

Information society

8





Introduction

This chapter emphasises the geographic aspects of the digital divide by presenting a range of regional statistical data on ICTs within the [European Union \(EU\)](#).

The diffusion of ICTs across the EU is considered by many as fundamental for improving both productivity levels and the competitiveness of regions. ICTs are credited with delivering greater flexibility in the working environment (for example, working from home or other remote locations). These developments have created new dimensions of not only economic, but also social or political participation for individuals and groups. Indeed, the universal

presence and reach of ICTs has had a profound effect on transforming society, allowing completely new ways of working, socialising and sharing information, irrespective of geographical location. A fast connection to the internet (coupled with knowledge and relevant skills) makes it easy to carry out a range of activities online: for example, obtaining information about almost any topic; communicating via messenger, chat or video services; accessing work files; consuming media; buying or selling goods and services. These activities can be carried out through a growing range of devices (such as a smart phones, tablets and computers), while technological development continues apace, for example, in the development of wearable connected devices.



DIGITAL AGENDA FOR EUROPE — A FLAGSHIP EUROPE 2020 INITIATIVE

In 2010, the [European Commission](#) adopted a communication concerning 'A Digital Agenda for Europe' (COM(2010) 245 final/2), which presented a strategy to promote a thriving digital economy in the EU by 2020. Specific importance has been given to bridging the digital divide so that all EU inhabitants would be offered equal access to ICTs. The digital agenda for Europe is one of seven flagship initiatives under the [Europe 2020 strategy](#) for smart, sustainable and inclusive growth.

The digital agenda contains 101 specific policy actions: 78 to be taken by the European Commission (including 31 legal proposals) and 23 for EU Member States. These actions are grouped into the following areas:

- creating a digital single market;
- providing greater interoperability;
- boosting internet trust and security;
- providing much faster internet access;
- encouraging investment in research and development;
- enhancing digital literacy skills and inclusion; and,
- applying ICTs to address challenges facing society like climate change and the ageing population.

The European Commission reviewed the digital agenda in 2012, by when close to half (45 %) of the 101 policy actions had been completed. While the full implementation of the original 101 actions remains a priority, seven areas for new initiatives linked to the digital economy were also identified for their potential to deliver an economic stimulus (the review estimated that [gross domestic product \(GDP\)](#) in the EU could grow by an additional 5 % by 2020 and that employment would be boosted by an additional 3.8 million jobs in the long term if these seven new areas were supported). The seven initiatives resulting from the review foresee:

- creating a new and stable broadband regulatory environment;
- developing public digital service infrastructures (through the Connecting Europe facility);
- launching a grand coalition on digital skills and jobs;
- proposing an EU cyber-security strategy and Directive;
- updating the EU's copyright framework;
- accelerating the development of cloud computing through public sector buying power;
- launching an electronics industrial strategy.

For more information:

Digital Agenda for Europe — a Europe 2020 initiative: <http://ec.europa.eu/digital-agenda/>

Main statistical findings

Regional statistics on ICT are generally available for **NUTS 2** regions. However, the latest information for Germany, Greece, France, Poland and the United Kingdom is only provided for **NUTS 1** regions; only national data is available for Slovenia. ICT statistics are also shown for Iceland, Norway, the former Yugoslav Republic of Macedonia and Turkey; of these, only Norway and Turkey provide a regional breakdown. All of the information on individuals refers to people aged 16–74 (unless otherwise noted).

People who have never used a computer

At the start of the digital revolution access to the internet was restricted to those who worked with or owned a computer. Thereafter, a number of technological developments resulted, such that a wider range of devices could be used to access the internet — meaning that the use of a computer was no longer essential for internet use. Nevertheless, despite the opportunities to use alternative devices for accessing the internet (especially when on the move), many Europeans continue to rely on computers to carry out a wide range of tasks both at work and at home.

There were 26 regions in the EU where at least 35 % of the population had never used a computer

Map 8.1 shows that, as of 2013, 19 % of the population (aged 16–74) across the whole of the EU-28 had never used a computer. Of the 187 regions in the EU-28 for which data are available, Sud – Muntenia (in southern Romania) was the only region where a majority of the population had never used a computer (51 %). There were 25 regions where the proportion of individuals who had never used a computer stood between 35 % and 50 %: among these were nine Italian regions (principally in southern Italy, but also including Piemonte and Umbria), six of the remaining seven **NUTS 2** regions from Romania (the capital region of București – Ilfov was the only exception), five **NUTS 2** regions in Bulgaria (the capital region of Yugozapaden was the only exception), three of the four **NUTS 1** regions from Greece (the capital region of Attiki was the only exception) and a single region from each of Spain (Ciudad Autónoma de Melilla) and Poland (Region Wschodni).

There were 62 regions in the EU where at least 90 % of the population had used a computer

At the other end of the range, the use of computers was commonplace in 62 of the EU-28 regions, where the share of the population who had used a computer was equal to

or above 90 %. Of these, there were 25 regions located in northern and western Europe where the proportion of individuals who had used a computer was above 95 %: this included all of the regions in Denmark, Sweden and Luxembourg (one region at this level of detail); seven regions from the Netherlands, three regions from the south of the United Kingdom (**NUTS 1**), and one region from Finland. The highest proportion of people having used a computer (99 %) was recorded in the Dutch region of Flevoland, while there were 12 different regions spread across Denmark, the Netherlands, Finland, Sweden and the United Kingdom, including the Danish and Finnish capital regions of Hovedstaden and Helsinki-Uusimaa, where 98 % of the population had used a computer; the same rate was also registered for Iceland (one region at this level of detail).

