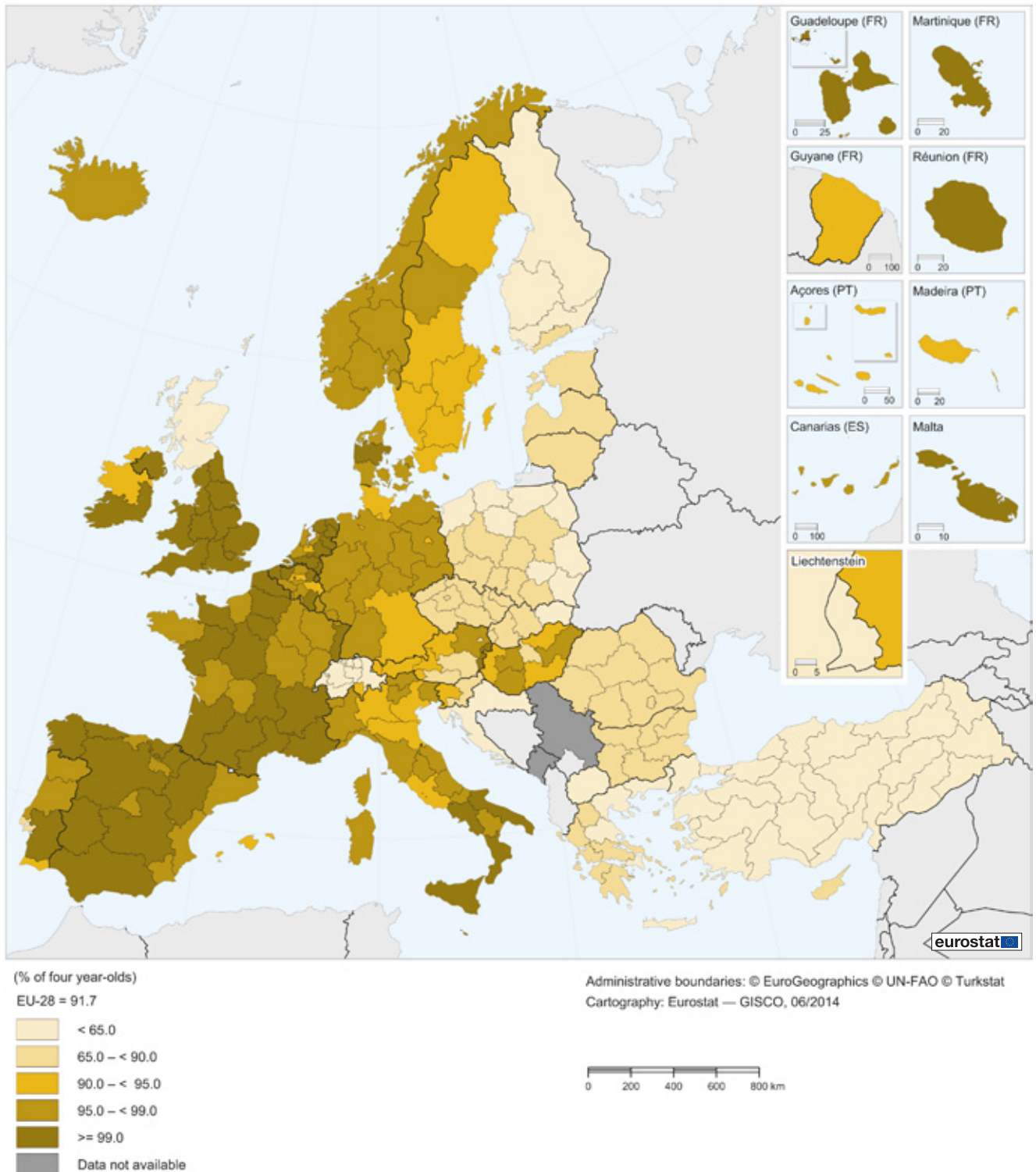


National and Kapodistrian University, Athens

The latest regional educational indicators for 2012 in the Greek capital region of Attiki showed a divergent pattern. Attiki was the only Greek region where less than half of all four year-olds were in pre-primary and primary education. The participation rate of four year-olds was 30.8 %, which was approximately one third of the EU-28 average (91.7 %). By contrast, the proportion of students in tertiary education (relative to the local population aged 20–24) stood at 121.8 % in Attiki, almost double the EU-28 average (64.1 %).

Photo: A. Savin

Map 3.1: Participation rates of four year-olds in pre-primary and primary education (ISCED levels 0 and 1), by NUTS 2 regions, 2012 ⁽¹⁾
(% of four year-olds)



⁽¹⁾ Germany and the United Kingdom: by NUTS 1 regions. Croatia: national level.

Source: Eurostat (online data code: [educ_regind](#))

Practically all four year-olds in many regions of France, Spain, the Netherlands and the United Kingdom participated in pre-primary or primary education

Across the regions of the EU, **Map 3.1** shows that more than one quarter (26.8 %) of the 224 NUTS 2 regions for which information is available for 2012 reported that at least 99.0 % of their four year-old children attended pre-primary or primary education. Of these 60 regions, more than three quarters were located in just four of the EU Member States, namely: France (16 regions), Spain (11 regions), the United Kingdom (11 NUTS 1 regions) and the Netherlands (eight regions). Belgium (five regions) and Italy (four regions) were the only other Member States where participation rates of at least 99.0 % were recorded for more than one region; Malta also had a rate above 99.0 % (although it is covered by a single region at this level of detail) and the four remaining regions were Burgenland in Austria, the Irish region of Southern and Eastern, Alentejo in Portugal, and Midtjylland in Denmark.

Athens had the lowest participation rate for four year-olds in pre-primary or primary education

There were 19 NUTS 2 regions in the EU-28 where less than 65.0 % of four year-olds participated in pre-primary or primary education in 2012. The lowest participation rate was recorded in the Greek capital region of Attiki (30.8 %), while more generally, Greek, Polish and Finnish regions, as well as Croatia (only national data available) tended to record some of the lowest levels of participation among four year-olds.

It is interesting to note that some capital regions recorded participation rates for four year-olds in pre-primary or primary education that were below their respective national averages. This was particularly clear to see in Greece, Spain and Portugal, and to a lesser degree in Germany, Italy, Hungary and Austria. Contrary to the majority of the United Kingdom, participation rates in Scotland were particularly low; note that the Scottish parliament has autonomy over education policy and its education system is distinctly different to that in the remainder of the United Kingdom.



EDUCATION: A CENTRAL PILLAR OF EUROPE 2020

Education is one of five pillars which are central to the **Europe 2020** growth strategy. Two indicators presented within this chapter at a regional level are benchmarks used to monitor the EU's progress towards becoming a smart, sustainable and inclusive economy. These benchmarks have been set at an EU level and they foresee that:

- the share of early leavers from education and training should be under 10 % by 2020; and
- that at least 40 % of 30–34 year-olds should have completed a tertiary or equivalent education by 2020.

Note that while both of these objectives have been set across the whole of the EU, they do not specifically apply at a national or a regional level. Indeed, each Europe 2020 benchmark has been translated into national (and sometimes regional) targets, which reflect the different situations and circumstances of each Member State. Concerning the share of early leavers, national targets range from a low of just 4.5 % for Poland to a high of 16 % for Italy.

Youth on the move is one of seven flagship Europe 2020 initiatives. It is a comprehensive package of policy initiatives on education and employment for young people that was launched in 2010. It aims to improve young people's education and employability across the EU, to reduce high youth unemployment and to increase the youth employment rate by:

- making education and training more relevant to young people's needs;
- encouraging more young people to take advantage of EU grants to study or train in another country;
- encouraging EU countries to take measures to simplify the transition from education to work.

For more information:

Europe 2020: http://ec.europa.eu/europe2020/index_en.htm



Early leavers from education and training

Young people between the ages of 15 and 17 are often faced with a choice of remaining in education, going into training, or looking for a job. Full-time compulsory education lasts, on average, 9 or 10 years in most of the EU Member States and is generally completed at the end of lower **secondary education**. The period is somewhat longer in Latvia, Malta and most parts of the United Kingdom (11 years), Luxembourg, Portugal and Northern Ireland (12 years), Hungary and the Netherlands (13 years).

Some 12.7 % of 18–24 year-olds in the EU were not in education or training early in 2012

The indicator for early leavers from education and training tracks the proportion of individuals aged 18–24 who had finished no more than a lower secondary level of education, and who were not involved in further education or training (prior to the survey from which the data are compiled).

