Urban Europe

STATISTICS ON CITIES, TOWNS AND SUBURBS

2016 edition

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2016 edition

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Foreword

Since the industrial revolution, there have been major changes in the geographical distribution of populations across Europe. Urban areas — composing cities, towns and their suburbs — are now home to almost three quarters of the European Union's (EU's) population; they therefore play an important role in our lives, in terms of providing a location for work, rest and play.

Urbanisation has subsequently become a global phenomenon, accounting for an increasing share of economic growth, land area and the total number of inhabitants; nowadays, the process is particularly evident in emerging economies and the developing world.

Patterns of urban expansion in the EU take a variety of forms: despite the gradual blurring of the demarcation between urban and rural regions — due to a growing number of suburban and peri-urban developments — while urban areas accounted for 22.5 % of the EU's total area in 2014, the share of total area accounted for by cities was considerably lower, at 3.9 %. As such, cities, in particular, have the potential to be very efficient places, insofar as they can offer a broad range of health, educational, and other social and cultural services, as well as transport, communication, energy and sanitation networks at a much lower cost than in sparsely-populated regions. Furthermore, the close proximity of people, businesses and services provides opportunities for a more efficient use of resources, a higher take-up of public transport, and more people living in flats and multi-family houses (which generally require less heating per person).

Indeed, cities can be viewed as both the source of and solution to many of today's economic, social and environmental challenges. On the one hand, they are motors of the EU economy, providing hubs for wealth creation and attracting large numbers of people as a result of the wide range of opportunities they offer in economic, educational or social spheres. On the other, they face a range of social and environmental challenges, for example: making available affordable housing, or tackling poverty, crime, congestion and pollution. That is why socioeconomic and technological initiatives that promote the development of sustainable and inclusive cities are at the foundations of EU policy for building a resource-efficient Europe, one of the main goals of the Europe 2020 strategy.

In October 2016, a United Nations (UN) conference on housing and sustainable urban development, Habitat III, is scheduled to take place in Quito, Ecuador; it will promote new ideas for urban development, based on an integrated approach for sustainable development. As a means of drawing attention to the important issues raised by the conference, as well as providing an opportunity to present a wide range of EU statistics on urban territories, Eurostat has decided to release this publication: Urban Europe — statistics on cities, towns and suburbs. I wish you an enjoyable read!

Walter Radermacher
Director-General, Eurostat
Chief Statistician of the European Union

Abstract

Statistical information is an important tool for analysing changing patterns of urban development and the impact that policy decisions have on life in our cities, towns and suburbs. Urban Europe — statistics on cities, towns and suburbs provides detailed information for a number of territorial typologies that can be used to paint a picture of urban developments and urban life in the EU Member States, as well as EFTA and candidate countries.

Each chapter presents statistical information in the form of maps, tables and figures, accompanied by a description of the policy context and a set of main findings. The publication is broken down into two parts: the first treats topics under the heading of city and urban developments, while the second focuses on the people in cities and the lives they lead. Overall there are 12 main chapters, covering: the urban paradox, patterns of urban and city developments, the dominance of capital cities, smart cities, green cities, tourism and culture in cities, living in cities, working in cities, housing in cities, foreign-born persons in cities, poverty and social exclusion in cities, as well as satisfaction and quality of life in cities.

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Contents

Executive summary

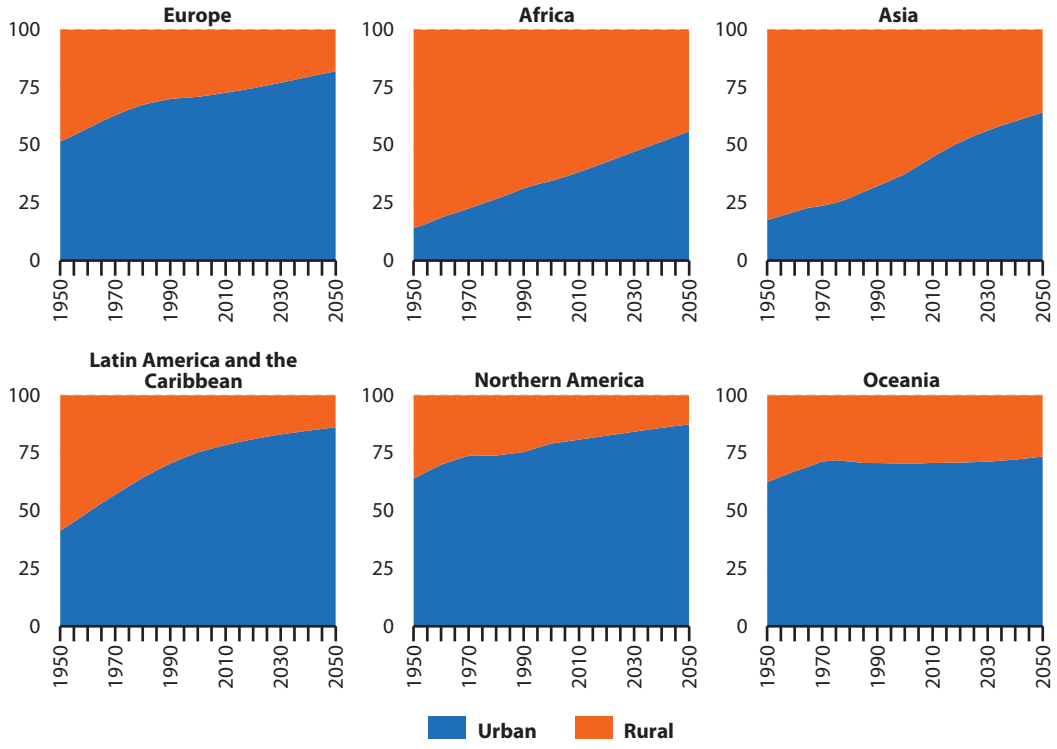
Throughout history, cities have been at the centre of change, from the spread of Greek and Roman civilizations, through the Italian renaissance period, to the industrial revolution in the United Kingdom. Over time, Europe has slowly transformed itself away from being a largely rural, agricultural community and according to the United Nations ([1]), more than half of the European population was living in an urban area by 1950; this was also the case in North America and Oceania (see **Figure 1**).

More than half the world's population is living in urban areas

By contrast, more than 80 % of those living in Africa and Asia in 1950 inhabited rural areas. While the pace of urbanisation in these two continents subsequently accelerated, in 2015 a majority of their populations — Africa (59.6 %) and Asia (51.8 %) — continued to live in rural areas. Almost three quarters of the European population lived in an urban area in 2015, while even higher shares were recorded in Latin America and the Caribbean (79.8 %) and North America (81.6 %). These different levels of urbanisation show that, at a global level, it was only during the last decade that the total number of people living in urban areas overtook those living in rural areas.

([1]) The data provided by the United Nations are based on national definitions which may undermine comparability in some cases; note these definitions are somewhat different to those employed elsewhere in this publication (based on a harmonised data collection exercise conducted by the EU).

Figure 1: Share of urban and rural populations, 1950–2050 ([1])
(% of total population)



([1]) United Nations data are based on national definitions; as such there may be a discrepancy with respect to the Eurostat data used elsewhere in this publication.

Source: World urbanisation prospects — United Nations, Department of Economic and Social Affairs, Population Division (2014)

According to the United Nations (World urbanisation prospects (2014)), approximately two thirds of the world's population will be living in an urban area by 2050. This rapid pace of change is projected to be driven primarily by changes in Africa and Asia, as the focus of global urbanisation patterns continues to shift towards developing and emerging economies. The pace of change in Europe will likely be slower, with the share of the population living in urban areas projected to rise to just over 80 % by 2050.

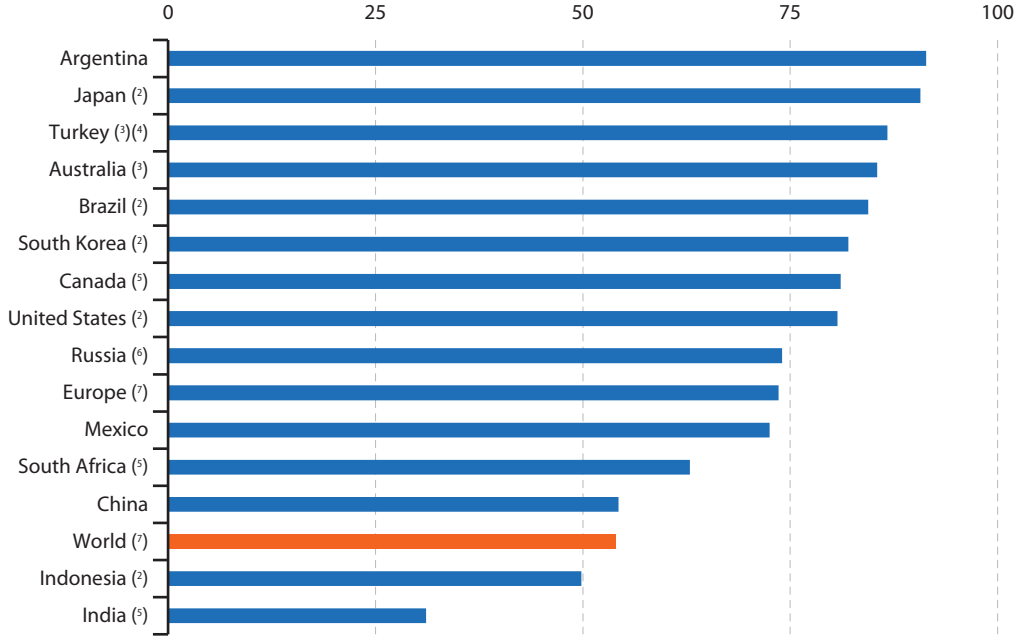
Aside from the considerable differences in shares of urban populations across continents, there are also widespread differences between countries. **Figure 2** provides information on the share of the urban population in 2014, which peaked (among those countries shown) in Argentina and Japan (2010 data) at over 90 %. Just over half (54.3 %) the population of China was living in an urban area in 2014, while the urban population in India (2011 data) accounted for less than one third (31.1 %) of the total number of inhabitants.

For a more detailed analysis of global changes in the degree of urbanisation (based on the development of a new global population grid), please refer to *The State of European Cities report*, recently released by the Directorate-General for Regional and Urban Policy.

Paris and London — the EU's largest cities — were less than one third the size of Tokyo

The spatial distribution of cities varies considerably: Europe is generally characterised by a high number of relatively small cities and towns that are distributed in a polycentric fashion;

Figure 2: Share of urban population, 2014 (1)
(% of total population)



(1) United Nations data are based on national definitions; as such there may be a discrepancy with respect to the Eurostat data used elsewhere in this publication.
(2) 2010.
(3) 2013.
(4) Estimate.
(5) 2011.
(6) 2012.
(7) 2015.

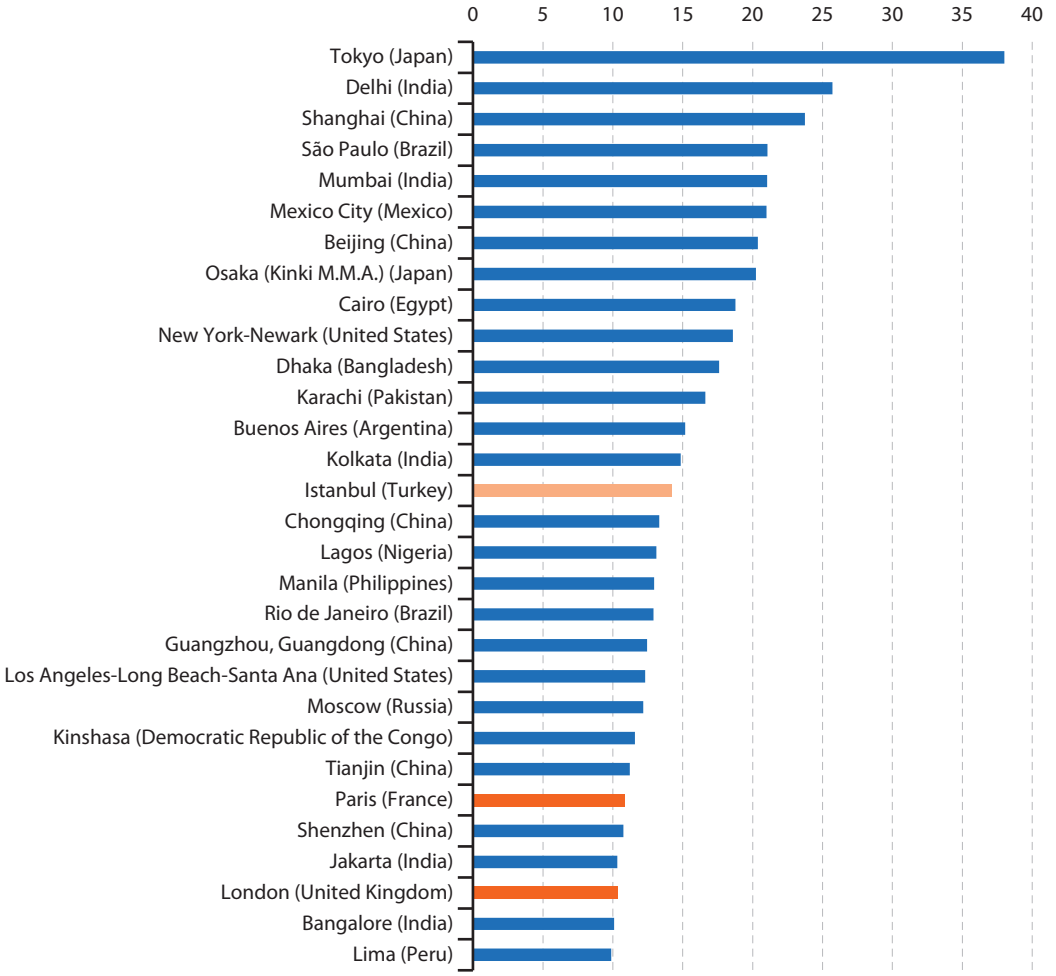
Source: Demographic yearbook — United Nations, Department of Economic and Social Affairs, Population Division (2014)

this reflects, to some degree, its historical past which has led to a fragmented pattern of around 50 countries being spread over the continent. By contrast, in some parts of Asia and North America, a relatively high proportion of the urban population is concentrated in a small number of very large cities.

The United Nations defines a megacity as having in excess of 10 million inhabitants. According to this criterion, there are only two megacities within the European Union (EU), those of Paris and London. **Figure 3** presents a list of the top 30 global agglomerations in 2015, with all but one of these — the Peruvian capital of Lima (9.9 million inhabitants) — being classified as a megacity.

Of the 29 megacities in 2015, Tokyo (Japan) was the world's largest city, its agglomeration numbered 38.0 million inhabitants. It was followed by Delhi (India) with 25.7 million, Shanghai (China) with 23.7 million, Mexico City (Mexico), Mumbai (India) and São Paulo (Brazil) each

Figure 3: Top 30 global urban agglomerations, 2015 ([1])
(millions)



([1]) Projections. United Nations data are based on national definitions; as such there may be a discrepancy with respect to the Eurostat data used elsewhere in this publication.

Source: World urbanization prospects — United Nations, Department of Economic and Social Affairs, Population Division (2014)

with around 21 million, and Beijing (China) and Osaka (Japan) each with just over 20 million inhabitants. The populations of Paris and London were — in global terms — relatively small, as each had less than 11 million inhabitants; in other words they were less than one third the size of Tokyo. There were two other European cities in the ranking, the Turkish city of Istanbul (14.2 million inhabitants) and the Russian capital of Moscow (12.2 million inhabitants).

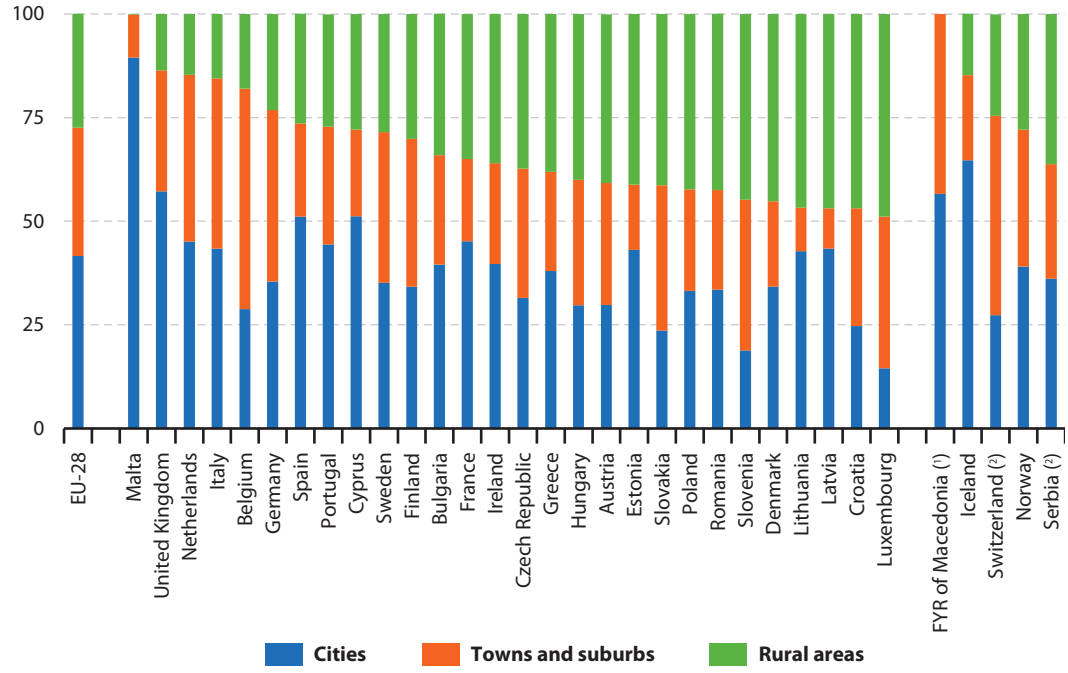
Many cities in the EU are characterised by their urban paradoxes

Urban areas in the EU are often characterised by high concentrations of economic activity, employment and wealth with the daily flow of commuters into many of Europe's largest cities suggesting that opportunities abound in these hubs of innovation, distribution and consumption. However, cities in the EU are also characterised by a range of social inequalities, and it is commonplace to find people who enjoy a comfortable life living in close proximity to others who may face considerable challenges, for example, in relation to housing, poverty or crime — herein lies the 'urban paradox' (see Chapter 2). These polarised opportunities/challenges are often in stark contrast, as patterns of inequality in cities are generally more widespread than those observed for countries as a whole.

The spatial distribution of urban areas across EU Member States is extremely varied

There are considerable differences in the size and spatial distribution of urban developments across the EU Member States: for example, the Netherlands is characterised by a high level of population density and a high share of urban land use, whereas in most of the Nordic Member States and the interior of the Iberian Peninsula much lower levels of urban land

Figure 4: Distribution of population, by degree of urbanisation, 2014
(% of total population)



(1) 2011. Rural areas: low reliability.
(2) 2013.

Source: Eurostat (online data code: ilc_lvho01)

use are commonplace. Each of the EU Member States has a distinctive history of territorial developments: for example, centrally-planned economies and the lack of a market for land/property resulted in compact urban developments across most eastern and Baltic Member States. Since the middle of the last century, most of Europe has been characterised by spreading cities and increased population numbers, with people choosing to move out of inner cities to suburban and peri-urban areas (hybrid areas of fragmented urban and rural characteristics); this has resulted in the divide between urban and rural areas becoming increasingly blurred (see Chapter 3).

In most EU Member States, the capital city tends to outperform other cities and regions

Capital cities have the potential to play a crucial role in urban developments within the EU; they are often hubs for competitiveness and employment, and may be seen as drivers of innovation and growth, as well as centres for education, science, social, cultural and ethnic diversity. A comparison of European cities' economic performance indicates that the major cities — and in particular, the metropolitan regions of EU capital cities — generally outperform the rest. In some EU Member States, capital cities exert a form of 'capital magnetism', through a monocentric pattern of urban development which attracts investment/resources so these are concentrated in the capital. Whether such disparities have a positive or negative effect on the national economy is open to debate, as capital cities that dominate their national economies may create high levels of income and wealth that radiate to surrounding regions and pull other cities/regions up (see Chapter 4).

European policymakers are seeking ways to make urban areas more sustainable by encouraging smart city initiatives

Smart cities may be defined as those which seek to address public issues via ICT-based solutions involving multi-stakeholder partnerships. Smart cities have the potential to improve the quality of life: they are innovative, making traditional networks and services more efficient through social innovation and the use of digital technologies, creating more inclusive, sustainable and connected cities for the potential benefit of their inhabitants, public administrations and businesses. Smart cities are generally characterised by very high concentrations of people having completed a higher education, while statistics on innovation activity confirm that they also record a high propensity to patent (see Chapter 5).

While urban areas are often responsible for environmental damage, large and compact cities can potentially deliver sizeable savings in terms of resource efficiency

While urbanisation has the potential to raise wealth, it often does so accompanied by pollution or other forms of environmental damage. Indeed, global patterns of urbanisation have created some of the biggest environmental challenges facing the planet. However, it is increasingly recognised that compact cities are resource-efficient ways for people to live and for businesses to exist, as close proximity and the pooling of resources provides potential efficiency gains.

'Green cities' combine higher levels of efficiency, with innovative capacity and reduced environmental impact, addressing issues like congestion through the implementation of, among others, road charges and integrated public transport systems. This 'greening' of cities has the potential to reduce pollution and the harm that may be done to an individual's health, for example, by reducing traffic, promoting the use of cleaner or renewable fuels, encouraging cyclists/pedestrians, or introducing more green spaces (see Chapter 6).

Rapid expansion in tourist arrivals in cities can potentially stimulate economic growth, but may also increase congestion or impact on the quality of life for local inhabitants

In keeping with many aspects of urban development, tourism is a paradox, insofar as an increasing number of tourists in some towns and cities has resulted in congestion/saturation which may damage the atmosphere and local culture that made them attractive in the first place; Venezia (Italy) and Barcelona (Spain) are two of the most documented examples. Furthermore, while tourism has the potential to generate income which may be used to redevelop/regenerate urban areas, an influx of tourists can potentially lower the quality of life for local inhabitants, for example, through: higher levels of pollution and congestion; new retail formats replacing traditional commerce; increased prices; or increased noise (see Chapter 7).

Young people tend to live in the suburbs of some of the largest cities in the EU

Aside from attracting (potential) business investment, cities also need to attract individuals: this can be done through the quality of what they can offer in terms of education, jobs, social experiences, culture, sports and leisure facilities, environment, or urban safety. The results presented in Chapter 8 suggest that a high proportion of Europe's ageing population lives in relatively small towns and cities (with a preference to live on the coast), whereas younger people are more likely to live in the suburbs within close proximity of capital or other large cities.

Employment rates for women tended to be higher in cities than in rural areas

Employment rates among women were somewhat higher in cities than they were in towns and suburbs or rural areas. Indeed, female participation tended to influence overall employment rates far more than male rates and explained, for example, why relatively low employment rates were recorded in many (particularly rural) parts of southern Europe.

Otherwise, one of the recurring themes in relation to urban labour markets is commuting, which results from increased levels of mobility. Lengthy commutes to work may be associated with increased congestion, as well as environmental and economic costs (for individuals, local authorities and enterprises). The share of people who use public transport to get to work is generally much higher in the EU's largest cities, while in provincial cities, towns and suburbs the use of private motor vehicles tends to be the principal mode of transport for getting to work (see Chapter 9).

Capital cities were often faced with considerable housing challenges

Some city-dwellers live in urban neighbourhoods that are characterised by overcrowding and/or poor quality housing, a lack of social housing and low levels of home ownership. Such issues may lead, among others, to lower life chances, health inequalities, increased risks of poverty and environmental risks. In absolute terms, the smallest dwellings in cities of the EU were located in the Baltic Member States and Romania (an average of less than 60 m^2 per dwelling) while the largest were located in Cyprus, Belgium, Luxembourg and Portugal (an average of more than 100 m^2 per dwelling); those city-dwellers enjoying the largest amounts of living space were usually living in provincial (rather than capital) cities. Indeed, it was commonplace to find that the capital city had the highest share of flats and the lowest share of houses in its total number of dwellings, likely due — among others — to the cost of land, a lack of space for new property developments, a range of alternative land uses

competing for space (business and commercial property), and a high level of demand from those wishing to live in the capital city. The highest shares of one-person households among EU cities were recorded in four capitals located in western and northern Europe — Berlin, Helsinki, Amsterdam and Copenhagen — with almost half (49.0 %) of all households in Berlin composed of single persons (see Chapter 10).

Foreign-born populations in the EU tend to congregate in relatively few, large cities

Migrants have historically played an important role in demographic and economic developments within the EU, particularly in some of Europe's largest cities. However, the selective nature of migratory patterns is such that migrant destinations are often restricted to relatively few, large cities, which tend to receive a disproportionate number of immigrants. These patterns are often accentuated as first wave migrants who establish themselves in a particular part of a city may subsequently encourage relatives and friends to follow them. Results presented in Chapter 11 confirm that the metropolitan regions of capital cities often recorded some of the highest rates of net migration, with Greater London having the highest number of foreign-born inhabitants, at almost three million. Foreign-born populations living in urban regions were typically of working age and a majority were born outside of the EU, although in Luxembourg almost one third of the total population was born in another EU Member State.

There were 34 million people living in EU cities who were at risk of poverty or social exclusion

The distribution of income and wealth in the EU has, particularly in recent years, become increasingly concentrated in the hands of global businesses and the very rich and these developments are particularly visible in urban areas. Cities in western Europe are often found to be among the least inclusive, as witnessed by their relatively high shares of people living at risk of poverty, high shares of people living in low work intensity households, or high unemployment rates. While these cities were often characterised by higher standards of living — as measured by GDP per inhabitant — they also recorded a high degree of income inequality. However, severe material deprivation was relatively low in most western EU Member States, while much higher rates were recorded in some of the eastern and southern, as well as the Baltic Member States. An urban paradox would appear to exist in some cities, where a high concentration of job opportunities coexists alongside a large number of disengaged people who remain outside the labour market (see Chapter 12).

People living alone in cities had higher levels of life satisfaction than those living alone in more remote areas

While overall economic growth in the EU has continued to rise, many critiques point out that increased prosperity has failed to deliver better overall standards of living. Quality of life is considered to be one of the most important dimensions for sustaining any urban development. Some of the results from Chapter 13 confirm that single persons living in cities tended to record a higher level of overall life satisfaction than those living alone elsewhere, while one of the main issues facing those living in cities was a lack of satisfaction with their accommodation. Results from a perception survey provide evidence of a geographical divide, insofar as a lower share of city-dwellers living in cities in western EU Member States were satisfied with life, when compared with relatively high levels of satisfaction among those living in cities in eastern EU Member States.

1 Introduction

This opening chapter of *Urban Europe — statistics on cities, towns and suburbs* contains a set of contextual and background information that may help readers to assimilate more easily the information presented in the subsequent chapters. It contains:

- background information on urban development policies at a global level;
- similar information relating to the European policy context;
- methodological information outlining some of the key concepts and territorial typologies applied to European statistics on urban territories;
- background information relating to the presentation of data, Eurostat's online databases and access to other online resources.

1.1 Urban developments — a global policy context

Globally, the United Nations (UN) supports urban development initiatives that assist in the planning and building of a better urban future through support for economic growth and social development, while targeting reductions in poverty and social inequalities. UN-Habitat is a programme designed to *encourage socially and environmentally sustainable development through the provision of human settlements that provide adequate shelter for all.*

In 1976, the UN General Assembly convened the Habitat I conference in the Canadian city of Vancouver, as governments acknowledged a need for sustainable human settlements and the consequences of rapid urbanisation, as endorsed through the Vancouver Declaration on Human Settlements (1976).

In 1996, the Habitat II conference took place in Istanbul (Turkey), and resulted in the adoption of the Istanbul Declaration on Human Settlements (otherwise known as the Habitat Agenda), a global plan designed to provide adequate shelter for all, while acknowledging that sustainable human settlements could drive economic development in an urbanising world. The conference recognised that cities were the engines of global growth and that urbanisation was an opportunity, while calling for a stronger role for local authorities in relation to urban development policies and recognising the power of (local) participation.

More recently, UN-Habitat has worked on formulating an urban vision for the future, based on the premise that cities *should become inclusive and affordable drivers of economic growth and social development in the face of unprecedented demographic, environmental, economic, social and spatial challenges.*

The Habitat III conference will be convened in Quito (Ecuador) later this year (in October 2016). It aims to bring together a full range of actors to rethink appropriate policies that embrace urbanisation, while bridging the physical gap between urban, peri-urban and rural areas. The objective of the conference is to secure a renewed political commitment for sustainable urban development, through the adoption of a New Urban Agenda that seeks to provide a forward-looking, measurable action plan for urban development within the context of the UN's 2030 agenda for sustainable development. For more information: https://www.habitat3.org/. The UN has designated the 31st October as World Cities Day. It is designed to promote the international community's interest in global urban developments, with a different theme selected each year, to promote success stories linked to urbanisation trends and to address specific challenges that result from urbanisation. The first World Cities Day was celebrated in the Chinese city of Shanghai in October 2014, under the title of 'Leading urban transformations', while a year later celebrations took place in the Italian city of Milano, under the title of 'Designed to live together'. For more information: http://www.un.org/en/events/citiesday/.

Sustainable development goals (SDGs)

On 1 January 2016, a list of 17 sustainable development goals (SDGs) which form part of the 2030 agenda for sustainable development came into force. These goals apply universally to all countries and the UN hopes that the global community will mobilise its efforts to ensure an end to all forms of poverty, to fight inequalities, and to tackle climate change. However, the implementation and success of the goals depends, to a large degree, on sustainable development policies, plans and programmes in individual countries.

The list of 17 SDGs may be summarised as follows: no poverty; zero hunger; good health and well-being; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; peace, justice and strong institutions; partnerships for the goals.

There is a specific SDG that concerns sustainable cities and communities, namely, Goal 11, which is 'to make cities inclusive, safe, resilient and sustainable'; as such, this particular goal is closely aligned with the Europe 2020 growth strategy 'to become a smart, sustainable and inclusive economy'. If cities are to deliver such sustainable growth, then the UN suggests that this will need to be done by allowing cities to continue to thrive and grow, while improving resource use and reducing pollution and poverty, thereby creating cities of opportunities, with access for all to a range of basic services, energy, housing and transportation. For more information: http://www.un.org/sustainabledevelopment/sustainable-development-goals/.

1.2 Urban developments — an EU policy context

Within an European Union (EU) policy context, there are a broad range of issues and challenges that face the Union which have a disproportionate impact on urban areas, for example, social exclusion, migration and environmental degradation. Europe's cities and towns can, potentially, provide solutions to many of these challenges, as they provide meeting points/hubs where people, businesses and resources can cooperate and innovate. Despite the potential of urban areas to stimulate the EU's economic, social and cultural development, there was, until recently, a lack of political will or policy initiatives in this domain; this may be linked, at least in part, to the fact that there is no legal basis for urban policy in the treaties of the EU.

AN EU URBAN AGENDA

The European Commission adopted a Communication titled, Towards an urban agenda in the European Union (COM(1997) 197 final)) almost 20 years ago. However, policy discussions relating to urban development have historically been largely confined to informal meetings.

In 2007, agreement was reached on the Leipzig charter which called for the sustainable development of European cities through greater use of urban policy approaches, with the goal of ensuring that cities become healthy and pleasant places to live, while placing

a specific focus on deprived urban neighbourhoods (for this purpose, a web-based tool was developed to enable the implementation of the Leipzig charter, the Reference Framework for Sustainable Cities (RFSC)).

This was followed, in 2010, by the Toledo declaration which highlighted the role that may be played by cities for developing a smart, sustainable and inclusive economy through urban regeneration projects, thereby linking the Leipzig charter to the objectives of the EU's growth strategy, namely, Europe 2020. The Toledo declaration provided further stimulus for change, as city-level and regional stakeholders increasingly stressed that policymaking should: better reflect the reality that almost three quarters of the EU's population was living in urban areas; take account of the need for more effective coordination in relation to issues that impact urban areas; support the efforts of local, regional, national and EU levels of governance to develop a common framework for urban initiatives, namely, an EU urban agenda.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

In 2012, additional recognition was given to the role that may be played by urban areas, as the European Commission's Directorate-General for Regional Policy changed its name to the Directorate-General for Regional and Urban Policy, with the goal of ensuring cities play their full part in EU economic, social and territorial developments. One of its key tasks is to oversee European territorial programmes (development, cohesion, social and solidarity funds). At least 50 % of the European Regional Development Fund (ERDF), some EUR 80–90 billion, will be invested in urban areas through mainstream operational programmes during the period 2014–20, while at least 5 % of national allocations from the ERDF are earmarked for integrated sustainable urban development to ensure that it is a priority in each of the EU Member States. This increased prominence given to urban areas has also led to an increasing number of sectoral EU policies explicitly targeting urban areas, for example: education, transport, energy, the information society, the environment and climate change. At the same time, the profile of cities in the EU has been raised through a number of other initiatives, including: the European capital of culture, the European capital of innovation, or the European green capital.

In February 2014, the European Commission organised a forum for stakeholders, CITIES — Cities of tomorrow: investing in Europe. Its aim was to encourage dialogue and to discuss how the urban dimension of EU policymaking could be strengthened, in particular, through an EU urban agenda. The forum concluded that any future urban agenda should aim to provide:

- a framework to guide urban actions, bringing coherence to the diverse range of initiatives and policies;
- an instrument to involve cities and their political leaders in EU policymaking and implementation;
- a methodology tool for developing and integrating the goals of the Europe 2020 strategy with cities' own strategies.

The results of the forum, coupled with the support of EU Member States, the European Parliament, the Committee of the Regions, city and regional representative associations, and cities themselves, indicated a readiness to move forward with the process. In the summer of 2014, the European Commission presented a Communication titled, The urban dimension of EU policies — Key features of an EU urban agenda (COM(2014) 490 final), which was designed to widen the debate through a consultation phase regarding the objectives and functioning of any future urban agenda.

After a period of consultation/negotiation, the EU's urban agenda was officially launched at the end of May 2016, as part of the Pact of Amsterdam. To coincide with the launch, the Netherlands Environmental Assessment Agency released a publication on Cities in Europe, see: http://www.pbl.nl/sites/default/files/cms/publicaties/PBL-2016-Cities-in-Europe-2469.pdf.

The EU's urban agenda focuses on better regulation, better funding and better knowledge-exchange and provides: an updated understanding of urban development (the so-called *urban acquis*); a list of priority areas upon which to focus cooperation; and a working method defining what is to be done, the role of key actors and the governance of the process. It is designed to ensure that EU legislation better reflects urban needs, practices and responsibilities without the creation of any new EU legislation, organisations or funds. Its key delivery mechanism is urban partnerships, which will eventually be set up for 12 different themes, covering: jobs and skills in the local economy, urban poverty, housing, the inclusion of migrants and refugees, sustainable use of land and nature-based solutions, the circular economy, climate adaptation, energy transition, urban mobility, air quality, digital transition, and innovative and responsible public procurement. The first four pilot partnerships have already been launched, covering: air quality, housing, urban poverty and the inclusion of migrants and refugees; these will run for a three-year period.

The agenda also foresees that the complexity of urban challenges requires the integration of a range of transversal issues across different policy aspects in order to avoid contradictory consequences, for example, in relation to: governance across administrative boundaries; societal change; urban regeneration; or international dimensions. Finally, the agenda also calls upon the European Commission to establish a 'one-stop shop' for all matters regarding the urban agenda, gathering information on EU programmes, policies and initiatives that affect urban areas. For more information: http://urbanagenda.nl/pactofamsterdam/.

The European Committee of the Regions (CoR) is committed to the implementation of the EU's urban agenda. Indeed, the EU's urban agenda aims to create a more integrated approach to the policymaking and legislation that affects towns, cities and all sizes of urban areas in order to eliminate existing overlaps and inconsistencies, and involve towns and cities and local and regional authorities more closely in the decision-making process. This includes working closely with respect to the better regulation agenda, using the experience of the CoR on urban and territorial impact assessments exercises, more tailor-made and place-sensitive EU funds and includes opportunities to exchange knowledge and best practices, research and cooperation. For more information: http://cor.europa.eu/euurbanagenda/.

SUSTAINABLE EUROPEAN CITIES

As set out in the Treaty on European Union, sustainable development is an overarching long-term goal of the EU. Such development should be 'based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment

and social progress, and a high level of protection and improvement of the quality of the environment'. Urban areas have the potential to play an important role in the EU's renewed sustainable development strategy, which underlines how to deliver sustainable development commitments, while reaffirming the need for global solidarity, in order to achieve smarter, more sustainable and socially inclusive urban development; indeed, this integrated approach is recognised as a key element in the Pact of Amsterdam.

The sustainable development indicators framework covers 10 thematic areas belonging to the economic, social, environmental, global and institutional dimensions, covering: socioeconomic developments; sustainable consumption and production; social inclusion; demographic changes; public health; climate change and energy; sustainable transport; natural resources; global partnership; good governance. Many of these areas are recurring themes that appear across *Urban Europe — statistics on cities, towns and suburbs*.

A resource-efficient Europe is one of the flagship initiatives included within the Europe 2020 strategy. One of its main building blocks is a roadmap for 2050, which seeks to provide a path for transforming the EU into a low-carbon, sustainable economy that is characterised by a decoupling of economic growth from resource use. Resource-efficient cities are characterised by their potential to combine higher levels of productivity and innovation with lower costs and reduced environmental impacts.

Although city and regional administrations may be best-placed to tackle and resolve many of these issues at a local level, there are global challenges which require an international response. The EU seeks to play a key role in efforts to promote sustainable urban development, for example, by trying to ensure that air and water resources are kept clean, that ecosystems and habitats are maintained, and that climate change is kept to manageable levels. Indeed, the EU has some of the most stringent environmental standards in the world. The most recent EU policy developments within the environmental domain are based on the 7th Environment Action Programme, which has three key objectives, to:

- protect, conserve and enhance nature — Europe is working to safeguard its natural resources, endangered habitats and species, for example, the Natura 2000 network is composed of 26 thousand protected natural areas that cover almost 20 % of the EU's land mass;
- turn the EU into a resource-efficient, green and low-carbon economy — 'green growth' entails integrated policies that promote sustainable development;
- safeguard the quality of life and well-being of its inhabitants — for example, EU policies aim to guarantee safe drinking and bathing water, improve air quality, and eliminate the effects of harmful chemicals.

The protection and improvement of the quality of the environment has been a long-standing issue for many cities, for example, air or water quality. Those living in cities are often exposed to high levels of pollution that may impact upon their health, for example, fine particles, ozone, or nitrogen oxide in the air as a result of vehicle emissions. Furthermore, the inefficient expansion of cities through urban sprawl and the development of related infrastructure cause a decline in biodiversity (through direct destruction, but also the fragmentation of habitats). By contrast, green areas and nature in an urban environment have the potential to provide a range of benefits, such as improving air quality, providing opportunities for recreation, or increasing overall well-being. It is possible to promote measures within cities to increase biodiversity, for example, by eliminating the use of pesticides in an attempt to provide a refuge for flora and fauna (such as bees) when surrounding agricultural areas are exploited intensively.

EUROPEAN UNION INITIATIVES CONCERNING CITIES

CIVITAS — an acronym for cities, vitality, and sustainability — is an initiative co-funded by the EU's framework programme for research. Its goal is to support cities in their efforts to develop urban transport policies that promote more sustainable urban mobility and currently more than 200 cities across 31 different European countries participate.

THE CIVITAS INITIATIVE IS CO-FINANCED BY THE EUROPEAN UNION

The CIVITAS 2020 framework programme covers innovation in resource-efficient and competitive urban mobility and transport, with cities working together to ensure the transferability of tested mobility and transport solutions in the areas of smart, green and integrated transport. For more information: http://www.civitas-initiative.eu/.

The **Covenant of Mayors** initiative was launched by the European Commission in 2008 with the objective of bringing together local and regional authorities voluntarily promising to implement EU climate and energy objectives in their territory. The initiative counts with more than 6 000 signatory cities who have committed to reduce their greenhouse gas emissions by at least 20 % by 2020 through the implementation and monitoring of sustainable energy action plans.

In 2015, the Covenant of Mayors for climate and energy was launched, bringing together three pillars — mitigation; adaptation; secure, sustainable and affordable energy, while introducing the EU climate and energy framework for 2030, namely to reduce greenhouse gas emissions by at least 40 % by 2030 across signatory cities. For more information: http://www.covenantofmayors.eu/index_en.html.

The **European week of regions and cities** is an annual event which allows regions and cities to showcase their capacity to encourage growth and job creation. It was created in 2003 by the European Committee of the Regions, which joined forces with the European Commission's Directorate-General for Regional and Urban Policy one year later. It has become a networking platform for regional and local development and is viewed as a key event for policy practitioners. The next European week of regions and cities will be held under the title, 'Regions and cities for sustainable and inclusive growth', with three principal themes:

European Week of Regions and Cities | Brussels 10-13 October 2016

- sustained and sustainable economic growth;
- inclusive economic growth;
- making European structural and investment funds simpler.

As such, it is designed to be aligned with political priorities for 2016, namely the promotion of a stronger territorial dimension in shaping and implementing the Europe 2020 strategy. For more information: http://ec.europa.eu/regional_policy/regions-and-cities/2016/index.cfm.

EUROPE-WIDE REPRESENTATIVE ORGANISATIONS FOR CITIES, TOWNS AND METROPOLES

There are a wide range of representative organisations that work at various territorial levels to represent metropoles, cities and towns across the EU; the following list is by no means exhaustive.

EUROCITIES is a network of major European cities, bringing together the local governments of 139 of Europe's largest cities and 40 partner cities that between them govern over 130 million citizens across 39 countries. They engage in dialogue with the European institutions across a wide range of policy areas affecting cities, which include economic development, the environment, transport and mobility, social affairs, culture, the knowledge society, and public services. They also provide a platform for their members to share knowledge and ideas, exchange experiences, analyse common problems and develop innovative solutions, through a wide range of forums, working groups, projects, activities and events. For more information: http://www.eurocities.eu.

The **Council of European Municipalities and Regions (CEMR)** is a European umbrella organisation of the national associations representing local and regional governments from 41 European countries (including all EU Member States). Its work is structured within five thematic areas, covering: governance, democracy and citizenship; environment, climate and energy; economic, social and territorial cohesion; local and regional public services management; international engagement and cooperation. CEMR is the European section of UCLG. For more information: http://www.ccre.org/.

Climate Alliance is the largest European network of local authorities dedicated to climate action, with some 1 700 members spread across 25 countries. Each member municipality has committed to a common greenhouse gas emissions reduction target and to adopt a holistic approach to tackling climate change. Recognising the impact lifestyles can have on the world's most vulnerable people and places, Climate Alliance combines local action with global responsibility. For more information: http://www.climatealliance.org.

Energy cities is an association of more than one thousand towns and cities in 30 European countries; their aim is to represent the interests of their members in relation to the European institutions within the fields of energy, environmental protection and urban policy. For more information: http://www.energy-cities.eu/.

The **European Urban Knowledge Network (EUKN)** is a network of national governments and knowledge institutes, deeply involved in EU policymaking. Its focus is on generating a professional community that shares expert urban knowledge and best policy practice, inspiring policymakers, practitioners and researchers, benefiting urban development and city living. For more information: http://www.eukn.eu.

European Urban Knowledge Network

Local Governments for Sustainability (ICLEI) is a world-leading network of over 1 500 cities, towns and metropolises committed to building a sustainable future. By helping their members to make their cities sustainable, low-carbon, resilient, biodiverse, resource-efficient, healthy and happy, with a green economy and smart infrastructure, ICLEI impacts over 20 % of the global population. The ICLEI European Secretariat provides its members with a voice on the European and international stage, a platform to connect with peers and the tools to drive environmental, economic and social change; it has over 50 urban sustainability and communication professionals based in Freiburg (Germany) and Brussels (Belgium). For more information: http://www.iclei-europe.org.

I·C·L·E·I Local Governments for Sustainability

METREX, is a network of European metropolitan regions and areas, which provides a platform for the exchange of knowledge, expertise and experience on metropolitan affairs. It has some 50 metropolitan regions as members and represents these in relation to the European institutions, the research community, governmental organisations and other networks. For more information: http://www.eurometrex.org/ENT1/EN/.

METREX The network of European Metropolitan Regions and Areas

United Cities and Local Governments (UCLG) represents and defends the interests of local governments, regardless of the size of the communities they serve. Its mission is to be the united voice of democratic local self-government, promoting its values, objectives and interests. Its membership is structured in nine sections: seven geographical (Africa, Asia-Pacific, Eurasia, Europe, Latin America, the Middle East and West Asia, North America), as well as two sections covering regions and metropolises. For more information: http://www.uclg.org/en.

UCLG United Cities and Local Governments

1.3 Background information outlining key methodological concepts for EU statistics on territorial typologies

This section provides some important background information detailing the various territorial typologies that have been used throughout *Urban Europe — statistics on cities, towns and suburbs*. There are many different ways of understanding or defining a 'city'. These may refer to an administrative unit (the 'de jure' city defined by its administrative borders), or to socioeconomic agglomerations (the wider 'de facto' city). The expansion of de facto cities into suburban areas has led to the traditional delimitation of urban and rural areas becoming less clear, a pattern that has been reinforced by complex, overlapping urban systems, such as those found in the Ruhrgebiet of Germany, Rotterdam/the Hague in the Netherlands, or Leeds/Bradford in northern England.

As such, although cities are often presented as distinct, unconnected dots on a map, in reality they are increasingly interconnected. Transport, communication and technology developments have resulted in an increasing flow of people, resources and information between different areas, emphasising the growing importance of spatial relationships, as urban–rural connectivity (linkages between cities and their hinterlands), inter-urban and intra-urban relationships have taken on a growing importance for those considering regional development policy objectives.

With this in mind, a range of territorial typologies have been developed: these aim to provide information for a number of different geographical constructs. The following classifications/typologies are discussed in more detail below:

- the degree of urbanisation;
- city statistics;
- metropolitan regions;
- an urban–rural typology;
- regional statistics.

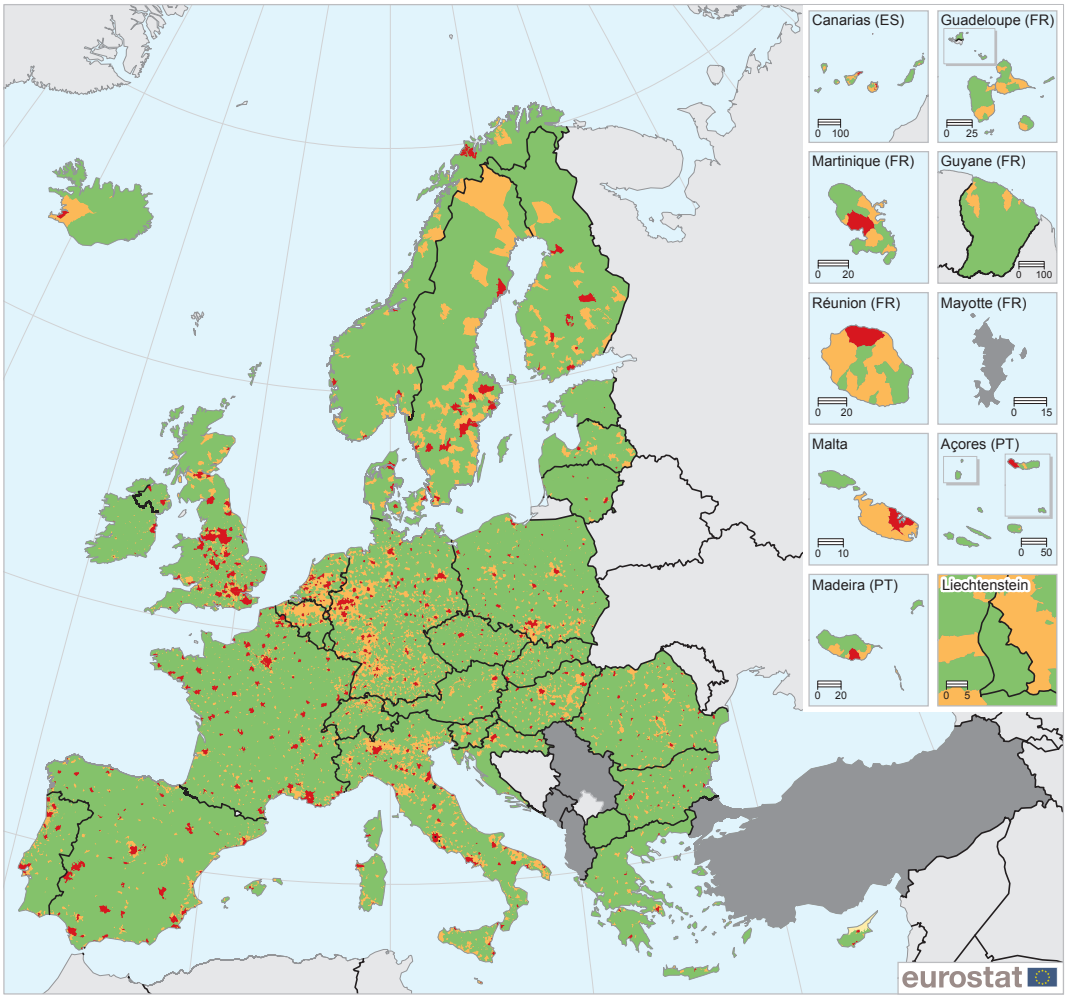
DEGREE OF URBANISATION

The degree of urbanisation is a classification of local administrative units (LAUs) that indicates the characteristics of a particular area, based on a population grid composed of 1 km^2 cells (and clusters thereof), identifying:

- **urban areas** — defined here as the sum or average of cities and towns and suburbs;
- **cities (densely populated areas)** — where at least 50 % of the population lives in urban centres;
- **towns and suburbs (intermediate density areas)** —where at least 50 % of the population lives in urban clusters, but is not classified as a city;
- **rural areas (thinly populated areas)** — where at least 50 % of the population lives in rural grid cells.

In order to classify LAUs based on the grid cell approach, the following criteria are employed. An urban centre is defined as contiguous (in other words, neighbouring or adjoining) grid cells of 1 km^2 with a population density of at least 1 500 inhabitants per km^2; these clusters are used to identify all cities with urban centres of at least 50 thousand inhabitants. An urban cluster is defined as contiguous grid cells of 1 km^2 with a population density of at least 300

Map 1.1: Degree of urbanisation for local administrative units level 2 (LAU2) (1)



Cities
(Densely populated areas: at least 50 % of the population lives in urban centres)

Towns and suburbs
(Intermediate density areas: less than 50 % of the population lives in rural grid cells and less than 50 % of the population lives in urban centres)

Rural areas
(Thinly populated areas: more than 50 % of the population lives in rural grid cells)

Data not available

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 06/2016

0 200 400 600 800 km

(1) Based on population grid from 2006 and LAU 2011.

Source: Eurostat, JRC and European Commission Directorate-General for Regional Policy

inhabitants per km² and a minimum population of 5 thousand inhabitants. Rural grid cells are defined as those grid cells outside of high-density and urban clusters.

The use of identical grid cells across the whole of the EU territory eliminates distortions that may be created when using local administrative boundaries (which may vary considerably in size). Furthermore, the revised degree of urbanisation classification ensures comparability with data from the voluntary data collection on cities, insofar as both sets of data are based on identifying European cities with centres of at least 50 thousand inhabitants that cover densely populated areas.

The data presented in this publication by degree of urbanisation are based on local administrative unit boundaries for 2011 (see **Map 1.1**), for more information, refer to: *A harmonised definition of cities and rural areas: the new degree of urbanisation*. Note that the classification was recently updated to take account of changes to local administrative unit boundaries for 2014 (however, at the time of drafting data had yet to be received on this basis).Eurostat produces data based on the degree of urbanisation for a broad range of statistics, including the following domains: health, lifelong learning, educational attainment and outcomes, living conditions and welfare, the labour market, tourism and information society statistics.

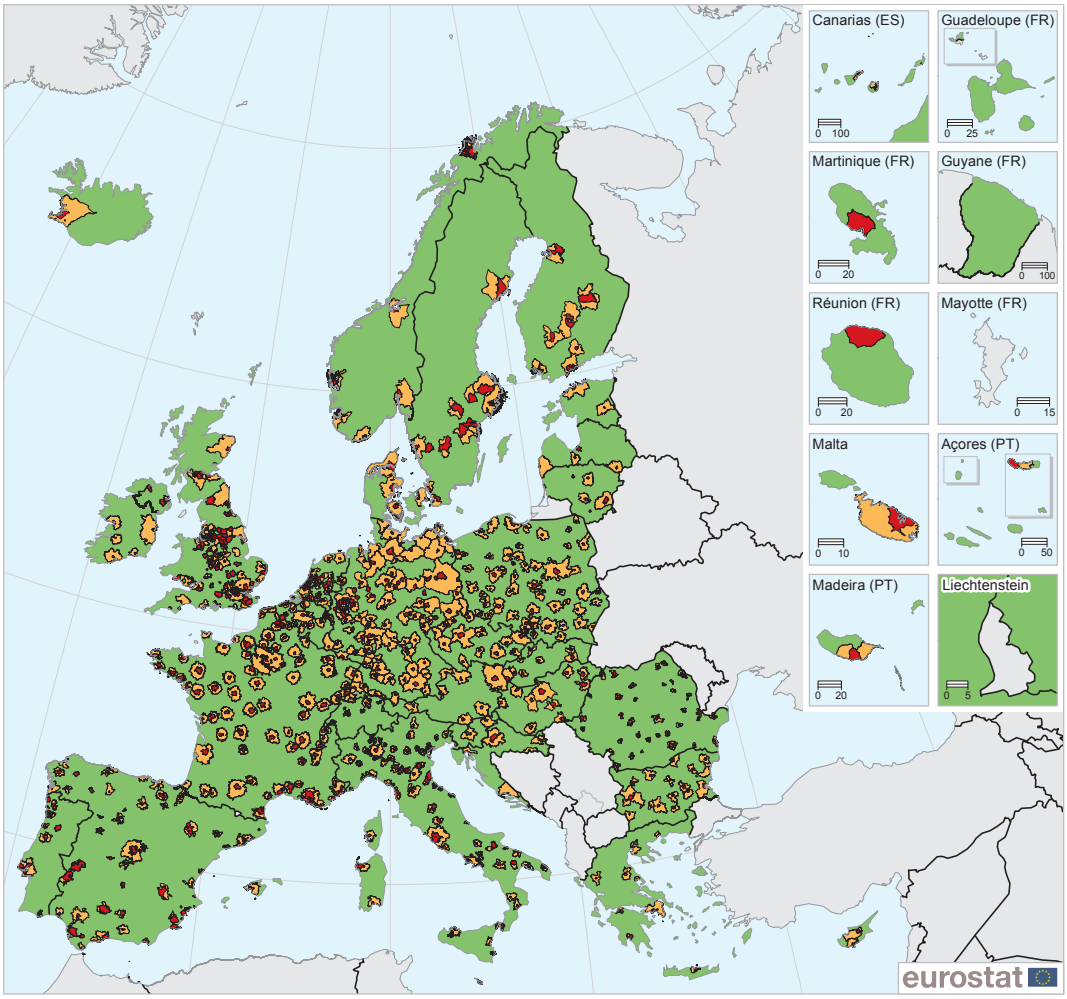
CITIES

For the purpose of EU statistics, cities are defined as a cluster of contiguous grid cells of 1 km² with a population density of at least 1 500 inhabitants per km²; these clusters are used to identify all cities with urban centres of at least 50 thousand inhabitants. Data are collected through a voluntary data collection exercise, the main goal of which is to assist cities to improve their quality of urban life, by supporting the exchange of experiences between Europe's major cities, helping to identify best practices, while providing information on the dynamics of urban life both within cities and between cities and their surrounding areas.

The information is presented for four different spatial levels:

- a **functional urban area**: which consists of a city and its commuting zone; the latter is defined in relation to commuting patterns, on the basis of those municipalities with at least 15 % of their employed residents working in a city (see **Map 1.2**);
- a **greater city**: in some cases, the urban centre stretches far beyond the administrative boundaries and so to better capture the entire centre, a 'greater city' has been defined (generally applicable only to capital cities and other relatively large cities);
- a **city**: the most basic level, a local administrative unit (LAU), defined by its urban centre that has a minimum population of 50 thousand inhabitants, consisting of a cluster of contiguous grid cells of 1 km² with a population density of at least 1 500 inhabitants per km²;
- **subcity districts**: a subdivision of the city according to population criteria (generally between a minimum of 5 thousand and a maximum of 40 thousand inhabitants); they should be defined for all capital cities and for non-capital cities with more than 250 thousand inhabitants and may be based on established city districts (level 1) or the above mentioned population criteria (level 2).

Map 1.2: Functional urban areas, 2011 (1)



Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 03/2016

City
Commuting zone
Participating countries

0 200 400 600 800 km

(1) The functional urban area (FUA) consists of a city plus its commuting zone. A city is a local administrative unit (LAU) where the majority of the population lives in an urban centre of at least 50 000 inhabitants and a commuting zone contains the surrounding travel-to-work areas of a city where at least 15 % of employed residents are working in the city. Based on population grid and local administrative units (LAU) from 2011.

Source: Eurostat, JRC and European Commission Directorate-General for Regional Policy

Note that to ensure the above definitions identified all relevant centres, national statistical authorities were consulted and minor adjustments were made where needed and consistent with this approach. Furthermore, small and medium-sized towns with centres of 5 thousand to 50 thousand inhabitants are currently not defined in a harmonised manner. For more information, refer to: *Cities in Europe — the new OECD-EC definition*.

Subject to data availability, statistics referring to the greater city were preferred when a choice was available between information pertaining to the city or its greater city; when the concept of the greater city was used, this information is documented in the footnotes under each map/table/figure. Data sourced from a perception survey on the quality of life in 79 European cities also presents statistics for greater cities, namely, for Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and the Tyneside conurbation (all United Kingdom).

METROPOLITAN REGIONS

The typology for metropolitan regions is based on NUTS level 3 regions which are divided into metropolitan and non-metropolitan regions. Regional statistics are processed on an annual basis to provide data for metropolitan regions for the following domains: demographic statistics, economic accounts, labour market and patent statistics.

Metropolitan regions are approximations of functional urban areas (cities and their commuting zones) of 250 thousand or more inhabitants. Each metropolitan region consists of one or more NUTS level 3 regions and is named after the principal functional urban area inside its boundaries; if more than 50 % of the population in an adjacent NUTS level 3 region also lives within the functional urban area, then it is included in the metropolitan region. The typology distinguishes three types of metropolitan regions: capital city metropolitan regions; second-tier metropolitan regions; smaller metropolitan regions.

As data for metropolitan regions are based on functional urban areas, these data are particularly useful when correcting for distortions created by commuting patterns, for example, GDP per inhabitant may be more meaningful for the wider metropolitan region than for individual NUTS level 3 regions (where a relatively high proportion of the region's economic activity may be attributed to inflows of commuters from surrounding regions).

URBAN–RURAL TYPOLOGY

The urban–rural typology is based on a classification of NUTS level 3 regions, according to the share of their population living in rural grid cells, distinguishing:

- **predominantly urban regions** — where the rural population accounts for less than 20 % of the total population;
- **intermediate regions** — where the rural population accounts for between 20 % and 50 % of the total population;
- **predominantly rural regions** — where the rural population accounts for 50 % or more of the total population.

The classification is adjusted to take account of the presence of relatively large cities: any region that is classified as predominantly rural (by the criteria above) is reclassified as intermediate if it contains a city of more than 200 thousand inhabitants representing at least 25 % of the regional population; any region that is classified as intermediate (by the criteria above) is reclassified as predominantly urban if it contains a city of more than 500 thousand inhabitants representing at least 25 % of the regional population.

REGIONAL STATISTICS

Regional statistics use the NUTS classification, which is based on a hierarchy of regions, subdividing each EU Member State into regions at three different levels, covering NUTS levels 1, 2 and 3 from larger to smaller territorial areas. It should be noted that some EU Member States have a relatively small population and may therefore not be subdivided at some (or even all) of the different levels of the NUTS classification.

The NUTS classification is defined by Regulation (EC) 1059/2003 of the European Parliament and of the Council, which is amended by a European Commission regulation for each update (NUTS version) of the classification, partly due to regular amendments, partly due to the accession of new EU Member States. The second regular amendment (Commission Regulation (EU) No 31/2011) was adopted in January 2011 and was applied from 1 January 2012; it is referred to as NUTS 2010. A third amendment (Commission Regulation (EU) No 1319/2013) was adopted in December 2013 and has been applied to the transmission of data from 1 January 2015; it is referred to as NUTS 2013. Note that, as there was insufficient data available based on NUTS 2013 at the time of data extraction, a decision was taken to use NUTS 2010 for the analyses presented in this publication.

As such, the regional data presented in *Urban Europe — statistics on cities, towns and suburbs* are shown exclusively for NUTS 2010 level 3 regions, the most detailed geographical information available. There are a range of different collections for which data based on NUTS level 3 regions are available, including: demography, patent applications, road freight transport and agri-environmental statistics.

1.4 Data coverage and presentation

The final section of this introduction provides some background information relating to the presentation of data, Eurostat's online databases and access to other online resources.

DATA EXTRACTION

The data presented within this publication were extracted during February and March 2016.

GEOGRAPHICAL COVERAGE

Urban Europe — statistics on cities, towns and suburbs contains sub-national statistics for the 28 Member States of the EU and, where available, data are also shown for the EFTA countries (Iceland, Liechtenstein, Norway and Switzerland) and the candidate countries (Montenegro, the former Yugoslav Republic of Macedonia, Albania, Serbia and Turkey).

The geographical descriptions used to group EU Member States, for example, 'northern', 'eastern', 'southern' and 'western' are not intended as political categorisations. Rather, these references are made in relation to the geographical location of one or more EU Member States, as listed within the geography domain of the European Commission's multilingual thesaurus.

DATA PRESENTATION

In order to improve readability, only the most significant metadata has been included as footnotes under the maps, tables and figures. In tables, the following formatting and symbols are used, if necessary:

italic data value is forecasted, provisional or estimated and is likely to change;

: not available, confidential or unreliable value;

– not applicable.

Where appropriate, breaks in series are indicated in the footnotes provided under each map, table or figure.

Note that throughout this publication billion is used to indicate a thousand million.

EUROSTAT'S WEBSITE — ACCESS ONLINE DATA

The simplest way to access Eurostat's broad range of statistical information is through the Eurostat website (http://ec.europa.eu/eurostat). Eurostat provides users with free access to its databases and all of its publications in portable document format (PDF) via the internet. The website is updated daily with the latest and most comprehensive statistical information available on: the EU and euro area, the EU Member States, EFTA countries, candidate countries, and potential candidates.

An online data code available under most of the maps/tables/figures in this publication can be used to directly access the most recent data from Eurostat's database. Note that it is possible that the database already contains fresher data due to the continuous nature of data collection and processing (resulting in updates and new reference periods being added).

Eurostat online data codes, such as **urb_cpop1**, provide easy access to the most recent data available. In the PDF version of the publication, readers are led directly to the freshest data when clicking on the hyperlinks provided. For readers of the paper publication, the freshest data can be accessed by typing a standardised hyperlink into a web browser, http://ec.europa.eu/eurostat/product?code=<data_code>&mode=view , where <data_code> is to be replaced by the online data code in question. Online data codes can also be fed into the 'Search' function on Eurostat's website, which is found in the upper-right corner of the Eurostat homepage.

Eurostat's data are published with accompanying metadata that provide background information on each source, as well as specific information (flags) for individual data cells.

EUROSTAT'S WEBSITE — STATISTICS EXPLAINED

Statistics Explained is a wiki-based system which presents statistical topics in an easy-to-understand way; each of the chapters from the *Urban Europe — statistics on cities, towns and suburbs* is included as a separate article. Statistics Explained articles form an encyclopaedia of European statistics, which is completed by a statistical glossary clarifying the terms used. In addition, numerous links are provided to data, metadata, and further information; as such, Statistics Explained is a portal for regular and occasional users of official European statistics.

EUROSTAT'S WEBSITE — DEDICATED SECTIONS

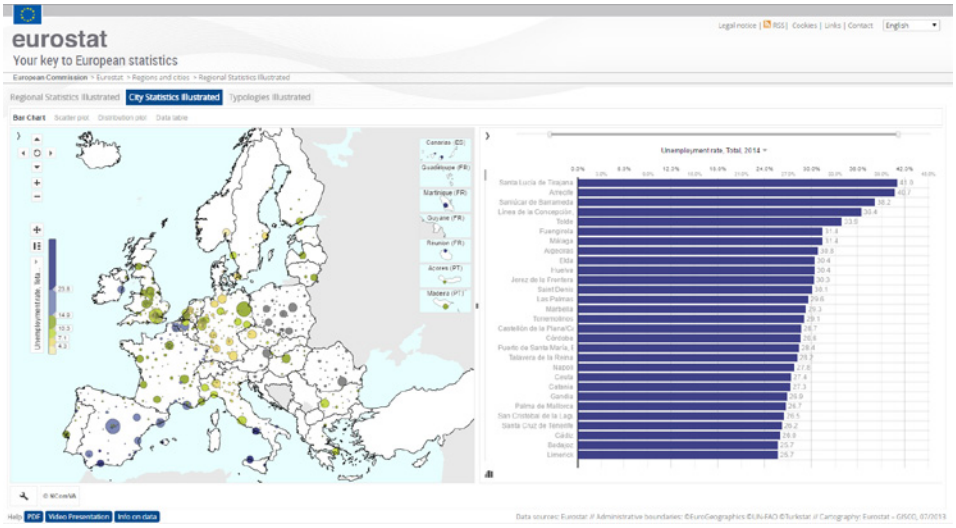
The Eurostat website presents statistics by theme. One section deals with general and regional statistics and this includes the bulk of the information that was used for the production of *Urban Europe — statistics on cities, towns and suburbs*.

Dedicated sections have been developed for the following sets of sub-national statistics, each of which provides a range of information (an overview of the data collection, access to data, access to publications, links to methodology and classifications):

- the degree of urbanisation (http://ec.europa.eu/eurostat/web/degree-of-urbanisation/overview);
- city statistics (http://ec.europa.eu/eurostat/web/cities/overview);
- metropolitan regions (http://ec.europa.eu/eurostat/web/metropolitan-regions/overview);
- regional statistics (http://ec.europa.eu/eurostat/web/regions/overview).

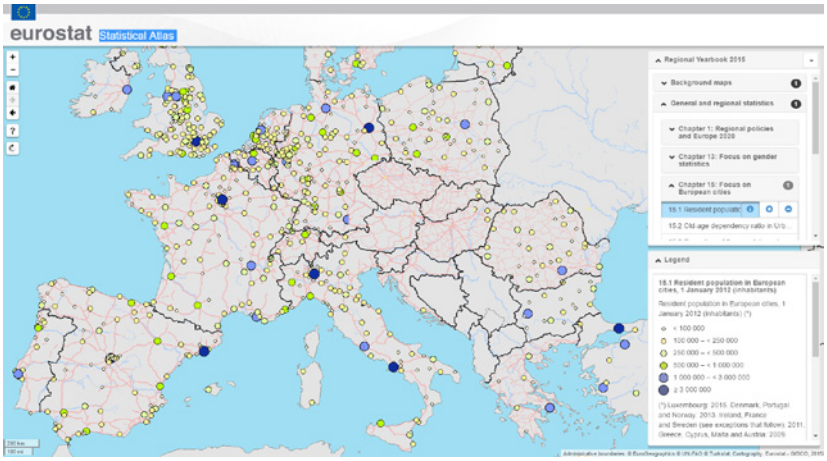
EUROSTAT'S WEBSITE — APPLICATIONS

There are several interactive applications on the Eurostat website which provide tools for visualising and analysing territorial data. Among these, *City Statistics Illustrated* contains data for 26 statistical indicators across European cities, with information displayed in a map and as a bar chart for the latest available reference period).



Screenshot from City Statistics Illustrated

The *Statistical Atlas*, is an interactive viewer that allows users to study layers of statistical data in combination with layers of geographical information (for example, cities, roads and rivers). The *Statistical Atlas* can be used for viewing all of the maps that are contained within the *Eurostat regional yearbook* and provides users with an opportunity to focus on information for a single administrative region in Europe; the maps can be downloaded as high-resolution PDFs.

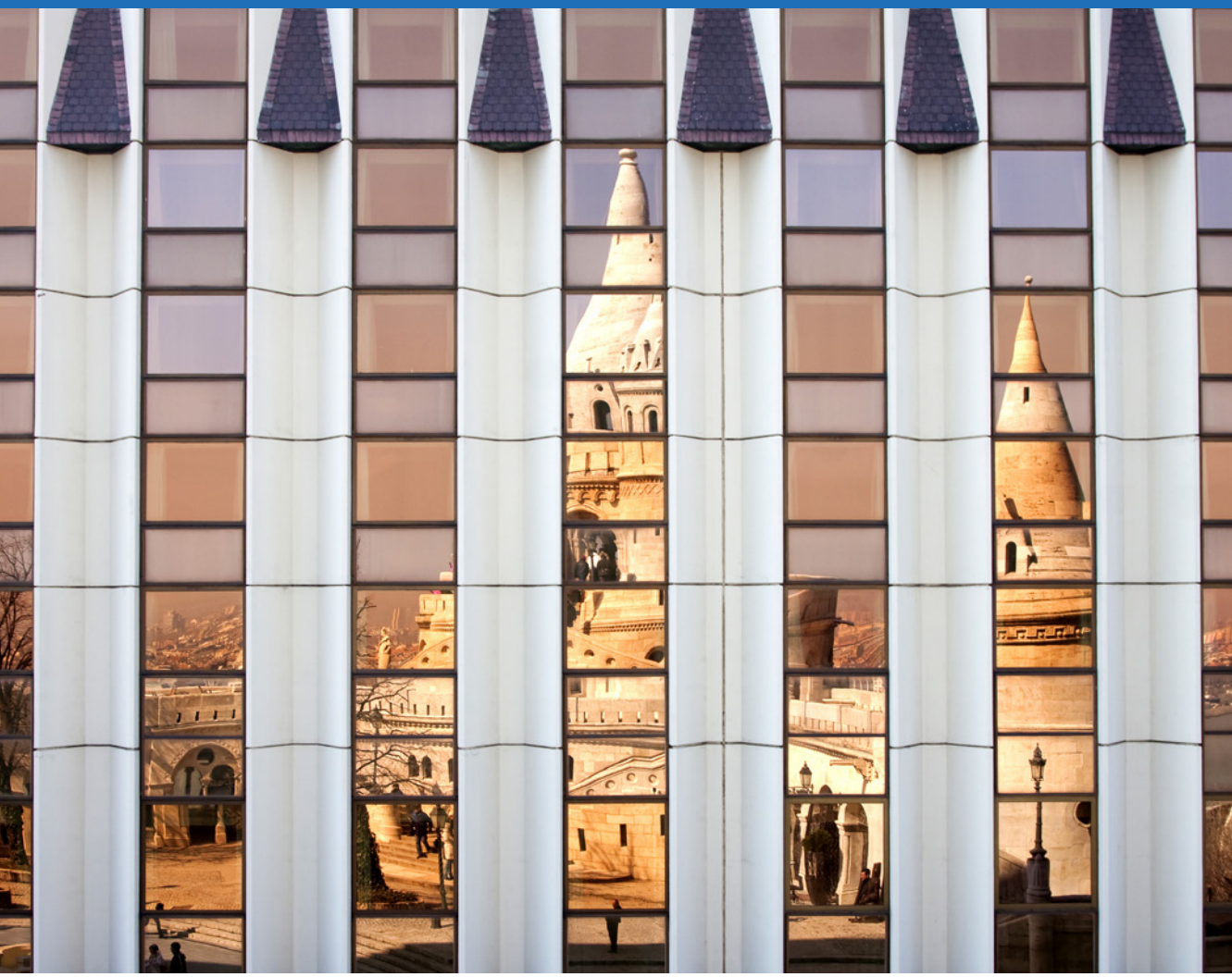


Screenshot from the Statistical Atlas

My capital in a bubble, launched in September 2016, is a playful application which allows users to compare data for the capital cities of the EU Member States, Iceland, Norway, Switzerland and Turkey for about 30 indicators grouped into different themes: living in cities, the economy and labour market, quality of life, smart and green cities and urban demography.

Screenshot from My capital in a bubble

2 The urban paradox



Urban areas are often characterised by their high concentrations of population, economic activity, employment and wealth with the daily flow of commuters into many of Europe's largest cities suggesting that opportunities abound in these hubs of innovation, distribution and consumption, many of which act as focal points within their national economies and in some cases within Europe or even globally.

Although cities are motors for economic growth, they are also confronted by a wide range of problems, like crime, traffic congestion, pollution and various social inequalities. Furthermore, within many cities it is possible to find people who enjoy a comfortable lifestyle living in close proximity to others who may face considerable challenges, for example, in relation to affordable/adequate housing or poverty — herein lies the 'urban paradox'.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

2.1 Urban–rural paradoxes

An analysis based on the urban–rural typology shows that the EU-28's economic activity is concentrated in predominantly urban regions, as these regions generated more than half (53.0 %) of all gross domestic product (GDP) in 2012 (see **Table 2.1**). A per capita measure of GDP in PPS terms can be used as an indicator of living standards: this ratio was considerably higher in predominantly urban regions (PPS 32 327 per inhabitant) than in either intermediate

Policy initiatives for sustainable urban developments

Given the growing number of people who are living in cities and the fact that cities are often the source of and can potentially provide the solution to many of today's economic, social and environmental challenges, these urban territories are increasingly under the spotlight of policymakers.

The revised 2014–20 cohesion policy framework introduced a set of 11 thematic objectives to support growth. European structural and investment funds were re-assessed, and additional recognition was given to the role that urban territories can play in economic development, as well as the linkages that exist between urban and rural regions. Some 10 billion EUR of European Regional Development Fund (ERDF) resources were foreseen for initiatives linked to sustainable urban development, covering areas such as urban mobility, the regeneration of deprived communities, improving research and innovation capacity, or tackling climate change.

The European Union's (EU's) urban agenda involves cities in the design of policies, so they may play a key role in translating national and EU policy objectives into specific actions. Signed during the Dutch presidency in 2016, the Pact of Amsterdam established the operational framework for the EU's urban agenda and it also set-up four thematic partnership projects relating to: air quality; migrants and refugees; housing; urban poverty.

regions (PPS 23 664 per inhabitant) or predominantly rural regions (PPS 19 230 per inhabitant). As such, predominantly urban regions may be identified as economic hubs that (in aggregate terms) provide relatively high levels of wealth creation.

Predominantly urban regions accounted for 44.1 % of the total area of the Netherlands

Outside of Malta — considered as a single region within the urban–rural typology — the most concentrated urban regions of the EU were located in the Netherlands (where 44.1 % of the total area was classified as predominantly urban in 2014), Belgium (34.6 %) and the United Kingdom (27.5 %). By contrast, predominantly rural regions extended over the vast majority of the Nordic Member States, Ireland and several eastern EU Member States — notably, Hungary, Romania, Croatia and Bulgaria — accounting for at least 97.0 % of their total surface area. As such, the area occupied by predominantly urban regions across the EU was generally quite small, highlighting the concentration of economic activity in these regions.

In some ways the relative importance of predominantly urban regions was greater in the most sparsely populated EU Member States

The considerable differences that exist in the territorial distribution of populations across the EU Member States clearly impact on a range of indicators. For example, an analysis for GDP reveals that there were nine EU Member States where more than 50.0 % of economic activity was concentrated in predominantly urban regions in 2012/13. However, there was a paradox insofar as the relative influence of predominantly urban regions was in some ways greater in some of the most thinly populated regions of the EU. For example, while predominantly urban regions accounted for 1.5 % or less of the total area of Bulgaria, Denmark, Ireland, Croatia, Hungary, Romania or Sweden, their share of national GDP was at least 20 times as high. This could be contrasted with the situation in the most densely populated EU Member States, such as the Netherlands, Belgium or the United Kingdom, where the share of predominantly urban regions in national GDP was nevertheless between 1.7 and 2.8 times as high as their share of the total area.

In several western and southern EU Member States, employment rates were often lower in predominantly urban regions

In 2014, almost three quarters of people employed in the densely populated Netherlands and United Kingdom were living in a predominantly urban region. Aside from the special case of Malta (100.0 %), the only other EU Member States to report that more than half of their workforce was living in predominantly urban regions were Belgium (68.8 %), Spain (60.5 %) and Latvia (53.9 %) — see **Figure 2.1**.

Historically, there have been widespread population movements from rural to urban regions, with an increasing number of people living in urban areas; this development is often driven by the search for work. In 2014, the share of the total population residing in predominantly urban regions was higher than the employment share of predominantly urban regions in Austria, the United Kingdom, Germany, Portugal, Italy and the Netherlands. Given that urban regions are often characterised as having relatively young populations who may be attracted by a wide range of employment opportunities, it is perhaps surprising to find that a lower share of the population was in work in these six EU Member States, although this may reflect the diversity of urban regions, with some being dynamic, prospering regions and others in decline.

A closer analysis reveals that employment rates in 2014 were lower for predominantly urban regions (compared with predominantly rural regions) in Austria, Portugal, Germany,

Table 2.1: Main indicators for predominantly urban regions

	Share of total (%)								Population density (inhabitants/km²) (5)	GDP (PPS/inhabitant) (6)
	Area (1)		Population (2)		Employment (15–64 years) (3)		GDP at current market prices in EUR (4)			
	2004	2014	2004	2014	2004	2014	2003	2012	2013	2012
EU-28	:	9.8	:	42.7	:	:	:	53.0	495.0	32 327
Belgium	34.7	34.6	67.5	67.8	72.4	68.8	:	74.7	725.7	34 812
Bulgaria	1.2	1.2	15.8	18.1	18.2	21.7	29.3	39.0	1 056.7	26 120
Czech Republic	14.6	14.6	22.5	24.2	28.7	25.4	34.7	35.7	225.1	32 358
Denmark	1.2	1.2	21.2	22.4	22.2	24.0	29.6	32.6	2 443.1	47 154
Germany	:	11.1	:	41.7	44.2	41.3	:	48.9	866.6	38 095
Estonia	9.8	9.6	39.3	43.5	42.5	47.2	58.9	61.2	131.6	26 782
Ireland	1.3	1.3	28.3	27.6	30.1	30.6	38.3	41.9	1 381.7	52 156
Greece	5.7	5.7	46.1	45.6	49.0	47.3	55.2	57.5	681.9	24 696
Spain	19.9	19.9	58.6	59.2	60.9	60.5	:	63.0	276.8	26 542
France	7.9	7.9	34.9	35.1	37.2	:	44.8	47.2	460.1	38 334
Croatia	:	1.1	18.0	18.8	:	30.0	30.5	33.4	1 241.0	28 845
Italy	13.0	13.0	36.3	36.9	38.2	36.9	:	41.6	565.1	30 247
Cyprus	–	–	–	–	–	–	–	–	–	–
Latvia	16.2	16.2	47.7	50.5	51.6	53.9	65.8	66.9	101.1	21 355
Lithuania	14.9	14.9	24.8	27.4	26.6	29.4	36.2	38.5	85.5	26 162
Luxembourg	–	–	–	–	–	–	–	–	–	–
Hungary	0.6	0.6	16.9	17.7	19.4	19.0	34.7	38.1	3 313.8	37 354
Malta	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	1 339.8	22 930
Netherlands	45.6	44.1	72.1	72.5	72.2	72.9	:	76.0	759.5	36 420
Austria	8.9	8.9	33.6	35.1	33.4	33.9	40.8	39.9	409.0	39 180
Poland	:	9.3	28.3	28.3	29.8	30.5	40.4	40.9	368.7	25 305
Portugal	7.2	7.3	48.1	49.1	47.5	49.1	57.8	57.7	763.3	24 389
Romania	0.8	0.8	10.2	11.4	10.7	12.8	21.2	27.2	1 297.7	33 442
Slovenia	–	–	–	–	–	–	–	–	–	–
Slovakia	4.2	4.2	11.1	11.4	13.8	13.2	25.1	27.8	299.8	47 274
Finland	2.8	2.8	27.4	29.1	:	32.9	36.3	37.5	173.3	39 882
Sweden	1.5	1.5	20.7	22.4	22.2	24.1	28.3	31.1	328.7	46 774
United Kingdom	27.9	27.5	73.7	73.9	73.9	73.6	77.6	78.1	701.7	30 041
Iceland	1.0	1.0	62.6	64.1	:	:	:	:	210.4	:
Norway	1.7	1.7	22.2	23.7	23.5	:	:	31.7	239.8	51 873
Switzerland	10.2	10.2	37.9	38.3	:	:	:	:	762.5	:
FYR of Macedonia	7.3	7.3	28.7	29.7	:	:	:	:	337.8	:
Turkey	6.3	6.4	:	33.3	:	:	:	:	520.2	:

(1) Bulgaria, Estonia, Italy, Portugal and Sweden: breaks in series. Belgium, Greece, France, Cyprus, Austria, Poland, Romania and Slovenia: 2013 instead of 2014. Denmark and Austria: 2005 instead of 2004. Spain, Italy and the Netherlands: 2007 instead of 2004. FYR of Macedonia: land area instead of total area.

(2) Belgium, Germany, Hungary, Poland, Romania and Switzerland: breaks in series. Denmark: 2007 instead of 2004. Norway: 2005 instead of 2004.

(3) Breaks in series for all countries except for Denmark, France, Croatia, Finland and Iceland and those for which data are not applicable. Denmark: 2007 instead of 2004.

(4) Belgium, Denmark, Malta, Portugal, Slovakia and the United Kingdom: 2013 instead of 2012. Lithuania: 2004 instead of 2003.

(5) EU-28: 2014 instead of 2013. Bulgaria, Estonia, Italy, Portugal and Sweden: breaks in series. Denmark: 2006 instead of 2003.

(6) Belgium, Denmark, Malta, Portugal and the United Kingdom: 2013 instead of 2012. Lithuania: 2004 instead of 2003.

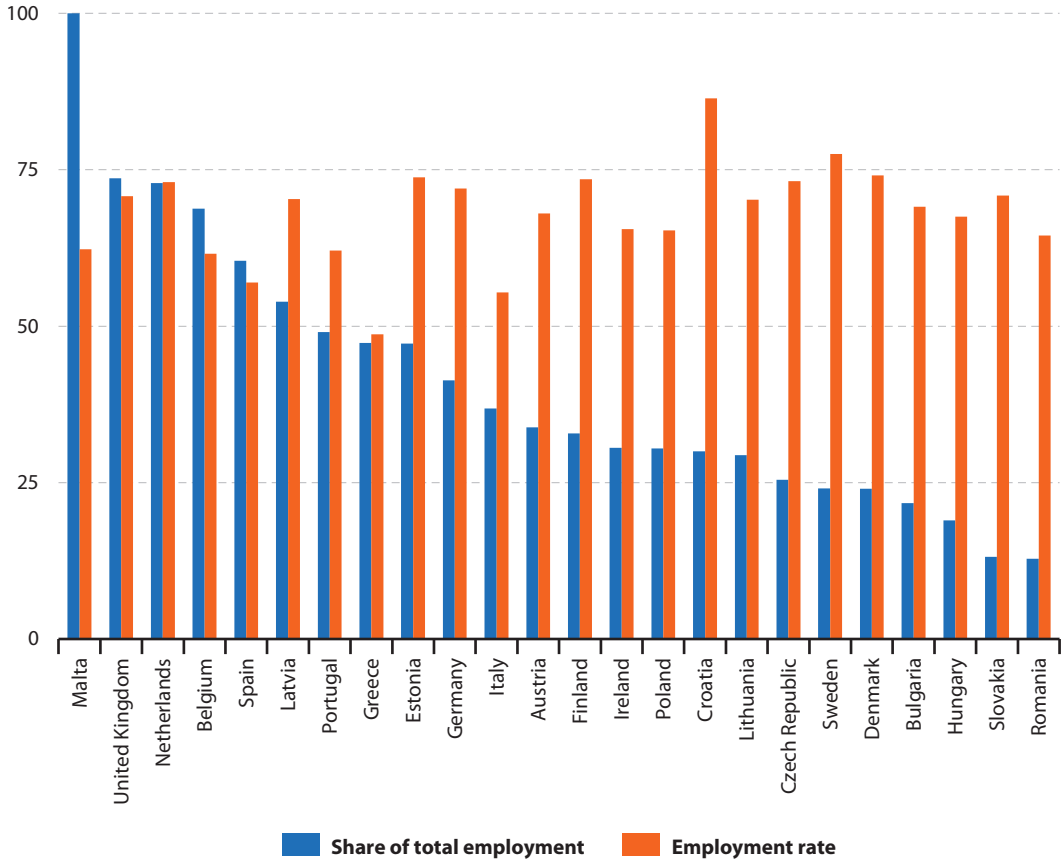
Source: Eurostat (online data codes: urt_d3area, urt_pjanaggr3, urt_lfe3emp, urt_10r_3gdp and urt_d3dens)

Greece, Belgium, the United Kingdom and the Netherlands. As such, in several western and southern EU Member States predominantly urban regions appeared to generate considerable economic wealth and provided large numbers of associated job opportunities, yet they were also characterised by relatively high levels of unemployment. This apparent paradox may be explained, at least in part, by some jobs in urban regions being taken by people who live in intermediate or predominantly rural regions — in other words, commuters. Indeed, it is relatively common in western Europe for large numbers of people to commute to work, sometimes this is a lifestyle choice whereby people choose to move out of larger cities in search of a better quality of life in more suburban or rural locations (for more information on commuting, please refer to Chapter 9).

In most of the eastern and the Baltic Member States which have relatively recently transformed themselves into market-based economies, the pull-effects of predominantly urban regions and the employment opportunities that they (are perceived to) offer were such that urban regions accounted for higher shares of total employment and higher employment rates than predominantly rural regions; this was particularly true in Croatia, Bulgaria, the Baltic Member States, Hungary and Poland, as well as in Finland and Ireland.

Figure 2.1: Proportion of total employment and employment rate (15–64 years), predominantly urban regions, 2014 ([1])

(% of total employment; employment rate, %)



([1]) Cyprus, Luxembourg and Slovenia: not applicable. France: not available.

Source: Eurostat (online data code: urt_lfe3emprt)

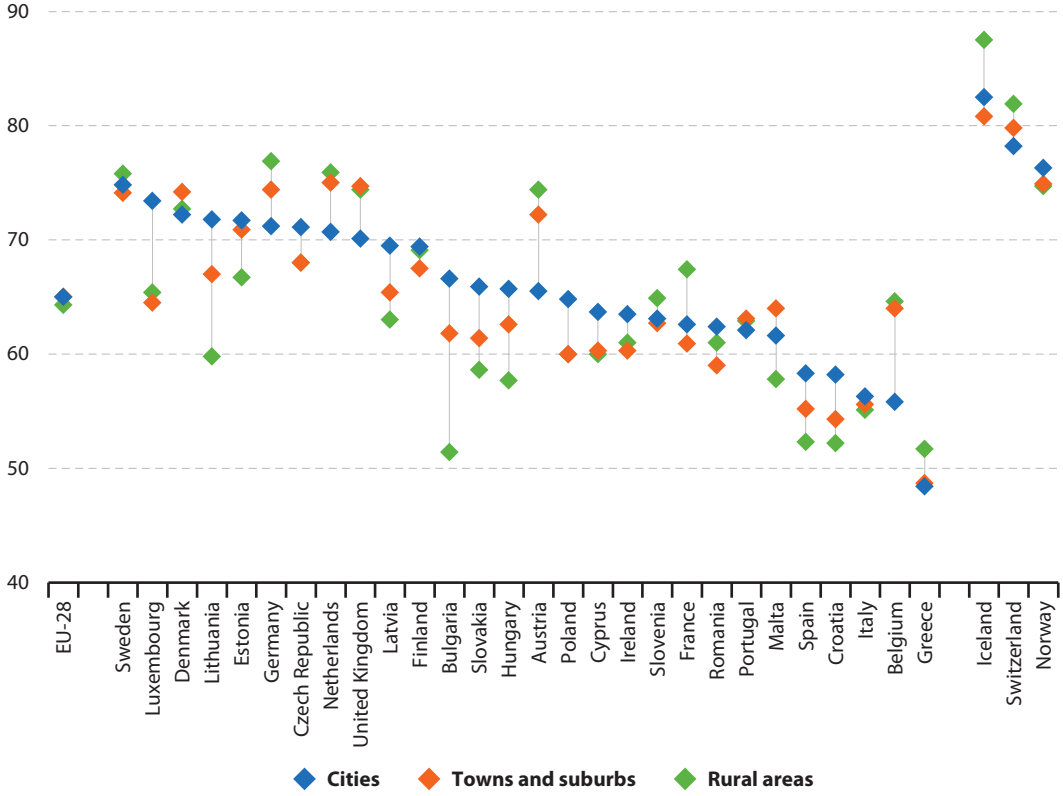
Although economic activity and wealth are often concentrated in urban regions, it is important to note that these figures are averages and, for example, they do not reflect the distribution of income between different groups of people living in each type of region. Indeed, there are a range of apparent paradoxes/contradictions, as while predominantly urban regions:

- generally recorded higher levels of GDP per inhabitant than predominantly rural regions, this was often due to performance of the capital city alone (see Chapter 4 for more details);
- offered a wide range of employment opportunities that attracted large numbers of people looking for work, some urban territories were also characterised by high levels of unemployment or large numbers of jobless households (see Chapter 9 and Chapter 12 for more details);
- were usually resource-efficient in relation to their environmental impact (a low amount of space per person and high-density buildings), people who lived in urban regions were often exposed to some of the highest levels of pollution (see Chapter 6 for more details).

2.2 Paradoxes by degree of urbanisation

Some 41.6 % of the EU-28 population lived in a city in 2014, with a further 31.0 % living in towns and suburbs; as such, almost three quarters of the EU-28 population was living in an urban area (as defined by the degree of urbanisation), while 27.5 % lived in rural areas.

Figure 2.2: Employment rates among people aged 15–64, by degree of urbanisation, 2014 ([1])
(%)



([1]) Note the y-axis starts at 40.

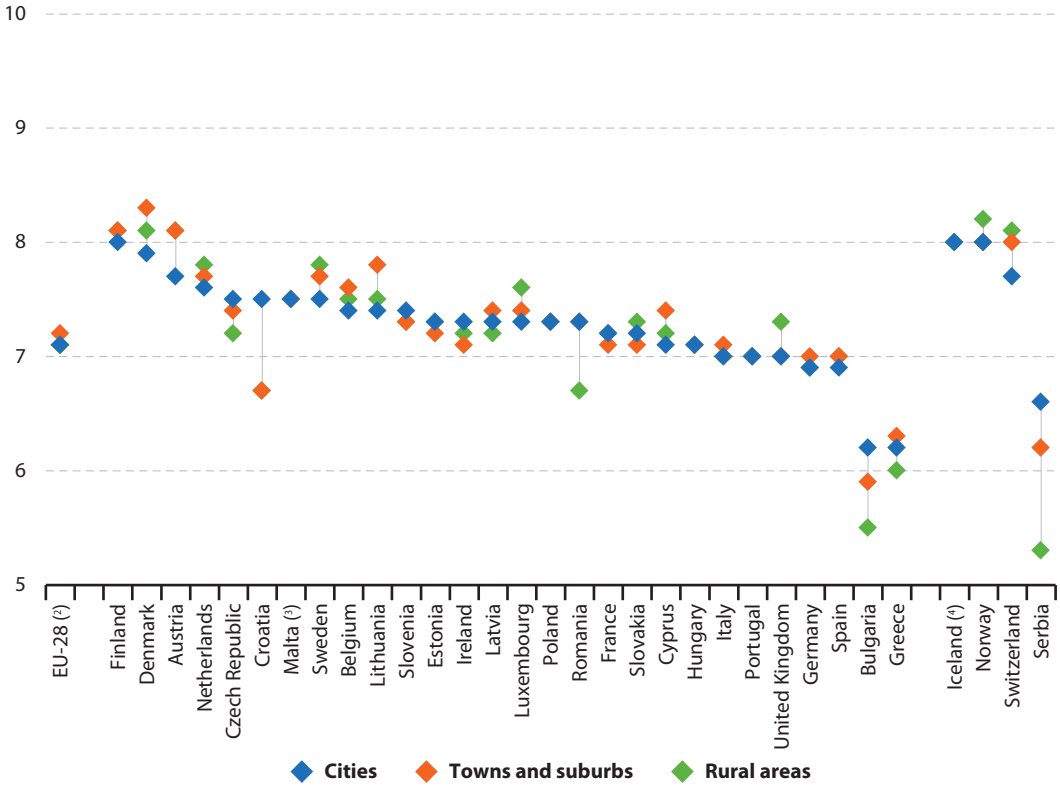
Source: Eurostat (online data code: lfst_r_ergau)

There were four EU Member States with particularly high concentrations of people living in cities in 2014: their share was more than half of the total number of inhabitants in Malta (89.5 %), the United Kingdom (57.2 %), Cyprus (51.2 %) and Spain (51.1 %). By contrast, people living in cities accounted for less than one in five of the total population in Slovenia and Luxembourg — the lowest shares in the EU.

Employment rates tended to be higher, but job satisfaction was no greater in cities …

In 2014, the EU-28 employment rate was just less than two thirds (65.0 %) for people aged 15–64 living in cities and in towns and suburbs, while the share of people living in rural areas who were in employment was slightly lower, at 64.3 %. A closer analysis reveals that, by degree or urbanisation, people living in cities recorded the highest employment rates in 16 of the EU Member States, including all of the eastern (except for Slovenia) and Baltic Member States. There were eight Member States where the highest employment rate was recorded for people living in rural areas (five of which were located in western Europe), leaving four others where the highest employment rates were recorded among people living in towns and suburbs — see **Figure 2.2**.

Figure 2.3: Average rating of job satisfaction, by degree of urbanisation, 2013 ([1])
(rating, 0–10)



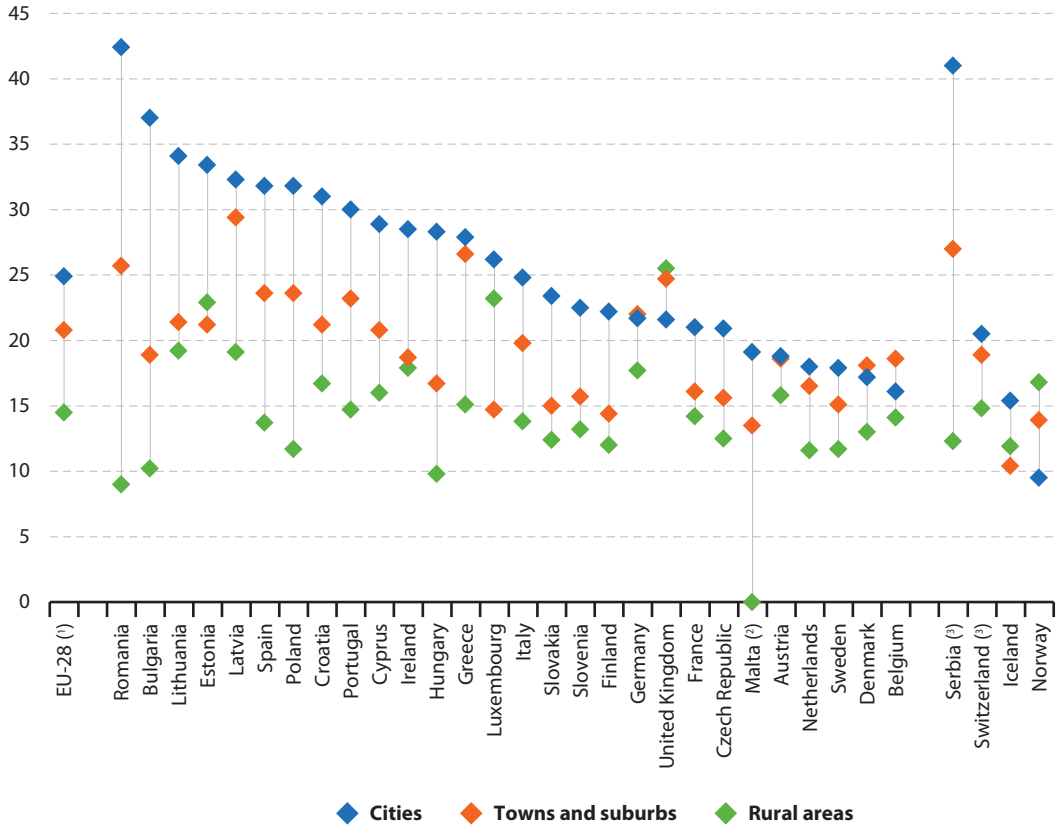
([1]) Note the y-axis starts at 5.
([2]) Rural areas: estimate.
([3]) Rural areas: not available.
([4]) Towns and suburbs: not applicable.