Broadband connections

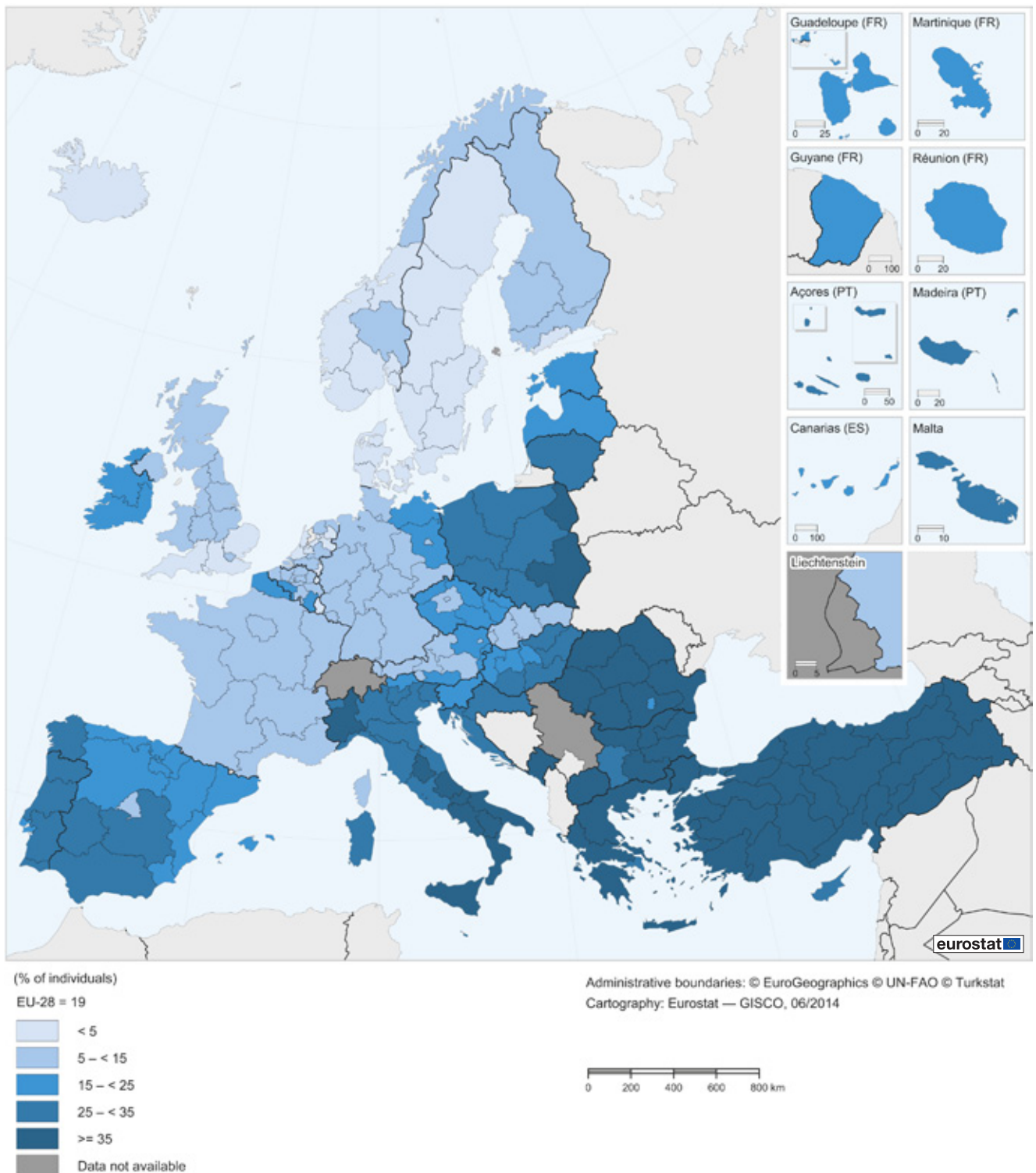
The digital agenda for Europe foresaw the entire EU being covered by **broadband** by 2013. It is important to note that this benchmark is defined in relation to the technological possibilities of accessing broadband and not in terms of the take-up of broadband connections by households (as shown in **Map 8.2**). In its **digital agenda scoreboard (2013)**, the European Commission's Directorate General for Communications Networks, Content & Technology estimated that almost all European homes had the possibility to access at least a basic broadband service at the start of 2013 if they had chosen to do so (figures cover all technologies — fixed, fixed-wireless, mobile and satellite broadband). Standard fixed broadband coverage was estimated to cover 95.5 % of homes within the EU, although its share in rural areas was lower at 83.2 %.

The digital agenda foresees that the entire EU will be covered by broadband operating at speeds in excess of 30 Mbps by 2020. Next generation technologies capable of providing download speeds of at least 30 Mbps were estimated to be covering more than half (53.8 %) of all households in the EU-28 by the start of 2013 — principally through cable technologies (39.4%), but also using very-high-bit-rate digital subscriber lines (VDSL) and fibre to the premises (FTTP).

Policy-makers have made efforts to expand both the geographic reach and the speed of broadband internet. In 2013, just over three quarters (76 %) of all households (with at least one member being aged 16–74) in the EU-28 had a broadband connection; this was 9 percentage points higher than in 2011 (67 %). The rate of growth for the take-up of broadband connections by EU households slowed from 2007 onwards, as connections approached saturation in some regions.



Map 8.1: Individuals who never used a computer, by NUTS 2 regions, 2013 ⁽¹⁾
(% of individuals)



(¹) The former Yugoslav Republic of Macedonia: 2012. Montenegro: 2011. Germany, Greece, France, Poland and the United Kingdom: by NUTS 1 regions. Slovenia: national data. Mellersta Norrland (SE32): low reliability.

Source: Eurostat (online data codes: [isoc_r_cux_i](#) and [isoc_ci_eu_i](#))



THE DIGITAL AGENDA SCOREBOARD — BENCHMARKING ICT DEVELOPMENTS ACROSS THE EU

The digital agenda scoreboard identifies 13 key performance targets for measuring the progress of the digital agenda initiative. A scoreboard with these key indicators — supported by a wide range of additional indicators — is released on an annual basis. The 13 key performance targets set by policymakers to measure the success of the digital agenda foresee:

- the entire EU to be covered by broadband by 2013;
- the entire EU to be covered by broadband above 30 Mbps by 2020;
- at least 50 % of the EU to subscribe to broadband above 100 Mbps by 2020;
- at least 50 % of the population to buy online by 2015;
- at least 20 % of the population to buy online and cross-border by 2015;
- at least 33 % of small and medium-sized enterprises to make online sales by 2015;
- the difference between roaming and national tariffs to approach zero by 2015;
- an increase in regular internet usage from 60 % to 75 % by 2015, and from 41 % to 60 % among disadvantaged people;
- the proportion of the population that has never used the internet to halve from 30 % to 15 % by 2015;
- at least 50 % of the EU's population using eGovernment services by 2015, with more than half of these returning completed forms;
- key cross-border public services to be available online by 2015;
- a doubling of public investment in ICT research and development to EUR 11 billion by 2020;
- a reduction in the energy use of lighting by 20 % by 2020.

For more information:

Digital Agenda for Europe — scoreboard: <http://ec.europa.eu/digital-agenda/en/scoreboard>

Highest share of households with broadband connectivity recorded in London

Map 8.2 shows the proportion of households with broadband internet access in 2013. There was a particularly high level of broadband access across northern and western Europe, in particular within the **Nordic Member States**, Germany, the Netherlands and the United Kingdom. There were nine regions in the EU-28 which recorded a broadband connection rate of at least 90 % in 2013. The highest proportion (94 %) was registered for London (a NUTS 1 region), while there were two other NUTS 1 regions from the south of the United Kingdom, three regions from the Netherlands, and a single region from each of Denmark, Germany (a NUTS 1 region) and Finland present among those regions with rates of at least 90 %. Among the **EFTA** countries, Iceland (one region at this level of detail) and three Norwegian regions reported that at least 90 % of their households had a broadband connection in 2013.