The Europe 2020 strategy has set a target for the proportion of early leavers from education and training to be below 10 % by 2020. In 2012, the proportion of 18–24 year-olds in the EU-28 who were classified as early leavers from education and training was 12.7 %; there was a somewhat higher proportion (14.4 %) of male early leavers compared with female early leavers (10.9 %).

Lowest proportions of early leavers from education and training recorded in eastern Europe

Map 3.2 shows that the proportion of early leavers from education and training varied significantly across the EU-28 in 2012; note that the coverage of this indicator has been significantly improved over the last year such that information can now be shown for NUTS 2 regions. Praha, the capital region of the Czech Republic, had the lowest proportion of 18–24 year-olds leaving education and training early in 2012, at 2.4 %. There were 13 NUTS 2 regions in the EU-28 where the share of early leavers from education and training was below 5.0 %. Almost all of these were in eastern Europe, with four regions (including Praha) from the Czech Republic, three from Poland, both regions of Croatia, and a single region from each Bulgaria, Slovenia and Slovakia. The only region from outside of eastern Europe with a share below 5.0 % was the Austrian region of Steiermark (which covers the south east of the country and borders Slovenia).

Almost two in every five of the EU regions in 2012 had less than 10 % of their population aged 18–24 classified as an early leaver

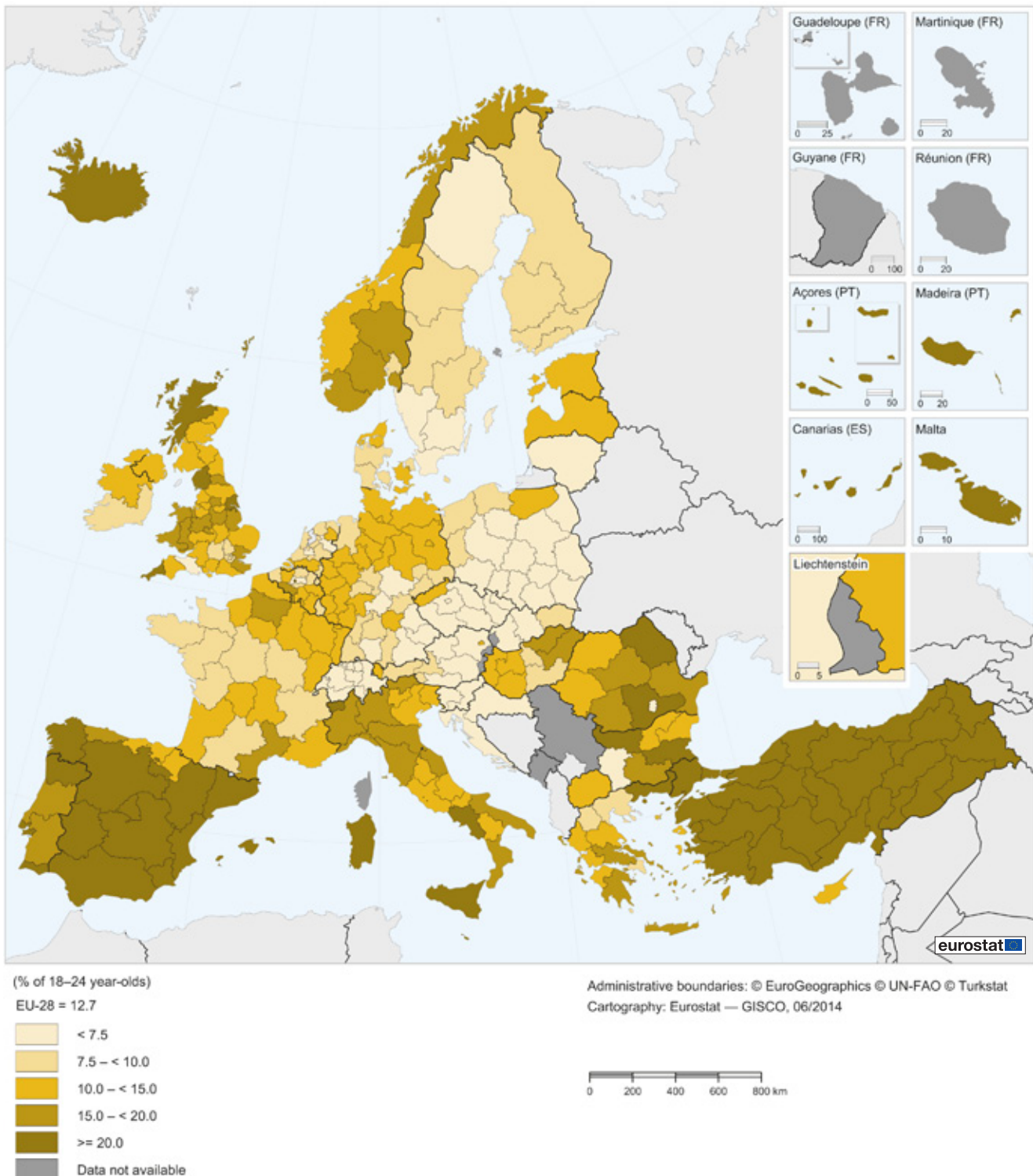
Out of the 264 NUTS 2 regions for which data are available across the EU-28, there were 104 regions in 2012 where less than 10.0 % of the population aged 18–24 was classified as an early leaver from education and training (the first two shades in **Map 3.2**). These regions were relatively widespread across the EU, with the exception of southern Europe, where only three regions recorded rates below 10.0 %, all in Greece. The lowest proportion of early leavers from education and training tended to be concentrated in an area that ran down from Scandinavia through Lithuania and Poland, before splitting in a westward direction to Germany and the Benelux countries, and a southerly direction to the Czech Republic, Slovakia, Hungary, Austria, Slovenia and Croatia.

Geographical extremities often report some of the highest proportions of early leavers from education and training

At the other end of the range, the highest proportions of 18–24 year-olds who, in 2012, were classified as early leavers from education and training were recorded in the autonomous cities and islands of Spain and Portugal. These outlying regions may be characterised, at least in part, as not offering a wide selection of further education and training opportunities, which may result in students having to relocate in order to follow their chosen vocation.

There were 35 NUTS 2 regions across the EU in 2012 where 20 % or more of the population aged 18–24 years-old were classified as early leavers from education and training. They were principally located across southern Europe (26 regions) and were concentrated in Spain and Portugal — all of the regions in these two countries had rates above 20.0 % with the exception of four northerly Spanish regions and two central Portuguese regions. The share of early leavers was also higher than 20.0 % in four regions from the extremities of Italy (including the islands of Sardegna and Sicilia), the far north eastern Greek region of Anatoliki Makedonia, Thraki and the island of Malta (which is covered by a single region at this level of detail). Outside of southern Europe, more than one fifth of the population aged 18–24 was classified as an early leaver in four largely rural, sparsely populated regions in the United Kingdom (two of which were at the outer limits of the territory — Cornwall and Isles of Scilly, and the Highlands and Islands (of Scotland)), as well as in two Bulgarian and two Romanian regions.

Map 3.2: Early leavers from education and training, by NUTS 2 regions, 2012 ⁽¹⁾
(% of 18–24 year-olds)



⁽¹⁾ Proportion of those aged 18–24 years having attained at most a lower secondary education and not being involved in further education or training. Voreio Aigaio (EL41), Podlaskie (PL34), Opolskie (PL52), Cumbria (UKD1) and Highlands and Islands (UKM6): 2011. Kärnten (AT21) and Salzburg (AT32): 2010. Data for several regions have low reliability (too numerous to document).

Source: Eurostat (online data code: [edat_lfse_16](#))



Nationwide, the capital regions of Belgium and Austria recorded the highest proportions of early leavers from education and training

Perhaps surprisingly, the only other region where 20.0 % or more of persons aged 18–24 were not in education and training early in 2012 was the capital region of Belgium; the région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest registered the highest rate (20.1 %) for early leavers across all of the NUTS 2 regions in Belgium. This was in contrast to the general pattern of capital regions often recording relatively low rates of early leavers from education and training — probably reflecting the wide range of further education opportunities available in most capital cities. Belgium was one of two EU Member States for which data are available where the capital region recorded the highest rate of early leavers from education and training in 2012: the other was Wien in Austria, where the share of early leavers was at 10.9 % (below the EU-28 average).