Source: Eurostat (online data code: ilc_pw02)

Although a higher proportion of people living in cities were in employment, this did not necessarily translate into job satisfaction. Indeed, it was more common to find the highest levels of job satisfaction (on a scale of 0–10) among people living in towns and suburbs or rural areas (see **Figure 2.3**). This may reflect, at least in part, structural differences in the type of occupations available in each of these locations; higher levels of job satisfaction for those living in rural areas may also be synonymous with a more relaxed pace of life. By contrast, in many of the western and Nordic EU Member States, city-dwellers recorded the lowest levels of job satisfaction, perhaps reflecting the pressures of work, time lost travelling to work, or the monotony of office work in big cities. There was a somewhat different pattern in several of the eastern Member States, where city-dwellers were more inclined to be satisfied with their job, perhaps as a result of higher earnings or a wider choice of occupations relative to the situation in rural areas.

Figure 2.4: Proportion of people having income greater or equal to 150 % of national median income, by degree of urbanisation, 2014

(%)



(1) Rural areas: estimate.
(2) Rural areas: low reliability.
(3) 2013.

Source: Eurostat (online data code: ilc_di23)

A higher share of people living in cities reported having an income that was 150 % or more of the national median …

In 2014, almost one quarter (24.9 %) of the EU-28 population living in cities had an income that was at least 150 % of the national median level (see **Figure 2.4**), this may in part reflect the higher cost of living (especially for housing) in some urban areas. A comparison by degree of urbanisation reveals that inequalities (at the top end) of the income distribution were most pronounced in cities, as a lower proportion of the population living in towns and suburbs (20.8 %) and in rural areas (14.5 %) had an income that was at least 150 % of the national median income.

While a larger proportion of city-dwellers were fortunate enough to have relatively high levels of income, this also meant that there were considerable numbers of people living in cities who faced significant challenges to make ends meet (with considerably lower incomes); see Chapter 12 for more details. Such income disparities may, at least in part, explain the lower levels of job satisfaction in cities, even if, at first sight, this may appear contradictory given that a higher proportion of well-paid people living in cities.

In Belgium, Denmark, Germany and the United Kingdom a higher proportion of people living in towns and suburbs (compared with cities) declared that they had an income that was at least 150 % of the national median; this was also the case for those living in rural areas in the United Kingdom. These figures may be linked to commuting patterns, insofar as each of these relatively densely populated EU Member States had high shares of people commuting to work, and those with relatively high incomes were more likely to be able to choose to relocate away from the congestion and deprivation evident in some (inner) cities.

Income disparities, by degree of urbanisation, were widest in some of the eastern and Baltic Member States. For example, 42.4 % of the population living in the cities of Romania had an income that was at least 150 % of the national median (compared with 9.0 % for people living in rural areas). With such a wide difference, it is perhaps unsurprising to find that greater levels of job satisfaction existed among those living in cities in most of the eastern and Baltic Member States, in contrast to those living in rural areas which were largely characterised by limited job opportunities (often restricted to manual labour in agriculture).

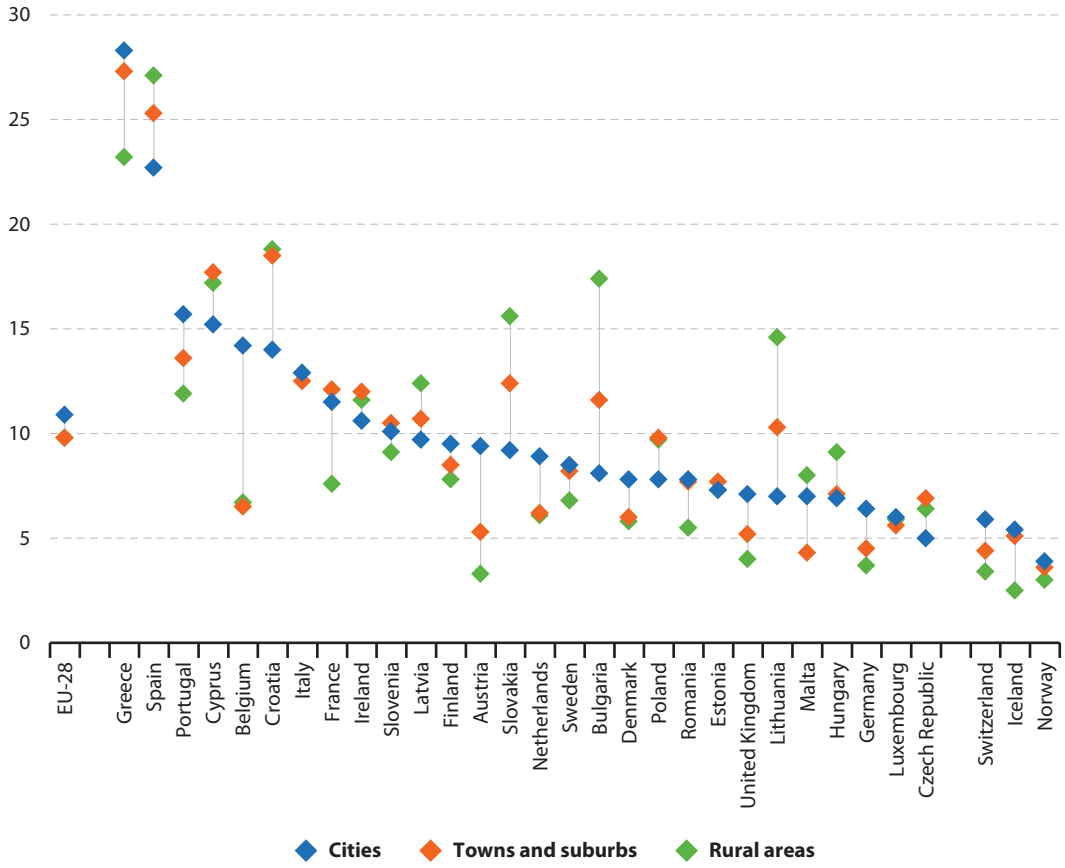
… but a greater share of people living in cities were unemployed

While cities provide a considerable range and number of employment opportunities, these jobs are not always taken by people who live in cities. Indeed, as noted above, it is relatively common for people to move out of inner city areas to suburban and rural locations once they have settled into a career and start raising a family, even if they continue to work in a city.

In 2014, the EU-28 unemployment rate was 10.9 % for people living in cities, compared with 9.8 % for those living in towns and suburbs or in rural areas (see **Figure 2.5**); this pattern was repeated in almost half (13) of the EU Member States. In Belgium, Austria, Greece, France, Portugal and the United Kingdom, the unemployment rate for people living in cities was at least 3.0 percentage points higher than that recorded for people living in rural areas, confirming that some of the widest disparities, by degree of urbanisation, were visible in western Europe. By contrast, unemployment rates in most of the eastern and Baltic Member States tended to be higher in rural areas; this was particularly the case in Slovakia, Lithuania and Bulgaria.

Again it is important to note that these figures are averages and they may mask considerable differences between cities within the same EU Member State. For example, while unemployment rates in the northern French cities of Calais, Saint-Quentin and Lens - Liévin were within the range of 21–23 % in 2012, much lower rates — less than 8 % — were recorded closer to Paris in the cities of Versailles, Sénart en Essonne or the Communauté d'agglomération du Plateau de Saclay. Such diversity between cities in the same Member State may be explained — at least to some degree — by the considerable differences that exist between local urban economies, with some characterised as dynamic, prosperous areas, while others may be in decline (often former industrial heartlands that have failed to attract new investment). These disparities in unemployment rates are rarely isolated and are often found alongside other forms of social, cultural, political and environmental inequalities, thereby reinforcing patterns of deprivation and social exclusion — see Chapter 12 for more details.

Figure 2.5: Unemployment rates among people aged 15–74, by degree of urbanisation, 2014
(%)



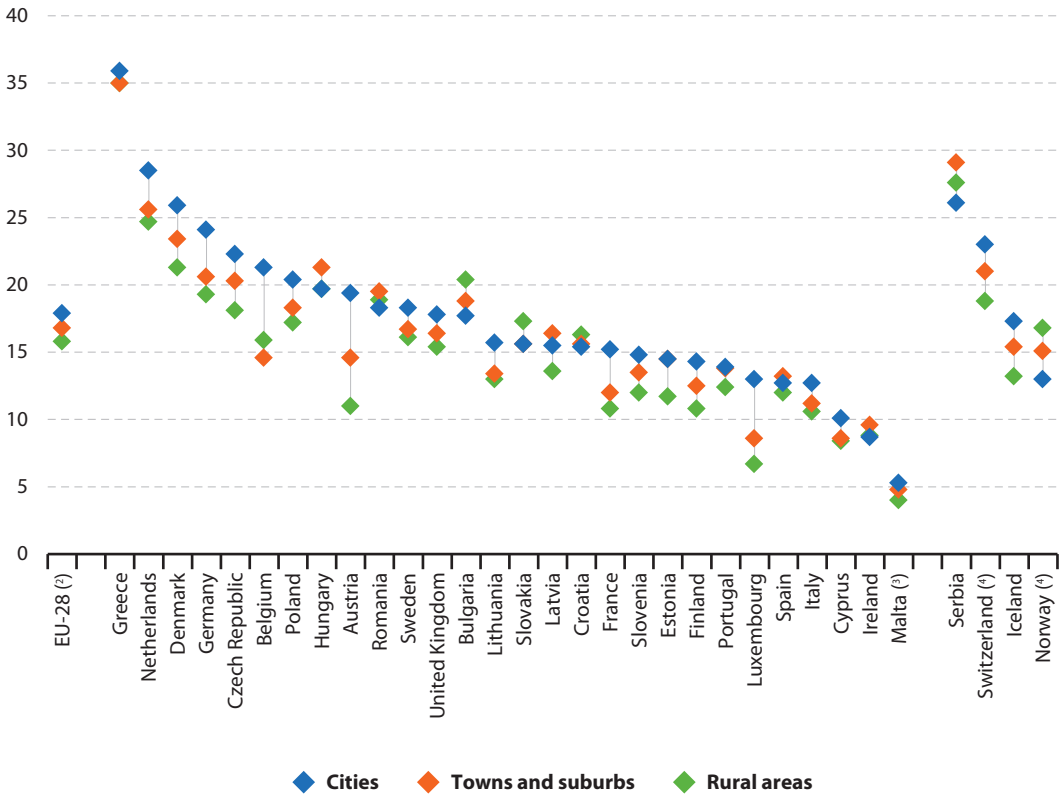
Source: Eurostat (online data code: lfst_r_urgau)

Although people living in cities generally paid more for their housing they got less space for their money

A lack of space for urban developments, with cramped living conditions and poor quality housing has resulted in some inner city areas becoming relatively deprived, which may in turn have an impact on increasing the likelihood of crime, poverty and/or social exclusion. As such, housing is a pressing issue for many Europeans and this is particularly true among those living in cities, where the gap between supply and demand is often most noticeable — a lack of housing may result in rising property prices, both for the rental market and properties that are for sale.

The housing cost burden is defined as the share of total housing costs in disposable household income (both net of any housing allowances). Its median value across the EU-28 in 2014, analysed by degree of urbanisation, ranged from 17.9 % in cities down to 15.8 % in rural areas (see **Figure 2.6**). There were only five EU Member States where the median housing cost burden was higher in rural areas than in cities (Bulgaria, Slovakia, Croatia, Romania and Ireland), while there was no difference for this ratio between cities and rural areas in Hungary. However,

Figure 2.6: Median housing cost burden, by degree of urbanisation, 2014 (1)
(%)



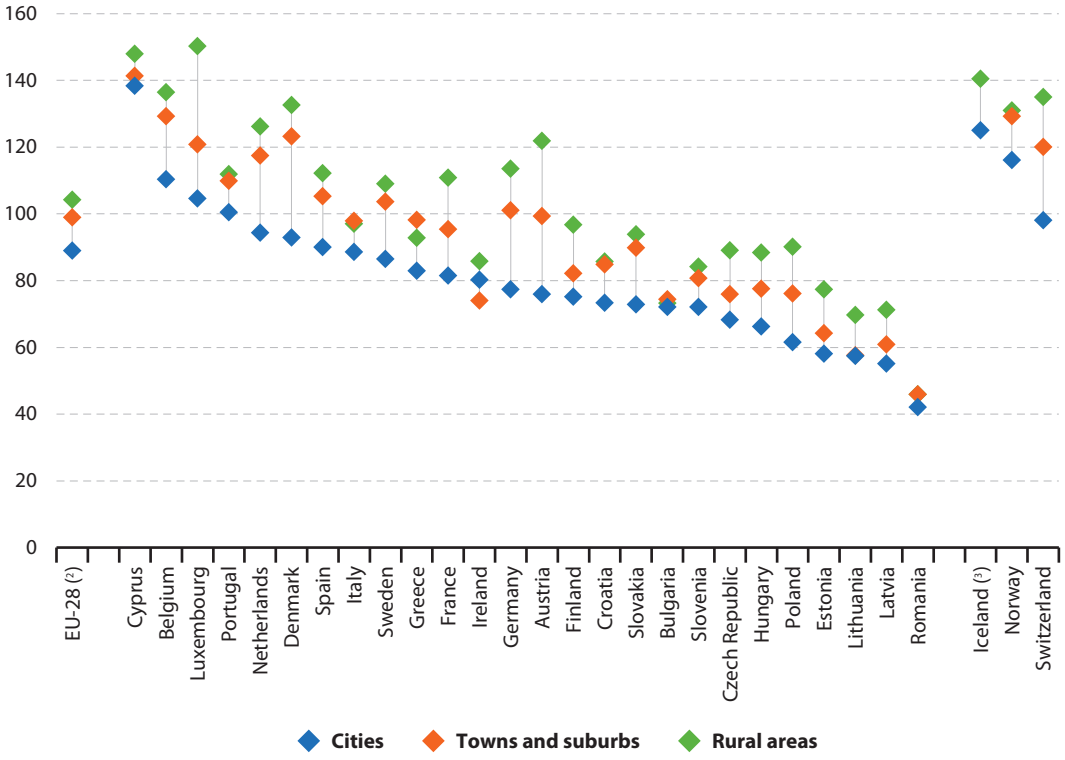
(1) The housing cost burden is defined as the share of housing costs (net of housing allowances) in disposable household income (net of housing allowances). The figure shows the median value across households among the three different degrees of urbanisation.
(2) Rural areas: estimate.
(3) Rural areas: unreliable data.
(4) 2013.

Source: Eurostat (online data code: ilc_lvho08b)

the median housing cost burden was considerably higher in cities (than in rural areas) in Denmark, Germany, Belgium, Luxembourg and Austria. As such, people living in cities spent, on average, a higher proportion of their income on housing. Perhaps unsurprisingly, although they paid more for their housing, in return they had to live in properties that had, on average, less floor space. In 2012, the average size of a dwelling in rural areas of the EU-28 was 104 m^2, which was 5 m^2 larger than in towns and suburbs, and 15 m^2 larger than in cities.

Dwellings in cities were, on average, smaller than those in rural areas in each of the EU Member States for which data are available. Aside from Ireland, the average size of dwellings in cities was also consistently smaller than those located in towns and suburbs. The difference in the average size of dwellings between those found in cities and rural areas was most marked in Luxembourg, Poland, Germany and Austria, where dwellings in cities were, on average, 60–70 % of the average size of dwellings in rural dwellings. There was, on the other hand, little difference in the average size of dwellings between the cities and rural areas of Italy, Romania, Ireland, Cyprus and Bulgaria, with dwellings in cities having at least 90 % of the average area of dwellings in rural areas (see **Figure 2.7**).

Figure 2.7: Average size of dwelling, by degree of urbanisation, 2012 (1)
(m^2)



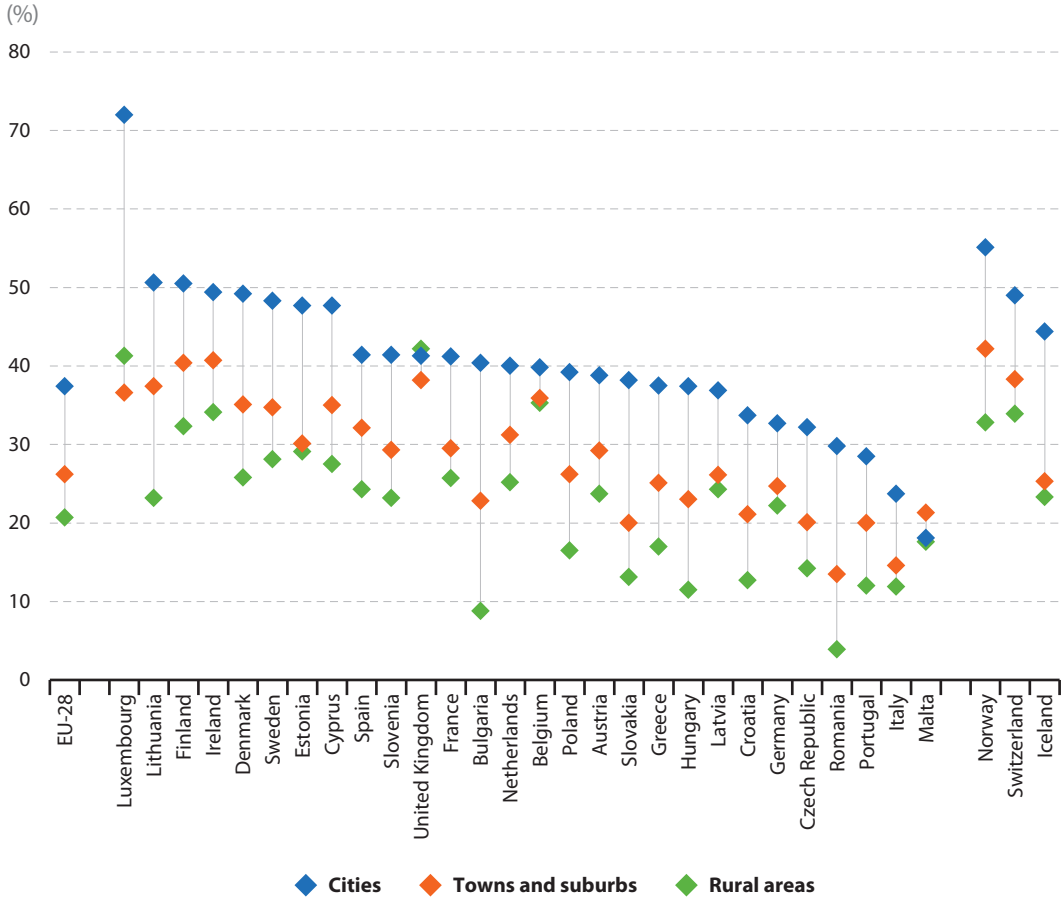
(1) Malta and the United Kingdom: not available.
(2) Estimates.
(3) Towns and suburbs: not applicable.

Source: Eurostat (online data code: ilc_hcmh02)

While cities have a highly educated population, they were also characterised by problems related to crime, violence or vandalism

Figure 2.8 shows that in 2014 more than one third (37.4 %) of the EU-28 population aged 25–64 and living in cities had a tertiary level of educational attainment (as defined by ISCED 2011 levels 5–8); this was considerably higher than the corresponding shares recorded among those living in towns and suburbs (26.2 %) or rural areas (20.7 %). The proportion of people aged 25–64 with a tertiary level of educational attainment was higher among those living in cities, compared with those living in rural areas, in each of the EU Member States, except for the United Kingdom (where the difference was less than a single percentage point in favour of those living in rural areas). The biggest differences in the proportion of people with a tertiary level of educational attainment between those living in cities and rural areas were recorded in Bulgaria, Luxembourg and Lithuania.

Figure 2.8: Proportion of people aged 25–64 with a tertiary level of educational attainment, by degree of urbanisation, 2014 (1)



(1) Tertiary education: ISCED 2011 levels 5–8.

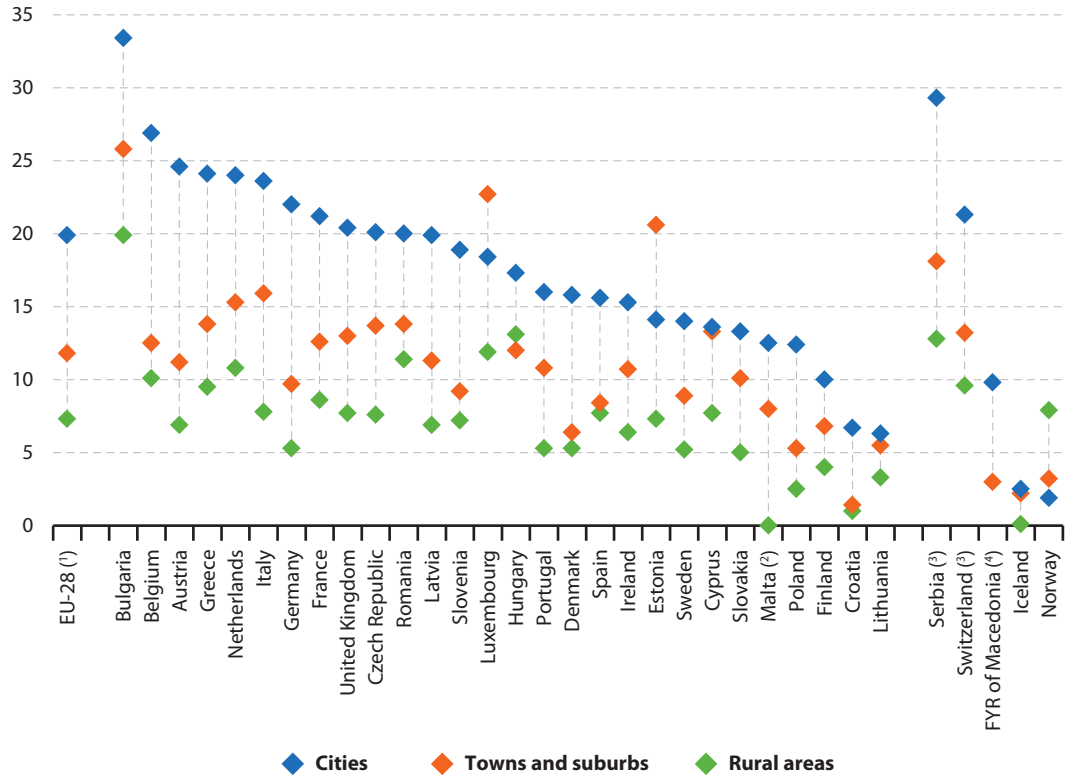
Source: Eurostat (online data code: edat_lfs_9913)

While the concentration of economic activity in cities may contribute towards attracting a highly-educated workforce in search of diverse work opportunities, the gathering together of large numbers of people also leads to a number of negative externalities, including crime. In 2014, the proportion of people in the EU-28 who were living in an area with problems related to crime, violence or vandalism was considerably higher among those living in cities (19.9 %) than it was for the inhabitants of towns and suburbs (11.8 %) or rural areas (7.3 %). City-dwellers in the EU-28 were, on average, 2.7 times as likely as people living in rural areas to be living in an area with problems related to crime, violence or vandalism (see **Figure 2.9**).

The share of people living in cities with problems related to crime, violence or vandalism peaked at close to one third (33.4 %) in Bulgaria and around one quarter in Belgium (26.9 %), Austria (24.6 %), Greece (24.1 %) and the Netherlands (24.0 %). The likelihood that city-dwellers were exposed to problems related to crime, violence or vandalism was 3.6 times as high as for those living in rural areas in Austria, rising to 4.2 times as high in Germany, 5.0 times as high in Poland and 6.7 times as high in Croatia.

Figure 2.9: Proportion of people living in an area with problems related to crime, violence or vandalism, by degree of urbanisation, 2014

(%)



(1) Rural areas: estimate.
(2) Rural areas: low reliability.
(3) 2013.
(4) 2011. Rural areas: not available.

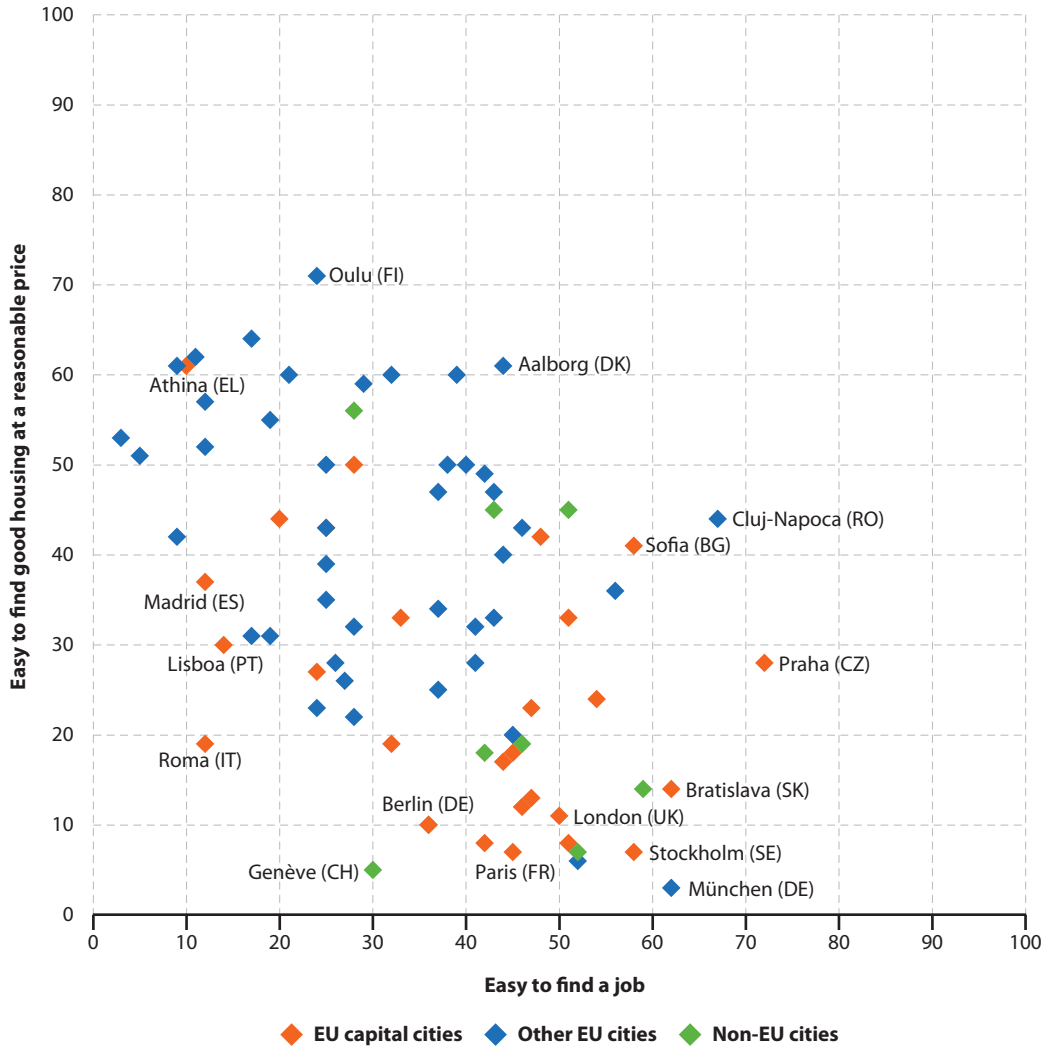
Source: Eurostat (online data code: ilc_mddw06)

2.3 Paradoxes at the city level

The analysis presented in this section is sourced from a perception survey on the quality of life in 79 European cities; note that the statistics presented for Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and the Tyneside conurbation (all United Kingdom) refer to the concept of the greater city (which stretches beyond administrative city boundaries), while the information presented for the remainder of the cities is restricted to their city centres.

Figure 2.10: Proportion of people agreeing it is easy to find a job/good housing at a reasonable price in their city, 2015 (1)

(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city.

Source: Eurostat (online data code: urb_percep)

People living in cities with dynamic labour markets often faced great difficulties in finding adequate housing at a reasonable price

Figure 2.10 covers two areas already discussed above, namely, it contrasts the relationship between the ease with which respondents thought they could find a job and the ease with which they thought they could find good housing at a reasonable price. For example, while a majority (61 %) of respondents from the Greek capital (Athina) agreed they could find good housing at a reasonable price in 2015, only 10 % agreed that it was easy to find a job. Conversely, while a majority (62 %) of respondents from the German city of München thought it was easy to find a job, only 3 % agreed they could find good housing at a reasonable price. As such, there appears to be some evidence of a trade-off, insofar as people living in cities with the most dynamic labour markets appeared to face difficulties in locating adequate housing at a reasonable price, whereas in those cities where housing was relatively easy to find, the local labour market was often depressed. Nevertheless, this was not a situation observed in all cities and there are examples where only a small proportion of respondents regarded it as easy to find either a job or good housing at a reasonable price (such as Roma in Italy) and others where both proportions were high (such as Cluj-Napoca in Romania or Aalborg in Denmark).

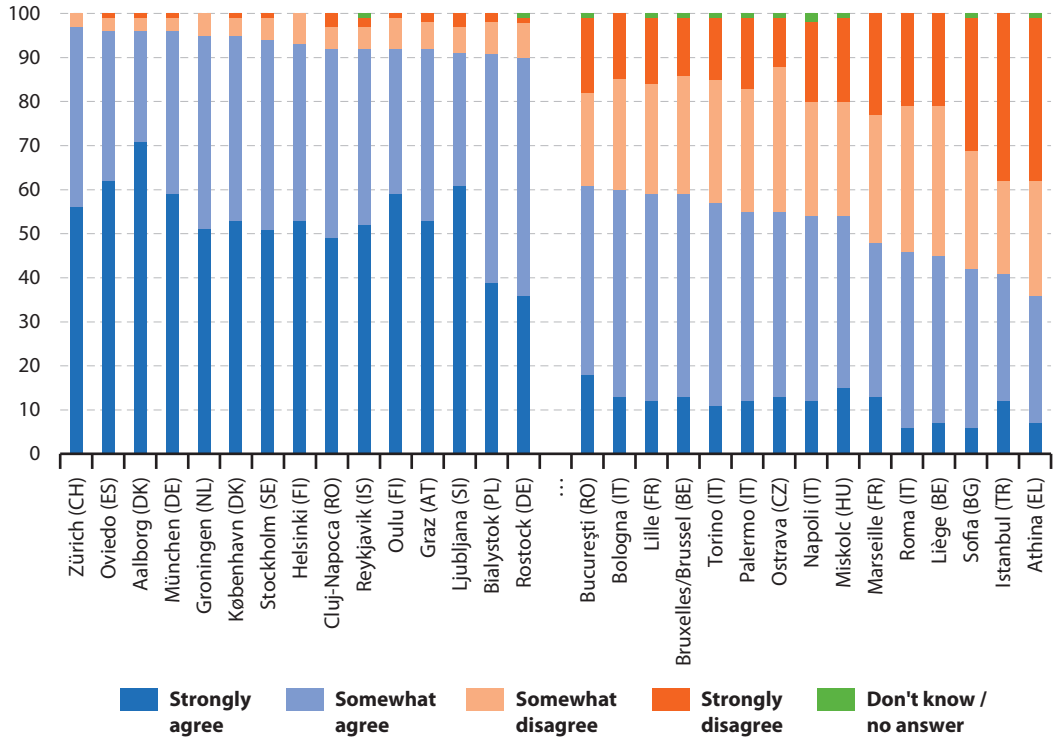
Externalities associated with living in cities

While cities are often upheld as examples of modernity and human progress, some are also characterised by a range of detrimental issues, largely concentrated on economic, social and environmental ills. As already indicated above, cities are more prone to crime, violence or vandalism than rural areas. Indeed, most city-dwellers are aware of particular areas in their city which are believed to have higher degrees of lawlessness or insecurity.

Figure 2.11 presents data from 2015 relating to the perceived safety of those living in cities, a subjective measure that has the potential to undermine an individual's quality of life. It shows that at least 19 out of every 20 respondents from Aalborg and København (Denmark), Groningen (the Netherlands), München (Germany), Oviedo (Spain) and Zürich (Switzerland) declared that they felt safe in their city. At the other end of the range, a majority of the respondents from Marseille (France), Roma (Italy), Liège (Belgium), Sofia (Bulgaria) and Athina (Greece) disagreed and said that they did not feel safe in their city; this was also the case in Istanbul (Turkey).

While cities are often cited as being environmentally efficient ways of organising resources (a low amount of space per person and high-density buildings), they are also frequently characterised by high levels of congestion and/or pollution, or a lack of green spaces. Some of the most notable urban transport problems include: traffic congestion and parking difficulties, long commuting times, the inadequacy of public transport systems, pollution and noise. On the other hand, people who live in cities are more likely to walk, cycle or take public transport to work each day.

Figure 2.11: Proportion of people replying as to whether they feel safe in their city, 2015 (1)
(%)



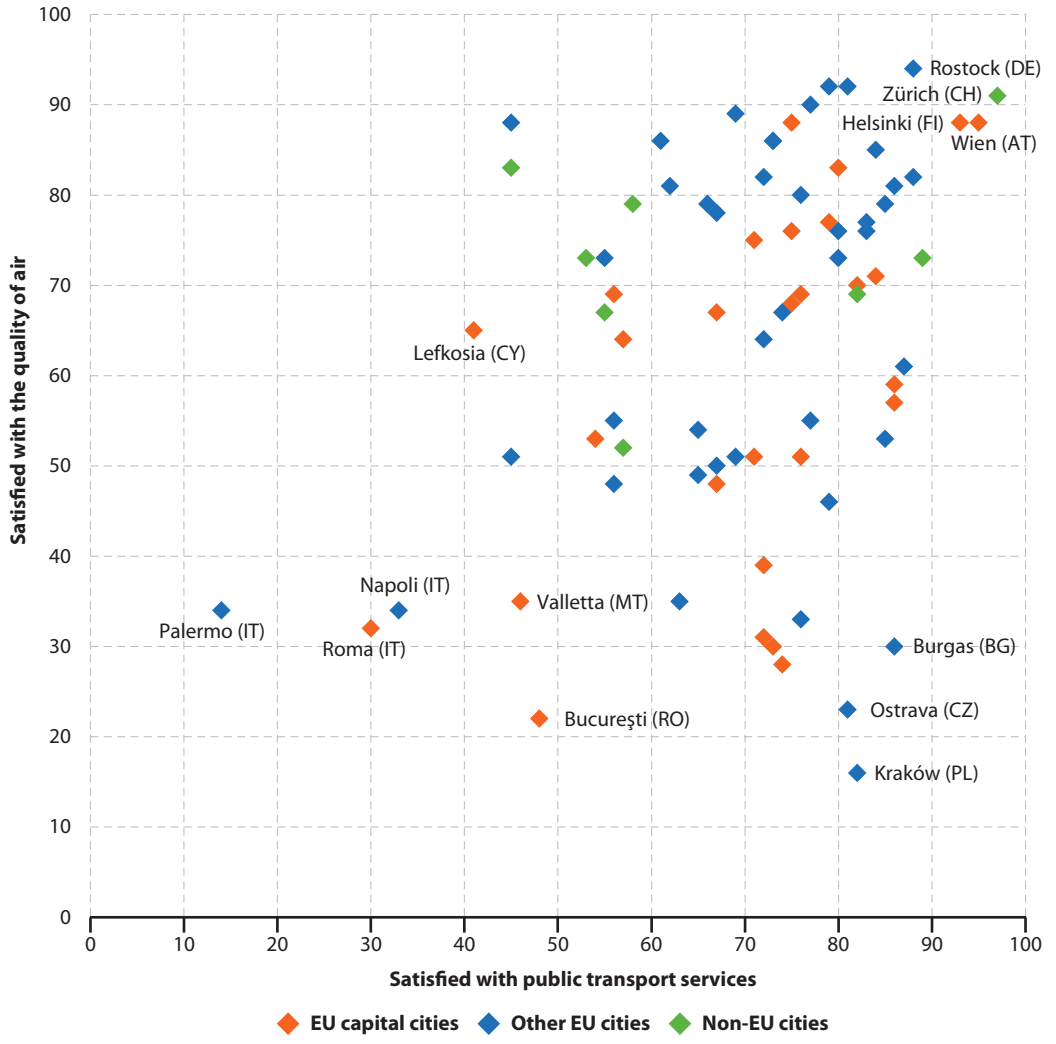
(1) The figure shows the 15 cities where the lowest/highest proportion of respondents felt safe in their city. Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. The cities are ranked on the share of respondents who agreed they felt safe.

Source: Eurostat (online data code: urb_percep)

Figure 2.12 shows levels of satisfaction in relation to public transport services and air quality. In the Italian cities of Palermo, Roma and Napoli, less than 40 % of respondents were satisfied with their public transport services and a similar share (less than 40 %) were satisfied with the quality of the air in their city. At the other end of the range, in excess of 90 % of respondents living in the Austrian and Finnish capitals of Wien and Helsinki reported that they were satisfied with public transport services, while in excess of 85 % of respondents in these two cities were satisfied with the quality of the air.

Figure 2.12: Proportion of people satisfied with public transport services and the quality of air in their city, 2015 (1)

(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city.

Source: Eurostat (online data code: urb_percep)

2.4 Paradoxes at the subcity level

All cities are characterised, to some degree, by differences between affluent and less affluent neighbourhoods. Indeed, there can be considerable disparities between different parts of the same city (intra-urban differences) and these are made all the more apparent given their close proximity. This final section looks at urban paradoxes from the perspective of the subcity; it focuses on the EU's largest city, London (the United Kingdom).

In London, a group of relatively wealthy boroughs stretch to the west of the centre, from Kensington and Chelsea, through Hammersmith and Fulham, into Richmond upon Thames, while some of the poorest areas of London are found to the east, from Tower Hamlets, through Newham and into Barking and Dagenham. That said, even at this more detailed subcity level, the gentrification (displacement of lower-income families as a result of rising property prices, with an influx of artistic types, fashionable restaurants and shopping) of boroughs such as Camden, Islington, Hackney or Southwark has led to considerable changes in their demographic and social make-up, as young, upwardly mobile professionals have moved into regenerated housing stock.

Those living in the suburbs of London were more likely to own their dwelling …

Table 2.2 presents a range of indicators for all 32 London boroughs, providing evidence of the diversity that exists in the United Kingdom's capital city. For example, male life expectancy at birth ranged from a low of 77.6 years in Barking and Dagenham to a high of 83.3 years in Kensington and Chelsea, while the corresponding extremes for female life expectancy were a low of 82.1 years (again) in Barking and Dagenham and a high of 86.7 years in Camden.

In 2014, far fewer people living in London (22.0 %) were likely to own outright their own home than the average recorded across the whole of the United Kingdom (32.3 %). There were, however, six boroughs where home ownership rates were above the national average; these were generally located in Outer London, aside from the rather distinctive case of the City of London (where very few people actually live). As can be seen in the first example presented as part of **Map 2.1**, people who had purchased their own home outright (rather than renting or having a mortgage) tended to live in the suburbs. On the other hand, less than 1 in 10 households owned outright the dwelling in which they lived in eastern boroughs of Tower Hamlets or Newham, both of which have high shares of foreign-born residents.

… while people living in Inner London were more likely to remain in full-time education after reaching the age of 20

In 2014, the share of the London population aged 16–69 that had completed their continuous full-time education before the age of 20 was considerably lower, at 47.0 %, than the national average for the United Kingdom as a whole (66.2 %). Among other factors, these figures could reflect a relatively high number of opportunities in the capital city for tertiary education, as well as the wide range of graduate job opportunities (some of which are highly concentrated in the capital, for example, jobs in some parts of the financial services sector).

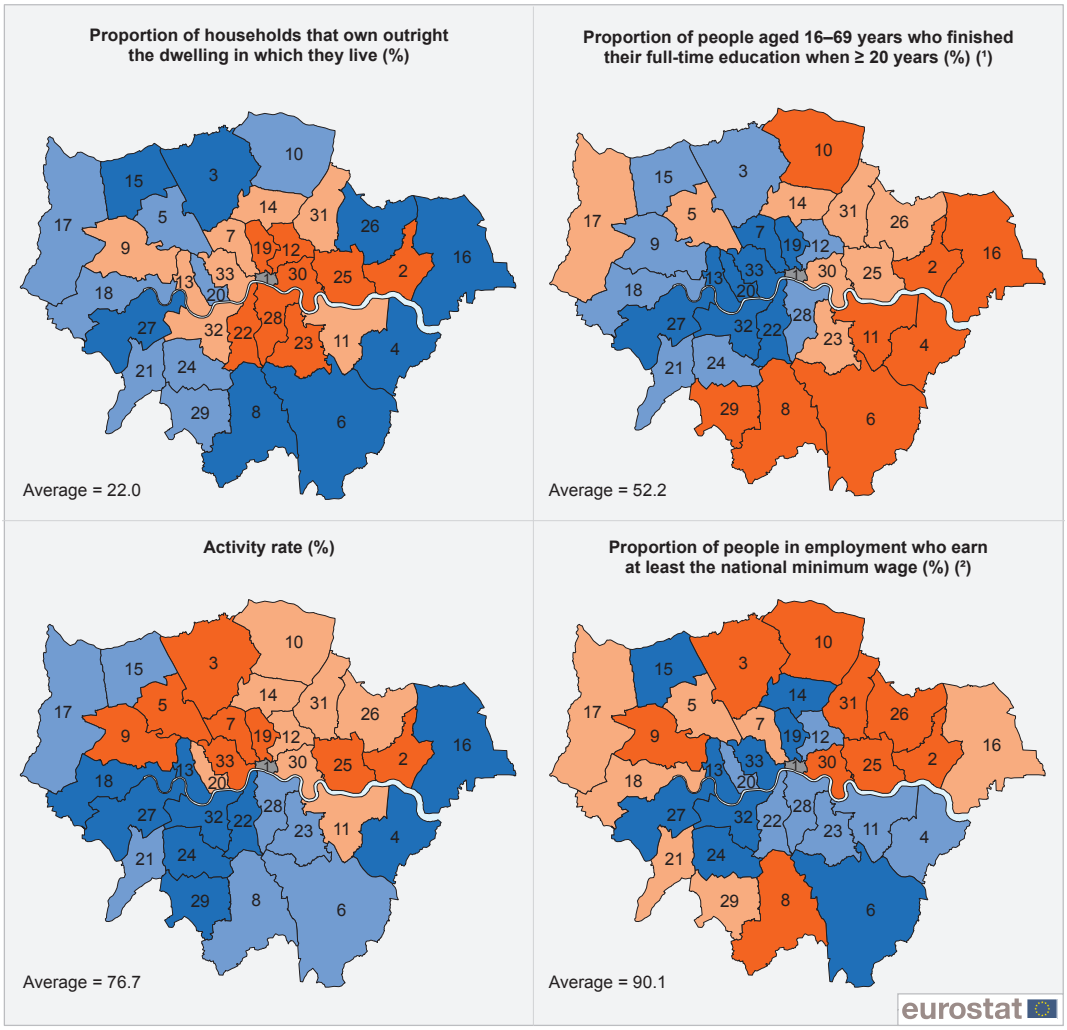
Table 2.2: The urban paradox, selected examples for London boroughs, 2014

	Overall life satisfaction (scale 1–10)	Male life expectancy at birth (years) (1)	Female life expectancy at birth (years) (1)	Proportion of people who have never used the internet (%)
United Kingdom	7.6	79.4	83.1	12.6
London	7.5	80.3	84.2	9.7
City of London	:	:	:	:
Barking and Dagenham	7.3	77.6	82.1	8.5
Barnet	7.6	82.1	85.1	15.3
Bexley	7.6	80.4	84.4	11.3
Brent	7.3	80.1	85.1	14.5
Bromley	7.7	81.4	84.9	7.7
Camden	7.3	81.8	86.7	9.2
Croydon	7.4	80.3	83.6	8.2
Ealing	7.6	80.6	84.2	8.1
Enfield	7.5	80.7	84.1	17.7
Greenwich	7.3	79.0	82.5	13.8
Hackney	7.4	78.5	83.3	9.3
Hammersmith and Fulham	7.6	79.7	84.1	5.6
Haringey	7.4	80.1	84.9	6.0
Harrow	7.5	82.7	86.1	11.0
Havering	7.6	80.2	83.9	11.4
Hillingdon	7.6	80.4	83.9	7.0
Hounslow	7.6	80.0	83.9	12.1
Islington	7.4	79.0	83.5	7.3
Kensington and Chelsea	7.7	83.3	86.4	10.2
Kingston upon Thames	7.5	82.0	84.6	7.0
Lambeth	7.4	78.9	83.3	8.1
Lewisham	7.4	79.0	83.4	8.0
Merton	7.6	80.4	84.2	9.4
Newham	7.6	78.5	83.0	11.9
Redbridge	7.6	80.9	84.6	16.1
Richmond upon Thames	7.5	82.4	86.0	4.6
Southwark	7.4	78.9	83.9	5.7
Sutton	7.6	80.9	83.4	7.2
Tower Hamlets	7.5	78.1	82.5	9.4
Waltham Forest	7.7	79.4	83.8	11.3
Wandsworth	7.5	79.5	83.7	1.7
Westminster	7.5	82.3	86.3	10.7

(1) Average for the period 2012–14. Data for the United Kingdom refer to England and Wales only.

Source: Office for National Statistics (London Datastore, available at: http://data.london.gov.uk/publisher/ons)

Map 2.1: The urban paradox, selected examples for London boroughs, 2014



(1) Includes those who are aged 20 and more who are still in education; City of London, included within the data for Westminster.
(2) The national minimum wage was £6.50 per hour in 2014.

Source: Office for National Statistics (London Datastore, available at: http://data.london.gov.uk/publisher/ons)

The share of people aged 16–69 who finished their full-time education after reaching the age of 20 was at least two thirds in the boroughs of Wandsworth, Hammersmith and Fulham, Camden, Kensington and Chelsea, and Westminster, where it peaked at 71.7 %. By contrast, the share was below the national average for the United Kingdom in the boroughs of Bexley and Havering. The second example presented as part of **Map 2.1** shows a clear division between Inner and Outer London, with higher levels of educational attainment for the former; this was also the case among those living in the western boroughs of London.

Although London may act as a magnet for young graduates keen to get a first step on the career ladder, the overall activity rate for those working in London (76.7 %) was slightly less than the national average for the United Kingdom (77.2 %). In 2014, some of the highest activity rates in London were located to the south of the river Thames, peaking at 85.4 % in Lambeth, while most of the boroughs to the north of the river tended to report lower activity rates; see the third example presented as part of **Map 2.1**.

One measure that may be used to analyse the precarious nature of employment is the proportion of people who receive at least the national minimum wage (GBP 6.50 per hour in 2014). Across the whole of the United Kingdom this share stood at 85.4 %, while it was higher in London, at 90.1 %, indicating that just less than one tenth of people in London who were in work received less than the minimum wage; note that it is legally possible to receive less than the minimum wage, for example, the following list of people may be excluded — apprentices, the self-employed, volunteers and voluntary workers, those on government employment schemes, people under the age of 16). The relatively low share of people in work and receiving less than the minimum wage in London reflects, at least to some extent, that the cost of living in London was considerably higher than in many other parts of the United Kingdom, pushing up wages. Here again there were wide ranging differences between London boroughs, as more than 19 out of 20 of people in Wandsworth, Richmond upon Thames and Islington who were employed earned at least the minimum wage, while considerably lower shares were recorded in Enfield, Redbridge and Barnet, falling to as low as 78.9 % in Newham. The proportion of people who earned at least the national minimum wage was generally higher among those living south of the river Thames; see the final example presented as part of **Map 2.1**.

3 Patterns of urban and city developments

Early man was a hunter-gatherer living off the land in small tribal societies, interacting closely with nature to ensure survival; as such, the development of towns and cities was a movement away from this earlier behaviour. However, it was only with the onset of the industrial revolution that the pace of population growth accelerated considerably and a pattern of increasing urbanisation was established. In much of Europe this principally took place during the 19th and the first half of the 20th centuries, by which time many European cities had reached close to their current size.

In 2008, a historic landmark was reached, as the United Nations declared that more than 50 % of the world's population was living in urban areas. Much of the growth in urban populations since the middle of the last century may be attributed to the emergence of newly industrialised economies and associated megacities in China, India and other parts of Asia, as well as Latin America and sub-Saharan Africa.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

The share of the urban population in the EU continues to rise

Although almost three quarters (72.5 %) of EU-28 inhabitants lived in cities, towns and suburbs in 2014, there are considerable differences in the size and spatial distribution of urban developments between European Union (EU) Member States. For example, the Netherlands is characterised by a high level of population density and a high share of urban land use, whereas in most of the Nordic Member States and the interior of the Iberian Peninsula much lower levels of urban land use are commonplace.

Each of the EU Member States has a distinctive history of territorial developments: for example, centrally-planned economies and the lack of a market for land/property resulted in compact urban developments across most eastern and Baltic Member States. Otherwise, in some other Member States, the post-war period was characterised by extensive (re-)building, with cities being planned as more dispersed, spatial units, sometimes resulting in urban sprawl or urban creep.

Overall, the increase in populations and the limited space available for urban developments has resulted in the divide between urban and rural areas becoming increasingly blurred. In many cities, people have tended to move out of inner cities to suburban and peri-urban areas (hybrid areas of fragmented urban and rural characteristics) on the outskirts of existing metropolitan regions. This shift has been encouraged, among others, by: increased motorisation rates; improvements to road networks and public transport links; aspirations for a better quality of life; and a desire to escape poverty and urban decay apparent in some inner city areas.

This chapter provides information on:

- the spatial distribution of densely populated regions across the EU Member States and patterns of urban development;
- the growth/decline of population and economic activity in the EU's urban areas;
- population projections, which highlight that an increasing share of the EU-28 population is expected to inhabit predominantly urban regions by 2050.

3.1 Spatial distribution of urban developments

The spatial distribution of cities across the EU is linked to its geography and history. Most European cities are built on the sites of old settlements that were situated on the banks of rivers or coastlines. However, while some cities thrive, others decline: this may be explained, at least in part, by the attractiveness of cities as places to live, work or study. National policies and the actions of governments can also play a role in determining the fortunes of a city through key investment decisions which have the potential to increase a city's attractiveness, or decisions to plan the creation of new towns, satellite towns or towns on reclaimed land.

The majority of EU-28 population lives in a relatively small area …

The GEOSTAT population grid provides statistical and geospatial information for each of the close to 4.5 million km^2 of area covered by the EU-28. The average population density for the whole of the EU-28 was 116.4 inhabitants per km^2; however, less than half of the EU's total area (44 % or 1.95 million km^2) was actually inhabited.

Just 10 % of those grid cells that were inhabited were home to more than three quarters (77.2 %) of the EU-28 population; their average population density was almost 2 400 inhabitants per km^2, or 17.5 times higher than the EU-28 average. By contrast, some 11.9 % of the EU-28 population populated 80.9 % of the inhabited area; their population density was almost one fifth of the EU-28 average.

Table 3.1: Distribution of grid cells and population based on the GEOSTAT population grid, 2011

Size class (number of inhabitants)	Grid cells		Population		Population density
	(number)	(% of total)	(number)	(% of total)	(inhabitants/km^2)
Total	4 424 302	100.0	514 988 832	100.0	116.4
0	2 471 016	55.9	0	0.0	0.0
Inhabited	1 953 286	44.1	514 988 832	100.0	263.7
1	56 208	2.9	56 208	0.0	1.0
2 – 19	725 239	37.1	6 115 110	1.2	8.4
20 – 49	375 454	19.2	11 998 224	2.3	32.0
50 – 99	236 226	12.1	16 720 967	3.2	70.8
100 – 149	115 836	5.9	14 157 916	2.7	122.2
150 – 199	72 144	3.7	12 471 059	2.4	172.9
200 – 499	177 299	9.1	56 029 152	10.9	316.0
500 – 999	84 112	4.3	59 069 521	11.5	702.3
1 000 – 2 499	66 265	3.4	103 872 123	20.2	1 567.5
2 500 – 4 999	29 188	1.5	101 943 227	19.8	3 492.6
≥ 5 000	15 315	0.8	132 555 325	25.7	8 655.3

Source: Eurostat, GEOSTAT Population Grid 2011
(http://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/population-distribution-demography)

… as thinly populated regions accounted for the majority of its territory

Map 3.1 provides an overview of population density in the EU-28 and shows that the most densely concentrated areas of urban development run from south-east England, through the Flanders region of Belgium, into the Netherlands and the German region of Nordrhein-Westfalen. This area is characterised not only by high levels of population density, but also by its transport infrastructure and location close to many of Europe's largest markets, attracting many enterprises to locate in cities such as Antwerp, Köln, London or Rotterdam.

An intermediate level of population density exists across much of France, northern Italy, Germany, Denmark, Poland and the Czech Republic, with urban developments regularly spread across much of their territory. A somewhat different pattern was observed in the Iberian Peninsula, southern Italy, Greece, as well as many of the eastern and northern EU Member States as these areas were characterised by relatively few, sporadic urban developments. This was particularly true in Spain, where — other than the capital of Madrid — relatively large urban areas are predominantly located around the coastline, while interior regions are very sparsely populated.

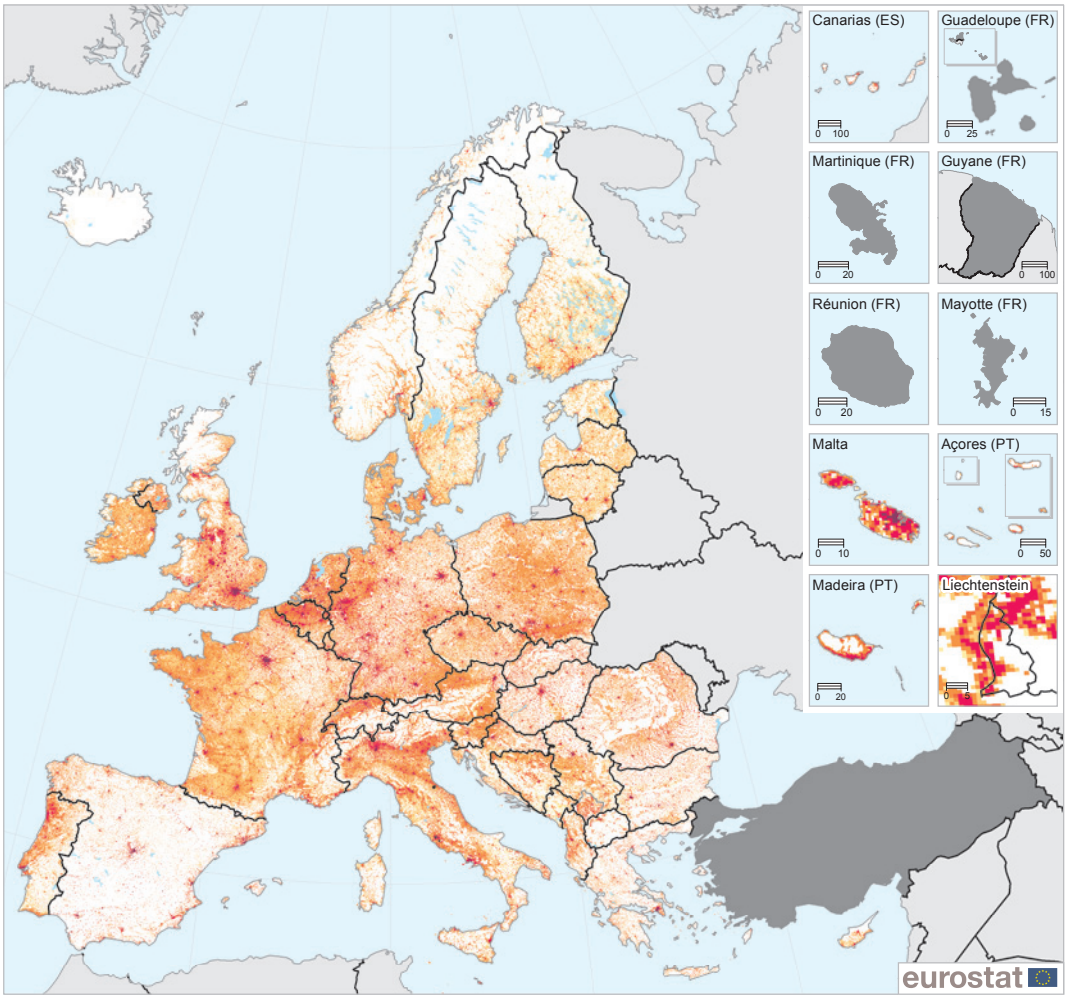
URBAN MORPHOLOGY IN THE EU

There are a range of different patterns of urban morphology evident across the EU Member States, with variations in the number, hierarchy and distribution of cities for any given territory; these differences reflect, at least to some degree, political and administrative structures. For example, Germany generally displays a polycentric pattern of urban development, with a relatively high number of medium-sized cities spread across its territory, perhaps reflecting the importance of its federal states; a similar pattern is evident in Italy and Poland. On the other hand, Paris and London are examples of monocentric urban developments, as each of these capitals accounts for a considerably higher share of national economic activity; further information on the dominance of capital cities is provided in Chapter 4.

The urban atlas is a joint initiative of the European Commission's Directorate-General for Regional and Urban Policy and the Directorate-General for the Internal Market, Industry, Entrepreneurship and SMEs, with the support of the European Space Agency (ESA) and the European Environment Agency (EEA); it has been used as the source for **Map 3.2** (and is also used for **Map 6.2**).

There are differences in patterns of urban development that arise from the sphere of influence that a city may/may not exert on its surrounding areas and other cities. For example, Berlin (Germany) displays a monocentric sphere of considerable influence over its surrounding region of Brandenburg, with considerably more people living in the city than its surrounding region. In contrast to Berlin, in the German region of Nordrhein-Westfalen there are several medium-sized and large cities such as Bonn, Dortmund, Duisburg, Düsseldorf, Essen and Köln, whose spheres of influence intersect and where the boundaries between one city and another become blurred.

Map 3.1: Population density based on the GEOSTAT population grid, 2011
(number of inhabitants/km²)



number of inhabitants/km²

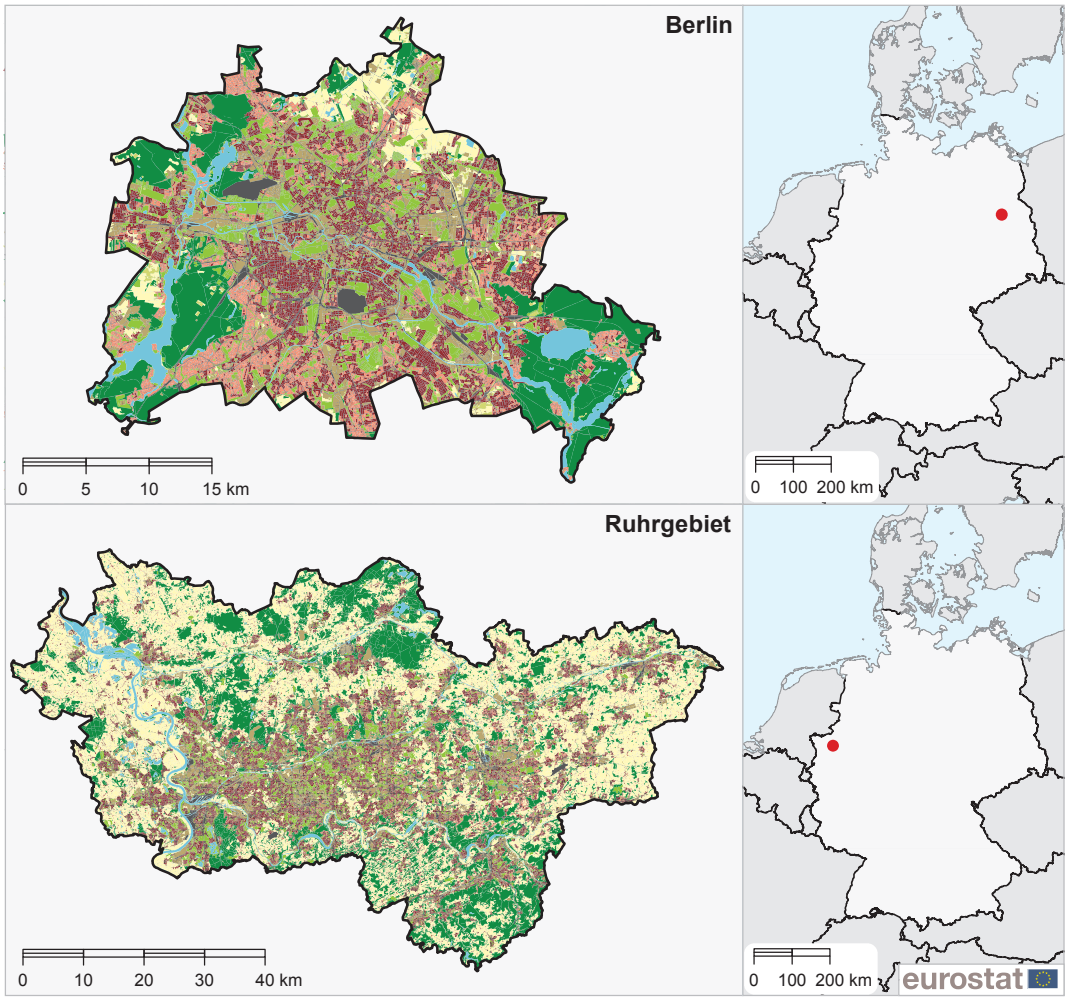
- 0
- 1 – 4
- 5 – 19
- 20 – 199
- 200 – 499
- 500 – 5 000
- > 5 000
- Data not available

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 03/2016

0 200 400 600 800 km

Source: JRC, Eurostat, GEOSTAT Population Grid 2011

Map 3.2: Urban land use in Berlin and the Ruhrgebiet, Germany, 2012



Cartography: Eurostat — GISCO, 05/2016

Administrative boundaries: © EuroGeographics © UN-FAO

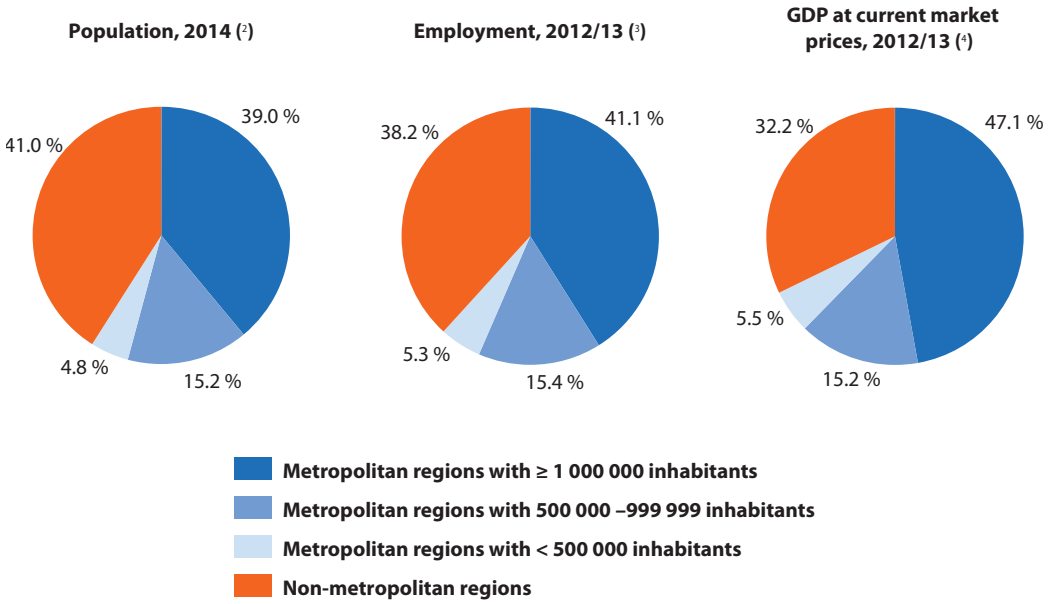
- Dense urban fabric > 50 %
- Low density urban fabric < 50 %
- Transport
- Industry, construction and commercial
- Green urban areas and leisure
- Agriculture
- Forest
- Herbaceous vegetation and open spaces
- Wetlands and water bodies

Source: Copernicus Urban Atlas (http://land.copernicus.eu/local/urban-atlas/urban-atlas-2012/view/)

3.2 The growth/decline of urban populations and their economic activity

Metropolitan regions are approximations of functional urban areas composed of a city and its commuting zones, with at least 250 thousand inhabitants, as covered by one or more NUTS level 3 regions. An analysis by size reveals that the largest metropolitan regions — those with at least one million inhabitants — provided a home to 39.0 % of the EU-28 population in 2014 (see **Figure 3.1**); they also provided employment to 41.1 % of the EU's workforce and generated 47.1 % of its gross domestic product (GDP).

Figure 3.1: Distribution of population, employment and GDP by size of metropolitan regions, EU-28 (1)



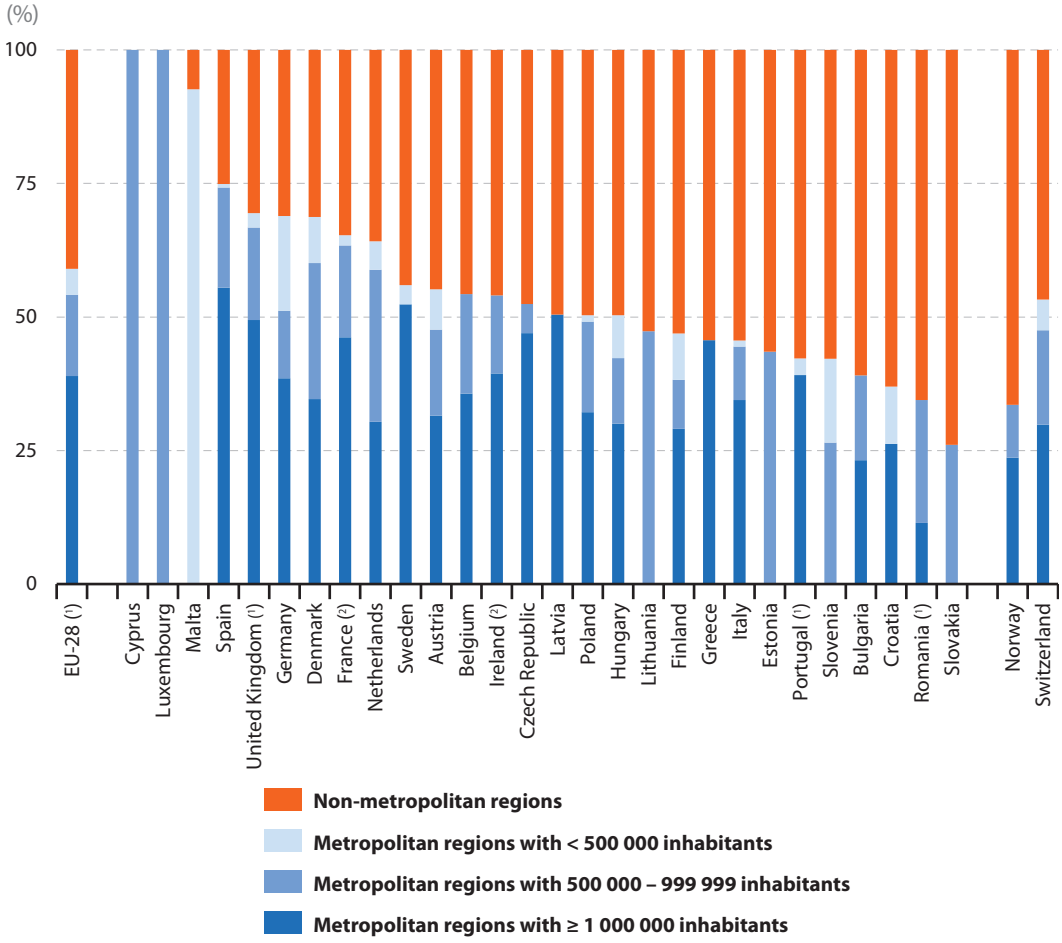
(1) Estimates.
(2) France: provisional. Portugal, Romania and the United Kingdom: estimates.
(3) Excluding Cyprus and Luxembourg. Belgium, Denmark, Malta, Slovenia and the United Kingdom: 2013. Portugal: 2011. All remaining Member States: 2012. Portugal and the United Kingdom: employees instead of persons employed.
(4) Belgium, Denmark, Cyprus, Luxembourg, Malta, Portugal, Slovenia, Slovakia and the United Kingdom: 2013. All remaining Member States: 2012.

Source: Eurostat (online data codes: met_pjanaggr3, met_10r_3emp, met_10r_3gdp, demo_pjan, nama_10_pe and nama_10_gdp)

Figure 3.2 shows a similar analysis for population across the individual EU Member States: metropolitan regions with at least one million inhabitants provided a home to around half of the total number of inhabitants in Spain (55.5 %), Sweden (52.4 %), Latvia (50.5 %) and the United Kingdom (49.4 %).

In **Figure 3.3** the focus of the analysis is on economic activity, as measured by GDP. The economic contribution of metropolitan regions with at least one million inhabitants was greater than their share of the population in all 21 of the EU Member States which had at least one metropolitan region of this size. The economic importance of these large metropolitan regions was particularly high in Romania, Latvia, Hungary and Bulgaria. For example, metropolitan regions with at least one million inhabitants accounted for 42.8 % of Bulgarian GDP, while they provided a home to 23.2 % of the Bulgarian population.

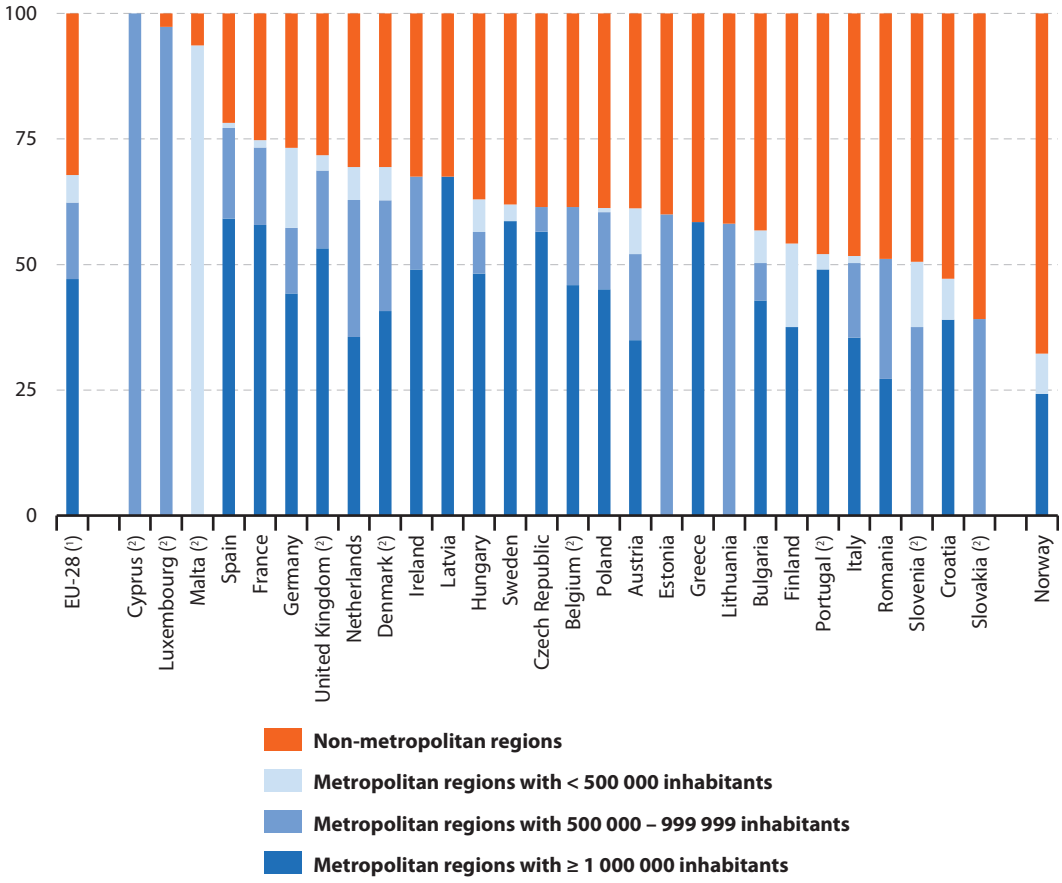
Figure 3.2: Distribution of population by size of metropolitan regions, 2014



(1) Estimates.
(2) Provisional.

Source: Eurostat (online data codes: met_pjanaggr3 and demo_pjan)

Figure 3.3: Distribution of GDP at current market prices, by size of metropolitan regions, 2012
(%)



(1) Sum of latest available data for each of the EU Member States.
(2) 2013.

Source: Eurostat (online data codes: met_pjanaggr3, met_10r_3gdp, and nama_10_gdp)

London and Paris are the only truly megacities in the EU

Table 3.2 presents summary information on the populations of the EU-28's largest cities/urban areas as of 1 January 2014, with the ranking based on data for functional urban areas (cities and their commuting zones). Using this typology, there were only two megacities (with more than 10 million inhabitants) in the EU: London was the biggest with 12.5 million inhabitants, closely followed by Paris (11.8 million). In order to give some idea of the size of these cities, they both had more inhabitants than the total populations of Belgium, the Czech Republic or Portugal.

Based on this definition, Madrid (Spain) was the third largest functional urban area in the EU-28 with 6.5 million inhabitants, while the Ruhrgebiet and Berlin (both Germany) were the only other urban areas with more than 5.0 million inhabitants. As such, approximately 8 % of the EU-28 population was living in an urban area with more than 5.0 million inhabitants, which was considerably less than the corresponding share — approximately one quarter — in the United States. The fragmented distribution of cities in the EU may be largely explained by the relatively small population size of most EU Member States.

A comparison between the size of the functional urban area and that of the city provides one means of analysing patterns of urban development. In Katowice (Poland), Lisboa (Portugal), Manchester (the United Kingdom) and Paris, the functional urban area had at least five times as many inhabitants as the city centre, as defined by administrative boundaries.

Many predominantly urban regions in the EU are growing at a relatively fast pace

Although the overall rate of population growth in the EU-28 has been modest in recent years, there are cities and urban regions which continue to grow at a much faster pace. An analysis based on the urban–rural typology indicates that most predominantly urban regions exhibited population growth rates that were above their national averages, suggesting that the process of urbanisation was ongoing. Furthermore, population projections for the period through to 2050 indicate that this pattern is expected to continue during the next 35 years — see the end of this chapter for more details.

Between 1 January 2004 and 1 January 2014 the population living in predominantly urban regions of the EU-28 rose from 203.6 million to 215.7 million inhabitants, an overall increase of 6.0 %. The most rapid expansion in population numbers was recorded for those living in predominantly urban regions with at least one million inhabitants, where there was a 12.3 % increase in the number of inhabitants.

Table 3.2: Summary table for 20 largest cities/urban areas in the EU, 2014 (1)
(inhabitants)

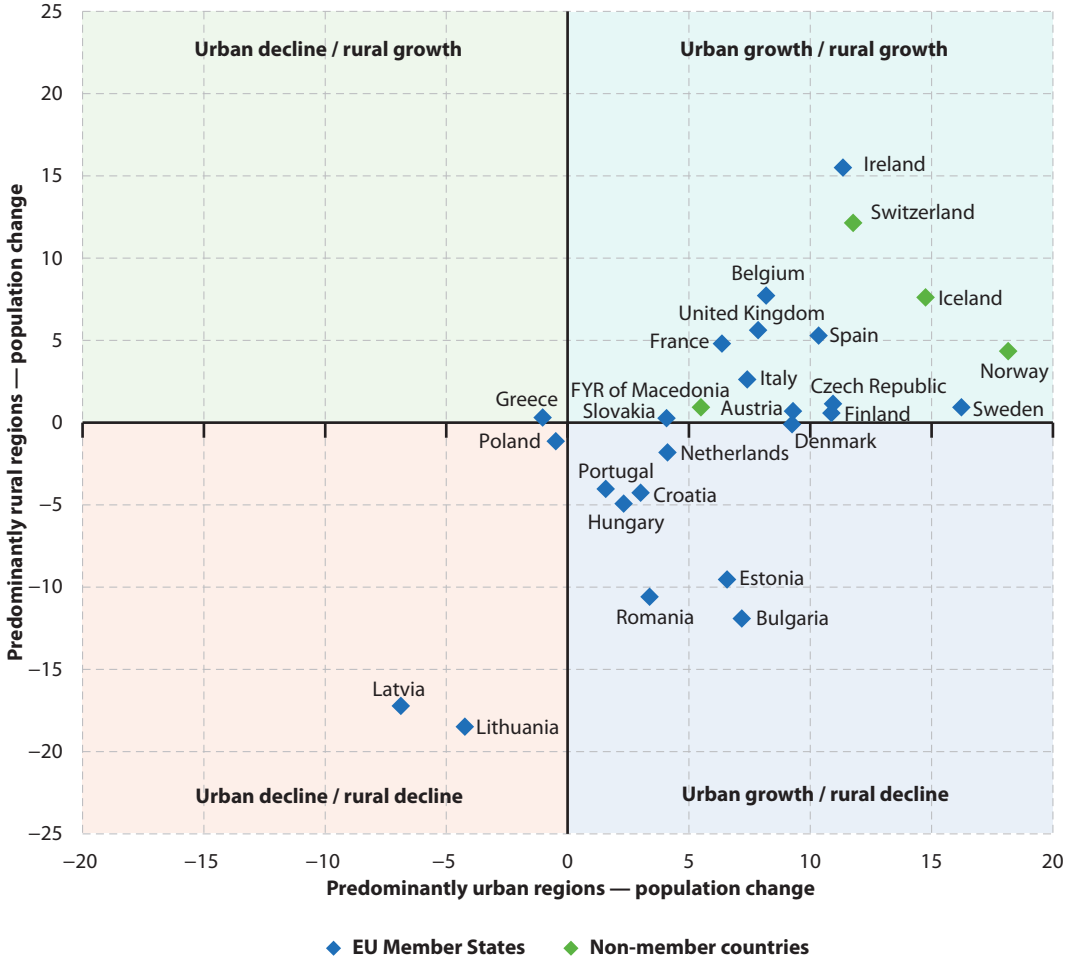
	Functional urban area	Metropolitan region	Greater city	City
London (UK)	*12 496 800*	*14 031 830*	*8 477 600*	–
Paris (FR) (2)	*11 800 687*	*11 898 502*	*6 707 750*	*2 240 681*
Madrid (ES)	6 529 700	6 378 297	:	3 165 235
Ruhrgebiet (DE)	5 045 784	5 045 784	:	–
Berlin (DE)	5 005 216	5 005 216	:	3 421 829
Barcelona (ES)	4 891 249	5 445 616	3 176 357	1 602 386
Roma (IT)	4 370 538	4 321 244	:	2 863 322
Milano (IT)	4 252 246	4 267 946	3 207 006	1 324 169
Napoli (IT)	3 627 021	3 127 390	3 176 107	989 111
Hamburg (DE)	3 173 871	3 173 871	:	1 746 342
Warszawa (PL) (3)	*3 078 489*	3 281 740	:	*1 724 404*
Budapest (HU) (3)	2 915 426	2 953 883	:	1 735 711
West Midlands (UK)	*2 909 300*	*2 460 617*	*2 462 300*	–
Manchester (UK)	*2 815 100*	*2 723 479*	*2 723 900*	*517 300*
Lisboa (PT) (4)	*2 810 668*	*2 807 525*	*1 835 785*	*509 312*
München (DE)	2 768 488	2 768 488	:	1 407 836
Stuttgart (DE)	2 668 439	2 668 439	:	604 297
Bruxelles/Brussel (BE)	2 607 961	2 967 513	:	1 183 841
Frankfurt am Main (DE)	2 573 745	2 573 745	:	701 350
Górnoslaski Zwiazek Metropolitalny/Katowice (PL) (3)	*2 573 159*	2 758 225	*1 904 611*	*304 362*

(1) Ranked on the number of inhabitants living in functional urban areas. Excluding Greece, Cyprus, Luxembourg and Malta. Data for the greater city has been created to ensure better comparability: the statistically comparable level is the greater city (when available) and cities (when no data are available for the greater city). Note that there is a discrepancy between the United Nations data used in the executive summary (based on national definitions) and the harmonised Eurostat data used here.
(2) 2012.
(3) 2013.
(4) 2015 except for metropolitan region (2014).

Source: Eurostat (online data codes: urb_lpop1, met_pjanaggr3 and urb_cpop1)

Figure 3.4 shows that there were only four EU Member States — Latvia, Lithuania, Greece and Poland —where the size of the population living in predominantly urban regions declined during the period 1 January 2004 to 1 January 2014; this may be explained, at least in part, by migratory patterns. In Latvia and Lithuania (and Poland to a lesser degree), the reduction in the number of inhabitants in predominantly urban regions was reproduced in rural regions too. On the other hand, there was a rapid rate of population growth in the predominantly urban regions of Sweden, Ireland, the Czech Republic, Finland and Spain; while high growth rates were also recorded in Norway, Iceland and Switzerland. The largest disparities between population growth rates for predominantly urban regions and predominantly rural regions and therefore the fastest transformations towards a more urbanised society were recorded in Bulgaria, Romania, the three Baltic Member States, Finland and Sweden.

Figure 3.4: Urban and rural population change, 2004–14 (1)
(%)



(1) Cyprus, Luxembourg, Malta and Slovenia: one or more of the regions covered by the urban–rural typology is not applicable. Germany: incomplete time series. Denmark: 2007–14. Norway: 2005–14. Ireland and France: provisional. Portugal and Romania: estimates.

Source: Eurostat (online data code: urt_pjanaggr3)

A majority of the population growth in predominantly urban regions of Ireland, France, the Netherlands and the United Kingdom was attributed to natural population change

Looking at the two charts that are part of **Figure 3.5**, it is striking that the majority of the population change that took place in the EU Member States in 2013 could be attributed to predominantly urban regions, be this as a result of net migration or natural population change (the difference between births and deaths).

Ireland, France, the Netherlands and the United Kingdom each reported that their predominantly urban populations were expanding at a faster rate as a result of natural population change rather than net migration. However, it was more common to find higher crude rates of net migration in predominantly urban regions. This was particularly true in Italy, Hungary and Austria, where a relatively rapid inflow of migrants (people changing their residence from one country to another for a period of one year or more — including on a permanent basis) could be contrasted with a rate of natural population change that was close to zero. A different pattern was evident in Greece, Spain and Portugal — three economies that were particularly affected by the financial and economic crisis — where crude rates of net migration were negative, as the flow of emigrants leaving predominantly urban regions considerably outweighed the flow of immigrants.

The metropolitan region of London saw its population grow, on average, by 17 inhabitants an hour during the period 2004–14

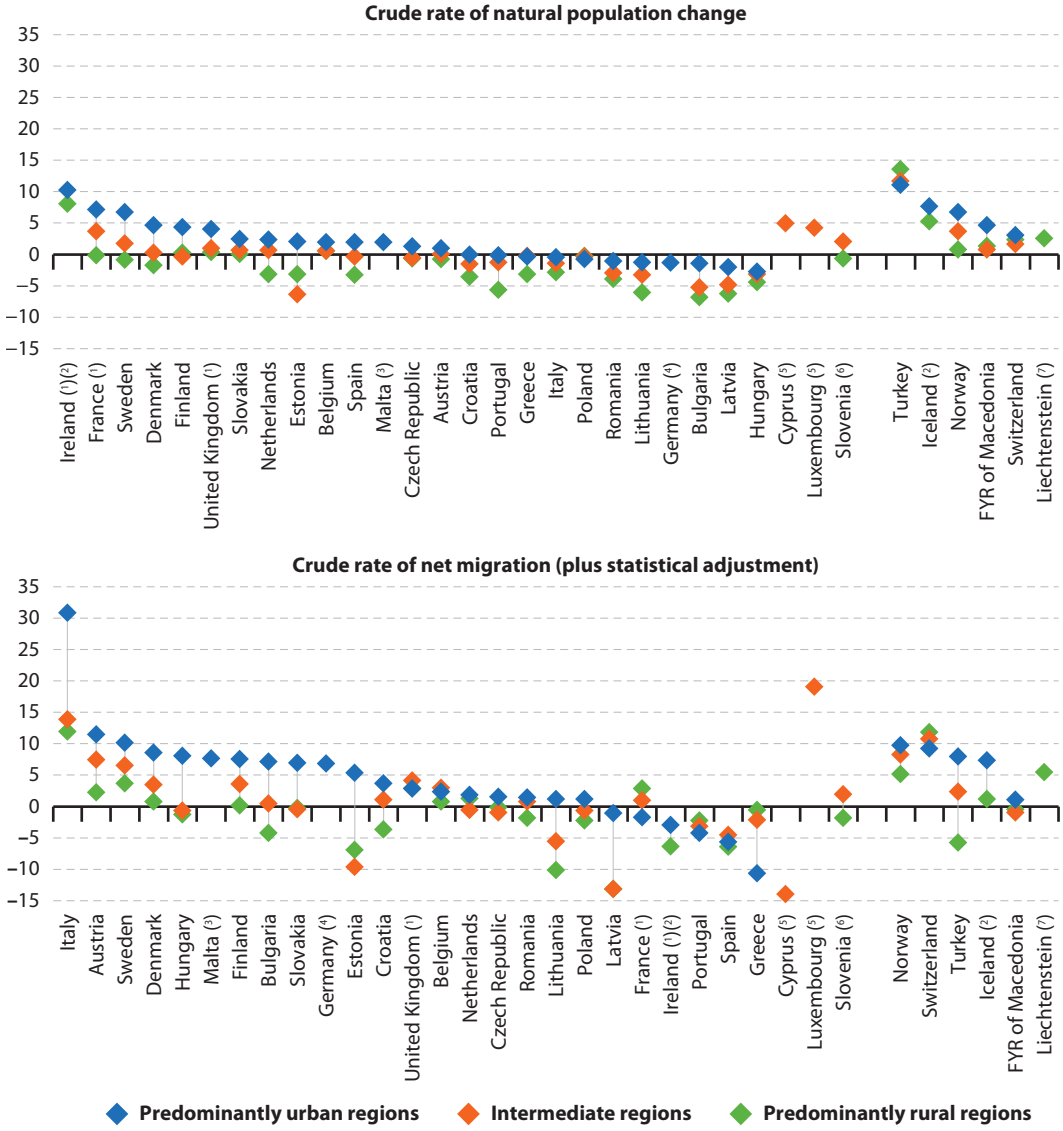
Having established that predominantly urban regions have a considerable influence on overall patterns of population change, **Figure 3.6** provides a similar analysis for metropolitan regions. It shows, unsurprisingly, that the largest absolute changes in population numbers during the period from 1 January 2004 to 1 January 2014 were recorded for some of the EU's biggest metropolitan regions, principally the capitals of London (which gained an additional 1.5 million inhabitants), Paris (655 thousand), Madrid (612 thousand) and Roma (581 thousand). It is interesting to note that the population of London has recently returned to levels above those witnessed at the onset of the World War II. Indeed, the dynamic rates of population growth in the metropolitan regions of London and Paris during the most recent decade mark a considerable change and are in contrast to slow or negative rates of change that continue to be witnessed many parts of Europe and North America.

The fastest expansion in population among the metropolitan regions of the EU-28 was recorded in Luxembourg, where the number of inhabitants rose by 20.8 % between 1 January 2004 and 1 January 2014. High growth rates were also registered in four Spanish metropolitan regions, all of which were popular holiday/retirement destinations, namely, Santa Cruz de Tenerife, Palma de Mallorca, Alicante - Elche, and Málaga - Marbella, as well as in the metropolitan regions of four more capitals, namely, Lefkosia (Cyprus), Stockholm (Sweden), Roma (Italy) and Dublin (Ireland).

Those metropolitan regions where population numbers declined were often characterised by a relatively narrow industrial base

There were a number of metropolitan regions that saw their populations decline during the period 1 January 2004 to 1 January 2014. In absolute terms, the biggest reductions were recorded in the coal and steel centres of the Ruhrgebiet in Germany (–271 thousand inhabitants) and Katowice in Poland (–143 thousand), while there were also relatively large declines in the industrial centres of Kaunas (Lithuania's second city), Galați and Craiova (both

Figure 3.5: Crude rates of natural population change and net migration, by urban-rural typology, 2013
(per 1 000 inhabitants)

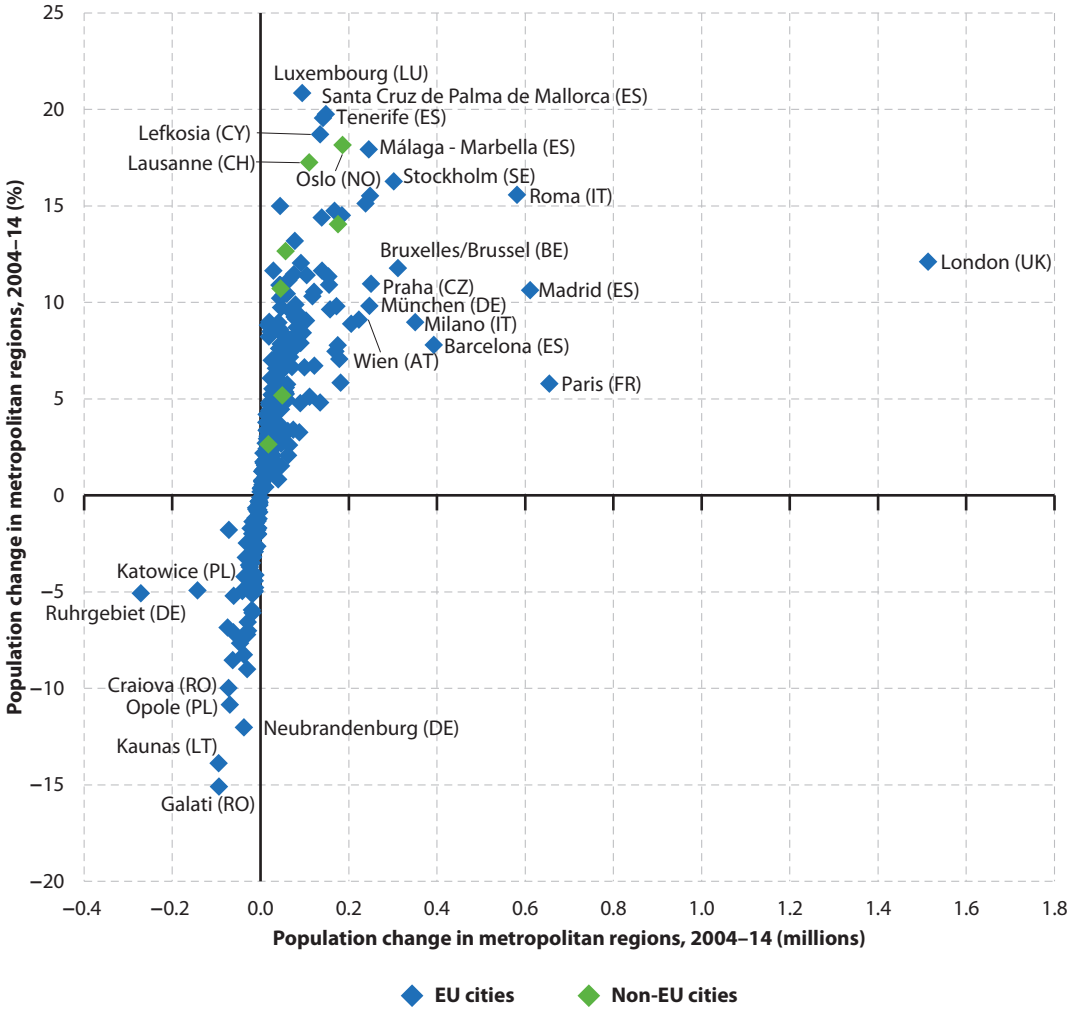


(1) Provisional.
(2) Intermediate regions: not applicable.
(3) Intermediate regions and predominantly rural regions: not applicable.
(4) 2012. Intermediate regions and predominantly rural regions: not available.
(5) Predominantly urban regions and predominantly rural regions: not applicable.
(6) Predominantly urban regions: not applicable.
(7) Predominantly urban regions and intermediate regions: not applicable.

Source: Eurostat (online data code: urt_gind3)

Romania). Indeed, many of the metropolitan regions in the EU-28 which have seen their numbers of inhabitants reduced are characterised by a relatively narrow industrial base. Aside from those regions already mentioned, population numbers also fell, for example, in the former mining regions of Ostrava (the Czech Republic), Saarbrücken (Germany), Pécs (Hungary) and Heerlen (the Netherlands), the shipbuilding regions of Bremerhaven (Germany) and Sunderland (the United Kingdom), or the metalworking regions of Siegen (Germany), Miskolc (Hungary) and Opole (Poland).

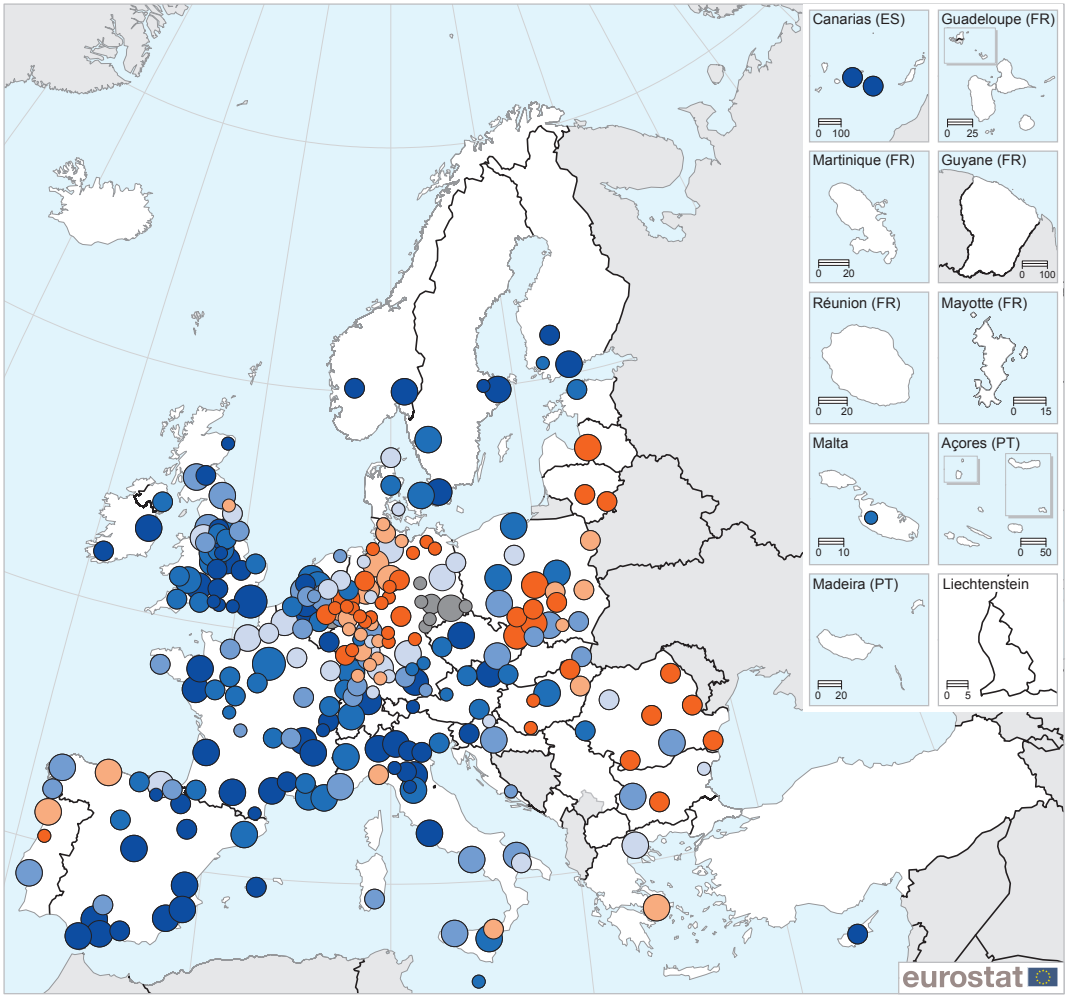
Figure 3.6: Population change, by metropolitan region, 2004–14 ([1])



([1]) Metropolitan regions in Belgium, Germany, Luxembourg, Hungary, Poland, Romania, Slovenia and Switzerland: breaks in series. Metropolitan regions in Ireland and France: provisional. Metropolitan regions in Portugal, Romania and the United Kingdom: estimates. København, Århus, Odense and Aalborg (all Denmark): 2007–14. Oslo and Bergen (Norway): 2005–14. Leipzig, Dresden, Halle an der Saale, Magdeburg, Plauen, Görlitz, Aachen and Zwickau (all Germany): not available due to incomplete time-series.