SPOTLIGHT ON THE REGIONS: LONDON (UKJ), THE UNITED KINGDOM



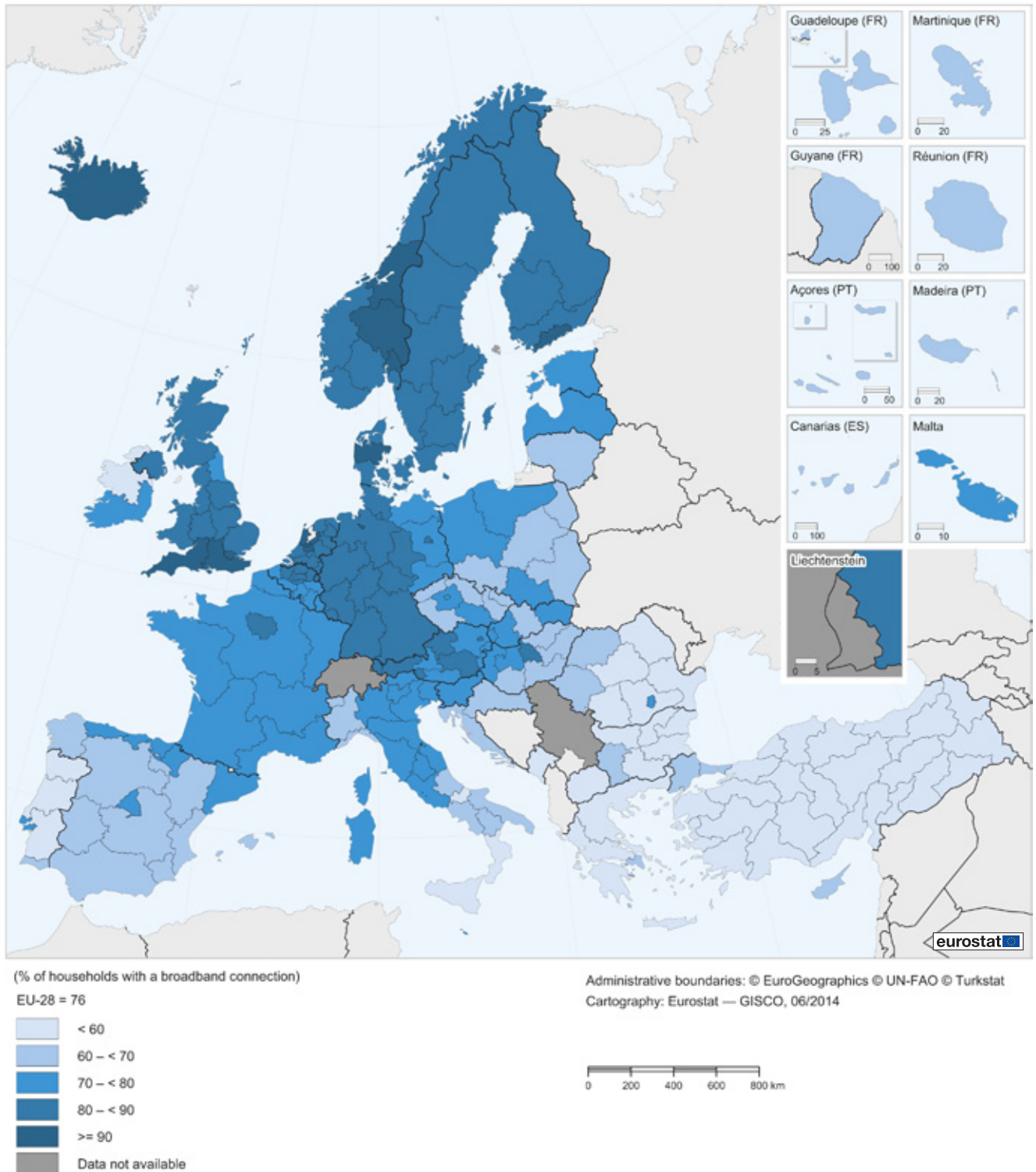
Post office tower, London

London was the EU-28 region with the highest broadband connectivity rate: 94 % of households had such a connection in 2013. Broadband connectivity in the United Kingdom was 90 % or higher in two other regions — the South East (UKJ) and the South West (UKK). The lowest rate of connectivity was recorded for the North East (UKC) of England, where 77 % of households had a broadband connection — one percentage point above the EU-28 average.

Photo: Dunc(an)



Map 8.2: Broadband connections in households, by NUTS 2 regions, 2013 ⁽¹⁾
(% of households with a broadband connection)



⁽¹⁾ Sweden and the former Yugoslav Republic of Macedonia: 2012. Montenegro: 2011. Germany, Greece, France, Poland and the United Kingdom: by NUTS 1 regions. Slovenia: national data.
Source: Eurostat (online data codes: [isoc_r_broad_h](#) and [isoc_ci_eu_h](#))

Less than half of all households in three Bulgarian, two Greek and one Romanian region had a broadband connection

Broadband connectivity rates were particularly low in some parts of eastern and southern Europe. This was especially the case for five regions in each of Bulgaria and Romania, three of the four NUTS 1 regions in Greece, three regions each in Portugal and Italy and a single Irish region, where the proportion of households with broadband access was below 60 %; these 20 regions are shown with the lightest shade in **Map 8.2**. The lowest broadband connectivity rates were recorded in the three Bulgarian regions of Severen tsentralen, Yugoiztochen and Severozapaden, two NUTS 1 Greek regions of Kentriki Ellada (central Greece) and Nisia Aigaiou, Kriti (the Aegean islands and Crete) and the Romanian region of Nord-Est; in all of these regions less than half of all households had a broadband connection in 2013, with the lowest share in Kentriki Ellada (40 %).

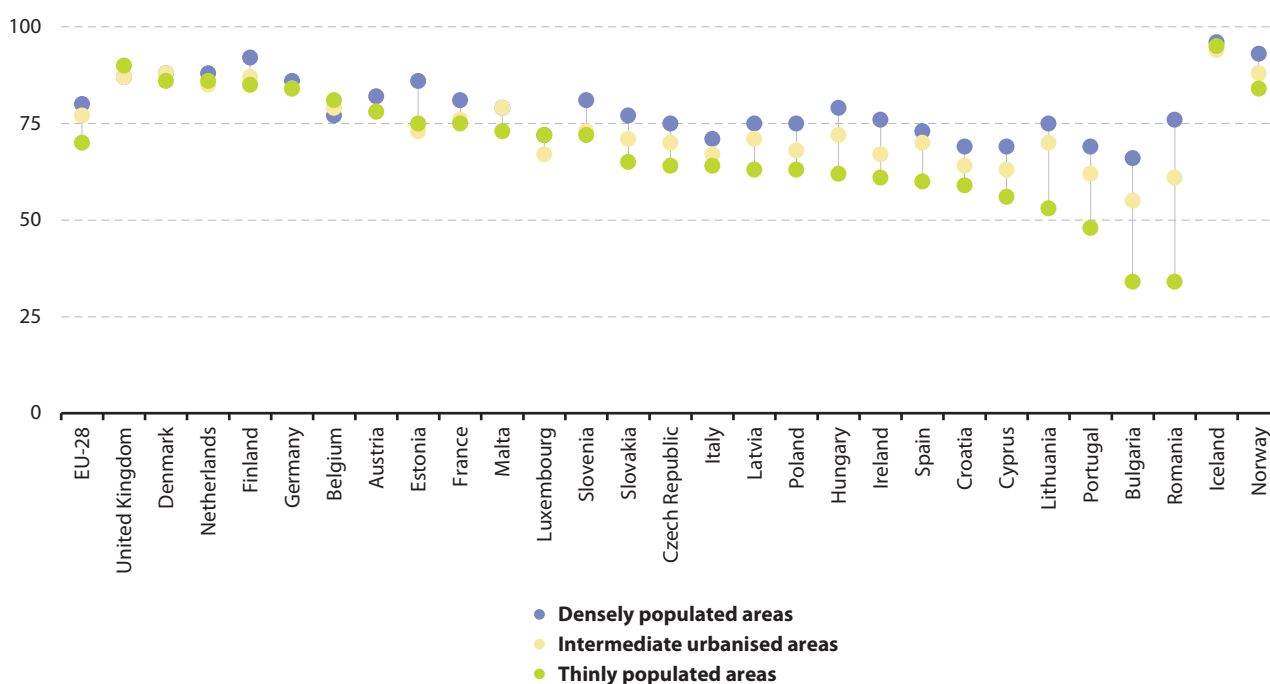
Broadband connection rates were generally higher in urban areas

The availability of a fast internet connection depends, to a large degree, upon cable upgrades and is therefore frequently restricted to urban areas before these services are rolled out to other areas — this may explain some of the differences in broadband connectivity rates according to their **degree of urbanisation**.

Figure 8.1 shows that most countries recorded higher broadband connectivity rates in densely populated areas (as compared with intermediate or thinly populated regions). Within the EU-28, 80 % of households in densely populated areas had a broadband connection in 2013, compared with 77 % in intermediate areas and 70 % of households in thinly populated areas. This pattern was repeated across most of the EU Member States, with exceptions tending to be found in relatively small and/or densely populated countries (where broadband connections were already extensively available across the whole territory).