The proportion of early leavers from education and training contracted most rapidly in Portuguese and Spanish regions

Map 3.3 shows the change in the proportion of persons aged 18–24 who were early leavers from education and training; the comparison is generally based on the three-year period from 2009 to 2012. The proportion of early leavers in the EU-28 fell during the three consecutive years of this period and was cut in total by 1.5 percentage points to 12.7 % in 2012. This downward path witnessed for the EU-28 as a whole was reproduced in two thirds of the NUTS 2 regions, as there was a reduction in the proportion of early leavers from education and training in 176 out of the 263 regions for which data are available (note there are some divergences from the standard reference period of 2009–12, as shown in the footnote to **Map 3.3**).

The biggest reductions in the proportion of 18–24 year-olds who were early leavers from education and training between 2009 and 2012 were recorded in Portuguese and Spanish regions — where some of the highest rates of early leavers were recorded. The largest decline between 2009 and 2012 was in the Norte region of Portugal, where the proportion of early leavers fell by 14.3 percentage points to stand at 21.3 %.

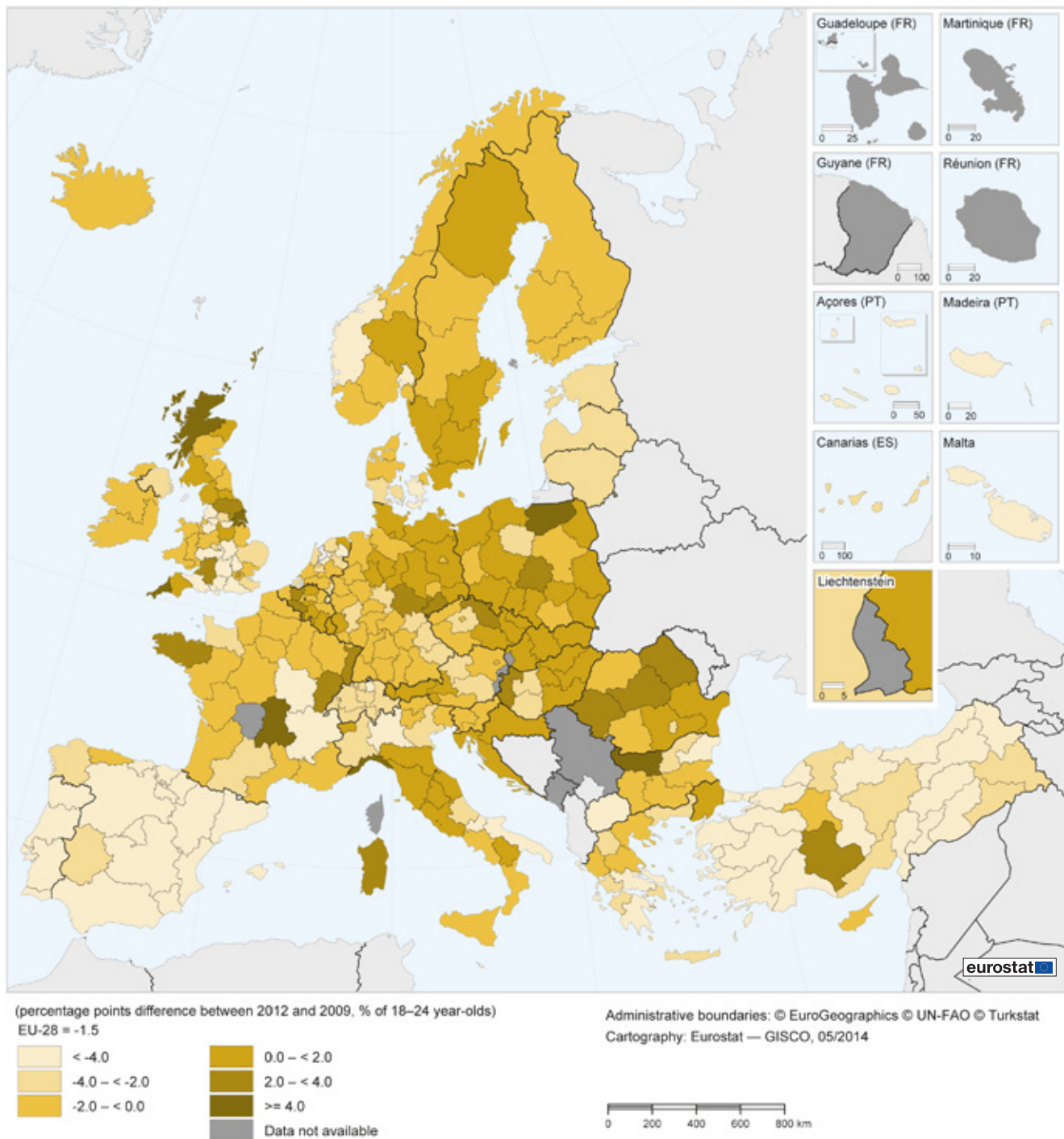
Three other Portuguese regions (the Regiões Autónomas dos Açores and da Madeira and the mainland region of Alentejo) and the Spanish Illes Balears also recorded reductions of at least 10.0 percentage points between 2009 and 2012 in the proportion of early leavers from education and training.

The proportion of early leavers from education and training rose between 2009 and 2012 in almost one third (83 out of the 263) of the NUTS 2 regions for which data are available. These increases were generally modest in nature, as only nine regions saw their respective share of early leavers rise by 4.0 percentage points or more (as shown by the darkest shade in **Map 3.3**). Among these, there were three regions from the United Kingdom, including the only region in the EU to report a double-digit increase in its rate — the Highlands and Islands — where the proportion of 18–24 year-olds who had left education and training increased by 13.7 percentage points between 2008 and 2011. The other two regions from the United Kingdom were Cornwall and Isles of Scilly and East Yorkshire and Northern Lincolnshire, while the remaining six regions were spread across Belgium (the capital Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest), Bulgaria, Spain, France, Italy and Poland.

Bulgaria was the only EU Member State where the proportion of male early leavers from education and training was lower than the corresponding rate for women

Information relating to the proportion of early leavers from education and training may also be analysed with respect to different rates between males and females. The proportion of females aged 18–24 in the EU-28 who were classified as early leavers was, on average, 3.5 percentage points lower than the corresponding rate for men in 2012. The biggest differences between the sexes were recorded in southern Europe, where the rates for men were generally much higher: this was particularly true in Portugal, Malta, Cyprus, Spain and Italy, but was also the case in Latvia and Estonia. By contrast, Bulgaria was the only EU Member State where the male rate for early leavers was lower than the corresponding rate for women (a difference of just 0.9 percentage points in 2012).

Map 3.3: Change in proportion of early leavers from education and training, by NUTS 2 regions, 2009–12⁽¹⁾ (percentage points difference between 2012 and 2009, % of 18–24 year-olds)



⁽¹⁾ Proportion of those aged 18–24 years having attained at most a lower secondary education and not being involved in further education or training. Luxembourg: break in series, 2009. Trier (DEB2), Auvergne (FR72) and Mellersta Norrland (SE32): 2010–12. Voreio Aigaio (EL41), Podlaskie (PL34), Opolskie (PL52) and Cumbria (UKD1): 2009–11. Highlands and Islands (UKM6): 2008–11. Kärnten (AT21) and Salzburg (AT32): 2008–10. Data for several regions have low reliability (too numerous to document).

Source: Eurostat (online data code: [edat_lfse_16](#))

Proportion of male early leavers from education and training higher than the corresponding rate for women in 85 % of EU regions

Figure 3.1 shows those regions with the most atypical distributions between the sexes: it includes the 10 regions where the difference (in percentage point terms) between male and female rates was highest (left-hand side of the figure) and the 10 regions where the difference between female and male rates was highest (right-hand side of the figure). Only 33 of the 220 NUTS 2 regions, or 15 % of those regions for which data are available, reported that the rate of male early leavers from education and training was lower than the corresponding rate for women in 2012. The largest difference was in the Bulgarian region of Severozapaden, where the male rate was 9.4 percentage points lower than that for women.