Source: Eurostat (online data code: met_pjanaggr3)

Map 3.3: Population change, by metropolitan region, 2004–14 ([1])
(%)



Population change (%)
EU-28 = 2.9

- < -2.0
- -2.0 – < 0.0
- 0.0 – < 2.0
- 2.0 – < 4.0
- 4.0 – < 8.0
- ≥ 8.0
- Data not available

Population, 2014 (persons)

- < 500 000
- 500 000 – < 1 000 000
- 1 000 000 – < 10 000 000
- ≥ 10 000 000

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 03/2016

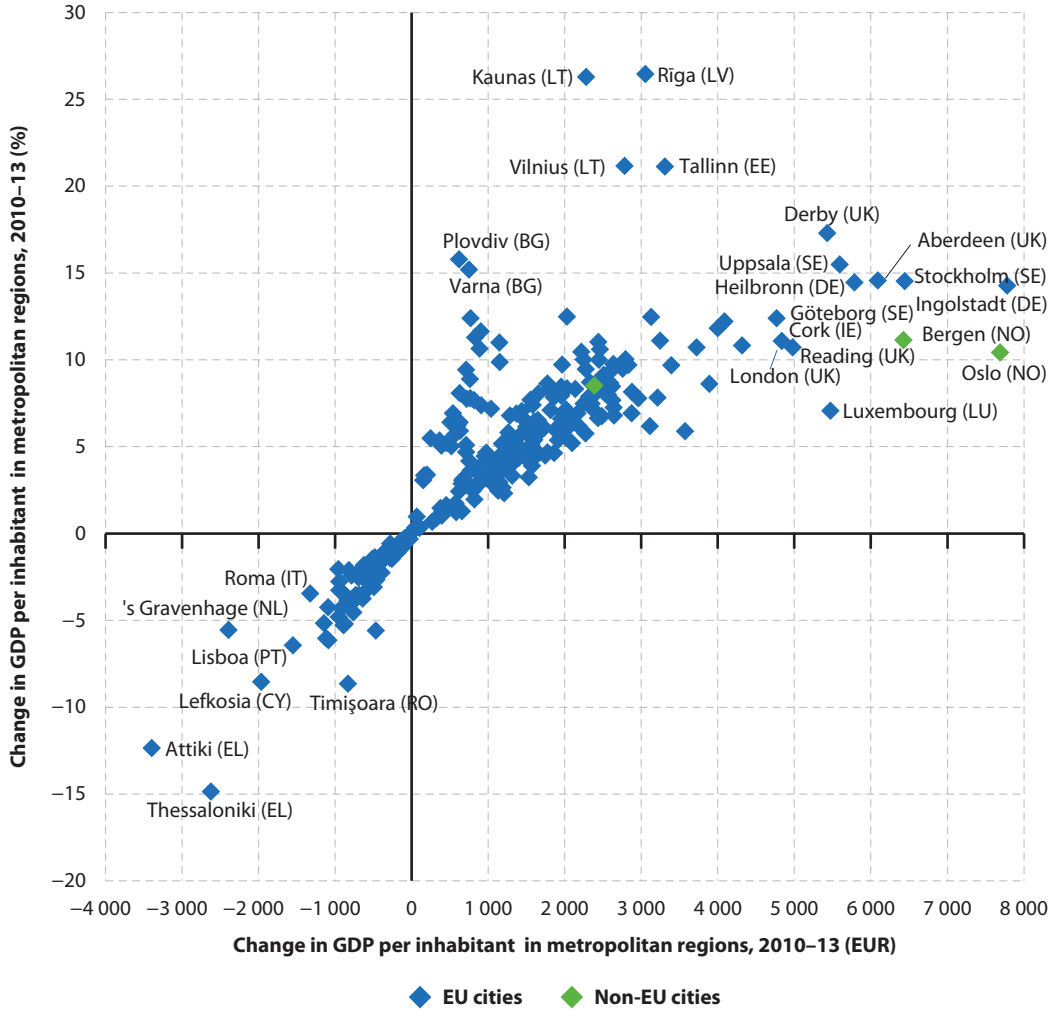
0 200 400 600 800 km

([1]) Metropolitan regions in Belgium, Germany, Luxembourg, Hungary, Poland, Romania, Slovenia and Switzerland: breaks in series. Metropolitan regions in Ireland and France: provisional. Metropolitan regions in Portugal, Romania and the United Kingdom: estimates. Metropolitan regions in Denmark: 2007–14. Metropolitan regions in Norway: 2005–14.

Source: Eurostat (online data codes: met_pjanaggr3 and demo_pjan)

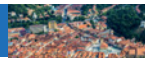
Figure 3.7 shows the development of GDP per inhabitant, in terms of absolute and relative changes for the period 2010–13; as a result of changes to the system of data collection for national and regional accounts, ESA 2010, a lengthy time series is not available at the time of drafting. The effects of the financial and economic crisis were clearly apparent insofar as GDP per inhabitant fell in each of the metropolitan regions of Greece (2010–12), Spain (2010–12), Croatia, Italy, Cyprus, Portugal and Slovenia; the only other metropolitan regions to record a reduction in their economic activity were the five Dutch regions of Amsterdam, Heerlen, Rotterdam, 's-Gravenhage and Utrecht (all 2010–12), Pécs (Hungary, 2010–12), Timişoara (Romania, 2010–12) and Exeter (the United Kingdom).

Figure 3.7: Change in GDP per inhabitant, by metropolitan region, 2010–13 (1)



(1) Note the rates of change are based on current price series. Metropolitan regions in Bulgaria, the Czech Republic, Germany, Estonia, Ireland, Greece, Spain, France, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland, Romania, Slovakia, Finland, Sweden and Switzerland: 2010–12. Metropolitan regions in Italy and Norway: 2011–12. Zürich, Genève, Bern and Lausanne (all Switzerland): not available. Norwegian and Swiss metropolitan regions are shown in a lighter shade of blue.

Source: Eurostat (online data code: met_10r_3gdp)



The fastest economic growth in recent years was often recorded in metropolitan regions with high-technology industries

The level of GDP per inhabitant increased in the vast majority of the metropolitan regions across the EU-28 between 2010 and 2013. The fastest growth rates were recorded in the Baltic Member States — in part reflecting a rebound from the financial and economic crisis — in the regions of Rīga (Latvia), Vilnius, Kaunas (both Lithuania) and Tallinn (Estonia). Otherwise, high growth rates were also registered by the Bulgarian regions of Plovdiv and Varna (financial services and real estate), the German region of Ingolstadt (headquarters of a major carmaker), the Swedish region of Uppsala (which specialises in medical research and biotechnology), and the British regions of Aberdeen (which had a vibrant offshore oil industry until the recent downturn in crude oil prices) and Derby (which is home, among others, to a couple of carmakers).

In absolute terms, the biggest increases in GDP per inhabitant were recorded in the metropolitan regions of Heilbronn and Ingolstadt (both Germany), Cork (Ireland), Luxembourg (Luxembourg), Stockholm, Göteborg and Uppsala (all Sweden), Aberdeen, Derby and Reading (all the United Kingdom); several of these regions may be characterised as engines of economic growth, in particular as leading producers of technological innovation.

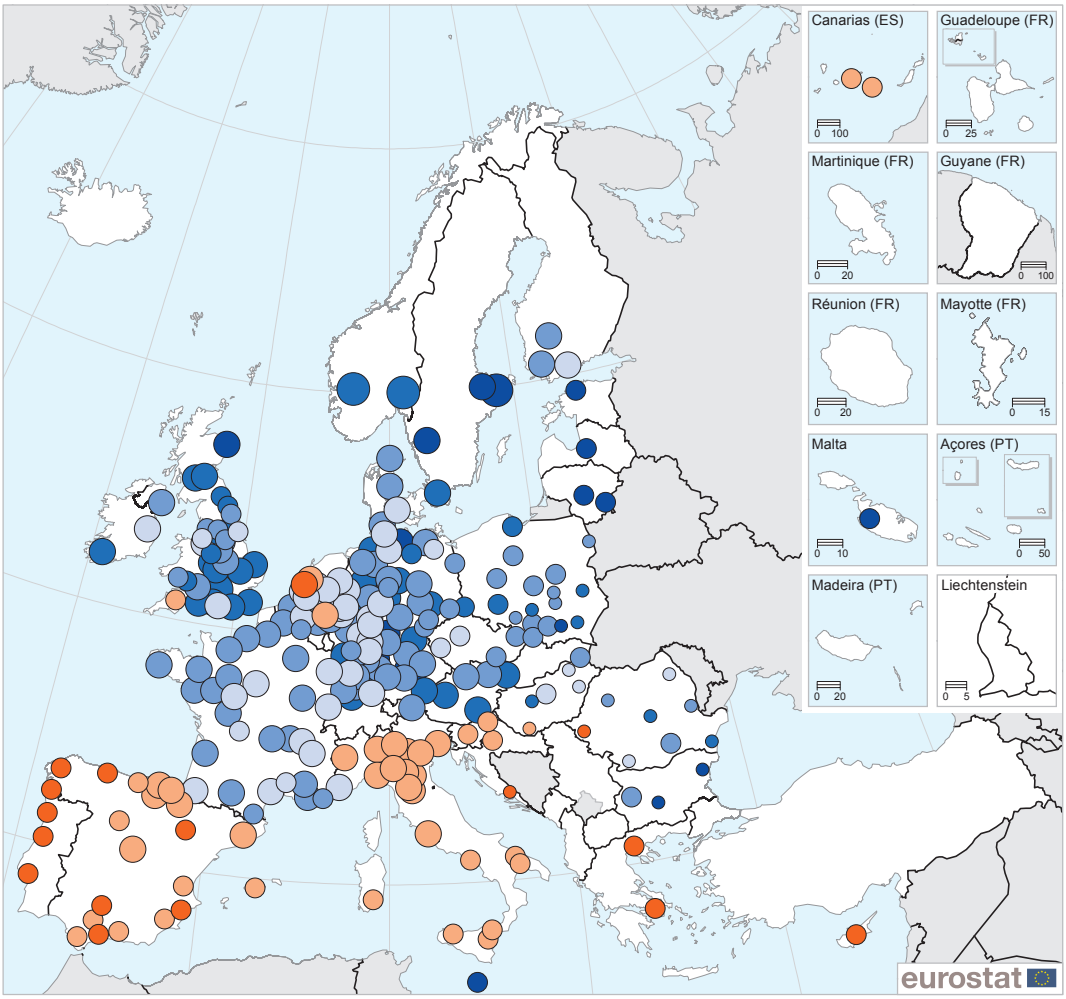
Changing patterns of urban developments: satellite new towns or inner city (re-)development?

Urbanisation has historically been associated with a range of economic and social transformations, as urban areas can play a key role as drivers of regional economies: they act as hubs for jobs, business, higher education, innovation and entrepreneurship; they attract investment and offer employment opportunities. Some cities work closely with their surrounding areas (local authorities and administrations) to coordinate integrated solutions, for example transport networks, for mutual benefit and territorial cohesion.

Most European cities have a well-defined centre that is often rich in historical/cultural features, as well as retail outlets. In larger urban areas, it is often commonplace to find that other towns and cities are assimilated into the larger metropolitan region as part of the ongoing process of urbanisation. This pattern often began when urban planners pursued the development of suburban lifestyles and developed satellite new towns around large cities, in the hope that these would alleviate problems in inner city areas.

During the last 20 years there has been a change to patterns of urban development as the growth of new residential areas has slowed (in line with population changes) and become more concentrated in inner city areas, while industrial and commercial areas have become the main source of urban expansion. However, there are some exceptions, such as the Mediterranean coastline or suburban residential developments in eastern Member States around major cities. In many countries, urban planners are increasingly seeking to restrict the number of suburban and greenfield sites that are being used for developments — due to their potential adverse environmental impact — focusing attention instead on (re-) developing inner city areas.

Map 3.4: Change in GDP per inhabitant, by metropolitan region, 2010–13 (1)
(%)



(1) Note the rates of change are based on current price series. Metropolitan regions in Bulgaria, the Czech Republic, Germany, Estonia, Ireland, Greece, Spain, France, Latvia, Lithuania, Hungary, the Netherlands, Austria, Romania, Slovakia, Finland, Sweden and Switzerland: 2010–12. Metropolitan regions in Italy and Norway: 2011–12.

Source: Eurostat (online data codes: met_10r_3gdp and nama_10_pc)

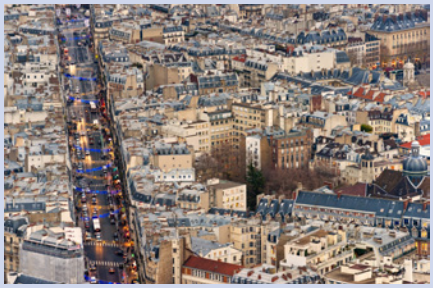
The most rapid urban population growth was often located in capital cities and their surrounding commuter belts

This next section looks in more detail at the demographic and economic developments in the EU among predominantly urban regions; the typology is based on NUTS level 3 regions. **Table 3.3** shows that the highest population growth rates among urban regions with at least one million inhabitants were recorded in three of the five regions that compose London, as well as the capital city regions of Bruxelles/Brussel (Belgium), Byen København (Denmark) and Stockholms län (Sweden), three coastal regions of Spain (Málaga, Alicante and Murcia), the Haute-Garonne region in France (including Toulouse), and Stredoceský kraj in the Czech Republic (a region which encircles the capital of Praha).

Contrasting patterns — urban developments

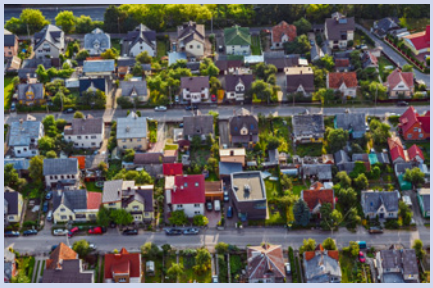
Urban developments can be constrained by topographical features (for example, the sea, mountains or lakes). With restricted space, it is common to find that urban developments such as these have tightly packed buildings and relatively high levels of population density. On the other hand, there is usually more space available for suburban developments, which are often characterised by detached housing, gardens and comparatively low levels of population density.

Dubrovnik (Croatia)



Paris (France)

Opole (Poland)



Vilnius (Lithuania)

Although the evidence would suggest that some of the fastest expansions in population across the EU-28 are taking place in its largest (capital) cities, there may be a range of advantages to living in smaller cities; for example, shorter commuting times, lower house prices, closer proximity to nature, less crime and pollution. Many of these issues relating to satisfaction and the quality of life in cities are addressed in Chapter 13. Among some of the smaller predominantly urban regions (with less than one million inhabitants), the most rapid increases in population numbers were often registered in commuter zones, for example, Monza e della Brianza to the north-east of Milano in Italy, Wiener Umland/Nordteil to the north of the Austrian capital of Wien, Ilfov which surrounds the Romanian capital of Bucureşti, or Berkshire to the west of London.

Aside from these, the highest population growth rates in predominantly urban regions were often recorded in the United Kingdom, across a variety of different regions: some were part of the London commuter belt (for example, Thurrock), some were located on the south coast (for example, Brighton and Hove), while others were characterised by their relatively large migrant populations (for example, Leicester).

It is also interesting to note the presence of the eastern German region of Dresden, Kreisfreie Stadt, where the population grew by 9.7 % between 1 January 2004 and 1 January 2014 — contrary to the general patterns observed across much of eastern Germany and also contrary to the overall low rates of natural population change across Germany. The expanding population in Dresden may be attributed, at least in part, to the establishment of public administration services, research institutes and high-technology sectors such as the semiconductor industry (so-called Silicon Saxony) and the pharmaceuticals sector.

Only four predominantly urban regions with at least one million inhabitants reported a decline in their population between 2004 and 2014

There were only four predominantly urban regions in the EU-28 with at least one million inhabitants where there was a decline in the level of population between 1 January 2004 and 1 January 2014. Each of these saw a modest reduction, as the number of inhabitants living in Grande Porto (Portugal), Hannover (Germany), and the Greek and Romanian capital city regions (Attiki and Bucureşti) reported changes in the range of –0.3 % to –3.4 %. While there was a contraction of 3.4 % in the Romanian capital, its surrounding region of Ilfov registered the highest population growth rate among any of the predominantly urban regions in the EU-28, with a 50.3 % increase in its number of inhabitants between 1 January 2004 and 1 January 2014, suggesting that many people left the inner city to move to the surrounding areas.

A decline in population numbers was more commonplace among those predominantly urban regions that were smaller in size and this pattern was particularly apparent in Germany and Poland, where there were several examples of urban populations contracting by 5–10 %. These declines may be linked, at least in part, to low levels of natural population change and regions specialised in declining industrial activities, but may also reflect breaks in series that result from post and pre-census data.

Table 3.3: Population change for predominantly urban regions in the EU, by region size, 2004–14 (1)

Rank top 10	< 250 000 inhabitants		250 000 – 499 999 inhabitants		500 000 – 999 999 inhabitants		≥ 1 000 000 inhabitants	
	Region	(%)	Region	(%)	Region	(%)	Region	(%)
1	Melilla (ES)	29.5	Ilfov (RO)	50.3	Tenerife (ES)	19.7	Inner London - East (UK)	20.1
2	Ceuta (ES)	18.4	Milton Keynes (UK)	17.8	Poznanski (PL)	16.4	Bruxelles/Brussel (BE)	18.4
3	Luton (UK)	13.7	Leicester (UK)	14.9	Byen København (DK)	12.2	Málaga (ES)	17.9
4	Thurrock (UK)	10.4	Nottingham (UK)	12.2	Gran Canaria (ES)	12.0	Stockholms län (SE)	16.2
5	Mainz, Kreisfreie Stadt (DE)	10.1	Bournemouth and Poole (UK)	12.0	Réunion (FR)	10.9	Alicante (ES)	15.5
6	Southend-on-Sea (UK)	9.3	Brighton and Hove (UK)	11.6	Monza e della Brianza (IT)	10.4	Outer London - W & NW (UK)	15.2
7	Southampton (UK)	9.0	Bristol, City of (UK)	11.6	Berkshire (UK)	9.9	Haute-Garonne (FR)	14.7
8	West Lothian (UK)	8.8	North Northamptonshire (UK)	11.3	Dresden, Kreisfreie Stadt (DE)	9.7	Stredoceský kraj (CZ)	14.7
9	Portsmouth (UK)	8.8	Flevoland (NL)	11.1	Bradford (UK)	9.7	Outer London - E & NE (UK)	14.6
10	Arr. Sint-Niklaas (BE)	7.7	Wiener Umland/ Nordteil (AT)	10.7	Zaragoza (ES)	9.1	Murcia (ES)	14.5
Rank bottom 10	**< 250 000 inhabitants**		**250 000 – 499 999 inhabitants**		**500 000 – 999 999 inhabitants**		**≥ 1 000 000 inhabitants**	
	Region	(%)	Region	(%)	Region	(%)	Region	(%)
10	Bottrop, Kreisfreie Stadt (DE)	−3.5	Mettmann (DE)	−6.0	Rybnicki (PL)	−2.8	Thessaloniki (EL)	1.8
9	Hamm, Kreisfreie Stadt (DE)	−4.8	Bytomski (PL)	−6.1	Essen, Kreisfreie Stadt (DE)	−3.3	Miasto Warszawa (PL)	1.8
8	Oberhausen, Kreisfreie Stadt (DE)	−5.0	Regionalverband Saarbrücken (DE)	−6.1	Zuid-Limburg (NL)	−3.7	Nord (FR)	1.3
7	Solingen, Kreisfreie Stadt (DE)	−5.3	Bochum, Kreisfreie Stadt (DE)	−6.6	Vilniaus apskritis	−4.2	Bizkaia (ES)	1.1
6	Krefeld, Kreisfreie Stadt (DE)	−6.9	Siegen-Wittgenstein (DE)	−6.6	Miasto Poznan (PL)	−5.0	Berlin (DE)	1.0
5	Hagen, Kreisfreie Stadt (DE)	−7.0	Ennepe-Ruhr-Kreis (DE)	−6.8	Katowicki (PL)	−5.1	Hamburg (DE)	0.7
4	Remscheid, Kreisfreie Stadt (DE)	−7.4	Oberbergischer Kreis (DE)	−6.9	Sosnowiecki (PL)	−5.4	Grande Porto (PL)	−0.3
3	Saarlouis (DE)	−7.5	Gliwicki (PL)	−7.6	Recklinghausen (DE)	−5.8	Region Hannover (DE)	−0.6
2	Neunkirchen (DE)	−8.5	Märkischer Kreis (DE)	−8.3	Miasto Lódz (PL)	−8.9	Attiki (EL)	−1.8
1	Herne, Kreisfreie Stadt (DE)	−10.7	Unna (DE)	−8.3	Rīga (LV)	−10.8	București (RO)	−3.4

(1) Predominantly urban regions in Belgium, Germany, Hungary, Poland, Romania and Switzerland: breaks in series. Predominantly urban regions in Ireland and France: provisional. Predominantly urban regions in Portugal, Romania and the United Kingdom: estimates. Predominantly urban regions in Cyprus, Luxembourg and Slovenia: not applicable.

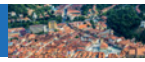
Source: Eurostat (online data code: demo_r_pjanaggr3)

Table 3.4: Change in GDP per inhabitant for predominantly urban regions in the EU, by region size, 2010–13 (1)

Rank top 10	< 250 000 inhabitants		250 000 – 499 999 inhabitants		500 000 – 999 999 inhabitants		≥ 1 000 000 inhabitants	
	Region	(%)	Region	(%)	Region	(%)	Region	(%)
1	Erlangen, Kreisfreie Stadt (DE)	14.9	Pieriga (LV)	29.4	Rīga (LV)	26.1	Inner London - East (UK)	18.9
2	Remscheid, Kreisfreie Stadt (DE)	14.2	Derby (UK)	17.2	Vilniaus apskritis (LT)	21.4	Stockholms län (SE)	14.1
3	Speyer, Kreisfreie Stadt (DE)	14.0	East Derbyshire (UK)	16.3	Wroclawski (PL)	15.3	Outer London - W & NW (UK)	11.5
4	Worms, Kreisfreie Stadt (DE)	13.1	Flintshire and Wrexham (UK)	15.8	Buckinghamshire CC (UK)	11.1	Inner London - West (UK)	10.7
5	Neunkirchen (DE)	13.1	Stoke-on-Trent (UK)	14.5	Tyneside (UK)	11.1	Birmingham (UK)	10.6
6	Mainz-Bingen (DE)	13.0	South Lanarkshire (UK)	13.2	Krakowski (PL)	10.9	Surrey (UK)	10.1
7	Gozo and Comino (MT)	12.7	South and West Derbyshire (UK)	13.1	Berkshire (UK)	10.8	Outer London - E & NE (UK)	9.6
8	Heinsberg (DE)	12.5	Bournemouth and Poole (UK)	13.0	Poznanski (PL)	9.3	Kent CC (UK)	7.9
9	Blackburn with Darwen (UK)	11.9	Duisburg, Kreisfreie Stadt (DE)	12.3	Rhein-Sieg-Kreis (DE)	9.2	Loire-Atlantique (FR)	7.6
10	Enzkreis (DE)	11.3	Malta (MT)	12.3	Glasgow City (UK)	9.2	Haute-Garonne (FR)	7.6
Rank bottom 10	**< 250 000 inhabitants**		**250 000 – 499 999 inhabitants**		**500 000 – 999 999 inhabitants**		**≥ 1 000 000 inhabitants**	
	Region	(%)	Region	(%)	Region	(%)	Region	(%)
10	Schwabach, Kreisfreie Stadt (DE)	−2.5	Ilfov (RO)	−1.0	Varese (IT)	−2.4	Roma (IT)	−3.4
9	Agglomeratie Haarlem (NL)	−2.7	Lucca (IT)	−1.5	Como (IT)	−2.5	Cádiz (ES)	−3.5
8	Luton (UK)	−2.7	Araba (ES)	−1.8	Monza e della Brianza (IT)	−2.7	Murcia (ES)	−3.6
7	Offenbach am Main, K. Stadt (DE)	−3.6	Prato (IT)	−2.5	Ave (PT)	−3.1	Valencia (ES)	−3.7
6	Het Gooi en Vechtstreek (NL)	−4.3	Lecco (IT)	−2.5	Tenerife (ES)	−3.4	Grande Porto (PT)	−5.4
5	Ijmond (NL)	−6.1	Flevoland (NL)	−2.7	Gran Canaria (ES)	−3.6	Málaga (ES)	−6.2
4	Ceuta (ES)	−6.6	Entre Douro e Vouga (PT)	−2.9	Grad Zagreb (HR)	−3.6	Grande Lisboa (PT)	−6.4
3	Darlington (UK)	−6.9	Oost-Zuid-Holland (NL)	−3.1	Zaragoza (ES)	−4.3	Alicante (ES)	−6.5
2	Heidelberg, Stadtkreis (DE)	−7.7	Cheshire West and Chester (UK)	−4.1	Agglomeratie 's-Gravenhage (NL)	−5.3	Attiki (EL)	−12.4
1	Melilla (ES)	−8.2	Região Autónoma da Madeira (PT)	−7.2	Península de Setúbal (PT)	−6.2	Thessaloniki (EL)	−14.8

(1) Note the rates of change are based on current price series. Predominantly urban regions in Bulgaria, the Czech Republic, Germany, Estonia, Ireland, Greece, Spain, France, Latvia, Lithuania, Hungary, the Netherlands, Austria, Romania, Slovakia, Finland and Sweden: 2010–12. Predominantly urban regions in Italy: 2011–12. Predominantly urban regions in Cyprus, Luxembourg and Slovenia: not applicable.

Source: Eurostat (online data codes: nama_10r_3gdp)



GDP per inhabitant grew at a rapid pace in several predominantly urban regions of Germany, Poland and the United Kingdom

The highest growth rates for GDP per inhabitant between 2010 and 2013 were, unsurprisingly, often recorded in some of the predominantly urban regions with the highest population growth rates, confirming the dynamic nature of these regions. For example, four of the five regions that compose London, Stockholm (2010–12) and Haute-Garonne (2010–12) were all present among the 10 fastest growing urban economies with at least one million inhabitants.

Otherwise, economic activity grew at a relatively fast pace in several predominantly urban regions from the Baltic Member States (Pieriga, Rīga and Vilniaus apskritis, 2010–12) and Poland (Krakowski, Poznanski and Wroclawski), while the fastest growth rates across smaller urban regions were often concentrated in Germany and the United Kingdom, as well as the two Maltese regions. By contrast, the largest contractions in economic activity were generally recorded in southern Europe, with predominantly urban regions from Greece, Spain, Italy and Portugal accounting for a high number of those regions with the biggest declines in activity.

There was a wide disparity in standards of living between predominantly urban regions in the United Kingdom

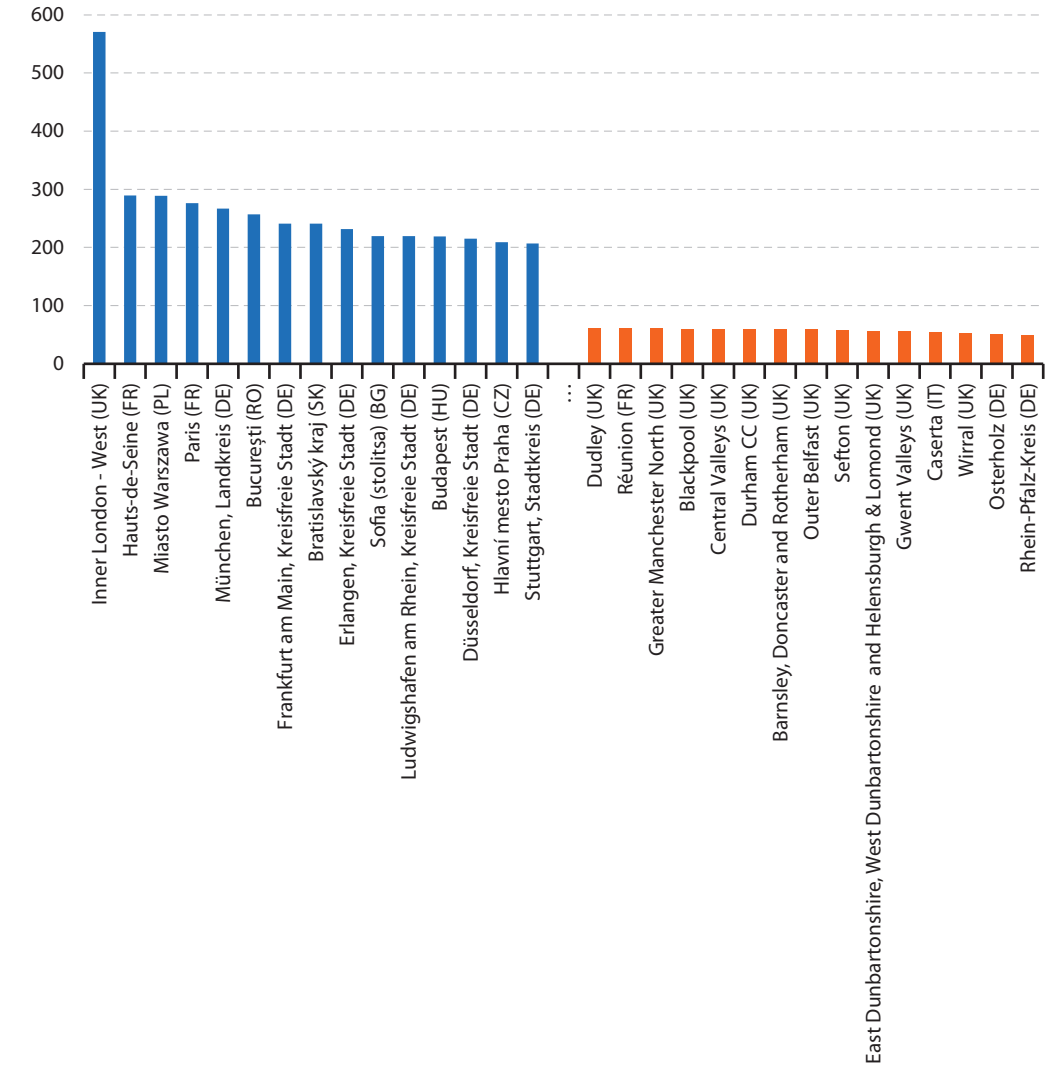
Figure 3.8 presents information on the relative level of GDP per inhabitant in predominantly urban regions; each value is expressed in relation to national GDP per inhabitant to give an idea of the similarities/disparities that may exist in terms of different standards of living in the same EU Member State; note that GDP per inhabitant can be influenced by commuter inflows which inflate the economic activity in a region, while commuters are likely to spend a fairly high proportion of their salaries back in the region where they live.

Inner London - West had by far the highest level of relative GDP per inhabitant in 2013, as the average wealth of each person living in this region was 5.7 times as high as the national average for the United Kingdom. The remainder of this ranking was dominated by other capital cities and their surrounding areas, including the Hauts-de-Seine (in the western suburbs of the French capital) and Paris itself, Miasto Warszawa (Poland), Bucureşti (Romania), Bratislavský kraj (Slovakia), Sofia (stolitsa) (Bulgaria), Budapest (Hungary) and Hlavní mesto Praha (the Czech Republic), underlying the monocentric nature of urban developments in France, the United Kingdom and many of the eastern EU Member States.

All of the remaining predominantly urban regions with high levels of GDP per inhabitant relative to their national average were from Germany, although they did not include the capital city of Berlin, they were: München, Landkreis; Frankfurt am Main, Kreisfreie Stadt; Erlangen, Kreisfreie Stadt; Ludwigshafen am Rhein, Kreisfreie Stadt; Düsseldorf, Kreisfreie Stadt; and Stuttgart, Stadtkreis.

At the other end of the ranking, many of the regions that had the lowest GDP per inhabitant compared with their national average were also located in the United Kingdom, reflecting, at least in part, the high level of GDP per inhabitant in Inner London - West pulling up the national average and creating a wider disparity between regions. Some of the lowest levels of GDP per inhabitant in the United Kingdom were recorded in (former) industrial regions, such as the Central Valleys and Gwent Valleys (of Wales), or the Wirral, Sefton, Greater Manchester North and Blackpool in the north-west of England.

Figure 3.8: Relative GDP per inhabitant for predominantly urban regions in the EU, 2013 ([1])
(national average = 100)



([1]) The figure shows (subject to data availability) the 15 predominantly urban regions in the EU-28 with the highest/lowest GDP per inhabitant relative to their respective national average. Bulgaria, the Czech Republic, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Latvia, Lithuania, Hungary, the Netherlands, Austria, Romania, Slovakia, Finland and Sweden: 2012. Cyprus, Luxembourg and Slovenia: not applicable.

Source: Eurostat (online data code: nama_10r_3gdp)

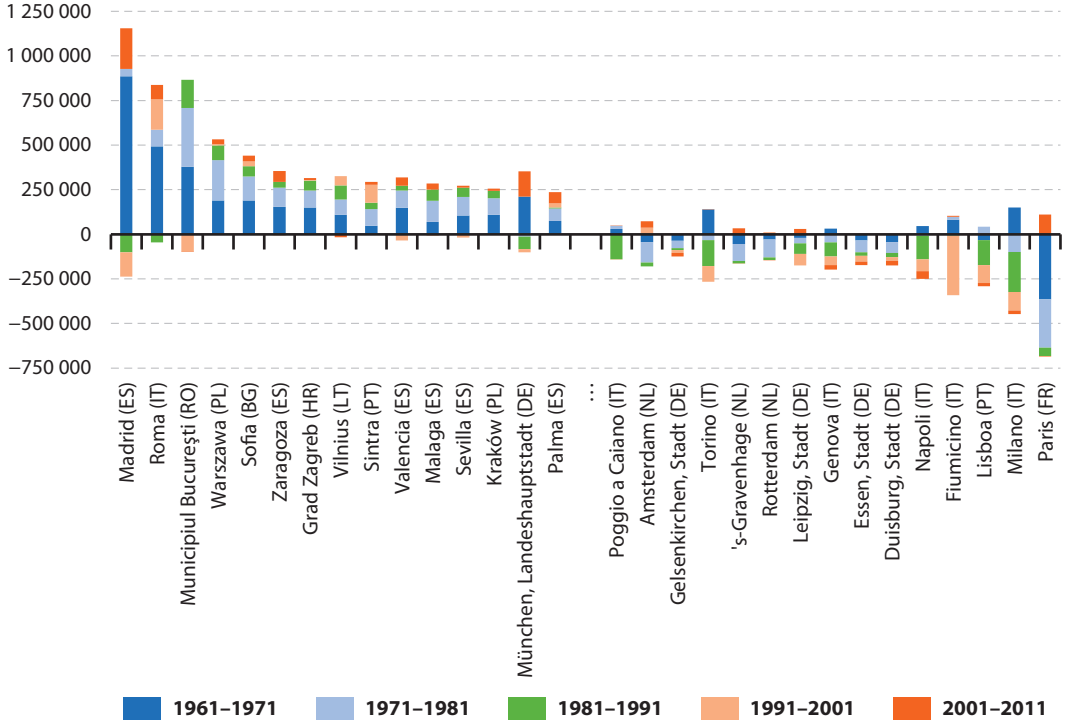
The fastest population growth in the last 50 years was recorded in several new town developments and on reclaimed land

Figure 3.9 provides a more detailed analysis that is based on data for local administrative units (LAU) over the much lengthier period of 1961–2011; note that the coverage of units varies considerably between EU Member States and that while the labels used for some local administrative units are identical to those used for metropolitan regions/predominantly urban regions this does not necessarily mean that they cover the same areas.

On the basis of data available for local administrative units, the most rapid long-term population growth was often recorded in (parts of) capital cities. For example, Madrid, Roma, Municipiul Bucureşti, Warszawa and Sofia recorded the largest expansions in their population numbers; they were joined by several Spanish cities, including Zaragoza, Valencia, Malaga, Sevilla and Palma, the Croatian capital of Zagreb, Sintra to the west of Lisboa in Portugal, and the German city of München, Landeshauptstadt.

The biggest reduction in population numbers for a local administrative unit was recorded in the French capital of Paris (defined here as the 20 arrondissements contained within the confines of the Boulevard Périphérique), although this pattern was reversed towards the end of the period under consideration. The other administrative units that recorded relatively large contractions in their overall number of inhabitants between 1961 and 2011 were located in Germany, Italy or the Netherlands, along with the Portuguese capital of Lisboa.

Figure 3.9: Population change for local administrative units in the EU, 1961–2011 (1)
(inhabitants)



(1) The figure shows (subject to data availability) the 15 local administrative units with the highest/lowest changes in their respective number of inhabitants over the period 1961–2011.

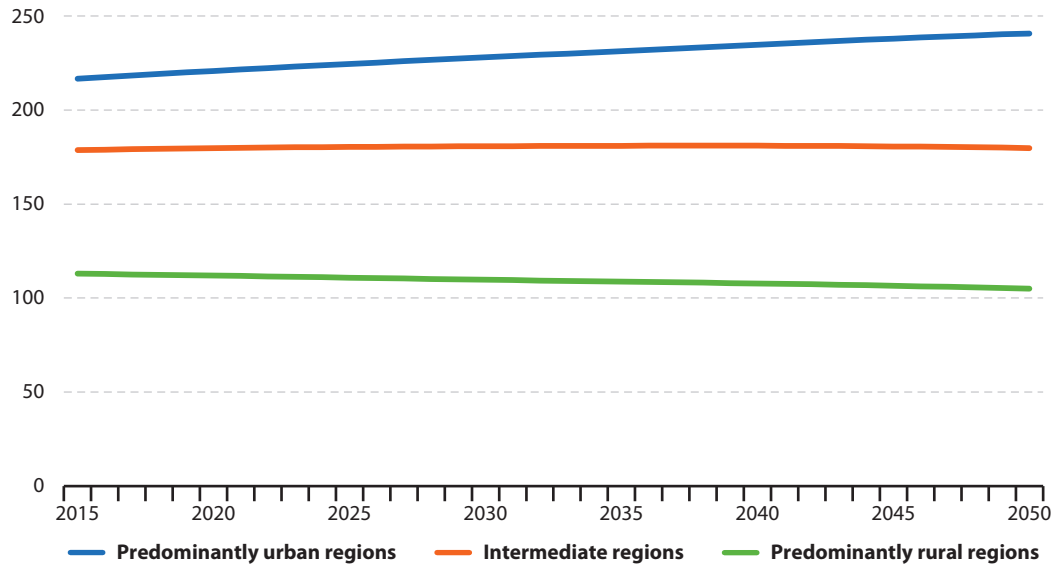
Source: European Commission, Directorate-General for regional and urban policy

Although not shown, the highest population growth rates between 1961 and 2011 were often recorded for administrative units associated with new town developments or reclaimed land — as their population at the start of the period under consideration was often close to zero. For example, the municipality of Zeewolde in the Netherlands was only founded in 1984 and was established on a reclaimed polder; it saw its population increase from just one person in 1961 to almost 21 thousand by 2011. Almere, also in the Netherlands, is an urban development whose population grew from 39 inhabitants in 1961 to 188 thousand by 2011. Similar new town developments exist across many of the EU Member States, for example, the seaside resort of La Grande-Motte in Languedoc-Roussillon region of southern France, whose population rose from 37 in 1961 to 23 thousand by 2011, or Emerson Valley and Furzton (both parts of Milton Keynes in the United Kingdom), whose joint populations rose from 202 inhabitants in 1961 to 27 thousand by 2011.

3.3 Population projections for 2015–50

This final section provides information on population projections for the EU-28 during the period 2015–50. **Figure 3.10** shows the population of predominantly rural regions is projected to fall by 7.9 million inhabitants during this period, to account for 20.0 % of the EU-28 population by 2050. Although the number of people living in intermediate regions is projected to rise by 1.1 million persons, their share of the overall number of inhabitants in the EU-28 is predicted to fall to 34.2 % by 2050. By contrast, the projections foresee the total number of people living in predominantly urban regions rising by 24.1 million persons, and that by 2050 these regions will provide a home to almost half (45.8 %) of the EU-28 population.

Figure 3.10: Urban-rural population projections, EU-28, 2015–50
(million inhabitants)

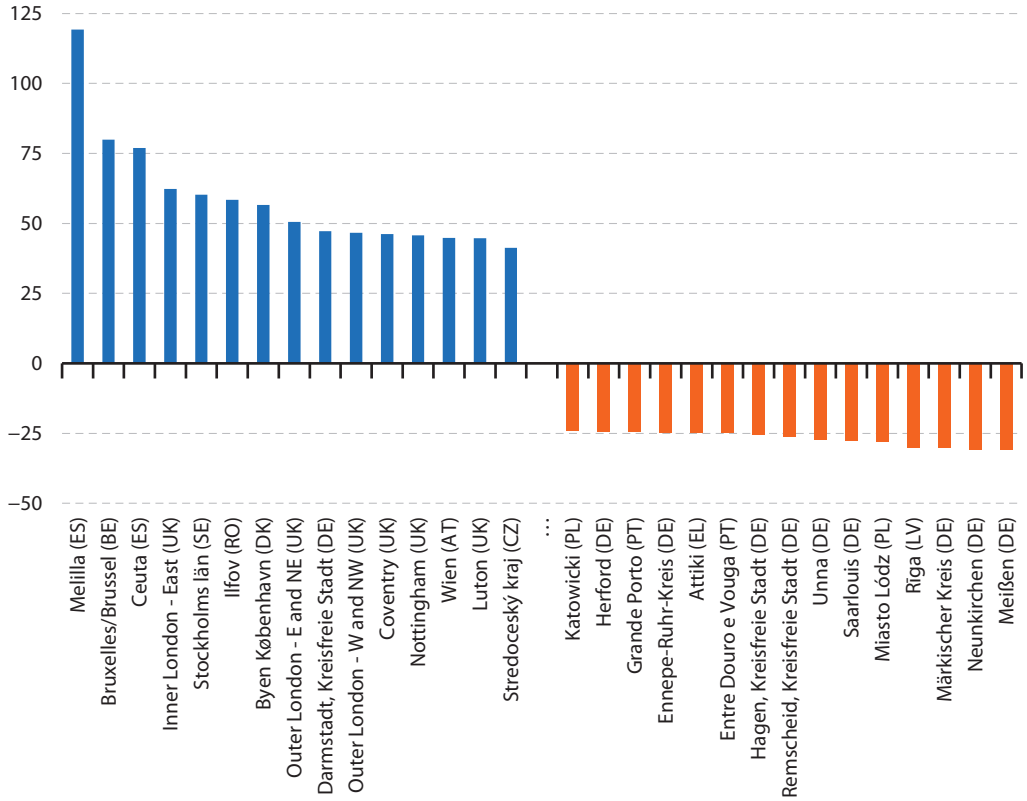


Source: Eurostat (online data code: proj_13rpms3) and http://ec.europa.eu/eurostat/web/rural-development/methodology

Eurostat's population projections have been made for NUTS level 3 regions. **Figure 3.11** provides information on the 15 predominantly urban regions that are projected to have the fastest expanding populations during the period 2015–50. Some of the most rapid increases are expected in capitals and/or their adjoining urban regions, for example, Bruxelles/Brussel, parts of London, Stockholms län, Ilfov (the region surrounding the Romanian capital of Bucureşti), Byen København, Wien or Stredoceský kraj (the region surrounding the Czech capital of Praha). Fast population growth rates are also projected for the autonomous Spanish cities of Melilla and Ceuta, as well as the German region of Darmstadt, Kreisfreie Stadt, and Coventry, Nottingham and Luton (all in the United Kingdom).

The population projections also confirm some of the patterns already described, insofar as they suggest that the number of inhabitants will continue to contract across parts of Germany, Poland, the Baltic Member States, as well as Greece and Portugal. Some of the most rapid reductions are projected for relatively small urban regions, although there are some well-known cities where the population of their predominantly urban region is predicted to contract by as much as 24–30 %, including Katowicki and Miasto Lódz (both Poland), Grande Porto (Portugal), Attiki (Greece) and Rīga (Latvia).

Figure 3.11: Projected population changes for predominantly urban regions in the EU, 2015–50 (1)
(%)



(1) The figure shows (subject to data availability) the 15 predominantly urban regions in the EU-28 with the highest/lowest projected rates of change for their respective number of inhabitants during the period 2015–50.

Source: Eurostat (online data code: proj_13rpms3)

4 The dominance of capital cities

Capital cities have the potential to play a crucial role in the development of the European Union (EU). The cultural identity of well-known European capital cities such as Praha (the Czech Republic), Athina (Greece), Paris (France) or Roma (Italy) helps to shape opinions of the EU across the globe.

The EU's capital cities are hubs for competitiveness and employment, and may be seen as drivers of innovation and growth, as well as centres for education, science, social, cultural and ethnic diversity, providing a range of services and cultural attractions to their surrounding area. Nevertheless, the EU's capital cities also provide examples of the 'urban paradox' (further details are provided in Chapter 2), insofar as they may be characterised by a range of social, economic and environmental inequalities; as such, they are at the heart of efforts to ensure more sustainable and inclusive growth within the EU.

This chapter examines the relationship between capital cities and the national economies to which they belong. It shows that some capital cities may exert a form of 'capital magnetism', through a monocentric pattern of urban development that results in investment/resources being concentrated in the capital. Whether such disparities have a positive or negative effect on the national economy is open to debate, as large capital cities that dominate their national economies may create high levels of income and wealth that radiate to surrounding regions and pull other cities up. By contrast, other capital cities are part of a more polycentric pattern of urban development, whereby economic activity and employment is more evenly balanced between the capital and other major cities.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

4.1 International comparisons

Table 4.1 provides information on the total number of inhabitants living in the urban agglomerations of the G20 capitals. The data are provided by the United Nations and are based on national definitions which may undermine comparability in some cases; note the definitions employed are somewhat different to those used elsewhere in this publication (which are based on a harmonised data collection exercise conducted by the EU).

The biggest capital cities in the EU are relatively small when compared with other global capitals

In 2014, the largest urban agglomerations among G20 capitals were located in Asia and Latin America. The total number of inhabitants was highest in Tokyo (37.8 million), followed by Delhi, Mexico City, Beijing and Buenos Aires. Moskva (Moscow) was the first European capital city in the ranking (12.1 million inhabitants), with a slightly higher population than either Paris or London — the only two megacities in the EU with in excess of 10.0 million inhabitants (see **Table 4.1**). The number of people living in the Italian and German capital cities — Roma and Berlin — was considerably lower (3.7 and 3.5 million inhabitants respectively) and there were only three G20 capitals that recorded smaller populations, namely, those of South Africa, Canada and Australia — Tshwane (formerly Pretoria), Ottawa-Gatineau and Canberra.

People living in Buenos Aires accounted for 35.6 % of the total population in Argentina …

Given the considerable differences in total population numbers between the G20 countries, it is perhaps more revealing to analyse the population shares of the urban agglomerations for capital cities in their national populations. On this basis, Buenos Aires recorded the highest share, as those living in the Argentinian capital accounted for more than one third (35.6 %) of the total number of inhabitants; note these data are sourced to the United Nations and are based on national definitions. The population of Japan was also relatively concentrated within its capital, as the inhabitants of Tokyo accounted for a 29.8 % share of their national population, while approximately 20 % of the populations of Saudi Arabia and the Republic of Korea inhabited their respective capitals of Ar-Riyadh (Riyadh) and Seoul.

… while the inhabitants of Beijing accounted for 1.4 % of the Chinese population

The 19.5 million inhabitants living in the urban agglomeration of the Chinese capital, Beijing, accounted for just 1.4 % of their national population. According to the United Nations (*World Urbanisation Prospects, the 2014 revision*) there were 105 other cities in China with at least one million inhabitants (including Shanghai, which has a larger population than Beijing). A similar pattern was observed in the world's second most populous country, India, as the 25.0 million inhabitants of Delhi accounted for 1.9 % of their national population. The total number of inhabitants living in the capital cities of Brazil, Australia and the United States also accounted for no more than 2.0 % of their respective national populations. All three cities, Brasilia, Canberra and Washington, D.C. had relatively small populations — likely linked to their largely administrative role as capital cities.

Table 4.1: Population of G20 capital cities, 2014 (1)

Capital city	Country	Urban agglomeration (million inhabitants)	Share of national population (%)
Tokyo	Japan	37.8	29.8
Delhi	India	25.0	1.9
Mexico City	Mexico	20.8	16.6
Beijing	China	19.5	1.4
Buenos Aires	Argentina	15.0	35.6
Moskva (Moscow)	Russia	12.1	8.5
Paris	France	10.8	16.6
London	United Kingdom	10.2	16.0
Jakarta	Indonesia	10.2	4.0
Seoul	Republic of Korea	9.8	19.6
Ar-Riyadh (Riyadh)	Saudi Arabia	6.2	20.7
Washington, D.C.	United States	4.9	1.5
Ankara	Turkey	4.6	6.1
Brasilia	Brazil	4.1	2.0
Roma	Italy	3.7	6.0
Berlin	Germany	3.5	4.3
Tshwane (formerly Pretoria) (2)	South Africa	2.0	3.7
Ottawa-Gatineau	Canada	1.3	3.6
Canberra	Australia	0.4	1.7

(1) United Nations data are based on national definitions; as such there may be a discrepancy with respect to the Eurostat data used elsewhere in this publication. The G20 members include 19 individual countries and the EU (represented by the European Commission and the European Central Bank).
(2) Tshwane is the administrative capital, while Cape Town is the legislative capital and Mangaung (formerly Bloemfontein) is the judicial capital.

Source: United Nations, Department of Economic and Social Affairs, Population Division (2014): World urbanisation prospects

4.2 Comparisons within the EU

The analysis is extended in **Table 4.2**, supplementing the number of inhabitants by the addition of information on employment and gross domestic product (GDP), while the typology used for defining European capital cities is that of metropolitan regions; this typology is based on an approximation of functional urban areas (cities and their commuting zones) based on one or more NUTS level 3 regions, whereby the metropolitan region may include rural regions (if these have a relatively high prevalence of commuting).

GDP — territorial and residential approaches

GDP is calculated on the basis of where people work (a territorial approach, rather than a residential approach). Those cities characterised by high net commuter inflows are likely to witness a higher level of economic output beyond that which could be produced by their active resident population, and GDP per inhabitant will therefore appear inflated.

Furthermore, cities with apparently high standards of living do not necessarily have correspondingly high levels of income, as some of their income will be used to recompense commuters (living in other regions). Furthermore, GDP per inhabitant is an average for a particular territory and does not provide any information on the distribution of wealth among those living in each city.

The relative importance of capital cities to national economies tends to be higher in the smaller EU Member States …

The relative importance of the capital city in the national economy was often inversely related to the population size of the EU Member State in question. This was particularly the case in three of the smallest Member States, namely, Cyprus, Luxembourg and Malta, where the metropolitan region of the capital city equates to the whole (or almost all) of the national territory. Otherwise, Rīga and Tallinn — the relatively small Latvian and Estonian capitals — accounted for the next highest shares of population, employment and GDP, followed by Dublin (Ireland), Athina (Greece), København (Denmark), Wien (Austria) and Budapest (Hungary); the metropolitan regions of these five capitals each accounted for 30–40 % of the total number of national inhabitants. Each of these Member States displayed a monocentric pattern of development, with the metropolitan regions of their capital cities accounting for high shares of their total number of inhabitants, workforce and economic activity; a similar pattern was also observed in France and the United Kingdom.

In the most populous EU Member State, Germany, the metropolitan region of the capital Berlin accounted for the lowest share of national population, employment and GDP (all within the range of 5–6 %). The metropolitan region of Roma also recorded a relatively low share of the total number of inhabitants in Italy (around 1 in 14). As such, Germany and Italy, as well as Poland and Romania, were characterised by more polycentric patterns of development, with several cities accounting for relatively high shares of their populations, economic activity and employment, and conversely the capital city metropolitan region accounting for a relatively low share. For example, Roma accounted for less than 10.0 % of the total number of inhabitants, the workforce and economic output in Italy, while Warszawa accounted for 8.7 % of the Polish population, 10.5 % of its workforce and 17.1 % of its GDP.

… although Paris and London accounted for a relatively high share of economic activity

The unequivocally large size of the metropolitan regions of Paris and London — with more than 10 million inhabitants each — meant that each of these two global capitals accounted for almost one third of their national GDP, while their shares of national population were lower, at closer to one fifth of the total; these figures reinforce the view that the economies of France and the United Kingdom displayed a monocentric pattern of development. Although considerably smaller than Paris or London, the Irish and Greek capital cities also reflected a broadly monocentric pattern of development, with Dublin and Athina generating close to 50 % of their national GDP, while their shares of the total number of inhabitants and workforce were somewhat lower.

Table 4.2: Main indicators for capital city metropolitan regions, 2014

	Population		Employment (persons aged 15–64)		GDP (1)	
	(million inhabitants)	(% share of national total)	(million)	(% share of national total)	(million EUR)	(% share of national total)
Bruxelles/Brussel (BE)	2.97	26.5	1.19	26.5	135 129	34.4
Sofia (BG)	1.68	23.2	0.78	26.6	17 862	42.8
Praha (CZ)	2.55	24.2	1.24	25.3	57 497	35.8
København (DK)	1.95	34.6	0.96	36.3	104 010	40.8
Berlin (DE)	5.01	6.2	2.39	6.1	146 191	5.3
Tallinn (EE)	0.57	43.5	0.28	47.2	10 796	60.0
Dublin (IE)	*1.82*	*39.5*	0.79	42.7	85 700	49.0
Athina (EL)	3.86	35.4	1.31	37.7	94 951	*49.7*
Madrid (ES)	6.38	13.7	2.70	15.7	198 652	*19.0*
Paris (FR)	*12.01*	*18.2*	:	:	623 189	29.9
Zagreb (HR)	1.12	26.3	0.54	35.1	17 147	39.0
Roma (IT)	4.32	7.1	1.73	7.9	153 748	9.5
Lefkosia (CY)	0.86	100.0	0.36	100.0	18 119	100.0
Rīga (LV)	1.01	50.5	0.46	53.9	14 840	67.5
Vilnius (LT)	0.81	27.4	0.38	29.4	12 842	38.5
Luxembourg (LU)	0.55	100.0	0.25	100.0	45 288	100.0
Budapest (HU)	2.97	30.0	1.30	31.9	47 695	48.2
Valletta (MT)	0.39	92.6	0.17	93.0	7 169	93.6
Amsterdam (NL)	2.44	14.5	1.20	15.0	114 562	17.8
Wien (AT)	2.68	31.5	1.21	29.9	110 704	34.9
Warszawa (PL)	3.30	8.7	1.63	10.5	66 538	*17.1*
Lisboa (PT)	*2.81*	*26.9*	1.14	26.8	63 219	37.1
București (RO)	*2.28*	*11.4*	1.06	12.8	36 332	27.2
Ljubljana (SI)	0.55	26.5	0.24	27.2	13 480	37.5
Bratislava (SK)	0.62	11.4	0.31	13.2	20 471	27.7
Helsinki (FI)	1.59	29.1	0.79	32.9	74 986	37.5
Stockholm (SE)	2.16	22.4	1.11	24.1	131 475	31.1
London (UK)	*14.03*	*21.8*	6.68	22.6	617 453	30.2
Oslo (NO)	1.21	23.7	:	:	96 141	24.2
Bern (CH)	1.00	12.3	:	:	:	:

(1) 2012, except for Belgium, Denmark, Cyprus, Luxembourg, Malta, Portugal, Slovenia, Slovakia and the United Kingdom, all 2013.

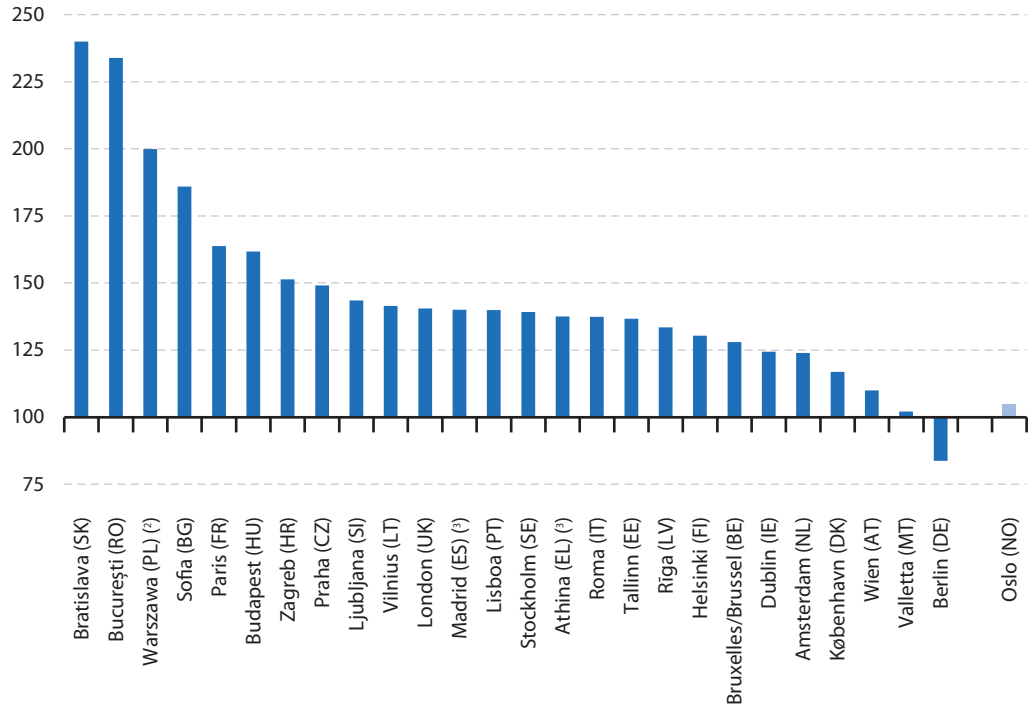
Source: Eurostat (online data codes: met_pjanaggr3, met_lfe3emp, met_10r_3gdp, demo_pjan, lfsa_egan and nama_10_gdp)

Berlin was the only capital in the EU with GDP per inhabitant below its national average

GDP per inhabitant provides a proxy measure of living standards: when expressed in purchasing power standards (PPS) it is adjusted to take account of the price level differences between EU Member States; note however that there may also be considerable price level differences within individual Member States — for example, the cost of living in Paris is, for most people, much higher than in Bordeaux, Lille or Lyon. Furthermore, GDP per inhabitant fails to reflect a number of negative externalities that may be of considerable importance for some individuals in relation to their standard of living.

Figure 4.1 presents GDP per inhabitant for the metropolitan regions of the EU's capital cities in relation to national averages. In 2013, the standard of living among those residing in the Slovakian capital of Bratislava was 2.4 times as high as the national average. A similar situation was observed in the capitals of Bulgaria, Poland and Romania, where GDP per inhabitant for those resident in the metropolitan regions of Sofia, Warszawa or Bucureşti was, on average, 1.9–2.3 times as high as the national average in 2012.

Figure 4.1: GDP per inhabitant for capital city metropolitan regions, 2012 (1)
(national average = 100; based on PPS per inhabitant)



(1) Belgium, Denmark, Cyprus, Luxembourg, Malta, Portugal, Slovenia, Slovakia and the United Kingdom: 2013. Luxembourg and Cyprus: not applicable.
(2) Provisional.
(3) Estimate.

Source: Eurostat (online data codes: met_10r_3gdp and nama_10_pc)

Among the largest EU Member States, the French and German capital cities stood out. GDP per inhabitant in Paris was 64 % higher than the French national average in 2012. By contrast, the standard of living in Berlin was 16 % lower than its national average, the only capital city in the EU where this situation was observed. The standard of living in the metropolitan regions of Roma, Madrid (Spain) and London (2013 data) was 37-41 % higher than their respective national average.

A network of relatively large cities was distributed quite evenly across Germany

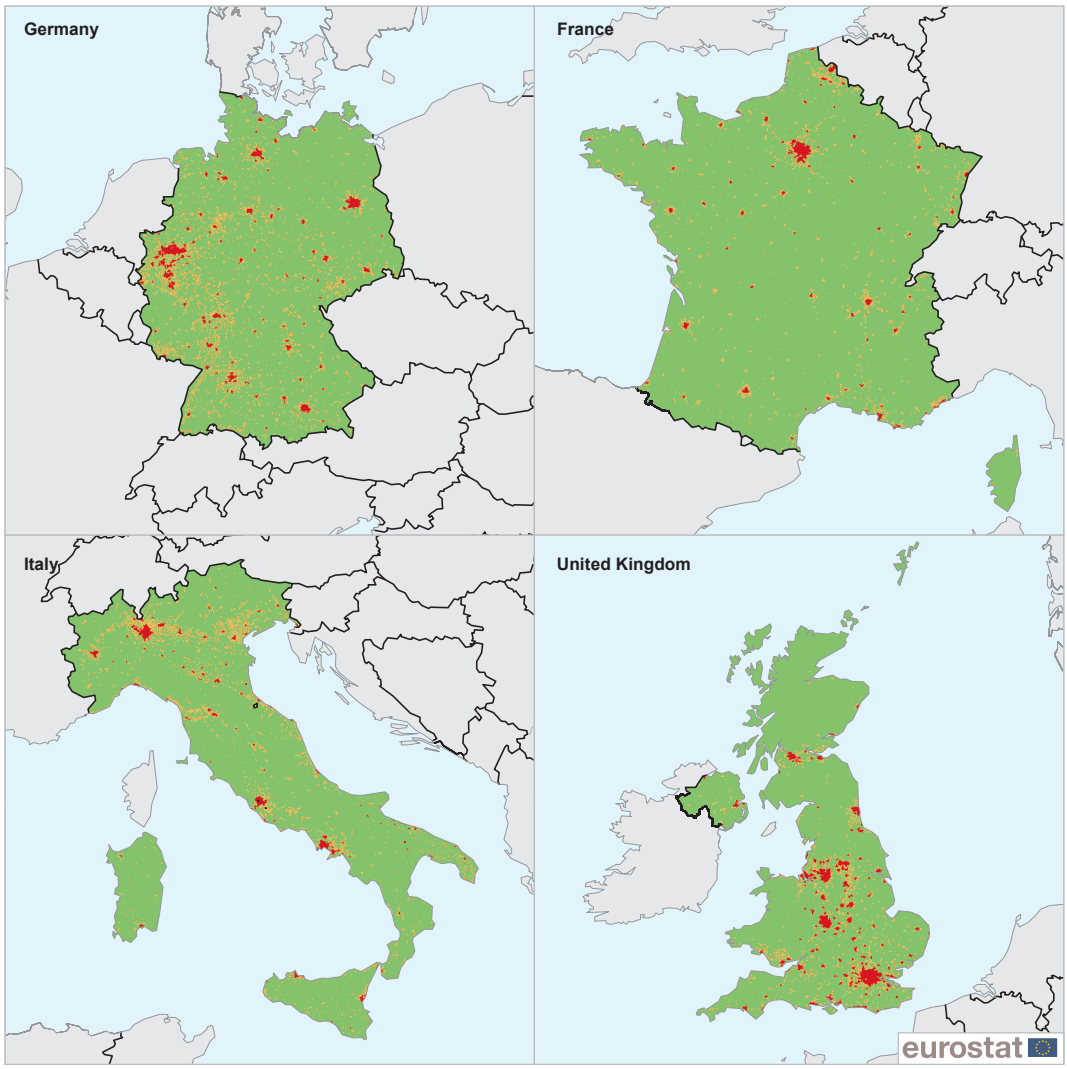
The urban morphology of the EU's largest economies differs in terms of the number, hierarchy and distribution of cities. **Map 4.1** provides an overview of population distribution across the four most populous EU Member States, highlighting those urban centres with high-density clusters. Germany is characterised by a polycentric distribution of its major cities, from Hamburg in the north, to Köln in the west, München in the south and Berlin in the east, with a number of relatively large cities (for example, Bremen, Hannover, Frankfurt am Main, Stuttgart, Nürnberg, Dresden and Leipzig) spread in a network across the remainder of its territory.

In France, the capital of Paris occupies a prominent position in terms of its location, from which transport links run in a radial pattern to other cities. Outside of the capital, the main urban centres in France are often located around (or close to) its coastline. A relatively high proportion of the population in France inhabits rural areas and these are spread over the majority of its territory. Although not shown, there was a similar pattern observed in Spain, with the capital city Madrid in the centre of the country and a pattern of radial transport links to other cities, most of which were located around the coast. In contrast to France, the interior of Spain is largely arid and often characterised by sparsely populated areas.

The patterns of urban morphology in Italy and the United Kingdom are less uniform. Besides the capital of Roma, there are two other significant urban clusters in Italy, with high-density urban conurbations centred on Milano in the north and Napoli to the south of the capital. The urban morphology of northern Italy is not dissimilar to that found in Germany, insofar as there is a network of relatively large cities distributed quite evenly across its territory, while south of Firenze this pattern ceases and relatively sparsely populated areas become the norm, with the distribution of urban areas more akin to that in Spain.

In the United Kingdom, London is by far the largest urban agglomeration. The other metropolitan regions are principally those of the West Midlands (including Birmingham) and Merseyside/Greater Manchester in the north-west of England. The morphology of the United Kingdom is quite distinct insofar as there are relatively short distances between these high-density areas, with the bulk of the population living in the south-east of the territory, while most parts of Wales or Scotland are sparsely populated.

Map 4.1: Distribution of urban centres in selected EU Member States, 2011



Cartography: Eurostat — GISCO, 03/2016

Administrative boundaries: © EuroGeographics © UN-FAO

Urban centres (> 1 500 inhabitants/km²)
Urban clusters (> 300 and ≤ 1 500 inhabitants/km²)
Rural background

0 100 200 300 400 km

Source: Eurostat, GEOSTAT Population Grid 2011

Zipf's law

Initially based on a language study, Zipf's law states that the frequency of use of any word is inversely proportional to its rank. In other words, the most frequently used word ('the' in the English language) will occur approximately twice as often as the second most frequently used word ('of'), three times as often as the third most frequently used word ('and'), etc. Such a rule based on frequency and rank has been applied to a number of other situations across a range of natural and social sciences. It has been shown to apply to the distribution of: income between individuals; enterprises operating in a particular economic activity; or the size of cities.

Zipf's law in relation to city sizes suggests that the city with the largest population in a given country is generally twice as large as the second largest city, and three times as large as the third largest city, and so on. Empirically, there are a number of studies that show the distribution of city sizes tends to converge to Zipf's law, at least at the upper end of the distribution among larger cities.

In Germany, the second city had a higher number of inhabitants than the capital city

Table 4.3 presents information on the number of inhabitants residing in the three largest metropolitan regions of each EU Member State; note that under this typology there are only 17 Member States with three or more metropolitan regions (see the table for more information on data coverage).

The aggregated number of inhabitants living in the 17 capital cities of those EU Member States with at least three metropolitan regions was 71.1 million inhabitants in 2014. A similar calculation reveals there were 33.6 million inhabitants living in their second cities and 22.9 million inhabitants living in their third cities. As such, these aggregate figures show a close relationship to Zipf's law, insofar as the population of the metropolitan regions of the 17 capital cities was, on average, 2.1 times as high as that recorded for second cities and 3.1 times as high as for third cities.

Within the individual EU Member States there were also examples that approximated closely to Zipf's law, for example:

- in Bulgaria, the population of Sofia (1.68 million inhabitants) was 2.5 times as large as in Plovdiv (0.68 million inhabitants) and 3.5 times as high as in Varna (0.47 million inhabitants);
- in Denmark the population of København (1.95 million inhabitants) was 2.3 times as large as in Århus (0.85 million inhabitants) and 3.4 times as high as in Aalborg (0.58 million inhabitants).

However, there were also examples that diverged from Zipf's law, for example, in Germany and Italy there were only minor differences between the number of inhabitants living in the capital city and the second city, whereas the number of inhabitants residing in the capitals of Hungary, France and the United Kingdom was substantially bigger than that recorded in each of their respective second cities:

- in Hungary, the population of Budapest (2.97 million inhabitants) was 4.4 times as large as in Miskolc (0.67 million inhabitants);
- in France, the population of Paris (12.01 million inhabitants) was 4.6 times as large as in the conurbation of Lille - Dunkerque - Valenciennes (2.60 million inhabitants);
- in the United Kingdom, the population of London (14.03 million inhabitants) was 5.2 times as high as in (Greater) Manchester.

Table 4.3: Population of capital city metropolitan regions compared with other major metropolitan regions, 2014 (1)

Metropolitan region of capital city		Metropolitan region of the second city			Metropolitan region of the third city		
	(million inhabitants)		(million inhabitants)	(ratio to capital, %)		(million inhabitants)	(ratio to capital, %)
Bruxelles/ Brussel (BE)	2.97	**Antwerpen**	1.03	34.6	**Liège**	0.81	27.4
Sofia (BG)	1.68	**Plovdiv**	0.68	40.4	**Varna**	0.47	28.2
Praha (CZ)	2.55	**Ostrava**	1.22	48.0	**Brno**	1.17	46.0
København (DK)	1.95	**Århus**	0.85	43.7	**Aalborg**	0.58	29.8
Berlin (DE)	5.01	**Ruhrgebiet**	5.05	100.8	**Hamburg**	3.17	63.4
Tallinn (EE)	0.57		–	–		–	–
Dublin (IE)	1.82	**Cork**	0.67	37.0		–	–
Athina (EL)	3.86	**Thessaloniki**	1.12	29.1		–	–
Madrid (ES)	6.38	**Barcelona**	5.45	85.4	**Valencia**	2.53	39.6
Paris (FR)	12.01	**Lille - Dunkerque - Valenciennes**	2.60	21.6	**Marseille**	2.00	16.6
Zagreb (HR)	1.12	**Split**	0.46	40.8		–	–
Roma (IT)	4.32	**Milano**	4.27	98.8	**Napoli**	3.13	72.4
Lefkosia (CY)	0.86		–	–		–	–
Rīga (LV)	1.01		–	–		–	–
Vilnius (LT)	0.81	**Kaunas**	0.59	72.8		–	–
Luxembourg (LU)	0.55		–	–		–	–
Budapest (HU)	2.97	**Miskolc**	0.67	22.8	**Debrecen**	0.54	18.2
Valletta (MT)	0.39		–	–		–	–
Amsterdam (NL)	2.44	**Rotterdam**	1.42	58.2	**Utrecht**	1.25	51.4
Wien (AT)	2.68	**Linz**	0.77	28.6	**Graz**	0.61	22.6
Warszawa (PL)	3.30	**Katowice**	2.74	83.0	**Kraków**	1.45	44.0
Lisboa (PT)	2.81	**Porto**	1.27	45.3	**Coimbra**	0.32	11.5
București (RO)	2.28	**Iasi**	0.78	34.2	**Cluj-Napoca**	0.70	30.6
Ljubljana (SI)	0.55	**Maribor**	0.32	59.2		–	–
Bratislava (SK)	0.62	**Košice**	0.79	128.5		–	–
Helsinki (FI)	1.59	**Tampere**	0.50	31.5	**Turku**	0.47	29.7
Stockholm (SE)	2.16	**Göteborg**	1.62	74.7	**Malmö**	1.27	58.9
London (UK)	14.03	**Manchester**	2.72	19.4	**West Midlands**	2.46	17.5
Oslo (NO)	1.21	**Bergen**	0.51	41.7		–	–
Bern (CH)	1.00	**Zürich**	1.43	142.4	**Lausanne**	0.75	74.8

(1) The terms 'second city' and 'third city' are used to denote the metropolitan regions with the highest number of inhabitants outside of the capital region.

Source: Eurostat (online data code: met_pjanaggr3)

4.3 Are capital cities growing?

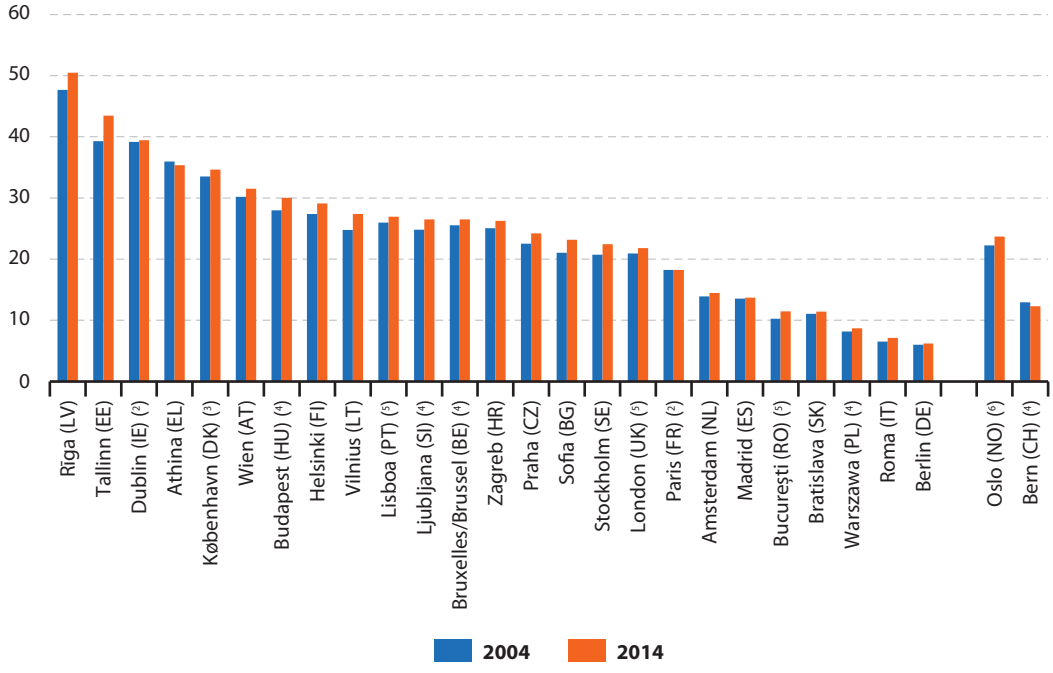
An inverse relationship between the population size of an EU Member State and the share of its capital city in the national economy has already been mentioned earlier in this chapter (see **Table 4.2**). This analysis is extended by introducing a time dimension to look at developments during a recent 10-year period during which the relative importance of capital cities was seen to grow in the vast majority of the 25 EU Member States for which data are available (metropolitan regions for the capital cities of Cyprus and Luxembourg equate to the whole of their national territory at NUTS level 3, while the main island of Malta accounts for the vast majority of its territory (Gozo is excluded); these three Member States are therefore excluded from this analysis).

All but one of the EU's capital cities accounted for a growing share of their national population

The number of inhabitants residing in capital cities as a share of national populations grew in all but one of the EU Member States between 2004 and 2014 (see **Figure 4.2**). Athina was the only exception as its share of the Greek population fell from 36.0 % to 35.4 %, perhaps reflecting the effects of the financial and economic crisis and subsequent sovereign debt crisis during which Greece experienced a strong increase in emigration. There was no change in the share of the French population living in Paris, while the number of inhabitants residing in Madrid and Berlin rose modestly relative to their national populations.

Figure 4.2: Population of capital city metropolitan region in relation to the national population, 2004 and 2014 (1)

(%)



(1) Cyprus, Luxembourg and Malta: not applicable.
(2) Provisional.
(3) 2007 instead of 2004.
(4) Break in series.
(5) Estimates.
(6) 2005 instead of 2004.

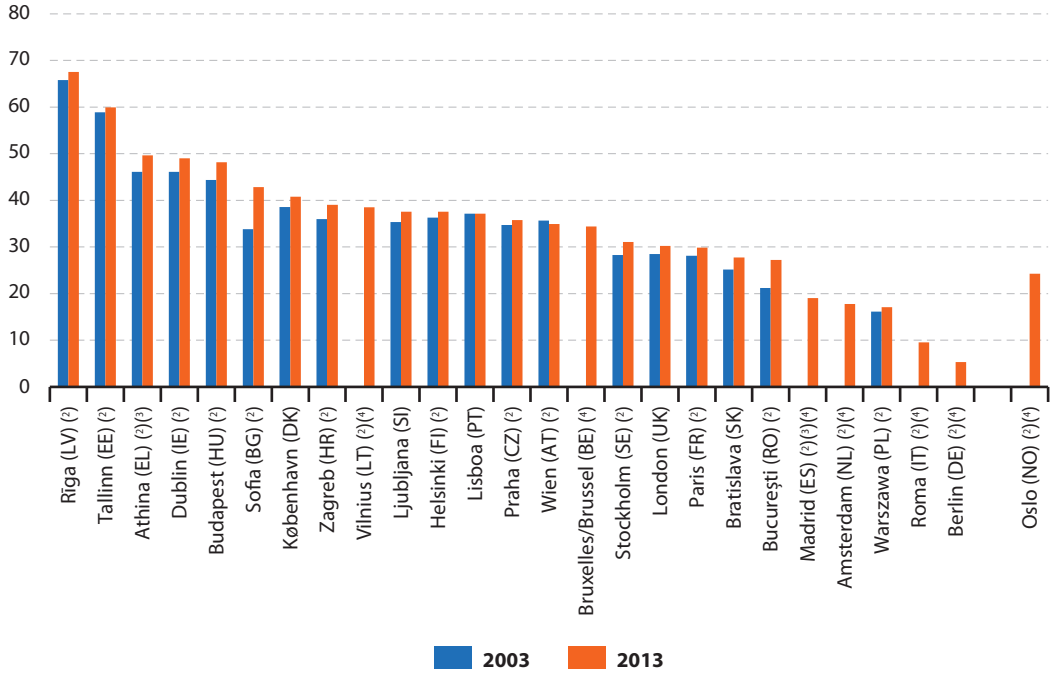
Source: Eurostat (online data codes: met_pjanaggr3 and demo_pjan)

The most rapid shifts in population towards capital cities were recorded in the three Baltic Member States. The proportion of the Estonian population living in Tallinn rose from 39.3 % to 43.5 % during the period 2004–14 — an increase of 4.2 percentage points — while the share of the population living in the Latvian and Lithuanian capitals of Rīga and Vilnius rose by 2.8 and 2.6 percentage points respectively; in Sofia and Budapest there was also a relatively rapid transformation, as an increasing share of the national population chose to live in the Bulgarian and Hungarian capitals.

Between 2003 and 2013, the Austrian capital of Wien was the only metropolitan region among the 19 for which data are available (see **Figure 4.3**), to report that its share of national GDP fell (2003–12); there was no change in the share of Portuguese GDP generated in its capital, Lisboa. Otherwise, each of the remaining 17 EU Member States reported an increasing share of their economic activity being generated within their capital. This shift was most pronounced in Bulgaria and Romania (both 2003–12), as the share of economic activity that was generated in Sofia and Bucureşti increased by 9.0 percentage points and 6.0 percentage points respectively.

In 13 out of the 19 Member States for which data are available, the shift in economic activity towards the capital city was at a faster pace than the change recorded for population, suggesting that these capital cities were becoming increasingly productive in relation to the rest of the country or that commuter inflows were increasing; the exceptions were Tallinn, Wien, Rīga, Lisboa, Praha and Helsinki.

Figure 4.3: GDP of capital city metropolitan region in relation to national GDP, 2003 and 2013 (1)
(%)



(1) Cyprus, Luxembourg and Malta: not applicable.
(2) 2012 instead of 2013.
(3) 2012: provisional.
(4) 2003: not available.

Source: Eurostat (online data codes: met_10r_3gdp and nama_10_gdp)

4.4 Patterns of urban development among the largest EU Member States

An alternative approach to analyse the importance of capital cities relative to their national economies is presented in **Figure 4.4**, which shows the number of inhabitants living in the metropolitan regions of the largest EU Member States, as well as their GDP per person employed, which may be used as an indicator to measure labour productivity or more generally competitiveness; note the size of each bubble represents the overall level of GDP for each city. The advantage of the ratio of GDP to the number of persons employed is that it is not influenced by commuter flows, as commuters are included in the number of persons employed and contribute to GDP.

Paris and London play an influential role in their national economies

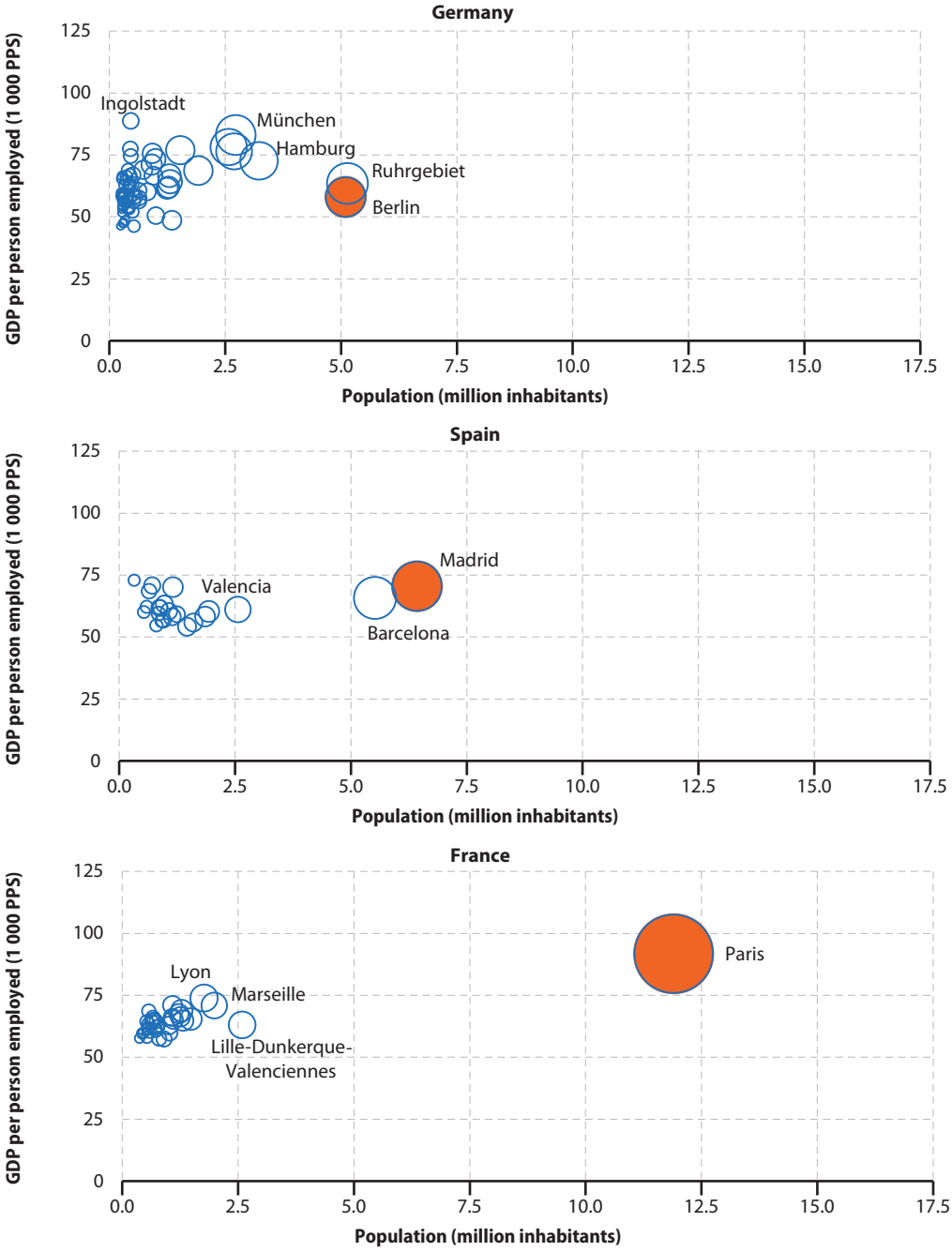
Paris and London appeared as distinct outliers, with each of these megacities playing an influential role in their national economies, accounting for very high shares of the total number of inhabitants and overall GDP, as well as the highest levels of GDP per person employed; note that GDP per person employed for all of the cities in the United Kingdom is based on the number of employees as the denominator which leads to an overestimation. Warszawa also recorded the biggest share of its national population and the highest level of GDP per person employed, although its size and level of productivity were far more in keeping with the other Polish cities.

It is interesting to note that Milano, the second largest city in Italy had a somewhat higher level of productivity than the capital Roma and that these two cities were almost equal in terms of their number of inhabitants, while the two main cities in Spain — Madrid and Barcelona — also recorded results that were within close proximity of each other. The pattern observed in Germany was similar insofar as the two largest metropolitan regions in population terms, Berlin and the Ruhrgebiet, were again almost the same size and also recorded similar levels of productivity; however, these were not — as in most other EU Member States — the highest productivity levels in the national economy.

A more detailed picture is presented in **Table 4.4**: in 2012 there were only three EU Member States where the capital city failed to record the highest level of GDP per person employed. Two of these were Berlin and Roma (as mentioned above), while the third was the Irish capital of Dublin. Although Dublin recorded the second highest level of GDP per person employed among EU capitals (just behind London), there was one metropolitan region in Ireland with a higher level of productivity, namely, the southern Irish city of Cork, which is home, among others, to a number of pharmaceutical and information technology multinationals.

A comparison between productivity levels for the capital city and second city of each EU Member State shows that the widest disparities between metropolitan regions were recorded in Romania, where GDP per person employed in Bucureşti was 2.9 times as high as in the second city of Iasi. There was also a relatively wide gap in productivity levels between the capitals of Paris, Bratislava, London and Sofia and their respective second cities of Lille - Dunkerque - Valenciennes, Košice, (Greater) Manchester and Plovdiv, with GDP per person employed 1.5–1.8 times as high in these four capitals. Many of the capital cities with the highest levels of productivity and the widest gaps (in relation to productivity levels in their second cities) were located in those Member States characterised by a monocentric pattern of economic development.

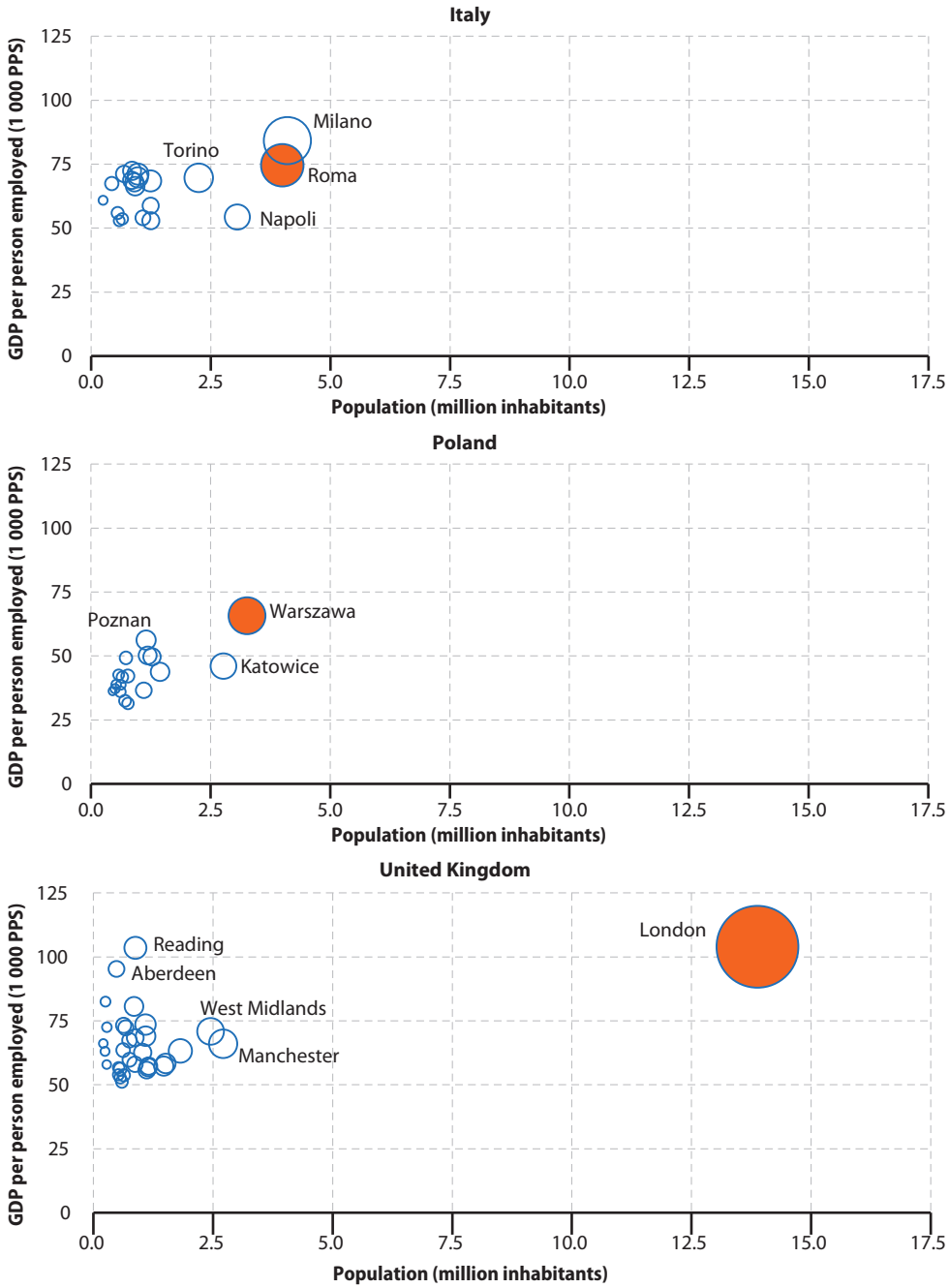
Figure 4.4: Population and GDP per person employed of metropolitan regions in selected EU Member States, 2012 (1)



(1) The size of each bubble represents the level of GDP in the respective metropolitan region. Capital city metropolitan regions are coloured in a darker shade. France: population data are provisional. The United Kingdom: 2013; GDP per person employed uses the number of employees as the denominator which leads to an overestimation.

Source: Eurostat (online data codes: met_pjanaggr3, met_10r_3gdp and met_10r_3emp)

Figure 4.4 (continued): Population and GDP per person employed of metropolitan regions in selected EU Member States, 2012 (1)



(1) The size of each bubble represents the level of GDP in the respective metropolitan region. Capital city metropolitan regions are coloured in a darker shade. France: population data are provisional. The United Kingdom: 2013; GDP per person employed uses the number of employees as the denominator which leads to an overestimation.

Source: Eurostat (online data codes: met_pjanaggr3, met_10r_3gdp and met_10r_3emp)

Capital city economic developments to the detriment of provincial cities?

A comparison between GDP per inhabitant and GDP per person employed may be used to examine differences between standards of living on the one hand and labour productivity/competitiveness on the other (see **Figure 4.6**). The differences shown reflect, among others, employment rates in each city and the impact of commuter flows; more information on commuting is presented in Chapter 9.

With these provisos, the overall patterns in **Figure 4.6** confirm that Paris and London had considerably higher standards of living and productivity than their second to fifth largest cities, emphasising the monocentric nature of economic developments in these two economies.

Table 4.4: Main indicators for metropolitan regions of the capital city and second city, 2012 (1)

Metropolitan region of capital city				Metropolitan region of the second city			
	GDP (billion PPS)	Employment (million)	GDP per person employed (1 000 PPS)		GDP (billion PPS)	Employment (million)	GDP per person employed (1 000 PPS)
Bruxelles/Brussel (BE)	120.0	1.4	87.9	**Antwerpen**	40.2	0.5	87.3
Sofia (BG)	38.0	1.0	37.8	**Plovdiv**	6.6	0.3	20.7
Praha (CZ)	81.9	1.5	55.5	**Ostrava**	23.1	0.5	43.3
København (DK)	75.5	1.0	72.1	**Århus**	24.8	0.4	61.6
Berlin (DE)	141.5	2.4	58.1	**Ruhrgebiet**	150.5	2.4	63.5
Tallinn (EE)	15.2	0.3	50.7		–	–	–
Dublin (IE)	78.2	0.8	96.2	**Cork**	29.5	0.3	104.9
Athina (EL)	106.2	1.5	69.4	**Thessaloniki**	18.8	0.4	47.9
Madrid (ES)	219.5	3.1	70.5	**Barcelona**	161.0	2.4	65.8
Paris (FR)	555.3	6.0	91.8	**Lille - Dunkerque - Valenciennes**	64.5	1.0	63.1
Zagreb (HR)	26.7	0.5	56.3	**Split**	5.6	0.1	41.8
Roma (IT)	153.1	2.1	74.6	**Milano**	189.6	2.3	84.2
Lefkosia (CY)	20.3	:	:		–	–	–
Rīga (LV)	21.7	0.5	47.1		–	–	–
Vilnius (LT)	21.1	0.4	55.4	**Kaunas**	10.7	0.3	41.6
Luxembourg (LU)	37.4	:	:		–	–	–
Budapest (HU)	82.0	1.7	48.8	**Miskolc**	7.2	0.2	36.9
Valletta (MT)	9.2	0.2	54.7		–	–	–
Amsterdam (NL)	105.0	1.4	76.4	**Rotterdam**	53.4	0.7	73.6
Wien (AT)	100.4	1.4	72.0	**Linz**	28.7	0.4	64.1
Warszawa (PL)	115.4	1.8	65.7	**Katowice**	55.1	1.2	46.1
Lisboa (PT)	80.5	1.4	58.1	**Porto**	25.7	0.6	44.1
București (RO)	76.3	1.1	67.1	**Iasi**	8.3	0.4	23.2
Ljubljana (SI)	16.7	0.3	53.9	**Maribor**	5.8	0.1	43.0
Bratislava (SK)	28.8	0.4	66.9	**Košice**	12.2	0.3	44.2
Helsinki (FI)	62.1	0.8	74.2	**Tampere**	14.5	0.2	64.6
Stockholm (SE)	98.7	1.2	83.1	**Göteborg**	51.8	0.8	66.0
London (UK)	566.9	5.5	104.0	**Manchester**	68.3	1.0	66.1
Oslo (NO)	61.2	0.7	83.3	**Bergen**	20.2	0.3	75.9

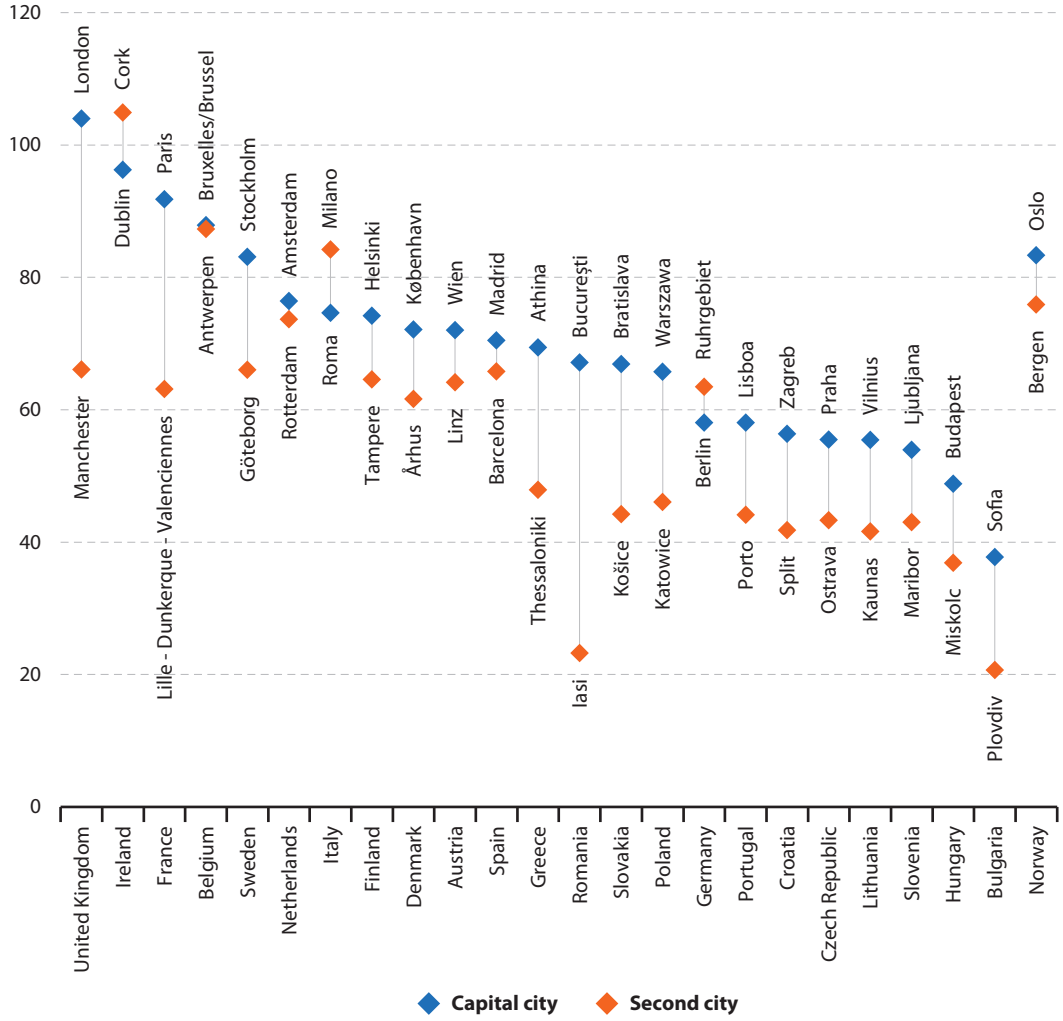
(1) The term 'second city' is used to denote the metropolitan region with the highest number of inhabitants outside of the capital region. Belgium, Denmark, Cyprus, Luxembourg, Malta, Slovenia and the United Kingdom: 2013. Portugal: 2011. The United Kingdom: number of employees instead of number of persons employed; the number of employees is also used as the denominator for GDP per person employed which leads to an overestimation.