The widest gaps between urban and rural broadband connection rates (with rural areas lagging) were recorded in Romania, Bulgaria, Lithuania and Portugal — these were the same four Member States that had the lowest levels of broadband connectivity for thinly populated areas. By contrast, once national broadband connectivity rates rose above 75 % there was little difference in connectivity rates according to the degree of urbanisation.

Figure 8.1: Broadband connections in households, by degree of urbanisation, 2013 ⁽¹⁾
(% of households with a broadband connection)



⁽¹⁾ Ranked on thinly populated areas. Greece and Sweden: not available.
Source: Eurostat (online data code: [isoc_ci_it_h](#))



Regular use of the internet

Another target within the digital agenda for Europe is to increase the regular use of the internet by individuals to 75 % by 2015. **Map 8.3** presents regional data for 2013, when almost three quarters (72 %) of the EU-28's population used the internet on a regular basis (in other words, at least once a week). While the proportion of people using the internet on a regular basis continued to rise, its pace of growth slowed considerably from 2010 onwards. The Directorate General for Communications Networks, Content & Technology estimated in its digital agenda scoreboard (2013) that it is likely that the target for regular internet use of 75 % will be met one year early.

Some 86 out of 187 regions for which data are available in 2013 reported that at least three quarters of their inhabitants made regular use of the internet in 2013; each of these regions therefore recorded a level of internet use that was equal to or above the benchmark figure set by the digital agenda for Europe for 2015.

Particularly high proportions of internet use across the Nordic Member States, Luxembourg, the Netherlands and the United Kingdom

The 26 EU regions where the proportion of the population making regular use of the internet was equal to or above 90 % in 2013 (as shown by the darkest shade in **Map 8.3**): 11 of the 26 regions were in the Netherlands; seven were in Sweden; three were in Denmark; three NUTS 1 regions were in the south of the United Kingdom; the other two regions were the capital region of Helsinki-Uusimaa (Finland) and Luxembourg (one region at this level of detail). In the remaining Danish, Dutch and Swedish regions, the proportion of individuals making regular use of the internet was only slightly lower (within the range of 87–89 %).

The proportion of individuals that made regular use of the internet ranged, in 2013, from a high of 97 % in Utrecht (the Netherlands) to a low of 39 % in Sud – Muntenia (Romania); in other words, regular use of the internet was almost two and a half times as high in Utrecht as in Sud – Muntenia.

A very high share of the population in Iceland and the regions of Norway made regular use of the internet in 2013: in Iceland (one region at this level of detail) the share was 95 %, while in the Norwegian capital region of Oslo og Akershus and in the region of Vestlandet this proportion rose to 96 %; among the seven regions in Norway the lowest share of the population making regular use of the internet was in Hedmark og Oppland (89 %).

The capital region of București – Ilfov was the only Romanian region where more than half the population used the internet on a regular basis

By contrast, there were 18 regions across the EU where less than half of all individuals were regular users of the internet in 2013. Among these were seven of the eight regions that compose Romania (the only exception being the capital region of București – Ilfov (67 %)), five regions each in Bulgaria and in southern Italy, and the NUTS 1 region of Kentriki Ellada (Greece). The proportion of the population making regular use of the internet was also relatively low (from 50 % to less than 65 %) in two of the four NUTS 1 Greek regions, Cyprus (covered by one region at this level of detail), as well as in many of the regions of Spain, Croatia, Italy, Poland and Portugal.

The incidence of regular internet use in the two candidate countries for which data are available was below the EU-28 average: just over half (54 %) of the population in the former Yugoslav Republic of Macedonia made regular use of the internet (note the latest data available covers 2012), while the shares in Turkish regions ranged, in 2013, from a low of 16 % in the eastern region of Van, Muş, Bitlis, Hakkari to a high of 55 % in the capital region of Ankara.

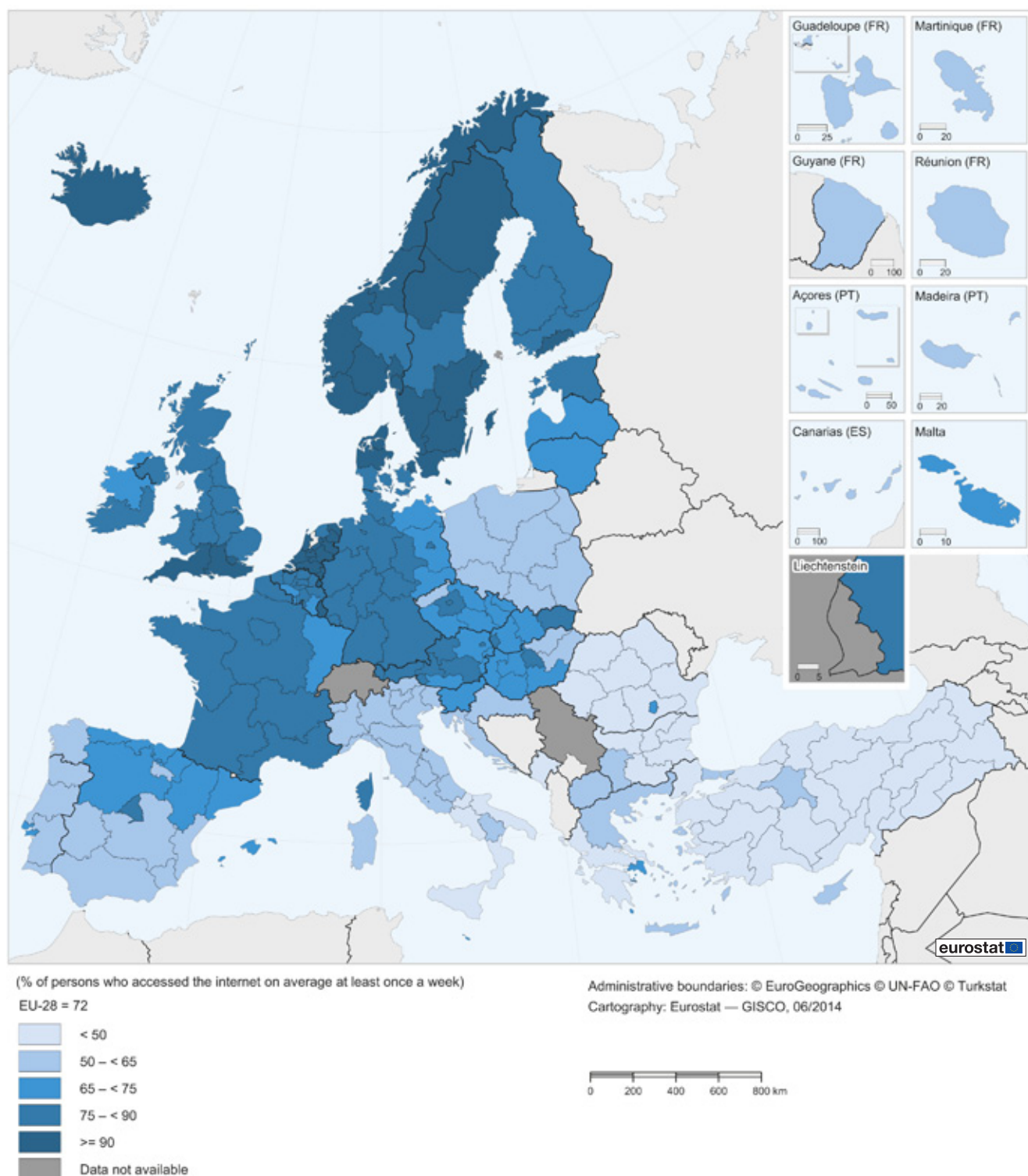
Capital regions recorded the highest shares of regular internet users in most EU Member States

Figure 8.2 shows that there was a relatively wide disparity in the use of the internet between the regions of Romania, France, Greece, Spain and Italy, as well as Turkey. Capital regions in these countries registered the highest levels of regular internet use in 2013 (except in Italy) and often recorded shares that were considerably above those in other regions. For example, the proportion of individuals that made regular use of the internet in the Romanian capital region of București – Ilfov was 19 percentage points higher than in the Vest region which had the second highest rate in Romania. The relatively wide range recorded between French regions resulted from a much lower proportion of regular internet users in the Départements d'outre-mer when compared with the metropolitan regions of France.