Highest proportion of male early leavers recorded in Extremadura

Male early leaver rates were generally higher than corresponding rates for women and this gap between the sexes rose into double-digits for nine NUTS 2 regions in 2012 (as shown on the left-hand side of **Figure 3.1**). These regions were characterised as having some of the highest overall rates of early leavers from education and training and they were exclusively located in southern Europe, principally in Spain and Portugal. The biggest difference in early leaver

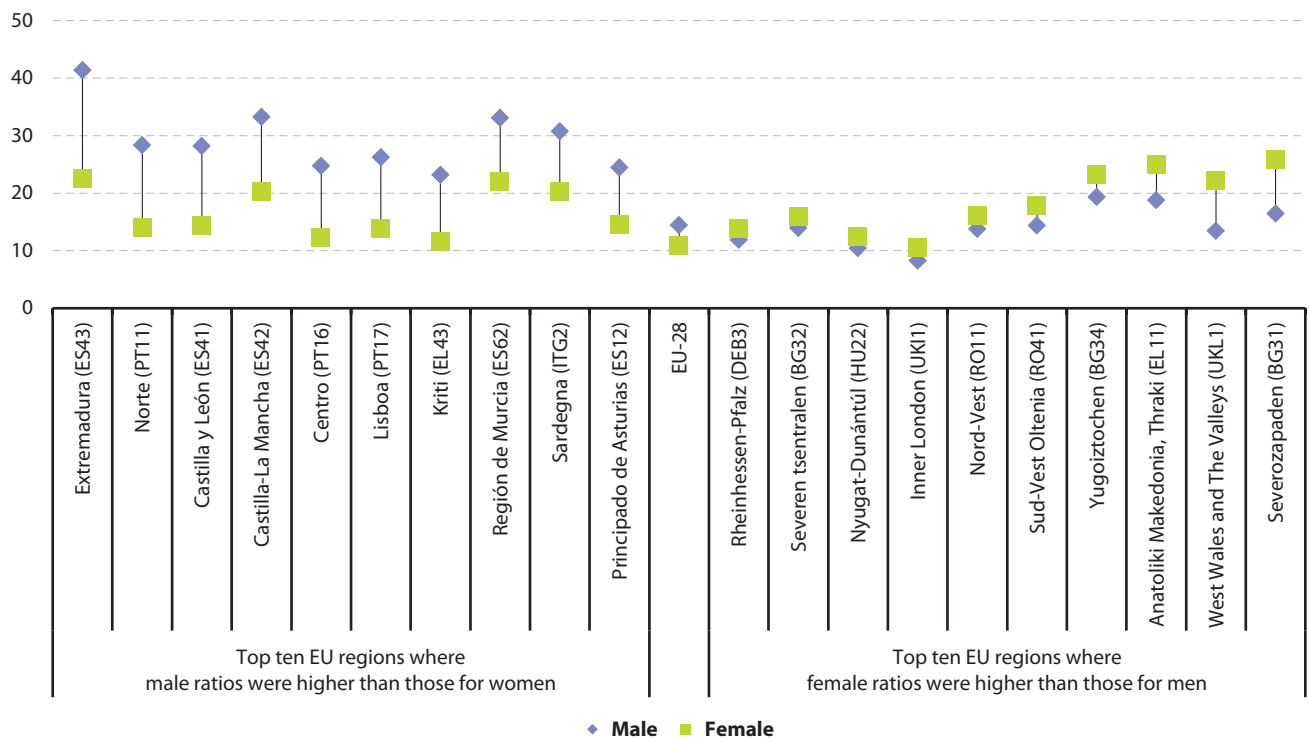
rates between the sexes was recorded in Extremadura (Spain), where the proportion of male early leavers was 41.3 %, some 18.8 percentage points higher than the female rate; the male rate for early leavers in Extremadura was the highest across any of the NUTS 2 regions.

Other than the two outlying Spanish autonomous cities, the highest female rate for early leavers from education and training was recorded in the Spanish region of the Illes Balears (29.6 %). The overall proportion of early leavers in the Illes Balears fell by 10.7 percentage points between 2009 and 2012 (the third biggest reduction for any of the NUTS 2 regions) — a closer study reveals that the pace of reduction in this region was almost three times as rapid among men as it was among women.

Students in tertiary education

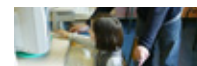
Tertiary education is the level of education offered by universities, vocational universities, institutes of technology and other institutions that award academic degrees or higher professional certificates. Access to tertiary-level education typically requires successful completion of an upper secondary and/or post-secondary non-tertiary level programme. In 2012 (the 2011/12 academic year), the number of students enrolled in tertiary education in the EU-28 stood at 20.0 million.

Figure 3.1: Early leavers from education and training with atypical gender gaps, selected NUTS 2 regions, 2012 ⁽¹⁾ (% of 18–24 year-old males / females)



⁽¹⁾ Proportion of each sex aged 18–24 years having attained at most a lower secondary education and not being involved in further education or training. The figure shows the EU-28 average, the top 10 EU regions where the male ratio was above that for women and the 10 EU regions where the female ratio was above that for men (subject to data availability). Severozapaden (BG31), Severen tsentralen (BG32), Yugoiztochen (BG34), Anatoliki Makedonia, Thraki (EL11), Kriti (EL43), Principado de Asturias (ES12) and Nyugat-Dunántúl (HU22): low reliability.

Source: Eurostat (online data code: [edat_lfse_16](#))



Map 3.4 shows the number of students enrolled in a university or similar (tertiary level) education in each region relative to the number of residents aged 20–24 in the same region: this gives an idea of how attractive each region is to tertiary students. Some regions reported very high values (well above 100 %) as they host large universities or other tertiary education institutions; these reflect the fact that these regions attract considerable numbers of students from other regions (or countries). Furthermore, with the promotion of education and learning across all members of society (including older persons), tertiary level students may increasingly fall outside of the traditional 20–24 years-old age group (used as the denominator for this ratio).

In Bratislavský kraj and Praha, the ratio of tertiary students to residents aged 20–24 was above 2:1

In the 2011/12 academic year there were generally high ratios of tertiary education students in northern Spain, northern Italy, northern Greece, as well as in Lithuania (one region at this level of NUTS) and Finland — as shown by the darkest shade in **Map 3.4**. However, the regions with the highest proportion of tertiary students relative to their number of residents aged 20–24 tended to be capital regions. This was particularly the case in Bratislavský kraj (Slovakia) and Praha (the Czech Republic), where the ratio of tertiary education students peaked at 220.5 % and 214.7 %; these were the only two regions where the number of tertiary students was more than double the number of residents aged 20–24.

Capital regions attract tertiary education students

Of the 18 regions across the EU that reported more students enrolled in tertiary education than residents aged 20–24 in 2012, a majority (11) were capital regions: Bratislavský kraj (Slovakia), Praha (the Czech Republic), Wien (Austria), Bucuresti - Ilfov (Romania), the Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest (Belgium), Attiki (Greece), Zahodna Slovenija (Slovenia), Mazowieckie (Poland), the Comunidad de Madrid (Spain), Közép-Magyarország (Hungary) and Lazio (Italy). Five of the seven remaining regions that reported more tertiary level students than residents aged 20–24 were in Greece (and four of these recorded ratios that were higher than in Attiki); the other two regions were La Rioja (in Spain) and the Province/Province Brabant Wallon (in Belgium).

Greece, Germany, the Netherlands and Sweden — the only Member States where the capital region did not record the highest concentration of tertiary education students

Although their ratios were below 100 %, the capital regions of Bulgaria, Denmark, Ireland, France, Portugal, Finland and the United Kingdom (data are only available for NUTS 1 regions) reported the highest concentration of tertiary students in each of these countries, relative to the population aged 20–24.

As such, along with Greece (see above), the only multi-regional Member States to report that their most dense concentration of tertiary students relative to the population



EDUCATION AND TRAINING — COHESION POLICY FUNDING

Regional policy initiatives in the education and training domain focus on developing skills and talent, which are considered crucial for ensuring the long-term competitiveness of Europe and its social cohesion. Priority actions within the field of human capital are largely financed through the European Social Fund (ESF), while the European Regional Development Fund (ERDF) supports investment in educational infrastructure.

The ESF finances regional initiatives designed to ensure that young people complete their education and get the skills that make them more employable — reducing school drop-out rates, encouraging young people to stay on at school and ensuring wider access to education (for example, among those from disadvantaged groups and minorities), through improving vocational and **tertiary education** opportunities. With the proportion of highly skilled jobs in the EU economy expected to grow, there will be an increasing need for people with a tertiary level of education.