Source: Eurostat (online data codes: met_pjanaggr3, met_10r_3gdp and met_10r_3emp)

In the United Kingdom the gaps between London and the four largest provincial cities were particularly wide, as (Greater) Manchester, the West Midlands, Glasgow and Liverpool each reported a level of GDP per inhabitant below the national average for the United Kingdom. A similar pattern was observed for the two southern Italian cites of Napoli and Bari, where GDP per inhabitant was lower than in Roma and also below the national average.

All four of the provincial cities in Germany had higher levels of GDP per inhabitant than the capital of Berlin and three out of the four — Hamburg, München and Stuttgart — reported an average standard of living that was above the national average.

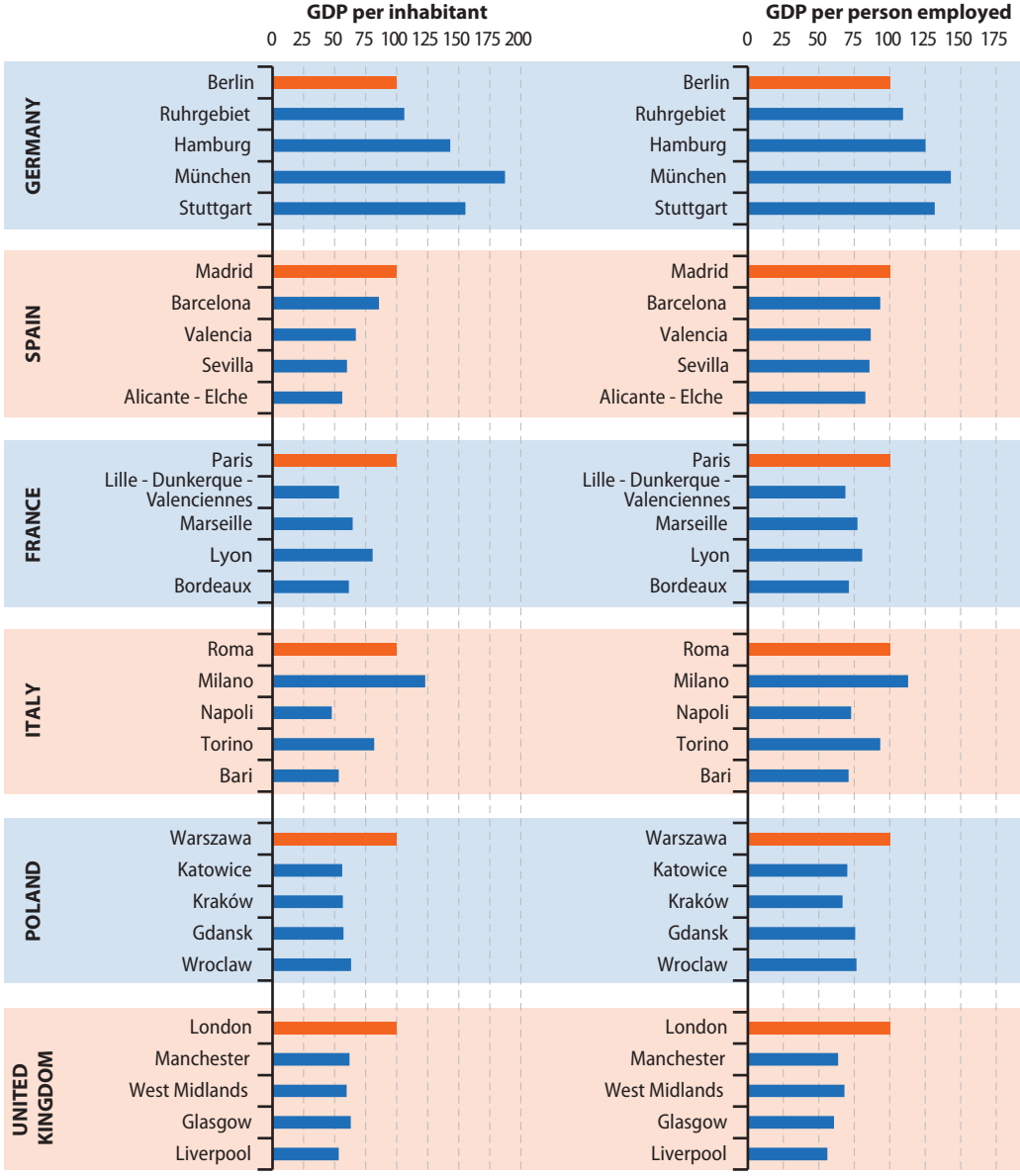
Figure 4.5: GDP per person employed for metropolitan regions of the capital city and second city, 2012 (1)
(1 000 PPS)



(1) The term 'second city' is used to denote the metropolitan region with the highest number of inhabitants outside of the capital region. Belgium, Denmark, Slovenia and the United Kingdom: 2013. Portugal: 2011. The United Kingdom: GDP per person employed uses the number of employees as the denominator which leads to an overestimation. Estonia, Cyprus, Latvia, Luxembourg and Malta: not applicable or incomplete data.

Source: Eurostat (online data codes: met_pjanaggr3, met_10r_3gdp and met_10r_3emp)

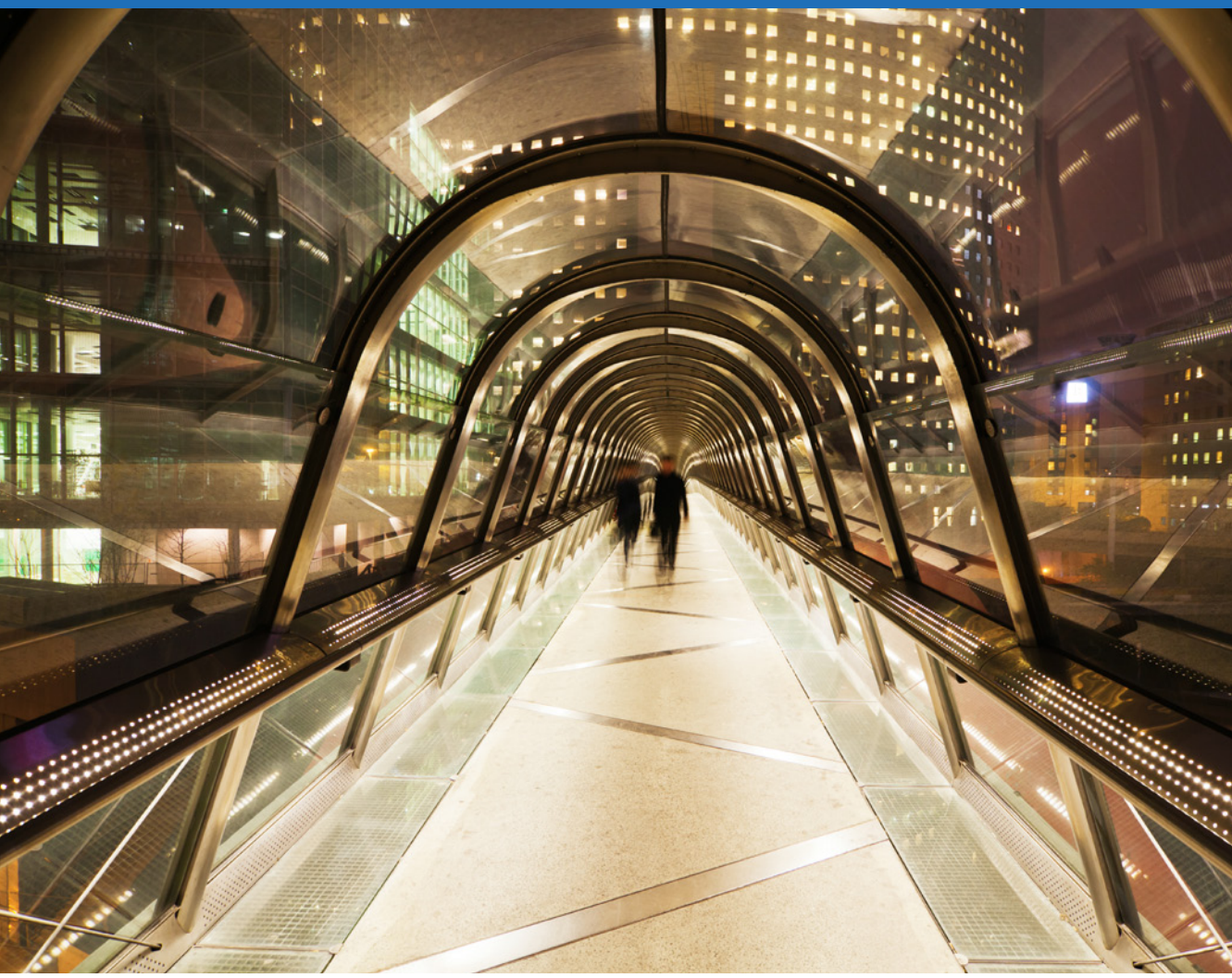
Figure 4.6: GDP per inhabitant and GDP per person employed of metropolitan regions in selected EU Member States, 2012 (1)
(capital city = 100; based on values in PPS terms)



(1) The ranking of the other metropolitan regions is based on their respective number of inhabitants. France: population data and therefore GDP per inhabitant are provisional. The United Kingdom: 2013; GDP per person employed uses the number of employees as the denominator which leads to an overestimation.

Source: Eurostat (online data codes: met_pjanaggr3, met_10r_3gdp and met_10r_3emp)

5 Smart cities



The opening chapters have already demonstrated that the on-going process of urbanisation has resulted in the size and relative importance of cities across the European Union (EU) increasing. This pattern is particularly true for capitals and other large cities that often act as hubs for education, employment, innovation and the knowledge-based economy. Some of these European cities are at the forefront of technological and sustainable development initiatives that are transforming urban life; this chapter analyses some of the aspects related to the development of so-called 'smart cities', while the chapter that follows concentrates on 'green cities'.

What makes a smart city?

For policy purposes, the EU defines a smart city as 'a place where traditional networks and services are made more efficient with the use of digital and telecommunication technologies, for the benefit of its inhabitants and businesses'. Smart cities are innovative, making traditional networks and services more efficient through the use of digital technologies, creating more inclusive, sustainable and connected cities for the benefit of inhabitants, public administrations and businesses. Smart cities have the potential to improve the quality of life, while ensuring the needs of present and future generations with respect to economic, social and environmental challenges.

The concept of smart cities covers a broad range of areas such as: the economy, the environment, mobility, or governance. Some practical applications include more efficient ways to light and heat buildings, or the introduction of wireless sensors for waste disposal facilities to optimise collection schedules. Smart urban transport networks can be used to reduce congestion: for example, a city that is run as an integrated system would be able to reconfigure its activity if a traffic incident occurs, temporarily rerouting emergency services to avoid congestion, or sending additional public transport services to affected parts of the city. These technological advances can also enhance the understanding of how cities function and provide the potential for considerable efficiency savings, which may in turn help reach the Europe 2020 targets.

The European Innovation Partnership on Smart Cities and Communities (EIP-SCC) brings together cities, businesses and citizens with the goal of improving urban life. A budget of EUR 365 million was set aside for this purpose; the initiative is designed to accelerate the commercial roll-out of smart city solutions through an implementation plan built on the receipt of 370 eligible submissions for commitments.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

The availability and quality of information and communication technologies (ICT) infrastructure represents one aspect of smart cities. These cities also appear to thrive where human capital and innovations work in unison with ICT; these issues are discussed in more detail below under the headings of education, innovation, use of the internet and transport.

5.1 Education

The wealth of cultural activities and scientific institutions in urban environments exposes young and older people to a diverse set of educational opportunities that are largely unavailable in rural settings. Such experiences have the potential to inspire, motivate, and challenge people to achieve more and may be of particular relevance to ensure the necessary human capital for stimulating the development of smart cities.

Many studies have shown that there is a link between cities which are characterised by highly-educated workforces and rapid urban development. This may be related to graduates deciding to stay close to where they studied, research institutes and science parks tending to cluster around academic institutions, or dynamic, lively cities with a high quality of life being more likely to attract entrepreneurs and highly-skilled workers.

The Italian city of Pisa had a very high number of tertiary education students

Figure 5.1 shows the proportion of the population aged 20–34 who were in full-time tertiary education (defined as ISCED 2011 levels 5–8); it presents the city in each of the EU Member States, Norway and Switzerland with the highest share. Note that ratios over 100 % are possible because: students may choose for administrative purposes to remain registered at their parents' home address while the count of students is based on their place of study; some tertiary students are younger or older than the age limits that are used in the denominator for this indicator (namely, 20–34 years old). As such, it is perhaps unsurprising to find that many of the cities present in this ranking were relatively small, with tertiary students often inflating their populations considerably.

The Italian city of Pisa (2010 data) had the highest ratio of full-time tertiary students to its population of 20–34 year olds, at 336.7 %. To give an idea of the relative importance of the Pisa university system to the city, there were in excess of 50 thousand tertiary students studying in a city with a total population of fewer than 90 thousand inhabitants. The second highest ratio was recorded in Milton Keynes (the United Kingdom; 2014 data), followed by Porto (Portugal; 2015 data). Some of those cities recording high ratios were located close to much larger urban centres, for example: Leuven just to the east of Bruxelles/Brussel (Belgium; 2011 data); Gießen to the north of Frankfurt am Main (Germany; 2014 data); or the Communauté d'agglomération du Plateau de Saclay that is situated in the south-western suburbs of Paris (France; 2012 data), which is home to several tertiary education institutions.

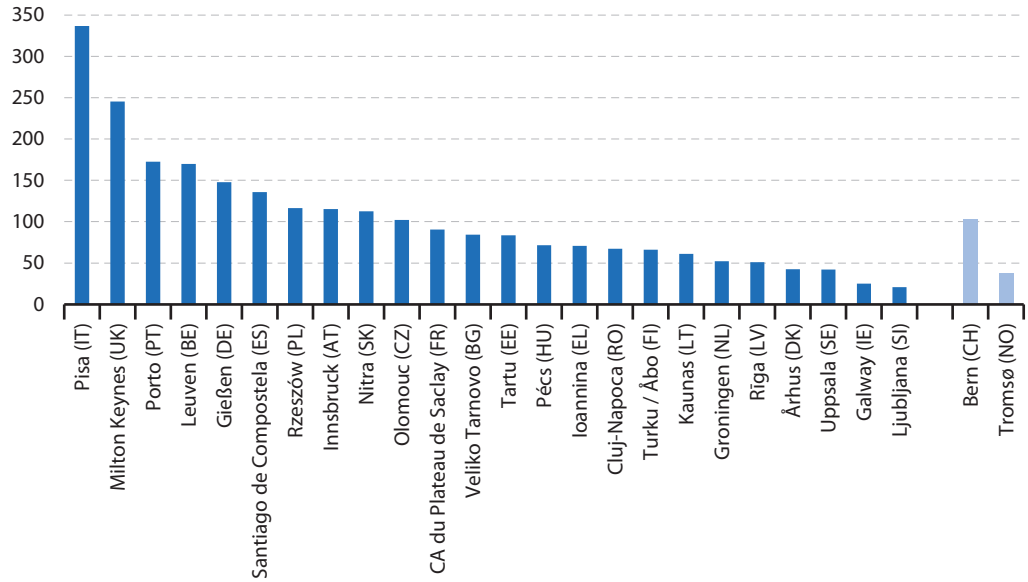
Capital cities tended to attract a high share of graduates to their workforce

According to labour force survey statistics, the overall share of people aged 25–64 in the EU-28 with a tertiary level of educational attainment stood at just over a quarter (27.7 %) in 2012. An analysis by degree of urbanisation shows a marked contrast, with more than one third (35.5 %) of those living in cities having a tertiary level of educational attainment compared with less than one fifth (19.3 %) in rural areas. This pattern of higher shares being recorded among the working-age population living in cities was repeated in each of the EU Member States with the exception of Malta (where only a very small number of people are living in rural areas).

A more detailed analysis at the city level is presented in **Figure 5.2**: it shows the City of London (the United Kingdom; 2011 data) recorded the highest share of people aged 25–64 with a tertiary level of educational attainment, some 74.7 %; note that data for some of the EU Member States are presented at a very detailed level (subcity information), and that, for example, the City of London was inhabited by just seven thousand persons, as most of its relatively small area was covered by financial institutions. There were 10 other cities in the EU

Figure 5.1: Proportion of people aged 20–34 in full-time tertiary education, 2013 ([1])

(%)



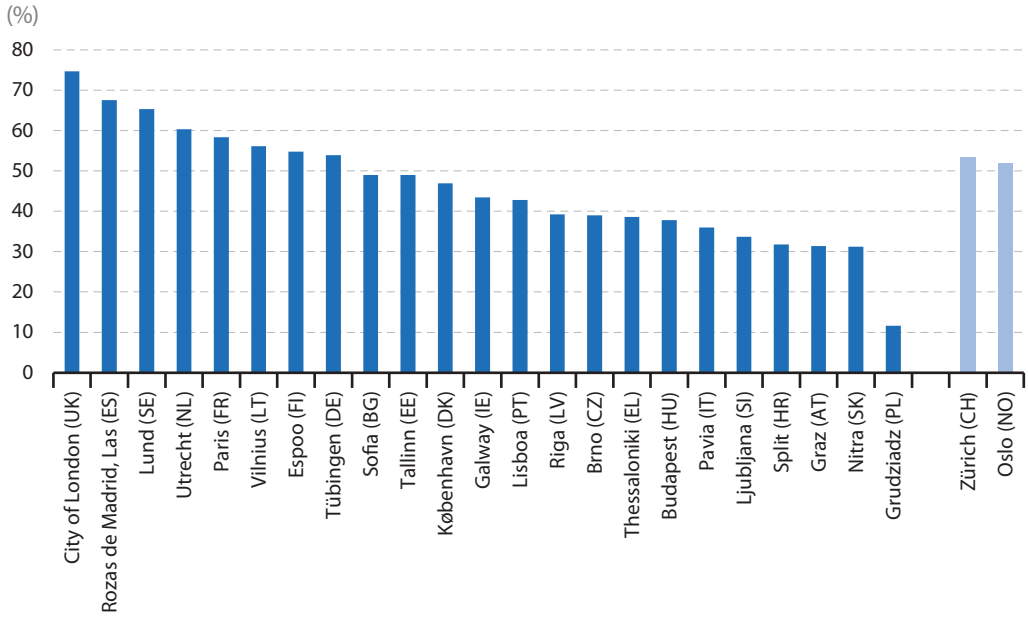
([1]) The figure shows the highest ratio in each country (subject to data availability). Tertiary education is defined as ISCED 2010 levels 5–8. Ratios over 100 % indicate that there are more tertiary students studying in a city than inhabitants aged 20–34; note that i) for administrative purposes students may remain registered at their parents home address or commute for their studies and ii) students may also be aged under 20 or over 34. Portugal: 2015. Germany, Romania, the United Kingdom and Switzerland: 2014. Denmark, France, Hungary, the Netherlands, Poland, Slovenia, Slovakia and Norway: 2012. Belgium, Czech Republic, Ireland, Greece, Finland and Sweden: 2011. Italy: 2010. Spain: 2008. Croatia, Cyprus, Luxembourg and Malta: not available. London (United Kingdom): not available, replaced with information on individual boroughs. Ireland, Lithuania, Poland, Portugal, the United Kingdom and Switzerland: estimates.

Source: Eurostat (online data codes: urb_ceduc and urb_cpop1)

where the share of people aged 25–64 with a tertiary level of educational attainment was above 60.0 %: three of these were located in the suburbs around the Spanish capital of Madrid (Las Rozas de Madrid, Pozuelo de Alarcón and Majadahonda); two were suburbs of other Spanish cities — Sant Cugat del Vallès near Barcelona and Getxo near Bilbao; two were other parts of London — Richmond upon Thames and Wandsworth; while the list was completed by Cambridge (also in the United Kingdom), Utrecht (the Netherlands) and Lund (Sweden).

It was commonplace to find capitals attracting a higher than average share of graduates to their workforce, reflecting, among other factors: a wider range of potential job opportunities, both for those who studied in the capital as well as graduates from other parts of the country or indeed abroad; more dynamic career paths that may be offered (by enterprises that are located) in capital cities. This situation was apparent in/around the capital cities of the United Kingdom, Spain, France, Lithuania, Bulgaria, Estonia, Denmark, Portugal, Latvia, Hungary and Slovenia. In the remaining EU Member States, the highest shares of the working-age population with a tertiary level of educational attainment were often recorded in cities characterised by a high quality of life or their technological/innovative nature: for example, Lund (Sweden) and Espoo (Finland) are both home to a range of high-technology enterprises and business start-ups, while Utrecht (the Netherlands) has been named as the most competitive region in the EU.

Figure 5.2: Proportion of people aged 25–64 possessing a tertiary level of educational attainment, 2012 (1)



(1) The figure shows the highest share in each country (subject to data availability). Tertiary education is defined as ISCED 2010 levels 5–8. Switzerland: 2014. Croatia: 2013. Bulgaria, the Czech Republic, Italy, Lithuania, Hungary, Poland, Portugal, Slovenia, Slovakia, Finland and the United Kingdom: 2011. Austria and Sweden: 2008. Belgium, Cyprus, Luxembourg, Malta and Romania: not available. London (United Kingdom): not available, replaced with information on individual boroughs. Bulgaria, Germany, Ireland, Spain, Latvia, Lithuania, Poland, Portugal and Switzerland: estimates. Poland: definition differs.

Source: Eurostat (online data code: urb_ceduc)

5.2 Innovation

The innovation union is one of the seven flagship initiatives of the Europe 2020 strategy. It seeks to:

- encourage the creation of an innovation-friendly environment so that inventions can be more easily turned into new products and services;
- refocus research and development (R & D)/innovation policy on some of the major challenges facing society, for example, demographic changes, health issues, climate change, or energy and resource efficiency.

The patent system is designed to stimulate inventions as they are designed to help an inventor get a return on their investment; they may also be used to measure the knowledge potential of a city/region. Across the EU-28, there were 57.1 thousand patent applications made to the European Patent Office (EPO) in 2011; this equated to 113.2 applications for each million inhabitants.

The distribution of patent applications in the EU was highly concentrated; this may be linked to clusters that develop in/around capital cities, entrepreneurial hubs, or regions specialised in high-technology activities. These clusters provide a creative environment from which a wide range of innovations may develop; they also have the potential to provide ideas and technologies around which smart cities may develop.

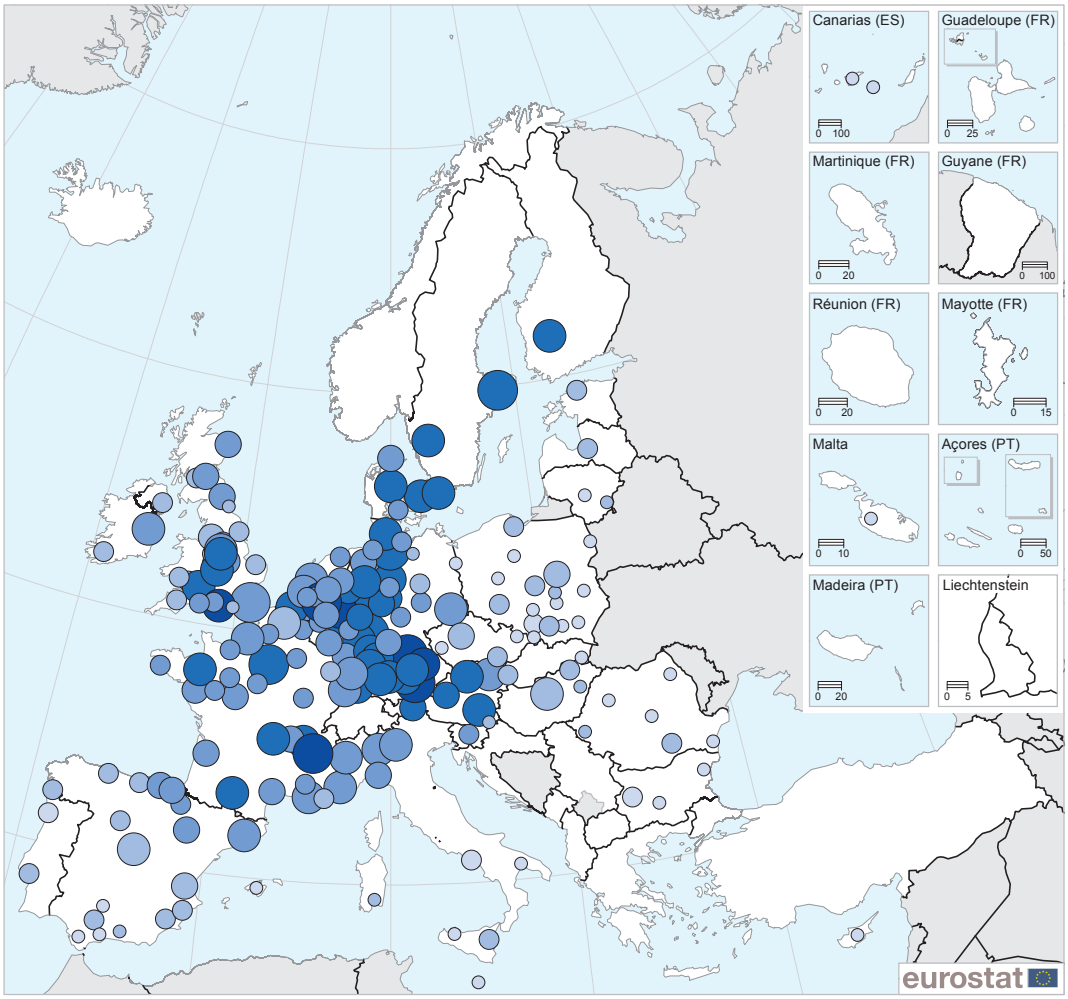
Metropolitan regions had high levels of innovation output

Aside from being concentrated in metropolitan regions, the propensity to patent was also concentrated in relatively few of the EU Member States, as there were only 10 Member States where the metropolitan region with the highest ratio of patent applications per million inhabitants recorded a propensity to patent that was above the EU-28 average, they were: Germany, the Netherlands, France, Denmark, Sweden, Italy, Finland, the United Kingdom, Ireland and Belgium. Note that within each of these 10 Member States, there could be more than one metropolitan region with concentrated patent activity, for example, 31 out of the 41 German metropolitan regions for which data are available reported a propensity to patent above the EU-28 average.

Eindhoven, Düsseldorf and Portsmouth recorded the highest propensity to patent in the EU

There may be a number of reasons behind particular metropolitan regions recording high levels of propensity to patent. High propensities to patent may be linked to the existence of high-technology enterprises in science parks or similar facilities: the southern Dutch metropolitan region of Eindhoven is one such example with its high-tech campus (HTC). It claims to be the 'smartest square kilometre' in Europe with, on average, an application for a patent being filed every 20 minutes and more than 140 enterprises and institutions employing around 10 thousand researchers, developers and entrepreneurs; in 2011, the wider metropolitan region covering the whole of Eindhoven recorded the highest propensity for patent applications to the EPO (1 713 per million inhabitants) and the fifth highest number of applications (1 266). Similar examples exist in the south-eastern French metropolitan region of Grenoble, where CEA-Grenoble is the largest technological research centre in the Rhône-Alpes region, or in München (southern Germany), where the Max Planck Society is a prominent non-profit making research organisation.

Map 5.1: Patent applications to the European Patent Office, by metropolitan region, 2011 (1)
(per million inhabitants)



(1) Valetta (Malta) and Constanta (Romania): 2010.

Source: Eurostat (online data codes: pat_ep_mtot and pat_ep_ntot)

Alternatively, in Düsseldorf (Germany), the high number of patent applications to the EPO (967 per million inhabitants in 2011) could, at least in part, be linked to the court system in Düsseldorf having a reputation for efficiently dealing with patent lawsuits. At 1 476 applications, Düsseldorf recorded the third highest absolute number of patent applications to the EPO in 2011, behind Paris (France) with 2 293 applications and Stuttgart (Germany) with 1 538 applications.

European capital of innovation

The European capital of innovation award was launched in 2014 as part of Horizon 2020, the EU's research and innovation programme covering the period 2014–20. The first winner of the award was the Spanish city of Barcelona, where public and social services were brought closer to local citizens and made more transparent, for example, through the introduction of an online appointment system for meeting civil servants, or contactless connections to allow city-dwellers to use technology to find out what is/will be happening in their area.

In 2016, a total of 36 cities from 12 different countries applied to succeed Barcelona. Nine of these were identified for a shortlist, being recognised for their efforts to boost innovation, they were: Amsterdam (the Netherlands); Berlin (Germany); Eindhoven (the Netherlands); Glasgow (the United Kingdom); Milano (Italy); Oxford (the United Kingdom); Paris (France); Torino (Italy); and Vienna (Austria).

On 8 April 2016, Amsterdam was declared the winner of the award, with the judges stating that it had an 'holistic vision of innovation related to four areas of urban life: governance, economics, social inclusion, and quality of life'.

Otherwise, metropolitan regions may record a high propensity to patent as a result of the existence of clusters of enterprises located around large (multi)national companies; this is often the case for engineering or technology sectors. For example, there were relatively high ratios of patent applications per million inhabitants for metropolitan regions specialised in the automotive industry, such as München, Stuttgart (both Germany) and Derby (the United Kingdom), or around high-technology sectors in metropolitan regions such as Rennes (France) or Eindhoven (the Netherlands).

Table 5.1: Patent applications to the European Patent Office, by metropolitan region and type of patent, 2011 (1)

	Total number of patent applications to the EPO	Total number of patent applications to the EPO	High-tech patent applications to the EPO	ICT patent applications to the EPO	Biotechnology patent applications to the EPO
	(number)	(per million inhabitants)			
EU-28	57 092	113.2	19.1	28.2	5.1
Gent (BE)	116	187.9	58.7	59.2	43.0
Sofia (BG)	14	8.6	1.2	2.2	0.3
Brno (CZ)	36	29.7	3.9	6.3	0.9
København (DK)	500	264.1	75.7	64.6	44.7
Düsseldorf (DE)	1 476	966.8	93.9	140.5	38.3
Tallinn (EE)	14	27.1	12.8	15.1	0.2
Dublin (IE)	126	70.3	27.1	36.1	6.9
Zaragoza (ES)	82	86.7	3.0	9.1	2.6
Grenoble (FR)	622	510.9	159.8	236.1	13.8
Torino (IT)	286	124.1	13.7	24.4	1.4
Lefkosia (CY) (2)	5	5.5	1.2	1.2	1.2
Riga (LV) (2)	14	13.3	1.3	1.4	:
Vilnius (LT) (2)	9	11.3	2.4	1.2	3.5
Luxembourg (LU)	52	102.2	6.8	11.9	1.5
Budapest (HU)	103	34.5	9.2	10.7	2.2
Valletta (MT) (3)	3	7.8	0.9	0.9	:
Eindhoven (NL)	1 266	1 713.3	492.4	785.9	25.2
Salzburg (AT)	78	225.0	21.4	39.2	10.4
Kraków (PL)	42	28.9	1.0	4.6	:
Lisboa (PT)	32	11.5	3.2	3.3	1.3
Timişoara (RO)	9	13.7	2.9	2.9	:
Ljubljana (SI)	42	78.6	15.9	17.6	5.6
Bratislava (SK)	17	27.5	3.3	10.8	3.9
Tampere (FI)	154	316.5	116.0	153.3	3.9
Malmö (SE)	436	350.9	143.0	179.2	19.3
Portsmouth (UK)	135	646.3	163.1	234.1	11.2

(1) The table shows for each EU Member State (subject to data availability) the metropolitan region with the highest ratio of patent applications per million inhabitants. Note there is some overlap between the classifications used to define high-technology patents and ICT patents. Greece and Croatia: metropolitan regions, not available.
(2) 2010.
(3) 2009.

Source: Eurostat (online data codes: pat_ep_mtot, pat_ep_mtec, pat_ep_mict, pat_ep_mbio, pat_ep_ntot, pat_ep_ntec, pat_ep_nict and pat_ep_nbio)

5.3 Use of the internet

The digital agenda is a flagship initiative of the Europe 2020 strategy, with the objectives of: finalising the digital single market; enhancing interoperability and standards; strengthening online trust and security; promoting fast and ultra-fast internet access for all; investing in research and innovation; promoting digital literacy, skills and inclusion.

The availability of digital technology is considered fundamental for competitiveness and may be of particular relevance in terms of providing the necessary infrastructure for the development of smart cities. According to information society statistics, 80 % of all households in the EU-28 were already connected to broadband internet in 2015. Access to ICT is often characterised by a digital divide between urban and rural regions, skewed in favour of capital cities and other relatively large metropolitan regions. This may occur as investments in new infrastructure technologies (for example, ultrafast broadband or 5G mobile networks) are initially rolled out in major built-up areas which are characterised by their considerable (potential) customer base living in a relatively small, accessible area.

In 2015, at least 90 % of the households living in cities in the Netherlands, Luxembourg, Finland, Sweden, Germany, Denmark, the United Kingdom and Estonia had internet access, a share that rose to 98 % in Norway; by contrast, no more than three quarters of all households in the cities of Cyprus, Greece, Lithuania and Bulgaria had internet access. The patterns shown in **Figure 5.3** reflect, at least to some degree, the unbalanced nature of internet usage across the EU, insofar as people living in households which do not have/choose not to have an internet connection cannot, for example, make online purchases or interact online with public authorities.

Santander's transformation into a smart city

Santander in northern Spain provides a unique, city-scale experimental research facility. SmartSantander, a European research project funded by the seventh framework programme for research and technological development (FP7), has been designed to support the development of applications and services for smart cities. It focuses on experimenting with the internet of things in the context of the city and aims to stimulate interest in the use of this experimental facility among the scientific community, end-users and service providers, to encourage the development of a range of applications that may result in a higher quality of life for the city's inhabitants and more sustainable and efficient public services.

There are a range of technologies being developed around exploiting the data collected by the sensors including applications to: make it easier to find a parking space or manage the city's traffic (leading to benefits in terms of time and fuel savings, as well as reductions in air emissions); economise water or electricity (for example, through irrigation systems for green areas, the optimisation of street lighting requirements); assist local inhabitants to make a journey (real-time information on buses, bicycles for rent, or taxis available for hire); make refuse collections more efficient (routing vehicles only to those bins that require emptying).

For more information: http://www.smartsantander.eu/.

Use of the internet tends to be higher in cities than in rural areas

The first part of **Figure 5.3** shows that a higher proportion of people living in cities tended to make use of the internet on a regular basis, defined here as at least once a week. Across the whole of the EU-28, upwards of four out of every five (81 %) persons living in cities used the internet on a regular basis in 2015, some 12 percentage points higher than the average recorded for rural areas.

The biggest digital divides between cities and rural areas occurred in those EU Member States characterised by relatively low levels of internet use, for example, Croatia, Greece, Romania and Bulgaria. On the other hand, in the Benelux countries, Denmark and France there was almost no difference in the rates of internet use between those living in cities and those living in rural areas.

Information society statistics also confirm that 12 % of people living in cities across the EU-28 in 2015 had never used the internet, compared with 23 % of those living in rural areas. The proportion of people living in cities who had never used the internet was either 2 % or 3 % in the Nordic Member States and Luxembourg. At the other end of the range, some 20–25 % of those living in cities in Poland, Bulgaria, Greece, Cyprus, Portugal, Malta and Italy had never used the internet.

Over recent years, the proportion of individuals shopping online grew steadily

The second part of **Figure 5.3** shows that in most of the EU Member States, a higher share of those living in cities (compared with rural areas) made online purchases in the 12 month period prior to a survey in 2015. Across the EU-28, some 58 % of those living in cities made online purchases; this was 13 percentage points higher than the corresponding share recorded for those living in rural areas.

At least 80 % of the population living in the cities of Luxembourg, Denmark and the United Kingdom made an online purchase during the 12 month period prior to the survey in 2015. By contrast, just 16 % of those living in cities in Romania, or around one quarter in Bulgaria and Cyprus, rising to 28 % in Italy made online purchases.

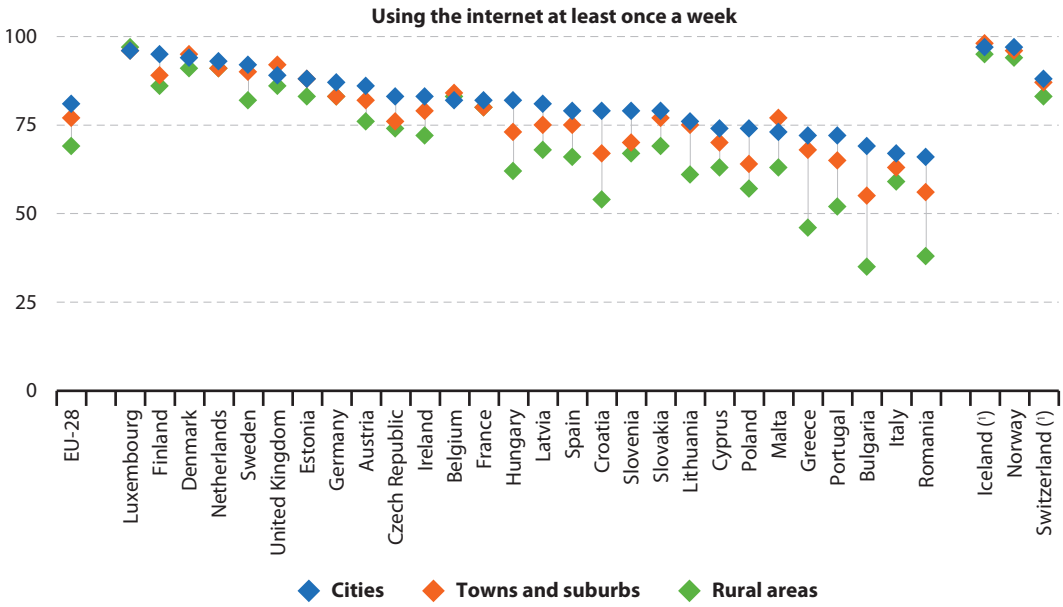
More than half of the EU-28 population living in cities interacts with public authorities via the internet

Technological advances have led to a multiplication of the ways in which public authorities can offer online services to citizens and businesses alike (for example, systems for online income tax or VAT declarations). The final part of **Figure 5.3** shows that across the EU-28, some 52 % of people living in cities used the internet to interact with public authorities during the 12 months prior to a survey in 2015; this figure was 13 percentage points higher than the share recorded for rural areas. Interaction with public authorities is defined here to include: obtaining information from public administration websites; downloading official forms through the internet; sending filled in forms through the internet.

In most of the EU Member States, people living in cities recorded a higher propensity to interact with their public authorities via the internet than those living in rural areas, which is perhaps surprising given the accessibility issues that may be faced by those living in more remote areas. Belgium, Luxembourg and the United Kingdom recorded almost no difference between those living in cities and rural areas, while the digital divide for online interaction with public authorities was much greater in Portugal, Lithuania and Croatia, as well as in Greece where the gap between those living in cities and those living in rural areas reached 26 percentage points.

Figure 5.3: Proportion of people aged 16–74 making use of the internet, by degree of urbanisation, 2015

(%)

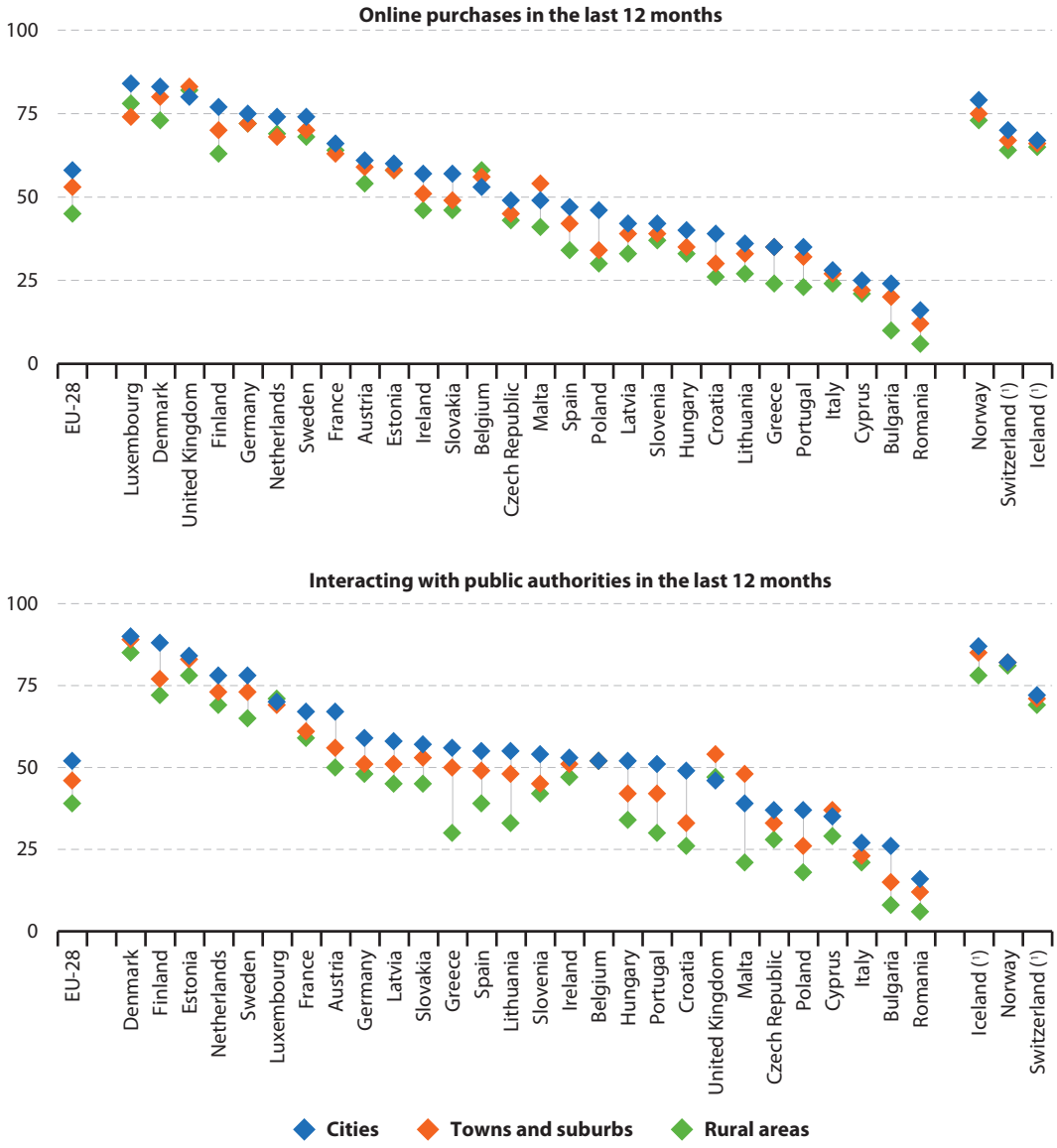


(1) 2014.

Source: Eurostat (online data codes: isoc_bdek_di, isoc_bde15cbc and isoc_bdek_ps)

Figure 5.3 (continued): Proportion of people aged 16–74 making use of the internet, by degree of urbanisation, 2015

(%)



(1) 2014.

Source: Eurostat (online data codes: isoc_bdek_di, isoc_bde15cbc and isoc_bdek_ps)

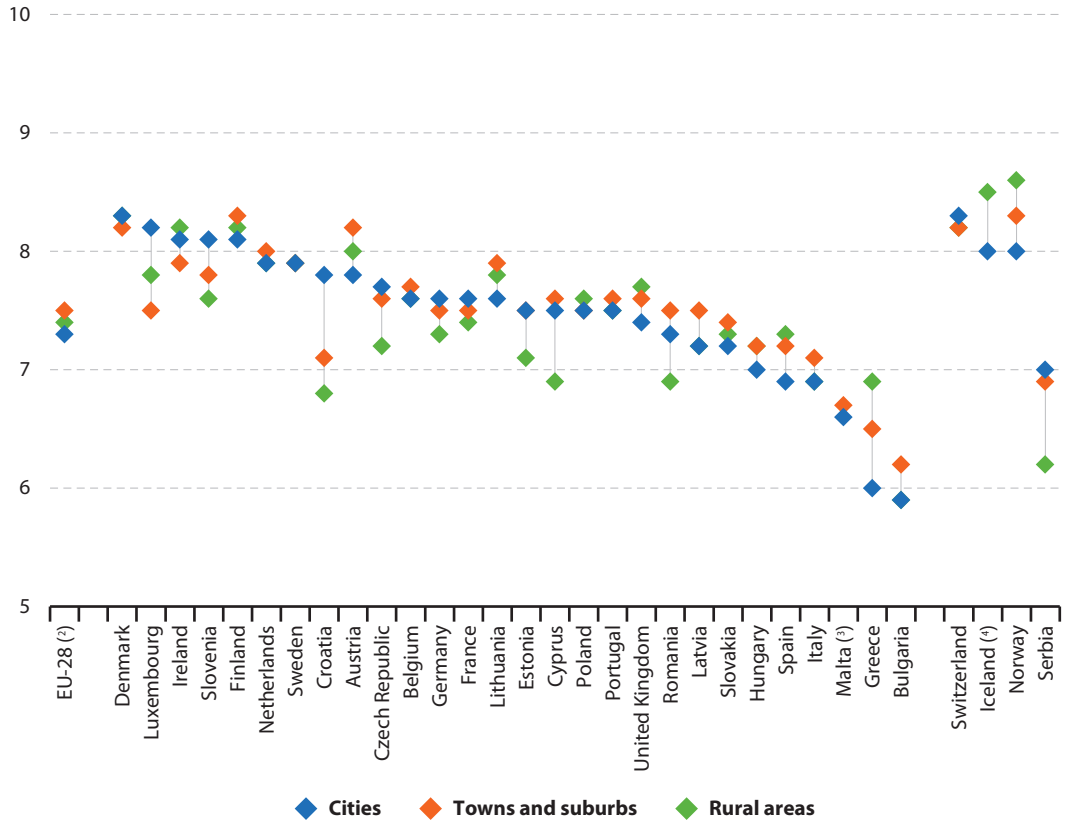
5.4 Transport

Cities can facilitate a range of ideas/responses for tackling the impact of congestion and pollution, for example: congestion charges as implemented in central London (the United Kingdom) and Milano (Italy); alternate day travel based on vehicle license plates, as implemented in the Greek capital of Athina; bans on cars when air pollution levels reach a certain limit, as implemented in the Italian capital of Roma; restrictions on the speed of travel during periods of increased pollution, as implemented in and around the French capital of Paris; or complete bans on the use of cars from historic city centres, as implemented in the Italian city of Firenze.

In 2013, the proportion of people who were satisfied with their commuting time was, on average, lower among those living in cities than in rural areas. In the EU-28, the share of people satisfied with their commuting time was highest among those living in towns and suburbs (7.5 on a scale of 0–10), while the corresponding rates for those living in rural areas

Figure 5.4: Proportion of people satisfied with their commuting time, by degree of urbanisation, 2013 (1)

(rating, 0–10)



(1) Note the y-axis starts at 5. Ranked on the rating for cities.
(2) Rural areas: estimate.
(3) Rural areas: not available.
(4) Towns and suburbs: not applicable.

Source: Eurostat (online data code: ilc_pw02)

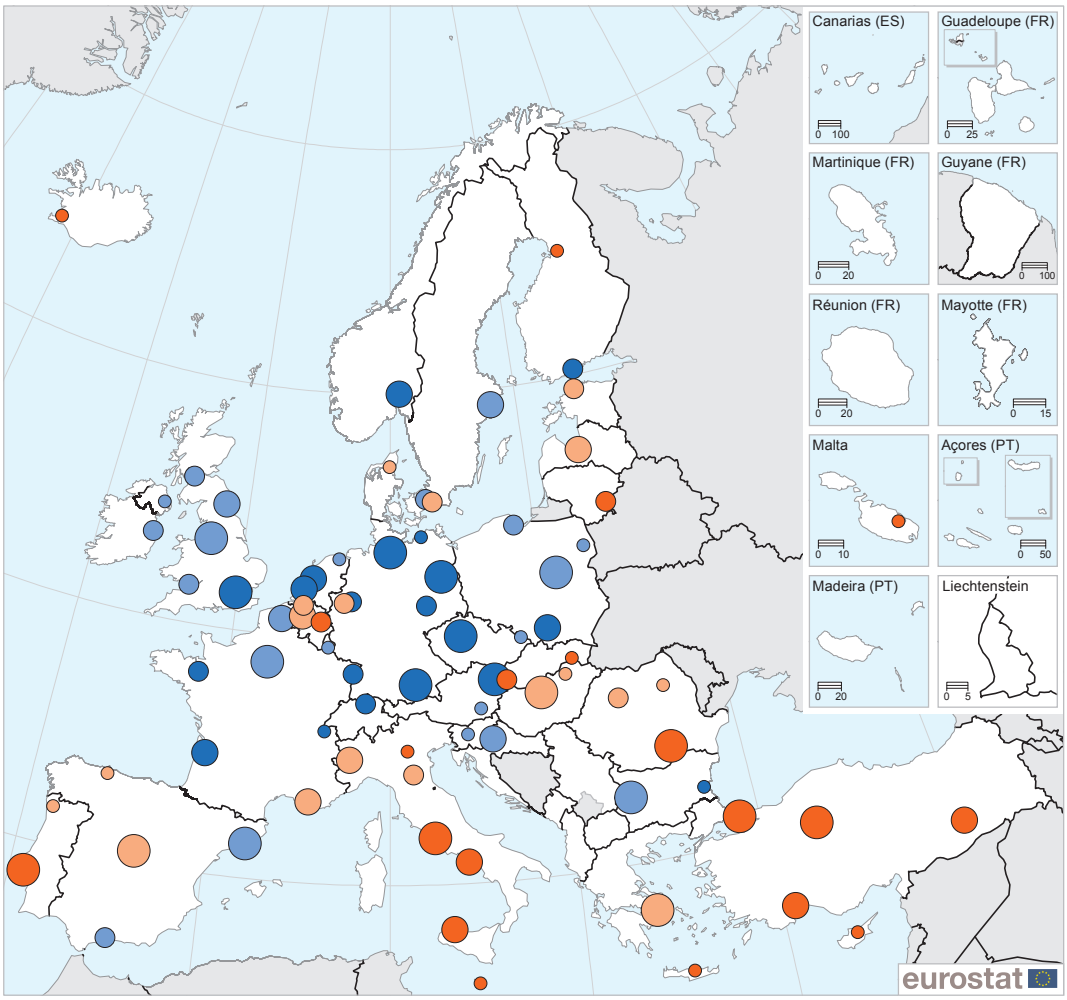
(7.4) and cities (7.3) were slightly lower. Unlike many of the other indicators shown in this chapter, there was no clear pattern among the EU Member States, insofar as 10 reported a higher level of satisfaction among those living in rural areas, while nine reported a higher level for those living in cities; there was no difference in the level of satisfaction in the eight remaining Member States (Malta, not applicable).

The least satisfied city-dwellers were those living in Greece, where the level of satisfaction was 0.9 points lower than in rural areas; relatively large differences were also recorded in Spain and the United Kingdom. The opposite was particularly true in Croatia, Cyprus, the Czech Republic and Slovenia, where those living in rural areas recorded relatively low levels of satisfaction compared with their urban counterparts.

A very high proportion of those living in the Austrian capital were satisfied with their public transport

An analysis of satisfaction levels for the provision of public transport services at the city level is presented in **Map 5.2**. In 2015, the highest levels of satisfaction in the EU were recorded in the Austrian and Finnish capitals of Wien (95 %) and Helsinki (93 %); although an even higher share was recorded in the Swiss city of Zürich (97 %). There were several other capital cities where a relatively high proportion of the population was satisfied with the provision of public transport in their city, including London and the Czech capital of Praha, as well as the Norwegian capital of Oslo. Much lower levels of satisfaction with public transport were recorded in southern Europe, particularly in Italy, with the lowest satisfaction rate among any of the EU-28 capital cities recorded in Roma (30 %) and the lowest overall rate among any of the 79 European cities surveyed was recorded in the Sicilian capital of Palermo (14 %).

Map 5.2: Proportion of people who are satisfied with public transport in their city, 2015 (1)
(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

6 Green cities

Chapter 2 covered a range of urban paradoxes, highlighting that while urbanisation has the potential to raise wealth, it may do so at the expense of increasing, for example, pollution or other forms of environmental damage. Although the on-going process of urbanisation has created some of the biggest challenges facing the planet, it also provides potential, insofar as cities are creative hubs and may provide possible solutions to a range of environmental issues.

Do cities damage the environment?

As cities account for the highest share of the EU-28 population, it is apparent that urban development policies have a considerable impact on environmental issues and sustainability. Most people think of cities as consuming considerable amounts of energy, generating high levels of air pollution or waste. This may be true for suburban and peri-urban (hybrid areas of fragmented urban and rural characteristics) developments which are often characterised by a high number of low-density, energy-intensive new builds in the form of detached houses, with a high level of dependency on the car as a means of transport. Indeed, urban sprawl can lead to increased energy demand, carbon emissions and air pollution, while putting pressure on ecosystems and resulting in a loss of biodiversity.

However, it is increasingly recognised that compact cities are resource-efficient ways for people to live and for businesses to exist, as close proximity provides potential efficiency gains. New technologies can be used to improve the environmental performance of urban areas, for example, public transport systems or the construction and functioning of buildings, to reduce resource and energy consumption. In addition, infrastructure — such as roads, telecoms, water and sewage systems — can be delivered at a much lower cost, when people live in compact areas close to each other. Furthermore, city-dwellers are more likely to make shorter trips to work or school, and a higher proportion make such journeys by foot, bicycle or public transport. They are also more likely to live in flats and townhouses which generally require less energy to heat and cool, when compared with larger, detached houses that are more common in suburban and rural areas.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

Some cities have tried to attract the development of green industries in or close to their city boundaries, often in the form of high-technology clusters which draw on the knowledge of universities and/or research centres. Other cities choose to address green issues by designing sustainable development strategies, whereby their economic growth is driven by investments that are designed to reduce carbon emissions and pollution, enhance resource efficiency, or prevent the loss of biodiversity.

As such, the attractiveness of a city may be as much about the quality of life that it offers to (potential) residents as it is about the competitiveness of its urban economy for (potential) businesses. Cities are therefore increasingly branding themselves as 'green', 'creative' or 'cultural', trying to increase their attractiveness by promoting, for example, their environmental assets.

Climate change: the European policy context

The Europe 2020 strategy is designed to deliver smart, sustainable and inclusive growth. The commitment to sustainable growth implies a move towards a low-carbon economy, for which the following targets have been set (to be achieved by 2020):

- **greenhouse gas emissions to be 20 % (or even 30 %, if the conditions are right) lower than in 1990;**
- **20 % of energy to come from renewables;**
- **a 20 % increase in energy efficiency.**

Sustainable development in the context of the Europe 2020 strategy envisages the delivery of resource-efficient processes/technologies; it foresees a focus on green technologies to combat climate change, encouraging the use of low-carbon technologies, enhancing the use of renewable energies, and increasing energy efficiency.

Many European cities have demonstrated their commitment to reducing their environmental impact by joining the Covenant of Mayors for climate and energy. Initially, signatories pledged to cut their carbon emissions by at least 20 % by 2020 (in line with the Europe 2020 strategy). In October 2015, a renewed covenant was agreed and new signatories pledged to reduce their carbon emissions by at least 40 % by 2030, while providing formal plans for how they intend to go about reducing their carbon footprint.

6.1 Environmental issues

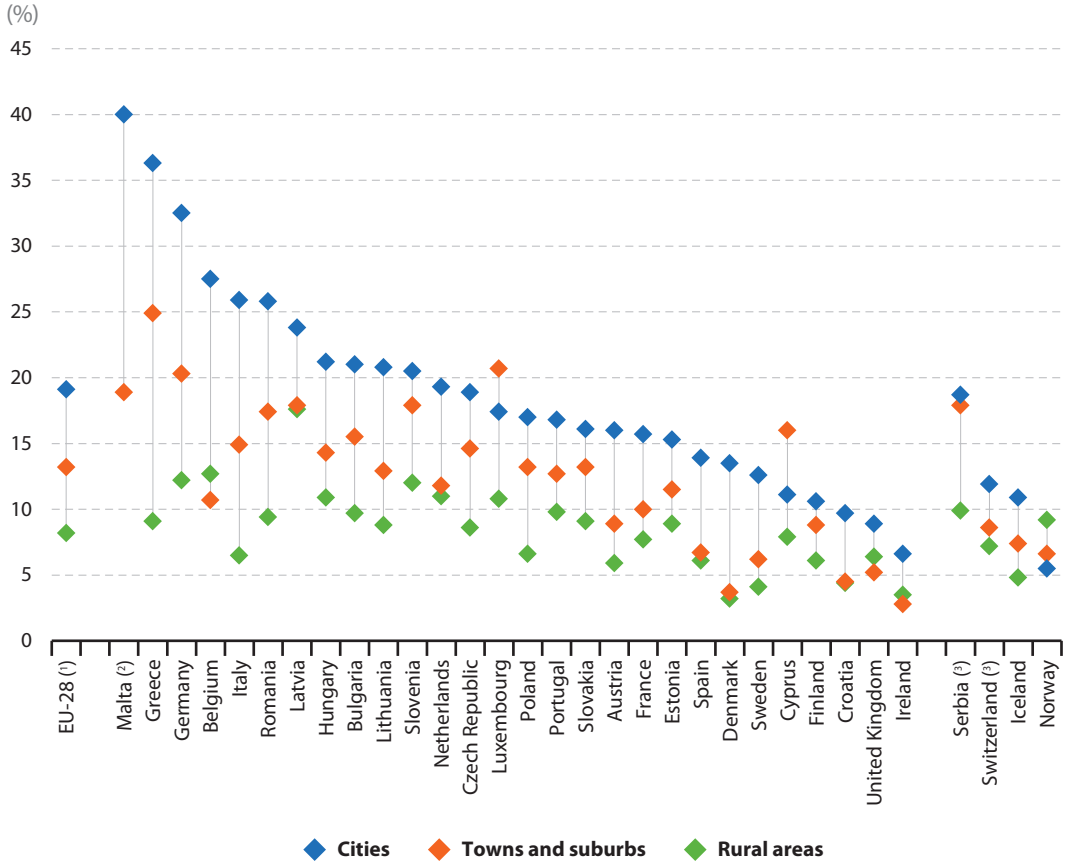
In 2014, almost one fifth of the EU-28 population living in cities declared that they were living in an area with problems related to pollution, grime or other environmental issues (see **Figure 6.1**). This analysis by degree of urbanisation reveals that the exposure of city-dwellers to these environmental problems was higher than that experienced by people living in towns and suburbs (13.2 %) or rural areas (8.2 %), as those living in cities were 2.3 times as likely as those living in rural areas to report that they were living in an area with problems related to pollution, grime or other environmental issues during 2014.

People living in cities were more likely to be exposed to environmental problems

A particularly high share (40.0 %) of city-dwellers from Malta (the vast majority of this island's population) reported that they were living in an area with problems related to pollution, grime or other environmental issues; this share was also high among those living in the cities of Greece (36.3 %) and Germany (32.5 %). At the other end of the range, less than 1 in 10 of those living in the cities of Croatia, the United Kingdom and Ireland declared that they were living in an area with problems related to pollution, grime or other environmental issues during 2014.

The disparities in exposure to such environmental problems between city-dwellers and those living in rural areas were greatest in Denmark, Greece and Italy, as people living in cities were at least four times as likely to report exposure to these issues; this pattern of a higher share of city-dwellers (compared with those living in rural areas) living in an area with problems related to pollution, grime or other environmental issues was repeated in each of the EU Member States. However, in Norway just 5.5 % of city-dwellers declared that they were living in an area with problems related to pollution, grime or other environmental issues, compared with 9.2 % of those living in rural areas. Note also that in Luxembourg and Cyprus, a higher proportion of people living in towns and suburbs (compared with those living in cities) reported that they were living in an area with problems related to pollution, grime or other environmental issues.

Figure 6.1: Proportion of people living in an area with problems related to pollution, grime or other environmental problems, by degree of urbanisation, 2014



(1) Rural areas: estimate.
(2) Rural areas: not available.
(3) 2013.

Source: Eurostat (online data code: ilc_mddw05)

6.2 Green urban areas

The character of a city is defined, to some degree, by the way that its streets and public spaces are laid out; for example, contrast a city characterised by tree-lined boulevards and a generous number of public parks, with one that is tightly packed with apartment blocks.

Green urban areas have the potential to play an important role in cities: on the one hand, they can contribute to climate change mitigation by absorbing carbon from the atmosphere, as well as providing an area to absorb rainwater, and offering shade; and on the other they can improve general and mental health, by providing an opportunity for social interaction and increasing an individual's quality of life.

European green capital award

The EU's green capital programme is based on an assessment of cities covering aspects such as green urban spaces, biodiversity and how cities deal with the challenges of, among others, air pollution, waste and noise. The award is given each year to a city which leads the way in environmentally-friendly, urban living and which can thus act as a role model to inspire others.

Table 6.1: European green capitals, 2010–17

Year	City	Main reasons for winning the award
2017	Essen (DE)	Has built green and blue corridors within the city and is investing in green infrastructure; is a city in transformation, overcoming a challenging industrial history to reinvent itself as a 'green city'.
2016	Ljubljana (SI)	Focus switched from cars to public transport and pedestrian/cycling networks; progress in preserving and protecting green areas through planting of more trees, building new parks and revitalising the embankments of the river Sava.
2015	Bristol (UK)	Committed to transport improvements, energy efficiency and renewable energy initiatives; carbon emissions have consistently reduced since 2005, despite a growing economy; has the ambition of becoming a European hub for low-carbon industries.
2014	Copenhagen (DK)	Placed public-private partnerships at the core of its approach to eco-innovation and sustainable employment; transport pioneer, aiming to become the world's most practicable city for cyclists (goal is to have 50 % of people cycling to their place of work or education by 2015), helping the city reach an ambitious goal of being CO_2 neutral by 2025.
2013	Nantes (FR)	Developed a sustainable transport policy with a focus on public transport and bicycles; first city in France to successfully re-introduce electric tramways; ambitious transport policy has resulted in reduced air pollution and CO_2 emissions.
2012	Vitoria-Gasteiz (ES)	High proportion of green public areas, ensuring that the entire population lives within 300 metres of an open green space; tangible measures in place to assist and increase biodiversity and ecosystems services; an ambitious objective of reducing domestic water consumption to below 100 litres per capita per day.
2011	Hamburg (DE)	Quality of local ambient air is very good, and there are well defined targets, plans and structured monitoring with respect to climate change; the city has achieved high environmental standards and good performance levels in terms of cycling and public transport indicators; has set ambitious climate protection goals such as reducing its CO2 emissions by 40 % by 2020 and by 80 % by the year 2050.
2010	Stockholm (SE)	Clear and effective measures towards reducing noise pollution; a protection plan setting new standards for cleaner water; an innovative integrated waste system; 95 % of the population living less than 300 metres from green areas.

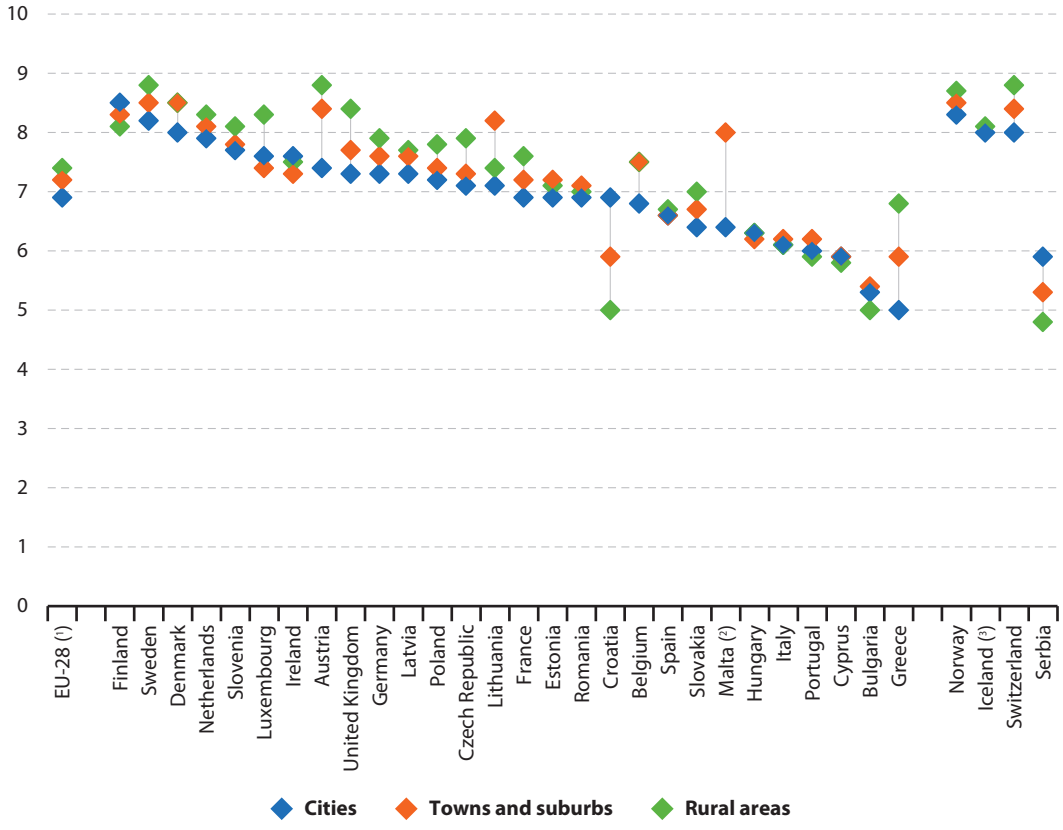
Source: European Commission, Directorate-General for Environment (http://ec.europa.eu/environment/europeangreencapital/winning-cities/index.html)

People living in cities were less likely to be satisfied with their recreational and green areas

An analysis by degree of urbanisation of satisfaction levels with recreational and green areas is presented in **Figure 6.2**. Based on the average scores recorded across the EU-28 (on a scale of 0–10), the level of satisfaction among people living in cities (6.9) was somewhat lower than for those living in towns and suburbs (7.2) or rural areas (7.4).

Although this pattern was repeated in most of the EU Member States, there were some exceptions, as people living in cities were more satisfied (than those living in rural areas) in Croatia and Finland, while there was no significant difference in Bulgaria, Ireland, Cyprus, Portugal, Italy or Hungary. Among those Member States where people living in rural areas were more satisfied with their recreational and green areas, Greece, Austria and the United Kingdom stood out, as their average level of satisfaction was more than 1.0 point higher than for those living in cities.

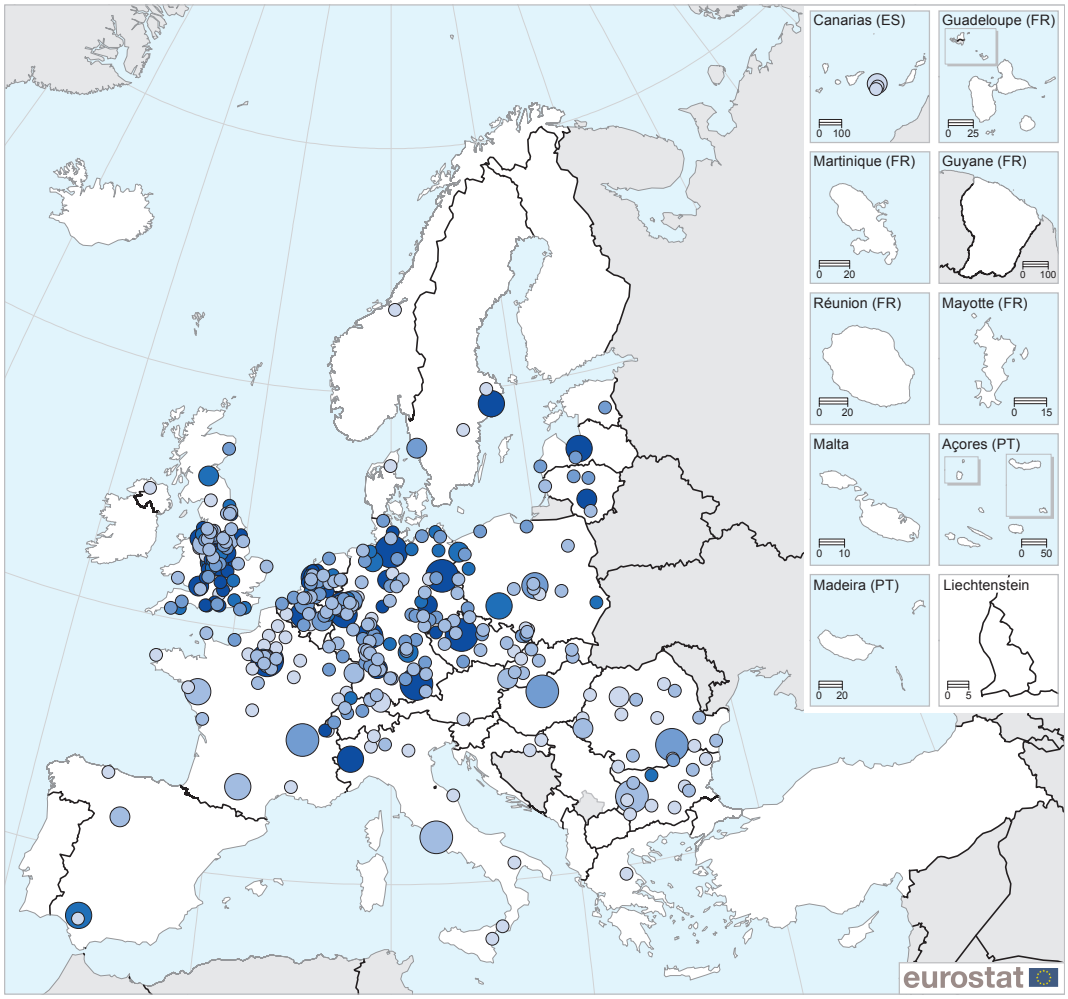
Figure 6.2: Proportion of people who were satisfied with recreational and green areas, by degree of urbanisation, 2013
(rating, 0–10)



(1) Rural areas: estimate.
(2) Rural areas: not available.
(3) Towns and suburbs: not applicable.

Source: Eurostat (online data code: ilc_pw02)

Map 6.1: Green urban areas and sports and leisure facilities, selected European cities, 2012 (1)
(% of land area)



(1) Earlier reference years were used in some cases (see database for more details). Population data generally refer to 1 January 2012. Bulgaria, Latvia, Lithuania, Poland and the United Kingdom: estimates.

Source: Eurostat (online data codes: urb_cenv and urb_cpop1)

Map 6.1 presents information on the proportion of green urban areas and sports and leisure facilities for a range of cities in the EU, Norway and Switzerland. Among those presented, the highest share was recorded in the spa city of Karlovy Vary (the Czech Republic), as green urban areas and sports and leisure facilities accounted for more than one quarter (26.3 %) of its total area. The second highest share was recorded in the Swedish capital of Stockholm (24.1 %), which was the inaugural winner of the European green capital award, followed by the French capital of Paris (23.2 %) and the northern German city of Hannover (22.3 %); aside from these four, the share of green urban areas and sports and leisure facilities did not rise above 20.0 % in any of the remaining cities for which data are available.

Relatively low shares of green urban areas were often recorded for many of the cities located in eastern and particularly southern EU Member States. One explanation for their relatively low share of green spaces could be the climate, which may discourage local administrations from investing in watering systems for use during the summer months or in periods of drought.

Map 6.2 presents the considerable differences in urban morphological zones between the Swedish capital of Stockholm and the southern Italian city of Matera. The data shown relate to land use within the functional urban areas (cities and their commuting zones) of each city. The map for Stockholm is characterised by a relatively high share of both green urban areas and forests. By contrast, the city of Matera was largely characterised by its urban fabric, which was generally quite dense.

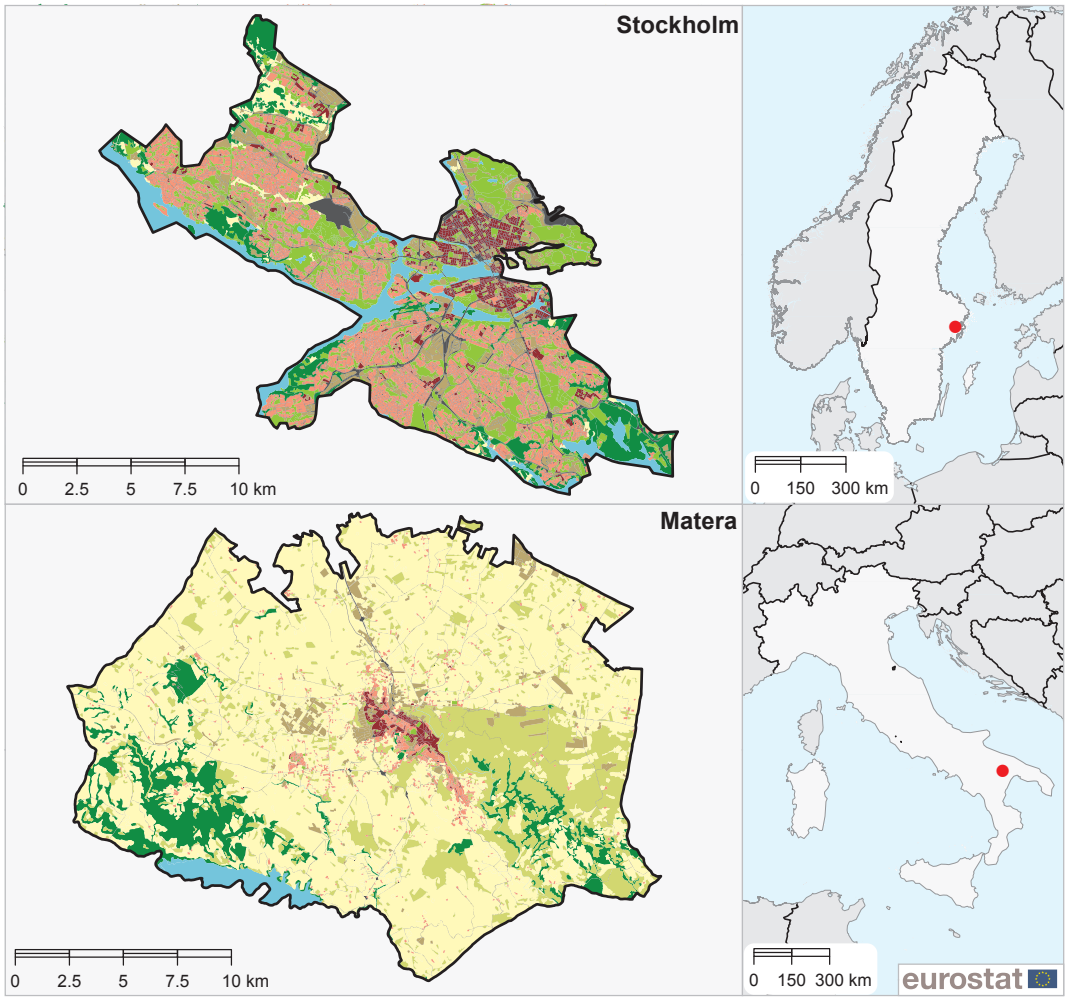
Contrasting patterns — green urban areas

City planners are increasingly aware of the need to improve the quality of life by ensuring that there are ample green areas for local inhabitants and visitors to enjoy. That said, due to a lack of space, some historical cities may be characterised by narrow streets, densely populated areas and little or no green urban areas.

Stockholm (Sweden)

Matera (Italy)

Map 6.2: Urban land use in Stockholm (Sweden) and Matera (Italy), 2012
(% of total area)



Cartography: Eurostat — GISCO, 05/2016

Administrative boundaries: © EuroGeographics © UN-FAO

- Dense urban fabric > 50 %
- Low density urban fabric < 50 %
- Transport
- Industry, construction and commercial
- Green urban areas and leisure
- Agriculture
- Forest
- Herbaceous vegetation and open spaces
- Wetlands and water bodies

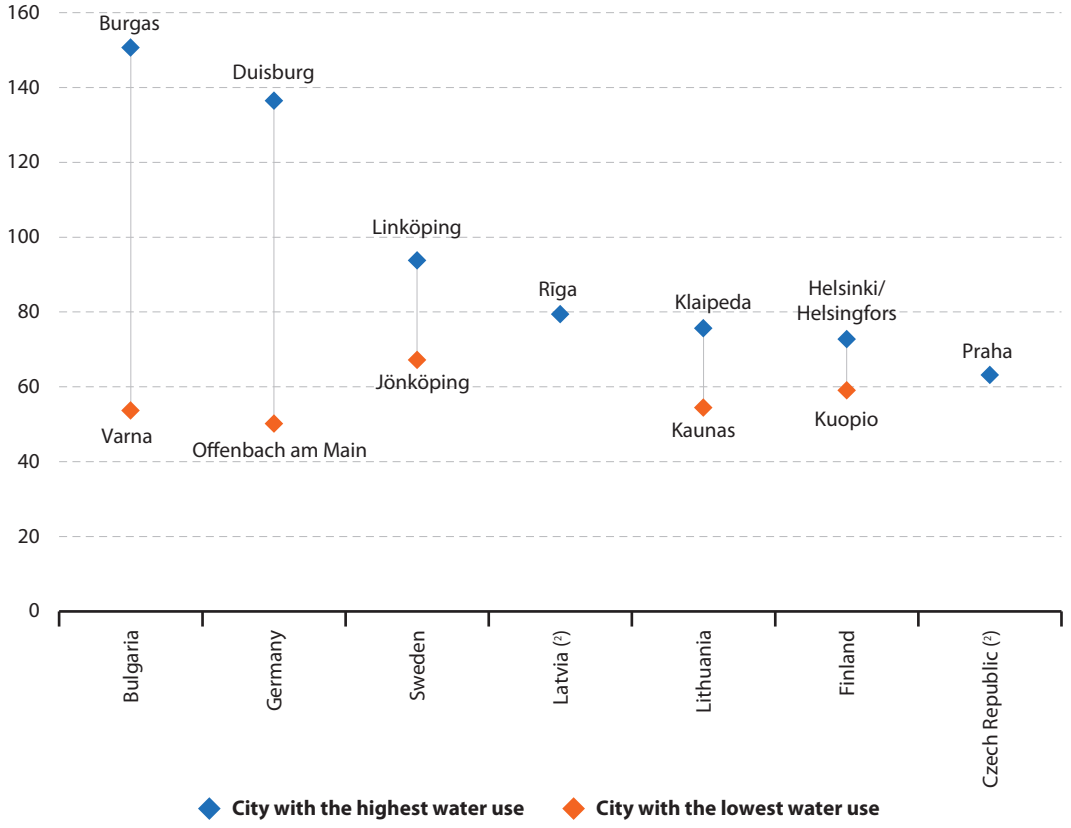
Source: Copernicus Urban Atlas (http://land.copernicus.eu/local/urban-atlas/urban-atlas-2012/view/)

6.3 Resource efficiency, waste and pollution

According to the European Environment Agency (EEA), air pollution is the single largest environmental health risk in Europe, as more than half of the EU-28 population living in cities was exposed in 2013 to levels of air pollutants that exceeded World Health Organisation air quality guidelines.

Cities have a role to play in relation to delivering sustainable economic growth and alleviating the problems associated with climate change. There are a wide range of potential policies that may be used to increase resource efficiency and lower pollution levels, for example, the promotion of: recycling schemes for a range of waste streams; higher energy performance for buildings; cleaner transport; or schemes that are designed to eliminate congestion.

Figure 6.3: Water use, selected European cities, 2012 (1)
(m^3 per inhabitant)



(1) The figure shows for each country (subject to data availability) the cities with the lowest/highest levels of water use; the name of the city with the lowest/highest level is also shown. Earlier reference years were used in some cases (see database for more details). All other EU Member States: not available.
(2) There is only data available for one city.

Source: Eurostat (online data codes: urb_cenv and urb_cpop1)

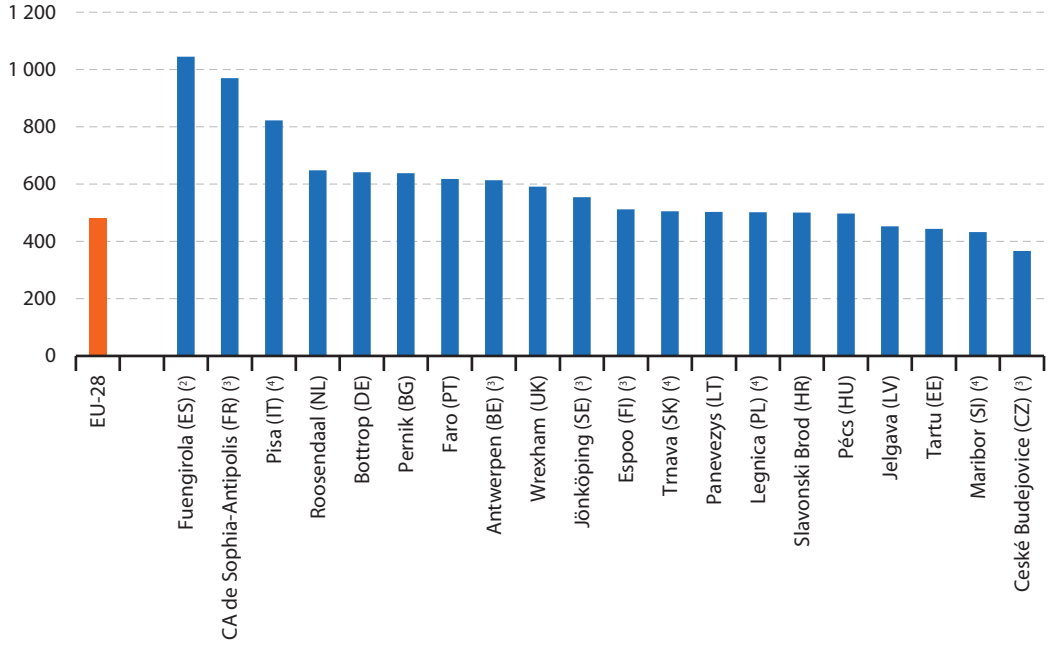
The use of water was highest in cities characterised by heavy industries

Figure 6.3 shows levels of water usage for a number of cities in the EU. Note that the volume of water used in many cities could reflect their degree of industrial specialisation, rather than large differences in personal/household consumption. For example, some of the highest levels of water use in 2012 were recorded in the Bulgarian cities of Burgas (petroleum) and Ruse (power generation, petroleum and chemicals) or the German cities of Duisburg (steel production), Bottrop (coal, chemicals and textiles) and Wilhelmshaven (power generation and chemicals).

Municipal waste per inhabitant was relatively high in cities characterised as tourist destinations

Across the whole of the EU-28, each person generated an average of 481 kg of municipal waste in 2013. **Figure 6.4** shows, for each EU Member State, the city with the highest level of municipal waste generated per inhabitant. This rose to more than twice the EU-28 average in Fuengirola in Spain (on the Costa del Sol; 2010 data) and the Communauté d'agglomération de Sophia-Antipolis in France (close to Cannes/Antibes; 2011 data). It is likely that these figures are inflated, to some degree, by the associated waste streams from visitors to hotels and other forms of accommodation/lodging; such high levels of waste may raise concerns over the sustainable nature of tourism. At the other end of the range, every city in Latvia, Estonia, Slovenia and the Czech Republic (among those for which data are available) recorded a level of municipal waste generation per inhabitant that was below the EU-28 average.

Figure 6.4: Cities with the highest amounts of municipal waste generated, 2013 (1)
(kg per inhabitant)



(1) The figure shows (subject to data availability) the city with the highest share for each EU Member State.
(2) 2010.
(3) 2011.
(4) 2012.

Source: Eurostat (online data codes: urb_cenv, urb_cpop1 and tsdpc240)

An analysis for the 10 cities in the EU-28 with the highest levels of municipal waste per inhabitant shows that aside from the two coastal cities of Fuengirola and the Communauté d'agglomération de Sophia-Antipolis (mentioned above), six of the remaining eight cities were also located on or close to the Mediterranean coastline. The second highest level of municipal waste was generated in Marbella (also on the Costa del Sol in Spain), while the other cities included Fréjus in the south of France, and four Italian cities, Massa, Pisa (both in Tuscany), Rimini and Ravenna (both in Emilia-Romagna). The top 10 was completed by Cherbourg (a port on the northern coastline of France) and Westminster (central London, the United Kingdom).

Subcity statistics are available for London and these show that the level of municipal waste generated in Westminster (820 kg per inhabitant) was considerably higher than in any of the other London boroughs in 2014; note that these statistics may include waste streams similar to those generated in households, but instead coming from shops or offices. The next highest level of municipal waste per inhabitant in the British capital was recorded in the relatively affluent borough of Kensington and Chelsea (514 kg); on the other hand, the amount of waste generated in the Outer London borough of Brent and the Inner London borough of Wandsworth was much lower at 337 kg and 329 kg respectively.

Air pollution was often concentrated in some of the most congested cities

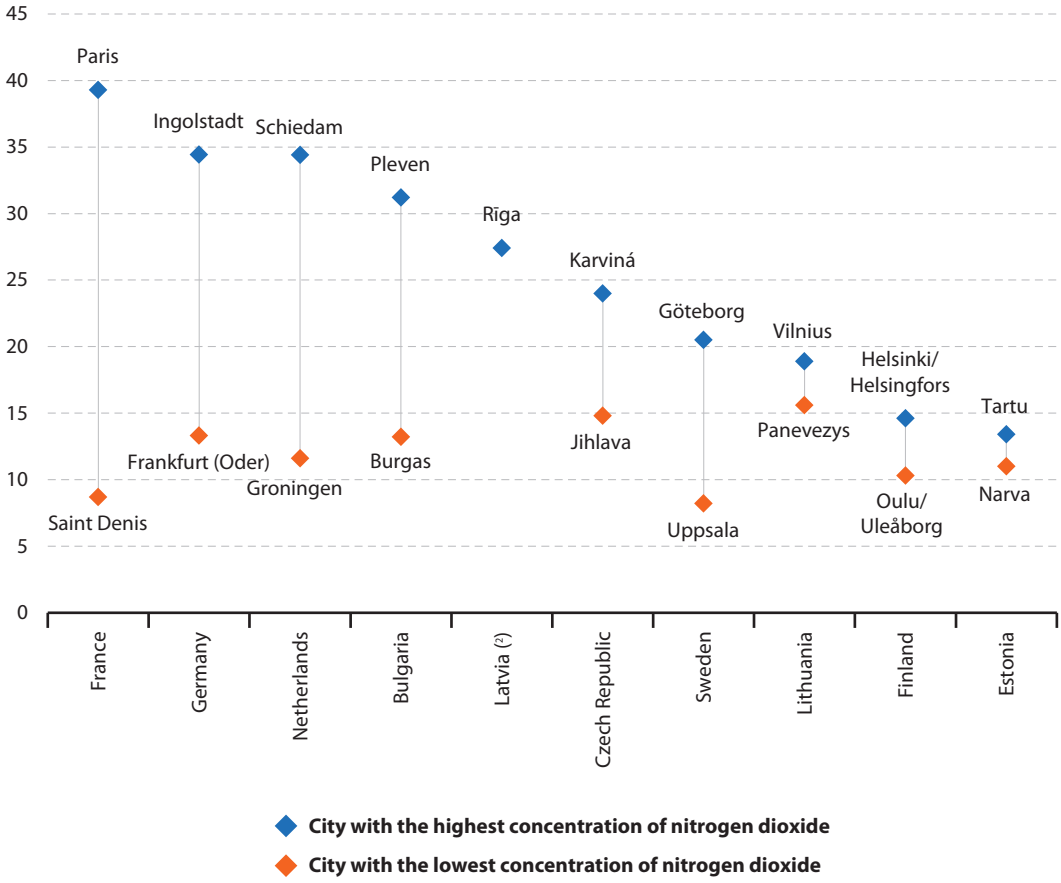
Together with carbon dioxide, concentrations of nitrogen oxides, particulate matter and ozone are some of the most common forms of air pollution. European air quality standards are set in a Directive (2008/50/EC) on ambient air quality and cleaner air for Europe, with a limit of 40 µg/m^3 for the annual mean concentration of nitrogen dioxide. Road transport (particularly diesel engines) is the principal emitter of nitrogen oxide/dioxide emissions. Given the congestion in many of Europe's cities it is not surprising that the highest concentrations of these emissions are recorded next to roads in major agglomerations.

The statistics shown in **Figure 6.5** are calculated as an average for the whole of a city; as such, there are likely to be sites where pollutions levels are considerably higher and others where they are lower. Furthermore, the data refer to annual averages and there could be much higher peaks in pollution levels during rush-hour periods or under specific atmospheric or climatic conditions. These issues are addressed by air quality standards, and in the case of nitrogen dioxide there are also hourly thresholds which have been established (200 µg/m^3 not to be exceeded for more than 18 hours in a year).

The highest annual concentration of nitrogen dioxide (among those cities for which data are available) was recorded in Paris (39.3 µg/m^3; 2013 data), while pollution levels were also relatively high in another major French city, Marseille, the German cities of Ingolstadt and Frankfurt am Main, as well as the Dutch city of Schiedam (in the eastern suburbs of Rotterdam).

Fresher information for 2014 from Airparif — the air quality monitoring body for the French capital — suggests that around 2.3 million inhabitants within the Île-de-France (Greater Paris) were potentially exposed to levels above the annual limit and that the limit was exceeded in a number of popular sites in the city, including the Champs Elysées, Place de la Bastille or the Place de l'Opéra.

Figure 6.5: Average concentration of nitrogen dioxide, selected European cities, 2013 ([1])
(µg/m³)



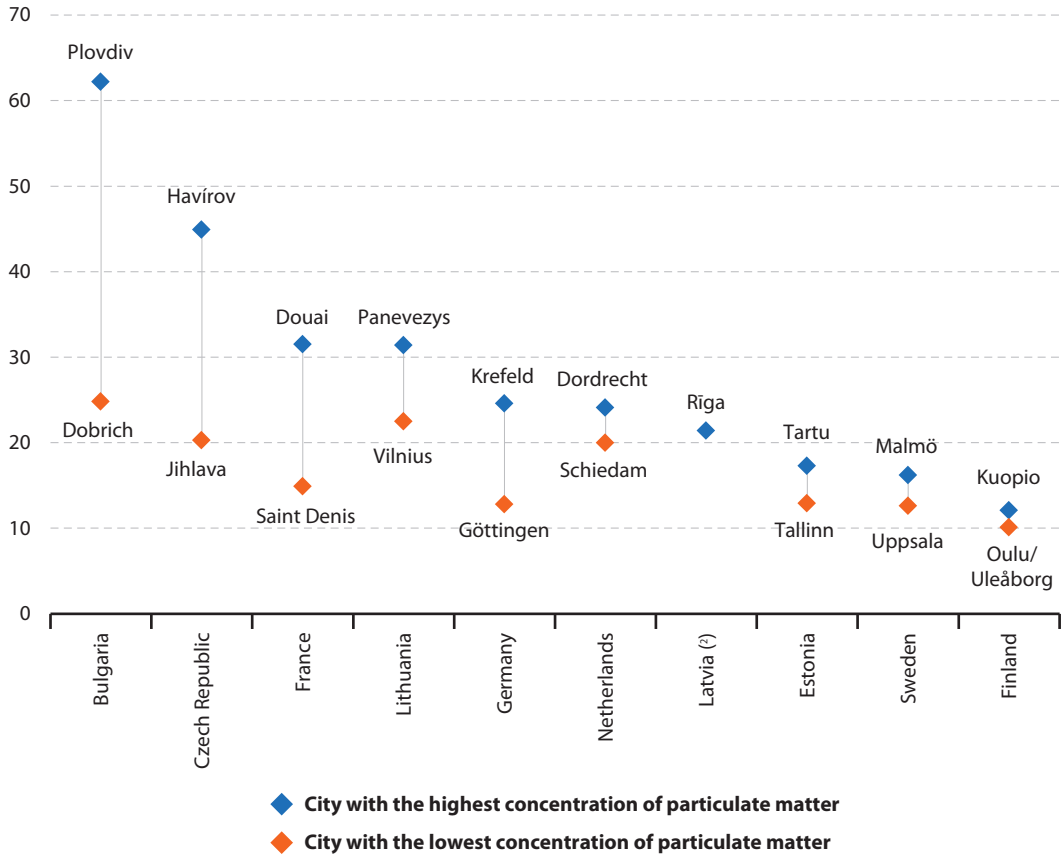
([1]) The figure shows for each country (subject to data availability) the cities with the lowest/highest concentration of nitrogen dioxide; the name of the city with the lowest/highest concentration is also shown. Earlier reference years were used in some cases (see database for more details). All other EU Member States: not available.
([2]) There is only data available for one city.

Source: Eurostat (online data code: urb_cenv)

The highest concentrations of particulate matter were recorded in eastern and southern EU Member States …

As with nitrogen dioxide, there are short and long-term air quality limits for particulate matter (relatively large particles of dust, pollen, soot and smoke suspended in the air, whose size ranges from 2.5 to 10 µm (PM10). The short-term limit is set at not more than 35 days per year with a daily average concentration exceeding 50 µg/m^3, while the long-term limit is a mean annual concentration that does not exceed 40 µg/m^3.

Figure 6.6: Average concentration of particulate matter (PM10), selected European cities, 2013 (1)
(µg/m^3)



(1) The figure shows for each country (subject to data availability) the cities with the lowest/highest concentrations of particulate matter; the name of the city with the lowest/highest concentration is also shown. Earlier reference years were used in some cases (see database for more details). All other EU Member States: not available.
(2) There is only data available for one city.

Source: Eurostat (online data code: urb_cenv)

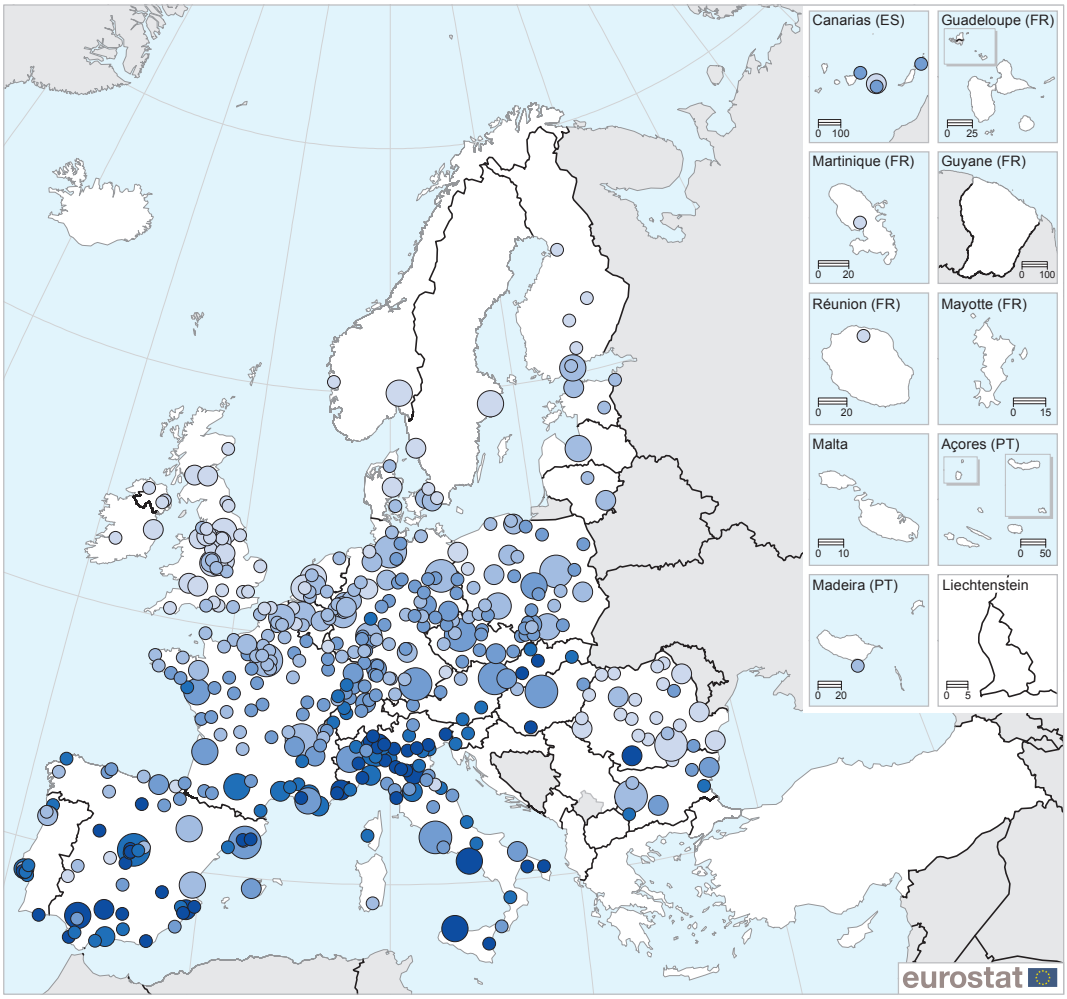
Air pollution from particulate matter is also linked to vehicle emissions from diesel engines, while (surface) coal mining and other heavy industries can also cause high levels of this pollutant. The concentration of particulate matter can also be affected by atmospheric/climatic conditions, with pollution levels rising as a result of sunshine and higher temperatures. This may explain, to some degree, why the highest concentrations among those cities for which data are available tended to be recorded in eastern and southern EU Member States (see **Figure 6.6**). This was particularly the case for several cities in Bulgaria, with the mean concentration of particulate matter peaking in Bulgaria's second city of Plovdiv (62.2µg/m^3 in 2013). There were eight other cities in Bulgaria — including the capital of Sofia — where the average concentration of particulate matter rose above 40 µg/m^3, and this was also the case in the three Czech cities of Havírov, Karviná and Ostrava (all of which are in the easternmost region of Moravian-Silesian, which has traditionally been an area characterised by coal mining). On the other hand, those cities with relatively low levels of air pollution were often located in the Nordic and the Baltic Member States.