Belgium, Germany, Italy, the Netherlands, Austria and Poland were the only multi-region EU Member States where the capital region did not record the highest proportion of regular internet users in 2013. Among these, the Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest (Belgium) was the only capital region with a slightly lower share of its population making regular use of the internet than the national average (78 % compared with 80 %). The proportion of regular internet users peaked in Belgium in the two provinces surrounding the Belgian capital, namely, the Vlaams-Brabant and the Brabant Wallon (both 85 %), while regular use of the internet was also higher than in the capital region in the four remaining Flemish regions.



Map 8.3: Regular use of the internet, by NUTS 2 regions, 2013 ⁽¹⁾
 (% of persons who accessed the internet on average at least once a week)



⁽¹⁾ The former Yugoslav Republic of Macedonia: 2012. Montenegro: 2011. Germany, Greece, France, Poland and the United Kingdom: by NUTS 1 regions. Slovenia: national data. Mellersta Norrland (SE32): low reliability.
 Source: Eurostat (online data codes: [isoc_r_iuse_i](#) and [isoc_ci_eu_i](#))



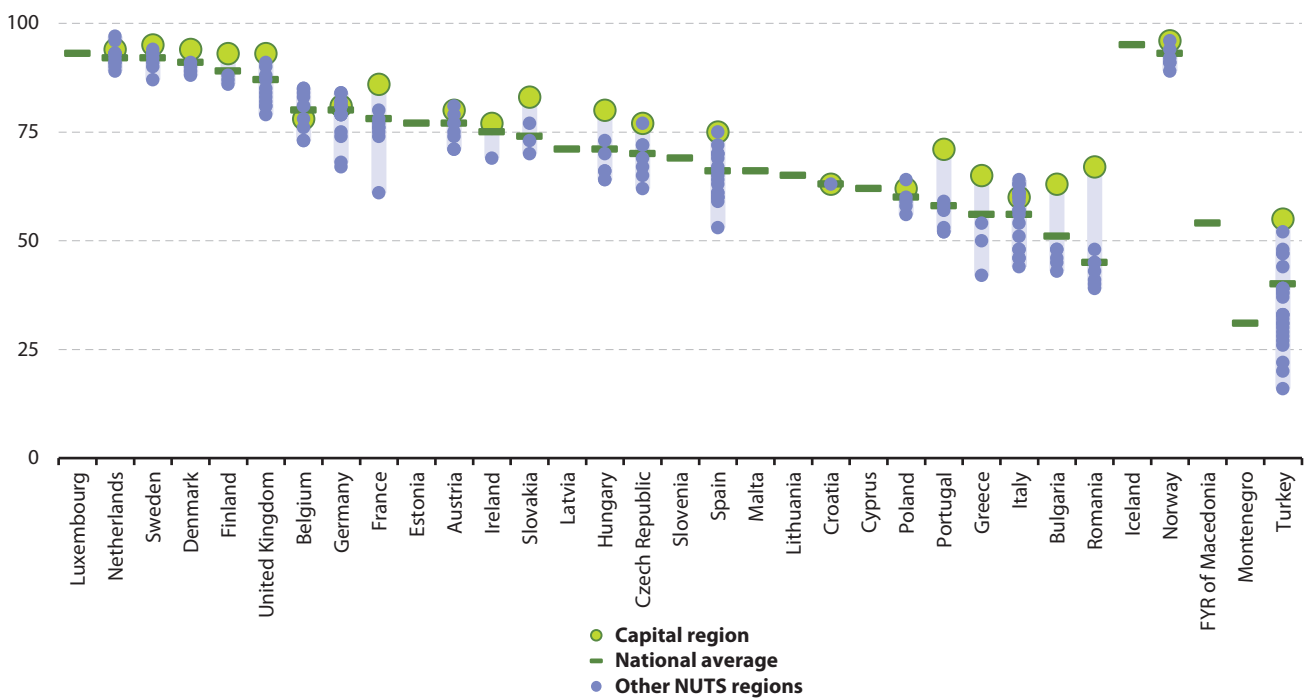
Regular use of the internet rises with increasing household income

Evidence has already been presented relating to the digital divide between urban (and in particular capital regions) and rural regions in terms of broadband connectivity and the use of computers or the internet. **Figure 8.3** extends this analysis and looks at the relationship between household income and regular use of the internet.

Just under half (49 %) of all EU-28 individuals living in households in the bottom income quartile (the lowest 25 % of earners) made regular use of the internet in 2013. As income levels rose there was a corresponding increase in the proportion of individuals making regular use of the internet, such that 85 % of those living in households in the top income quartile (the top 25 % of earners) regularly used the internet. As such, regular use of the internet for those in the top income quartile was 1.7 times as high as for those in the bottom income quartile.

Among the 25 EU Member States for which data are available (no information for Croatia, Ireland or the United Kingdom), a higher proportion of individuals living in households in the top income quartile made regular use of the internet than in the other quartiles (in Estonia the share for those in the upper quartile was identical to that for the third quartile; this was also the case in Iceland and Norway). For 15 of these 25 Member States, the share of the population making regular use of the internet was at least twice as high among those living in households with income in the top quartile when compared with those in the bottom quartile. Such differences by income were even greater in Lithuania and Romania, as those households in the top quartile were 3.2 times as likely to use the internet regularly as those in the bottom quartile. However, the largest differences in internet use broken down by income were reported in Bulgaria, where this ratio peaked at 4.8.

Figure 8.2: Regional disparities in the regular use of the internet, by NUTS 2 regions, 2013 ⁽¹⁾
(% of persons who accessed the internet on average at least once a week)



⁽¹⁾ The light purple shaded bar shows the range of the highest to lowest region for each country. The dark green bar shows the national average. The green circle shows the capital city region. The dark purple circles show the other regions. The former Yugoslav Republic of Macedonia: 2012. Montenegro: 2011. Germany, Greece, France, Poland and the United Kingdom: by NUTS 1 regions. Slovenia: national data. Mellersta Norrland (SE32): low reliability.

Source: Eurostat (online data codes: [isoc_r_iuse_i](#) and [isoc_ci_eu_i](#))

E-commerce

Almost half of the EU's population made online purchases in 2013

In 2013, 47 % of individuals in the EU-28 reported that they had made online purchases (at least once within the 12 months prior to the survey date); this figure had grown from 30 % in 2007 and from 40 % in 2010. As such, the proportion of people ordering goods or services over the internet in 2013 was close to the target set by the digital agenda for Europe — half the population by 2015.

Online purchases: homogeneous across regions within the same country ...

Map 8.4 shows that the highest proportions of regional populations making use of e-commerce by purchasing over the internet tended to be reported across northern and western Europe. This was particularly the case in Denmark (all five regions), the United Kingdom (all NUTS 1 regions other than the North East of England) and Luxembourg (one region at this level of detail), where rates of 70 % and above were recorded; the same was also true in several regions in Germany (NUTS 1), the Netherlands and Sweden, as well as in the capital regions of Île de France (NUTS 1) and Helsinki-Uusimaa.