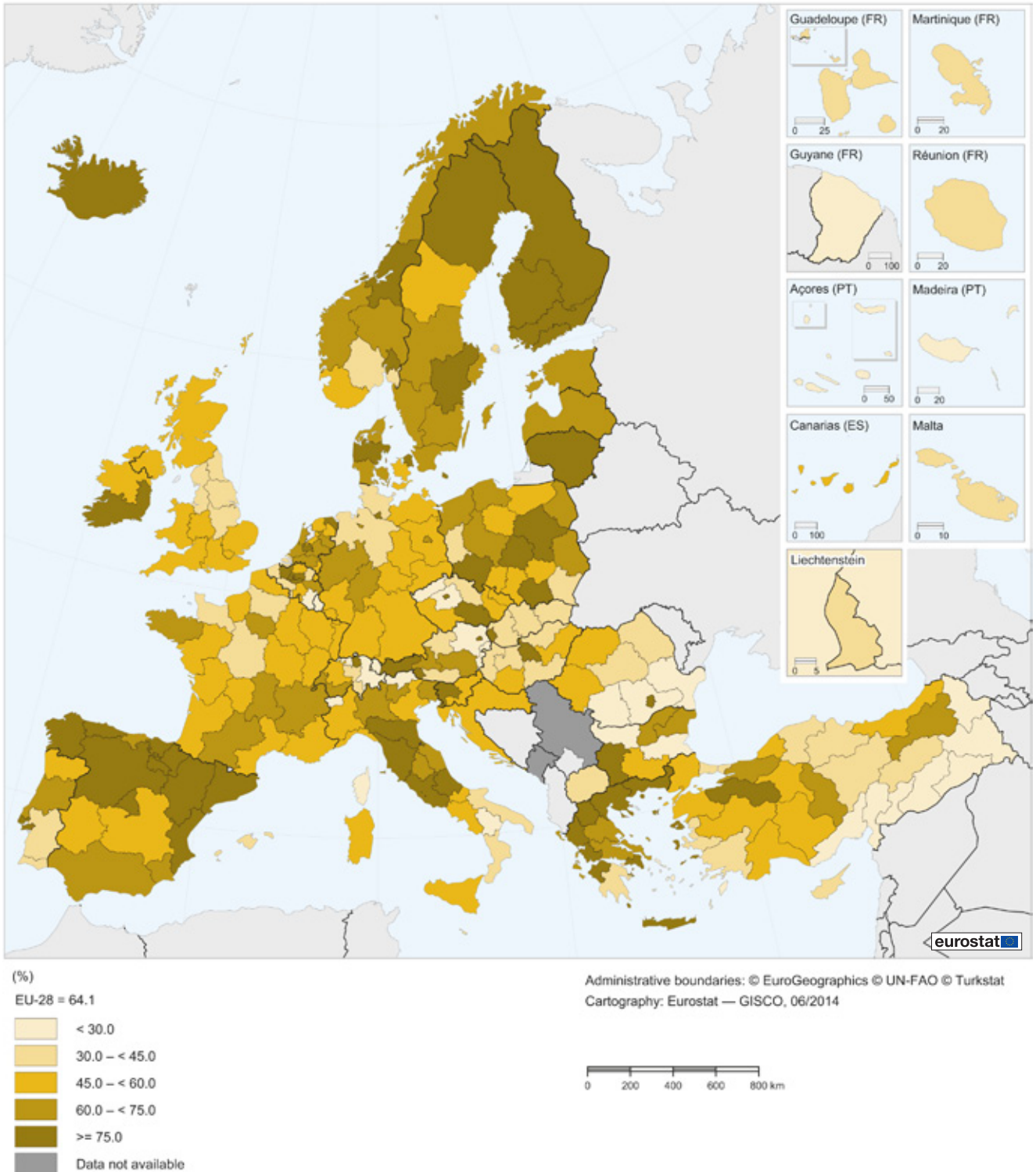
The ESF funds programmes in tertiary education and supports partnerships with industry with the goal of building better links between training providers and business to ensure that the skills that are taught are those that companies require, through the promotion of a training and lifelong learning culture that should benefit both workers and employers, helping people to advance in their careers, prepare themselves for changing jobs, and get back into the workforce if they are not employed.

Education and training are recognised as important assets for regional development and are eligible for cohesion policy funding, principally through the ESF and the ERDF. EU investment through cohesion policy funds allocated to human capital, education and training was valued at EUR 33 383 million during the period 2007–13, which amounted to 9.7 % of the EU's total cohesion budget over this period. The majority of funding was directed at training and education programmes, as these actions were attributed 3.6 times as much funding as developing education infrastructure.

For more information:

Cohesion policy for education and training: http://ec.europa.eu/regional_policy/activity/education/index_en.cfm

Map 3.4: Total number of students in tertiary education (ISCED levels 5 and 6), as a percentage of the population aged 20–24, by NUTS 2 regions, 2012 ⁽¹⁾ (%)



⁽¹⁾ Total number of tertiary students divided by the resident population of 20–24 year-olds. The data covers enrolments at a regional level in the school year 2011/12. Germany and the United Kingdom: by NUTS 1 regions. Croatia: national level.
Source: Eurostat (online data code: [educ_regind](#))



aged 20–24 lay outside of their capital region in 2012 were Germany (data are only available for NUTS 1 regions), the Netherlands and Sweden; note only national data are available for Croatia. In Germany, Hamburg (79.6 %) and Bremen (74.8 %) recorded ratios that were higher than that recorded in Berlin (70.0 %). In the Netherlands, Groningen (89.5 %) and Utrecht (76.2 %) had the highest ratios of tertiary students to residents aged 20–24 and were the only regions to record ratios above that for Noord-Holland (69.9 %). In Sweden, the highest ratios were recorded in Övre Norrland (94.5 %), Östra Mellansverige (75.5 %) and Sydsverige (72.2 %), each of these regions recording a ratio that was above that in Stockholm (69.1 %).

Tertiary educational attainment

The next two maps in this chapter provide information relating to the proportion of the population that has attained a tertiary level of education — in other words, a university degree or similar qualification. One of the education-related targets adopted by the Europe 2020 strategy is that, by 2020, across the EU at least 40 % of those aged 30–34 should have completed a tertiary level of education.

In 2012, just over one third (35.7 %) of 30–34 year-olds in the EU-28 had completed a tertiary level of education. These latest figures support the premise that a rising proportion of the EU's population is studying to a higher level — in keeping with the Europe 2020 target — as a decade before (in 2002) the corresponding share was 12.2 percentage points lower, at 23.5 %.

Agglomerations attract highly qualified staff

Given that most persons aged 30–34 will have completed their tertiary education prior to the age of 30, this indicator may be used to assess the attractiveness (or pull effect) of regions with respect to the employment opportunities they may offer graduates. Capital cities are often chosen by large companies as the location for their headquarters, either as a matter of prestige or to benefit from the economies of scale which may be present in some of Europe's largest cities. Given a high number and a wide range of graduate jobs are generally on offer in capital cities, it is therefore not surprising that many European capital regions reported a high proportion of their population aged 30–34 years-old having attained a tertiary level of education.

Almost three quarters of those aged 30–34 living in Inner London had attained a tertiary level of education