… while some of the highest concentrations of ozone were generally recorded in southern EU Member States

Ozone is not directly emitted into the atmosphere but is rather formed as a result of complex chemical reactions. Exposure to ozone can cause breathing and cardiovascular problems, asthma or lung disease. The World Health Organisation estimates that the average baseline level for ozone is 70µg/m^3, while the EU air quality directive stipulates that the maximum daily 8-hour mean concentration of ozone should not exceed 120µg/m^3 on more than 25 days per year.

Map 6.3 shows how many hours each day the concentration of ozone exceeded 70µg/m^3; the map presents the accumulation of ozone concentrations above this threshold. In 2013, the highest ozone concentrations (among those cities for which data are available) were recorded in the Italian cities of Bergamo, Lecce (2012 data), Lecco and Udine, the Spanish cities of Almería, Benidorm and Córdoba, the Romanian city of Craiova (2012 data), the Hungarian city of Pécs and the Swiss city of Lugano. By contrast, there were three cities shown in **Map 6.3** where there were zero hours during the course of 2013 with an accumulated concentration of ozone above 70µg/m^3; they were the central and south eastern Romanian cities of Brașov and Buzău, and Saint-Denis (France).

Map 6.3: Accumulated ozone concentration, selected European cities, 2013 (1)
(sum of hours each day by which maximum daily 8-hour concentrations of ozone exceed 70 µg/m³)



(1) Earlier reference years were used in some cases (see database for more details). Population data generally refer to 1 January 2013. Bulgaria, Latvia, Lithuania, Poland, Portugal and the United Kingdom: estimates.

Source: Eurostat (online data codes: urb_cenv and urb_cpop1)

6.4 Environmental issues as perceived by city-dwellers

Maps 6.4–**6.6** provide information from a perception survey on the quality of life in 79 European cities that was conducted during May and June 2015.

In three French cities more than three quarters of the population agreed that their city was committed to fighting climate change

In 2015, a majority of the population in 55 out of 79 cities agreed that their city was committed to the fight against climate change. The highest shares of agreement with this statement were recorded in three French cities, namely, Bordeaux (82 %), Strasbourg (81 %) and Rennes (76 %); the corresponding share for Greater Paris was considerably lower at 54 %. By contrast, no more than one third of respondents in the two Italian cities of Roma (33 %) and Palermo (32 %), or the three capitals of Rīga (Latvia; 32 %), Bratislava (Slovakia; 31 %) and Madrid (Spain; 30 %) agreed that their city was committed to the fight against climate change. A low proportion of people living in capital cities generally agreed with the statement, with higher shares being recorded for provincial cities in most EU Member States; the main exceptions where a high share of population agreed that their city was committed to the fight against climate change were the Austrian capital city (Wien; 75 % agreed) and Luxembourg (73 %).

A high proportion of city-dwellers in the Nordic Member States and the United Kingdom were satisfied with the level of noise in their city

A majority of respondents in 62 out of the 79 cities covered by the perception survey declared that they were satisfied with the level of noise in their city. The highest satisfaction levels were recorded in Oulu (Finland), where 88 % of respondents were satisfied, followed by the Danish city of Aalborg (87 %), and two cities from the United Kingdom, Tyneside (Greater Newcastle) and Belfast (86 %). More generally, relatively high satisfaction levels were recorded for many of the cities in the Nordic Member States and the United Kingdom, while this was also true in the Irish capital of Dublin (the only city surveyed in that EU Member State).

No more than half of the inhabitants in 17 of the perception survey cities were satisfied with the level of noise in their city. The share of respondents who were satisfied was no more than one third in Palermo (33 %) and the Romanian capital of Bucureşti (31 %); this was also the case in the Turkish city of Istanbul (28 %). Once again, respondents living in capitals were generally less likely to be satisfied with noise levels than those living in other cities.

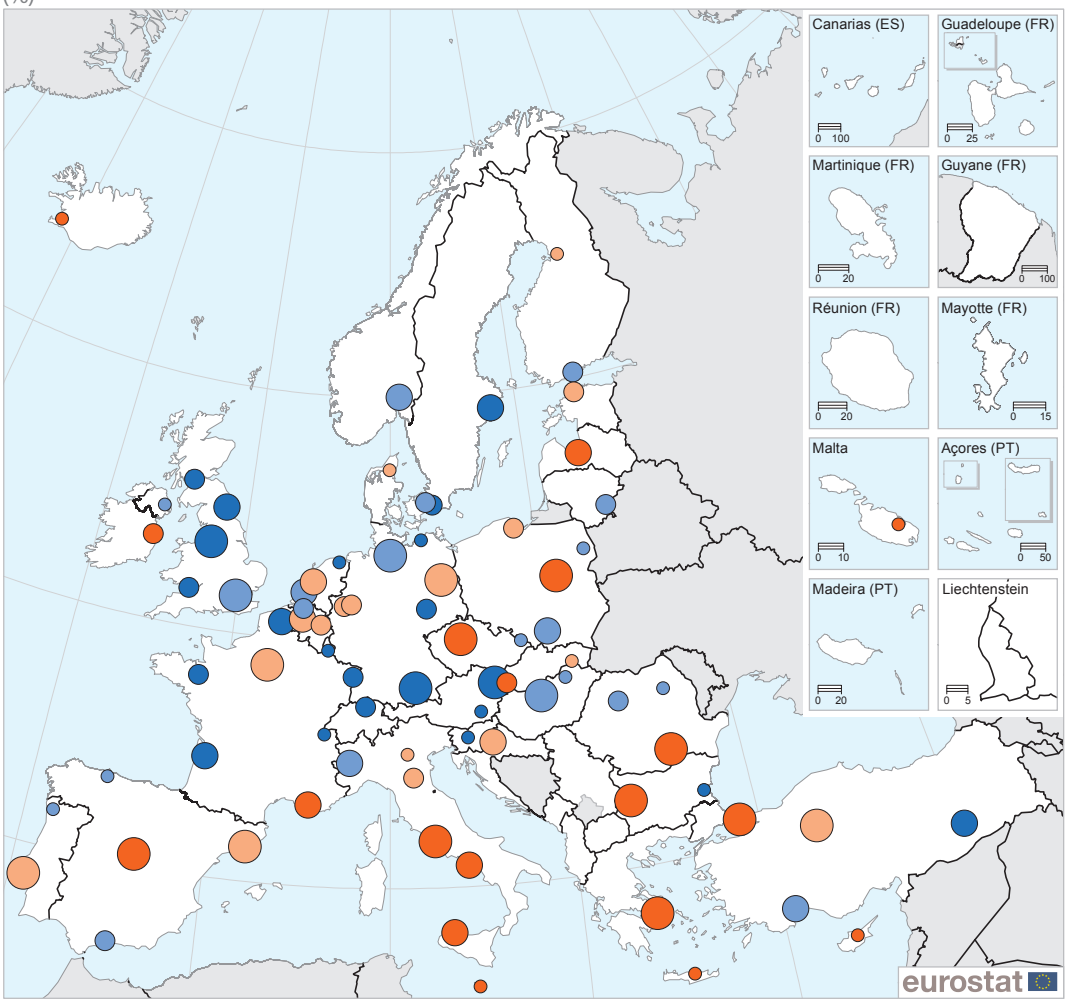
There were only six European cities where a majority of city-dwellers were unsatisfied with the green areas in their city

The majority of people living in 73 out of the 79 cities covered by the perception survey declared that they were satisfied with the green areas in their city. There were 14 cities where more than 9 out of 10 inhabitants were satisfied: they included the three German cities of München, Leipzig and Hamburg, as well as Białystok (Poland), Luxembourg (Luxembourg), Wien (Austria), Groningen (the Netherlands), Stockholm and Malmö (both Sweden), Helsinki (Finland) and Greater London (the United Kingdom), as well as the Norwegian capital of Oslo and the two Swiss cities of Genève and Zürich. The highest level of satisfaction with green areas was recorded in Malmö (97 %).

There were six cities where less than half the respondents expressed satisfaction with the green areas in their city: Greater Athina and Irakleio in Greece, Valletta in Malta and Palermo and Napoli in Italy; the same was also true for Istanbul in Turkey.

Map 6.4: Proportion of people who agree that their city is committed to the fight against climate change, 2015 (1)

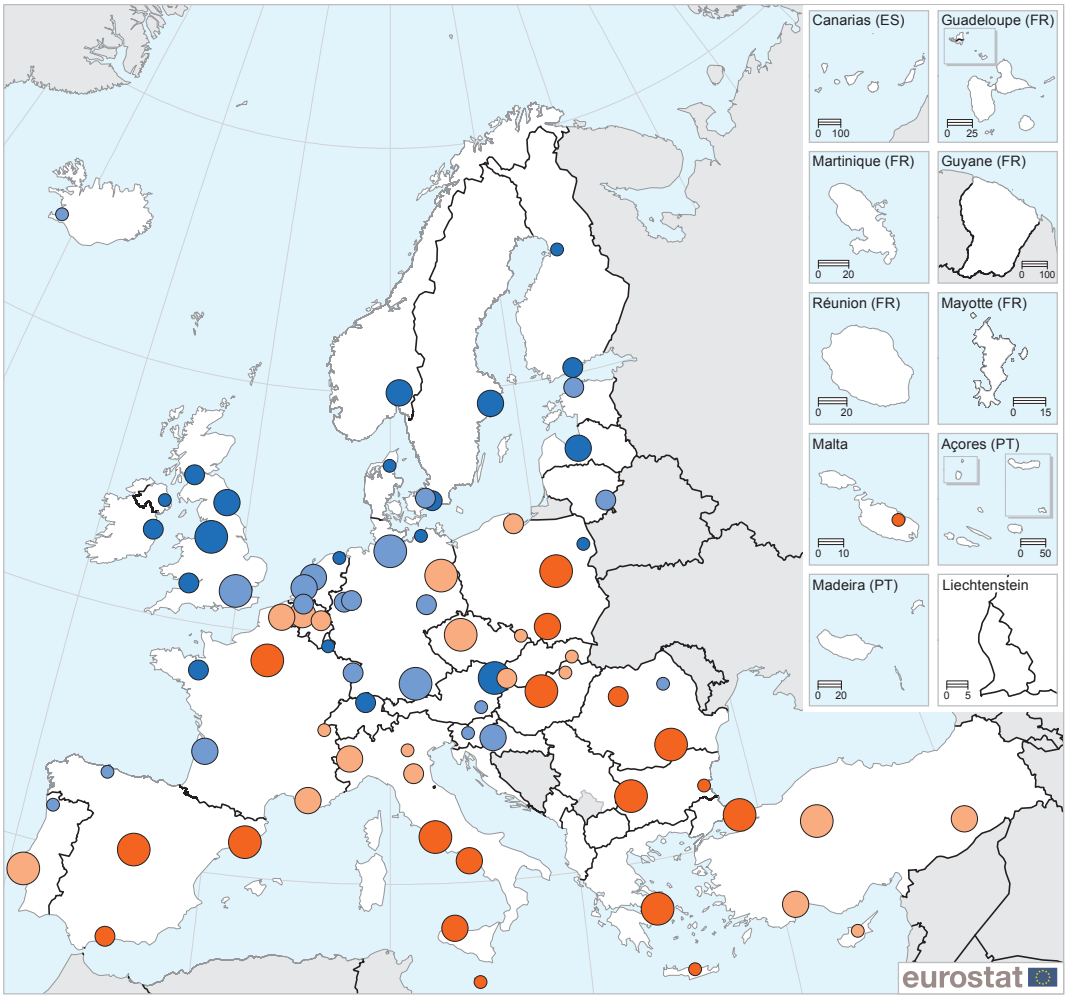
(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

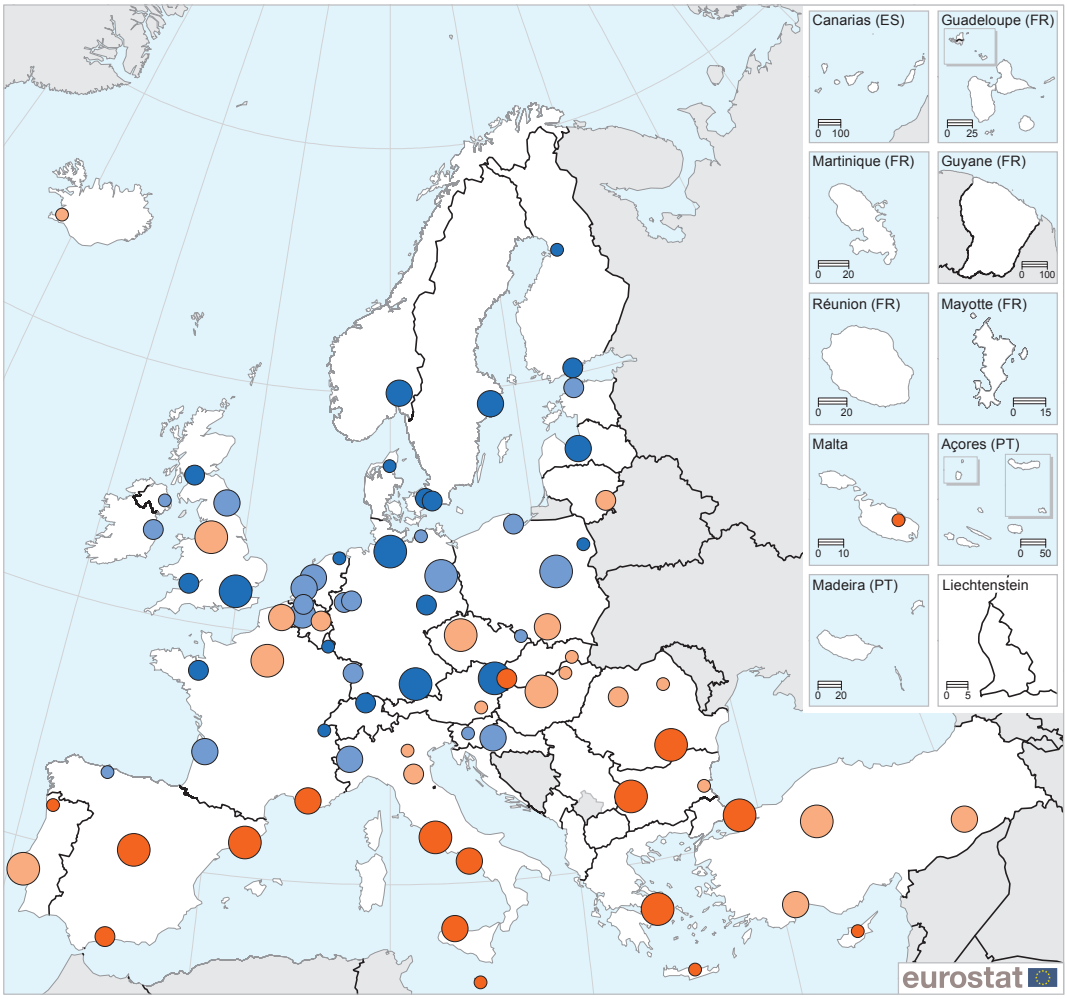
Map 6.5: Proportion of people who are satisfied with the level of noise in their city, 2015 ([1])
(%)



([1]) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

Map 6.6: Proportion of people who are satisfied with the green areas in their city, 2015 ([1])
(%)



([1]) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

7 Tourism and culture in cities

The European Union's (EU's) cultural heritage is rich and diverse: it includes tangible assets such as historic towns and cities; natural and archaeological sites; museums and monuments; literary, musical and art works; as well as intangible attributes that are preserved through customs, traditions, folklore and linguistic diversity.

Whether for a short break or as a day trip within a longer holiday, many holidaymakers visit towns and cities. However, urban tourism is complex and the motivation of tourists is diverse, including for example: cultural tourism; gastronomic or oenological tourism; educational tourism; religious tourism; or volunteer tourism.

Tourism within Europe continues to grow: estimates suggest that it accounts for around one tenth of the EU-28's gross domestic product (GDP). Growth in the number of tourists has been fuelled by mass-market tourism resulting from increases in living standards. International tourist numbers have been given a boost by the development of low-cost air travel which has encouraged many tourists to venture further afield and more often, for example, providing a stimulus for short-stay/weekend breaks in a range of city destinations.

However, in keeping with many aspects of urban development, tourism is a paradox, insofar as an increasing number of tourists in some towns and cities has resulted in congestion/saturation which may damage the atmosphere and local culture that made them attractive in the first place; it should be noted that this is not limited to urban tourism. Furthermore, while tourism has the potential to generate income which may be used to redevelop/regenerate urban areas, an influx of tourists can potentially lower the quality of life for local inhabitants, for example, through: higher levels of pollution and congestion; new retail formats replacing traditional commerce; increased prices; or increased noise. Venezia (Italy) and Barcelona (Spain) are two of the most documented examples of such issues.

Definitions of territorial units

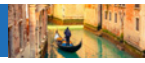
The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

7.1 Tourism

In 2014, the capacity of tourist accommodation establishments, as measured by the number of bed places in the EU-28, reached almost 31 million. An analysis by degree of urbanisation reveals that almost half (46.4 %) of these were located in rural areas, while towns and suburbs accounted for 31.2 % and cities for 22.4 %. During the period 2012–14, the number of bed places in the EU-28 rose by 3.9 %, largely driven by a rapid expansion in cities (up 10.0 %), while growth rates were more modest for towns and suburbs (3.2 %) and rural areas (1.3 %).

The most popular form of tourist accommodation in cities was hotels

Figure 7.1 presents the total number of bed places in tourist accommodation establishments relative to the resident population. While there were 103.0 bed places per 1 000 residents in rural areas of the EU-28, the corresponding ratios were much lower in towns and suburbs (61.4) and cities (32.8). Latvia and Romania were the only EU Member States where the number



Europe is the world's no. 1 tourist destination

EU policymakers aim to maintain Europe's position as a leading tourism destination, safeguarding and enhancing Europe's cultural heritage, while maximising the contribution that tourism and culture can make to economic growth and employment.

The competitiveness of the activities involved in tourism is closely linked to economic, socio-cultural, and environmental sustainability, as outlined in a European Commission Communication titled 'Agenda for a sustainable and competitive European tourism' (COM(2007) 0621 final), which proposes an integrated approach to the challenges of sustainable tourism, including: preserving natural and cultural resources; limiting negative impacts at tourist destinations; promoting the well-being of the local communities; reducing the seasonality of demand; limiting the environmental impact of tourism-related transport; making tourism accessible to all; improving the quality of tourism jobs.

In June 2010, the European Commission adopted a Communication titled, 'Europe, the world's No. 1 tourist destination — a new political framework for tourism in Europe' (COM(2010) 0352 final), which set out a strategy for EU tourism. Four priorities were identified, namely to:

- **stimulate competitiveness;**
- **promote the development of sustainable, responsible, and high-quality tourism;**
- **consolidate Europe's image as a collection of sustainable, high-quality destinations;**
- **maximise the potential of the EU's financial policies for developing tourism.**

To enhance Europe's position as a leading tourist destination, the European Commission ran its first international tourism campaign during 2012–14, 'Europe, whenever you're ready', designed to encourage international tourists to discover Europe, highlighting its diverse cultural and natural heritage.

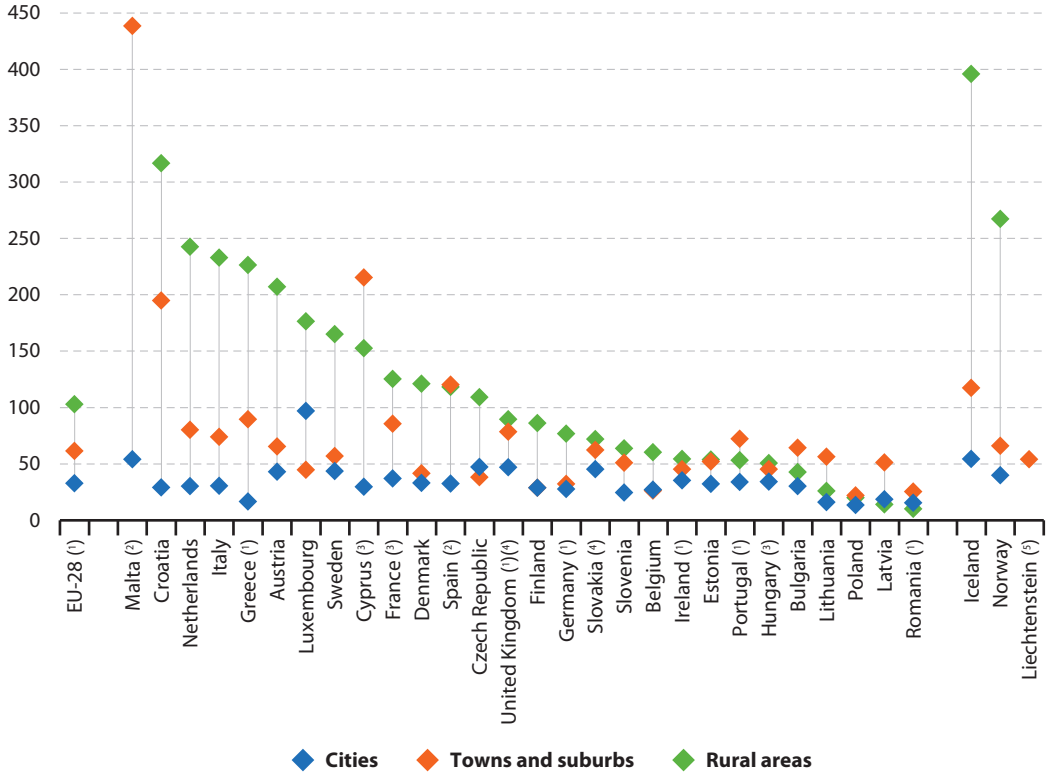
of bed places relative to the resident population was higher in cities than it was in rural areas, while Luxembourg and the Czech Republic were the only Member States where the ratio was significantly higher in cities than in towns and suburbs (although Belgium and Finland also reported slightly higher rates for cities).

The different types of tourism accommodation on offer vary according to location: as such a higher proportion of hotels are commonly found in cities, whereas a higher share of campsites, holiday homes and similar accommodation are located in coastal/rural destinations. Tourism statistics show that in 2014 just over one third (34.9 %) of the total number of bed places in hotels and similar accommodation in the EU-28 were located in cities, while 31.3 % were in towns and suburbs, and 33.8 % in rural areas. **Figure 7.2** shows the capacity of bed places in hotels and similar establishments relative to the resident population: in 2014, there were 31.5 bed places per 1 000 residents in rural areas of the EU-28, the corresponding ratios for towns and suburbs (26.8) and cities (23.9) were somewhat lower. However, more than half of the EU Member States reported higher ratios for cities and for towns and suburbs than they did for rural areas.

Urban areas accounted for almost two thirds of the total number of tourist nights spent in the EU-28

According to tourism statistics, there were 2.68 billion nights spent in tourist accommodation establishments across the EU-28 in 2014. The total number was relatively evenly spread by degree of urbanisation, as cities accounted for 33.8 % of nights spent, towns and suburbs for 30.0 %, and rural areas for 36.1 %. These shares may be contrasted with those already shown in **Figure 7.1**: for example, while cities provided 22.4 % of the bed place capacity in EU-28 tourist accommodation establishments, they accounted for 33.8 % of the total nights spent. This suggests that occupancy rates were higher in cities, which may be expected as cities are often visited throughout the year on short breaks, whereas some rural/coastal destinations have a considerable peak in visitor numbers during the summer months and some alpine destinations have a peak in numbers during the winter months; it is also important to note that tourism statistics include business trips, where demand is usually more evenly spread across the year.

Figure 7.1: Number of bed places in tourist accommodation establishments relative to the size of the resident population, by degree of urbanisation, 2014
(per 1 000 residents)



(1) Estimates.
(2) Rural areas: not shown. There were 2 200 bed places per 1 000 residents in rural areas.
(3) Provisional.
(4) 2013.
(5) Cities and rural areas: not applicable.

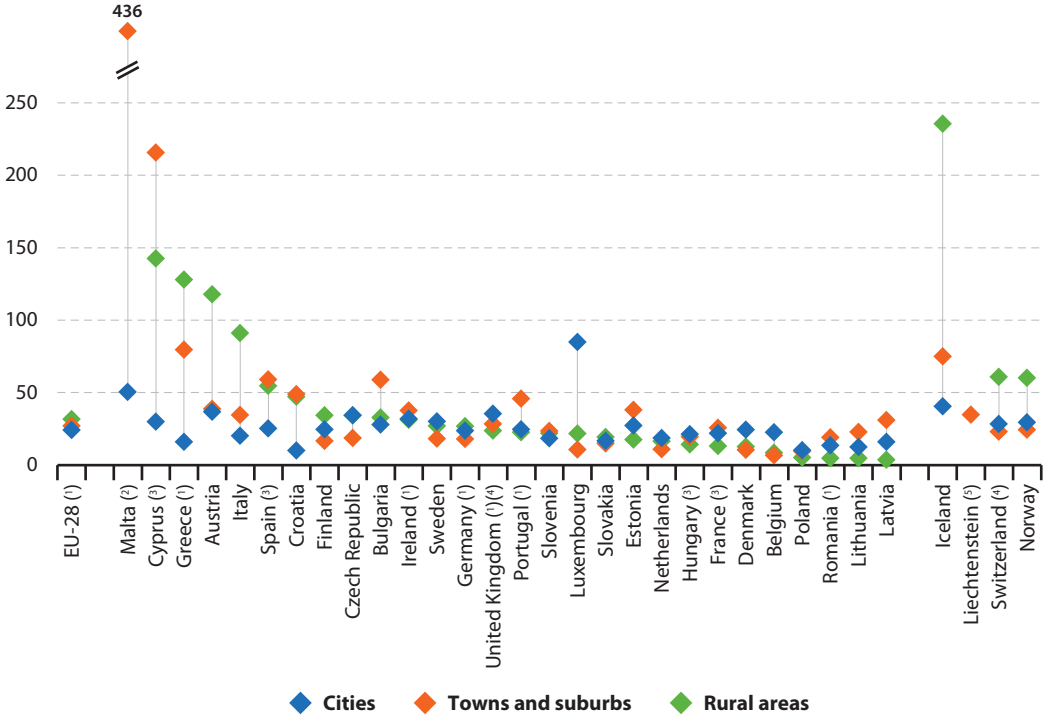
Source: Eurostat (online data codes: tour_cap_natd, ilc_lvho01 and demo_gind)

Tourism pressures from non-residents were higher in some of the smallest EU Member States

Tourism pressures may be measured using a range of indicators, one of which is tourism intensity, defined here as the number of overnight stays in relation to the resident population — it may be used as a proxy for analysing the sustainability of tourism.

Figure 7.3 presents tourism intensity in tourist accommodation establishments in cities. In 2014, there was little overall difference in the EU-28 between the average number of nights spent by residents (from the same country) and non-residents (living in another country), with averages of 2.1 nights and 2.2 nights respectively. However, the size of each EU Member State clearly plays an important role in determining whether or not residents are likely to stay overnight in tourist accommodation establishments, with the average number of nights spent by residents in cities peaking in Sweden (4.1 nights spent per resident), Ireland (3.5) and (Germany (3.2). On the other hand, the average number of nights spent in cities by non-residents (again relative to the resident population) was particularly high in those Member States with relatively small populations, peaking in Luxembourg (13.3 nights per resident) and Malta (11.1).

Figure 7.2: Number of bed places in hotels and similar accommodation relative to the size of the resident population, by degree of urbanisation, 2014
(per 1 000 residents)



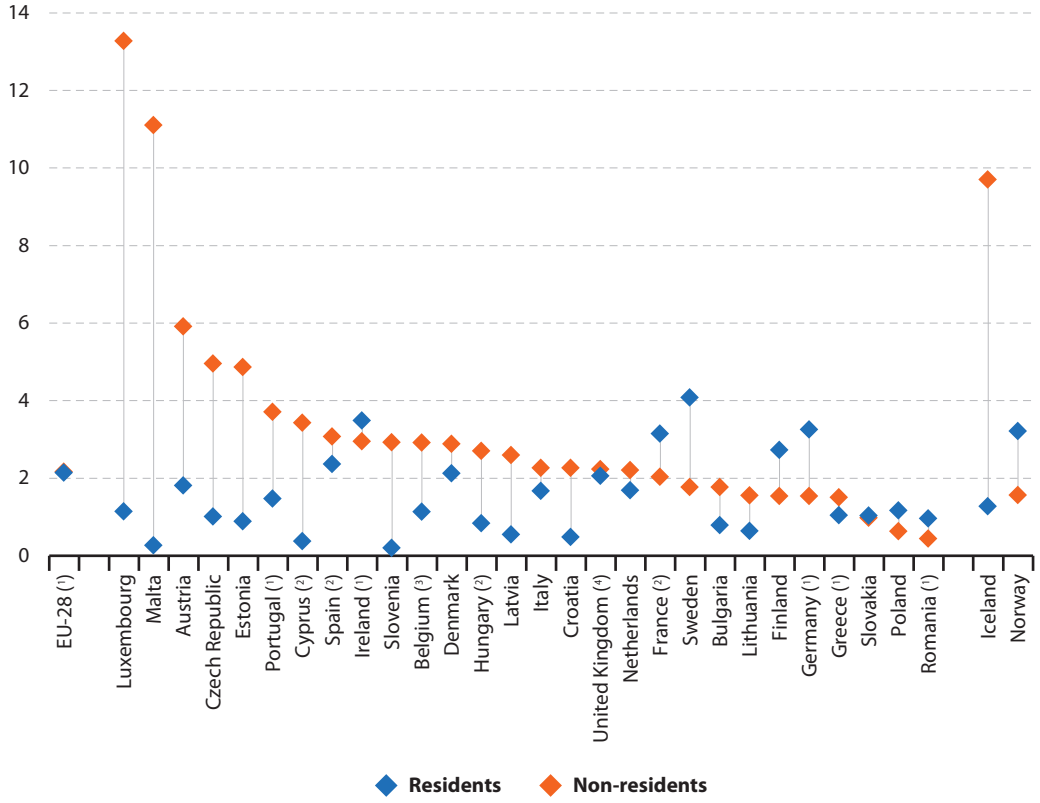
(1) Estimates.
(2) Rural areas: not shown. There were 1 850 bed places per 1 000 residents in rural areas.
(3) Provisional.
(4) 2013.
(5) Cities and rural areas: not applicable.

Source: Eurostat (online data codes: tour_cap_natd, ilc_lvho01 and demo_gind)

In 2014, there were a total of 367.7 million nights spent by residents in hotels and similar accommodation in cities across the EU-28, compared with 401.2 million nights spent by non-residents; as such, non-residents accounted for 52.2 % of the total nights spent (see **Figure 7.4**).

In absolute terms, the highest number of nights spent by residents in city hotels and similar accommodation was recorded in Germany, followed by France and the United Kingdom (2013 data). The share of nights spent by residents in the total number of nights spent was highest in Sweden, Germany and Romania, where it rose to just over two thirds. Finland, Poland, Ireland and France were the only other EU Member States where residents accounted for a majority of the total nights spent in city hotels and similar accommodation.

Figure 7.3: Average number of nights spent in tourist accommodation establishments in cities relative to the size of the resident population, 2014
(per resident)



(1) Estimates.
(2) Provisional.
(3) 2013.
(4) 2012.

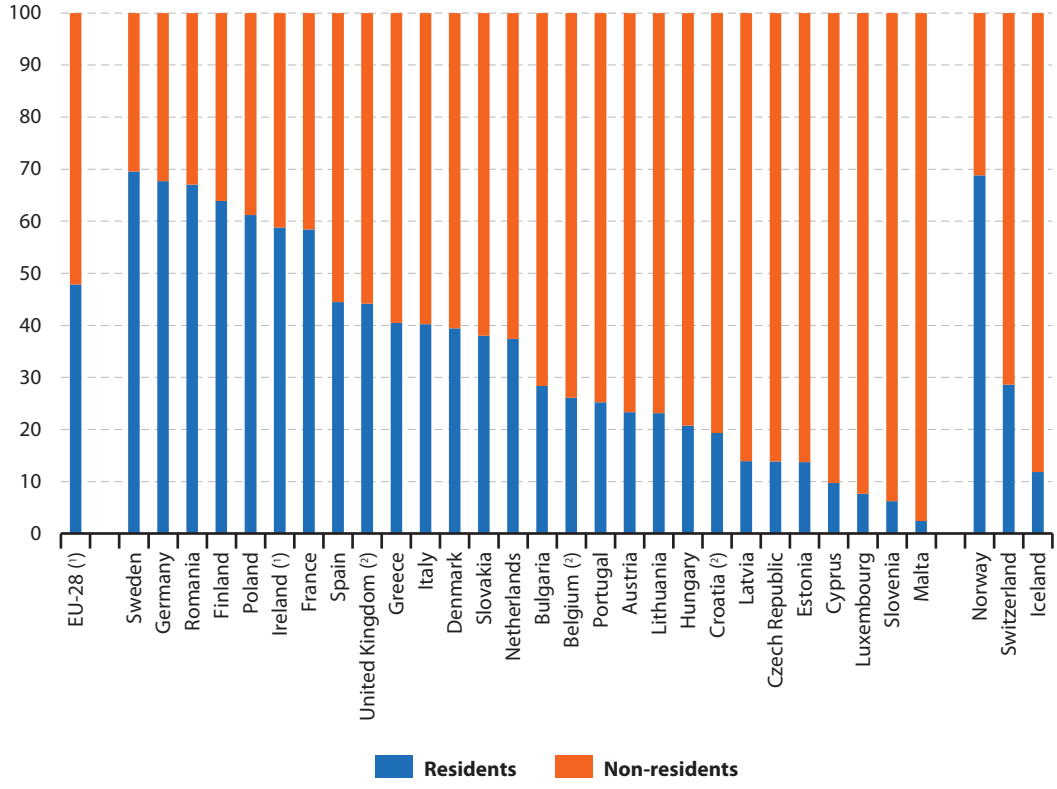
Source: Eurostat (online data codes: tour_occ_ninatd, ilc_lvho01 and demo_pjan)

The United Kingdom, followed by Spain and Italy, recorded the highest number of nights spent by non-residents in city hotels and similar accommodation. The relative importance of non-resident nights spent was highest in the four smallest EU Member States (by total area), namely, Malta, Slovenia, Luxembourg and Cyprus, where nights spent by non-residents accounted for upwards of 90 % of the total nights spent in city hotels and similar accommodation.

Some of the most intense tourism pressures were recorded in cities around the Mediterranean coastline

As noted above, the continued expansion of tourism has the potential to jeopardise environmental and social conditions. In the Mediterranean basin, tourism infrastructures and activities have sometimes resulted in irreversible and/or negative effects on areas rich in biodiversity, while there are concerns over the impact of tourism on the social fabric of some cities.

Figure 7.4: Distribution of nights spent in hotels and similar accommodation in cities, 2014
(% of total)



(1) Estimates.
(2) 2013.

Source: Eurostat (online data code: tour_occ_ninatd)

Tourism pressures

In Venezia, the number of residents living in the centro storico (old town) has fallen by more than 50 % during the last three decades to less than 60 thousand, while the number of annual visitors is over 20 million (many are day-trippers). In Barcelona, there was an exponential rise in the number of tourists after hosting the summer Olympic games in 1992, which led to rapid growth in tourist numbers and eventually prompted local residents to establish groups like Guanyem Barcelona (Let's win back Barcelona), who coordinated protests/demonstrations and petitions against plans for building new hotels; they subsequently became part of Barcelona en Comú (Barcelona in common) and have been governing the city since May 2015, promoting a more sustainable model for tourism, while putting a one year moratorium on new hotel developments.

Venezia (Italy)

Barcelona (Spain)

Most of the remaining data that appear in this chapter are drawn from the voluntary city statistics data collection exercise. **Figure 7.5** shows the top 30 cities (subject to data availability) that recorded the highest ratios of bed places in tourist accommodation establishments per 1 000 residents. Among those cities for which data are available in 2013, the Spanish tourist resort of Benidorm on the Costa Blanca coastline recorded the highest ratio (810 bed places per 1 000 residents); in other words, if each of these beds was filled then the city's population would increase by approximately 80 %. It was followed by the Mediterranean resort of Fréjus in the south of France (639 bed places per 1 000 residents; 2012 data), Venezia (461; 2008 data), the Spanish resort of Torremolinos on the Costa Del Sol (375), and the Czech spa city of Karlovy Vary (204; 2011 data).

There were 13 additional cities that reported 100–200 bed places per 1 000 residents, with five of these from each of France and Spain, and a single city from each of Bulgaria, Italy and Portugal. Aside from the Italian city of Firenze, the remaining 12 were each located within close proximity of a coastline, underlining that some of the most intense tourism pressures were in coastal resorts.

An alternative measure that may be used to analyse sustainability is tourism density — the number of overnight stays per square kilometre (km^2). Tourism statistics show, as may be expected, that such pressures were highest in urban areas and particularly in capital cities, for example, Bruxelles/Brussel (Belgium), Praha (the Czech Republic), Berlin and Hamburg (Germany), Paris (France), Wien (Austria) and London (the United Kingdom).

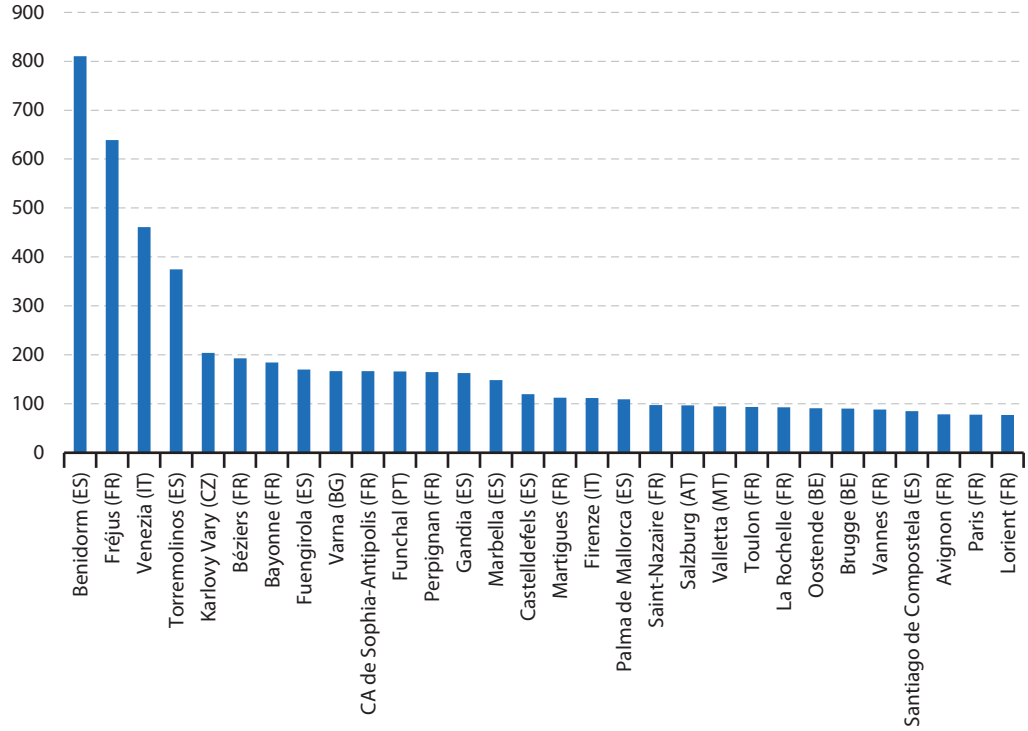
Paris, Berlin and Roma were among the most popular city destinations in the EU

Figure 7.6 shows the city in each of the EU Member States with the highest share of their national total for nights spent in tourist accommodation establishments; data for Cyprus and the United Kingdom are not available. In 2013, these were principally capital cities (see Chapter 4), the only exceptions among the EU Member States being the coastal cities of Varna in Bulgaria and Barcelona in Spain (2012 data); they were joined by the Swiss city of Zürich.

Capital cities accounted for a high share of the national total for nights spent in tourist accommodation establishments in the Baltic Member States, Malta, Luxembourg and the Czech Republic. This was particularly the case in Rīga, which accounted for more than half (60.5 %) of all the nights spent in Latvia, while shares just under 50 % were recorded for Tallinn (Estonia) and Valletta (Malta; 2008 data).

In absolute terms, the highest number of nights spent in tourist accommodation establishments was recorded in the French capital of Paris, some 39.9 million (2012 data). This was considerably higher than in the German capital of Berlin (26.9 million; 2013 data) or the Italian capital of Roma (23.7 million; 2011 data); note again that there is no data available for London.

Figure 7.5: Number of bed places in tourist accommodation establishments relative to the size of the resident population, selected cities, 2013 (1)
(per 1 000 residents)



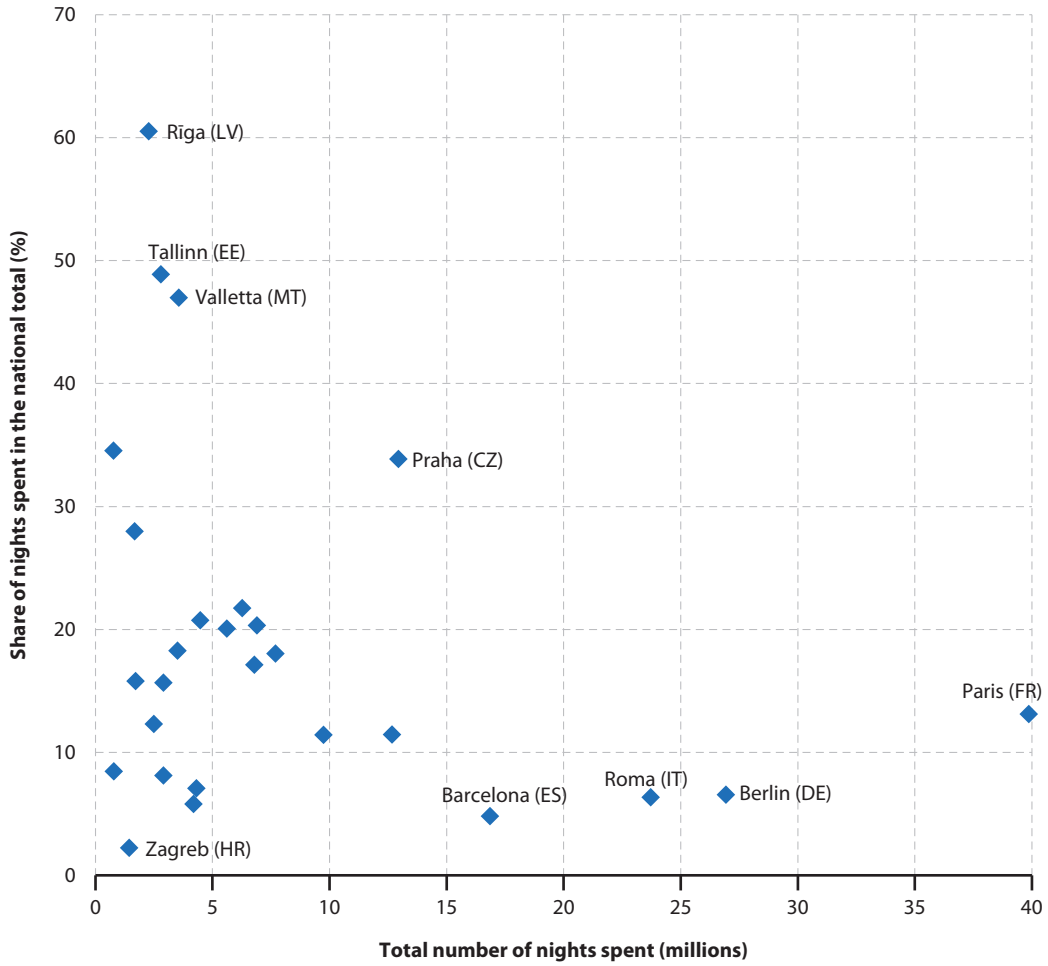
(1) The figure shows (subject to data availability) the 30 cities among the EU Member States with the highest ratios of bed places per 1 000 residents. Ireland, Cyprus and the United Kingdom: not available. A number of other cities did not have any data (see database for more details). Alternative reference years were used in some cases (see database for more details).

Source: Eurostat (online data code: urb_ctour)

Paris accounted for 13.1 % of the nights spent in French tourist accommodation establishments in 2012. Capital cities in the other most populous EU Member States generally recorded lower shares: this pattern was particularly evident in Berlin, Roma (2011 data), and Madrid (Spain; 2012 data) — none of which accounted for more than 6.5 % of the total nights spent on their national territories; a lower share (2.2 %) was recorded in the Croatian capital of Zagreb, with the vast majority of nights spent in Croatia being on the Adriatic coastline.

Figure 7.7 shows the average number of nights spent in tourist accommodation establishments; once again data are not available for Cyprus and the United Kingdom. This indicator may be used as a measure of tourism pressures: for example, for each inhabitant in Benidorm (Spain), an average of 181 nights was spent in tourist accommodation

Figure 7.6: Most popular city destinations — nights spent in tourist accommodation establishments, 2013 (1)



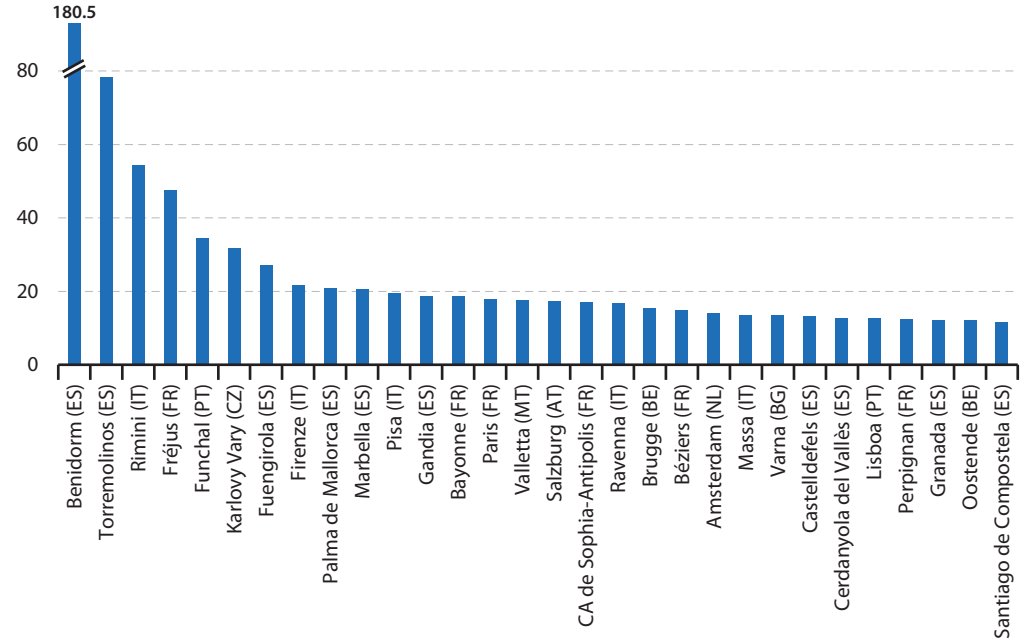
(1) The figure shows (subject to data availability) the city in each country with the highest share of nights spent in the national total. Cyprus and the United Kingdom: not available. A number of other cities did not have any data (see database for more details). Alternative reference years were used in some cases (see database for more details).

Source: Eurostat (online data code: urb_ctour)

establishments during the course of 2013. This was the highest ratio among EU cities for which data are available, while relatively high ratios were also recorded in a number of other coastal resorts including Torremolinos (Spain; 78 nights) and Fréjus (France; 47 nights in 2012), as well as the Italian resort of Rimini on the Adriatic coastline (54 nights; 2011 data) and the capital of the autonomous Portuguese island of Madeira, Funchal (35 nights; 2012 data); note that many of the tourist accommodation establishments in these holiday resorts are characterised by fluctuating seasonal occupancy levels, and that associated tourism pressures are likely to be considerably greater during the high season than these annual averages might suggest.

Aside from these coastal resorts, the top 30 cities with the highest average number of nights spent was also characterised by capital cities and by historical/cultural cities. For example, using this measure, tourism pressures appeared to be relatively high in the capital cities of Paris, Valletta (Malta), Amsterdam (the Netherlands) and Lisboa (Portugal), as well as in the historical/cultural cities of Firenze and Pisa (both Italy), Granada and Santiago de Compostela (both Spain), Salzburg (Austria) and Brugge (Belgium).

Figure 7.7: Average number of nights spent in tourist accommodation establishments relative to the size of the resident population, selected cities, 2013 (1)
(per resident)



(1) The figure shows (subject to data availability) the 30 cities among the EU Member States with the highest ratios of nights spent per resident. Ireland, Cyprus and the United Kingdom: not available. A number of other cities did not have any data (see database for more details). Alternative reference years were used in some cases (see database for more details).

Source: Eurostat (online data codes: urb_ctour and urb_cpop1)

7.2 Culture and heritage

As noted above, Europe has a considerable cultural heritage, whether modern or contemporary, focused on design, fashion, architecture, cuisine, performing and visual arts, sports, or other areas.

European capital of culture

The organisation of the European capital of culture is one of the most high-profile cultural initiatives in Europe. The cities are chosen on the basis of a cultural programme that must have a strong European dimension, engage and involve the city's inhabitants, and contribute to the long-term development of the city. Events such as these have stimulated large tourist flows to some of the cultural capitals and have seen their branding and profile rise.

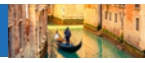
Table 7.1 presents the European capital(s) of culture during the period 2006–19. In 2016, the 31st edition of the European capital of culture is shared between Wrocław in Poland, and Donostia/San Sebastián in Spain. The former has organised almost 100 cultural events, behind the motto 'Spaces of beauty', while the programme for the latter is built on the idea of 'Culture to live together', exploring how art and culture help people and communities live together.

Future European capitals of culture will include Aarhus (Denmark) and Paphos (Cyprus) in 2017, Valletta (Malta) and Leeuwarden (the Netherlands) in 2018, and Plovdiv (Bulgaria) and Matera (Italy) in 2019.

Table 7.1: European capitals of culture, 2006–19

Year	City	Country	Year	City	Country
2019	Plovdiv	Bulgaria	2012	Guimarães	Portugal
	Matera	Italy		Maribor	Slovenia
2018	Valletta	Malta	2011	Tallinn	Estonia
	Leeuwarden	Netherlands		Turku	Finland
2017	Aarhus	Denmark	2010	Essen	Germany
	Paphos	Cyprus		Pécs	Hungary
2016	Donostia-San Sebastián	Spain		Istanbul	Turkey
	Wroclaw	Poland	2009	Vilnius	Lithuania
2015	Mons	Belgium		Linz	Austria
	Plzeň	Czech Republic	2008	Liverpool	United Kingdom
2014	Rīga	Latvia		Stavanger	Norway
	Umeå	Sweden	2007	Luxembourg	Luxembourg
2013	Marseille-Provence	France		Sibiu	Romania
	Košice	Slovakia	2006	Patras	Greece

Source: European Commission, Directorate-General for Education and Culture (http://ec.europa.eu/programmes/creative-europe/actions/capitals-culture_en.htm)



Although cultural tourism in cities continues to be dominated by the established 'cultural capitals' — for example, Athina in Greece, Paris in France, or Roma in Italy — there are a range of alternative destinations which are experiencing a growing number of visitors, for example, Antwerpen (Belgium), Valencia (Spain) or Glasgow (the United Kingdom). Indeed, there appears to be a shift away from purely heritage-based tourism towards those cities that offer additional forms of culture/creativity; in some cities these are exhibited through festivals and other special events.

World Heritage Sites in Europe

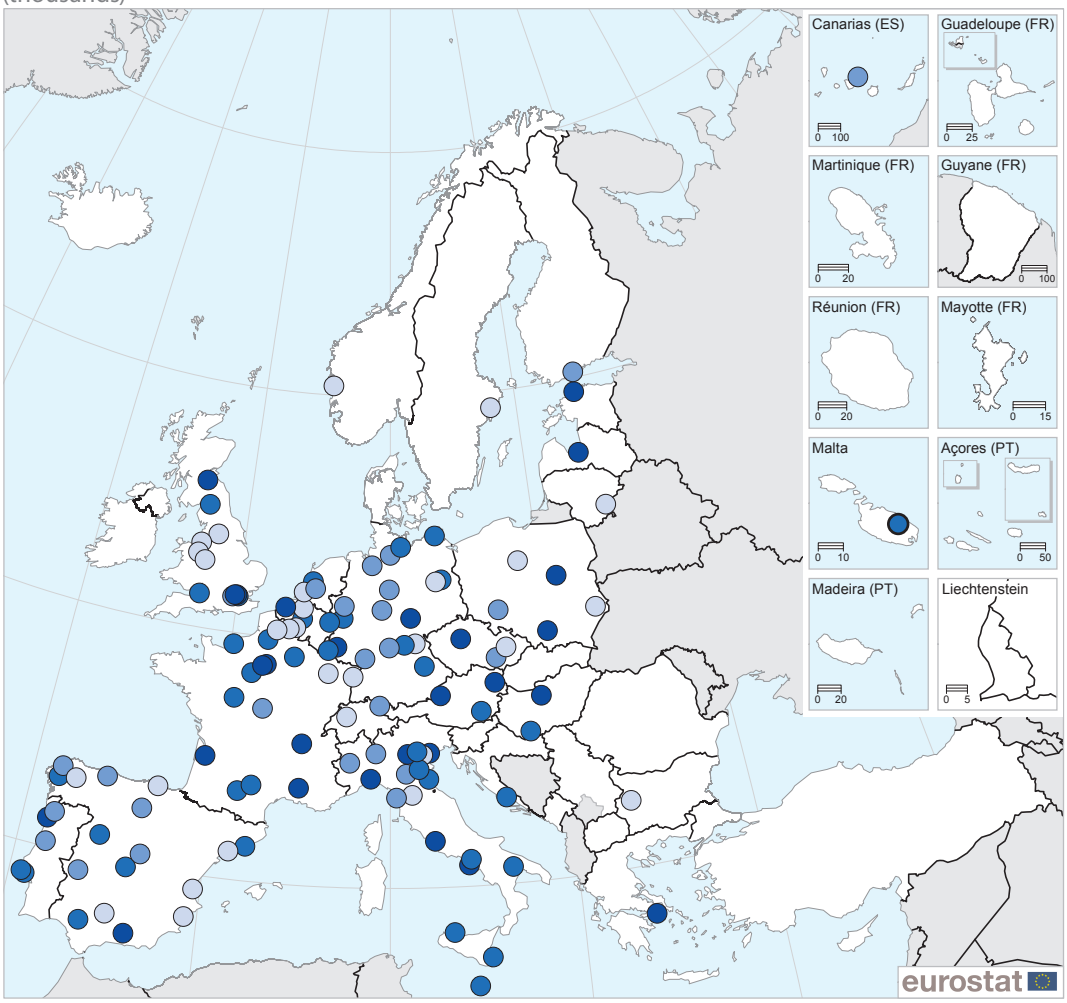
Cultural and natural heritage are irreplaceable sources of life and inspiration: the United Nations Educational, Scientific and Cultural Organisation (UNESCO) list of World Heritage Sites covers a diverse range of places. To be included on the list, sites must be of outstanding universal value; they may include cultural traditions, buildings, monuments, architecture, landscapes, natural habitats, geological or biological processes or natural phenomenon.

Map 7.1 presents the number of worldwide page views of Wikipedia articles related to World Heritage Sites that are located in European cities. The statistics presented should be considered as experimental insofar as they are based on publically available data released by the Wikimedia Foundation. Wikipedia articles were linked to World Heritage Sites in European cities based on a Wikipedia categorisation; the number of page views per month was computed based on access to a set of articles in 31 different languages (all 24 official and working languages of the EU, as well as Albanian, Icelandic, Macedonian, Norwegian, Russian, Serbian and Turkish); the data excludes access to Wikipedia from mobile devices.

Although the list is not exhaustive, the highest number of page views was in relation to the French capital of Paris (6.8 million views), followed by the Italian capital of Roma. The number of page views for the Austrian and Hungarian capitals of Wien and Budapest were approximately half the level recorded for Paris, while there were also more than 3 million page views in relation to the Czech capital of Praha and the Italian city of Venezia.

There were 27 World Heritage Sites in the EU which received more than a million page views of their Wikipedia articles, they were spread across the continent, with: five in each of France and Italy; three in the United Kingdom; two in each of Germany, Austria and Poland; and a single site in each of Belgium, the Czech Republic, Estonia, Greece, Spain, Latvia, Hungary and Portugal.

Map 7.1: Worldwide page views of Wikipedia articles related to World Heritage Sites located in European cities, 2015
(thousands)



Source: Eurostat (Big data project)

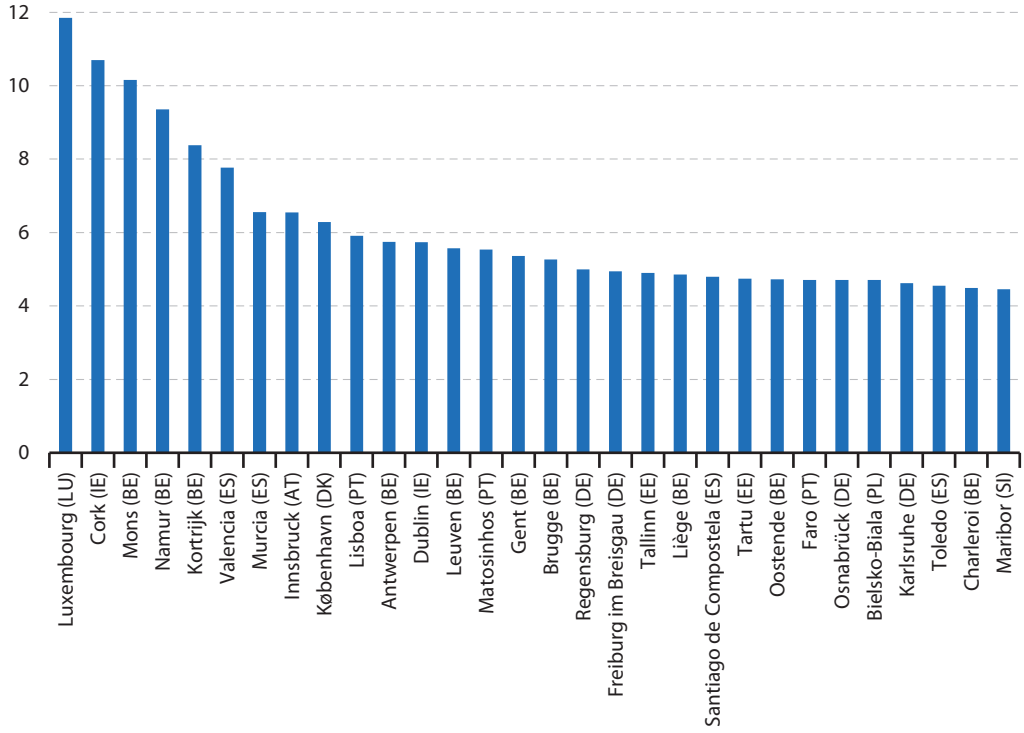
Cinema attendance was relatively high in relatively small, provincial cities …

Many cities in the EU have a vibrant cultural and arts scene. **Figures 7.8** and **7.9** provide information on the number of cinema visits and museum entries for selected cities; note that these statistics may include visits/trips made by residents as well as by non-residents (tourists).

Subject to data availability, there were three cities in the EU where the average number of cinema visits per resident rose above 10.0 in 2012, they were: Luxembourg (11.8 trips; 2009 data), Cork in Ireland (10.7 trips) and Mons in Belgium (10.2 trips). The relatively high average number of cinema visits per resident in Luxembourg may, at least in part, reflect the large number of people who commute to work each day from neighbouring countries (some of whom may stay in the evening to watch a film before returning home). Some of the highest attendance rates were recorded in relatively small, provincial cities, rather than bigger capitals and metropolises where a range of alternative cultural experiences may be offered.

Subject to data availability (see **Figure 7.9** for more details), Versailles in France had the highest number of museum entries per resident (42.1 in 2013). The top 30 cities with the highest average number of museum entries per resident was also characterised by a number

Figure 7.8: Average cinema attendance relative to the size of the resident population, selected cities, 2012 (1)
(per resident)



(1) The figure shows (subject to data availability) the 30 cities among the EU Member States with the highest average number of cinema attendences per resident. France, Italy, Cyprus, Hungary, Malta, the Netherlands, Romania and the United Kingdom: not available. A number of other cities did not have any data (see database for more details). Alternative reference years were used in some cases (see database for more details).

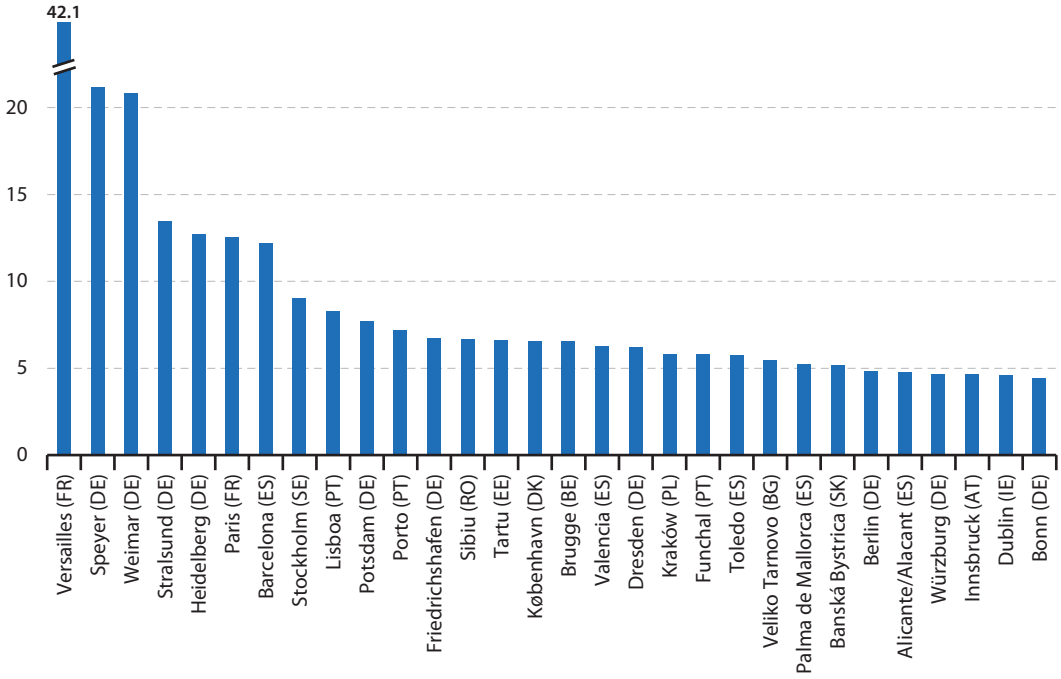
Source: Eurostat (online data codes: urb_ctour and urb_cpop1)

of relatively small cities, particularly those from Germany and Spain. For example, the German cities included: Speyer, just to the west of Heidelberg; Stralsund on the holiday island of Rugen in the Baltic Sea; Friedrichshafen on the shores of Lake Constance in southern Germany; or Würzburg in central Germany. The ranking also included Sibiu in Transylvania (Romania; 2012 data), which was a former European capital of culture in 2007, and Toledo (Spain; 2008 data) which is a World Heritage Site to the south of Madrid.

… while some of Europe's largest capitals recorded high numbers of museum entries

There were also a number of established 'cultural capitals', including Paris, Barcelona, Stockholm (Sweden), Lisboa, København (Denmark), Brugge (Belgium), Dresden (Germany), Berlin, Kraków (Poland) and Dublin (Ireland) where high numbers of museum entries were recorded. In absolute terms and subject to data availability (note there are no data presented for, among others, Italy and the United Kingdom), Paris (28.1 million museum entries in 2013), Barcelona (19.6 million in 2011) and Berlin (16.1 million in 2013) were considerably ahead of the other cities, as the next highest numbers of museum entries were recorded in Stockholm (7.8 million; 2011 data) and Versailles (7.6 million entries; 2013 data).

Figure 7.9: Average number of museum entries relative to the size of the resident population, selected cities, 2013 ([1])
(per resident)



([1]) The figure shows (subject to data availability) the 30 cities among the EU Member States with the highest average number of museum entries per resident. Italy, Cyprus, Malta, the Netherlands and the United Kingdom: not available. A number of other cities did not have any data (see database for more details). Alternative reference years were used in some cases (see database for more details).

Source: Eurostat (online data codes: urb_ctour and urb_cpop1)

8 Living in cities

The first half of this publication looked at cities from a morphological perspective, in other words looking at the spatial structure, transformation and characteristics of urban developments. This second part concentrates on the people who are born, live and work in cities. It begins with a broad description of life in cities and subsequently focuses on:

- working lives (Chapter 9);
- the housing situation for those living in cities (Chapter 10);
- foreign-born persons in cities (Chapter 11);
- poverty and social exclusion in cities (Chapter 12);
- satisfaction and the quality of life in cities (Chapter 13).

The attractiveness of cities has already been referred to in relation to the branding/appeal of cities for (potential) business investment or their overall competitiveness. Cities also need to attract individuals: this can be done, among other ways, through the quality of what they can offer in terms of education, jobs, social experiences, culture, sports and leisure facilities, environment, or urban safety.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

8.1 Population density

Cities offer considerable potential for energy and environmental savings, as densely populated urban areas allow for more energy-efficient forms of housing, transport and service provision — see Chapter 6 for more information on 'green cities'. In order for such savings to be made, urban developments need to remain compact, rather than being characterised by urban sprawl.

The most densely populated parts of the EU were found in the suburbs of Barcelona, across a number of Parisian arrondissements and in Inner London

The compactness of urban developments can be measured using population density, which is expressed as the number of inhabitants per square kilometre (km^2). **Figure 8.1** shows results for the most densely populated places in the European Union (EU), according to a range of different territorial units.

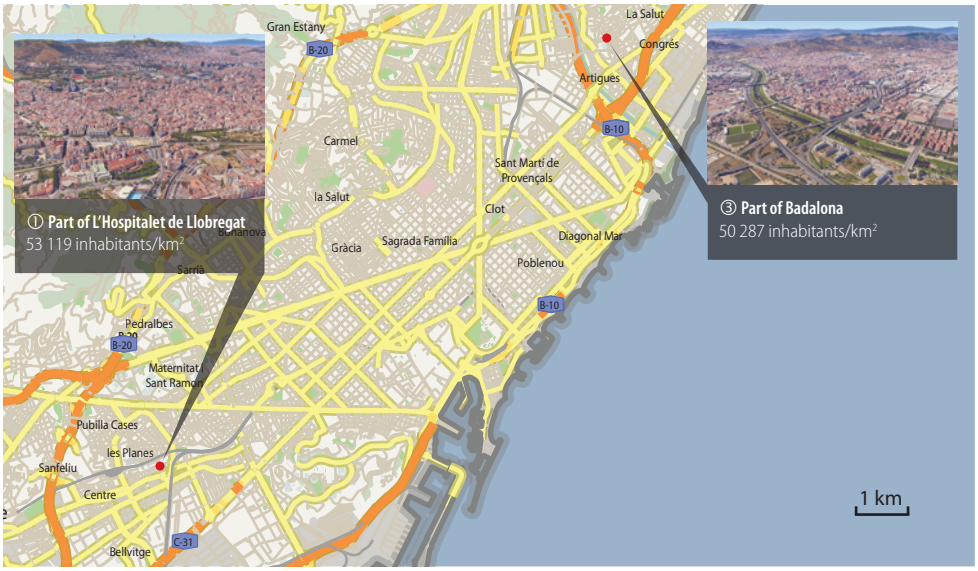
At the most detailed level, based on a 1 km^2 population grid covering the whole of the EU-28, the highest level of population density was recorded in the south-western suburbs of Barcelona, within L'Hospitalet de Llobregat (where 53 119 persons lived in a single square kilometre in 2011). The second highest ratio (52 218 inhabitants/km^2) was recorded within the 18th arrondissement in Paris, not far from the Basilica of Sacré Cœur, while the third highest ratio (50 287 inhabitants/km^2) was also located in the suburbs of Barcelona, this time to the north-east, within Badalona.

Figure 8.1 also shows the most densely populated local administrative units (LAU2) in 2014. This ranking was dominated by the arrondissements of the French capital, with the highest number of inhabitants per km^2 recorded in the 11th and 20th arrondissements to the east, and the 18th arrondissement to the north. These figures were supported by an analysis at a

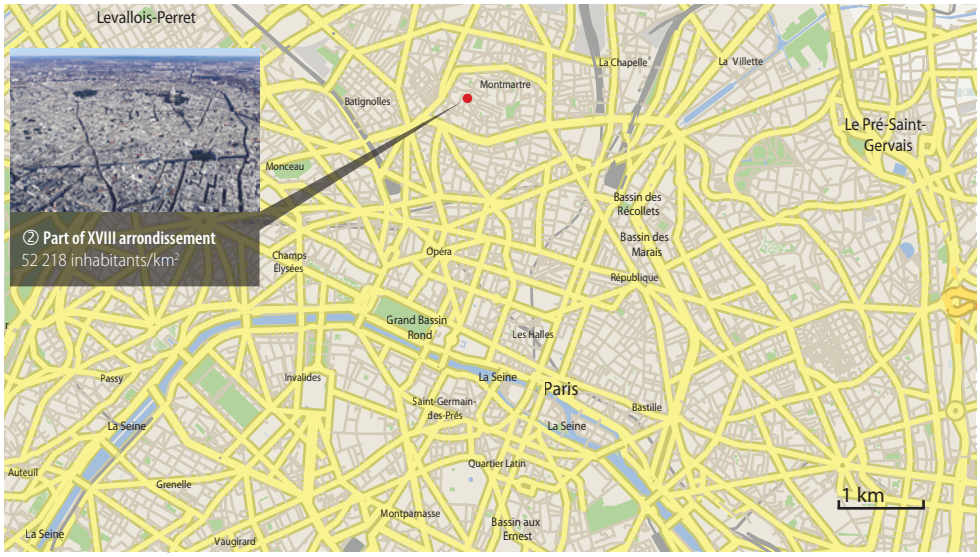
more aggregated level, as Paris was confirmed as the most densely populated NUTS level 3 region in the EU-28, with an average of 21 264 inhabitants/km² in 2013. The second and third highest density ratios, for NUTS level 3 regions, were recorded in the EU's only other megacity (defined here as a city with in excess of 10 million inhabitants), namely the east and west of Inner London in the United Kingdom, where each inhabitant had, on average, approximately twice as much space as in Paris.

Figure 8.1: The most densely populated places in the EU, 2011 (1)
(inhabitants/km²)

Barcelona



Paris



(1) The maps show the position of the three most densely populated 1 km² grid cells in the EU. France: 2010.

Source: Eurostat, GEOSTAT Population Grid 2011 (http://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/population-distribution-demography)

Table 8.1: Population density in local administrative units (LAU2), 2015
(inhabitants/km²)

	Highest		Second highest		Third highest	
	Name	(inhabitants/km²)	Name	(inhabitants/km²)	Name	(inhabitants/km²)
Belgium	Saint-Josse-ten-Noode/ Sint-Joost-ten-Node	24 286	Saint-Gilles/ Sint-Gillis	20 119	Koekelberg/ Koekelberg	18 435
Bulgaria	Plovdiv	3 349	Sofia	2 496	Blagoevgrad	2 432
Czech Republic	Praha	2 538	Havířov	2 340	Zastávka	2 139
Denmark	Anna Sogn	3 731	Rosenvænget Sogn	3 067	Davids Sogn	2 977
Germany (1)	München, Landeshauptstadt	4 531	Ottobrunn	3 972	Berlin, Stadt	3 837
Estonia	Tallinn	2 597	Tartu	2 498	Rakvere	1 425
Ireland (2)	Rotunda A	19 509	Mountjoy A	18 091	Merchants Quay B	16 566
Greece	Pireas	14 624	Korydallos	14 306	Nikea	13 555
Spain (3)	Emperador	24 550	Mislata	21 302	Benetússer	19 294
France (1)	Paris 11ème arrondissement	42 138	Paris 18ème arrondissement	33 798	Paris 20ème arrondissement	33 117
Croatia	Rijeka	2 965	Split	2 100	Grad Zagreb	1 237
Italy	Casavatore	12 253	Portici	12 060	San Giorgio a Cremano	11 151
Cyprus (2)	Synoikismos Anthoupolis	4 078	Mesa Geitonia	3 993	Lemesos	2 939
Latvia	Rīga	2 110	Rēzekne	1 675	Valmiera	1 289
Lithuania	:	:	:	:	:	:
Luxembourg	Esch-sur-Alzette	2 320	Luxembourg	2 163	Pétange	1 474
Hungary	Budapest	3 347	Szigethalom	1 860	Diósd	1 674
Malta	Citta' Invicta	16 937	Sliema	11 500	Fgura	10 132
Netherlands	s-Gravenhage	5 245	Leiden	5 225	Haarlem	4 882
Austria	Wien	4 335	Rattenberg	3 641	Matrei am Brenner	2 617
Poland	Legionowo	4 008	Piastów	3 970	Świętochłowice	3 869
Portugal	Águas Livres	16 913	Massamá e Monte Abraão	15 854	Arroios	14 876
Romania	Municipiul Bucureşti	8 024	Oras Balan	4 924	Municipiul Braila	4 658
Slovenia	Ljubljana	1 044	Maribor	762	Isola	556
Slovakia	Košice - Sídlisko KVP	13 922	Košice - Západ	7 324	Košice - Nad jazerom	6 969
Finland	Grankulla	1 560	Kervo	1 147	Träskända	1 012
Sweden	Sundbyberg	5 057	Stockholm	4 875	Solna	3 854
United Kingdom	Church Street; City of Westminster	26 476	Harrow Road; City of Westminster	24 324	Queen's Park; City of Westminster	21 540

(1) 2014.
(2) 2011.
(3) 2012.

Source: Eurostat, Local Administrative Units (LAU) level 2 (http://ec.europa.eu/eurostat/web/nuts/local-administrative-units)

The densely populated northern parts of Paris were more than four times as crowded as several parts of the city running along the banks of the river Seine

Table 8.1 presents the three local administrative units with the highest levels of population density for each of the EU Member States; it shows significant differences both across EU Member States and within the same Member State. For example, the most densely populated local administrative unit in France was the 11th arrondissement of Paris (42 138 inhabitants/km^2 in 2014), where population density was more than 40 times as high as in the most densely populated part of Slovenia, the capital of Ljubljana (1 044 inhabitants/km^2 in 2015).

In a majority of the EU Member States, the highest level of population density, by local administrative unit, was recorded in (part of) the capital city. There were however a number of exceptions, with higher population density ratios recorded in Plovdiv (Bulgaria), München Landeshauptstadt (Germany), Emperador in the northern suburbs of Valencia (Spain), Rijeka (Croatia), Casavatore in the northern suburbs of Napoli (Italy), Esch-sur-Alzette (Luxembourg), 's-Gravenhage (the Netherlands), Legionowo to the north of Warszawa (Poland), and Košice (Slovakia).

Map 8.1: Population density in the arrondissements of Paris, 2014
(inhabitants/km^2)

Administrative boundaries: © EuroGeographics © UN-FAO
Cartography: Eurostat — GISCO, 03/2016

Population density (inhabitants/km²)
- < 12 500
- 12 500 – < 25 000
- 25 000 – < 32 500
- ≥ 32 500

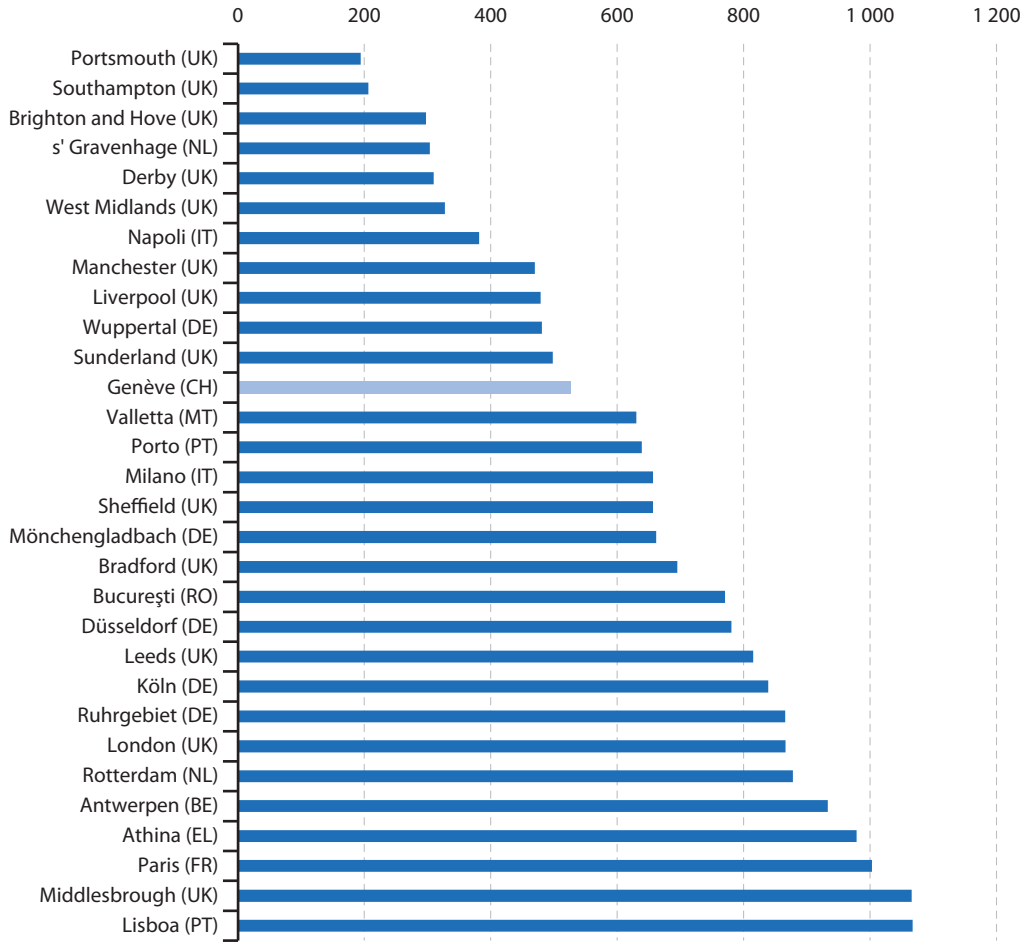
0 1 2 3 4 km

1: Louvre (1er)
2: Bourse (2ème)
3: Temple (3ème)
4: Hôtel-de-Ville (4ème)
5: Panthéon (5ème)
6: Luxembourg (6ème)
7: Palais-Bourbon (7ème)
8: Élysée (8ème)
9: Opéra (9ème)
10: Entrepôt (10ème)
11: Popincourt (11ème)
12: Reuilly (12ème)
13: Gobelins (13ème)
14: Observatoire (14ème)
15: Vaugirard (15ème)
16: Passy (16ème)
17: Batignolles-Monceau (17ème)
18: Butte-Montmartre (18ème)
19: Buttes-Chaumont (19ème)
20: Ménilmontant (20ème)

Source: Eurostat, Local Administrative Units (LAU) level 2
(http://ec.europa.eu/eurostat/web/nuts/local-administrative-units)

Subcity data show that there were sizeable differences in the average space per inhabitant within the same city. For example, population density in Popincourt, the 11th arrondissement Paris (to the north and east of the Place de la Bastille), was almost twice as high as the average for the whole of the city, and was at least four times as high as in four arrondissements running along the right bank of the river Seine, from the 12th (Reuilly) in the east, through the 1st (Louvre) and the 8th (Élysée) in the centre of the city, to one of the most affluent, residential parts of the city in the west, the 16th (Passy).

Figure 8.2: Average space per inhabitant in selected metropolitan regions, 2013 (1)
(m^2 per inhabitant)



(1) The figure shows (subject to data availability) the 30 metropolitan regions in Europe with the lowest amounts of space per inhabitant.

Source: Eurostat (online data code: met_d3dens)

Some industrial metropolitan regions had higher levels of population density than their capitals

Although city centres are often characterised by relatively high levels of population density, it is common to find lower density ratios when moving towards the suburbs, as houses start to replace flats and apartments as the most common type of dwelling. The information presented in **Figure 8.2** is for the 30 metropolitan regions with the highest levels of population density. Note that the indicator has been reversed to show the average land area available in square metres (m^2) for each inhabitant and that the statistics shown do not relate to living space in households (presented in Chapter 10), but rather the average space available per inhabitant in relation to the total area of each metropolitan region, therefore including the space required, among others, for businesses, public and green spaces, or infrastructure.

Using this measure, the most confined living spaces were experienced by those living in three coastal metropolitan regions on the south coast of England — Portsmouth, Southampton, and Brighton and Hove. In keeping with the results for Barcelona, it is perhaps not surprising that relatively high levels of population density are recorded in coastal towns and cities, given that they have a natural barrier — the sea — that prevents them from expanding on one side, thereby concentrating pressures for urban development.

Otherwise, most of the remaining metropolitan regions with low amounts of space per inhabitant could be characterised as industrial cities/agglomerations, for example, Wuppertal and the Ruhrgebiet (in Germany), Porto (Portugal), or the West Midlands, Liverpool and Sheffield (in the United Kingdom). Each of these regions was more densely populated than the metropolitan region of their capital city, suggesting that lower density urban sprawl was more prevalent around their capital cities. There were a number of other EU Member States where the metropolitan region of the capital city did not record the lowest average amount of space per inhabitant, as this was also the case for: Antwerpen (which had the highest population density in Belgium), Ostrava (the Czech Republic), Napoli (Italy), 's Gravenhage (the Netherlands) and Katowice (Poland).

8.2 Population structure

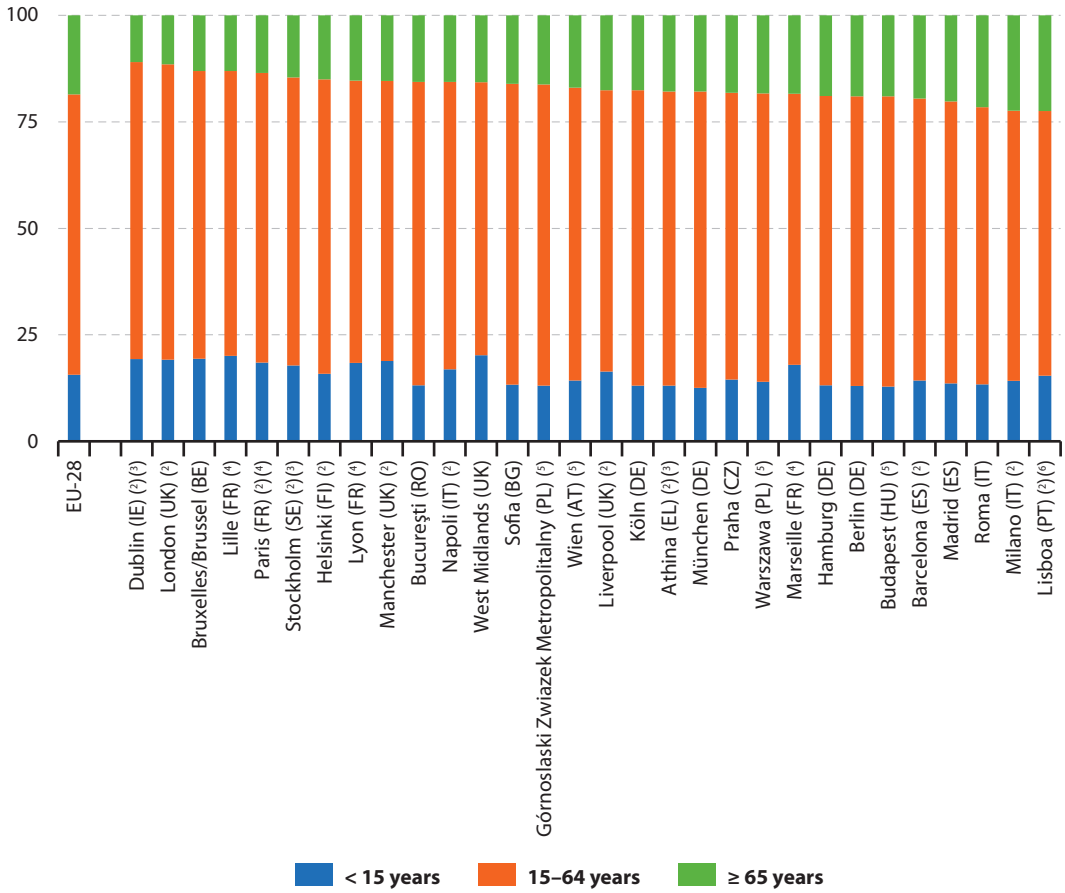
Much has been written about Europe's demographic crisis, its low fertility rates and rapidly ageing populations. While this pattern is observed across most of the EU, there are contrasting patterns in some European urban areas, where population growth remains relatively rapid and where young people account for a relatively high share of the total number of inhabitants. This may be linked to young people moving to urban areas for education or work, while in contrast the elderly are more likely to leave big cities and retire to the countryside or more provincial towns.

Figure 8.3 is based on the 30 largest cities in the EU: it provides an analysis of population structure for young people (aged less than 15), the studying and working-age population (defined here as those aged 15–64 years) and the elderly (65 years and more). To some degree, the results shown reflect national demographic patterns, with low fertility rates in many southern and eastern EU Member States, as well as Germany. Many of the largest cities in southern Europe were characterised by a high proportion of elderly persons: this was particularly the case in the Spanish and Portuguese capitals of Madrid and Lisboa, and the two largest Italian cities of Milano and Roma, with, at the start of 2014, more than one in five inhabitants in each of these four cities aged 65 years or more.

Fertility rates and population growth tended to be higher in northern and western Europe, thereby diminishing the relative share of the elderly in the total population. Among the 30 largest cities in the EU, the four with the lowest shares of elderly persons in their total number of inhabitants were Lille (France), Bruxelles/Brussel (Belgium), London (the United Kingdom) and Dublin (Ireland).

Figure 8.3: Population structure for the largest cities in the EU, 1 January 2014 (1)

(%)



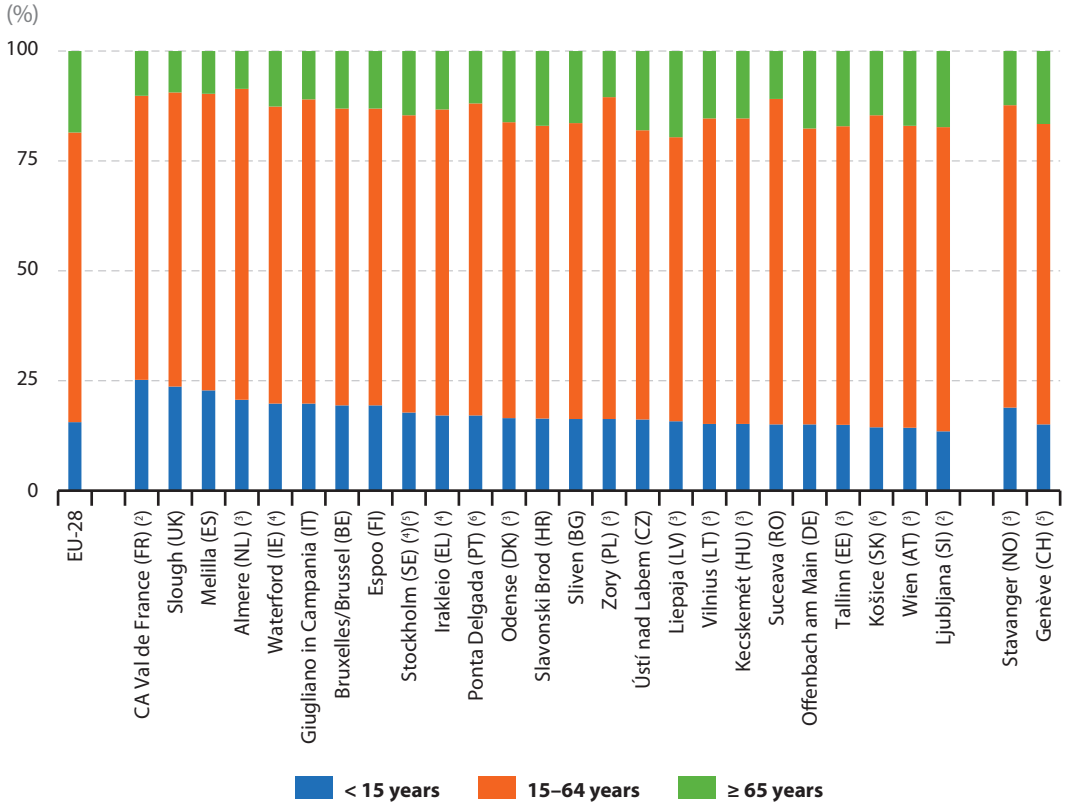
(1) The figure shows (subject to data availability) the 30 largest cities in the EU in terms of numbers of inhabitants.
(2) Data refer to the greater city.
(3) 1 January 2011.
(4) 1 January 2012.
(5) 1 January 2013.
(6) 1 January 2015.

Source: Eurostat (online data codes: urb_cpopstr, urb_cpop1 and demo_pjanbroad)

There were relatively large numbers of young people living in cities within close proximity of the capital

Figure 8.4 shows the structure of the population in those cities with the highest proportions of young people — the top ranking city is shown for each of the EU Member States, Norway and Switzerland. At the start of 2012, just over one in four (25.2 %) inhabitants living in the Communauté d'agglomération Val de France, a city close to Paris, was aged less than 15. Young people accounted for 23.7 % of the total population of Slough, to the west of London (start of 2014) and also accounted for more than one in five inhabitants in the Dutch city of Almere (start of 2013), a new city that has been built since the 1970s on reclaimed land to accommodate population overspill from Amsterdam. All three of these cities were characterised, to some degree, by relatively cheap housing, a high degree of ethnic diversity, and close proximity to their capital city.

Figure 8.4: Population structure for selected cities with relatively high shares of young people, 1 January 2014 (1)



(1) The figure shows (subject to data availability) the population structure for the city in each of the EU Member States, Norway and Switzerland with the highest share of young people. Cyprus, Luxembourg and Malta: not available.
(2) 1 January 2012.
(3) 1 January 2013.
(4) 1 January 2011.
(5) Data refer to the greater city.
(6) 1 January 2015.

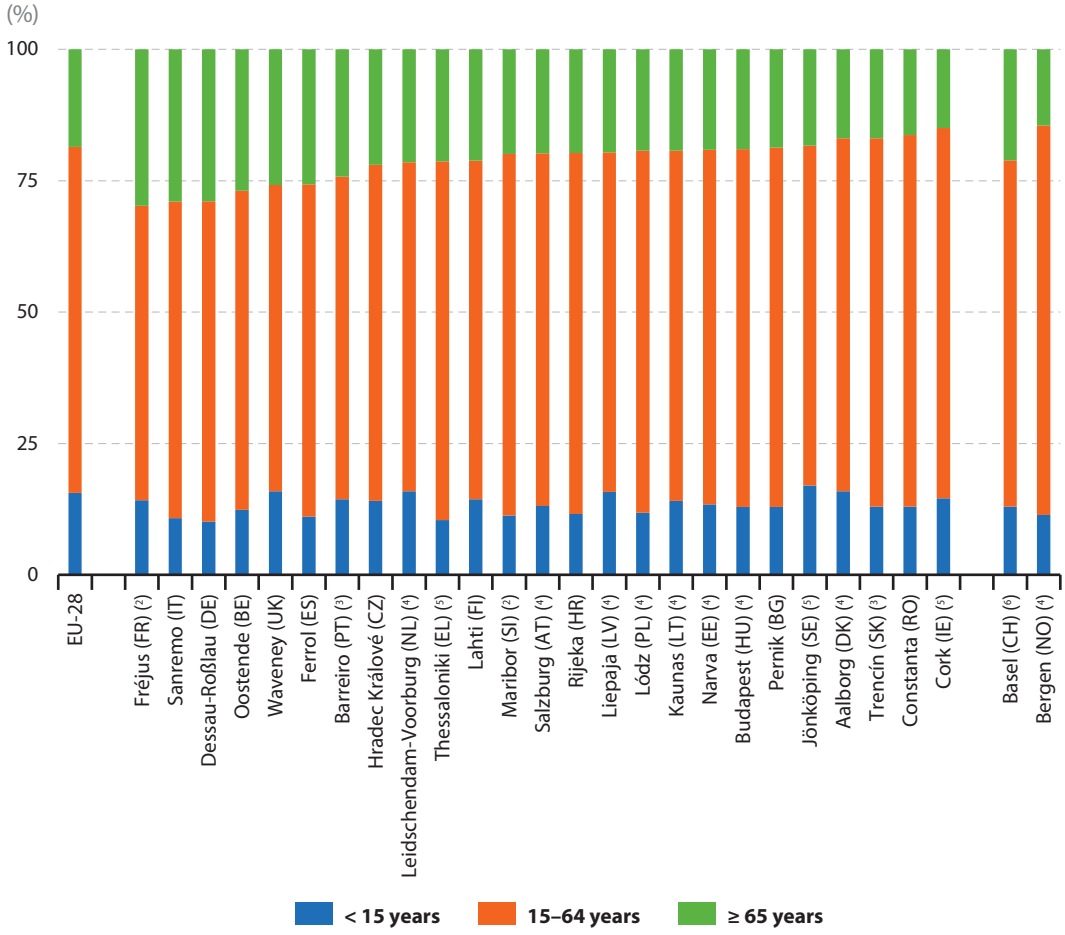
Source: Eurostat (online data codes: urb_cpopstr and demo_pjanbroad)

The elderly who were living in cities had a higher propensity to live in relatively small cities often on the coast

Overall, it is clear that the number of elderly people has increased in a majority of European cities, as a result of population ageing; these patterns are broadly consistent with increases recorded nationally. In some EU Member States, for example, Germany and Italy, demographic ageing is a process which has long been a reality of urban life.