SPOTLIGHT ON THE REGIONS: BREMEN (DE5), GERMANY



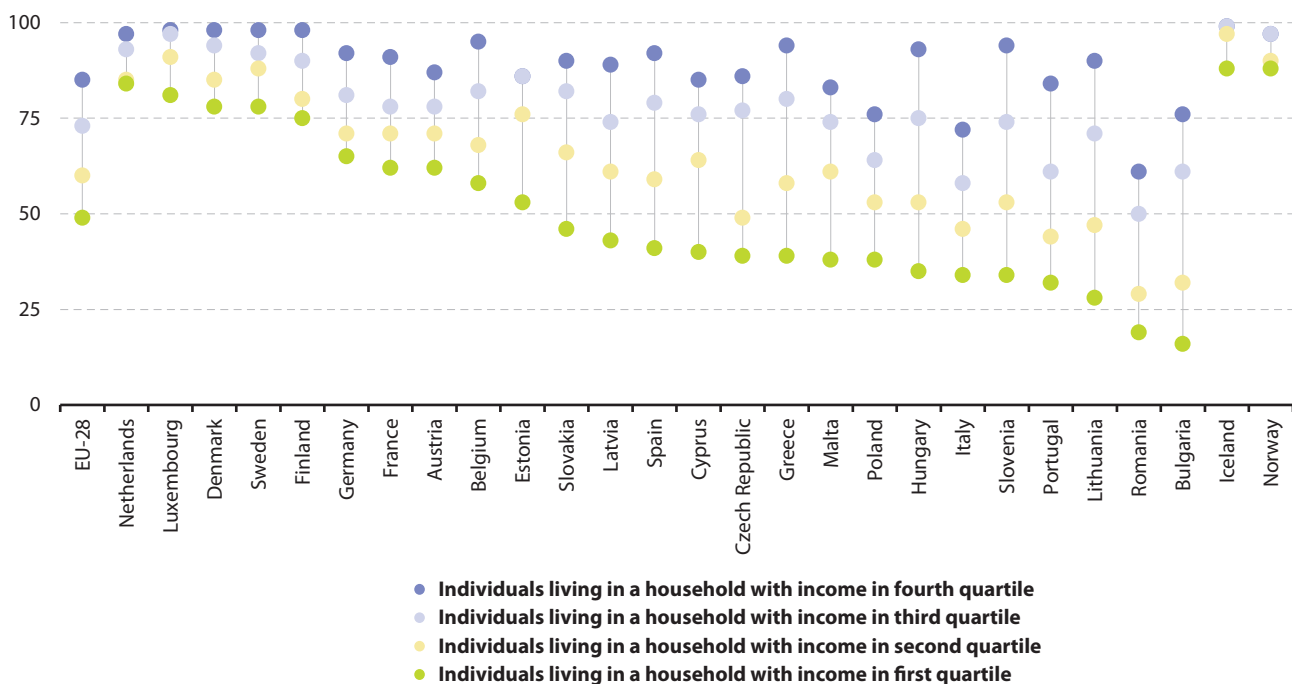
The town hall, Bremen

In the northerly German region of Bremen (DE5) just over 90 % of households had a broadband connection in 2013. While this was the highest share in Germany, all but two of the NUTS 1 regions in Germany recorded connectivity rates that were above the EU-28 average; the exceptions were Brandenburg and Mecklenburg-Vorpommern.

A majority of the population in each of the NUTS 1 regions of Germany reported that they made online purchases in 2013. This share peaked at 76 % in Rheinland-Pfalz.

Photo: Jürgen Howaldt

Figure 8.3: Regular use of the internet, by level of income, 2013 (1)
(% of persons who accessed the internet on average at least once a week)



(1) Ranked on individuals living in a household with income in first quartile. Ireland, Croatia and the United Kingdom: not available.

Source: Eurostat (online data code: isoc_bde15cua)



INFORMATION SOCIETY — COHESION POLICY FUNDING

EU structural funds — and in particular the European regional development fund and the fund for rural development — may be used to encourage the uptake of ICTs by enterprises and households, promoting the development of ICT products and services in both the public and private sector, with the goal of delivering Europe-wide infrastructures and content that provides for affordable and inclusive access to the digital society, especially in remote and rural areas. During the period 2007–13, over EUR 15 billion of structural funds were allocated to developing ICTs in Europe; this was equivalent to 4.4 % of the EU's total budget for cohesion policy. There was a shift during this period from infrastructure-related funding towards provisions for content development.

For the latest programming period (2014–20), the system of allocating structural funds has been redesigned. ICTs have been identified as one of 11 thematic objectives eligible for funding under the regional development fund and as one of four key objectives (together with encouraging research and development, improving the competitiveness of small and medium-sized enterprises, and promoting a low carbon economy). The European Commission has proposed that EU Member States and regions should provide a digital growth strategy and a next generation access plan before proposing structural funds programmes supporting ICT projects. To foster and leverage private investment, the Connecting Europe Facility will be used to support the development of sustainable and efficient networks across the EU in the fields of transport, energy and digital services — around EUR 1.0 billion of funding has been earmarked for the telecommunications sector. Connecting Europe will be used to facilitate the mobility of citizens and businesses, for example, aiming to provide seamless cross-border public services such as eProcurement or eHealth. Initiatives such as these could result in a business in one EU Member State being able to send a procurement bid to an administration in another, or a doctor being able to retrieve a patient's medical records when treating an individual who has fallen sick while abroad. It is hoped that the Connecting Europe Facility will overcome national fragmentation and language barriers that may currently deter cross-border cooperation or competition.

For more information:

Cohesion policy and ICTs: http://ec.europa.eu/regional_policy/activity/information/index_en.cfm

Connecting Europe Facility: <http://ec.europa.eu/digital-agenda/en/connecting-europe-facility>

All of the regions for which data are available in Denmark, Germany (NUTS 1), metropolitan France (NUTS 1), Luxembourg, the Netherlands, Finland, Sweden and the United Kingdom (NUTS 1) reported a majority of their populations making online purchases in 2013; as such they had all exceeded the digital agenda target for 2015.