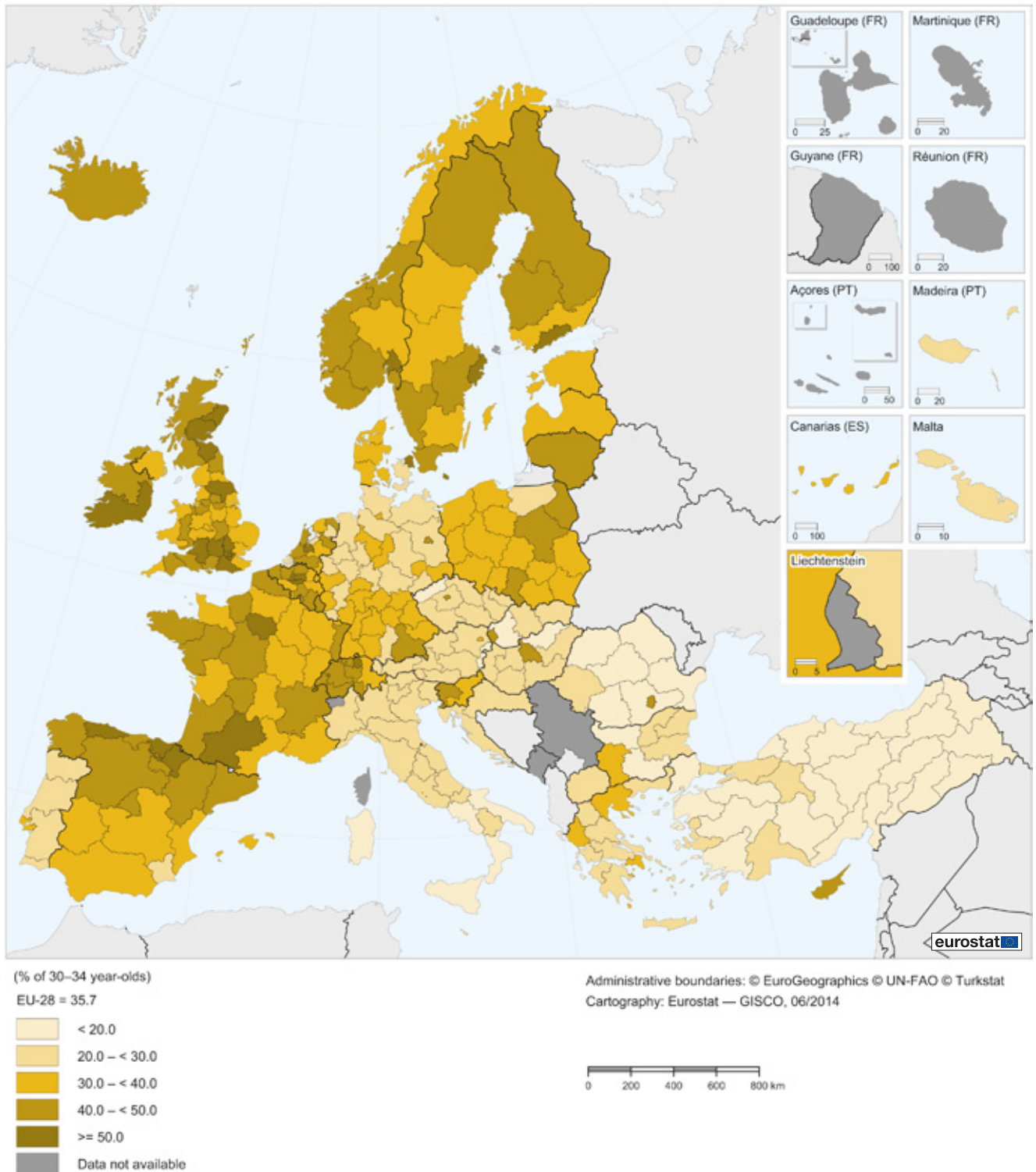
There were 21 NUTS 2 regions in the EU where more than half of the population aged 30–34 had attained a tertiary level of education in 2012 (see **Map 3.5**). There was a high concentration of graduates in nine of the regions within the United Kingdom, these were mostly located in the south of England (around London) and in eastern Scotland. The share of 30–34 year-olds with a tertiary education peaked at almost three out of every four persons (73.1 %) in Inner London, well above the second placed region — the País Vasco (in Spain) — where the corresponding ratio was 61.7 %.

Clusters of economic activity may also attract highly qualified staff

Of the remaining 12 regions where more than half of the population aged 30–34 in 2012 had completed tertiary education, three regions were located in northern Spain, including the País Vasco. There were two Belgian provinces (that surrounded the capital region) and two French regions (the capital region of the Île de France and the Midi-Pyrénées). Four of the other five regions contained capital cities — those of the [Nordic Member States](#) and that of Ireland — while the final region was Utrecht in the Netherlands, which is considered the most competitive region in the EU according to a study conducted by the European Commission (see Chapter 15).

Enterprises from related economic activities often cluster together in order to feed off the synergies and proximity of clients and competitors alike. This phenomenon can reinforce specialisations and draw qualified staff to a region. Examples include research-intensive clusters specialising in biotechnology, medical research, information and communication technologies, aerospace or car manufacturing. The pull of specific clusters may not always be apparent given the relatively large size of NUTS 2 regions, however, a cluster of aerospace enterprises situated around Toulouse in the Midi-Pyrénées region of France and a cluster of enterprises linked to oil-related activities in North Eastern Scotland will have, at least in part, contributed to these regions featuring among the 21 regions in the EU where at least half of the population aged 30–34 had completed tertiary education.

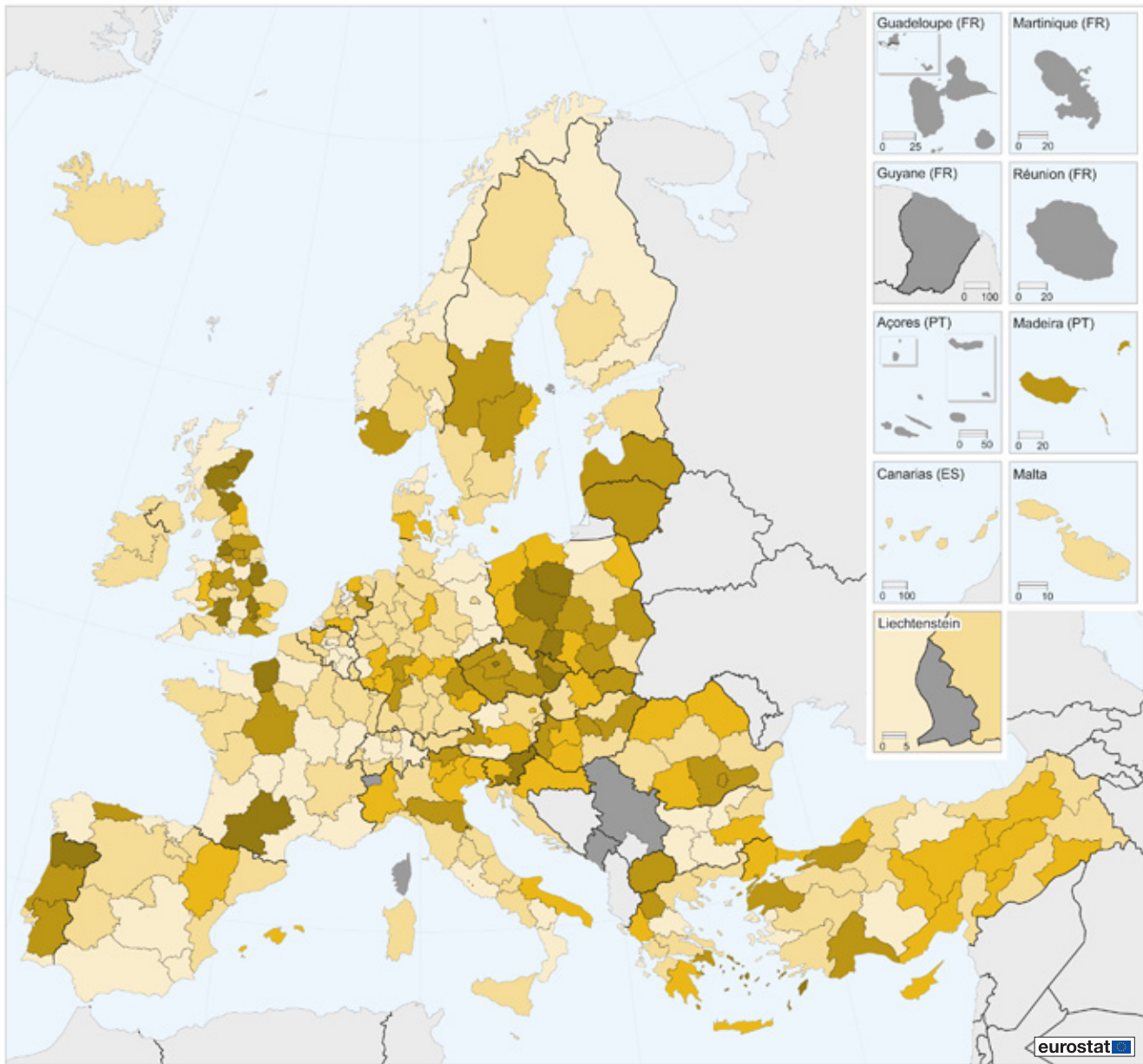
Map 3.5: Persons aged 30–34 with tertiary education (ISCED levels 5 and 6) attainment, by NUTS 2 regions, 2012 ⁽¹⁾
(% of 30–34 year-olds)



⁽¹⁾ Ciudad Autónoma de Ceuta (ES63): 2010. Data for several regions have low reliability (too numerous to document).

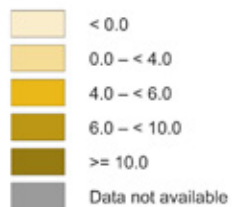
Source: Eurostat (online data code: [edat_lfse_12](#))

Map 3.6: Change in proportion of persons aged 30–34 with tertiary education (ISCED levels 5 and 6) attainment, by NUTS 2 regions, 2009–12⁽¹⁾
(percentage points difference between 2012 and 2009, % of 30–34 year-olds)

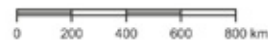


(percentage points difference between 2012 and 2009, % of 30–34 year-olds)

EU-28 = 3.6



Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 06/2014



⁽¹⁾ Luxembourg: break in series, 2009. Data for several regions have low reliability (too numerous to document).
Source: Eurostat (online data code: [edat_lfse_12](#))



Graduate mobility in eastern and southern Europe?