Figure 8.5 provides information on the city with the highest proportion of elderly persons in each of the EU Member States. These were often relatively small cities, located on the coast: for example, almost 30 % of the population in Fréjus and Sanremo — on the Mediterranean coastline in neighbouring France and Italy — were aged 65 years or over. A similar pattern

Figure 8.5: Population structure for selected cities with relatively high shares of elderly people, 1 January 2014 (1)



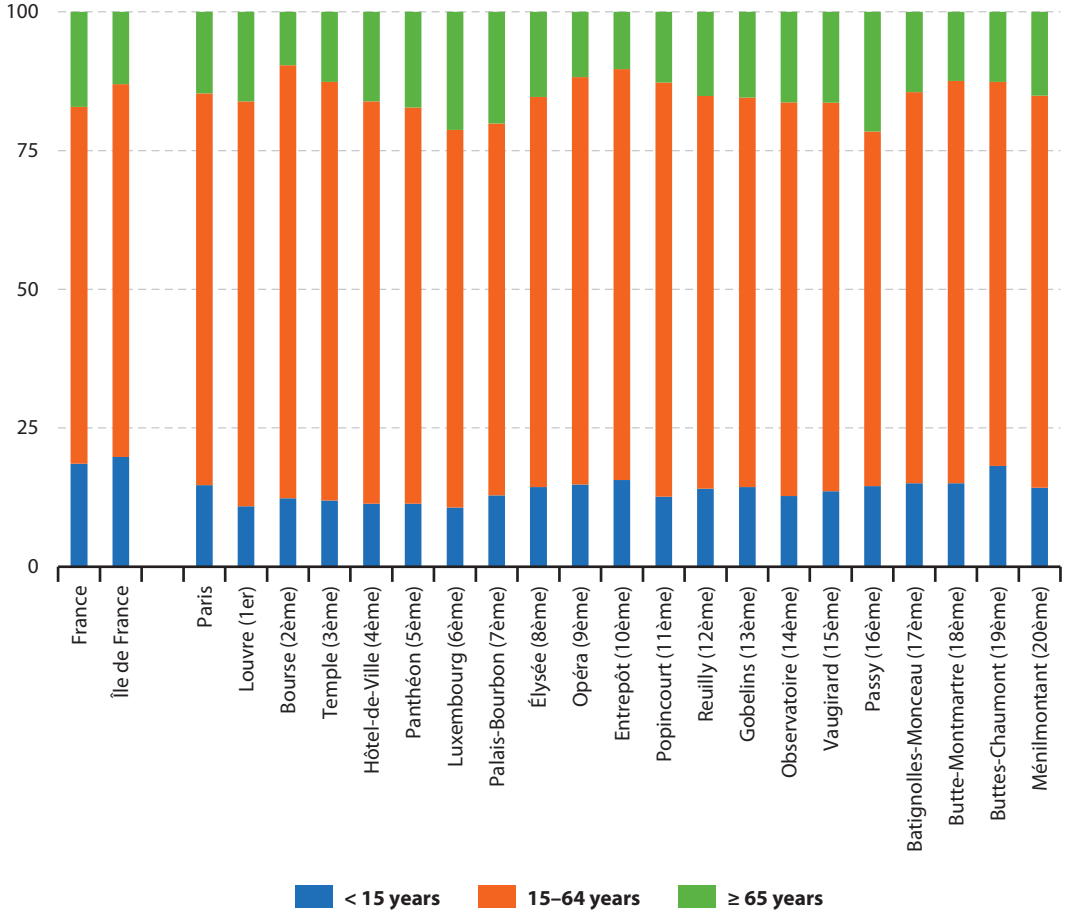
(1) The figure shows (subject to data availability) the population structure for the city in each of the EU Member States, Norway and Switzerland with the highest share of elderly people. Cyprus, Luxembourg and Malta: not available.
(2) 1 January 2012.
(3) 1 January 2015.
(4) 1 January 2013.
(5) 1 January 2011.
(6) Data refer to the greater city.

Source: Eurostat (online data codes: urb_cpopstr and demo_pjanbroad)

was observed in several other EU Member States, with a high proportion of elderly persons living in Oostende on the Belgian North Sea coast, Waveney on the East Anglian coastline (the United Kingdom), and Ferrol on the Galician coastline (Spain). This pattern may, at least in part, be attributed to elderly persons choosing to retire to coastal locations which they perceive as offering a better quality of life and/or a more favourable climate.

Returning to the example of Paris, an analysis of subcity data shows considerable variations in the population structures of different arrondissements. In 2012, the elderly accounted for a high proportion of the total number of inhabitants in the relatively affluent 6th (Luxembourg), 7th (Palais-Bourbon) and 16th (Passy) arrondissements, while young people accounted for a relatively high share of the total population in the northern arrondissements of the 17th (Batignolles-Monceau), the 18th (Butte-Montmartre), the 19th (Buttes-Chaumont) and the 10th (Entrepôt).

Figure 8.6: Population structure in the arrondissements of Paris, 2012
(%)



Source: Insee, RP2012 exploitation principale and Eurostat (online data code: demo_r_pjanaggr3)

There was a difference of 8.8 years between the median ages of those living in Berlin and those in Paris

The median age provides an alternative means of analysing the age distribution of a population. Recent demographic changes — lower fertility rates and increased life expectancy — have resulted in the median age rising in all of the EU Member States. **Table 8.2** provides an example for the five German and French functional urban areas (cities and their commuting zones) with the highest/lowest median ages; Germany (2014 data) is an example of a Member State that has already experienced considerable population ageing, whereas a higher fertility rate means there is a somewhat younger population in France (2012 data). In both cases, the median age of the capital city was below the national average, although in the case of Berlin (44.8 years) the difference was small (0.8 years). On the other hand, the median age in Paris (36.0 years) was four years below the French national average.

In Germany, the lowest median ages were often recorded in Nordrhein-Westfalen — for example, Münster, Paderborn or Bielefeld, although the third lowest median age was registered in the Bavarian city of München and the lowest in the university town of Tübingen (Baden-Württemberg); the functional urban areas with the highest median ages were all in the east of Germany, peaking at 50.1 years in Gera and Dessau-Roßlau.

The lowest median ages in France were recorded either in or around the capital — Paris, Melun, Creil and Saint Denis — or in a number of other relatively large urban areas, such as Lille, Lyon or Rennes. By contrast, many of the urban areas with the highest median ages were located in south-west France — for example, Albi, Bayonne, Béziers, Brive-la-Gaillarde, or Tarbes. The highest median age (48.0 years) among functional urban areas in France was recorded in the Mediterranean resort of Fréjus — already mentioned above for having the highest share of elderly persons in the EU.

Table 8.2: Median population age, selected functional urban areas in Germany and France, 2012 and 2014 ([1])

Germany, 2014		Median age (years)	France, 2012		Median age (years)
Joint highest	Gera and Dessau-Roßlau	50.1	Highest	Fréjus	48.0
Joint third highest	Brandenburg an der Havel, Cottbus, Görlitz, Neubrandenburg, Plauen, Stralsund and Zwickau	50.0	Joint second highest	Albi, Brive-la-Gaillarde and Tarbes	45.0
			Joint fifth highest	Ajaccio, Bayonne, Béziers, Châteauroux, Roanne and Toulon	44.0
National average	Germany	45.6	**National average**	France	40.0
Capital city	Berlin	44.8	**Capital city**	Paris	36.0
Fifth lowest	Bielefeld	42.8	Joint fifth lowest	Lyon, Melun and Paris	36.0
Joint fourth lowest	Paderborn and München	42.3	Joint fourth lowest	Creil, Rennes and Lille	35.0
Second lowest	Münster	42.2	Lowest	Saint Denis	33.0
Lowest	Tübingen	40.6			

([1]) The table shows the five functional urban areas with the highest/lowest median ages in Germany and France.

Source: Eurostat (online data code: urb_lpopstr)

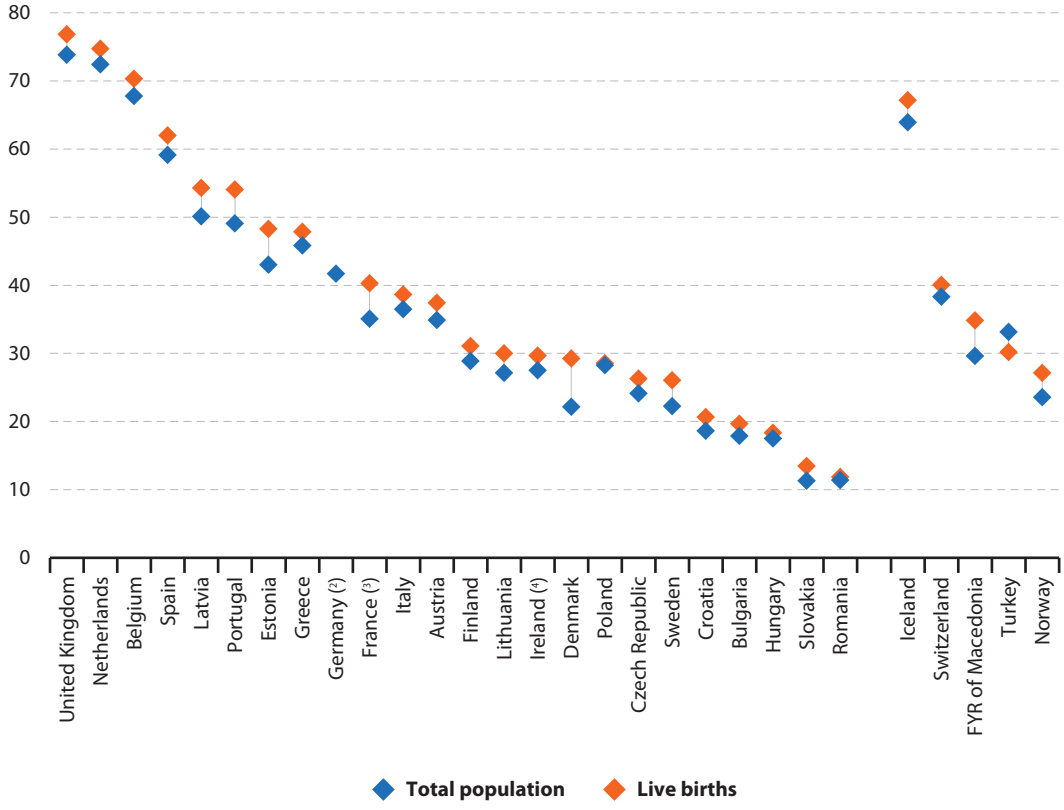
8.3 Births and deaths

There are two parameters which affect population dynamics: natural population change (the difference between births and deaths) and net migration; more information in relation to foreign-born persons living in cities is presented in Chapter 11.

An analysis based on the urban–rural typology shows that the share of live births in predominantly urban regions was systematically higher than the share of the total population living in these regions; in other words, people living in predominantly urban regions were more likely to have children. This pattern was repeated in every one of the EU Member States for which 2013 data are available, and was particularly pronounced for those living in the predominantly urban regions of Denmark, Estonia, France, Portugal, Latvia and Sweden. On the other hand, in Turkey it was those living in predominantly rural regions that were more likely to have children.

One reason for a fall in fertility rates has been a decision to delay parenthood: across the whole of the EU-28, mothers aged 35 or more accounted for 22.5 % of all live births in 2013. **Figure 8.8** shows the NUTS level 3 region with the highest proportion of live births born to

Figure 8.7: Proportion of live births and total population in predominantly urban regions, 2013 (1)
(% of national total)



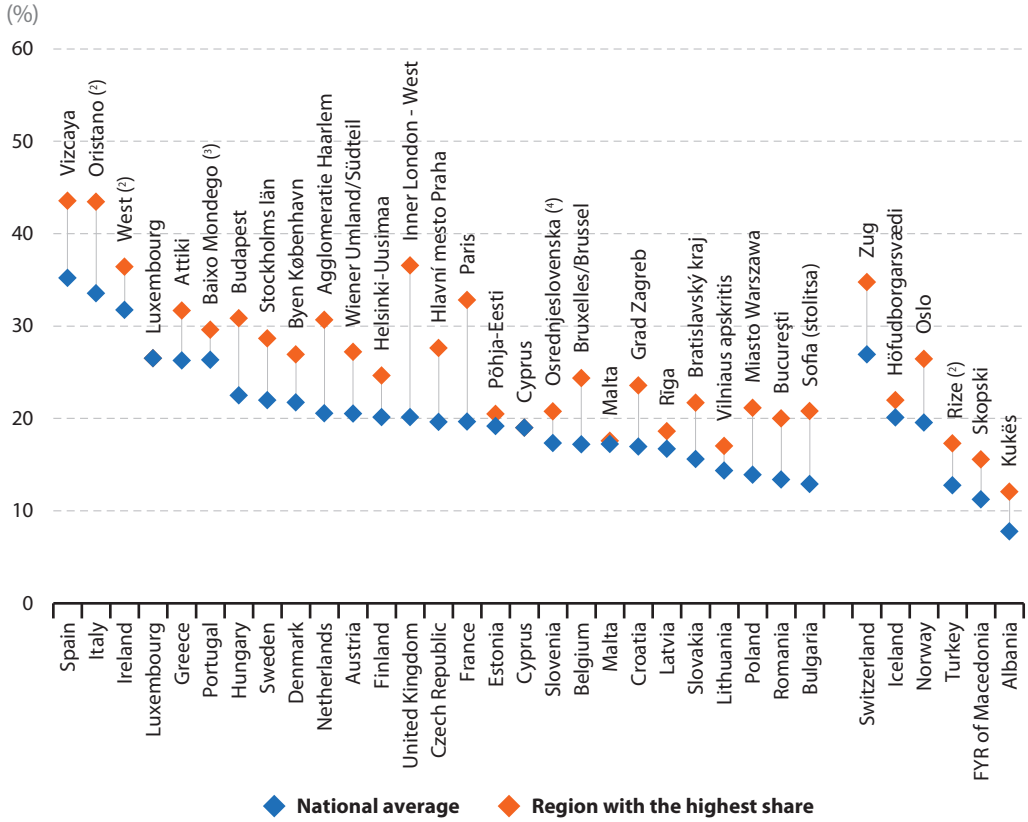
(1) Cyprus, Luxembourg and Slovenia: not applicable. Malta: the entire territory is considered as a predominantly urban region.
(2) 2014. Live births: not available.
(3) Total population: provisional.
(4) Live births: provisional.

Source: Eurostat (online data code: urt_gind3)

mothers aged 35 or more and contrasts this with the national average for each EU Member State. In a majority of the EU Member States, the decision to delay parenthood was most often taken by those living in capital city regions, suggesting that some family units in capital city regions were more prone to concentrate on establishing a career before they considered starting a family. This pattern was particularly evident in Paris and Inner London – West, where the proportion of live births accounted for by women aged 35 and more was 13.2 and 16.4 percentage points higher than the national average.

This pattern of delayed parenthood was also prevalent in the southern EU Member States, particularly in Spain and Italy, where mothers aged 35 or more accounted for more than one third of all live births. Their share rose considerably higher in the northern Basque region of Vizcaya (whose capital is Bilbao), with 43.5 % of all live births born to mothers aged 35 or more; the same share was recorded in the western Sardinian region of Oristano (although this is an intermediate not a predominantly urban region).

Figure 8.8: Proportion of live births among mothers aged 35 or more, national averages and selected NUTS level 3 regions, 2013 (1)



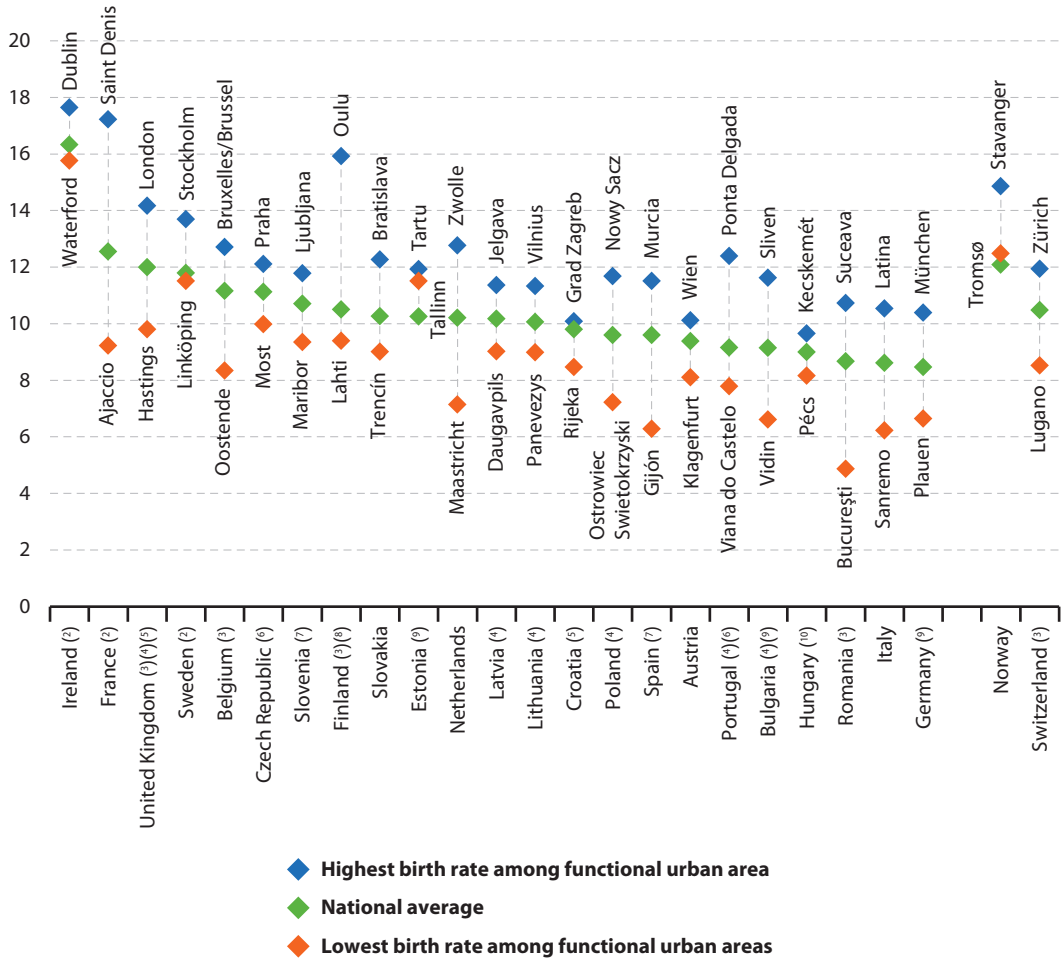
(1) The figure shows the national average and the NUTS 2010 level 3 region with the highest proportion of live births among mothers aged 35 or more; each of these regions is an urban region (unless otherwise indicated). Cyprus and Luxembourg: the entire territory is considered as a single NUTS level 3 region. Germany: not available. Numerator excludes mothers whose age was unknown.
(2) Intermediate region.
(3) Rural region that includes Coimbra.
(4) Intermediate region that includes Ljubljana.

Source: Eurostat (online data code: demo_r_fagec3)

Dublin was the city in the EU with the highest crude birth rate

The crude birth rate for the EU-28 was 10.4 live births per 1 000 inhabitants in 2012, while the infant mortality rate was 3.7 per 1 000 live births in 2013. **Figures 8.9** and **8.10** provide information for these two indicators, with an analysis of the highest/lowest rates among functional urban areas; note that the national average could be above/below the values shown for functional urban areas, as it takes account of intermediate and rural regions too.

Figure 8.9: Crude birth rates, national averages and selected functional urban areas, 2012 (1)
(per 1 000 inhabitants)



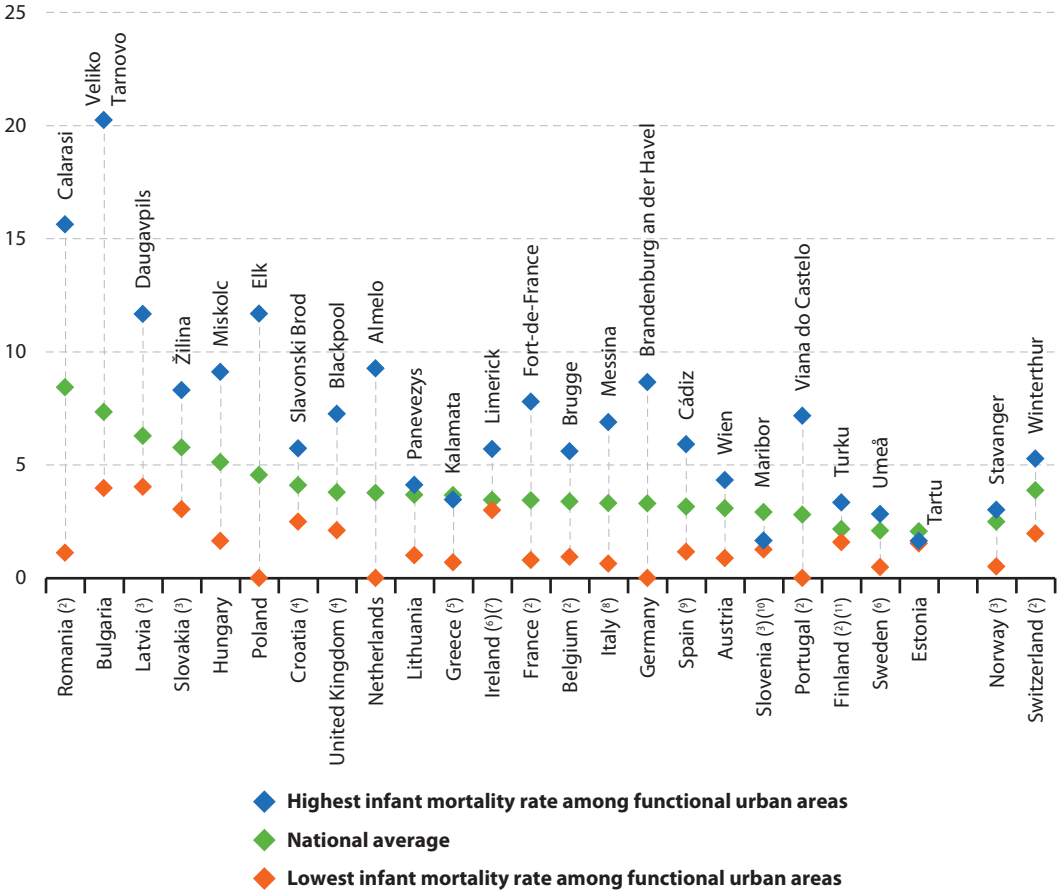
(1) The figure shows (subject to data availability) the functional urban area with the lowest/highest crude birth rate in each country, as well as the national average; the name of the functional urban area with the lowest/highest rate is also shown. Denmark and Greece: incomplete. Cyprus, Luxembourg and Malta: not available.
(2) 2011.
(3) 2014.
(4) Estimates.
(5) Source for national average: Eurostat (online data code: demo_gind).
(6) 2010.
(7) National average: 2011.
(8) Oulu: 2012.
(9) 2013.
(10) National average: 2013.

Source: Eurostat (online data code: urb_lfermor)

The functional urban areas with the highest crude birth rates in 2011 were Dublin and Saint Denis, while Oulu (the most populous city in northern Finland) also recorded a relatively high crude birth rate in 2014. With the exception of Dublin, the crude birth rate for each of these functional urban areas was considerably higher than their respective national average.

In 2013, there was often a wide variation in infant mortality rates between functional urban areas in the same EU Member State: this was particularly true for Bulgaria, Romania (2014 data), Poland, the Netherlands and Germany. For example, the infant mortality rate in the urban areas of Bulgaria ranged from 4.0 per 1 000 live births in Varna (on the Black Sea coast) to 20.2 per 1 000 live births in Veliko Tarnovo (in the north).

Figure 8.10: Infant mortality rates, national averages and selected functional urban areas, 2013 (1)
(per 1 000 live births)



(1) The figure shows (subject to data availability) the functional urban area with the lowest/highest infant mortality rate in each country, as well as the national average; the name of the functional urban area with the highest rate is also shown. Denmark: incomplete. The Czech Republic, Cyprus, Luxembourg and Malta: not available.
(2) 2014.
(3) 2012.
(4) Source for national average: Eurostat (online data code: demo_minfind).
(5) Kalamata: 2012.
(6) 2011.
(7) Estimates.
(8) 2010.
(9) National average: 2012.
(10) National average: 2011.
(11) Turku: 2012.

Source: Eurostat (online data code: urb_lfermor)

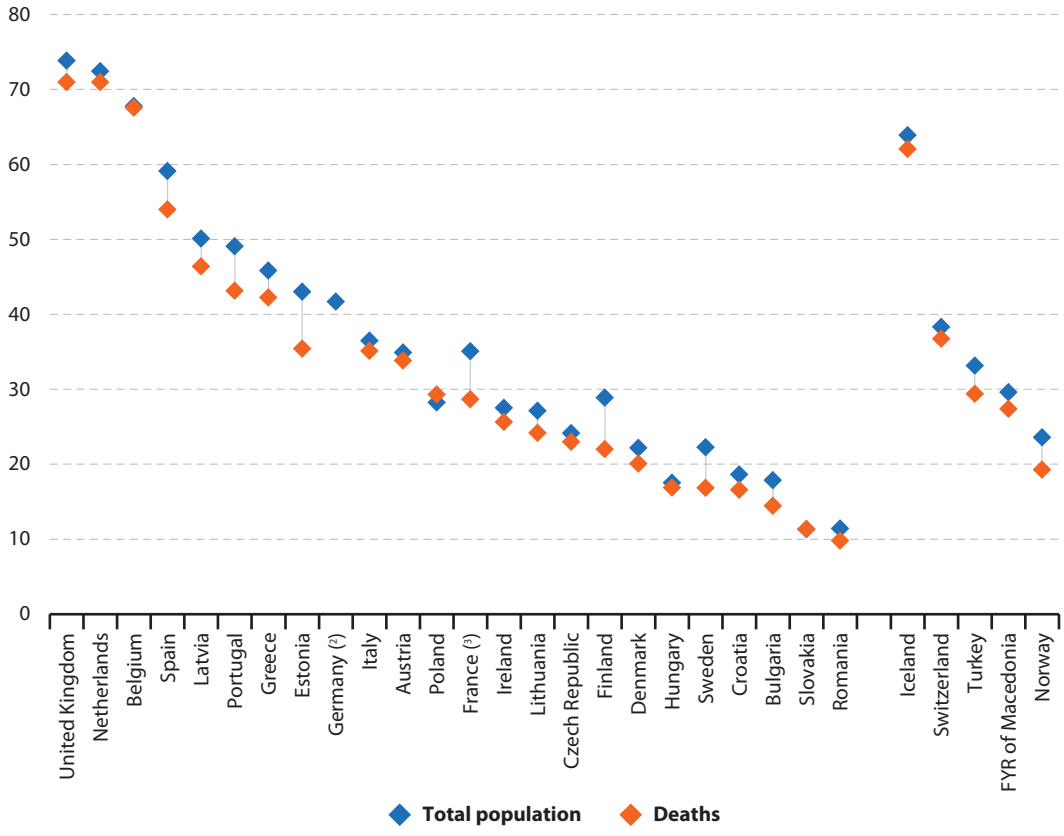
Several functional urban areas with high infant mortality rates were characterised by their local economies being characterised by relatively high levels of poverty/deprivation — for example, Cádiz (Spain), Fort-de-France (Martinique, France), Messina (Sicily, Italy), Daugavpils (Latvia), Miskolc (Hungary) or Blackpool (the United Kingdom).

More than 7 out of 10 deaths in the densely populated Netherlands and United Kingdom took place in predominantly urban regions

Figure 8.11 shows that the share of people living in predominantly urban regions was generally higher than the corresponding proportion of deaths, reflecting the age structure of people living in cities and their better access to healthcare services (when compared with people living in intermediate or predominantly rural regions).

This pattern was particularly pronounced in Estonia, Finland, France, Portugal, Sweden and Spain and was repeated in all but two of the EU Member States for which 2013 data are available, the exceptions being Poland (where there was a higher proportion of deaths in predominantly urban regions) and Slovakia (where there was no difference between the shares).

Figure 8.11: Proportion of deaths and total population in predominantly urban regions, 2013 (1)
(% of national total)



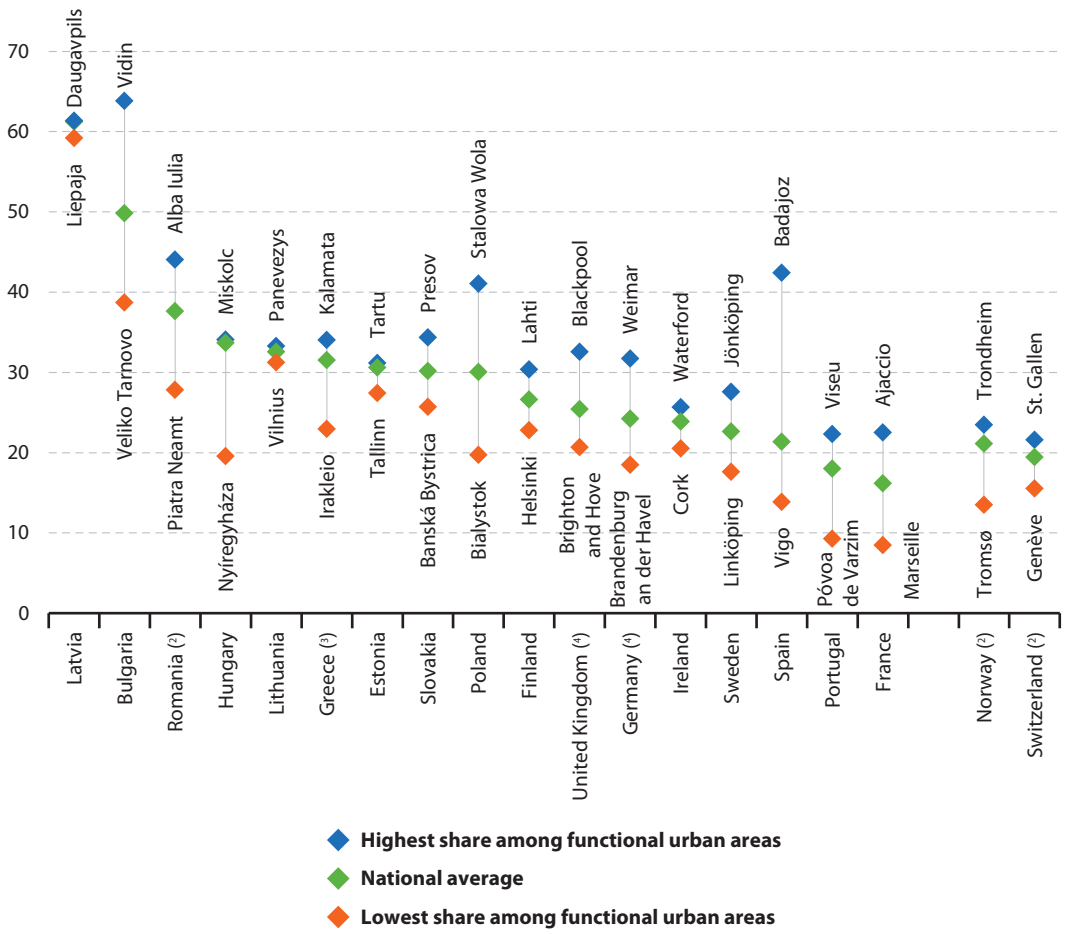
(1) Cyprus, Luxembourg and Slovenia: not applicable. Malta: the entire territory is considered as a predominantly urban region.
(2) 2014. Deaths: not available.
(3) Total population: provisional.

Source: Eurostat (online data code: urt_gind3)

Two of the most common causes of death in the EU are heart disease and respiratory illnesses. **Figure 8.12** presents information on the share of the population aged less than 65 who died from these ailments; in 2011, heart disease and respiratory illnesses together accounted for just over one quarter (26.3 %) of all deaths in the EU-28 among those aged less than 65. In Latvia and Bulgaria, far higher shares (61.2 % and 49.8 %) of the total number of deaths among those aged less than 65 could be attributed to heart disease or respiratory illnesses; this was particularly the case in the functional urban areas of Daugavpils (south-east Latvia, 61.3 %) and Vidin (north-west Bulgaria, 63.8 %).

Figure 8.12: Proportion of deaths attributed to heart disease or respiratory illness among those aged less than 65 in selected functional urban areas, 2011 (1)

(%)



(1) The figure shows (subject to data availability) the functional urban area in each country with the lowest/highest share of deaths among those aged less than 65 that were attributed to heart disease or respiratory illness, as well as the national average; the name of the functional urban area with the lowest/highest rate is also shown. Denmark, Croatia and Slovenia: incomplete. Belgium, the Czech Republic, Italy, Luxembourg, Malta, the Netherlands and Austria: not available.
(2) 2012.
(3) 2013.
(4) Source for national average: Eurostat (online data code: hlth_cd_aro).

Source: Eurostat (online data code: urb_lfermor)

Comparing the functional urban areas with the highest infant mortality rates and the highest shares of deaths among those aged less than 65 from heart disease or respiratory illnesses, there were six EU Member States where the same area recorded the highest rates/shares: Tartu (Estonia), Kalamata (Greece), Daugavpils (Latvia), Panevezys (Lithuania), Miskolc (Hungary) and Blackpool (the United Kingdom). This could suggest that there were underlying reasons for such high mortality rates, for example, a lack of life chances, low levels of economic resources, specific occupations, lifestyle choices, local environmental issues, or poor access to/availability of medical services.

8.4 Financial situation and cost of living

In the aftermath of the financial and economic crisis, some Europeans have expressed the opinion that their overall standard of living has deteriorated, and this may be linked with perceptions concerning falling real wages, less job security and increased unemployment, or reduced social benefits. This final section looks at the financial situation of Europeans and the distribution of income by degree of urbanisation, alongside an analysis of the cost of living in European cities.

The difference between incomes in cities and rural areas was widest in those EU Member States with the lowest levels of income

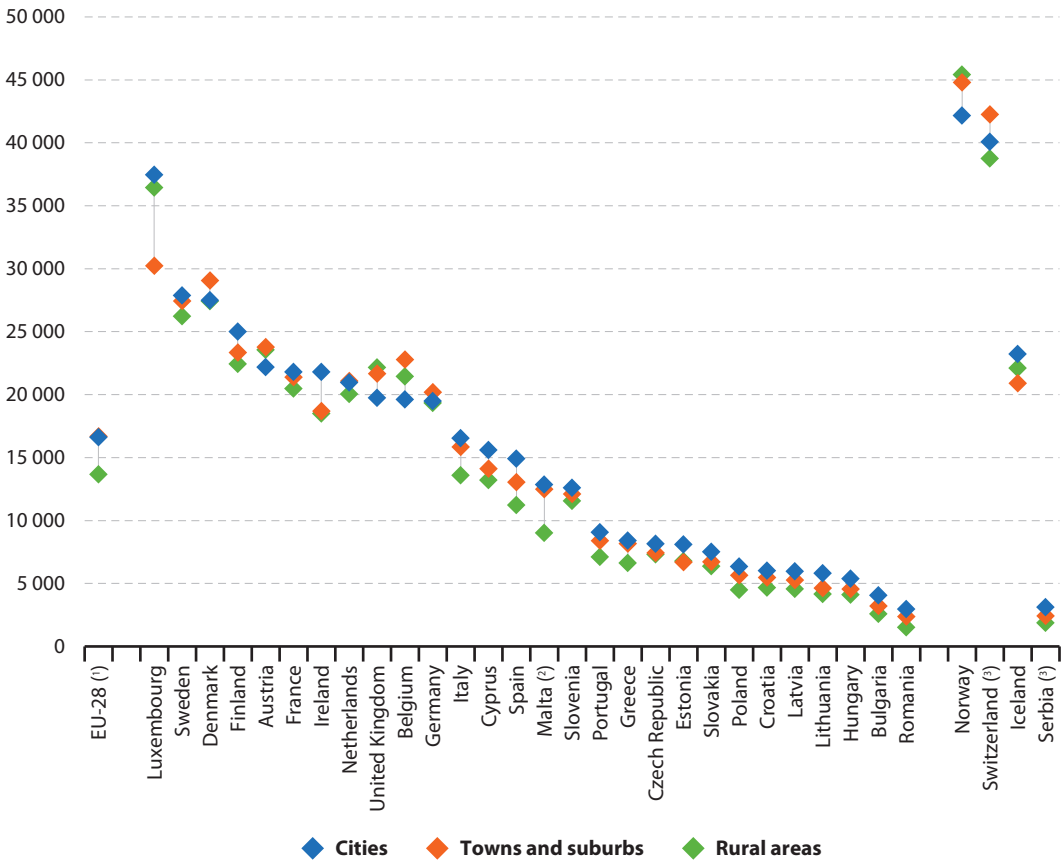
In 2014, median equivalised net income in the EU-28 was EUR 15 778 per inhabitant. An analysis by degree of urbanisation shows that income levels were, on average, higher for those living in towns and suburbs (5.8 % above the average) and cities (5.3 %), while the median income in rural areas was 13.4 % lower.

In all 17 of the EU Member States that recorded median incomes below the EU-28 average, the highest income levels, by degree of urbanisation, were consistently recorded for those living in cities, while the lowest incomes were registered for those living in rural areas (other than in Estonia where the lowest median income was recorded for those living in towns and suburbs). This group of 17 Member States also recorded some of the biggest variations in income levels between cities and rural areas; this was particularly true in Romania and Bulgaria — the two EU Member States with the lowest income levels — as median incomes for people living in cities were 95 % and 57 % higher than those for people living in rural areas.

In Belgium, Austria and the United Kingdom, cities had the lowest levels of income

There was a more varied distribution among those EU Member States where income levels were above the EU-28 average. In Luxembourg, Sweden, Finland, France and Ireland, the highest median income was recorded for those living in cities, whereas people living in towns and suburbs in Denmark, Austria, the Netherlands, Belgium and Germany had the highest median income. The United Kingdom was the only EU Member State where people living in rural areas recorded the highest level of income; it also reported that people living in cities had the lowest median level of income — a pattern that was repeated in Belgium and Austria.

Figure 8.13: Median equivalised net income, by degree of urbanisation, 2014
(EUR)



(1) Rural areas: estimate.
(2) Rural areas: low reliability.
(3) 2013.

Source: Eurostat (online data code: ilc_di17)

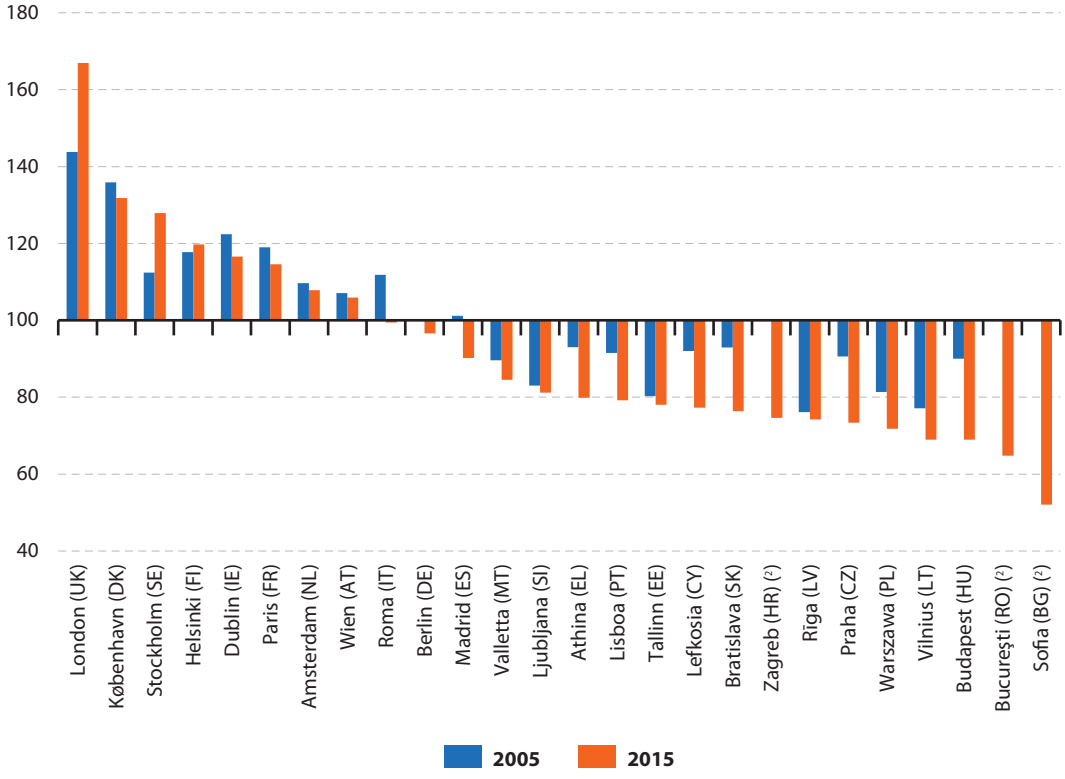
London was the EU capital with the highest cost of living

Discussions concerning the quality of life often turn to the cost of living or the financial situation of households. The (wo)man in the street is particularly concerned by her/his 'in-pocket' disposable income, in other words, the amount that she/he can spend (or save), having paid their taxes and social security contributions after having received any social benefits.

There are considerable differences in the cost of living between EU Member States, between urban and rural areas in the same Member State, or indeed, between different neighbourhoods in the same city: for example, compare the price of an expresso in the eastern suburbs of Paris to the price of an expresso on the Champs Élysées.

Figure 8.14 is based on purchasing power correction coefficients that seek to allow comparisons of the cost of living between EU capital cities; the results are presented in relation to the cost of living in Bruxelles/Brussel (= 100). Using this measure, London was the most expensive capital city among the EU Member States in 2015 — in part due to relatively

Figure 8.14: Cost of living correction coefficients for EU capital cities, 2005 and 2015 (1)
(Bruxelles/Brussel = 100)

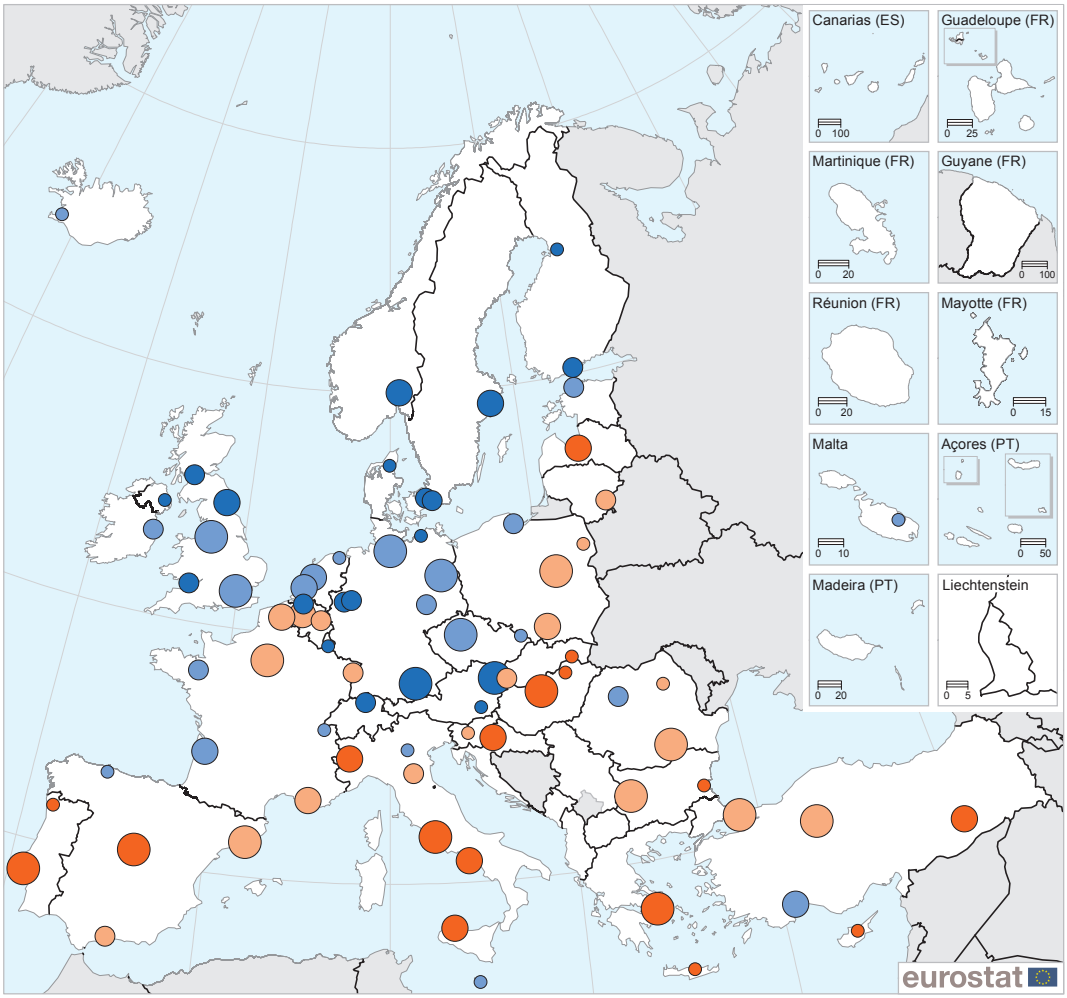


(1) Correction coefficients aim to provide equality of purchasing power of remuneration between different locations within the EU. The exact composition of the basket of goods and services varies to reflect differences in tastes and cultural backgrounds, with the aim of providing equivalent satisfaction/utility. No correction coefficient is established for Luxembourg as, in accordance with the European Commission's Staff Regulation, the price level is deemed equal to that in Bruxelles/Brussel.
(2) 2005: not available.

Source: Eurostat (online data code: prc_colc_tot)

Map 8.2: Proportion of people who are satisfied with the financial situation of their household, 2015 (1)

(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

high property and rental prices — its cost of living was approximately two thirds higher than in Bruxelles/Brussel. The next most expensive capital cities were those in the three Nordic Member States — København, Stockholm and Helsinki — while Dublin, Paris, Amsterdam and Wien were the only other capitals in the EU where the cost of living was higher than in Bruxelles/Brussel. By contrast, at the other end of the range, the cost of living in the Bulgarian capital of Sofia was the lowest among EU capital cities, at almost half (52.1) that recorded in the Belgian capital.

The impact of the financial and economic crisis was evident when asking people how satisfied they were with the financial situation of their household

Results from a perception survey on the quality of life in 79 European cities for 2015 suggest that the highest levels of satisfaction concerning the financial situation of households were recorded in Antwerpen (Belgium), København and Aalborg (Denmark), Stockholm and Malmö (Sweden). At the other end of the ranking, the lowest levels of satisfaction were recorded in the two Greek cities that were surveyed, the capital of Athina (36 %) and Irakleio (40 %). No more than 60 % of the population living in Zagreb (Croatia), Napoli, Palermo and Torino (Italy), Budapest and Miskolc (Hungary), or Lisboa and Braga (Portugal) were satisfied with the financial situation of their household. Chapter 13 provides more information in relation to satisfaction and quality of life issues in cities.

9 Working in cities

The European Union's (EU's) cities, towns and suburbs provide a high proportion of the total number of jobs that are available in the economy at large. This pattern has been apparent since the industrial revolution when the population started to move from the agricultural labour force to look for/take-up job opportunities within close proximity of expanding industrial centres. It subsequently continued as some cities developed into post-industrial employment hubs with a prevalence of service-based activities. The service sector is today, by far, the most important source of employment in urban areas of the EU; this is particularly the case in some of the largest, western European cities; for example, services account for over 90 % of employment in Paris (France) or Inner London (the United Kingdom).

Knowledge-intensive services attract highly-qualified staff, providing a stimulus for growth

Those cities which attract knowledge-intensive services — such as professional, financial or computer services — are likely to require more highly-qualified staff; this often means they have greater productivity and salaries, which may in turn drive economic growth at the regional or local level. On the other hand, cities which fail to attract knowledge-intensive services may have their labour markets characterised by lower skills/qualifications — for example, within the retail sector, back-office functions, or proximity services — and this may result in fewer employment opportunities and lower rates of economic growth.

Jobs tend to be concentrated in urban areas, but some cities are characterised by considerable income inequalities and urban deprivation

Although urban areas have the highest concentration of job opportunities, it is nevertheless relatively commonplace to find large numbers of marginalised people living in cities. This is particularly true in western and southern Europe, where cities are often characterised by jobless households and urban deprivation (more information on poverty and social exclusion in cities is presented in Chapter 12). Furthermore, the working poor who remain in the labour force may also face considerable difficulties, insofar as income inequalities are generally wider in cities than in rural areas, while the low-paid are unlikely to be able to afford to live in affluent areas near to city centres and instead occupy dwellings in more peripheral locations and thereby spend more time and money commuting to work — further reinforcing patterns of inequality.

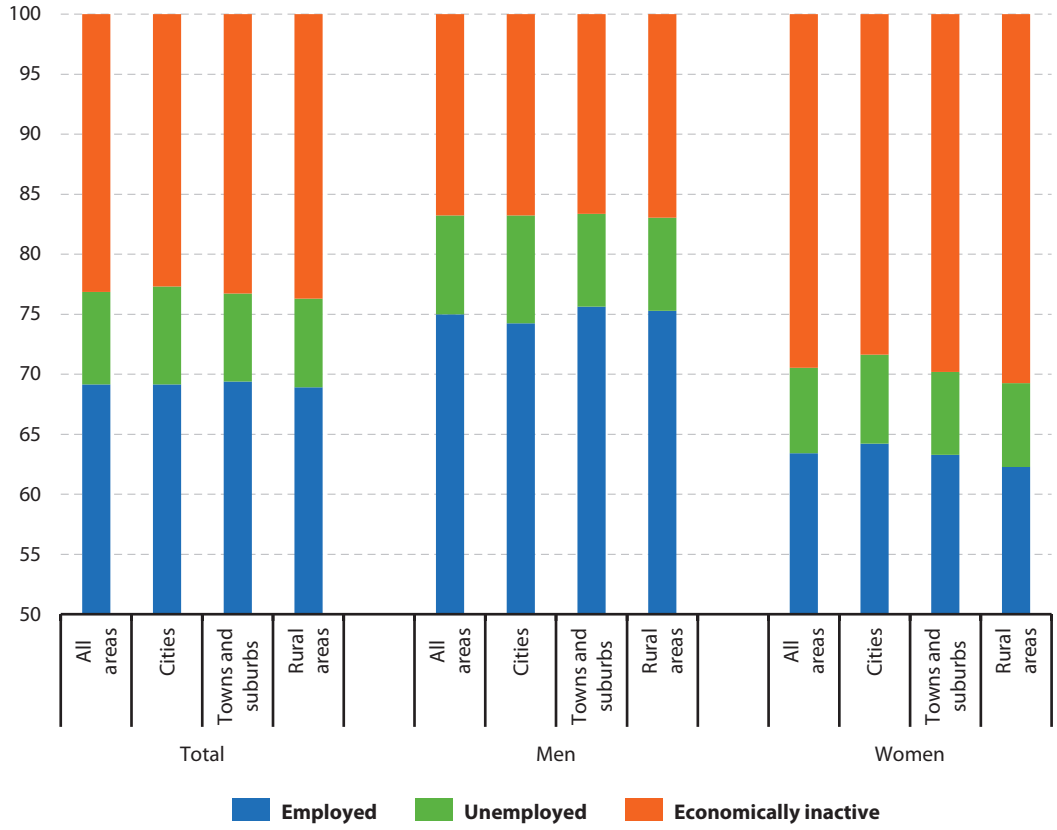
Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

9.1 Working life

In 2014, there were almost 210 million persons aged 20–64 who were employed in the EU-28. **Figure 9.1** shows their working status by degree of urbanisation. A somewhat lower proportion of the men aged 20–64 who were living in EU-28 cities were employed (74.2 %) when compared with the corresponding shares for either towns and suburbs (75.6 %) or rural areas (75.3 %). On the other hand, a higher proportion (64.2 %) of the total number of women aged 20–64 living in EU-28 cities were in employment when compared with the shares recorded among women in towns and suburbs (63.3 %) or rural areas (62.3 %).

Figure 9.1: Working status of the population aged 20–64, by degree of urbanisation, EU-28, 2014 (1)
(%)



(1) Note the y-axis starts at 50.

Source: Eurostat (online data code: lfsa_pgauws)

The EU-28 employment rate (again for people aged 20–64) was 69.2 % in 2014. An analysis by degree of urbanisation shows that employment rates were considerably higher in cities compared with rural areas in Bulgaria, Slovakia, Hungary and the Baltic Member States. By contrast, some of the other EU Member States were characterised by recording their lowest employment rates in cities; this was the case, for example, in Belgium, Germany, the Netherlands, Austria, Sweden and the United Kingdom.

As such, there was a considerable difference in labour market characteristics: in the eastern EU Member States it was commonplace to find higher employment rates and earnings in cities, coupled with lower levels of poverty, thereby contributing a considerable pull-effect from rural to urban areas. In western parts of the EU, people living in cities often faced higher levels of deprivation and social exclusion, lower employment rates and lower levels of income (than those people living in towns and suburbs or rural areas).

Overall employment rates in the EU Member States are strongly influenced by female participation

In most northern and several western EU Member States, women make a significant contribution to higher overall employment rates; this was particularly the case in the Nordic and Baltic Member States, as well as in Germany, Luxembourg, the Netherlands and the United Kingdom (see **Figure 9.2**). In most of the southern and eastern Member States there was a relatively low proportion of women in work, with the highest rates of female labour market participation often recorded in cities, towns and suburbs. This may, at least in part, reflect increased social mobility in urban areas that broadens the range of potential occupations available to women, in contrast to more traditional lifestyles in rural areas where women may continue to run the household/provide family support (both to children and older relatives). Indeed, no more than half of the working-age women living in the rural areas of Bulgaria, Greece, Spain, Croatia, Italy and Malta were in employment. The largest differences in female employment rates between cities and rural areas were recorded in Bulgaria — where the employment rate for women in cities was 18.5 percentage points higher than that for rural areas in 2014 — followed by Lithuania (10.7 points), Spain (10.1 points), Croatia (9.8 points) and Hungary (7.8 points).

Some of the lowest male employment rates were recorded in the cities of southern and eastern EU Member States. The lowest rate was recorded for cities in Greece (59.2 %), while male employment rates were in the range of 65–70 % for those living in the cities of Spain, Croatia, Italy, Portugal and Slovenia, as well as Belgium.

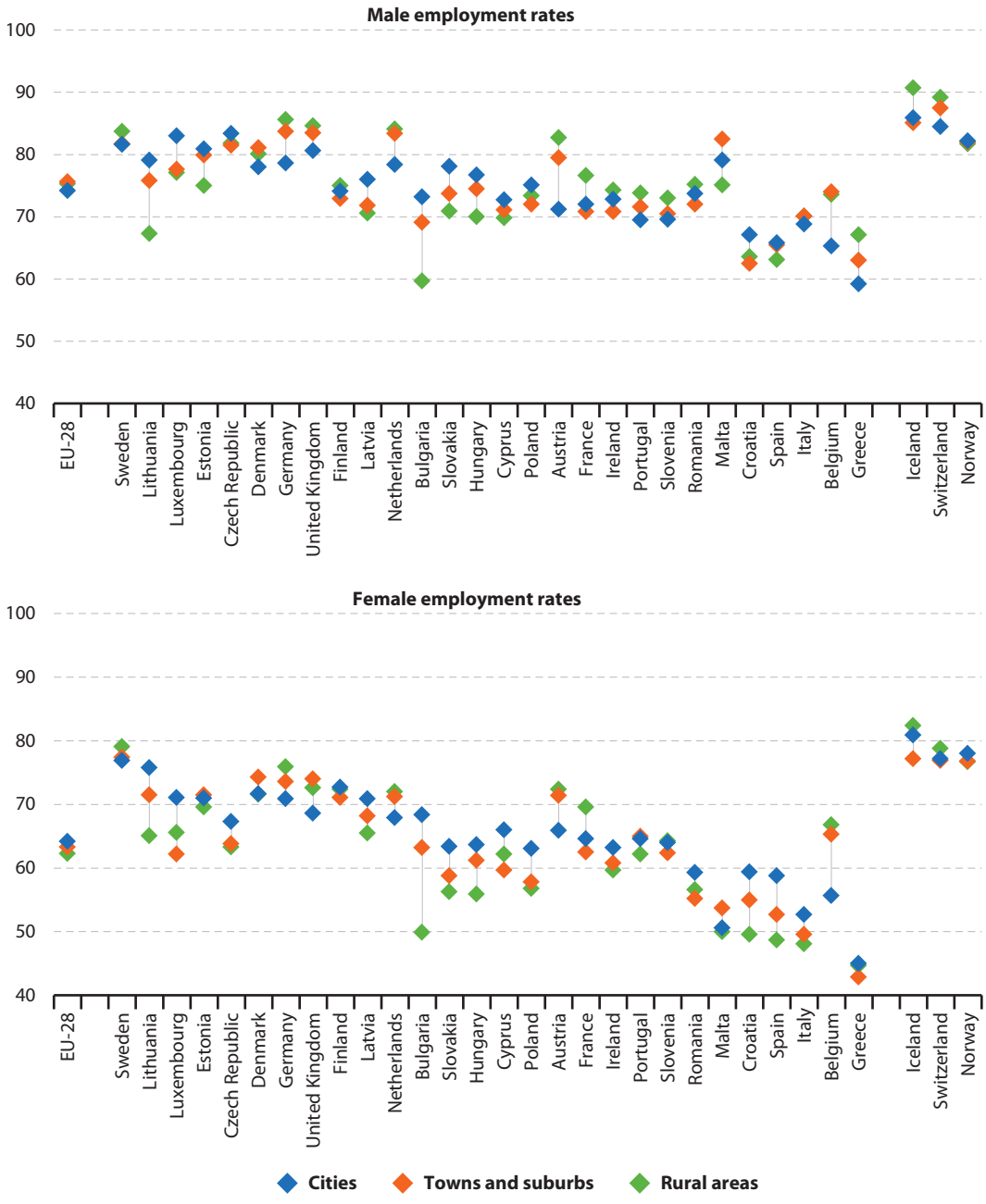
Relatively low employment rates were often recorded for the metropolitan regions of southern Europe

In 80 out of the 237 metropolitan regions for which data are available (no data for France), the employment rate was below the EU-28 average (69.2 %) in 2014. Some of the lowest employment rates were confirmed in southern and eastern EU Member States, as all 23 Spanish metropolitan regions and all but one metropolitan region in Romania — Craiova being the exception — recorded employment rates that were below the EU-28 average; this was also the case in 13 metropolitan regions from each of Italy and Poland.

In 2014, the lowest male employment rate (49.6 %) was registered in the south of Spain in Cádiz - Algeciras, the only metropolitan region in the EU where less than half of the male working-age population was in employment. The lowest female employment rates — where rates fell below 30 % — were recorded in southern Italy, for example, in Napoli and the two

Figure 9.2: Employment rates among those aged 20–64, by sex and degree of urbanisation, 2014 (1)

(%)



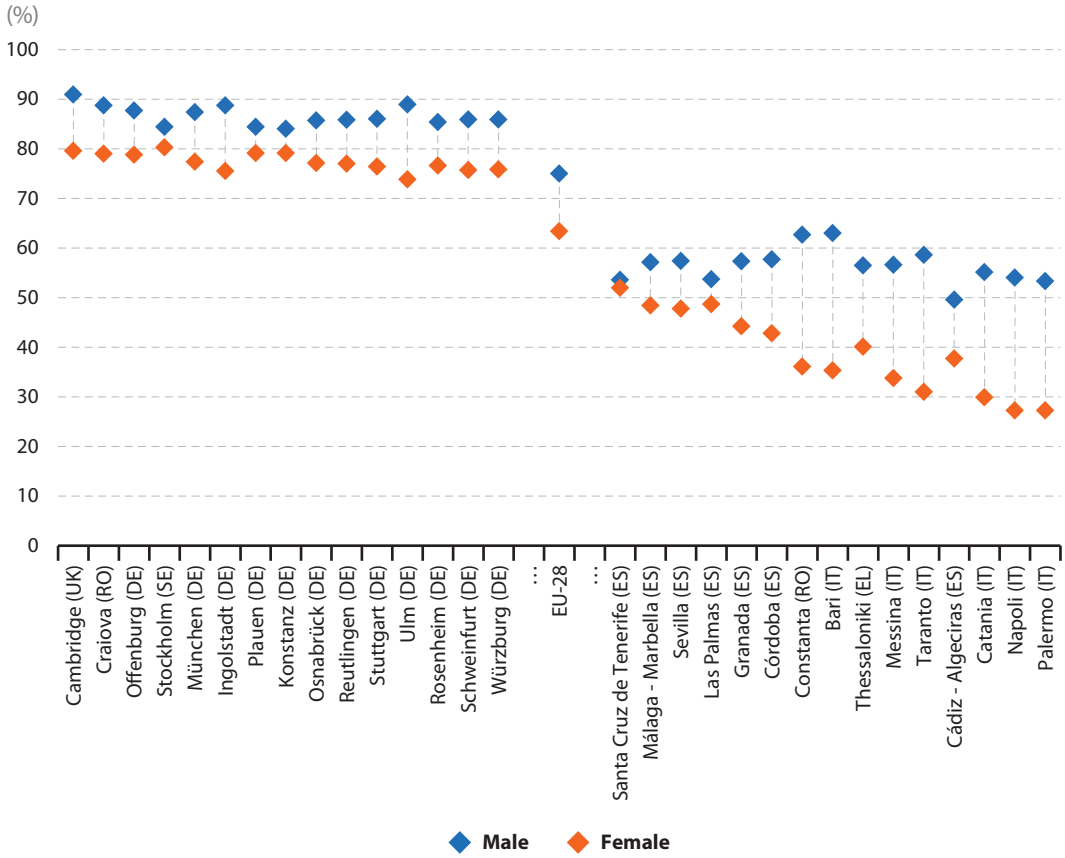
(1) Note the y-axis starts at 40. Ranked on the total employment rate (for men and women) in cities.

Source: Eurostat (online data code: lfst_r_ergau)

Sicilian cities of Catania and Palermo. There were also relatively low female employment rates in some of the metropolitan regions in southern Spain, as well as the Canary Islands (also Spain), Thessaloniki (Greece) and Constanța (Romania).

At the other end of the scale, the metropolitan region with the highest (85.1 %) employment rate in the EU was Cambridge (in the United Kingdom), where the male employment rate peaked at 90.9 % — also the highest in the EU. The highest female employment rate was recorded in the Swedish metropolitan region of Stockholm, at 80.3 %. Aside from Cambridge, Craiova and Stockholm, the remaining metropolitan regions with the highest employment rates were all located in Germany, with the majority from the south of the country, including Stuttgart and München.

Figure 9.3: Employment rates among those aged 20–64 in selected metropolitan regions, by sex, 2014 (1)



(1) The figure shows (subject to data availability) the 15 metropolitan regions in the EU with the lowest/highest employment rates. Ranked on the total (male + female) employment rate. France: not available.

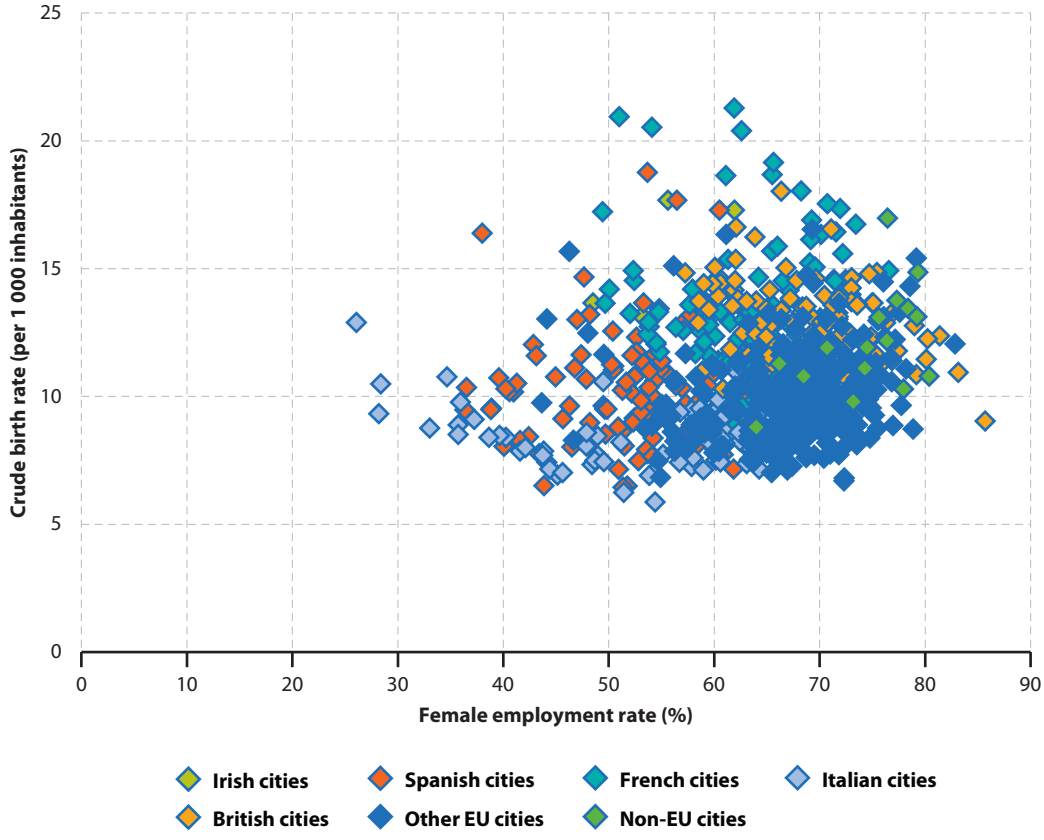
Source: Eurostat (online data codes: met_lfe3emprt)

Relatively high female employment rates were recorded in several cities in the south of the United Kingdom

Relatively young people may be more inclined to take spontaneous decisions to change their job, or show more flexibility if they have to move to secure a new post; this is particularly true when young people live alone or have yet to start a family. Recent evidence appears to suggest that a growing share of young people decide to postpone starting a family in order to complete their studies and to subsequently get a foothold on the jobs ladder; note that **Figure 8.8** provides information on those cities with the highest proportion of mothers giving birth when aged 35 and over.

In 2013, some of the lowest crude birth rates were recorded in cities characterised by their elderly population — for example, Sanremo (Italy) — while some of the highest crude birth rates were recorded in cities characterised by relatively young populations, for example, the suburbs around the French capital of Paris.

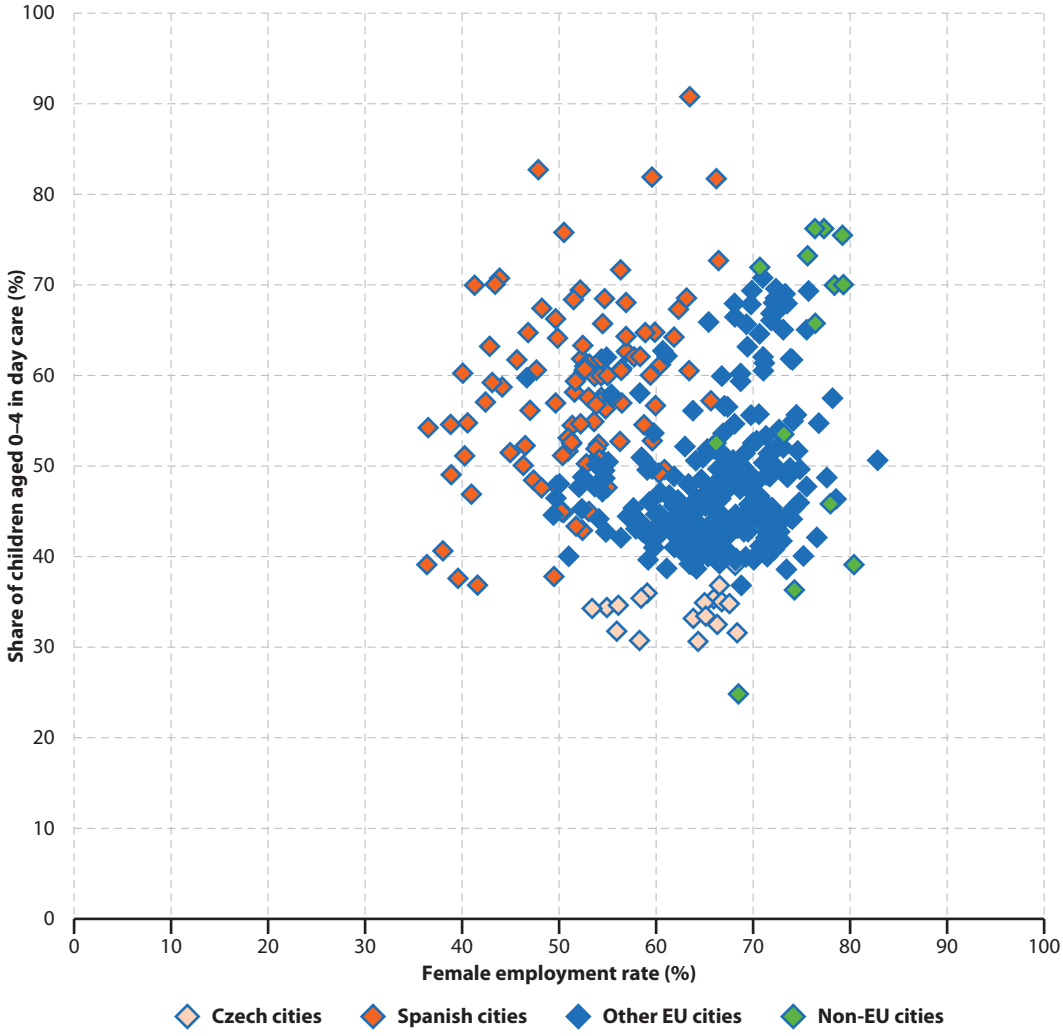
Figure 9.4: Female employment rates among those aged 20–64 and crude birth rates, 2013 (1)



(1) When available, preference was given to the concept of the greater city; København and Paris only available for the city. The United Kingdom and Switzerland: 2014. Denmark, Spain and France: 2012. The Czech Republic, Ireland, Italy, Hungary, Portugal, Finland, Sweden and Norway: 2011. Greece, Austria, Poland, Romania, Slovenia and Slovakia: not available. Lefkosia (Cyprus), Luxembourg (Luxembourg), Valletta (Malta), Helsingborg, Lund, Norrköping and Västerås (all Sweden): not available. Bulgaria, Germany, Ireland, Spain, Lithuania, Portugal and the United Kingdom: estimates.

Source: Eurostat (online data codes: urb_cfermor, urb_clma and urb_cpop1) and Swiss Federal Statistical Office

Figure 9.5: Female employment rates among those aged 20–64 and share of children aged 0–4 in day care, 2013 (1)



(1) Based on information for cities (subject to data availability). Spain and France: 2012. The Czech Republic, Finland, Sweden and Norway: 2011. Belgium, Denmark, Ireland, Greece, Croatia, Italy, Cyprus, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia and the United Kingdom: not available. Esslingen am Neckar, Friedrichshafen, Fulda, Gießen, Görlitz, Greifswald, Hanau, Konstanz, Ludwigsburg, Marburg, Neubrandenburg, Neu-Ulm, Offenburg, Plauen, Reutlingen, Rostock, Saarbrücken, Sindelfingen, Stralsund, Tübingen, Villingen-Schwenningen, Wetzlar and Zwickau (all Germany), Helsingborg, Lund, Norrköping and Västerås (all Sweden): not available. Bulgaria, the Czech Republic, Germany, Spain, Latvia and Lithuania: estimates.

Source: Eurostat (online data codes: urb_ceduc, urb_clma and urb_cpop1)

Aside from delaying childbirth, cultural differences/attitudes may explain some of the differences in female employment rates between EU Member States. Seven of the top 10 cities with the highest female employment rates were located in southern and central England, including: Fareham, Exeter, Mansfield, Basingstoke and Deane, Chelmsford, Warwick and Dacorum (all data for the United Kingdom refer to 2014). The 10 highest female employment rates in European cities were completed by Friedrichshafen (on the shores of Lake Constance in southern Germany), Tartu (the second largest city in Estonia) and Utrecht (in the centre of the Netherlands). The lowest female employment rates were recorded in Italian cities (2011 data), including Napoli and its northern suburb of Giugliano in Campania, Catania and its northern suburb of Acireale, and Barletta in northern Apulia.

The availability and cost of childcare provision is another factor that may impact upon employment rates, particularly for women; **Figure 9.5** contrasts the share of children aged 0–4 in day care with female employment rates. At one extreme, most of the cities in Norway (2011 data) were characterised by high female employment rates and high shares of young children in day care, while the opposite was true in cities such as Telde, Arrecife and Santa Lucía de Tirajana (in the Canary Islands, Spain; 2012 data) or Karviná, Most, Ústí nad Labem (in the Czech Republic; 2011 data). By contrast, there were cities that had relatively low female employment rates, but high shares of children aged 0–4 in day care (for example, the Spanish city of Granada, Spain; 2012 data), or relatively high female employment rates, but low shares of children aged 0–4 in day care (for example, the Czech capital of Praha; 2011 data).

In cities, more than one third of the population aged 25–64 had a tertiary level of educational attainment

In 2014, almost one third (29.3 %) of the EU-28 population aged 25–64 had a tertiary level of educational attainment (ISCED 2011 levels 5–8). An analysis by sex and by degree of urbanisation shows that a considerably higher proportion of those living in cities — 36.2 % of men and 38.6 % of women — possessed a tertiary level of educational attainment; corresponding shares for people living in towns and suburbs and rural areas were below the overall EU-28 average.

The highest share of the working-age population (defined here as those aged 25–64) living in a city and in possession of a tertiary level of education was recorded in Luxembourg (74.7 % of men and 69.1 % of women). Germany, Greece, the Netherlands and Romania were the only other EU Member States to record a higher share of working-age men (rather than women) with a tertiary level of educational attainment among those living in cities; the same was true in Switzerland. On the other hand, for cities in the Baltic Member States, Bulgaria, Slovenia and the Nordic Member States the proportion of women with a tertiary level of educational attainment was much higher than the corresponding share for men; this pattern was repeated in most of the remaining EU Member States (although to a lesser degree). Information for individual cities and the shares of their working-age populations who are in possession of a tertiary level of education is provided in Chapter 5 on smart cities.

Table 9.1: Proportion of people aged 25–64 with a tertiary level of educational attainment, by sex and degree of urbanisation, 2014 (1)

(%)

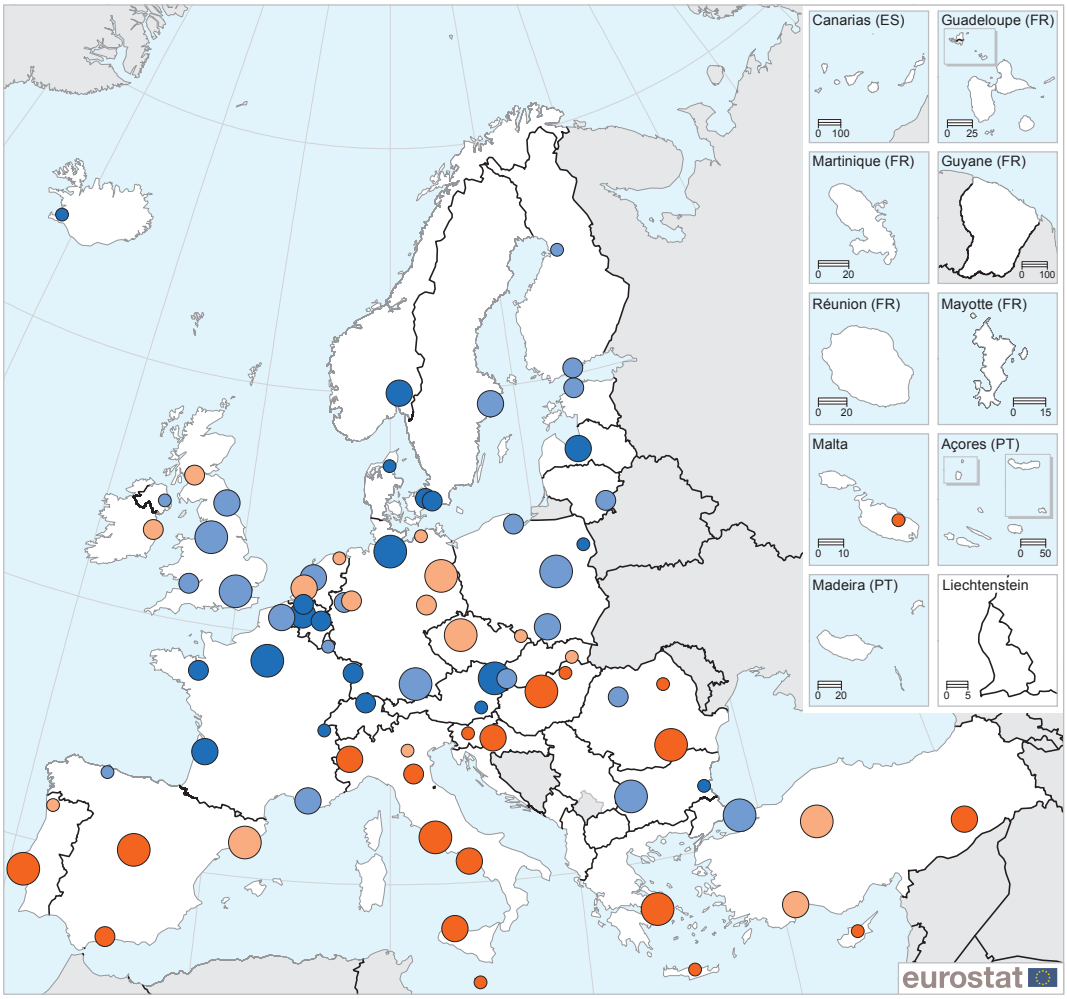
	Men				Women			
	Total	Cities	Towns and suburbs	Rural areas	Total	Cities	Towns and suburbs	Rural areas
EU-28	27.9	36.2	25.4	18.6	30.7	38.6	27.0	22.9
Belgium	33.9	38.4	32.6	30.7	39.9	41.2	39.2	40.0
Bulgaria	21.0	33.3	16.7	6.0	33.0	47.2	29.0	11.8
Czech Republic	20.7	31.9	19.9	12.6	22.4	32.5	20.2	15.9
Denmark	31.4	45.4	30.8	20.1	40.9	53.0	39.4	31.7
Germany	30.5	34.4	29.2	26.3	23.7	31.0	20.2	18.0
Estonia	28.5	39.0	19.4	20.8	46.2	55.5	40.1	37.7
Ireland	37.2	48.0	38.3	27.9	44.6	50.6	42.9	40.3
Greece	27.7	38.0	24.1	16.2	28.5	37.0	26.1	17.8
Spain	32.8	40.2	30.4	21.7	36.5	42.6	33.8	27.1
France	30.8	39.9	27.7	22.2	35.4	42.5	31.2	29.3
Croatia	19.3	31.6	19.2	11.0	23.5	35.5	22.9	14.6
Italy	14.9	21.7	12.9	9.6	18.9	25.6	16.2	14.3
Cyprus	37.3	46.6	31.5	21.7	43.0	48.7	38.4	33.1
Latvia	21.9	28.6	18.6	16.1	37.8	43.9	32.6	32.7
Lithuania	30.2	45.1	29.6	17.2	42.6	55.3	43.9	29.2
Luxembourg	47.8	74.7	39.5	41.8	44.0	69.1	33.7	40.8
Hungary	20.2	35.2	19.8	8.6	26.3	39.4	26.0	14.6
Malta	19.7	17.9	22.2	15.8	19.4	18.4	20.3	19.5
Netherlands	34.8	40.2	32.0	25.3	34.0	39.7	30.5	25.1
Austria	31.2	38.2	31.8	25.7	28.6	39.5	26.8	21.7
Poland	22.5	35.6	21.4	12.2	31.4	42.5	30.8	21.1
Portugal	17.2	24.1	15.2	8.0	25.9	32.4	24.4	15.9
Romania	15.3	29.9	13.4	3.6	16.4	29.7	13.7	4.3
Slovenia	23.4	35.9	24.6	18.2	34.1	47.1	34.1	28.9
Slovakia	18.2	37.2	18.6	10.4	22.5	39.1	21.2	15.9
Finland	35.2	44.5	33.8	25.4	48.5	56.3	47.1	39.6
Sweden	32.5	43.8	27.7	20.4	45.0	52.9	41.9	36.1
United Kingdom	39.2	40.4	36.1	39.9	41.9	42.2	40.1	44.4
Iceland	30.9	37.4	18.8	17.7	43.2	49.1	31.6	29.8
Norway	38.3	51.7	38.2	27.8	46.6	58.7	46.2	37.9
Switzerland	45.9	52.4	44.8	40.4	34.4	45.6	31.6	27.4

(1) Tertiary educational attainment: ISCED 2011 levels 5–8.

Source: Eurostat (online data code: edat_lfs_9913)

Map 9.1 provides information from a perception survey on the quality of life in 79 European cities. It shows that in 2015 the highest proportion (85 %) of city-dwellers who were satisfied with their personal job situation was recorded in Graz (the second largest city in Austria), while relatively high degrees of satisfaction were also recorded in the Austrian capital of Wien (79 %), the Danish capital of København (78 %), the western French city of Rennes (also 78 %) and the Belgian capital of Bruxelles/Brussel (77 %). By contrast, the lowest level of satisfaction (44 %) was recorded in the heavily industrialised city of Miskolc (north-east Hungary), while the Greek capital of Greater Athina (45 %) and the Hungarian capital of Budapest (49 %), along with Piatra Neamț (eastern Romania; also 49 %) were the only other cities where less than half the population declared they were satisfied with their personal job situation.

Map 9.1: Proportion of people who are satisfied with their personal job situation, 2015 (1)
(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

9.2 Commuter flows

Congestion leads to wasted time and associated economic and environmental costs in many European cities (for both individuals and enterprises). In an effort to encourage commuters to use public transport services, a few cities have experimented with the introduction of congestion charges and/or restrictions on polluting vehicles; these are primarily designed to discourage the use of roads at peak periods, for example: Milano (Italy), Valletta (Malta), Stockholm (Sweden) and central London (the United Kingdom). By freeing-up road space, policymakers hope to be able to reduce emissions, run more efficient public transport services, encourage sustainable modes of transport, and increase the safety of cycling/walking.

Public transport was the most common form of transport for commuting to work in some of the EU's largest cities

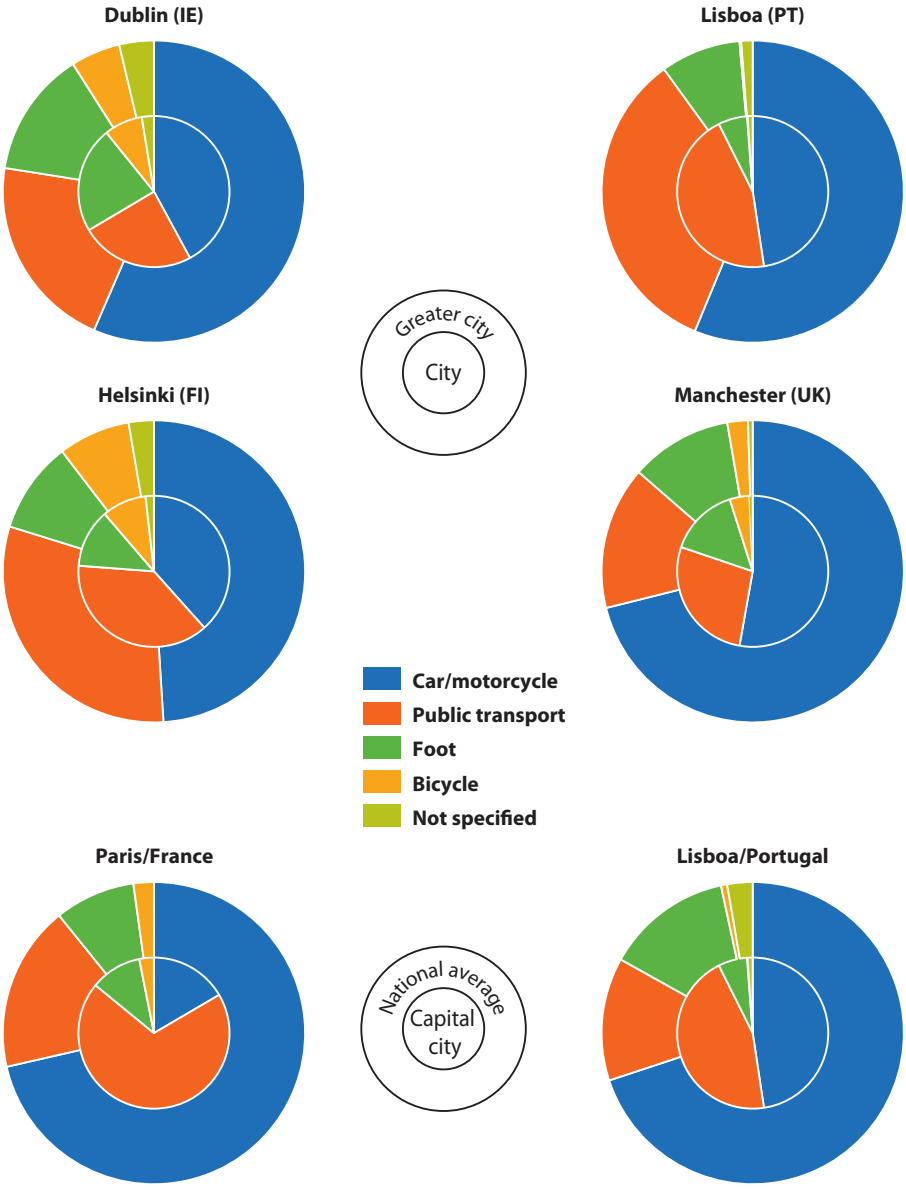
The share of people who use public transport to get to work is generally much higher in the EU's largest cities and in its capital cities, where integrated transport networks are based on rail, underground/metro, bus/tram services. At the start of 2013, Tallinn (the Estonian capital) became the first in the EU to provide free public transport services to all local inhabitants. On the other hand, in provincial cities, towns and suburbs the use of private motor vehicles tends to be the principal mode of transport for getting to work, with public transport systems sometimes underdeveloped or virtually non-existent.

Car use is relatively low in some of Europe's biggest cities: this is particularly true in capital cities where a wide range of public transport services are generally on offer to provide relatively cheap and efficient transport alternatives. For example, in the French capital of Paris, the share of people going to work by public transport was 69.4 % in 2011, compared with a national average of 17.8 %. In a similar vein, the share of people commuting to work by public transport in the Portuguese capital of Lisboa (45.0 %) was some 31.8 percentage points higher than its national average.

As people move towards the periphery of big cities, or to smaller towns and suburbs, it is common to find that their dependence on the car as a preferred means of transport increases. For example, the share of people using a car to get to work was 18.3 percentage points higher among those living in Greater Manchester (71.1 %) than it was for people who lived in its centre (52.8 %); this pattern was also repeated for the other cities shown in **Figure 9.6**.

Given the considerable distances that may be involved, it is often problematic for commuters living in the biggest cities to go to work by foot. However, in smaller cities that have relatively compact centres, it is increasingly common to find a relatively high proportion of journeys to work being made by foot or by bicycle. Among the selected EU Member States shown in **Figure 9.7**, the highest national shares of journeys to work by foot in 2011 were recorded in Ruse (Bulgaria), Weimar (Germany; 2012 data), Poitiers (France; 2010 data) and Póvoa de Varzim (Portugal) — all of which are relatively small cities.

Figure 9.6: Journeys to work by mode of transport, selected cities and EU Member States, 2011 (1)
(% of total)



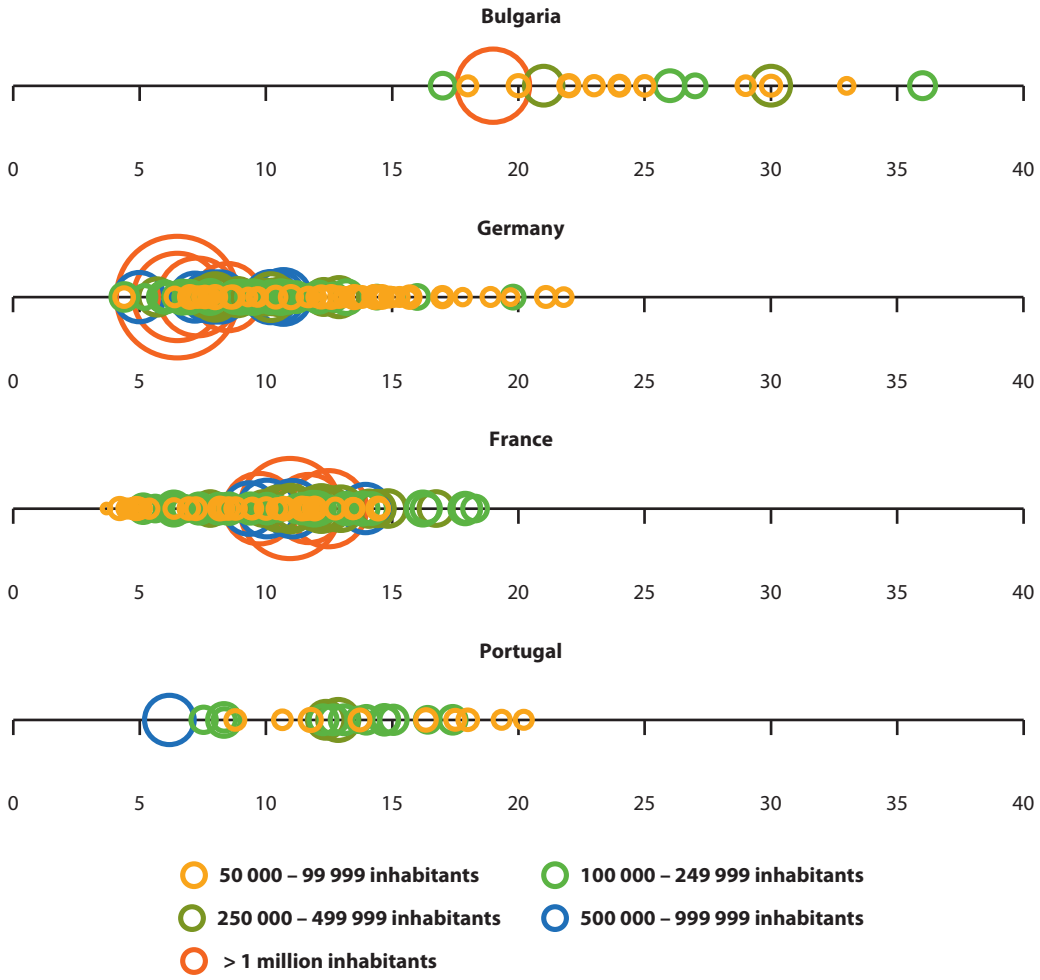
(1) The first four figures show a comparison between selected cities and their greater cities. The last two figures show a comparison between selected capital cities and their national averages.

Source: Eurostat (online data code: urb_ctran)

Those working in capital cities often faced the most lengthy journey times to work …

Based on the limited information shown in **Figure 9.8**, it would appear that the inhabitants of capital cities often had the longest journeys to and from work (in terms of the average time taken); this may reflect generally higher congestion in major cities, or the greater distances that might be involved when commuters have to cross large, dense cities to get to and from work. Those living in and around the EU's biggest cities can spend a considerable amount of their lives commuting between home and work (and vice-versa). For example, commuters in Paris spent an average of 39 minutes for their journey time to work (2010 data). This pattern

Figure 9.7: Journeys to work made by foot, cities in selected EU Member States, 2011 (1)
(% of total)

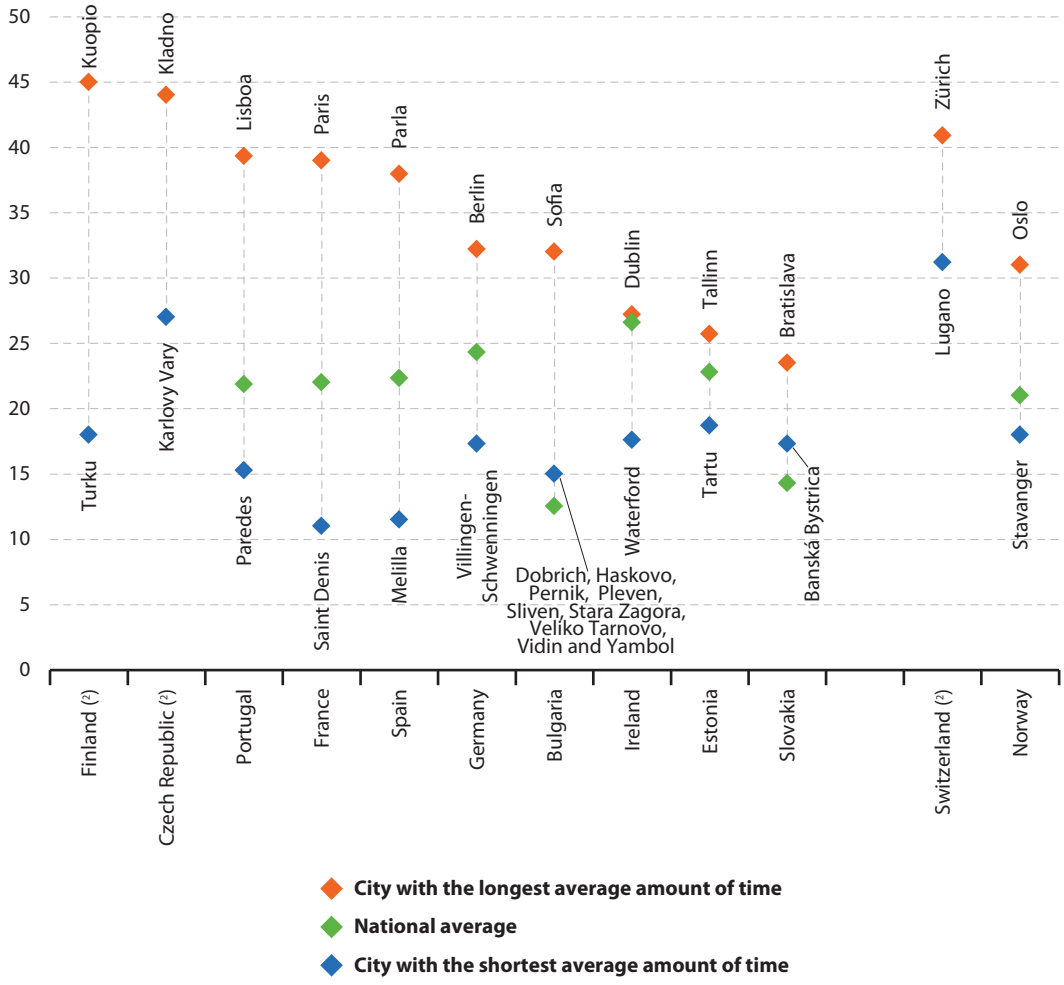


(1) The figure shows the share of journeys to work that are made by foot for cities in the selected EU Member States. The size of the circles is proportional to the total number of inhabitants in each city and these are coloured according to the classes in the legend; in each case the largest circle is the capital city. Germany: 2012, estimates.

Source: Eurostat (online data codes: urb_ctran and urb_cpop1)

was apparent across much of the EU, with commuters in the Bulgarian capital of Sofia taking, on average, almost 20 minutes more to get to work than the national average, while the additional time required for commuting to work in the French and Portuguese capitals was almost as high (around 17 additional minutes).