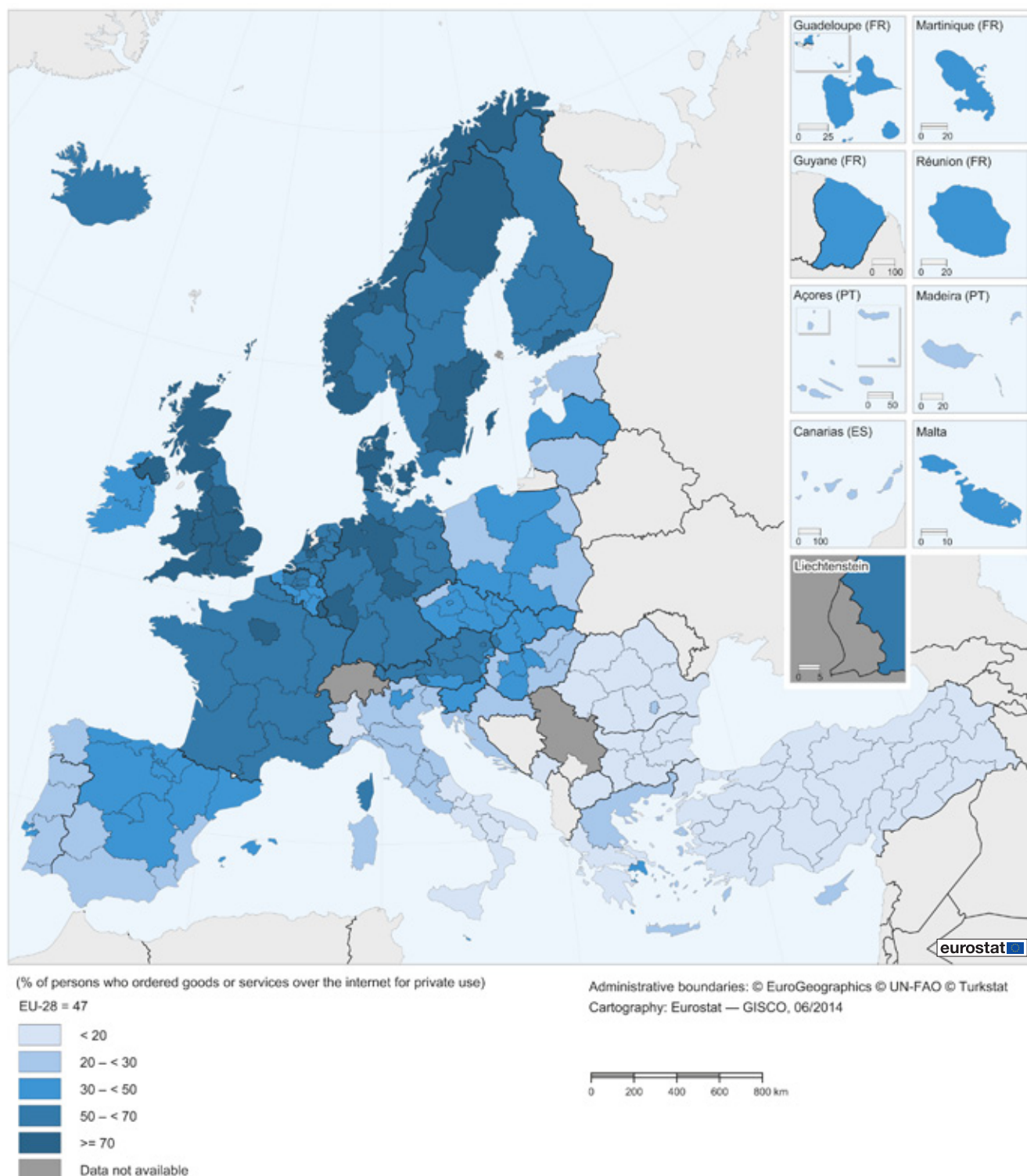
An analysis of results by EU Member State shows that there was generally very little variation across the regions within the same country, other than the fact that capital regions tend to report somewhat higher shares of their populations making use of e-commerce.

... but heterogeneous across all EU regions

In 2013, the proportion of individuals making online purchases ranged from a high of 83 % in the Danish capital region of Hovedstaden and the two southern regions of the United Kingdom (South East and South West) down to 4 % in the Sud-Est region of Romania; as such, the inhabitants of Hovedstaden were 21 times as likely to have made online purchases. The difference between the regions with the highest and the region with the lowest propensity to make online purchases was far greater than for any of the other ICT indicators covered within this chapter.



Map 8.4: Online purchases, by NUTS 2 regions, 2013 ⁽¹⁾
 (% of persons who ordered goods or services over the internet for private use)



⁽¹⁾ The former Yugoslav Republic of Macedonia: 2012. Montenegro: 2011. Germany, Greece, France, Poland and the United Kingdom: by NUTS 1 regions. Slovenia: national data. Mellersta Norrland (SE32): low reliability.

Source: Eurostat (online data codes: [isoc_r_blt12_i](#) and [isoc_ec_ibuy](#))



Rankings of selected ICT indicators

ICT access and usage rates particularly high in Utrecht, Stockholm and London

Table 8.1 provides a summary of the main indicators for each of the indicators covered so far in this chapter, detailing those regions at the top of each ranking. Regions from the Netherlands, the United Kingdom and the Nordic Member States dominated the rankings for broadband connectivity, regular use of the internet and online purchases by individuals: the Dutch region of Utrecht,

Stockholm in Sweden and London in the United Kingdom figured among the top 10 ranking for all three of these indicators. Outside of these countries, only the northern German regions of Bremen and Niedersachsen featured in relation to broadband connectivity and Luxembourg in relation to regular internet use.

That broadband connectivity was reaching saturation was clear from the data for the 14 EU regions with the highest levels of connectivity, as growth in these regions was systematically below the EU-28 average during the period 2010–13. In a similar vein, growth in the proportion of

Table 8.1: Top EU-28 regions for selected information society indicators, by NUTS 2 regions, 2010–13 ⁽¹⁾

	2010	2011	2012	2013	Average rate of change, 2010–13 (% per year)	Value for 2013 compared with national average (national average = 100)
Largest shares of population to have never used a computer						
(% of individuals)						
EU-28	23	22	20	19	-6.2	-
Sud - Muntenia (RO31)	58	55	49	51	-4.2	121.4
Campania (ITF3)	51	49	52	48	-2.0	141.2
Severozapaden (BG31)	53	53	55	47	-3.9	117.5
Kentriki Ellada (EL2)	53	51	56	47	-3.9	134.3
Sud-Est (RO22)	57	55	46	47	-6.2	111.9
Nord-Vest (RO11)	48	52	45	45	-2.1	107.1
Sud-Vest Oltenia (RO41)	55	55	48	45	-6.5	107.1
Severoiztochen (BG33)	54	54	46	44	-6.6	110.0
Yuzhen tsentralen (BG42)	55	50	42	44	-7.2	110.0
Calabria (ITF6)	45	47	46	44	-0.7	129.4
Highest broadband connectivity rates						
(% of households with a broadband connection)						
EU-28	61	67	72	76	7.6	-
London (UKI) ⁽²⁾	:	84	91	94	5.8	108.0
South West (UKK) ⁽²⁾	:	85	92	93	4.6	106.9
Flevoland (NL23)	84	88	92	92	3.1	105.7
Utrecht (NL31)	84	83	79	92	3.1	105.7
Helsinki-Uusimaa (FI1B)	:	:	90	92	:	104.5
Bremen (DE5) ⁽²⁾	:	87	78	91	2.3	107.1
Midtjylland (DK04)	79	85	87	90	4.4	103.4
Noord-Holland (NL32)	85	87	85	90	1.9	103.4
South East (UKJ) ⁽²⁾	:	84	89	90	3.5	103.4
Nordjylland (DK05)	77	86	85	89	4.9	102.3
Niedersachsen (DE9)	81	80	87	89	3.2	104.7
Stockholm (SE11) ⁽²⁾	87	91	89	:	1.1	102.3
East Midlands (UKF) ⁽²⁾	:	83	87	89	3.6	102.3
East of England (UKH) ⁽²⁾	:	82	89	89	4.2	102.3

⁽¹⁾ Based on the top 10 regions for each indicator — if there is more than one region in equal tenth place then each of these regions is shown. Germany, Greece, France, Poland and the United Kingdom: by NUTS 1 regions. Slovenia: national level. Mellersta Norrland (SE32): low reliability in 2013.

⁽²⁾ Average rate of change: 2011–13.

⁽³⁾ Average rate of change: 2010–12. Value for 2012 compared with national average of 2012.

Source: Eurostat (online data codes: [isoc_r_cux_i](#), [isoc_ci_eu_i](#), [isoc_r_broad_h](#), [isoc_ci_eu_h](#), [isoc_r_iuse_i](#), [isoc_ci_eu_i](#), [isoc_r_blt12_i](#) and [isoc_ec_ibuy](#))



individuals making regular use of the internet was also generally lower (than the EU-28 average) for those regions that already had the highest proportion of individuals using the internet on a regular basis; the only exceptions were the two Dutch border regions of Groningen (in the north) and Limburg (in the south). The central Swedish region of Östra Mellansverige, the capital region of London (NUTS 1) and the central Jutland region of Midtjylland (Denmark) were the only regions in the top 10 ranking for the proportion of persons making online purchases to record growth above the EU-28 average during the period 2010–13.