With the exception of Spain, none of the multi-regional EU Member States from eastern and southern Europe reported that one half or more of their population aged 30–34 had attained a tertiary level of education in 2012. This might be considered as somewhat surprising given that many regions in these areas are characterised as having more students enrolled in tertiary education than residents aged 20–24 (as shown in **Map 3.3**). This apparent dichotomy could be explained by a number of factors:

- education systems could be relatively centralised, resulting in residents from one region carrying out studies in the capital region before returning to their original place of residence to look for work following graduation;
- these regions could be characterised by a high degree of mobility among young graduates, with qualified people seeking work in other countries — this pattern could be particularly prevalent in regions experiencing high unemployment or regions where average wages are comparatively low;
- a recent increase in the uptake of tertiary education.

Aside from southern and eastern regions of Europe, the regions of Germany and Austria also reported a relatively low proportion of their respective populations aged 30–34 in 2012 having attained a tertiary level of education. This may, at least in part, be attributed to the particular emphasis placed on apprenticeships in these two countries, whereby many jobs do not require a degree, per se, but rather a professional qualification. The highest proportion of the population aged 30–34 with a tertiary level of education in Germany was recorded in Oberbayern (43.6 %), while the highest rate in Austria was recorded in the capital region of Wien (37.8 %).

In 19 regions in the EU less than one in five of the population aged 30–34 possessed a tertiary level of education

Many of the regions where tertiary educational attainment among those aged 30–34 was relatively low were characterised as being areas where primary activities or heavy industries (for example, agriculture, mining, or iron and steel) have traditionally played an important role in the economic fabric of a region. There were 19 NUTS 2 regions

across the EU where less than one in five persons aged 30–34 had attained a tertiary level of education in 2012. Six of these were located in Romania, five in (southern) Italy, two each in Bulgaria and Greece and a single region each from the Czech Republic, Slovakia, Hungary and Austria. They were mainly categorised as being economically underdeveloped, insofar as 15 of them had an average level of GDP per inhabitant that was less than 75 % of the EU-28 average in 2011; each of the remaining four regions had a ratio of GDP per inhabitant that was also below the EU-28 average.

Almost four out of five regions in the EU reported that the share of their population aged 30–34 with a tertiary level of educational attainment increased between 2009 and 2012

Map 3.6 presents information on the change in tertiary educational attainment among the same age group (those aged 30–34), based upon an analysis of differences between 2009 and 2012. Across the whole of the EU-28, the proportion of 30–34 year-olds with a tertiary level of education rose by 3.6 percentage points to reach 35.7 %; if this rate of change is maintained the Europe 2020 target of having at least 40 % of EU residents aged 30–34 attaining a tertiary level of education will be reached before 2020.

The overwhelming majority of regions in the EU followed a similar pattern, as the proportion of the population aged 30–34 with a tertiary level of education rose in 205 out of the 263 NUTS 2 regions for which data are available. The most rapid increase in the proportion of residents aged 30–34 with a tertiary level of education was in the Greek island region of Notio Aigaio, where the share rose by 17.1 percentage points between 2009 and 2012. Aside from Notio Aigaio, there were 17 other regions in the EU where double-digit percentage point increases were recorded, including seven regions from the United Kingdom, three regions from Poland, two regions each from the Czech Republic and France, and a single region each from Portugal, Slovakia and Slovenia. Most of the regions with rapid growth for tertiary educational attainment in the United Kingdom were characterised as already having high levels of educational attainment. Outside of the United Kingdom, tertiary educational attainment was more closely distributed around the EU-28 average in most of the other regions where rapid increases were reported.



ERASMUS+: AN EU PROGRAMME FOR EDUCATION, TRAINING, YOUTH AND SPORT TO THE END OF THIS DECADE

Erasmus+ is an EU programme which is designed to boost skills and employability, as well as modernising education, training, and youth work; the programme also supports sport (both grassroots projects and cross-border challenges, such as match-fixing or racism). It is designed to provide a new approach for developing a modern and dynamic education sector, which promotes collaboration between formal, informal and non-formal learning, as well as partnerships between education and the world of work. The Erasmus+ programme will run over seven years (2014–20) with a budget of EUR 14.7 billion. This will be shared between the following programmes:

- education and training (77.5 %);
- youth (10 %);
- student loan facilities (3.5 %);
- national agencies (3.4 %);
- administrative costs (1.9 %);
- Jean Monnet (1.9 %) — a programme which aims to stimulate teaching, research and reflection in the field of European integration studies in higher education institutions;
- sport (1.8 %).

The Erasmus+ programme is closely linked to the policy objectives outlined within the ET 2020 and the Europe 2020 initiatives. It should offer opportunities to more than four million Europeans and around 125 000 different educational institutions to participate, resulting in:

- two million higher education students studying and training abroad;
- 650 000 vocational students spending part of their education and training abroad;
- 500 000 young people being able to volunteer abroad and take part in youth exchanges;
- 200 000 master's students benefitting from a new loan guarantee scheme and more than 25 000 scholarships for joint master's degrees;
- 800 000 lecturers, teachers, trainers, education staff and youth workers being able to teach or train abroad.

The share of the population aged 30–34 with a tertiary level of education fell in predominantly rural regions or former industrial heartlands

By contrast, there were 57 NUTS 2 regions where the proportion of residents aged 30–34 having attained a tertiary level education declined during the period 2009–12 (there was no change reported in Hannover, Germany). These reductions may result from young graduates moving to another region (perhaps in search of work), or from young people not returning to their region of origin after graduation (instead choosing to establish themselves in another region), or simply from lower graduation rates.

Many of the regions that experienced a decline in their proportion of 30–34 year-olds with a tertiary level of education were predominantly rural areas or areas that historically specialised in a range of traditional, heavy industries. The decline in tertiary educational attainment was greatest in the rural French regions of Basse-Normandie and the Auvergne, the provincial region of Zeeland in the Netherlands, and the largely metropolitan region of Merseyside in the United Kingdom; these were the only regions in the EU where the proportion of those aged 30–34 with a tertiary level of education fell by more than 10.0 percentage points between 2009 and 2012.

Lifelong learning

The [strategic framework for European cooperation in education and training](#) aims to support EU Member States in developing their education and training systems, including the provision of lifelong learning initiatives which provide the means for all members of society to achieve their potential. This framework sets a benchmark, namely that by 2020 an average of at least 15 % of adults aged 25–64 should participate in lifelong learning.

9.0 % of the EU's population aged 25–64 participated in education or training in 2012

In contrast to the analysis of tertiary educational attainment levels, where the regions with the highest shares were often characterised as being capital regions or other densely populated regions, participation in education and training was distributed fairly evenly within individual EU Member States, suggesting that this indicator is closely tied to national policies, employee and employer attitudes.

Map 3.7 presents regional information on the proportion of those aged 25–64 that had participated in education and training in 2012; these statistics refer to persons who reported that, during a four-week period preceding the survey from which the data are compiled, they had received some form of education or training. The information collected relates to all education and training regardless of whether it is relevant to the respondent's current or possible future job. In 2012, the overall share of the EU-28 population aged 25–64 who had received some form of education or training was 9.0 %.

Danish regions reported the highest participation rates in education and training

There were 18 NUTS 2 regions in the EU (out of a total of 266 regions for which data are available) where 20.0 % or more of the population aged 25–64 had participated in education or training in 2012. Four out of the five Danish NUTS 2 regions occupied the top of the ranking, while the fifth region had the eighth highest participation rate. The proportion of the persons aged 25–64 participating in education or training in the Danish regions ranged from 27.8 % to 35.4 %, with the highest participation rate recorded in the capital region of Hovedstaden. Alongside Danish regions, there was also a high propensity to participate in education and training in the neighbouring Nordic Member States of Finland and Sweden, which accounted for the 13 other regions where at least one fifth of the population aged 25–64 had participated in education or training in 2012. The next highest participation rates — just below the level of 20 % — were principally located in the Netherlands and the United Kingdom (although rates were lower in Northern Ireland), as well as in Wien (Austria) and Zahodna Slovenija (Slovenia).