Figure 9.8: Cities with the shortest and longest average journey times to work, 2011 (1)
(minutes)

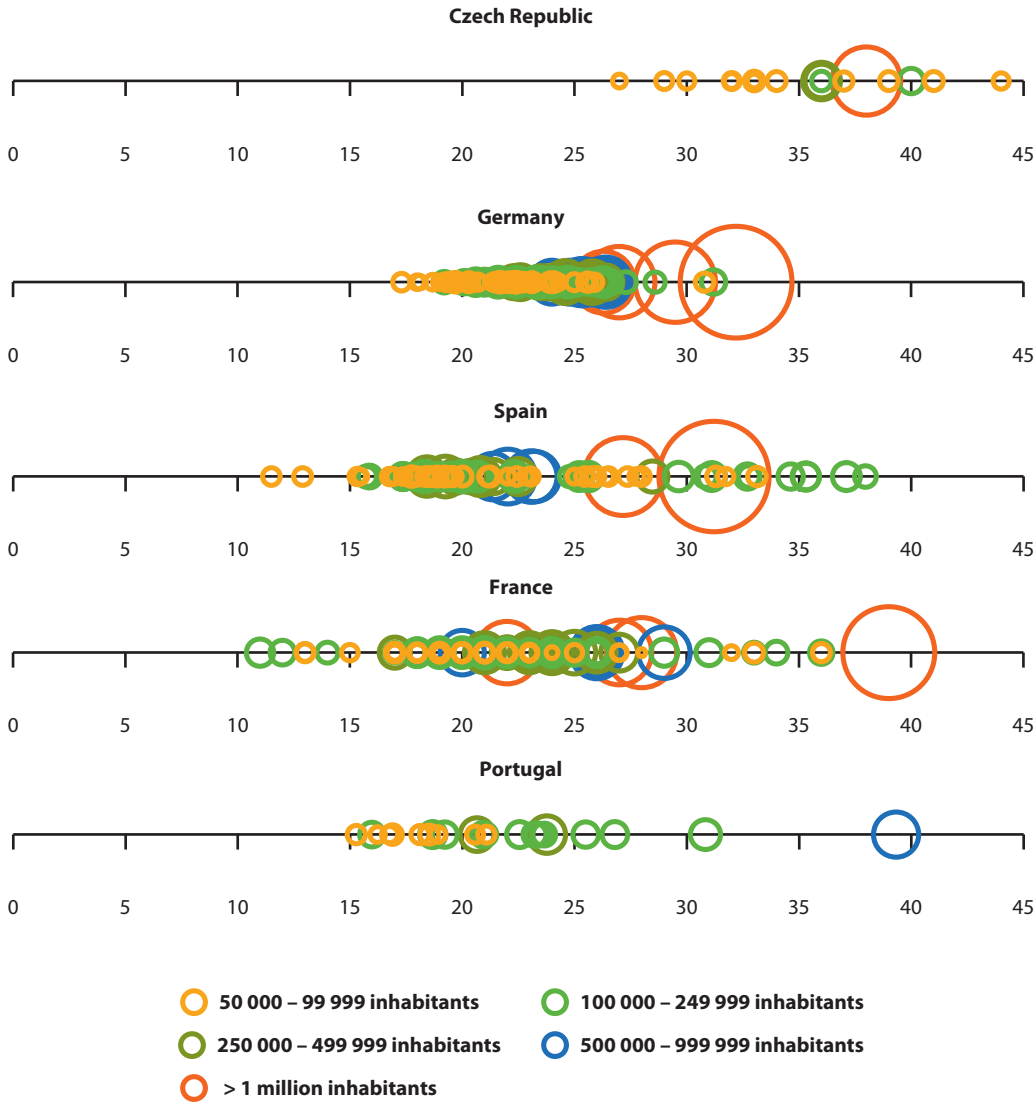


(1) The figure shows for each country (subject to data availability) the cities with the shortest/longest average journey times to work, as well as the national average; the name of the city with the shortest/longest journey time is also shown. Switzerland: 2013. Germany: 2012. France: 2010. Norway: 2009. Tampere and Turku (both Finland): 2008. Belgium, Denmark, Greece, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Romania, Slovenia, Sweden and the United Kingdom: not available. Espoo, Vantaa and Jyväskylä (all Finland) and Tromsø (Norway): not available.
(2) National average: not available

Source: Eurostat (online data code: urb_ctran)

Figure 9.9 shows that the average time taken for the journey to work was often linked to the size of a city; this relationship was particularly apparent in Germany (2012 data). Note also the relatively lengthy journey times to work for a number of relatively small Spanish and French cities (satellites/new towns within the larger metropolitan regions of their capitals), for example, Leganés, Móstoles and Parla around Madrid, or Marne la Vallée, Saint-Quentin en Yvelines, and Communauté d'agglomération Europ 'Essonne around Paris (all 2010 data).

Figure 9.9: Average time taken for journeys to work, cities in selected EU Member States, 2011 (1) (minutes)



(1) The figure shows the average time taken for journeys to work for cities in the selected EU Member States. The size of the circles is proportional to the total number of inhabitants in each city and these are coloured according to the classes in the legend; in each case the largest circle is the capital city. Germany: 2012. France: 2010. Estimates, except for the Czech Republic.

Source: Eurostat (online data codes: urb_ctran and urb_cpop1)

… and some of the longest delays for traffic congestion

Tables 9.2 and **9.3** provide an indication of the average time lost in traffic congestion within functional urban areas (cities and their commuting zones) for some of the EU's biggest cities; note the analysis was only conducted for 12 EU Member States, see **Table 9.2** for details of coverage. In 2015, the most congested functional urban area was London, where commuters lost an average of 101 hours as a result of being stuck in traffic (equivalent to more than four whole days). There were also relatively high levels of congestion — at least 70 hours lost in traffic — in the Belgian cities of Bruxelles/Brussel and Antwerpen, and the German cities of Köln and Stuttgart.

More specific information on the five most congested corridors in selected EU Member States is provided in **Table 9.3**. In those Member States where the capital city is dominant and the pattern of urban development may be described as monocentric (for example, France and the United Kingdom), the five lengthiest traffic delays were all in and around the capital. By contrast, in Germany and Italy — both characterised by more polycentric patterns of urban development — some of the corridors with long traffic delays were outside of the capitals; for example, in München, Köln, or Milano.

Table 9.2: Top 20 most congested functional urban areas in selected EU Member States, 2015 ([1])
(hours)

Rank	Functional urban area	Average time lost in traffic per year	Change from previous year
1	London (UK)	101	5
2	Stuttgart (DE)	73	9
3	Antwerpen (BE)	71	7
4	Köln (DE)	71	5
5	Bruxelles/Brussel (BE)	70	–4
6	Karlsruhe (DE)	54	–9
7	München (DE)	53	5
8	Utrecht (NL)	53	0
9	Milano (IT)	52	–5
10	Greater Manchester (UK)	51	0
11	Düsseldorf (DE)	50	–3
12	's-Gravenhage (NL)	48	–3
13	Rotterdam (NL)	46	–2
14	Paris (FR)	45	0
15	Hamburg (DE)	45	–3
16	Bonn (DE)	38	–4
17	Lyon (FR)	36	–4
18	Greater Belfast (UK)	38	1
19	Merseyside (UK)	37	0
20	Toulon (FR)	35	1

([1]) Analysis conducted for commuters in Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, Hungary, the Netherlands, Austria, Portugal and the United Kingdom. Analysis is based on data by functional urban areas (FUAs) from the European Commission's Urban Audit data collection.

Source: INRIX 2015 Traffic Scorecard (http://inrix.com/scorecard/key-findings-us/#key-findings-europe)

Table 9.3: Worst corridors for urban mobility, selected EU Member States, 2015 (1)

Urban area	Road	From	To	Total delay per year (hours)	Worst day/ hour
Belgium					
Bruxelles/Brussel	R0	Zellik	St Stevens Woluwe	105	Friday 17:00
Bruxelles/Brussel	R0	Machelen	Groot-Bijgaarden	56	Tuesday 08:00
Bruxelles/Brussel	N4	ULB – Jardin Massart	Naamse Poort	48	Friday 18:00
Bruxelles/Brussel	R22	Boitsfort Station	Woluwelaan (Haachtsesteenweg)	44	Friday 17:00
Bruxelles/Brussel	R22	Woluwelaan (Haachtsesteenweg)	Chaussée de Waterloo	42	Friday 17:00
Germany					
München	B2R	Hansastraße	Passauerstraße	93	Thursday 18:00
Köln	A1	Leverkusener Brücke	Leverkusen	50	Monday 08:00
Wuppertal	A46	Wuppertal-Elberfeld	Höfgen	34	Wednesday 17:00
Ruhrgebiet	A46	0km	Sonnborner Kreuz	34	Monday 07:00
Stuttgart	B27	Olgaeck	Dreieck Stuttgart-Zuffenhausen	33	Wednesday 08:00
Spain					
Barcelona	B-10	B-20/Montgat/Ronda de Dalt/Lleida/ Girona/Terrassa	Zona Franca/Port/Fira/ Pg.Zona Franca	23	Friday 15:00
Barcelona	B-23	Barcelona (Av. Diagonal)	Molins de Rei Sud/Pol. el Pla/St.Feliu/ A-2/BV-2002	22	Monday 08:00
Madrid	A-2	M-50	M-30	18	Monday 09:00
Madrid	M-40	M-503	M-607	16	Monday 08:00
Madrid	A-2	M-300	M-108	8	Tuesday 08:00
France					
Paris	A86	Saint-Denis centre	A86/A14	86	Tuesday 08:00
Paris	Périphérique ext.	Porte Maillot- Bois de Boulogne	Porte de Clignancourt	75	Friday 17:00
Paris	Périphérique ext.	Porte de Saint-Cloud	Porte d'Orléans	75	Friday 18:00
Paris	Périphérique int.	Porte de Saint-Cloud (E2)	Porte d'Orléans (E1)	72	Friday 18:00
Paris	Périphérique int.	Porte de Bagnolet	Porte de Charenton	56	Thursday 18:00

(1) Analysis conducted for commuters in Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, Hungary, the Netherlands, Austria, Portugal and the United Kingdom. The longest peak period travel time is compared with the uncongested/free flow travel time, resulting in an average peak period delay.

Source: INRIX 2015 Traffic Scorecard (http://inrix.com/scorecard/key-findings-us/#key-findings-europe)

Table 9.3 (continued): Worst corridors for urban mobility, selected EU Member States, 2015 (1)

Urban area	Road	From	To	Total delay per year (hours)	Worst day/ hour
Italy					
Milano	A4	Fiorenza-Allacciamento A8 Milano V. Le Certosa	Allacciamento Tangenziale Nord Milano	38	Friday 17:00
Milano	A4	Brianza	Fiorenza-Allacciamento A8 Milano V. Le Certosa	28	Monday 08:00
Milano	A51	Allacciamento A1 Milano-Napoli	Allacciamento Tangenziale Nord Milano	21	Thursday 18:00
Milano	A52	Svincolo SP49 Vecchia Valassina	Allacciamento Tangenziale Est Milano	20	Tuesday 08:00
Milano	A51	Svincolo Agrate B.: Sp13 Melzo-Monza-Dogana	Allacciamento A1 Milano-Napoli	20	Tuesday 09:00
Netherlands					
's-Gravenhage	A13	Ypenburg	Kleinpolderplein	24	Friday 16:00
's-Gravenhage	N213	0km	Poeldijk	16	Tuesday 17:00
Rotterdam	A20	Vlaardingen	Terbregseplein	14	Friday 17:00
Dordrecht	A15	Hendrik-Ido-Ambacht	Sliedrecht-Oost	13	Friday 17:00
's-Gravenhage	N213	Bloemenveiling Holland	A20: Westerlee	12	Tuesday 08:00
United Kingdom					
London	A217	Rosehill Roundabout	New Kings Road	110	Wednesday 08:00
London	A215	Albany Road, Camberwell	Shirley Road, Croydon	84	Friday 18:00
London	A4	Henlys Roundabout, Hounslow	Holborn Circus, City of London	81	Wednesday 09:00
London	A4	Aldwych	Henlys Roundabout, Hounslow	78	Wednesday 18:00
London	A23	Thornton Heath	Westminster Bridge	76	Tuesday 08:00

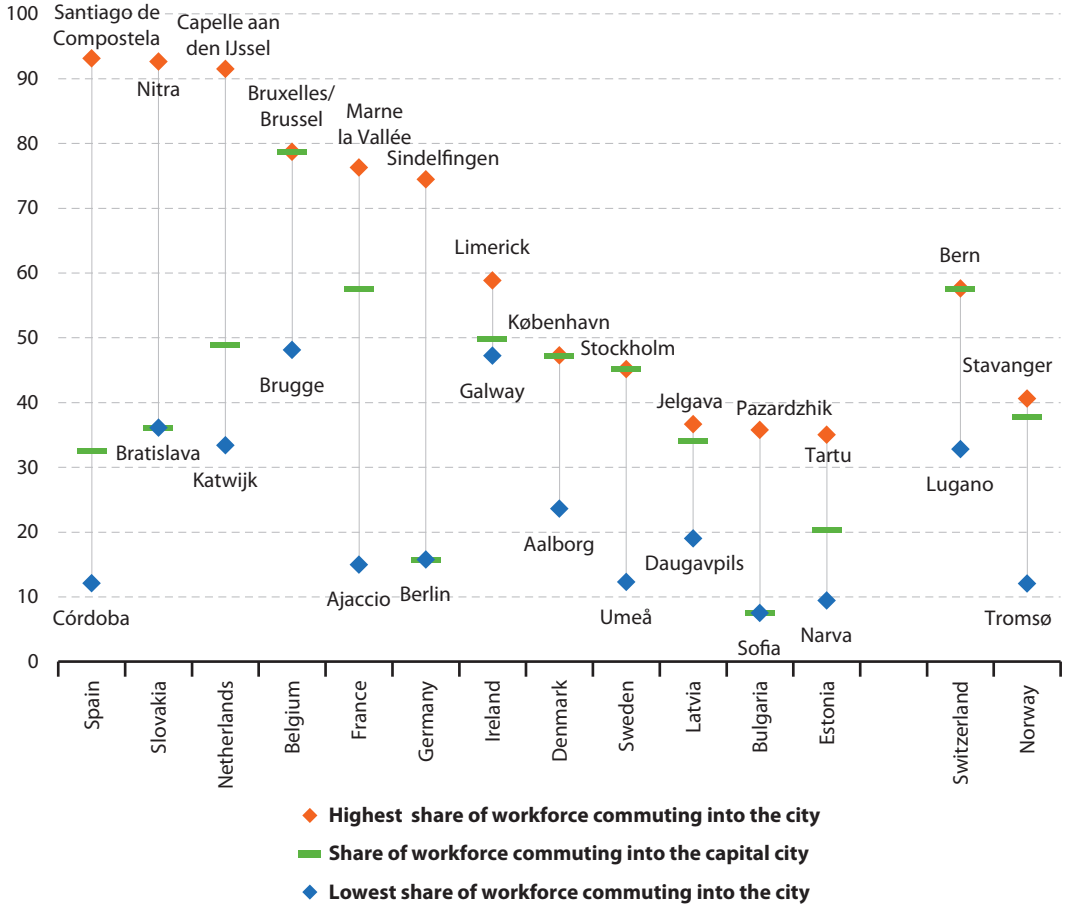
(1) Analysis conducted for commuters in Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, Hungary, the Netherlands, Austria, Portugal and the United Kingdom. The longest peak period travel time is compared with the uncongested/free flow travel time, resulting in an average peak period delay.

Source: INRIX 2015 Traffic Scorecard (http://inrix.com/scorecard/key-findings-us/#key-findings-europe)

The level of commuting into a city depends, at least to some degree, on the population density and patterns of urban development in surrounding areas

When there is limited space in city centres it is common to find satellite cities/new towns and other forms of suburban development emerging to house the growing number of urban inhabitants; this is particularly true around some of Europe's largest (capital) cities. These patterns may explain why some cities act as employment hubs that draw in labour from a considerable surrounding area, while the labour force in other cities is principally supplied by the local population. Two contrasting examples are shown for Spain in **Figure 9.10**: 12.0 % of the workforce in the southern city of Córdoba commuted into the city for work, compared with 93.1 % of the workforce in the north-western city of Santiago de Compostela (2008 data for both cities). The area around Córdoba has a very low population density with only a few small towns and villages punctuating the arid landscape/sierras, while there is a much higher level of population density around Santiago de Compostela with a very high number of small settlements scattered across the landscape.

Figure 9.10: Cities with the lowest and highest proportions of their workforces commuting into the city, selected European cities, 2011 (1)
(% of total employment)



(1) The figure shows for each country (subject to data availability) the cities with the lowest/highest shares of people commuting into the city. The figure also shows the share for the capital city and the names of the cities with the lowest/highest shares. Germany and Switzerland: 2013. The Netherlands: 2010. Norway: 2009. Belgium and Spain: 2008. Germany, Spain, the Netherlands and Switzerland: estimates. Spain: incomplete coverage with data missing for several (smaller) cities. The Czech Republic, Greece, Croatia, Italy, Cyprus, Lithuania, Luxembourg, Hungary, Malta, Austria, Poland, Portugal, Romania, Slovenia, Finland and the United Kingdom: not available.

Source: Eurostat (online data codes: urb_ctran and urb_clma)

In 2011, the Bulgarian, German and Slovakian capitals — Sofia (7.5 %), Berlin (15.7 %; 2013 data) and Bratislava (36.1 %) — had the lowest shares of commuters (from outside the city) among any of the cities on their respective national territories. On the other hand, the capitals of Sweden, Denmark and Belgium recorded the highest proportion of commuters (from outside the city) among any of the cities on their national territories — Stockholm (45.1 %), København (47.2 %) and Bruxelles/Brussel (78.6 %; 2008 data). These figures would tend to suggest that, among others, urban sprawl and transport links in northern and western EU Member States have tended to result in high numbers of commuters from outside of cities, whereas in eastern Member States, urban development outside administrative boundaries is less common, therefore favouring intra-city commuting patterns.

Figure 9.11 looks at commuter flows in the opposite direction in 2011: as may be expected, there were generally fewer people who live in a city and commute elsewhere, and this was particularly the case in the Latvian capital of Rīga (4.3 %), Bratislava (3.3 %) or Sofia (1.3 %). There were much higher shares of people commuting out of some cities that were located close to major urban centres, for example, the Communauté d'agglomération des deux Rives de la Seine to the west of Paris, Spijkenisse to the south-west of Rotterdam, or L'Hospitalet de Llobregat to the south-west of Barcelona. This pattern was particularly prevalent in the urban agglomerations around the French capital, with 16 cities reporting that their total, local workforce was smaller in size than their number of commuters.

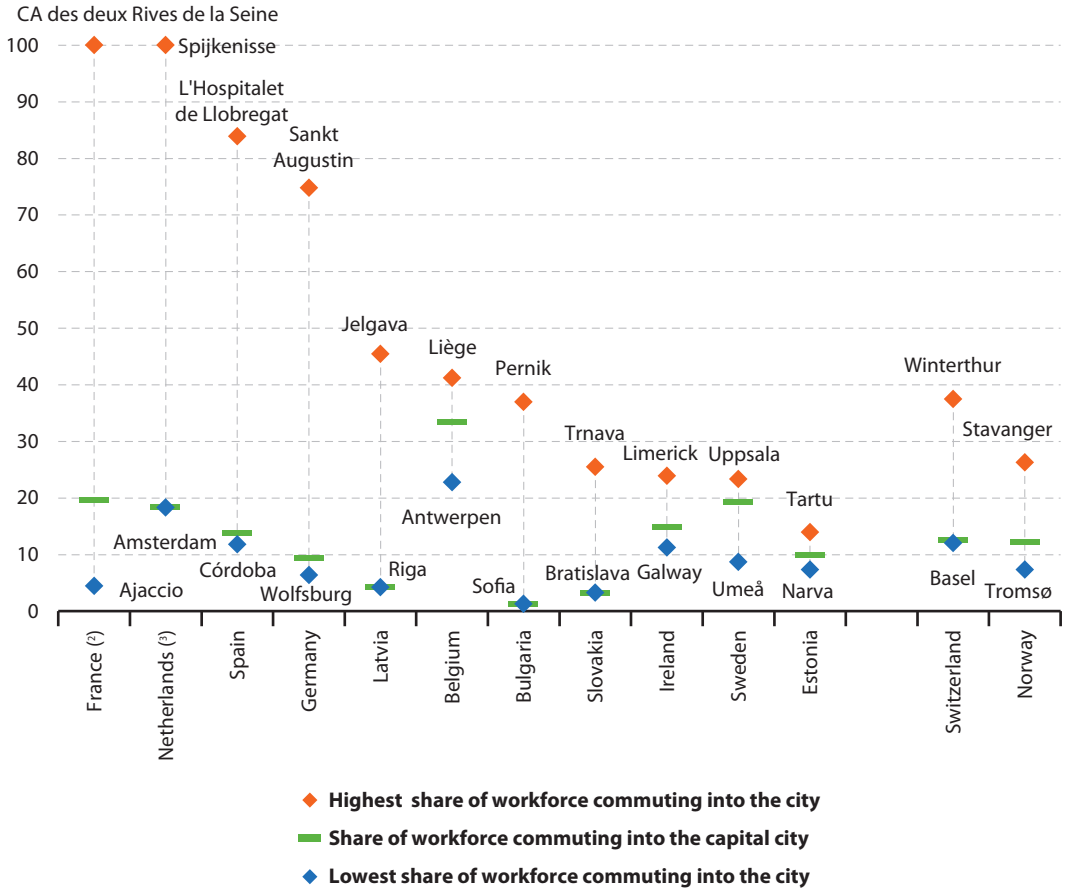
On average, more than a million people commute every day into the city of Paris

An analysis of the number of commuters flowing into and out of major European cities is presented in **Figure 9.12**; it is based on the top 30 cities with the highest inflows of commuters. Subject to data availability (no information for 15 of the EU Member States including most of Italy, Poland and the United Kingdom), the largest daily flows of commuters into a city were recorded in the northern Italian greater city of Greater Milano and the French capital of Paris, where in 2011 the local workforce was supplemented, on average, by more than a million commuters. There were more than half a million commuters arriving in the Portuguese, Spanish and Belgian capitals of Greater Lisboa, Madrid (2008 data) and Bruxelles/Brussel (also 2008 data).

In the largest German cities (2013 data) the relative scale of commuting was somewhat less pronounced than in other European cities of comparable size; this was particularly the case in the capital of Berlin, where the net inflow of commuters was 104 thousand.

Although not shown in **Figure 9.12**, cities with large net outflows of commuters can also be identified. This situation was particularly apparent on the Iberian Peninsula, for example, in L'Hospitalet de Llobregat (Spain) or Sintra (Portugal), with approximately 110 thousand daily commuters departing to principally work in Barcelona or Lisboa, which equated to a net outflow of 76 thousand and 78 thousand respectively.

Figure 9.11: Cities with the lowest and highest proportions of their workforce commuting out of the city, selected European cities, 2011 (1)
(% of total employment)



(1) The figure shows for each country (subject to data availability) the cities with the lowest/highest shares of people commuting out of the city. The figure also shows the share for the capital city and the names of the cities with the lowest/highest shares. Germany and Switzerland: 2013. The Netherlands: 2010. Norway: 2009. Belgium and Spain: 2008. Germany, Spain, the Netherlands and Switzerland: estimates. Spain: incomplete coverage with data missing for several (smaller) cities. The Czech Republic, Denmark, Greece, Croatia, Italy, Cyprus, Lithuania, Luxembourg, Hungary, Malta, Austria, Poland, Portugal, Romania, Slovenia, Finland and the United Kingdom: not available.
(2) The y-axis has been cut; CA des deux Rives de la Seine: 192.1 %. There were 15 other cities in France where the share of commuters out of the city was greater than 100 % (CA Brie Francilienne, CA de la Vallée de Montmorency, CA des Lacs de l'Essonne, CA du Val d'Orge, CA du Val d'Yerres, CA le Parisis, CA les Portes de l'Essonne, CA Marne et Chantereine, CA Sénart - Val de Seine, CA Val de France, CA Val et Forêt, CC de la Boucle de la Seine, CC de l'Ouest de la Plaine de France, CC des Coteaux de la Seine and Sénart en Essonne).
(3) The y-axis has been cut; Spijkenisse: 125.5 %. There were three other cities in the Netherlands where the share of commuters out of the city was greater than 100 % (Leidschendam-Voorburg, Purmerend and Vlaardingen).

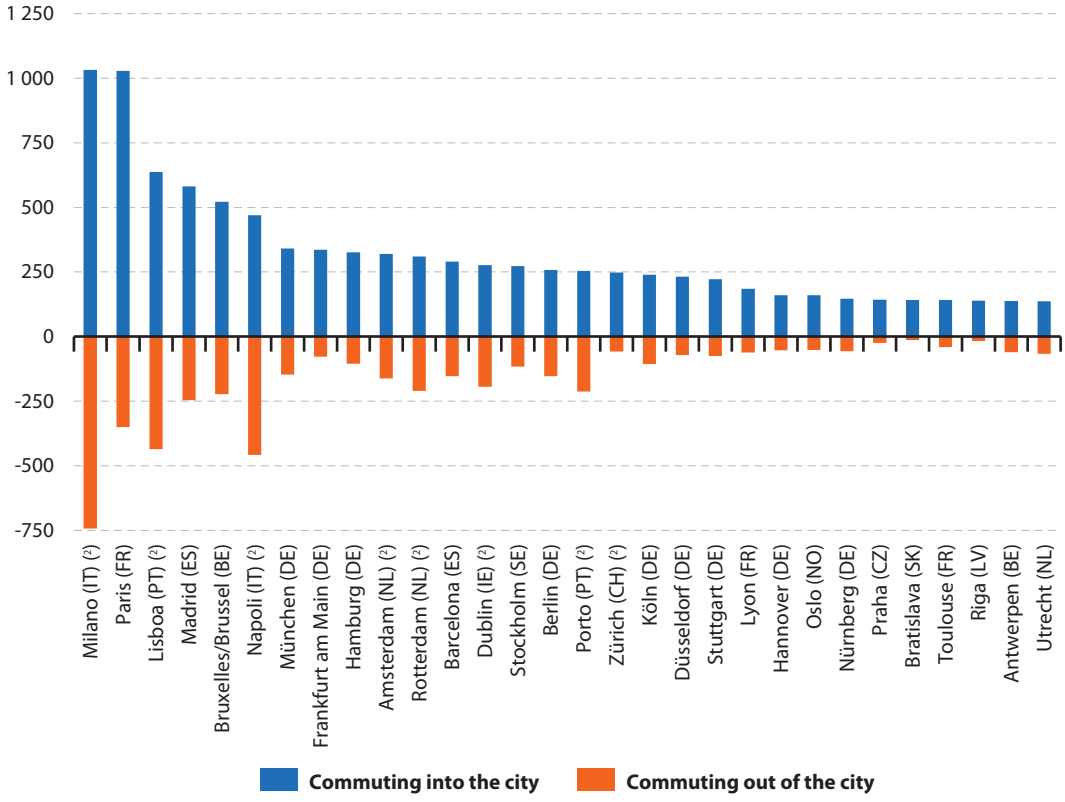
Source: Eurostat (online data codes: urb_ctran and urb_clma)

Differences between day-time and night-time populations

With such large flows of commuters into some of Europe's cities, it is interesting to analyse the changes that take place over a 24-hour period. Peak rush-hour periods usually occur in the early morning on the way to work and early evening for the journey back home, with the vast majority of commuters using the roads, rail or underground/metro networks.

The influx of commuters into a city each morning can considerably change the number of persons who are active within its territorial boundaries. **Map 9.2** contrasts day-time and night-time population density for Ljubljana (the capital of Slovenia) during the period 1 May–31 October 2014; the day-time population having been measured at lunchtime (12:00h–13:00h), while the night-time population was measured after most people had gone to bed (00:00h–01:00h). The information presented is based on administrative data (for the day-time population) and a central population register (for the night-time population) and was calibrated using hourly patterns observed from mobile phone data.

Figure 9.12: Flows of people commuting into and out of selected European cities, 2011 (1)
(thousands)

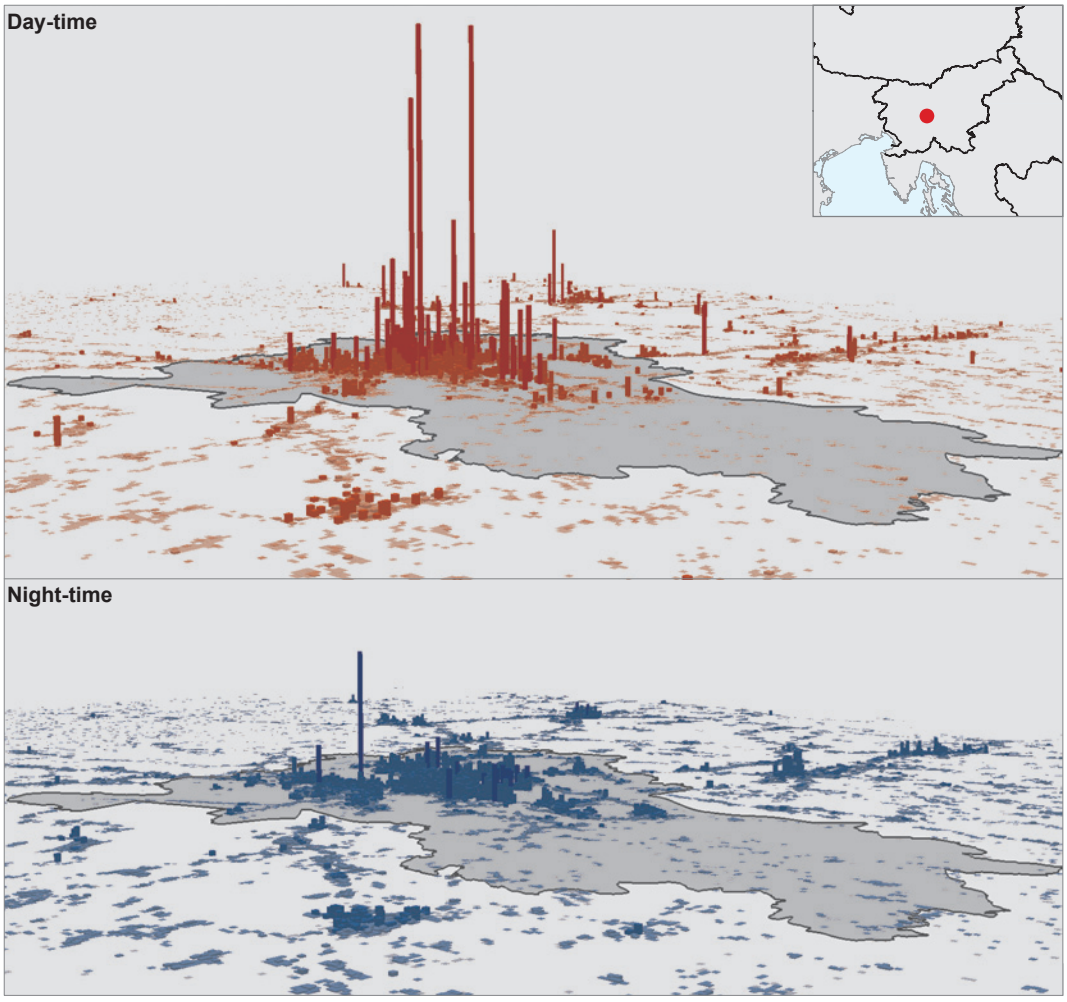


(1) The figure shows the 30 cities (subject to data availability) in the EU-28, Norway and Switzerland with the highest absolute number of commuters arriving in the city. Germany and Switzerland: 2013. The Netherlands: 2010. Norway: 2009. Belgium and Spain: 2008. Germany, Spain, the Netherlands and Switzerland: estimates. Belgium and Spain: incomplete coverage with data missing for several (smaller) cities. Italy: not available apart from the greater cities of Milano and Napoli. Denmark, Greece, Croatia, Cyprus, Lithuania, Luxembourg, Hungary, Malta, Austria, Poland, Romania, Slovenia, Finland and the United Kingdom: not available.
(2) Greater city.

Source: Eurostat (online data code: urb_ctran)

The general pattern of considerably more people being in the city centre during the day-time is clearly evident when contrasting the two maps, whereas the night-time population was greater in some subcity districts away from the city centre, as well as in some of the surrounding areas. The highest level of population density during the day-time was recorded

Map 9.2: Day-time and night-time population density, Ljubljana, 2014 (1)
(population density for grid cells 100×100 metres)



(1) Experimental statistics on night-time and day-time population density based on administrative data calibrated by the hourly patterns observed in mobile phone network data. Mobile data analysis made use of signals transmitted between mobile devices and transmitter stations of the second largest Slovene mobile provider for the period 1 May-31 October 2014.

Source: Statistical Office of the Republic of Slovenia

for a grid cell covering some business entities where the majority of employees were recorded as working in the Ljubljana headquarters, while the highest level of population density during the night-time was recorded for a grid cell containing an administrative building for a student campus (thereby also suffering from a similar measurement issue).

Labour market areas

Labour market areas are defined by Eurostat as 'economically integrated regions within which residents can find jobs in a reasonable commuting distance, or can change their employment without changing their place of residence'. They are designed to allow new analyses of socio-demographic characteristics and to overcome the traditional constraints of regional statistics, as administrative boundaries often result from historical circumstances rather than real world social and economic realities.

The method used by Eurostat and national statistical institutes (NSIs) is to combine administrative and functional approaches. Eurostat supports the ongoing development of a methodology through a system of grants, while the participating NSIs test the application of methods nationally. The goal is to arrive at a harmonised EU-wide definition for labour market areas so that these statistics can be used to bring light to the effects of commuting and to assist in the design of employment, labour mobility and urban planning policies.

An analysis of labour market areas allows the degree of economic integration between places to be measured by the extent to which workers are willing and able to commute between two places. This may be particularly relevant for analysing city centres to which a considerable number of people commute every day, or satellite cities and suburbs which provide additional employment capacity to nearby urban centres.

For more information: https://ec.europa.eu/eurostat/cros/content/labour-market-areas_en.

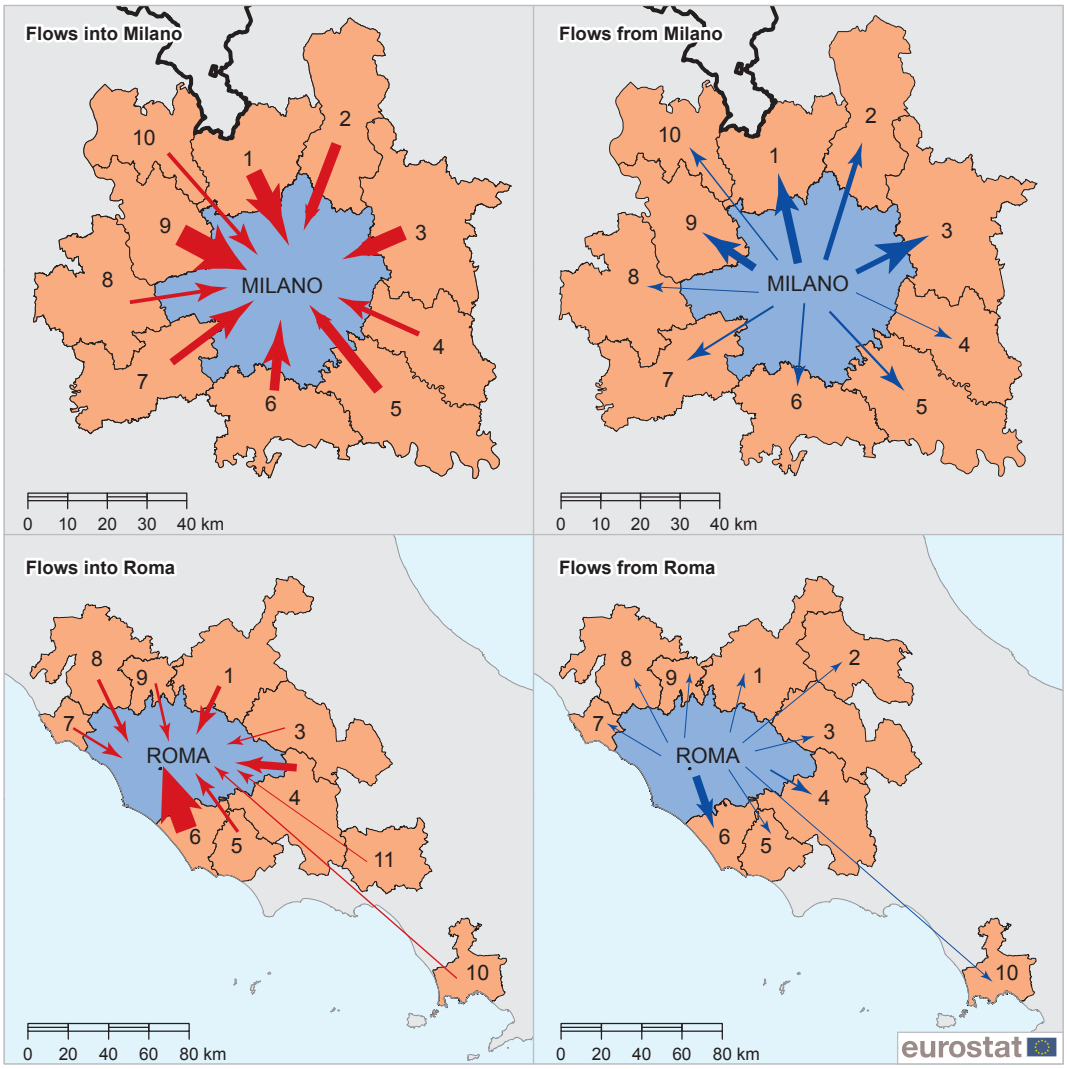
The number of commuters arriving each day in Milano was more than twice the figure for Roma

This final section presents results from an analysis of labour market areas in Italy, as conducted by the Italian national statistical institute (ISTAT). Input data was based on the 2011 population census and this was used to compute 611 individual labour market areas across the Italian territory.

Map 9.3 shows the 10 largest labour market areas in terms of commuter numbers both to and from Milano and Roma. There were, on average, 213 thousand people who commuted into Milano each day in 2011, equivalent to 5.8 % of its total population, while the flow of commuters into Roma was less than half this level, at around 100 thousand or 2.9 % of its total population.

The largest flows of commuters into Milano were from Busto Arsizio, Como and Bergamo, although the origin of commuters was quite evenly distributed around the city in a radial pattern. On the other hand, almost half (44 %) of the commuters arriving in Roma each day were from Pomezia — a relatively new urban development to the south of the capital. It can also be noted that an average of 2 709 people commuted from Napoli to Roma (a journey of just over 200 km in distance), while only 349 commuted in the opposite direction.

Map 9.3: Commuter flows to and from Milano and Roma, by labour market area, 2011 (1)
(persons)



Cartography: Eurostat — GISCO, 03/2016

Administrative boundaries: © EuroGeographics © UN-FAO

Milano / Roma

Surrounding labour market areas

Number of persons

1 000 10 000 50 000

Cities surrounding Milano
1: Como
2: Lecco
3: Bergamo
4: Crema
5: Lodi
6: Pavia
7: Vigevano
8: Novara
9: Busto Arsizio
10: Varese

Cities surrounding Roma
1: Rieti
2: L'Aquila
3: Avezzano
4: Frosinone
5: Latina
6: Pomezia
7: Civitavecchia
8: Viterbo
9: Civita castellana
10: Napoli
11: Cassino

(1) The maps show the 10 largest commuter flows (in numbers) in terms of flows for labour market areas.

Source: ISTAT (http://gisportal.istat.it/bt.flussi/)

10 Housing in cities

Adequate housing is recognised by the United Nations (UN) as a fundamental human right:

Article 25 of the Universal Declaration of Human Rights (1948): *Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing,* ***housing*** *and medical care and necessary social services …*

Such a provision extends beyond four walls and a roof, and should ensure, among others: security of tenure; adequate space; protection against the elements; reliable services; and affordability, so the price of housing does not compromise other human rights. Nevertheless, some Europeans live in precarious conditions: they may be homeless or living in slums, while many more live in neighbourhoods that are characterised by overcrowding and/or poor quality housing — these are often in urban areas. Such issues may lead, among others, to lower life chances, health inequalities, increased risks of poverty and environmental risks. While many people struggle to find an appropriate place to live, parts of some cities and towns are characterised by a considerable proportion of their housing stock being either empty, or used as secondary homes.

Within the European Union (EU), each individual Member State makes its own housing policy: most have some form of urban planning that prevents developers from building on green belt land or areas that are protected for their natural beauty/habitat. Such rules are designed to constrain urban growth/sprawl and to encourage those owning the existing housing stock to either redevelop or rebuild.

This chapter provides a portrait of housing conditions that are faced by Europeans living in urban areas covering, among others: their types of housing; living space; the structure/composition of households; house prices; and the rate at which people move home.

Some of Europe's most fashionable cities have a 'housing gap'

As shown in Chapter 4, some of Europe's capital cities are economically dominant, with a large number of people wanting to live in these cities in order to benefit from the education, jobs, lifestyles and cultural life that they offer. The buoyant demand for property in some of Europe's most popular cities has also attracted investors, many of whom seek to establish property portfolios. Given that land in urban centres is a finite resource, such an increase in demand may result in spiralling property and rental prices (unless adequately regulated).

The global financial and economic crisis led to a sizeable contraction in construction activity across the EU; this was particularly the case with respect to social housing, as many governments restrained their level of public spending. Some new housing or office developments in Europe's major cities are designed to attract (international) investors — for example, luxury riverside developments or the gentrification of previously unfashionable areas. By contrast, local residents are more likely to be interested in an expansion of affordable (social) housing that provides them with the opportunity to continue living in the area where they have grown-up, rather than feeling that it is necessary to move out of cities to live in more affordable suburbs or rural locations.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

10.1 Types of housing

In 2014, an analysis by type of dwelling reveals that across the whole of the EU-28, just over one third (33.7 %) of the population was living in a detached house, slightly more than one quarter (25.8 %) in a semi-detached or terraced dwelling, while the highest share (39.7 %) lived in a flat.

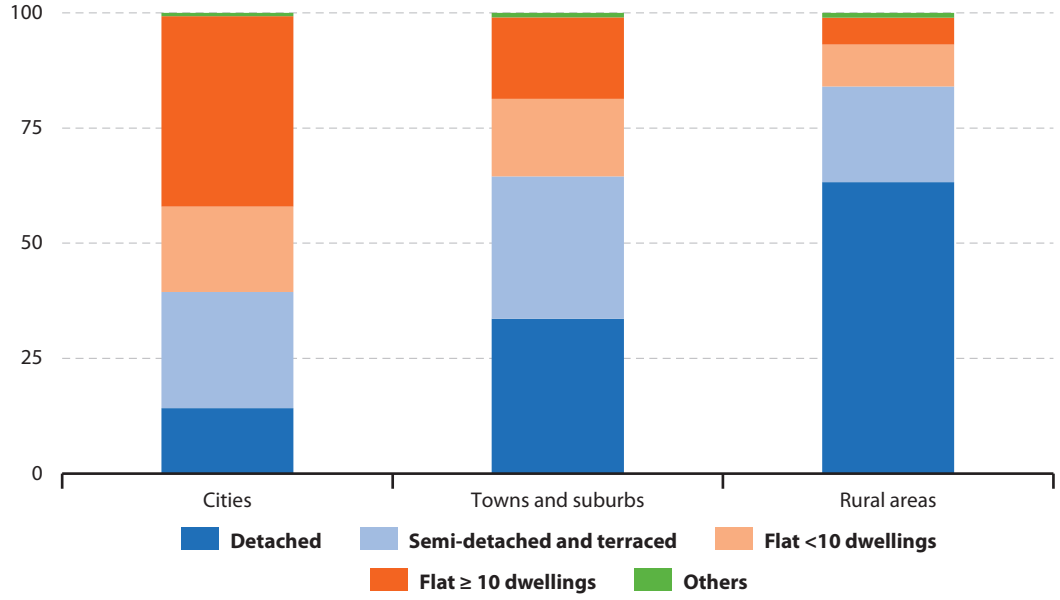
Extending the analysis by degree of urbanisation, reveals the extent to which space is a limited commodity in most cities. Detached houses provided a home to only 14.2 % of city-dwellers in the EU-28, while 59.9 % of the population living in cities occupied a flat (with more than two thirds of these living in flats that were composed of at least 10 separate dwellings). On the other hand, almost two thirds (63.3 %) of the rural population lived in a detached house.

Town and suburban developments are characterised by greater amounts of living space and lower density housing than in cities, and almost two thirds (64.5 %) of the EU-28 population that was living in towns and suburbs occupied a house (rather than a flat). Such suburban lifestyles are increasingly linked to climate change and environmental concerns, as low-density developments generally result in higher energy and resource use, as well as increased pressures on local ecosystems and biodiversity.

Considerable variations in composition of dwellings between EU Member States and between cities in the same Member State

Figure 10.2 shows there were some considerable structural differences between EU Member States in 2011 as regards the composition of their housing stock. The share of houses in the total number of dwellings was relatively low for all cities in the Baltic Member States, Slovakia, Slovenia and Finland; indeed, their highest city shares were considerably lower than their national averages. By contrast, it was relatively common to find houses (rather than flats) in most cities across Ireland and the United Kingdom.

Figure 10.1: Distribution of population, by dwelling type and degree of urbanisation, EU-28, 2014
(%)

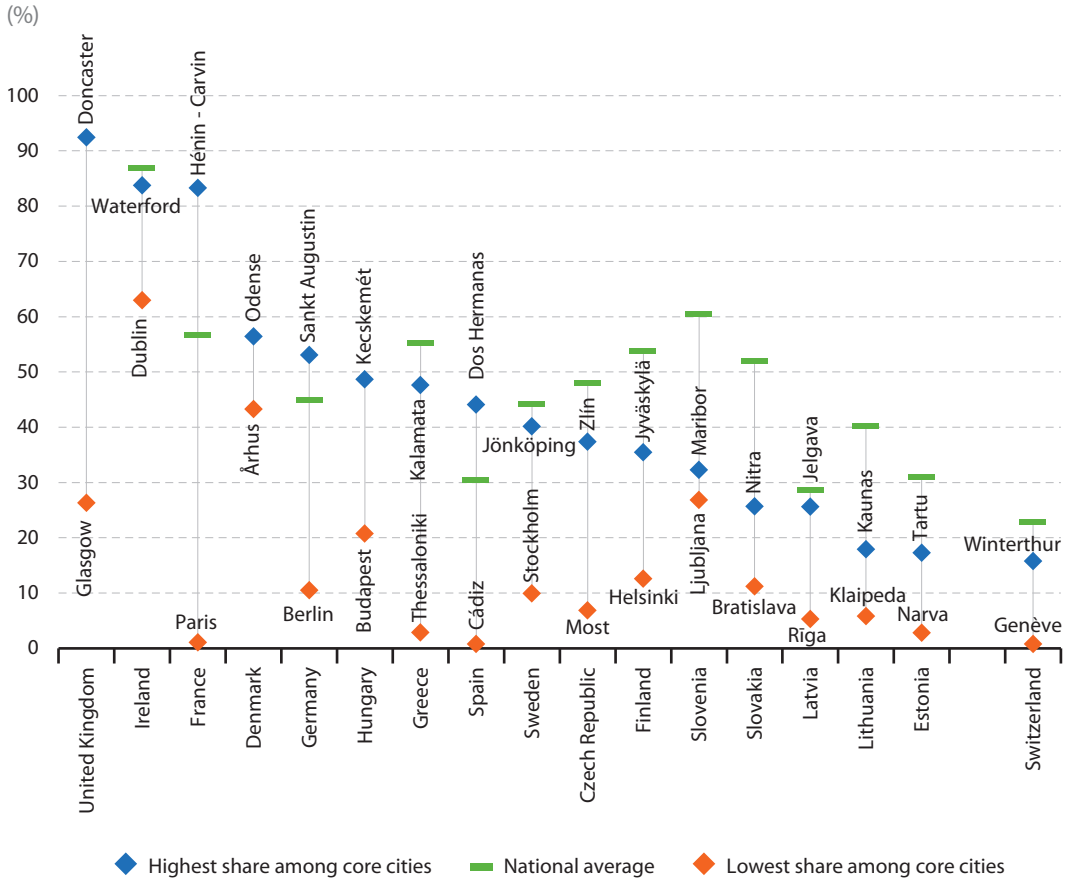


Source: Eurostat (online data code: ilc_lvho01)

More generally, the share of flats in the total number of dwellings tended to be higher in those cities with a larger number of inhabitants. Indeed, it was commonplace to find that the capital city had the highest share of flats and the lowest share of houses in its total number of dwellings, likely due — among others — to the cost of land, a lack of space for new property developments, a range of alternative land uses competing for space (business and commercial property), and a high level of demand from those wishing to live in the capital city. As an example, flats made-up 99.0 % of all dwellings in the French capital of Paris in 2012.

Within a single EU Member State, the proportion of houses/flats in the total number of dwellings varied considerably between different cities. For example, while flats accounted for 99.0 % of the housing stock in the French capital in 2012, houses accounted for more than four fifths (83.2 %) of the total number of dwellings in the northern French Communauté

Figure 10.2: Cities with the lowest and highest proportion of houses in their total number of dwellings, 2011 (1)



(1) The figure shows for each country (subject to data availability) the lowest/highest share of houses in the total number of dwellings (houses and flats). The national average is also shown (which may be higher than for any of the cities, as houses may be more common in rural areas), as well as the names of the cities with the lowest/highest shares in each country. Germany and Switzerland: 2014. Denmark and France: 2012. Belgium, Bulgaria, Croatia, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Poland, Portugal and Romania: not available. København (Denmark), Borås, Helsingborg, Lund, Norrköping, Umeå and Västerås (all Sweden), Belfast, Derry, Lisburn and London (all the United Kingdom): not available. Denmark, Hungary and the United Kingdom: national average, not available. Sweden: estimates.

Source: Eurostat (online data code: urb_clivcon)

d'agglomération Hénin - Carvin which is located to the east of Lens. There was also a wide disparity in the United Kingdom, as in 2011 the share of houses in the total number of dwellings peaked at 92.4 % in Doncaster (Yorkshire), but fell as low as 26.3 % in Glasgow (Scotland), where 19th century tenements (multi-dwelling flats that provided high-density housing during the industrial revolution) continue to account for a considerable share of properties.

A more detailed set of information is available for selected subcity districts and this shows that even within the same city there can be considerable variations in the composition of the housing stock. In 2011, flats accounted for more than 90 % of the dwellings in the central London boroughs of the City of London and Westminster, whereas at the other end of the scale, houses accounted for more than three quarters of all dwellings in the eastern suburban boroughs of Bexley and Havering.

Often dwellings in former industrial heartlands were constructed more than a century ago

Map 10.1 presents an analysis of the most common period of construction for the stock of dwellings in 2011 for each NUTS level 3 region; note the map includes rural regions. Some former industrial heartlands that were established during the 19th century, principally around coal and steel industries, report that approximately half of their dwellings were constructed before 1919. This was the case in Belgium's 'sillon industriel' for towns and cities such as Mons, Charleroi or Huy, while a similar pattern was observed in the Central Valleys of Wales (the United Kingdom), for example, in the former mining towns of Merthyr Tydfil, Aberdare or Pontypridd.

Many regions report that the post-war period was their most common for construction

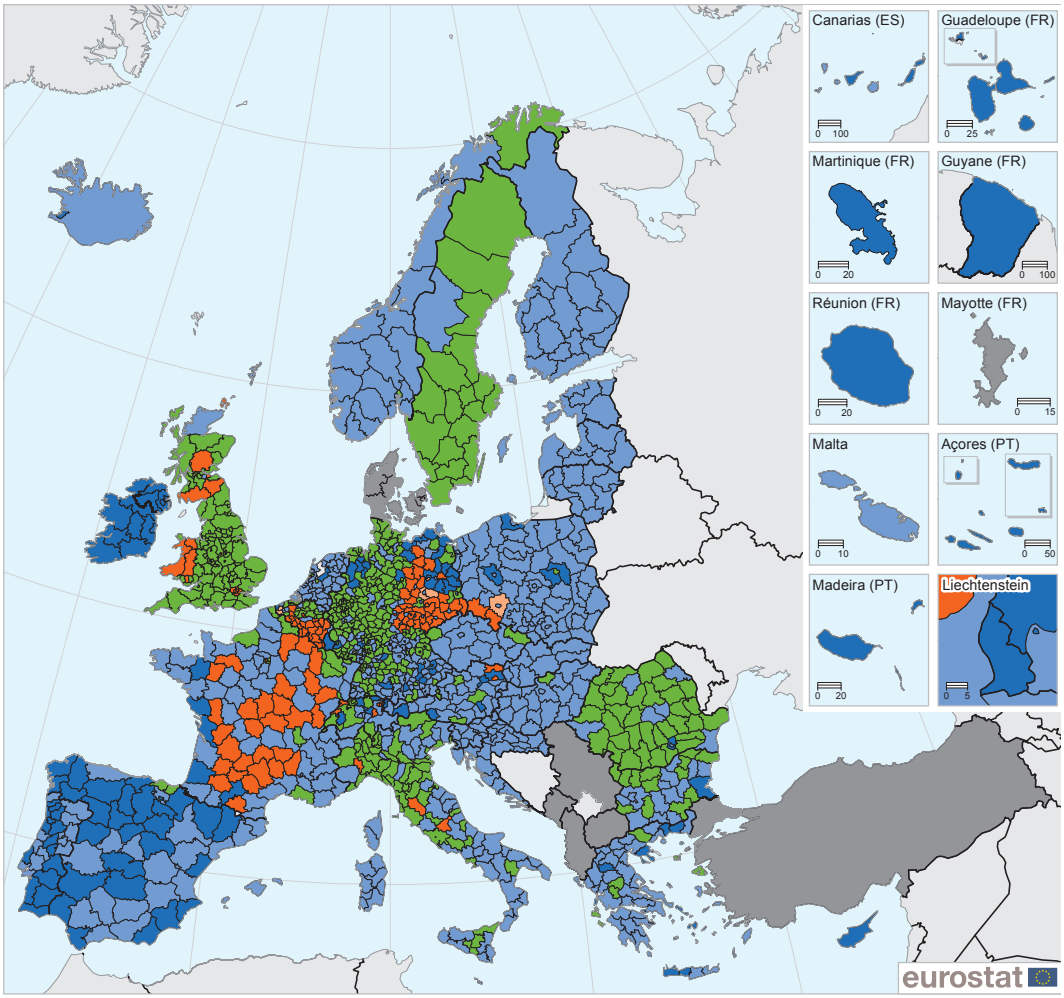
A majority of the dwellings in many regions of the EU were constructed during the period 1946–70, a period of reconstruction after World War II, characterised by both economic and demographic (the baby-boom years) growth; this pattern was particularly apparent in some German cities, for example, Bremerhaven, Essen, Gelsenkirchen or Würzburg, where around half of the housing stock in 2011 was built during this post-war period.

After 1970, there was a rapid expansion in building in some of the eastern EU Member States: for example, almost half of the dwellings in the Romanian capital of Bucureşti were built during the period 1971–90 and a similar pattern was observed in several regions across the Baltic Member States. A high proportion of the dwellings in the Italian region of Avellino (near to Napoli) were also constructed during this period; this may be linked to a programme of rebuilding/reconstruction following earthquakes in 1980 and 1981.

There are relatively few examples of regions where the largest share of dwellings were constructed during the last two decades

There were five NUTS level 3 regions in the EU-28 where a majority of the dwellings were built during the period 1991–2011, these included the French overseas departments of Guyane and Réunion, the Spanish regions of Fuerteventura (in the Canary Islands) and Melilla (an autonomous city in northern Africa), as well as Cyprus (a single region at this level of analysis).

Map 10.1: Dwellings by most common period of construction, by NUTS 3 region, 2011
(highest share of the total number of dwellings)



Most common period of construction for dwellings
- < 1919
- 1919 – 1945
- 1946 – 1970
- 1971 – 1990
- 1991 – 2011
- Data not available

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 02/2016

0 200 400 600 800 km

Source: European Statistical System, the Census Hub (https://ec.europa.eu/CensusHub2)

Two Portuguese regions — both synonymous with tourism— had a slightly lower proportion of their dwellings constructed post-1991, the southern coastal region of the Algarve (44.6 %) and the Região Autónoma da Madeira (46.9 %). Elsewhere, the Dutch region of Flevoland — located just to the east of Amsterdam — is an interesting case, insofar as it was reclaimed from the Zuiderzee and forms the world's largest artificial island; slightly less than half (45.9 %) of its dwellings were constructed during the period 1991–2011, and many are inhabited by people who work in the Dutch capital. It is also interesting to note that the German, Polish and Romanian capital city regions were characterised by a ring of surrounding region(s) where there was a high proportion of recently constructed dwellings, suggesting that some people were moving out to the suburbs and satellite towns in search of more space and a different lifestyle (see also **Figure 10.10**).

Some 70.1 % of the EU-28 population owned their own home

As with the different types of dwelling that make-up the housing stock, there are considerable differences between EU Member States in relation to levels of home ownership. In 2014, some 70.1 % of the EU-28 population owned their home. This share peaked at 96.1 % in Romania, while Hungary, Croatia, Lithuania and Slovakia also reported very high shares of home ownership (within the range of 88–91 %). Note that at the end of the 1980s/start of the 1990s, many of the former socialist countries of eastern Europe and the Baltic Member States decided to transform their housing markets through privatisation schemes, often selling housing stock to existing inhabitants at relatively low prices. By contrast, a sizeable rental market for accommodation may promote residential mobility and improve labour market flexibility. The share of the population who were tenants was relatively high (within the range of 30–40 %) in Denmark, the United Kingdom, France, the Netherlands, Ireland and Sweden, rising to 42.8 % in Austria and peaking at 47.5 % in Germany.

Much higher home ownership rates were recorded in some functional urban areas in eastern Europe …

Figure 10.3 presents an analysis of home ownership rates for selected functional urban areas (cities and their commuting zones) and it confirms that home ownership rates were often much higher in eastern EU Member States. In 2011, more than 9 out of every 10 households in Yambol (south-east Bulgaria) and Slavonski Brod (eastern Croatia; 2014 data) owned the accommodation in which they lived. However, this pattern was not repeated in all of the former socialist countries, as much lower levels of owner-occupation were recorded in Poland and former East Germany. The lowest rate of owner occupation among functional urban areas (subject to data availability) was recorded in the eastern German city of Frankfurt (Oder), where less than one in five households (19.0 %) owned the accommodation in which they lived (2010 data).

… whereas home ownership was often less common in capital cities

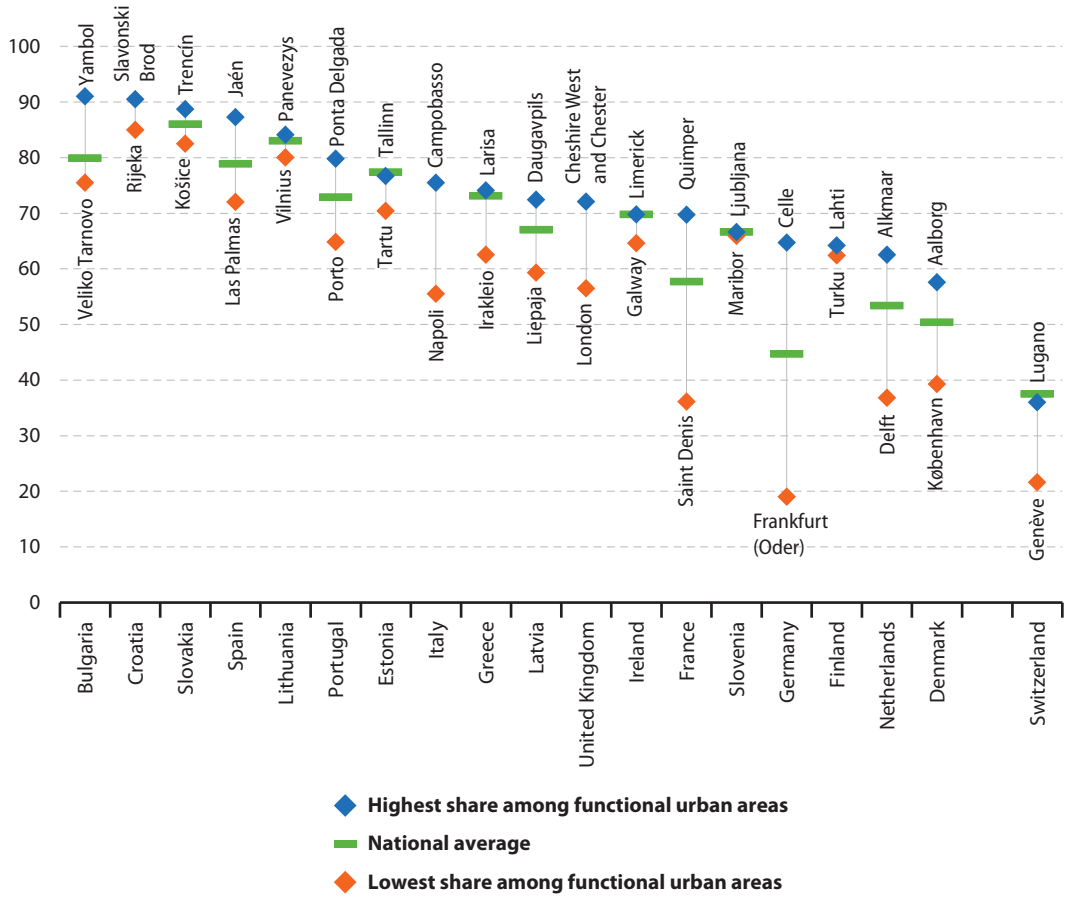
In recent decades, it has become increasingly difficult for young people to get onto the housing ladder (in other words to buy their first property), leading to the formation of a 'rental generation', with the dream of home ownership well out of reach for many of the EU's population. This pattern may be magnified in cities, where house prices tend to be higher than in rural areas, suggesting that prospective home owners would need to devote a higher share of their disposable income to housing costs.

The share of households owning their own dwelling was generally higher among those living in smaller functional urban areas than it was among those living in larger/capital cities; this may in part reflect the age structure of populations in capital cities that tends to be skewed in favour of

younger people (who are less likely to own a home). For example, just 39.3 % of those living in the Danish capital of København owned their accommodation (2012 data). There are, however, a range of other reasons why a relatively low proportion of the population might own a property: for example, the low share (36.8 %) in the Dutch city of Delft may be attributed, at least in part, to a high proportion of students and foreign expatriates within the population, while in the northern Parisian suburbs of Saint Denis (36.1 %) it may, at least in part, be influenced by a high proportion of social housing (for rent) within the total housing stock.

Figure 10.3: Functional urban areas with the lowest and highest proportion of households that own their accommodation, 2011 (1)

(%)



(1) The figure shows for each country (subject to data availability) the functional urban area with the lowest/highest share of households living in their own accommodation (owner occupied). The national average is also shown (which may be higher than for any of the functional urban areas), as well as the names of the cities with the lowest/highest shares in each country. Croatia and Switzerland: 2014. Denmark and France: 2012. Germany: 2010. Alkmaar (the Netherlands): 2010. Belgium, the Czech Republic, Cyprus, Luxembourg, Hungary, Malta, Austria, Poland, Romania and Sweden: not available. Croatia, Italy, Finland and the United Kingdom: national average, not available. Annemasse (France), Matera (Italy), Guimarães and Setúbal (both Portugal), Helsinki and Tampere (both Finland), Bradford (the United Kingdom): not available. Bulgaria, Germany, Ireland, Spain and Switzerland: estimates.

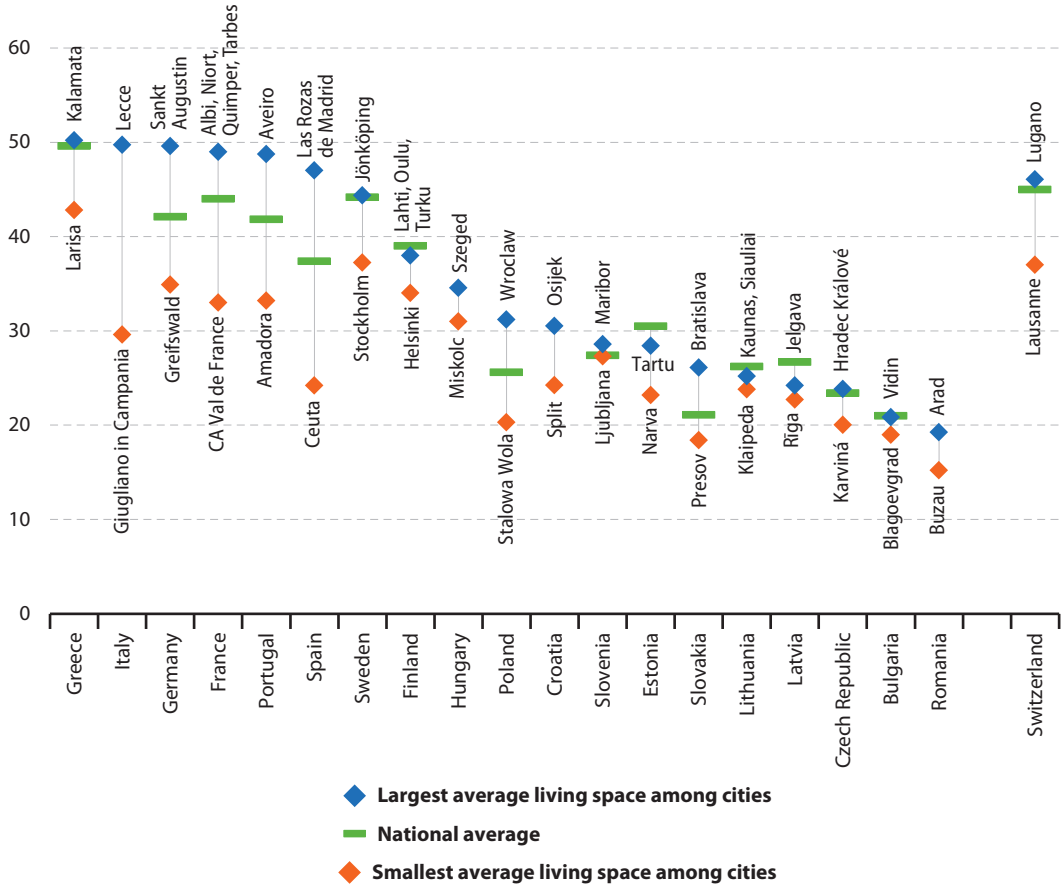
Source: Eurostat (online data code: urb_clivcon)

10.2 Living space

The smallest dwellings were often located in the cities of eastern and Baltic Member States

In 2011, among those EU Member States for which data are available, the average living space available to city-dwellers ranged from a high of 50.2 m^2 per person in the southern Greek city of Kalamata down to 19.3 m^2 per person in the western Romanian city of Buzau (see **Figure 10.4**); all of the cities with relatively low amounts of living space were located in eastern and Baltic Member States.

Figure 10.4: Cities with the smallest and largest areas of average living space, 2011 (1)
(m^2/person)



(1) The figure shows for each country (subject to data availability) the city with the smallest/largest area of average living space per person. The national average is also shown (which may be higher than for any of the cities, as it includes the space available per person in rural areas), as well as the names of the cities with the smallest/largest average living space in each country. Switzerland: 2014. France and Romania: 2012. Germany: 2010. Belgium, Denmark, Ireland, Cyprus, Luxembourg, Malta, the Netherlands, Austria and the United Kingdom: not available. Croatia, Italy, Hungary and Romania: national average, not available. Bamberg, Celle, Passau and Wetzlar (all Germany), Pozuelo de Alarcón (Spain), Bistrita, Botosani, Calarasi, Galati, Iasi and Târgu Jiu (all Romania), Borås, Helsingborg, Lund, Norrköping and Västerås (all Sweden): not available. Germany, France, Portugal, Romania and Sweden: estimates.

Source: Eurostat (online data code: urb_clivcon)

Aside from Kalamata, the highest amounts of living space per individual were registered in the southern Italian city of Lecce, the German city of Sankt Augustin (to the east of Bonn and the south of Köln), four provincial cities in France (Albi and Tarbes in the south-west, Niort in the west, and Quimper in the north-west), the Portuguese coastal city of Aveiro, and the affluent, northern suburb of the Spanish capital, Las Rozas de Madrid.

10.3 Structure of households

Average household size tends to be lower in northern Europe, where a relatively high proportion of people live alone, whereas it is more commonplace for households to be composed of more people in eastern and southern EU Member States, where fewer people live alone and it is more common for different generations to continue to share the same abode.

A particularly high share of people living in the German capital resided in one-person households

An analysis by functional urban area shows that the average household size in capital cities in 2011 was lower than national averages, while a higher proportion of people lived alone in capital cities (see **Figure 10.5**). This pattern was observed for the majority of EU Member States, exceptions being Estonia (2013 data), Bulgaria and Ireland. The proportion of people living alone was considerably higher in the German capital of Berlin (9.0 percentage points above the national average in 2012), the Slovak capital of Bratislava (7.4 points) and the Dutch capital of Amsterdam (4.8 points in 2013).

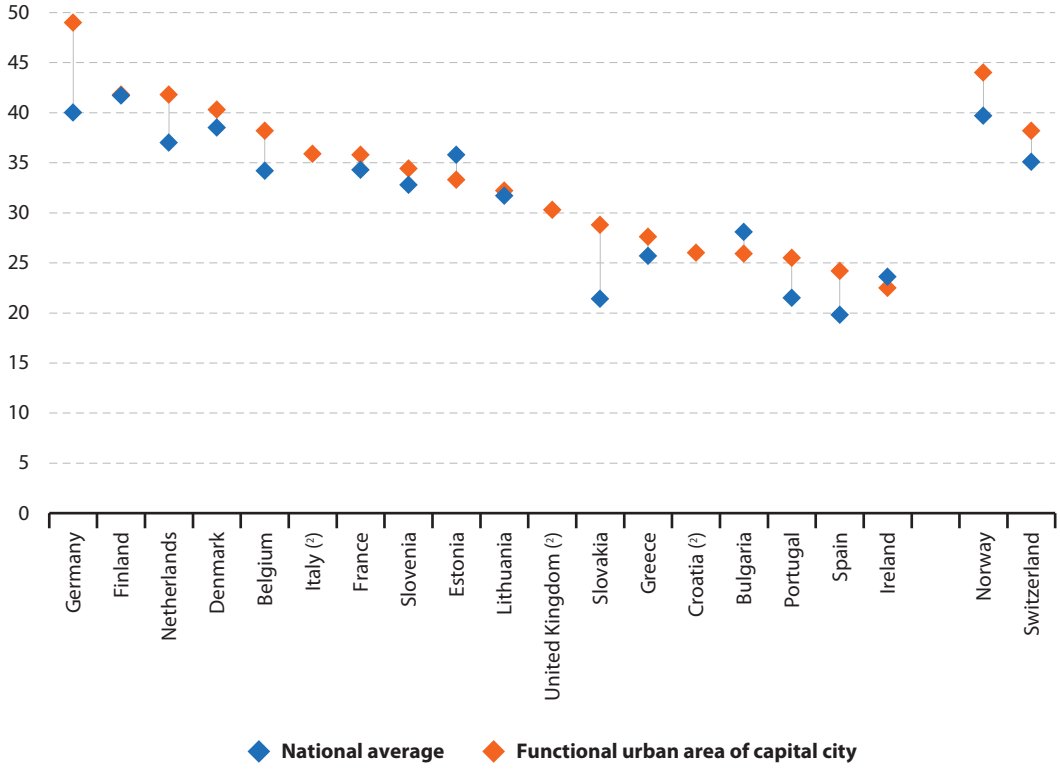
The highest shares of one-person households were recorded in four capital cities located in western and northern Europe; Copenhagen, Amsterdam, Helsinki and Berlin (where almost half, 49.0 %, of all households in Berlin were composed of a single person). At the other end of the range, one-person households accounted for less than one quarter (22.5 %) of the total number of households in Dublin; this may, at least in part, be attributed to the relatively high cost of rental properties and/or cultural differences, such as a broader inclination (especially among young people) to share a dwelling with other people.

In both Dublin and Ljubljana, the proportion of one-person households was higher in the city centre, with larger households more common on the outskirts of each capital

Figure 10.6 provides a more detailed picture of the proportion of people living alone in the Irish and the Slovenian capital cities of Dublin and Ljubljana in 2011; the information is provided for subcity districts, the city average and wider functional urban areas.

As noted above, less than one quarter of the total number of households in the functional urban area of Dublin were composed of one-person households. However, an analysis for the city itself shows that single-person households tended to gravitate towards the city (centre), where 30.5 % of all households were composed of a single person. In Ljubljana, the proportion of one-person households rose from 34.4 % for the wider functional urban area to 40.0 % when analysing the city itself.

Figure 10.5: Proportion of one-person households, national averages and functional urban areas of capital cities, 2011 (1)
(% of all households)



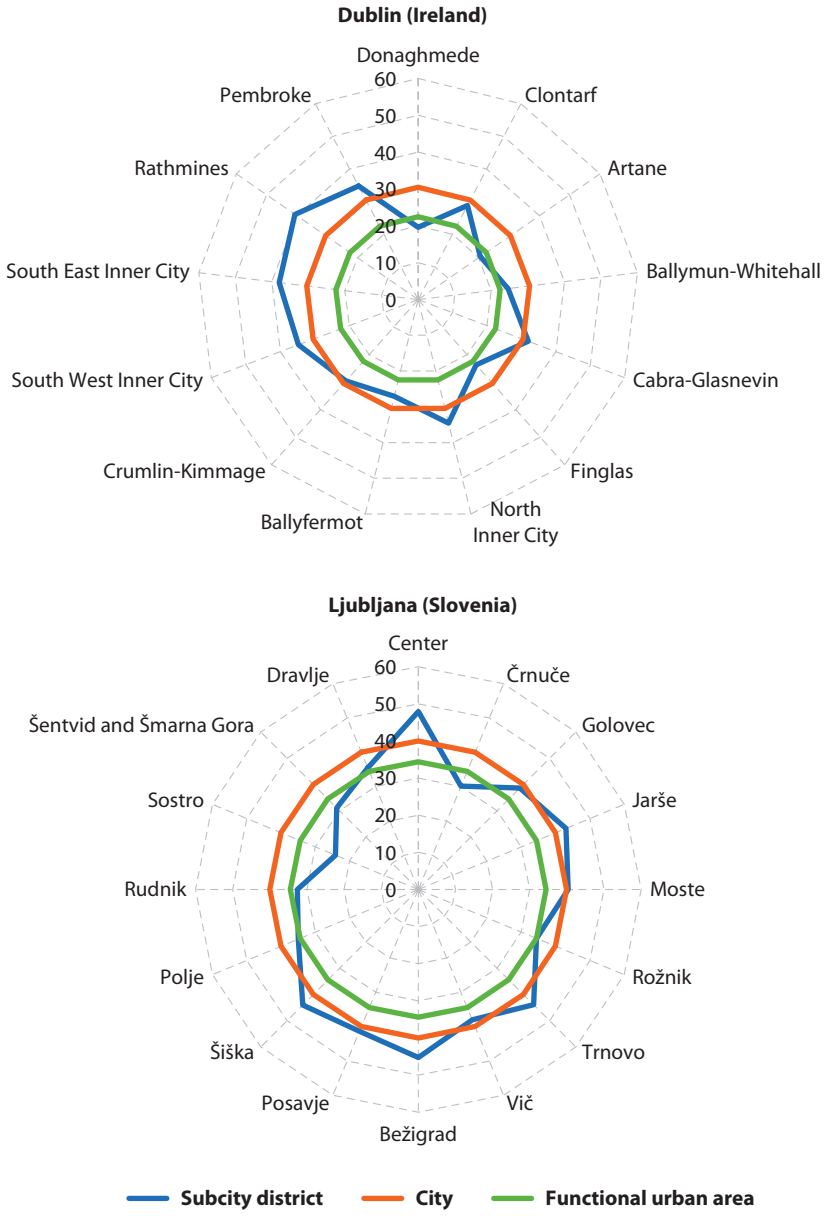
(1) Belgium, Croatia, Romania, Finland and Switzerland: 2014. Bulgaria, Estonia, the Netherlands and Norway: 2013. Denmark, Germany and Spain: 2012. Madrid (Spain): 2013. Bulgaria, Germany and Ireland: estimates. The Czech Republic, Cyprus, Latvia, Luxembourg, Hungary, Malta, Austria, Poland, Romania and Sweden: not available.
(2) National average: not available.

Source: Eurostat (online data code: urb_llivcon)

A more detailed analysis reveals that the highest proportions of one-person households in Dublin were recorded to the south of the River Liffey in the districts of Southern Inner City, Pembroke and Rathmines, areas which are characterised by a high proportion of rental accommodation primarily used by students, those entering employment, and new migrant communities. In Ljubljana, the highest proportions of single person households were recorded in four subcity districts running from north to south through the Slovenian capital, namely, Bežigrad, Šiška, Center and Trnovo, with the highest share of one-person households in the Center (47.9 %).

There are a number of reasons which may explain these patterns: city centres offer a high level of services and so respond to the needs of single people, they attract young people through education, job and recreational opportunities, and they are often characterised by older/smaller properties which tend to be rented. By contrast, on the outskirts of functional urban areas it is easier to find larger properties, which may offer more affordable housing, spacious living environments, and friendly/secure neighbourhoods more suited to raising a family.

Figure 10.6: Proportion of one-person households, subcity districts in Dublin (Ireland) and Ljubljana (Slovenia), 2011 (1)
(% of all households)



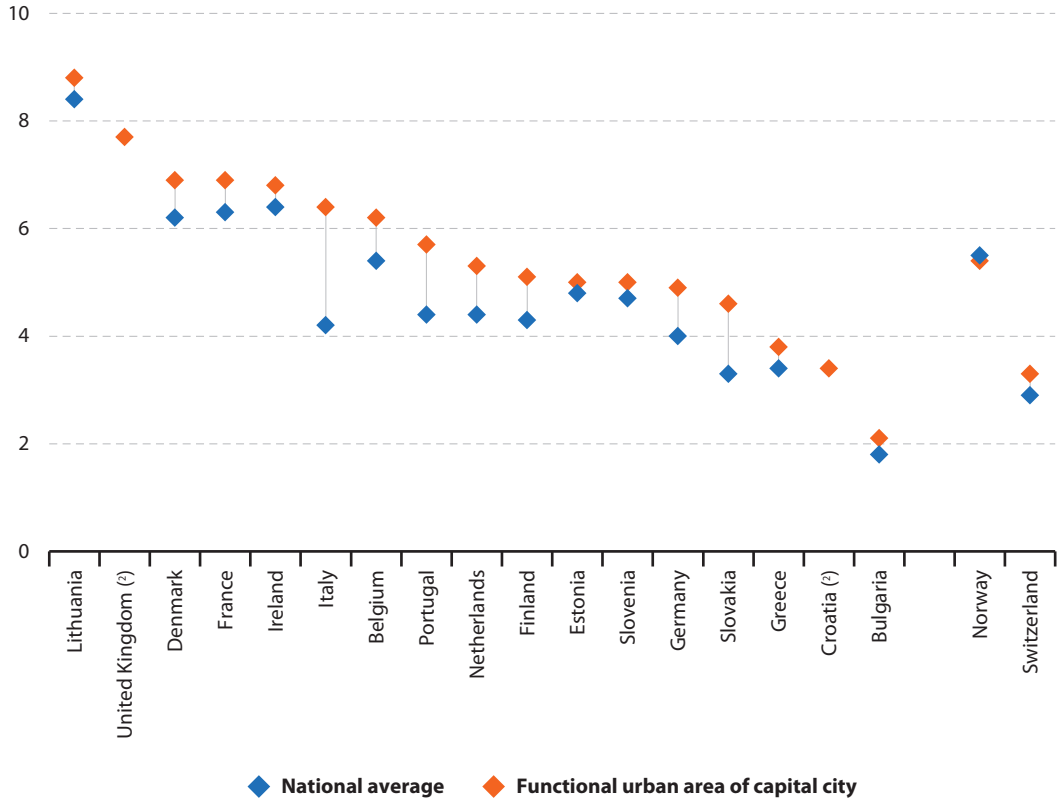
(1) The figures show the share of one-person households in subcity districts of Dublin and Ljubljana, as well as average shares for each city and functional urban area.

Source: Eurostat, Urban Audit (Subcity districts)

Lone-parent households were also more common in capital cities

Figure 10.7 shows that lone-parent households were more common in the functional urban areas of capital cities than they were nationally for each of the 15 EU Member States for which data are available in 2011. Relatively large differences were recorded in Portugal and Slovakia, where the share of lone-parent households in the total number of households was 1.3 percentage points higher than the national average in both capitals, while this difference peaked at 2.2 percentage points in Italy.

Figure 10.7: Proportion of lone-parent households, national averages and functional urban areas of capital cities, 2011 (1)
(% of all households)



(1) Belgium, Croatia and Finland: 2014. Bulgaria, Estonia, the Netherlands, Norway and Switzerland: 2013. Denmark and France: 2012. Bulgaria, Germany, Ireland and Switzerland: estimates. The Czech Republic, Spain, Cyprus, Latvia, Luxembourg, Hungary, Malta, Austria, Poland, Romania and Sweden: not available.
(2) National average: not available.

Source: Eurostat (online data code: urb_llivcon)

10.4 House prices

Buying a house is invariably the single largest purchase that most people will make during their lifetime, while housing is generally the single largest monthly expenditure item for many households, either in the form of mortgage/loan repayments or rental costs/charges. In 2014, approximately 7 % of the EU-28 population faced the situation where housing costs accounted for more than half of their disposable income.

The larger a city the less likely its inhabitants were to agree that it was easy to find good housing

In 2015, the proportion of people who agreed that it was easy to find good housing at a reasonable price in their city ranged from 10 % or less in København (Denmark), München, Hamburg, Berlin (all Germany), Greater Paris (France), Helsinki (Finland) and Stockholm (Sweden) up to 60 % or more in Aalborg (Denmark), Greater Athina (Greece), Málaga, Oviedo (both Spain), Braga (Portugal), Piatra Neamț (Romania), Oulu (Finland), Belfast and the Tyneside conurbation (both the United Kingdom); shares of less than 10 % were also recorded in the Swiss cities of Genève and Zürich.

10.5 Moving house

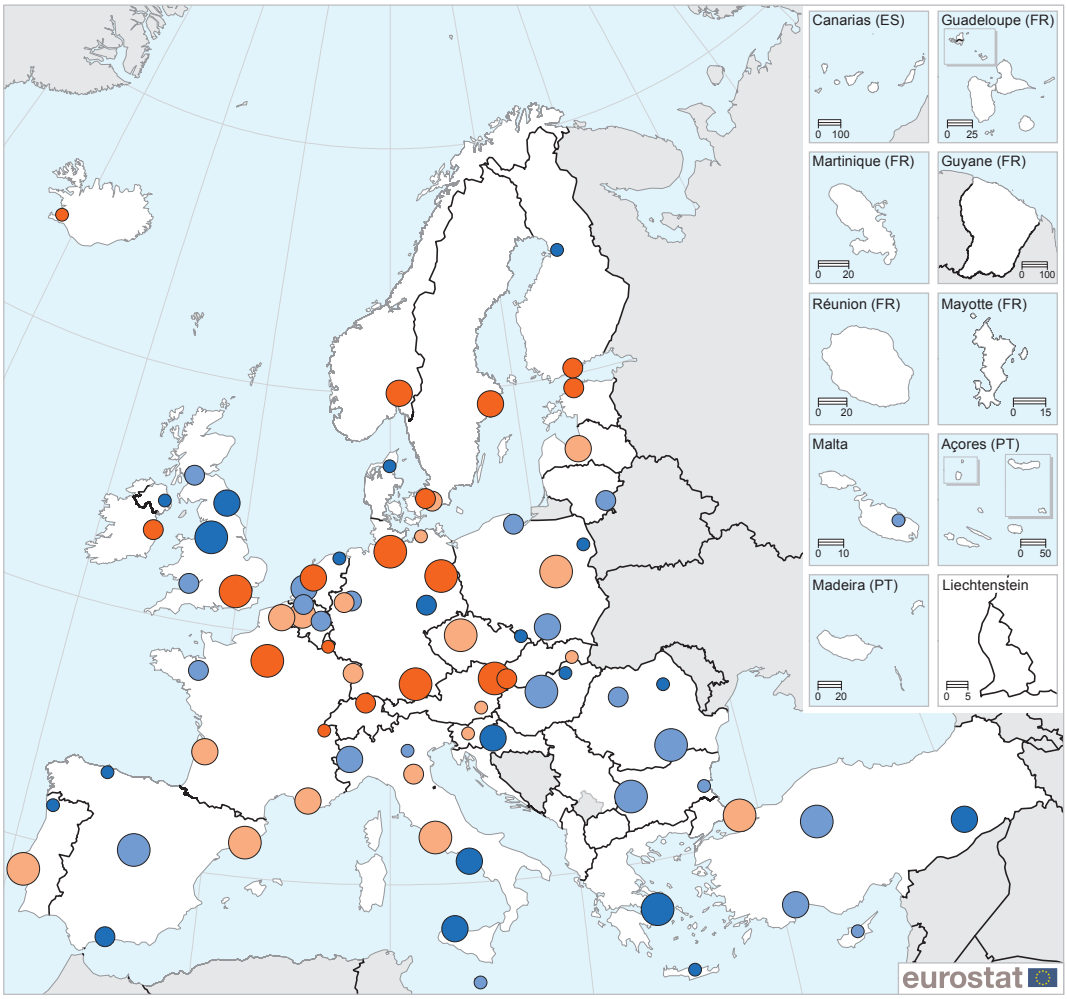
Residential mobility was greater among those living in cities

More than one in five (20.9 %) people living in a city in the EU-28 had moved dwelling during the five-year period prior to a survey in 2012, while the corresponding shares for those living in towns and suburbs (17.0 %) and rural areas (13.4 %) were lower (see **Figure 10.8**). These figures may be explained, at least to some degree, by a higher proportion of city-dwellers renting their accommodation and by the relatively large numbers of young people living in cities (in particular, students in higher education and young people moving to cities in search of work). This pattern was observed in all of the EU Member States, with city-dwellers living in the Netherlands, Germany, Denmark, Luxembourg and Austria particularly prone to move when compared with the behaviour of their rural counterparts.

Almost half (46.9 %) of the city-dwellers in Sweden in 2012 had moved dwelling during the five years prior to the survey, while the share was also over 40 % among city-dwellers from Denmark. However, in several southern and eastern EU Member States, it was relatively common to find that less than 10 % of the population (for all three degrees of urbanisation) had moved during the previous five-year period, although here too those living in cities were more likely to have moved than those living in rural areas. These low levels of residential mobility were particularly pronounced in Bulgaria and Romania, where less than 1 in 20 city-dwellers had moved dwelling during the previous five-year period.

Map 10.2: Proportion of people who agree that it is easy to find good housing at a reasonable price in their city, 2015 (1)

(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal) London, Greater Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

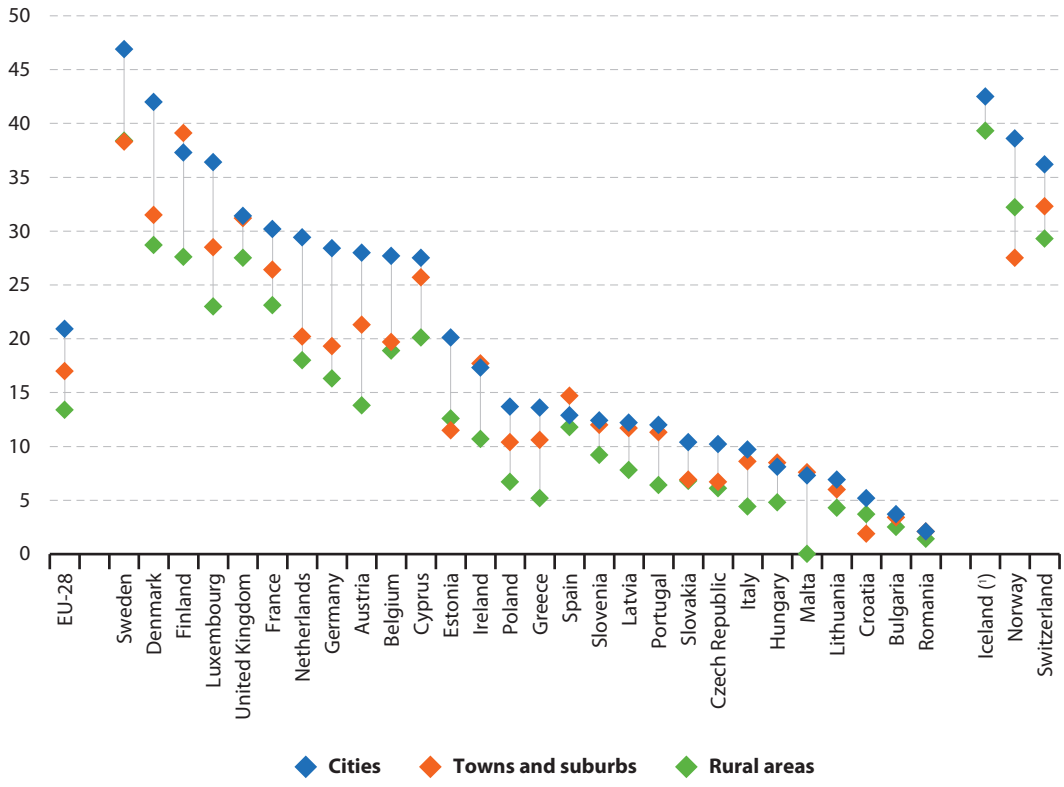
Source: Eurostat (online data codes: urb_percep and urb_cpop1)

A relatively high share of city-dwellers in the Nordic Member States moved dwelling

A closer analysis restricted to city-dwellers reveals that those living in rental accommodation were far more likely to have moved than people who owned their accommodation. In 2012, some 43.9 % of EU-28 city-dwellers living as tenants with a rent at market prices were found to have moved during the previous five years, compared with only 5.0 % for city-dwellers who owned their accommodation and had no outstanding mortgage or loan. The proportion of city-dwellers in the EU-28 who were living as tenants with reduced price or free rent and who had moved during the previous five years was 25.6 %, which was slightly higher than the share (24.1 %) recorded for homeowners who continued to have a mortgage or loan.

As may be expected, those EU Member States with some of the highest levels of residential mobility tended to record the highest proportions of people having moved for each tenure status. For example, more than 40 % of city-dwellers who were homeowners with a mortgage or loan moved during the previous five years in Sweden, Cyprus, Finland and Luxembourg, while more than one fifth of homeowners with no outstanding mortgage moved during the previous five years in Sweden and Denmark. The pattern was however somewhat different with respect to tenants renting at market prices, as the highest shares of people having moved during the previous five years were recorded in Lithuania (84.1 %), Cyprus (80.0 %) and the United Kingdom (78.0 %), while Ireland and Estonia both reported shares of at least two thirds.

Figure 10.8: Proportion of the population having moved dwelling within the previous five years, by degree of urbanisation, 2012



(1) Towns and suburbs: not applicable.

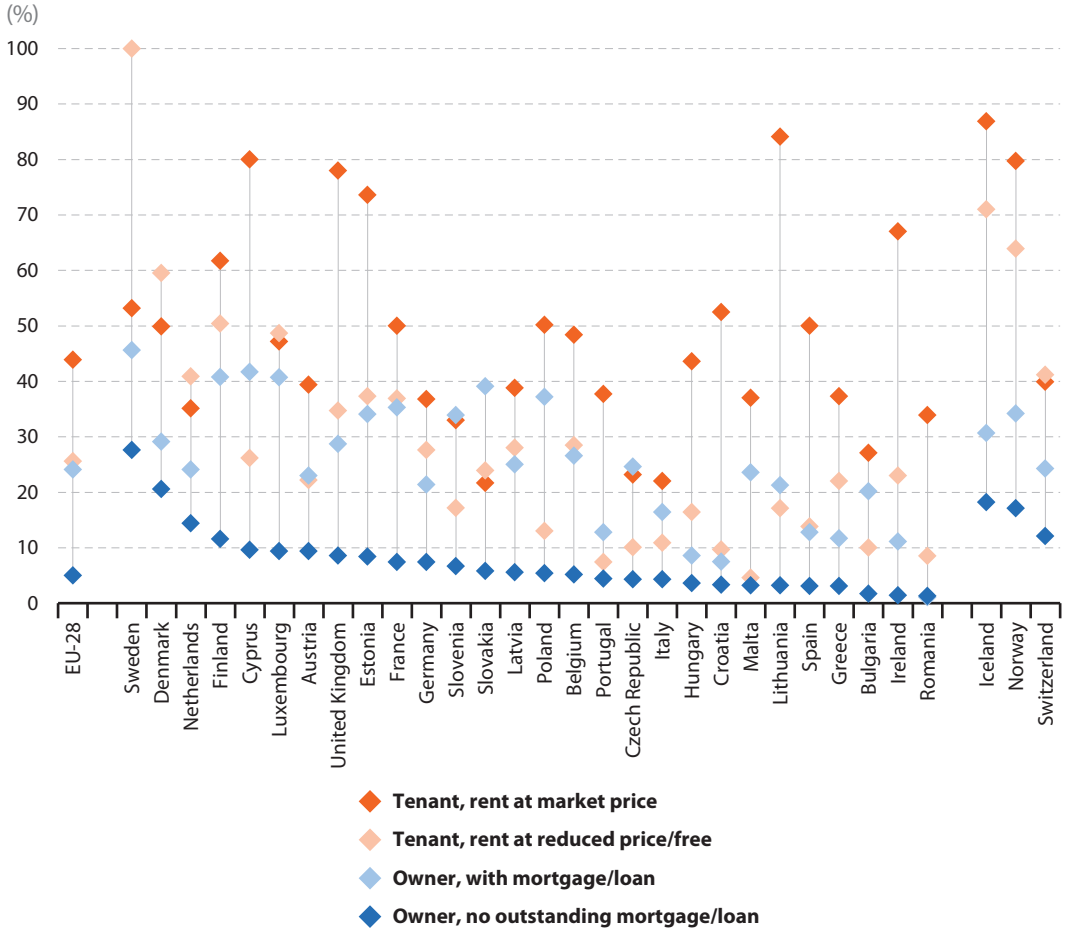
Source: Eurostat (online data code: ilc_hcmp05)

The most common age for moving dwelling was 30–49 years-old

As noted above, it is relatively common for young people to initially move to central city locations for education or in search of work. Once they have established a career, their next step in life is often to consider starting a family. It is therefore not surprising to find that the most common age for people moving house is when they are 30–49 years-old, as a growing family requires additional space.

Figure 10.10 provides information by NUTS level 3 regions for 2011 relating to the origin of people who changed residence during the 12-month period prior to the latest population and housing census; note that the ranking includes rural regions. It shows, for each of the EU Member States, the region with the highest share of people aged 30–49 who changed residence; most of these regions were capital city regions. Indeed, more than 50 thousand people aged 30–49 moved during the 12-month period prior to the census in the following capital city regions: Stockholms Län (Sweden), Helsinki-Uusimaa (Finland), Inner London - West (the United Kingdom), Bratislavský Kraj (Slovakia), Bruxelles/Brussel (Belgium), Wien (Austria), and Budapest (Hungary).

Figure 10.9: Proportion of the population living in cities having moved dwelling within the previous five years, by type of tenure, 2012

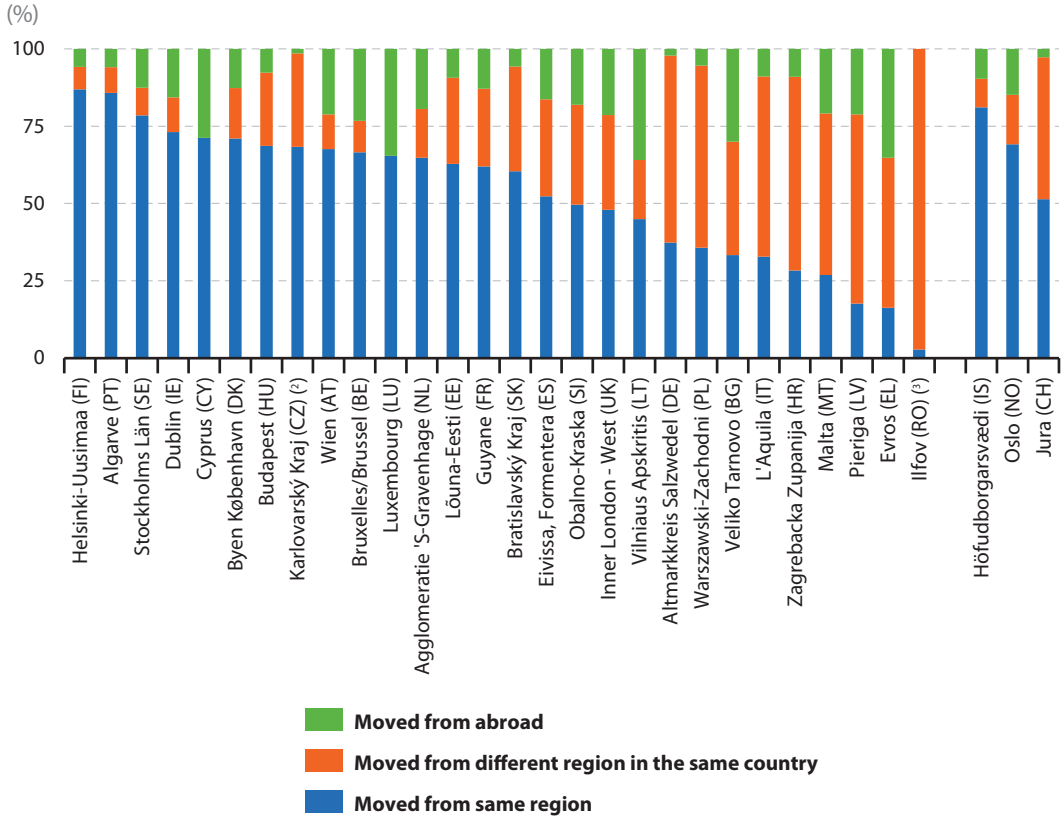


Source: Eurostat (online data code: ilc_hcmp05)

The data presented in **Figure 10.10** is also of interest insofar as it shows that it was relatively common for the majority of people who moved to do so between properties in the same region (intra-regional changes of residence); this was particularly true for Helsinki-Uusimaa, the Algarve (Portugal) and Stockholms Län, where more than 75 % of those people aged 30–49 who moved did so within the same region. On the other hand, only 2.8 % of those moving to the Romanian region of Ilfov came from the same region; it is likely that many of the new residents in Ilfov came from the Romanian capital of Bucureşti (which is encircled by Ilfov), with people leaving the capital city in order to move out to its suburbs and satellite towns in search of more space and a different lifestyle.