Among the 10 regions with the highest shares of their populations to have never used a computer in 2013, the uptake for starting to use a computer was often below the EU-28 average over the period 2010–13, indicating that the digital divide for this indicator was generally growing wider; this was especially the case for both southern Italian regions (Campania and Calabria). By contrast, there were two Bulgarian and two Romanian regions where growth in the proportion of the population using a computer was equal to or above the EU-28 average.

Table 8.1 (continued): Top EU-28 regions for selected information society indicators, by NUTS 2 regions, 2010–13 ⁽¹⁾

	2010	2011	2012	2013	Average rate of change, 2010–13 (% per year)	Value for 2013 compared with national average (national average = 100)
Highest shares of regular internet use						
(% of persons who accessed the internet on average at least once a week)						
EU-28	65	67	70	72	3.5	-
Utrecht (NL31)	91	91	92	97	2.2	105.4
Drenthe (NL13)	89	93	93	96	2.6	104.3
Stockholm (SE11)	92	94	92	95	1.1	103.3
Hovedstaden (DK01)	90	90	92	94	1.5	103.3
Noord-Holland (NL32)	92	92	93	94	0.7	102.2
Östra Mellansverige (SE12)	89	91	91	94	1.8	102.2
Luxembourg (LU00)	86	86	90	93	2.6	-
Groningen (NL11)	80	91	88	93	5.1	101.1
Flevoland (NL23)	94	91	96	93	-0.4	101.1
Zeeland (NL34)	84	85	92	93	3.5	101.1
Limburg (NL42)	83	90	92	93	3.9	101.1
Helsinki-Uusimaa (FI1B)	:	:	93	93	:	104.5
Mellersta Norrland (SE32)	85	87	88	93	3.0	101.1
Övre Norrland (SE33)	84	91	95	93	3.5	101.1
London (UKI)	86	85	88	93	2.6	106.9
Highest shares of online purchases						
(% of persons who ordered goods or services over the internet for private use)						
EU-28	40	42	44	47	5.5	-
Hovedstaden (DK01)	75	73	78	83	3.4	107.8
South East (UKJ)	73	75	77	83	4.4	107.8
South West (UKK)	71	82	77	83	5.3	107.8
East of England (UKH)	75	73	75	82	3.0	106.5
London (UKI)	68	75	72	82	6.4	106.5
Utrecht (NL31)	74	72	69	80	2.6	115.9
Östra Mellansverige (SE12)	65	73	73	79	6.7	108.2
East Midlands (UKF)	72	70	78	79	3.1	102.6
Midtjylland (DK04)	66	72	75	78	5.7	101.3
Stockholm (SE11)	70	79	76	77	3.2	105.5

⁽¹⁾ Based on the top 10 regions for each indicator — if there is more than one region in equal tenth place then each of these regions is shown. Germany, Greece, France, Poland and the United Kingdom: by NUTS 1 regions. Slovenia: national level. Mellersta Norrland (SE32): low reliability in 2013.

⁽²⁾ Average rate of change: 2011–13.

⁽³⁾ Average rate of change: 2010–12. Value for 2012 compared with national average of 2012.

Source: Eurostat (online data codes: [isoc_r_cux_i](#), [isoc_ci_eu_i](#), [isoc_r_broad_h](#), [isoc_ci_eu_h](#), [isoc_r_iuse_i](#), [isoc_ci_eu_i](#), [isoc_r_blt12_i](#) and [isoc_ec_ibuy](#))



Data sources and availability

EU statistics on the use of ICT are based on Regulation (EC) No 808/2004 concerning [Community statistics on the information society](#). The regulation concerns statistics on the use of ICT in enterprises and statistics on ICT use in households and by individuals — only the latter are presented in this chapter. Since 2005, European Commission implementing Regulations have been passed annually: by specifying particular areas of interest for data collection each year, policymakers can trace this rapidly changing area and the statistics collected can be adapted to measure new technologies and services. The majority of the data shown in this chapter is based on implementing Regulation (EU) No 1083/2012.

European ICT surveys aim to provide timely statistics on individuals and households relating to their use of ICTs. A large proportion of Eurostat's ICT statistics are used in the benchmarking framework for digital Europe and are associated with Europe's digital agenda. Selected ICT data are also used for monitoring other EU policies, for example, on cohesion or consumer conditions.

ICT surveys seek to collect information on the following list of subjects:

- access to and use of ICTs by individuals and/or in households;
- use of the internet and other electronic networks for different purposes by individuals and/or in households;
- ICT security and trust;
- ICT competence and skills;
- barriers to the use of ICTs and the internet;
- perceived effects of ICT usage on individuals and/or on households;
- use of ICT by individuals to exchange information and services with governments and public administrations (e-government);
- access to and use of technologies enabling connections to the internet or other networks from anywhere at any time (ubiquitous connectivity).

Regional ICT data are collected for a limited list of indicators (households with access to the internet at home, households with a broadband connection, individuals who have never used a computer, individuals regularly using the internet, and individuals who ordered goods or services over the internet for private use). These indicators have been available for NUTS 1 regions since 2006 as a voluntary contribution by the EU Member States, and since 2008 on a mandatory basis. Many of the EU Member States, as well as Norway and Turkey provide regional data for level 2 regions on a voluntary basis.

The statistical unit for regional data on ICTs is either the household or the individual. The population of households consists of all households having at least one member in the

age group 16–74 years. The population of individuals consists of all individuals aged 16–74. Questions on access to ICTs are addressed to households, while questions on the use of ICTs are answered by individuals within the household. As well as a core part of the questionnaire (which is repeated each year), the questionnaire includes a special focus which changes each year. Questions may be adapted to ensure that all developments concerning the use of ICTs are captured. As a result, some indicators have relatively short time series. In general, the data were collected in the second quarter of the survey year.

EU-28 aggregates are compiled when the information available at the country level represents at least 60 % of the EU's population and at least 55 % of the 28 countries that make-up the EU total. If additional national data become available, these are included in the aggregates or used to construct aggregates which were previously not available (due to poor coverage). As such, ICT statistics are revised on a regular basis to reflect the supply of additional information.

Indicator definitions

Broadband refers to telecommunications in which a wide band of frequencies is available to send data. Broadband telecommunication lines or connections are defined as those transporting data at high speeds, with a speed of data transfer for uploading and downloading data (also called capacity) equal to or higher than 144 kbit/s (kilobits per second). The technologies most widely used for broadband access to the internet include digital subscriber lines (DSL) and cable modems.

An **internet user**, in the context of ICT statistics, is defined as a person making use of the internet in whatever way: whether at home, at work or from anywhere else; whether for private or professional purposes; regardless of the device or type of connection used. Regular internet users are those who have used the internet at least once a week within a three-month reference period.

E-commerce can be defined generally as the sale or purchase of goods or services, whether between businesses, **households**, individuals or private organisations, through electronic transactions conducted via the internet or other computer-mediated (online communication) networks. For the survey on ICT usage in households and by individuals it is defined more specifically as the placing of orders for goods or services via the internet (delivery or payment by electronic means is not a requirement for an e-commerce transaction). This may include, among others: buying financial investments like stocks and shares; confirming reservations for accommodation and travel; buying lottery tickets; subscribing to paid information services from the internet; buying via online auctions. Orders via manually typed e-mails are excluded.