SPOTLIGHT ON THE REGIONS: HOVEDSTADEN (DK01), DENMARK



IT University of Copenhagen

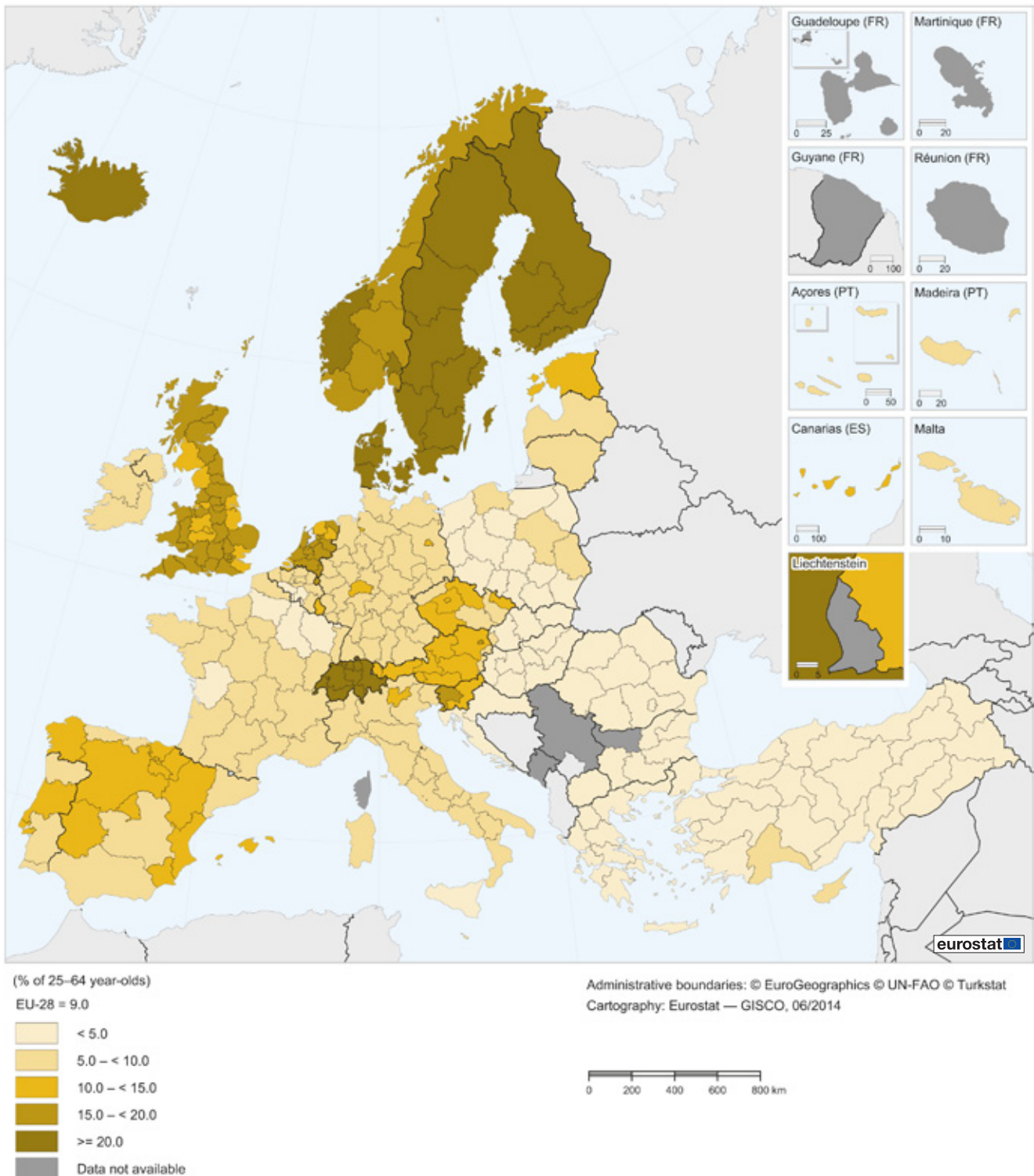
The capital region of Denmark was the EU-28 region with the highest proportion of its population (aged 25–64) participating in education and training (35.4 % in 2012); the proportion was almost four times as high as the EU-28 average (9.0 %).

The four remaining NUTS 2 regions in Denmark also had very high levels of lifelong learning, as they featured among the top 10 regions in the EU for this indicator.

Photo: IT University of Copenhagen

There were 58 regions across the EU-28 where fewer than 5.0 % of the population aged 25–64 participated in education and training in 2012. These were concentrated in Bulgaria, Greece, Croatia, Hungary and Romania — all of the regions in these countries had rates below 5.0 % — each of the regions in Slovakia apart from the capital region of Bratislavský kraj and all but three of the Polish regions also reported that fewer than 5.0 % of all 25–64 year olds participated in education or training. The lowest level of participation (0.9 %) was recorded in the Bulgarian region of Severen tsentralen.

Map 3.7: Participation of adults aged 25–64 in education and training, by NUTS 2 regions, 2012 ⁽¹⁾
 (% of 25–64 year-olds)



⁽¹⁾ Voreio Aigaio (EL41): 2010. The Netherlands: provisional. Data for several regions have low reliability (too numerous to document).
 Source: Eurostat (online data code: [trng_lfse_04](#))



Data sources and availability

As the structure of education systems varies from one country to another, a framework for assembling, compiling and presenting regional, national and international education statistics and indicators is a prerequisite for the comparability of data. The [International Standard Classification of Education \(ISCED\)](#) provides the basis for collecting data on education. It classifies all educational programmes by field of education and educational level and presents standard concepts and definitions. ISCED-97 is the version introduced in 1997 and used for the statistics presented in this article. A full description is available on the [United Nations Educational, Scientific, and Cultural Organisation \(UNESCO\) Institute of Statistics \(UIS\) website](#). ISCED-97 distinguishes seven levels of education:

- pre-primary education (level 0);
- primary education (level 1);
- lower secondary education (level 2) and upper secondary education (level 3);
- post-secondary non-tertiary education (level 4);
- tertiary education (first stage) (level 5) and tertiary education (second stage) (level 6).

A review of ISCED began in 2009 and the revised classification ([ISCED 2011](#)) was adopted by a UNESCO General Conference in November 2011. The first statistics to be based on ISCED 2011 are expected to be published in 2015.

A significant share of European education statistics is collected as part of a jointly administered exercise that includes the UNESCO Institute for Statistics (UNESCO-UIS), the [Organisation for Economic Cooperation and Development \(the OECD\)](#) and Eurostat; this is often referred to as the UOE data collection exercise.

Administrative data are collected on an annual basis and refer to academic years — for example, the data for the period 2012 covers the academic year of 2011/12.

Statistics on early leavers from education and training and on tertiary educational attainment are collected through the [EU's Labour Force Survey](#) which is another major source for European education statistics.

Indicator definitions

Statistics on the proportion of four year-olds who are enrolled in pre-primary and primary education institutions cover those institutions which provide education-oriented care to young children. These must have staff with specialised qualifications in education. As such, day nurseries, playgroups and day care centres, where the staff are not required to hold a qualification in education, are excluded.

The indicator on early leavers from education and training tracks the proportion of individuals aged 18–24 who have finished no more than a lower secondary education (ISCED levels 0, 1, 2 or 3c short), and who are not engaged in further education and training.

Statistics on enrolments in tertiary education refer to those persons who participate in ISCED level 5 or 6 educational programmes. Tertiary programmes at ISCED level 5 may be of an academic orientation (largely theoretical) or an occupational orientation (the latter are typically shorter programmes directly aimed at preparing students for the labour market). Second stage tertiary programmes (ISCED level 6) relate to tertiary studies that lead to an advanced research qualification (a Ph.D. or doctorate). Note that **Map 3.4** combines two distinct concepts, namely a numerator based on a count of students who are recorded according to the educational institution where they are inscribed and a denominator that is based on population statistics which are recorded according to residence. As a result, the region of study does not always match the region of residence. Furthermore, student numbers may also include persons who are not registered in the population register (for example, temporary foreign students). It is therefore possible that a region reports ratios of students attending a tertiary education establishment that are in excess of 100 % of the population (of a particular age group), especially when there are high rates of student mobility.

Education attainment is defined as the proportion of people of a given age group having attained a given education level. The age range of 30–34 year-olds is used for tertiary educational attainment as this generally refers to the first five-year span where the vast majority of students have already completed their studies.

Lifelong learning covers the pursuit of knowledge for personal or professional reasons, with the overall aim of improving knowledge, skills and competences. Lifelong learning statistics refer to persons aged 25–64 who report that they have received education or training in the four weeks preceding the LFS survey; these figures are divided by the total population of the same age group. The information collected relates to all education or training regardless of whether it is relevant to the respondent's current or possible future job.