Figure 10.10 also provides details concerning the proportion of people who moved residence and arrived from another country (irrespective of whether this was another EU Member State or a non-member country). In Luxembourg (a single region at this level of detail), the Greek region of Evros (which is the northernmost region in Greece, bordering with Turkey to the east and Bulgaria to the north) and the Lithuanian region of Vilniaus Apskritis (which includes the capital of Vilnius and borders onto Belarus), at least one third of all residents aged 30–49 who moved during the 12-month period prior to the census originated from another country.

Figure 10.10: Regions with the highest proportion of persons aged 30–49 having moved residence within the previous year, 2011 (1)



(1) The figure shows the NUTS 2010 level 3 region in each country with the highest share of people aged 30–49 having changed residence within the previous year (note that the regions may be urban, intermediate or rural). Cyprus and Luxembourg are covered by a single NUTS level 3 region.
(2) Hlavní Mesto Praha: incomplete data.
(3) People moving from abroad: not available for any of the Romanian regions.

Source: European Statistical System, the Census Hub (https://ec.europa.eu/CensusHub2)

11 Foreign-born persons in cities

Migration is both an opportunity and a challenge for the European Union (EU). Migrants have historically played an important role in demographic and economic developments, particularly in some of Europe's largest cities. The selective nature of migratory patterns is such that migrant destinations are often restricted to relatively few, large cities, which tend to receive a disproportionate number of immigrants. These patterns are often accentuated as first wave migrants who establish themselves in a particular part of a city may subsequently encourage relatives and friends to follow them.

The percentage of foreigners living in many of Europe's cities has risen and increased mobility and some declining national or regional populations will likely result in more migrants arriving in urban areas of the EU during the coming decades. These developments are likely to be particularly prevalent in the largest global economic centres which often act as magnets for migrants.

The EU's external borders have witnessed a range of human tragedies in recent years as unprecedented flows of hundreds of thousands of asylum seekers and migrants have crossed the Mediterranean to Italy or Greece. While national statistics already capture many of these developments, data on cities and metropolitan regions generally take several years to produce and so do not yet reflect these extraordinary events.

There are two drivers of population change: on the one hand, natural population change (the difference between the number of births and the number of deaths) and, on the other, net migration (the difference between the number of people who move into and out of a geographic territory). As natural population growth within the EU has generally stagnated and turned to decline in some cases, the relative impact of migration on overall population change has become greater.

At the start of 2015, there were 52.8 million people living in the EU-28 who had been born in a foreign country; this equated to almost 10 % of the total population, with a majority of those born in a foreign country coming from outside the EU. During the period 2009–14, the crude rate of natural population change in the EU-28 was 0.6 per 1 000 inhabitants, while the crude rate of net migration was more than four times as high at 2.6 per 1 000 inhabitants. The three EU Member States with the highest crude rates of natural population change over the period 2009–14 were Ireland, Cyprus and France, while the three EU Member States with the highest crude rates of net migration were Luxembourg, Sweden and Italy.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

European policy responses to asylum seekers and migrants

Migration was identified as a key priority at the start of the Juncker Commission and its importance has grown each year, with unfolding events in many parts of the world, in particular North Africa, the Horn of Africa, the Middle East, Afghanistan, Pakistan and Ukraine. The European agenda on migration (COM(2015) 0240 final) outlines both short-term measures to prevent human tragedies and strengthen emergency responses, as well as longer-term initiatives that are designed to help manage migration flows. The agenda seeks, among others, to: save lives and secure external borders; provide policy initiatives relating to legal migration; reduce the incentives for irregular migration.

Asylum should be granted to people fleeing persecution or serious harm in their own country; it is recognised as a right within the EU's charter of fundamental rights (Article 18). EU Member States should share responsibility to welcome asylum seekers, ensuring they are treated fairly and that their case is examined to uniform standards. On 6 April 2016, the European Commission adopted a Communication, Towards a reform of the common European asylum system and enhancing legal avenues to Europe (COM(2016) 197 final), launching a new reform initiative for: a fairer and more sustainable asylum system — the Common European Asylum System (CEAS); further harmonisation of asylum procedures and standards; strengthening the mandate of the European Asylum Support Office (EASO).

At the same time, the Commission set out measures to ensure safe and well-managed pathways for legal migration to Europe, both for those seeking protection and for those seeking work. A range of initiatives are proposed to try to achieve these goals, including: providing financial assistance to countries in northern African so they can improve their search and rescue activities; investigating, disrupting and prosecuting smuggler networks; ensuring that Europe remains an attractive destination for migrants in view of the future demographic challenges, for example, by facilitating entry and the recognition of qualifications.

11.1 Migration in metropolitan regions

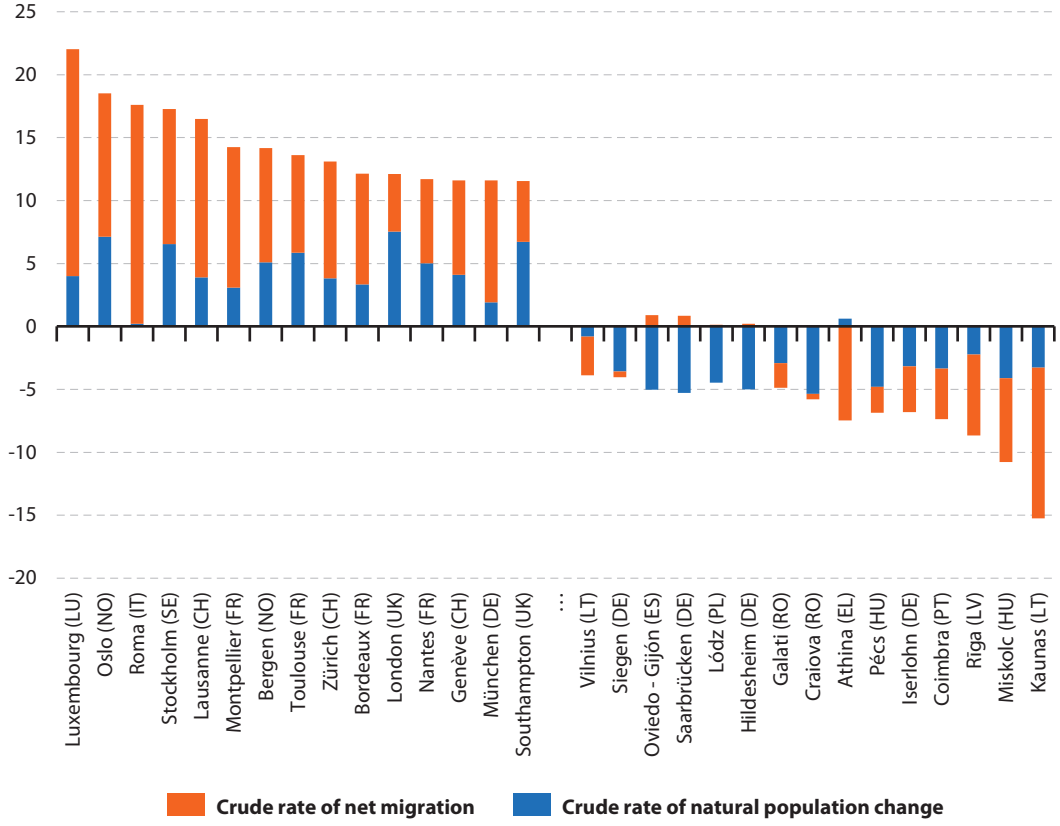
This section is based on migratory flows into and out of metropolitan regions: it is important to note that while much debate surrounds patterns of international migration, the vast majority of population movements that take place within the EU generally do so within the confines of national borders. Indeed, some EU Member States have seen considerable geographical shifts in their populations, for example, from eastern to western Germany, from southern to northern Italy, or from the north to the south-east of the United Kingdom.

The metropolitan region of Luxembourg recorded the highest rate of population growth during the period 2009–14

Figure 11.1 shows the 15 metropolitan regions in the EU, Norway and Switzerland with the lowest/highest overall rates of population change during the five-year period from 2009–14, analysed in terms of natural population change and net migration. Note that the end of this period (2014) only captures the start of the recent surge in asylum-seekers/migrants arriving in the EU.

An analysis across all of the metropolitan regions in the EU shows that the Irish capital of Dublin recorded the highest crude rate of natural population change during the period 2009–14 (11.3 per 1 000 inhabitants). The second highest rate was recorded in the French capital region (Paris; 9.3 per 1 000 inhabitants), while two further regions from Ireland and France — Cork and Lyon — recorded the third and fourth highest rates; they were followed by four regions from the United Kingdom, namely, Bradford, London, Reading and Southampton. By contrast, crude rates of natural population change during the period 2009–14 were below −5.0 per 1 000 inhabitants, indicating a considerably higher number of deaths than births,

Figure 11.1: Average crude rates of population change, selected metropolitan regions, 2009–14 ([1])
(per 1 000 inhabitants)



([1]) The figure shows the 15 metropolitan regions (subject to data availability) in the EU-28, Norway and Switzerland with the lowest/highest rates of population change. One reference year was missing for some regions (see database for more details). Aachen, Dresden, Görlitz, Leipzig, Neubrandenburg, Plauen, Rostock, Schwerin, Zwickau (all Germany): not available. Ireland, France, London, Manchester, Blackburn - Blackpool - Preston and Norwich: provisional.

Source: Eurostat (online data code: met_gind3)

in the German metropolitan regions of Bremerhaven, Hildesheim, Lübeck and Saarbrücken, the Spanish region of Oviedo – Gijón, the Italian region of Genova (a popular retirement destination) and the south-western Romanian region of Craiova.

In relative terms, the fastest expanding metropolitan region in the EU was Luxembourg, where the crude rate of population change was 22.0 per 1 000 inhabitants. Although Luxembourg had a relatively high crude rate of natural population change (4.0 per 1 000 inhabitants), its crude rate of net migration was 4.5 times as high (18.0 per 1 000 inhabitants). A closer analysis of migrant flows into Luxembourg reveals that a majority of these were people who had been born in other EU Member States, principally in Portugal, France, Luxembourg (returning to their home country), Belgium, Italy and Germany. The next highest crude rate of population change among the regions shown in **Figure 11.1** was in Oslo (Norway), followed by two more metropolitan regions covering capital cities, namely, Roma (Italy) and Stockholm (Sweden). The remaining metropolitan regions from the EU with the highest crude rates of population change included four French regions (Montpellier, Toulouse, Bordeaux and Nantes), two regions from the United Kingdom (London and Southampton) and the Bavarian region of München (Germany).

Net migration was generally the main driver of change among the 15 metropolitan regions with the highest rates of overall population change. However, a different pattern was observed for London and Southampton, as these were the only metropolitan regions (among the top 15) where the crude rate of natural population change (7.5 and 6.7 per 1 000 inhabitants) exceeded the crude rate of net migration (4.6 and 4.8 per 1 000 inhabitants).

It is interesting to note the relatively fast pace of population growth in a number of metropolitan regions outside the EU-28, as the Norwegian regions of Oslo and Bergen as well as the Swiss regions of Lausanne, Zürich and Genève all featured among the top 15 regions with the highest overall rates of population change; in keeping with the pattern generally observed for the EU regions, each of these recorded higher crude rates of net migration than crude rates of natural population change.

During the period 2009–14, the fastest outward flows of migrants tended to be recorded in some of the metropolitan regions most affected by the financial and economic crisis, for example, two regions from the Baltic Member States (Kaunas and Rīga), two regions from Greece (Thessaloniki and Athina), two regions from Ireland (Cork and Dublin), three regions from Spain (Barcelona, Madrid and Valencia), and a single region from Portugal (Coimbra).

The metropolitan regions of capitals often recorded some of the highest inflows of migrants

Figure 11.2 analyses changes in net migration for metropolitan regions in terms of absolute numbers rather than crude rates of change. During the period 2009–14, two patterns were apparent regarding inflows: a relatively high number of migrants arrived in several of the metropolitan regions covering EU capital cities, while there were high numbers of migrant inflows across a range of large German metropolitan regions.

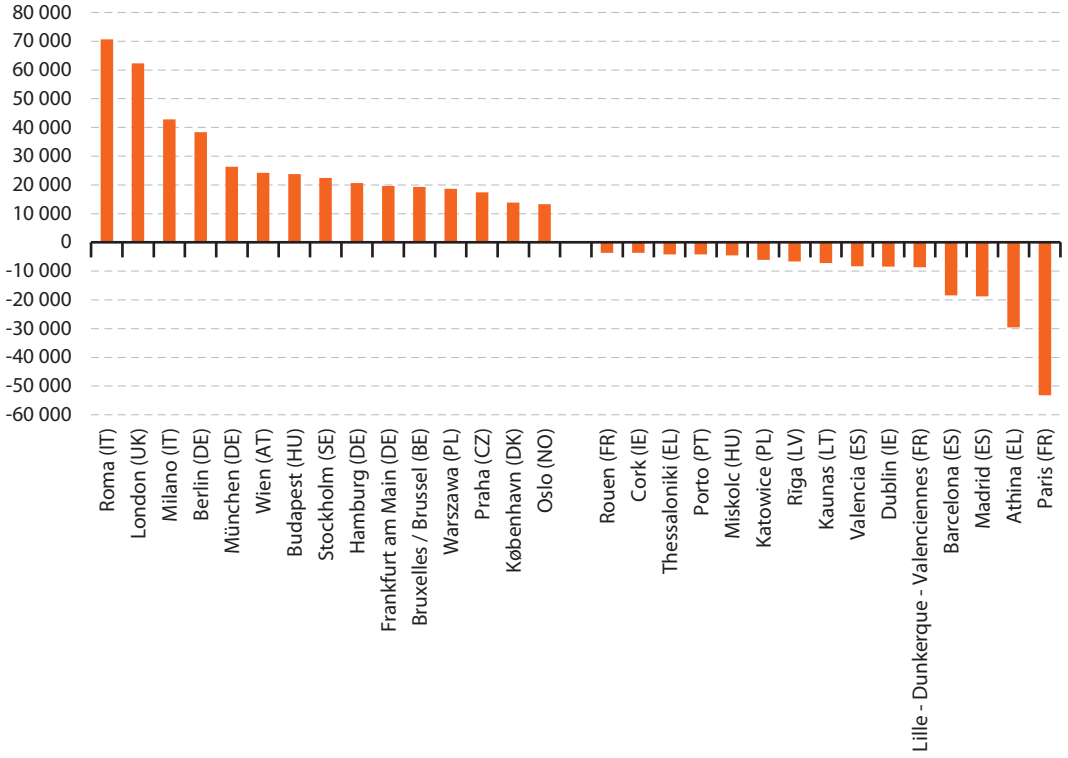
The highest level of net migration during the period 2009–14 was recorded in the Italian capital city region (Roma), where net migration averaged 70.7 thousand per annum; this was somewhat higher than in London (62.3 thousand). The next highest level of net migration was recorded in another Italian metropolitan region, namely, that of Milano (42.8 thousand), which was followed by two German metropolitan regions, the capital city region (Berlin, 38.3 thousand) and München (26.3 thousand); Hamburg (20.6 thousand) and Frankfurt am Main (19.6 thousand) were also present among the 15 regions with the highest average levels of net migration. The remaining metropolitan regions with high levels of net migration were all capital city regions:

Wien (Austria), Budapest (Hungary), Stockholm (Sweden), Bruxelles/Brussel (Belgium), Warszawa (Poland), Praha (the Czech Republic), København (Denmark) and Oslo (Norway).

The largest outflows of migrants (in absolute terms) were recorded among those leaving the metropolitan regions of the French and Greek capitals: Paris (an average of 53.2 thousand each year during the period 2009–14) and Athina (an average of 29.6 thousand; 2009–13). They were followed by the two largest Spanish metropolitan regions of Madrid and Barcelona, where there were on average 18.7 thousand and 18.4 thousand net departures per year. The ranking of metropolitan regions with the largest outflows of migrants contained a number of other regions from southern Europe, with an additional region from each of Spain (Valencia) and Greece (Thessaloniki; 2009–13), and one from Portugal (Porto (2009–13). Aside from these, the other metropolitan regions with the largest outflows of migrants included the Irish regions of Dublin and Cork, the Baltic regions of Kaunas and Rīga, and a few regions characterised by their relatively high specialisation in (heavy) industrial activities: the French regions of Lille - Dunkerque - Valenciennes and Rouen; the Polish region of Katowice; and the Hungarian region of Miskolc.

Figure 11.2: Average net migration plus statistical adjustment, selected metropolitan regions, 2009–14 ([1])

(number)



([1]) The figure shows the 15 metropolitan regions (subject to data availability) in the EU-28, Norway and Switzerland with the lowest/highest levels of net migration. One reference year was missing for some regions (see database for more details). Aachen, Dresden, Görlitz, Leipzig, Neubrandenburg, Plauen, Rostock, Schwerin, Zwickau (all Germany): not available. Ireland, France, London, Manchester, Blackburn - Blackpool - Preston and Norwich: provisional.

Source: Eurostat (online data code: met_gind3)

11.2 Foreign-born populations in predominantly urban and metropolitan regions

With the exception of Luxembourg (45.3 %), foreign-born populations accounted for less than 20 % of the total number of inhabitants in each of the EU Member States in 2014. Several of the smaller Member States — Cyprus, Latvia, Estonia and Ireland — as well as Austria and Spain, reported that foreign-born persons accounted for between 10 % and 20 % of their total populations, while at the other end of the range foreign-born persons accounted for less than 1 % of the total number of inhabitants in Bulgaria, Croatia, Lithuania, Romania and Poland.

Table 11.1 provides information based on NUTS level 3 regions that are either predominantly urban or which correspond to (part of) a metropolitan region; the statistics shown relate to those regions with the highest shares of foreign-born inhabitants, analysed by continent of birth. While some regions attract the majority of their migrants from a narrow range of countries — others are extremely diverse, drawing migrants from around the world. This is particularly true for some of Europe's largest cities and capital cities, for example, the regions of Hamburg, München, Paris, Amsterdam, Stockholm or London.

Table 11.1: Top five urban regions in the EU with the highest proportion of foreign-born inhabitants, by continent of birth, 2011 (1)

(% share of total population)

	Born in another EU Member State	(%)
1	Luxembourg (LU)	31.4
2	Arr. Mouscron (BE)	23.3
3	Bruxelles/Brussel (BE)	16.8
4	Inner London - West (UK)	14.2
5	Offenbach Am Main, Kreisfreie Stadt (DE)	14.1

	Born in Europe (other than an EU Member State)	(%)	Born in Africa	(%)	Born in the Caribbean, South or Central America	(%)
1	Rīga (LV)	18.1	Seine-Saint-Denis (FR)	18.3	Mallorca (ES)	9.3
2	Põhja-Eesti (EE)	15.7	Melilla (ES)	18.1	Tenerife (ES)	8.5
3	Grad Zagreb (HR)	15.4	Bruxelles/Brussel (BE)	14.8	Madrid (ES)	7.9
4	Osrednjeslovenska (SI)	12.8	Bouches-Du-Rhône (FR)	12.2	Barcelona (ES)	7.1
5	Zagrebacka Zupanija (HR)	12.6	Val-De-Marne (FR)	12.0	Agglomeratie 'S-Gravenhage (NL)	6.5

	Born in North America	(%)	Born in Asia	(%)	Born in Oceania	(%)
1	Inner London - West (UK)	3.3	Outer London - West & North West (UK)	17.8	Gozo And Comino (MT)	3.5
2	Gozo And Comino (MT)	3.2	Leicester (UK)	16.9	Inner London - West (UK)	2.9
3	Cambridgeshire Cc (UK)	1.4	Luton (UK)	14.7	Inner London - East (UK)	1.3
4	Heidelberg, Stadtkreis (DE)	1.3	Inner London - East (UK)	12.4	Malta (MT)	0.9
5	Edinburgh, City Of (UK)	1.2	Birmingham (UK)	12.2	Outer London - West & North We st (UK)	0.8

(1) NUTS 2010 level 3 regions that are either predominantly urban regions or which correspond to (part of) a metropolitan region.

Source: European Statistical System, the Census Hub (https://ec.europa.eu/CensusHub2)

Almost one third of the population in Luxembourg was born in another EU Member State

In 2011, Luxembourg (a single region at this level of detail) had almost one third (31.4 %) of its inhabitants born in another EU Member State, which was considerably higher than in any other region. The Belgian region of the Arrondissement de Mouscron (which is situated next to the French border) had the second highest share (23.3 %) of its population born in another EU Member State, while those born in other EU Member States accounted for between one sixth and one seventh of the total populations of Bruxelles/Brussel, Inner London - West, and the German region of Offenbach am Main (located to the south-east of Frankfurt am Main).

Geographic proximity, ex-colonial links, common languages and cultural ties play an important role in determining the destinations that are favoured by migrants

Table 11.1 also provides an analysis of the origin of foreign-born populations for 2011 for other parts of the world. The share of foreigners born in other European countries peaked in the capital city regions of Latvia and Estonia, and was largely composed of people that had been born in Russia, while the foreign-born populations of Grad Zagreb and Zagrebacka Zupanija (the Croatian capital city region and its surrounding region) and the central Slovenian region of Osrednjeslovensk (which includes Ljubljana, the Slovenian capital) were largely composed of people who had been born in other parts of former Yugoslavia.

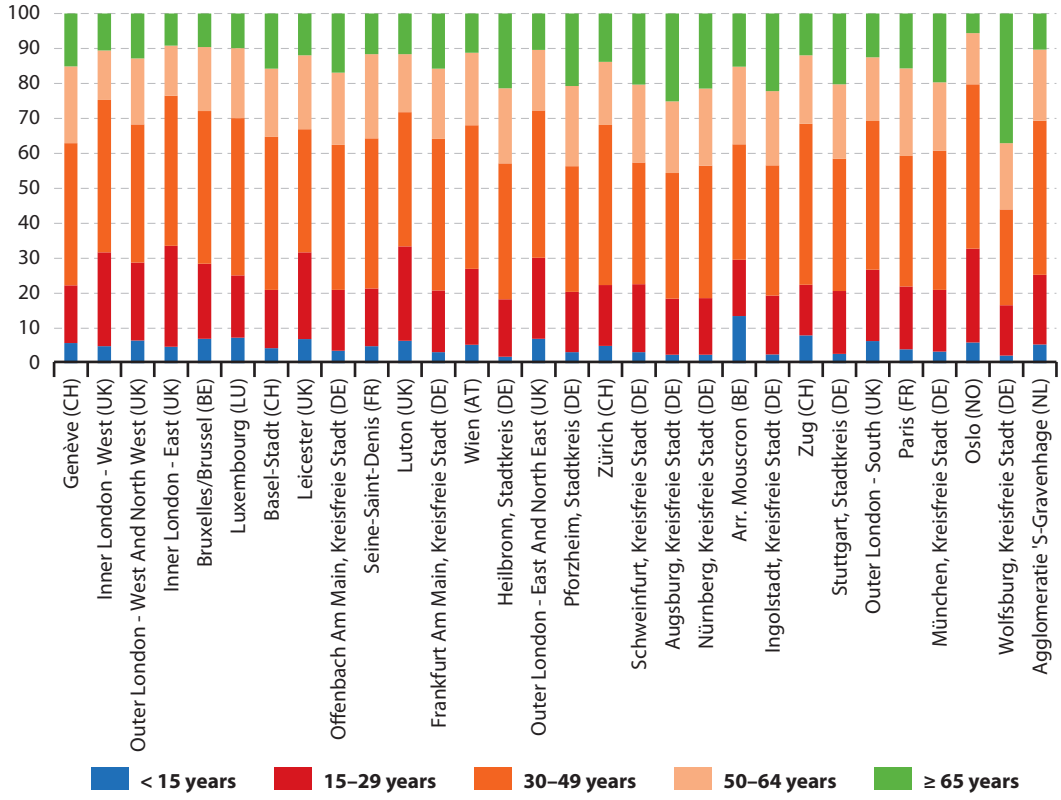
In 2011, those regions with the highest shares of foreign-born inhabitants from Africa included three French regions (Seine-Saint-Denis, the Bouches-Du-Rhône and the Val-De-Marne), the Belgian capital city region of Bruxelles/Brussel, and the autonomous Spanish city of Melilla (which is on the African continent). The four regions in the EU with the highest shares of people born in Central/South America and the Caribbean were all Spanish, namely, Mallorca, Tenerife, Madrid and Barcelona. A high share of the foreign-born migrants from Asia chose to reside in the United Kingdom, as the five regions with the highest shares of foreigners born in Asia included two regions from London (Outer London - West & North West and Inner London - East), as well as Leicester, Luton and Birmingham.

Foreign-born populations living in urban regions are typically of working age

Figure 11.3 shows the share of five different age groups in the total number of foreign-born inhabitants living in selected urban regions. It presents information for the 30 NUTS level 3 regions with the highest proportions of foreign-born inhabitants (again based on a selection of regions that are either predominantly urban or which correspond to (part of) a metropolitan region).

All but one of the 30 predominantly urban/metropolitan regions shown in **Figure 11.3** recorded their highest share of foreign-born inhabitants among those aged 30–49 years. Three of these reported that their share of 30–49 year-olds in the total number of foreign-born inhabitants rose above 45.0 %; all three were located outside the EU, with two from Switzerland (Zug and Zürich) and the third being the Norwegian capital city region of Oslo. Within the EU Member States, the share of foreign-born inhabitants who were aged 30–49 peaked in Luxembourg (44.9 %; one region at this level of analysis) and the Dutch region of the Agglomeratie 'S-Gravenhage (44.0 %).

Figure 11.3: Distribution of foreign-born inhabitants by age, selected urban regions, 2011 (1)
(% of foreign-born inhabitants)



(1) The figure shows the top 30 regions in the EU-28, Norway and Switzerland with the highest proportions of foreign-born inhabitants, based on NUTS 2010 level 3 regions that are either predominantly urban regions or which correspond to (part of) a metropolitan region. The regions are ranked descending on the share of foreign-born inhabitants in the total regional population.

Source: European Statistical System, the Census Hub (https://ec.europa.eu/CensusHub2)

The only exception to this pattern, where those aged 30–49 did not account for the highest share of foreign-born inhabitants, was the German region of Wolfsburg, Kreisfreie Stadt, where the highest share of foreign-born inhabitants was recorded among those aged 65 years and more — many of the elderly foreign-born persons living in this region are likely to have been Gastarbeiter (guest workers) from Italy and Turkey who had up until their retirement been employed within the car manufacturing industry.

More than three quarters of the foreign-born inhabitants aged 30–49 living in Luxembourg and the Belgian region of Mouscron were born in another EU Member State …

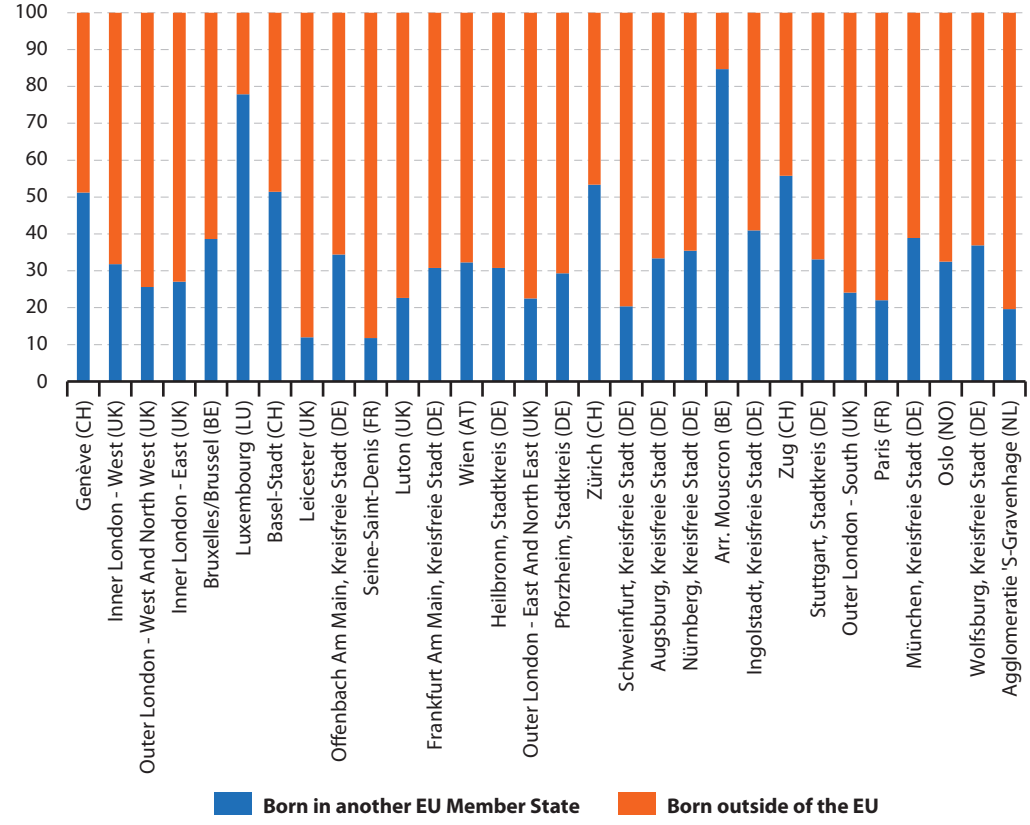
Figure 11.4 is also based on the 30 predominantly urban/metropolitan regions which had the highest shares of foreign-born inhabitants in 2011; it provides an analysis of the relative share of foreign-born residents aged 30–49 according to whether they were born in another EU Member State or outside the EU. The ranking is dominated by those born outside the EU, as these were in the majority for 24 of the 30 regions shown. The only exceptions, with a higher share of their foreign-born populations originating from other EU Member States were four Swiss regions (Genève, Basel-Stadt, Zürich and Zug), Luxembourg (a single region at this

level of detail) and the Belgian region of the Arrondissement de Mouscron. In these latter two regions, some 77.8 % and 84.7 % of the foreign-born inhabitants aged 30–49 had been born in another EU Member State.

… while almost 9 out of every 10 foreign-born inhabitants aged 30–49 living in the French region of Seine-Saint-Denis and the United Kingdom region of Leicester were born outside the EU

In 2011, there were eight regions among the 30 with the highest shares of foreign-born inhabitants where more than three quarters of the foreign population aged 30–49 had been born outside the EU. Four of these were located in the United Kingdom (Outer London - South, Outer London - East and North East, Luton and Leicester), two were located in France (including Seine-Saint-Denis and the capital city region of Paris), while the other two were Schweinfurt, Kreisfreie Stadt in Germany (which used to have a United States' military base in 2011) and the Agglomeratie 'S-Gravenhage (the Hague) in the Netherlands.

Figure 11.4: Distribution of foreign-born inhabitants aged 30–49 by place of birth, selected urban regions, 2011 ([1])
(% of foreign-born inhabitants aged 30–49)



([1]) The figure shows the top 30 regions in the EU-28, Norway and Switzerland with the highest proportions of foreign-born inhabitants aged 30–49, based on NUTS 2010 level 3 regions that are either predominantly urban regions or which correspond to (part of) a metropolitan region. The regions are ranked descending on the share of foreign-born inhabitants in the total regional population.

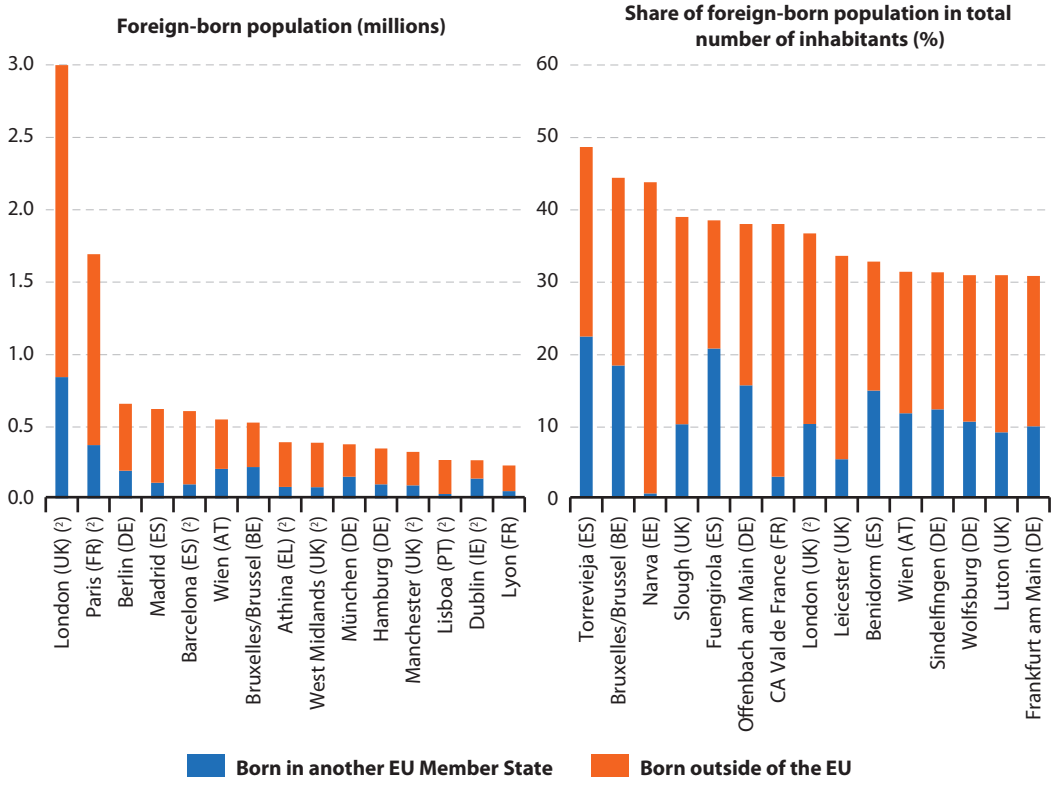
Source: European Statistical System, the Census Hub (https://ec.europa.eu/CensusHub2)

11.3 Foreign-born populations in cities

Greater London had the highest number of foreign-born inhabitants among cities in the EU — almost three million

Figure 11.5 shows the 15 cities in the EU-28 with the highest number of foreign-born inhabitants. By this measure, Greater London was the most cosmopolitan capital city in the EU: with almost three million of its inhabitants born outside the United Kingdom (2011 data). The four largest communities of foreign-born inhabitants in the EU were all located in capital cities, namely, Greater London, Greater Paris (1.7 million; 2012 data), Berlin (652 thousand; 2012 data) and Madrid (619 thousand; 2014 data), while the top 15 cities in terms of their absolute number of foreign-born residents also included the capitals of Austria (2013 data), Belgium (2014 data), Greece (Greater Athina; 2011 data), Portugal (Greater Lisboa; 2011 data) and Ireland (Greater Dublin; 2011 data).

Figure 11.5: Foreign-born inhabitants living in selected EU cities, 2014 (1)



(1) The figure shows the 15 cities (subject to data availability) in the EU-28 with the highest number of foreign-born inhabitants and the 15 cities with the highest share of foreign-born inhabitants. Estonia and Austria: 2013. Germany, France and Slovenia: 2012. The Czech Republic, Ireland, Greece, Latvia, Lithuania, Hungary, Poland, Portugal, Sweden and the United Kingdom: 2011. Alphen aan den Rijn, Amstelveen, Delft, Hilversum, Leidschendam-Voorburg, Purmerend, Roosendaal, Sittard-Geleen, Spijkenisse, Velsen and Vlaardingen (all the Netherlands), Oulu and Kuopio (both Finland): 2011. Denmark, Italy, Cyprus, Luxembourg, Malta, the Netherlands (other than those mentioned above in this footnote), Romania and Slovakia: not available. Brno, Chomutov-Jirkov, Karlovy Vary, Karviná, Most, Ostrava and Praha (all the Czech Republic), Budapest (Hungary), Elk, Glogów, Gniezno, Inowroclaw, Legnica, Ostrów Wielkopolski, Ostrowiec Swietokrzyski, Pabianice, Pila, Stalowa Wola, Stargard Szczecinski, Swidnica, Tczew, Tomaszów Mazowiecki, Walbrzych and Zgierz (all Poland), Borås, Helsingborg, Lund, Norrköping and Västerås (all Sweden): not available.

(2) Greater city/urban conurbation.

Source: Eurostat (online data code: urb_cpopcb)

The Irish capital of Greater Dublin was the only city (among those shown in the first half of **Figure 11.5**) to record a higher share of its foreign-born inhabitants originating from another EU Member State (52.2 % of those born abroad) rather than from outside the EU. In Greater London, almost three quarters (72.0 %) of the foreign-born inhabitants were from countries outside the EU, while shares of more than three quarters (among the selected cities shown in the first half of **Figure 11.3**) were recorded for the French cities of Lyon and Greater Paris (both 2012 data), Greater Athina, the West Midlands conurbation in the United Kingdom (2011 data), as well as the three Iberian cities of Madrid, Greater Barcelona (both 2014 data) and Greater Lisboa (2011 data); the highest share of foreign-born inhabitants originating from countries outside the EU was recorded in the latter, at 88.2 %.

A majority of the foreign-born populations living in EU cities were born outside of the EU

The second half of **Figure 11.5** presents information on those cities where foreign-born inhabitants accounted for the highest share of the total number of inhabitants in 2014. The list is composed of a number of relatively small cities, although it also features three capitals: Bruxelles/Brussel, Greater London (2011 data) and Wien (2013 data). The city with the highest share of foreign-born inhabitants was Torrevieja (which is close to Alicante in south-east Spain), where almost half (48.7 %) of the population was born abroad, while the second highest share was recorded in Bruxelles/Brussel (44.4 %); in both cases, a majority of the foreign-born population originated from outside the EU. Narva is Estonia's third largest city and is located in the north-east of the country: in 2013, almost all of its foreign-born inhabitants had been born outside the EU, principally in Russia (onto which Narva borders). Foreign-born inhabitants from outside the EU also accounted for a high share of the total foreign-born population in the Communauté d'agglomération Val de France (located in the northern suburbs of Paris; 2012 data), as well as Leicester and Luton in the United Kingdom (both 2011 data). Indeed, among the 15 cities shown in the second half of **Figure 11.5**, the Spanish holiday destination/retirement city of Fuengirola on the Costa del Sol was the only city where a majority of the foreign-born populated originated from another EU Member State (53.9 % of all foreign-born inhabitants in 2014).

Capital cities often recorded some of the highest shares of foreign-born inhabitants

Foreign-born inhabitants accounted for a relatively high share of the total population in many of the larger cities in western and northern Europe (including Norway and Switzerland). The lowest shares of foreign-born residents were often recorded in the eastern EU Member States, where foreign-born nationals often accounted for less than 2 % of the total population, except in the capital cities and a few other larger cities.

The share of foreign-born inhabitants in the total population of larger cities tended to be greater than the national average. For example, among the 19 EU Member States for which data are available (see **Table 11.2**), seven reported that their capital city had the highest share of foreign-born inhabitants in the total population, while the capital cities of seven other Member States recorded the second highest share, and Stockholm (Sweden; 2011 data) the third highest share. This left just four of the 19 Member States for which data are available where the capital city did not feature among the top three cities with the highest proportions of foreign-born residents, namely, Germany, Spain, France (2012 data) and Portugal (2011 data).

Table 11.2: Cities with the highest proportion of foreign-born inhabitants, 2014 (1)

	City with highest proportion	(%)	City with second highest proportion	(%)	City with third highest proportion	(%)
Belgium	Bruxelles/Brussel	44.4	Antwerpen	28.2	Liège	25.0
Bulgaria	Blagoevgrad	2.8	Sofia	2.5	Varna	2.4
Czech Republic	Praha	15.1	Karlovy Vary	14.3	Karvina	10.4
Denmark	:	:	:	:	:	:
Germany	Offenbach am Main	40.3	Frankfurt am Main	34.6	Villingen-Schwenningen	32.0
Estonia	Narva	43.8	Tallinn	20.3	Tartu	8.7
Ireland	Galway	26.1	Dublin (2)	21.1	Waterford	17.4
Greece	Athina (2)	14.7	Thessaloniki	14.3	Ioannina and Kavala	10.7
Spain	Torrevieja	48.7	Fuengirola	38.5	Benidorm	32.8
France	CA Val de France	38.0	CA des Lacs de l'Essonne	29.6	Argenteuil - Bezons	29.1
Croatia	Slavonski Brod	28.9	Zagreb	17.7	Rijeka	15.9
Italy	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:
Latvia	Daugavpils	22.8	Rīga	20.9	Liepaja	20.5
Lithuania	Klaipeda	12.9	Vilnius	10.7	Siauliai	4.6
Luxembourg	:	:	:	:	:	:
Hungary	Budapest	7.3	Szeged	7.3	Debrecen	4.9
Malta	:	:	:	:	:	:
Netherlands	:	:	:	:	:	:
Austria	Wien	31.4	Salzburg	26.8	Innsbruck	23.9
Poland	:	:	:	:	:	:
Portugal	Amadora	17.9	Sintra	17.2	Odivelas	15.6
Romania	:	:	:	:	:	:
Slovenia	Ljubljana	19.0	Maribor	14.2	:	:
Slovakia	:	:	:	:	:	:
Finland	Helsinki (2)	11.9	Vantaa	11.9	Espoo	11.6
Sweden	Malmö	30.5	Göteborg	22.8	Stockholm	22.6
United Kingdom	Slough	39.0	London (2)	36.7	Leicester	33.6
Norway	Oslo	24.7	Stavanger	18.0	Kristiansand	13.9
Switzerland	Genève (2)	51.3	Lausanne (2)	46.8	Lugano (2)	46.2

(1) Estonia and Austria: 2013. France, Slovenia and Norway: 2012.
Ireland, Greece, Latvia, Lithuania, Portugal, Sweden and the United Kingdom: 2011. Oulu and Kuopio (both Finland): 2011. Borås, Helsingborg, Lund, Norrköping and Västerås (all Sweden): not available.
(2) Greater city/urban conurbation.

Source: Eurostat (online data code: urb_cpopcb)

11.4 Foreign-born populations in subcity districts

Figure 11.6 presents information at the subcity level for Berlin and London, detailing the share of foreign-born inhabitants from other EU Member States and from outside the EU. In 2011, the total share of foreign-born inhabitants peaked in Berlin at 43.2 % in the central district of Mitte, with more than three times as many foreign-born inhabitants from outside the EU compared with those born in another EU Member States (33.0 % of the total population compared with 10.1 %). The share of foreign-born inhabitants was consistently higher for those born outside the EU in all of the Berlin districts, although in the northern district of Pankow and the south-western district of Treptow-Köpenick there was a relatively small difference between the respective shares (note however that both of these districts had relatively low shares of foreign-born inhabitants).

There was an even wider range in the share of foreign-born inhabitants across London boroughs in 2011. At one end of the spectrum, foreign-born inhabitants made up 10.3 % of the total population in the east London borough of Havering (where 3.4 % of the total population were born in another EU Member State and 6.9 % were born outside the EU). By contrast, there were four London boroughs where the foreign-born population accounted for more than half the total number of inhabitants — the relatively working-class boroughs of Brent (north-west London) and Newham (east London), and the affluent boroughs of Westminster (central London) and Kensington and Chelsea (west London). The share of inhabitants born in another EU Member State peaked among London boroughs in Kensington and Chelsea (18.5 %), while the share of those born outside the EU rose to over 40.0 % in Newham and Brent.

Figure 11.6: Foreign-born inhabitants as a proportion of the total population, Berlin (Germany) and London (the United Kingdom), 2011 (1)
(% of total population)

(1) Ranked on the total share of foreign-born inhabitants.

Source: Ergebnisse des Zensus 2011, Statistical Office for Berlin-Brandenburg (https://www.statistik-berlin-brandenburg.de/home.asp) and Eurostat (online data code: urb_cpopcb)

11.5 Self-perceived impact of migrant communities

Discussions relating to social cohesion are often focused on the impact of migrant communities with different cultural, linguistic and social backgrounds and the challenges that migrants face in adapting to their new home. **Map 11.1** presents information from a perception survey on the quality of life in 79 European cities conducted in 2015 across 79 European cities; note that the statistics presented for Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and the Tyneside conurbation (all in the United Kingdom) relate to the concept of the greater city. The map shows the proportion of city-dwellers who agreed that foreigners living in their city were well integrated. Given the extraordinary number of asylum seekers and migrants who moved through Europe during the summer of 2015, it is possible that the views expressed in May–June 2015 have subsequently shifted.

The share of respondents in capital cities agreeing that foreigners were well integrated was often below the proportions recorded in other cities for which data are available; this was particularly the case in Sofia (31 % of the population agreed that foreigners were well integrated), Roma (30 %) and Greater Athina (20 %). On the other hand, there were some capital cities where a clear majority of the population agreed that foreigners were well integrated into city life, for example, Greater Lisboa (64 %), Greater London (65 %), Budapest (66 %), Luxembourg (67 %) and Zagreb (77 %); note that in cities such as London or Luxembourg, a high proportion of respondents could themselves have been foreign-born.

Outside of capital cities, some of the highest levels of agreement concerning the good integration of foreigners were recorded in cities characterised by relatively large foreign populations, for example, the Spanish city of Málaga or the Swiss cities of Genève and Zürich. Some of the lowest levels of agreement concerning the integration of foreigners were recorded in cities with relatively low numbers of foreign-born inhabitants, for example, some cities in eastern Germany or Poland.

Diversity is increasingly becoming a defining element of many European cities …

Concerns over the contribution of migrants in EU cities do not necessarily increase as the share of foreigners in the total number of inhabitants rises; on the contrary, some of Europe's most cosmopolitan cities, for example, København, Amsterdam and London display a diversity and fusion of cultures, ideas, arts and fashion.

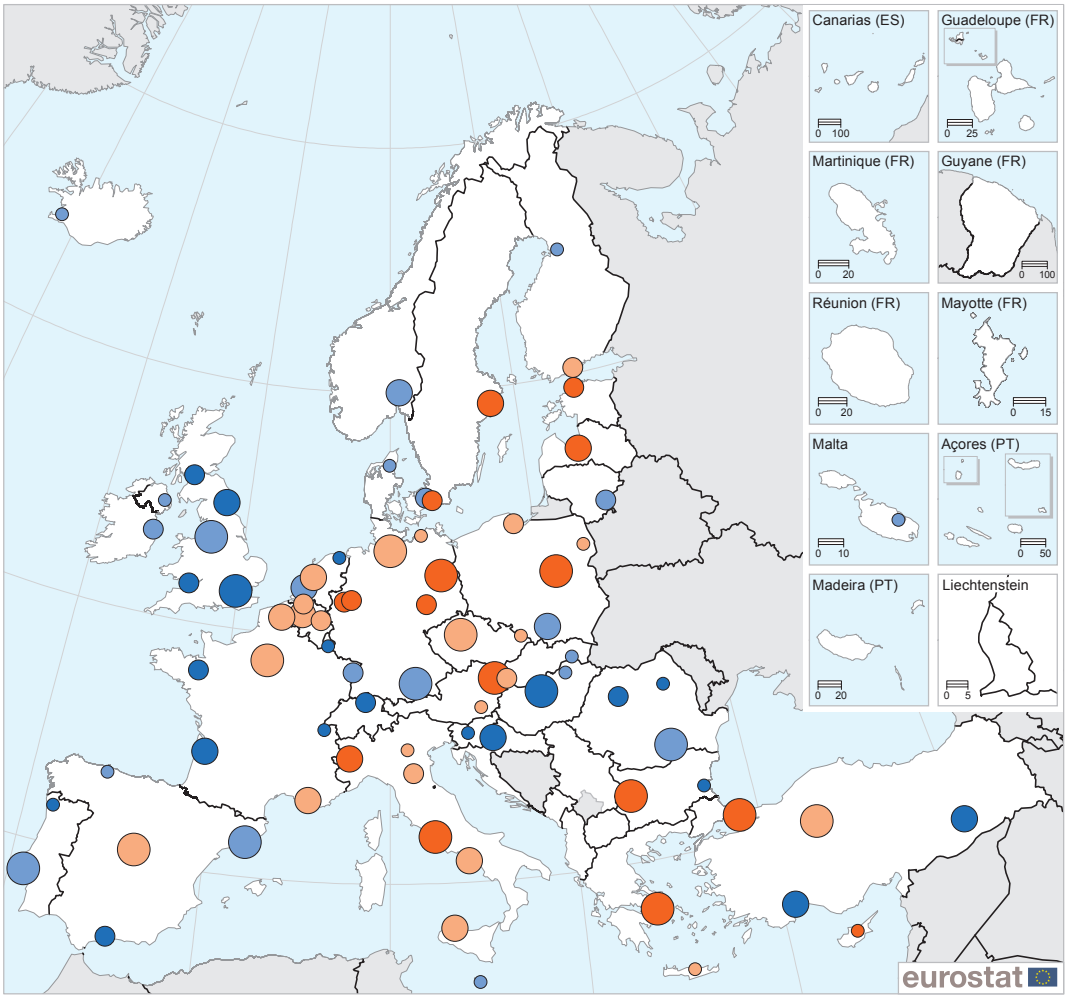
As part of the perception survey on the quality of life, respondents were asked whether or not they agreed that the presence of foreigners was good for their city. In 2015, the highest proportions of city-dwellers agreeing that foreigners were good for their city were recorded in Cluj-Napoca (north-western Romania), København (Denmark), Dublin (Ireland), Zagreb (Croatia), Luxembourg (Luxembourg), Reykjavik (Iceland) and Zürich (Switzerland); note that five of these seven cities were capital cities.

… although a minority of the population in six cities agreed that the presence of foreigners was good for their city

At the other end of the range, the lowest levels of agreement with the premise that foreigners were good for their city — less than 50 % — were recorded in four southern cities from the EU — the Greek capital of Greater Athina and the three Italian cities of Bologna, Roma and Torino — as well as two Turkish cities, namely, Ankara and Istanbul.

Map 11.1: Proportion of the population who agree that foreigners who live in their city are well integrated, 2015 (1)

(%)

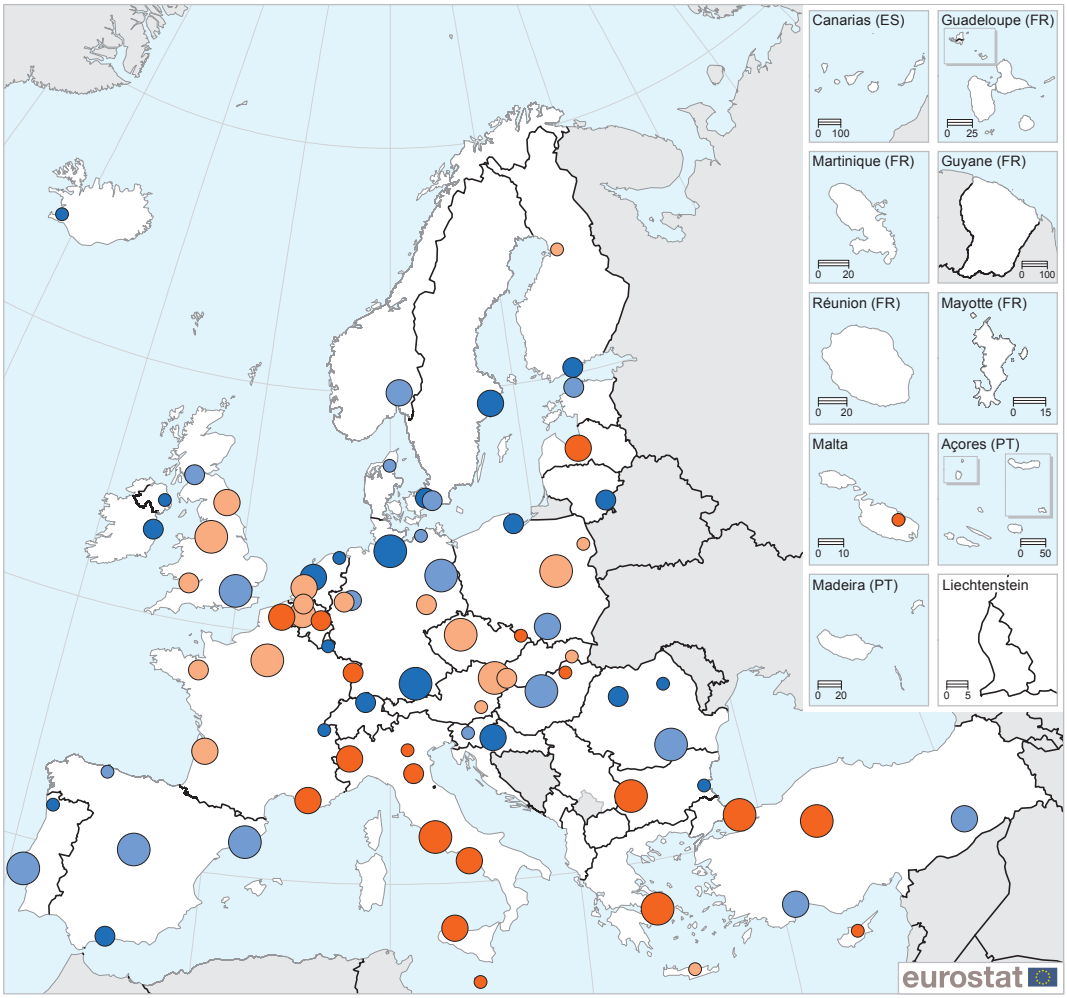


(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

Map 11.2: Proportion of the population who agree that the presence of foreigners is good for their city, 2015 (1)

(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

12 Poverty and social exclusion in cities

At their most basic level, cities are social constructs whereby larger groups of people live, work and trade together, so they may exchange ideas and beliefs, share common experiences, and participate in social networks that allow them to satisfy their needs for housing, education, employment and a wider range of needs and desires. Cities have always been centres of opportunity, but at the same time they frequently provide a focal point for social problems.

Patterns of urban development have resulted in the historical centre and traditional role of some cities being modified, as residents and economic activities have moved to suburban locations, accelerating the process of urban sprawl and leaving behind pockets of inner-city decay. Poverty and social exclusion appear to fester in these neighbourhoods and their presence is reinforced through a cycle of deprivation as poverty and social exclusion are passed from one generation to the next through inequalities for health, education and housing that result in lower life chances.

As compared with towns, suburbs or rural areas, cities in western EU Member States are often found to be among the least inclusive, as witnessed by their relatively high shares of people living at risk of poverty, high shares of people living in low work intensity households, or high unemployment rates. While these cities are often characterised by higher standards of living — as measured by GDP per inhabitant — they are also characterised by considerable income inequality. By contrast, people living in cities in the eastern EU Member States are generally less likely to face poverty and social exclusion than those in rural areas.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

European platform against poverty and social exclusion

The European platform against poverty and social exclusion is one of seven flagship initiatives of the Europe 2020 strategy for smart, sustainable and inclusive growth; combatting poverty and social exclusion are at the heart of the European Union's (EU's) pledge to lift at least 20 million people from poverty or social exclusion by 2020.

The platform aims to deliver action to fight poverty across the policy spectrum (for example, in relation to the labour market, minimum income support, healthcare, education, housing, or access to services). It has been designed to make better use of EU funding to deliver on social cohesion/inclusion, by developing an evidence-based approach to social policy innovations, working in partnership with civil society and the EU Member States to enhance policy coordination and build on the legacy of the 2010 European year for combatting poverty and social exclusion.

For more information: http://ec.europa.eu/social/main.jsp?catId=961.

Defining poverty and social exclusion

Poverty can be defined in different ways: at an aggregated level there are two main categories, relative and absolute poverty. The former occurs when people's income and resources prevent them from having a standard of living that is considered low for the society in which they live, it is the more widespread form of poverty in the EU. Absolute or extreme poverty is characterised by severe deprivation of basic human needs, for example, a lack of food, water, sanitation facilities, health or education; extreme poverty is generally much less common in the EU.

People at risk of poverty or social exclusion are classified in accordance with three distinct criteria, but only need to have one of these situations to be considered as part of this subgroup. The three criteria are:

- people at risk of poverty — defined here as those with a disposable income that is below the risk of poverty threshold (set at 60 % of national median equivalised disposable income, after social transfers);
- people who are considered severely materially deprived — defined here to include those people who are unable to pay for at least four out of the following nine items: i) rent or utility bills, ii) adequate home heating, iii) unexpected expenses, iv) meat, fish or a protein equivalent every second day, v) a week's holiday away from home, vi) a car, vii) a washing machine, viii) a colour television, or ix) a telephone;
- people living in households with very low work intensity — defined here as those aged 0–59 who are living in households where the adults (aged 18–59) worked no more than 20 % of their total work potential during the past year.

12.1 Poverty and social exclusion by degree of urbanisation

In 2014, there were 122 million people in the EU-28 who were at risk of poverty or social exclusion; this equated to almost one in four (24.4 %) of the population, which was a higher share than at the onset of the global financial and economic crisis. The EU's target is to remove 20 million people from poverty and social exclusion by 2020.

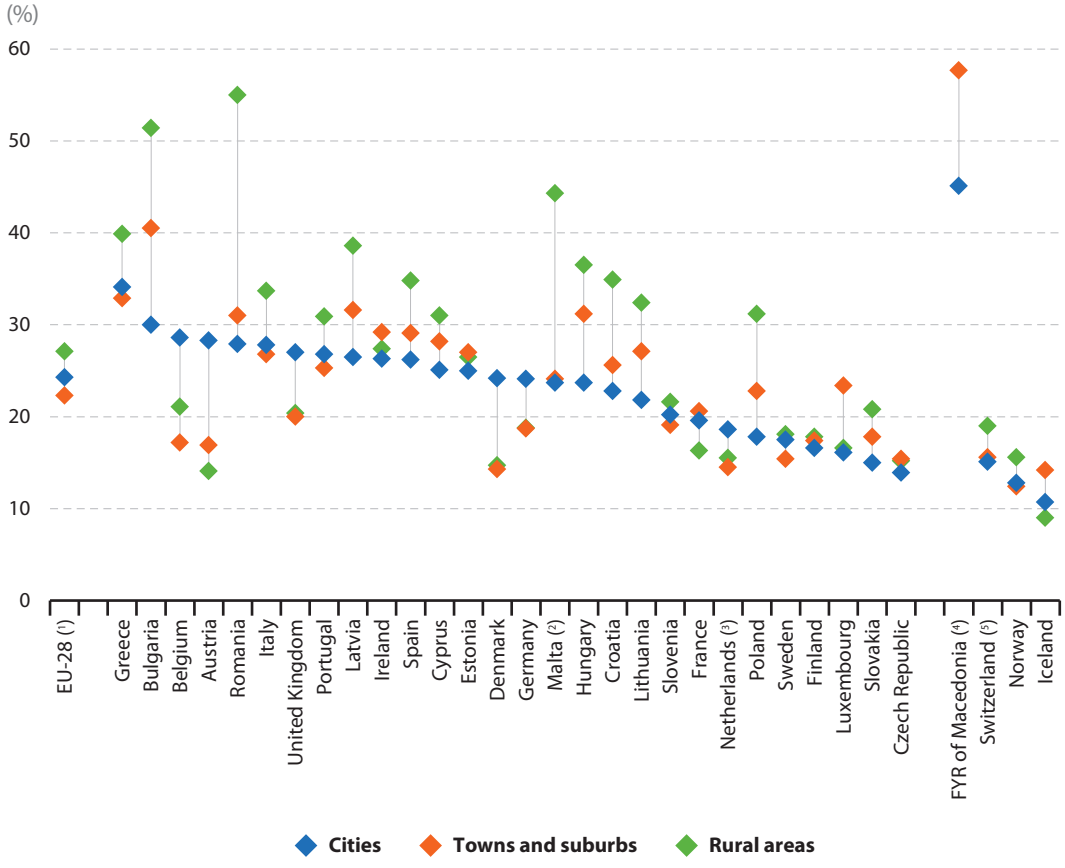
There were 34 million people living in EU cities who were at risk of poverty or social exclusion

Figure 12.1 looks at the broad concept of those people who were at risk of poverty or social exclusion. In 2014, there were 34.0 million people living in cities in the EU-28 who faced such a risk, while the corresponding figures for those living in towns and suburbs (24.2 million) and rural areas (27.9 million) were somewhat lower. In relative terms, the highest risk of poverty or social exclusion in the EU-28 was recorded among people living in rural areas (27.1 %), some 2.8 percentage points higher than the share recorded for people living in cities (24.3 %) and 4.8 points higher than the share for those living in towns and suburbs (22.3 %).

The share of the population that was at risk of poverty or social exclusion was particularly high among those people living in cities in much of western Europe, while in eastern and southern parts of the EU it was more common to find the highest incidences of the risk of poverty or social exclusion among those living in rural areas. In 2014, there were seven EU Member States where the share of the population that was at risk of poverty or social exclusion was highest among those living in cities: the Netherlands, France, Germany, the United Kingdom, Belgium, Denmark and Austria. As such, although cities in western Europe were generally more affluent, they were also characterised by a greater risk of poverty or social exclusion.

Table 12.1 and **Figures 12.2** and **12.3** provide more information on the three individual criteria that together cover all forms of poverty and social exclusion. The left half of **Table 12.1** shows the share of the population who were at risk of poverty according to the degree of urbanisation, while the right half shows the share of the total population with an income that was less than 60 % of the median equivalised level, in other words, the share of the total population living below the at-risk-of-poverty threshold.

Figure 12.1: Proportion of the population at risk of poverty or social exclusion, by degree of urbanisation, 2014



(1) Rural areas: estimate.
(2) Rural areas: unreliable data.
(3) Provisional.
(4) 2011. Rural areas: not applicable.
(5) 2013.

Source: Eurostat (online data code: ilc_peps13)

Table 12.1: Proportion of the population at risk of poverty and proportion of the total population with less than 60 % of the median income, by degree of urbanisation, 2014
(%)

	At risk of poverty rate			Share of total population with < 60 % of median equivalised income		
	Cities	Towns and suburbs	Rural areas	Cities	Towns and suburbs	Rural areas
EU-28	16.4	15.8	*20.2*	6.8	4.9	5.6
Belgium	22.1	12.3	14.2	6.4	6.5	2.6
Bulgaria	12.3	20.5	33.7	4.8	5.4	11.5
Czech Republic	8.4	9.9	10.7	2.6	3.1	4.0
Denmark	17.0	9.6	9.5	5.8	1.9	4.2
Germany	19.3	15.2	15.3	6.8	6.3	3.5
Estonia	20.2	22.5	23.3	8.7	3.5	9.6
Ireland	12.6	15.7	18.7	5.0	3.8	6.5
Greece	19.1	19.0	27.0	7.3	4.5	10.3
Spain	19.0	22.9	27.9	9.7	5.1	7.4
France	14.2	15.2	11.6	6.4	3.0	4.1
Croatia	12.7	16.9	24.4	3.1	4.8	11.5
Italy	18.5	18.4	24.8	8.1	7.5	3.9
Cyprus	12.6	16.7	16.1	6.4	3.5	4.5
Latvia	14.9	20.2	27.0	6.5	2.0	12.7
Lithuania	11.9	21.7	25.2	5.1	2.3	11.8
Luxembourg	13.9	20.7	14.0	2.0	7.6	6.8
Hungary	6.6	15.2	21.0	2.0	4.5	8.1
Malta (1)	15.5	18.0	44.3	13.9	1.9	0.1
Netherlands	12.3	10.9	11.5	5.6	4.4	1.7
Austria	20.9	12.1	10.5	6.2	3.6	4.3
Poland	9.6	14.7	24.1	3.2	3.6	10.2
Portugal	18.1	17.4	23.8	8.1	4.9	6.5
Romania	10.6	17.5	38.6	3.1	4.3	18.0
Slovenia	14.2	12.7	16.0	2.7	4.6	7.2
Slovakia	8.2	11.4	16.2	1.9	4.0	6.7
Finland	12.1	13.0	13.4	4.1	4.6	4.0
Sweden	15.1	13.8	16.7	5.3	5.0	4.7
United Kingdom	18.6	14.4	14.6	10.6	4.2	2.0
Iceland	7.8	9.2	6.4	5.0	1.9	1.0
Norway	10.2	9.9	13.3	4.0	3.3	3.7
Switzerland (2)	12.9	13.7	17.6	3.5	6.6	4.3
FYR of Macedonia (3)	21.1	34.3	–	11.9	14.9	–

(1) Rural areas: unreliable data.
(2) 2013.
(3) 2011.

Source: Eurostat (online data codes: ilc_li43 and ilc_lvho01)

In 2014, the share of the EU-28 population that was at risk of poverty was 17.3 %, with around two fifths of the total population living below the at-risk-of-poverty threshold found to be living in cities, one third living in rural areas and the remaining share (just over a quarter) in towns and suburbs. These figures are influenced by the distribution of the population between the different degrees of urbanisation, with a higher share of the EU-28 population living in urban areas rather than rural areas. When looking at the individual subpopulations living in each of these areas, just over one fifth (20.2 %) of those living in rural areas of the EU-28 were found to be at risk of poverty, while the corresponding shares for people living in cities (16.4 %) and towns and suburbs (15.8 %) were somewhat lower.

In 2014, there were wide disparities across the EU Member States as regards those areas where the risk of poverty tended to be concentrated. The highest at-risk-of-poverty rate in the western EU Member States of Belgium, Denmark, Germany, the Netherlands, Austria and the United Kingdom was recorded among those living in cities. The share of the population living in Austrian cities who were at risk of poverty was 2.0 times as high as the share among people living in rural areas, while the same ratio in Belgium was 1.6 : 1. France, Cyprus and Luxembourg were the only Member States to report their highest at-risk-of-poverty rate among those living in towns and suburbs, while the highest at-risk-of-poverty rate in the remaining 19 Member States was recorded among people living in rural areas. The at-risk-of-poverty rate among people living in the rural areas of Romania and Hungary was more than three times as high as the corresponding rate recorded among those living in cities, while in Malta (data of low reliability), Bulgaria, Poland and Lithuania people living in rural areas were more than twice as likely as those living in cities to be at risk of poverty.

Note that thresholds that are used to define the share of the population at risk of poverty are based on national median incomes and that some cities are relatively expensive places to live, where incomes and the cost of living may be considerably higher than the norm; this is frequently the case in capital cities.

Severe material deprivation was relatively low in western EU Member States, however, it often presented a considerable challenge in urban (compared with rural) areas

In 2014, some 9.3 % of the EU-28 population living in cities faced severe material deprivation. While the rate recorded for those living in rural areas was somewhat higher (9.8 %), the share of the EU-28 population living in towns and suburbs and being affected by severe material deprivation was considerably lower, at 7.8 %.

There was almost no sign of severe material deprivation in the Nordic Member States, Luxembourg or the Netherlands. On the other hand, the highest severe material deprivation rates were generally recorded in the eastern and southern EU Member States, as well as the Baltic Member States.

In 2014, just over one quarter (25.9 %) of the population living in Bulgarian cities experienced severe material deprivation, while the same issues touched at least one in five city-dwellers from Romania (21.4 %) and Greece (21.2 %); note that the severe material deprivation rate was higher for the rural population in all three of these EU Member States.

Although relatively low shares of the population living in cities in the Netherlands and Sweden experienced severe material deprivation, the proportion of city-dwellers facing these issues was at least four times as high as among those living in rural areas, a ratio that rose to 6.6 times as high in Austria (where the share of city-dwellers experiencing severe material

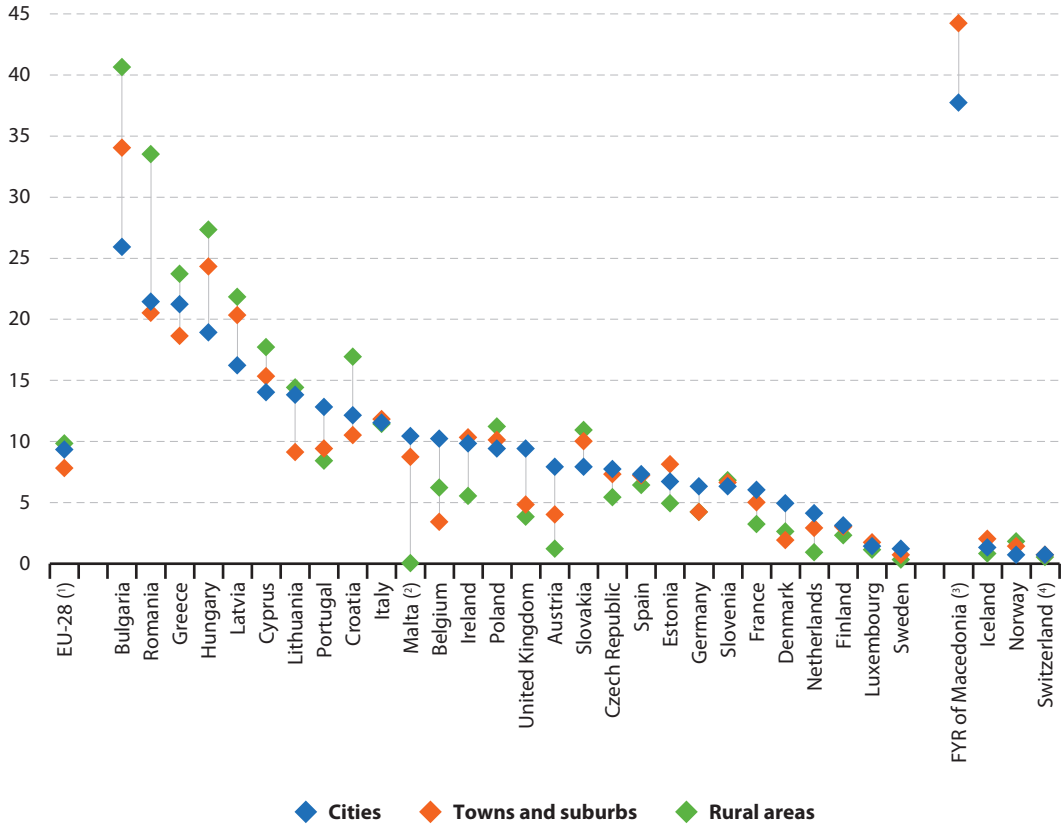
deprivation was 7.9 % compared with 1.2 % for those living in rural areas). It was relatively common to find that severe material deprivation was much higher in the cities of (the more developed) western EU Member States than in their rural areas. In Belgium, Ireland, Portugal, the United Kingdom and Austria, severe material deprivation in cities was 4.0–6.0 percentage points higher than in rural areas.

The share of households with a very low level of work intensity was higher in cities

Having a job is no guarantee against facing the risk of poverty, as temporary and part-time work or zero hours contracts are just some examples of the flexible nature of labour markets. Since the global financial and economic crisis there has been an increase in the number of working poor within the EU (many of whom are living in cities), as some members of the workforce have had to face a reduction in their real wages and purchasing power.

Figure 12.2: Proportion of the population facing severe material deprivation, by degree of urbanisation, 2014

(%)

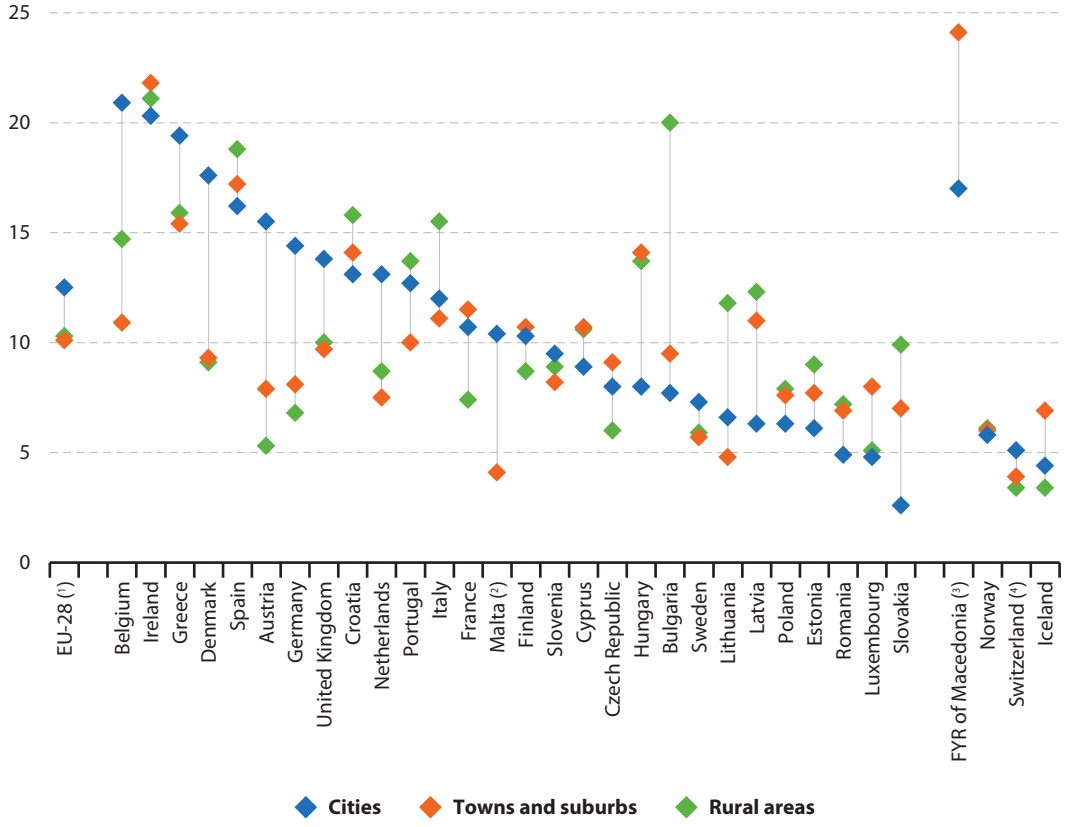


(1) Rural areas: estimate.
(2) Rural areas: unreliable data.
(3) 2011. Rural areas: not applicable.
(4) 2013.

Source: Eurostat (online data code: ilc_mddd23)

The third criterion used to analyse the risk of poverty or social exclusion is the proportion of people aged 0–59 who are living in a household with a very low level of work intensity (no more than 20 % of their total work potential) — see **Figure 12.3**. An analysis by degree of urbanisation reveals that the highest share of households with very low work intensity was recorded for those living in EU-28 cities (12.5 %), while approximately 1 in 10 of the EU's population in towns and suburbs (10.1 %) and rural areas (10.3 %) were living in households with very low work intensity. As such, although cities accounted for a high concentration of jobs, as witnessed by the influx of commuters into most urban agglomerations each morning, they were somewhat paradoxically also home to a high share of households with very low work intensity. This may, at least in part, be due to a skills mismatch, the precarious nature of some jobs, the relatively high share of single-parent households in cities (some of whom face difficulties in balancing work and caring for children), or the relatively high proportion of residents born outside the EU living in cities (extra-EU migrants are less likely to be employed).

Figure 12.3: Proportion of the population aged 0–59 living in households with very low work intensity, by degree of urbanisation, 2014
(%)



(1) Rural areas: estimate.
(2) Rural areas: not available.
(3) 2011. Rural areas: not applicable.
(4) 2013.

Source: Eurostat (online data code: ilc_lvhl23)

Defining overcrowding and severe housing deprivation

The overcrowding rate is the share of the population living in overcrowded households. A person is considered to be living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same gender between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

The severe housing deprivation rate is defined as the percentage of population living in a dwelling which is considered as overcrowded, while also exhibiting at least one of the housing deprivation measures. Housing deprivation is a measure of poor amenities and is calculated by referring to those households with: a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too dark.

The share of households with very low work intensity was often higher in the cities of western Europe. By contrast, in southern and eastern EU Member States, city-dwellers were generally less likely to live in a household with very low work intensity, when compared with their compatriots living in rural areas. The challenge apparent in western European cities was particularly pronounced in Belgium and Ireland, where slightly more than one in five persons living in a city inhabited a household with very low work intensity. The biggest differences between city-dwellers and those living in rural areas were recorded in Belgium, Germany, Denmark and Austria; in the latter, the share of city-dwellers living in a household with very low work intensity was 10.2 percentage points higher than for people living in rural areas.

In western EU Member States, people living in cities were often three to four times as likely to be living in overcrowded conditions as those living in rural areas

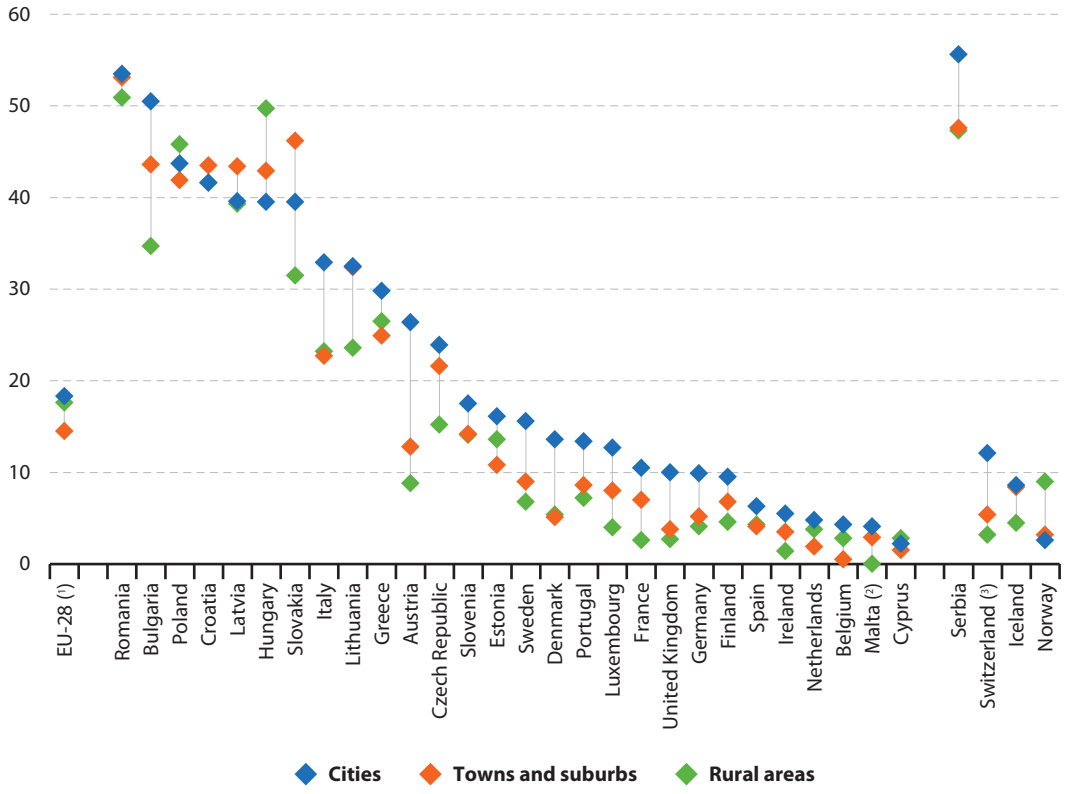
Poverty and social exclusion affect a range of inequalities that touch upon everyday lives, this next section covers one such issue — housing; note that more general information on housing in cities is presented in Chapter 10. Home ownership does not prevent poverty: there are many pensioners in the EU who have paid off their mortgage and might appear to have no housing costs. However, their incomes may be so low that they are unable to pay for the costs of any necessary repairs or for heating during winter months. Likewise, social housing and housing allowances/benefits constitute a buffer against the effects of poverty, but they do not preclude people from living in poverty or in substandard buildings. Some sections of the population are particularly exposed to housing poverty, including: workless households, migrants, single people, people renting their accommodation and those living in particularly large cities.

Figure 12.4 presents information on overcrowding for 2014, with the highest rate in the EU-28 recorded for people living in cities (18.3 %), which is perhaps unsurprising given the premium for the price of land and the lack of space for new developments. This pattern was broadly repeated when analysing the results by degree of urbanisation for the EU Member States, as cities recorded the highest overcrowding rate in 22 of the 28 Member States. The only exceptions were Croatia, Latvia and Slovakia (where the highest overcrowding rates were

recorded for people living in towns and suburbs) and Cyprus, Hungary and Poland (where the highest overcrowding rates were recorded for people living in rural areas).

The highest overcrowding rates tended to be recorded in eastern EU Member States, for example, more than half of the population in Romania was living in an overcrowded property in 2014. The highest overcrowding rates in cities were also recorded in eastern parts of the EU, for example, both Romania and Bulgaria reported that more than half of their city-dwellers were living in overcrowded conditions. However, a comparison between overcrowding rates in cities and rural areas reveals that a relatively high proportion of city-dwellers in some western European countries were living in overcrowded conditions: the overcrowding rates in cities were three to four times as high as in rural areas in Austria, Luxembourg, the United Kingdom, Ireland and France (where this ratio peaked at 4.0); Switzerland (2013 data) also recorded a relatively high proportion of its city-dwellers living in overcrowded dwellings compared with the situation for people living in rural areas.

Figure 12.4: Overcrowding rate, by degree of urbanisation, 2014
(%)



(1) Rural areas: estimate.
(2) Rural areas: unreliable data.
(3) 2013.

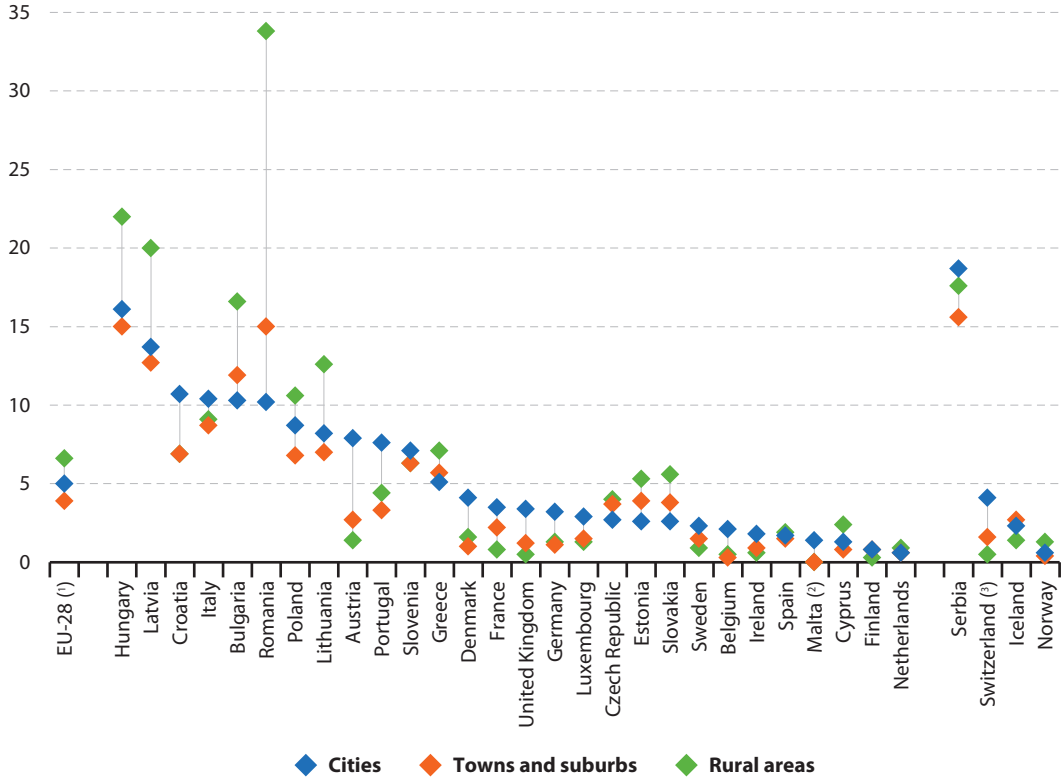
Source: Eurostat (online data code: ilc_lvho05d)

1 in 20 city-dwellers in the EU-28 faced severe housing deprivation

Figure 12.5 shows that in 2014 the highest levels of severe housing deprivation in the EU-28 were recorded in rural areas (6.6 %), followed by cities (5.0 %), while those living in towns and suburbs were less likely to face severe housing deprivation (3.9 %).

As with most of the other indicators in this chapter, the highest shares of severe housing deprivation were generally recorded in the eastern and southern EU Member States, where severe housing deprivation was often concentrated in rural areas, while lower rates tended to be recorded in most of western Europe, where severe housing deprivation was more apparent in cities.

Figure 12.5: Severe housing deprivation rate, by degree of urbanisation, 2014
(%)



(1) Rural areas: estimate.
(2) Rural areas: unreliable data.
(3) 2013.

Source: Eurostat (online data code: ilc_mdho06d)

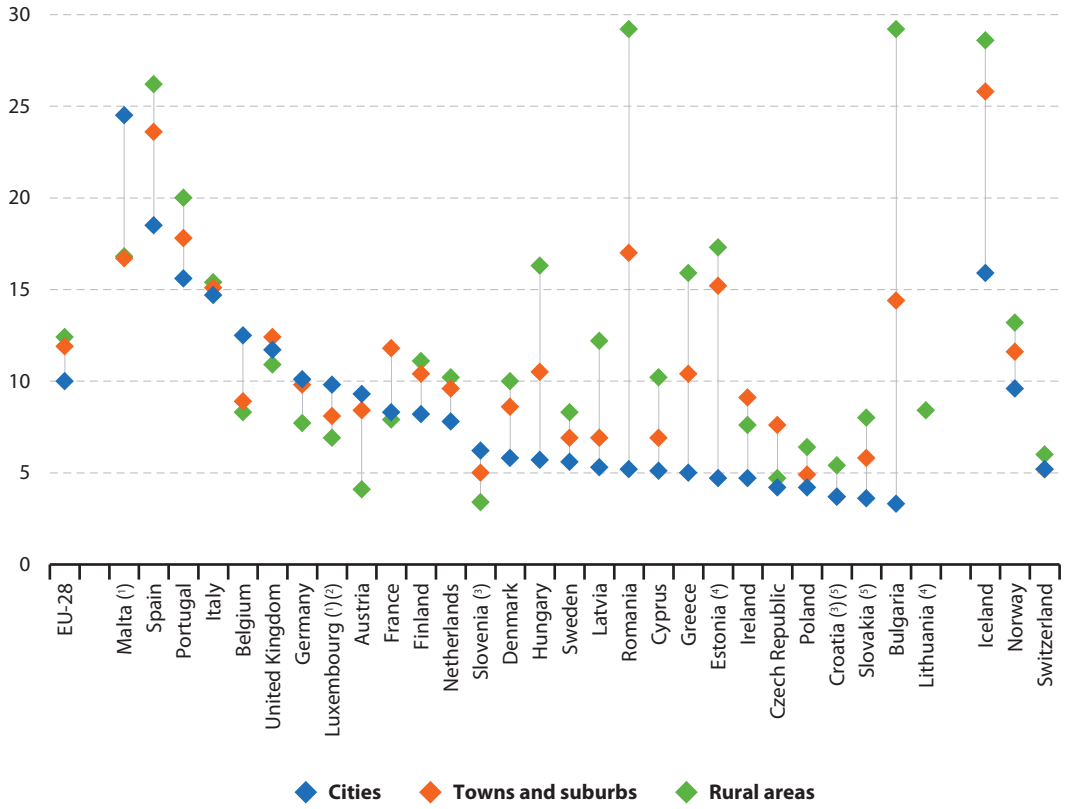
12.2 Unexploited education and training opportunities

Educational qualifications are often cited as being one of the best guarantees against unemployment, especially for those who are trying to make their first steps in the labour market. One of the headline Europe 2020 indicators concerns the share of early leavers from education and training — defined as the proportion of 18–24 year-olds with at most a lower secondary level of education and who are no longer in further education or training; the Europe 2020 target for early leavers from education and training has been set at 10 %.

Figure 12.6 provides an analysis of early leavers from education and training by degree of urbanisation and reveals that across the EU-28 the highest share of early leavers in 2014 was recorded among young people living in rural areas (12.4 %), while the lowest share was recorded for those living in cities (10.0 %); note these differences may, at least in part, reflect the distribution of further and higher education establishments which tend to be located in urban areas.

Figure 12.6: Proportion of the population aged 18–24 who were early leavers from education and training, by degree of urbanisation, 2014

(%)



(1) Rural areas: unreliable data.
(2) 2012.
(3) Unreliable data.
(4) Cities and towns and suburbs: unreliable data.
(5) 2013.

Source: Eurostat (online data code: edat_lfse_30)

In the cities of Croatia, Slovakia and Bulgaria, the share of early leavers from education and training was less than 4.0 %

In 2014, a majority of the 27 EU Member States for which data are available (Lithuania, incomplete data) reported that their lowest rate of early leavers from education and training was among those young persons aged 18–24 living in cities. Their share was less than 5.0 % in Estonia, Ireland, the Czech Republic and Poland, falling to less than 4.0 % in Croatia and Slovakia (both 2013 data), as well as Bulgaria — where the lowest rate of early leavers among those living in cities was recorded, at 3.3 % (see **Figure 12.7**).

The gap between the share of early leavers living in cities and in rural areas was particularly pronounced in Bulgaria, as alongside the lowest rate of early leavers in cities it also recorded the joint highest share of early leavers from education and training in rural areas (29.2 %); the same rate was registered for rural areas in Romania. Indeed, many of the eastern and southern Member States recorded a relatively high share of early leavers from education and training in rural areas and (to a lesser degree) in towns and suburbs, in stark contrast to relatively low rates in cities.

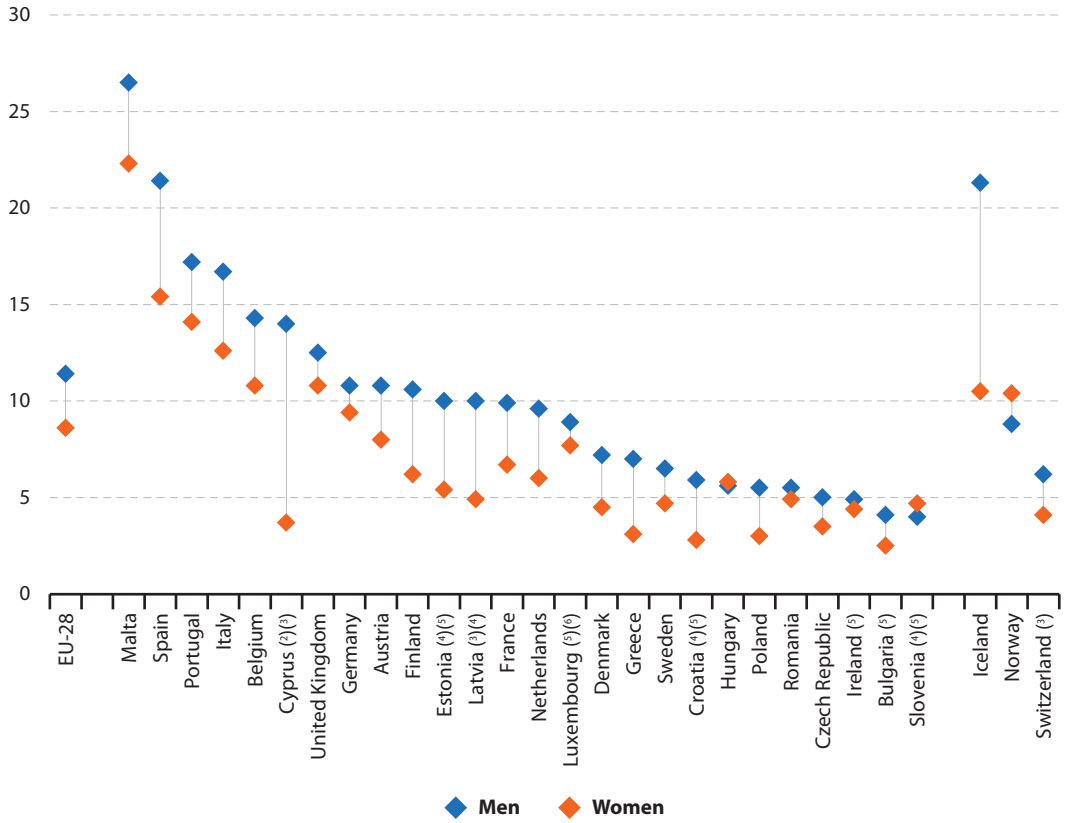
An analysis by degree of urbanisation reveals that the highest shares of early leavers from education and training in Malta, Belgium, Germany, Luxembourg (2012 data), Austria and Slovenia were registered among those aged 18–24 who were living in cities, while the United Kingdom, France, Ireland and the Czech Republic were the only EU Member States to report their highest share of early leavers among those living in towns and suburbs. As such, many of the western Member States reported their highest rates of early leavers in urban areas.

In 2014, the share of early leavers from education and training in EU-28 cities was higher among men (11.4 %) than women (8.6 %). This gender gap was evident for all but two of the 26 EU Member States for which data are available (no data for Lithuania and Slovakia), the exceptions being Hungary and Slovenia (2012 data), where the male rate for early leavers was only slightly lower than the female rate.

The gender gap for early leavers from education and training in cities peaked at 10.3 percentage points in Cyprus (2013 data) and was also relatively wide in a number of southern and northern EU Member States, principally, Spain — where the rate for men was 6.0 points higher than that for women — Latvia (5.1 points difference; 2012 data), Estonia (4.6 points; 2012 data), Finland (4.4 points), Malta (4.2 points) and Italy (4.1 points).

Figure 12.7: Proportion of the population aged 18–24 who were early leavers from education and training in cities, by sex, 2014 (1)

(%)



(1) Lithuania and Slovakia: not available.
(2) 2013.
(3) Female rate: unreliable data.
(4) 2012.
(5) Unreliable data.
(6) 2011.

Source: Eurostat (online data code: edat_lfse_30)

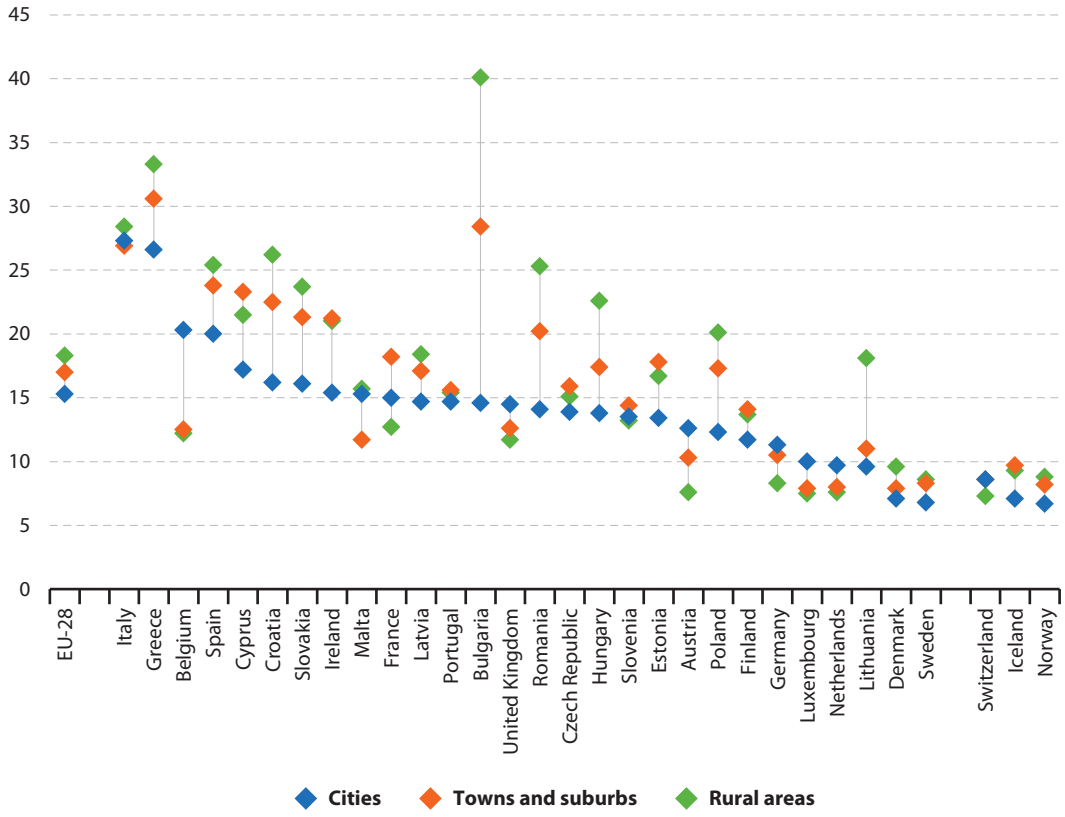
A high proportion of young people living in Austrian and Belgian cities were neither in employment nor in education and training

An analysis of the labour market is provided in **Figure 12.8** which shows the share of young people aged 15–34 who were neither in employment nor in education and training (NEET). In 2014, this share peaked at 18.3 % in the rural areas of the EU-28 in 2014, while it was somewhat lower in towns and suburbs (17.0 %) and particularly in cities (15.3 %). Once again these figures may reflect, at least to some degree, the concentration of educational establishments in urban areas.

The highest NEET rates among the EU Member States were often recorded in those most affected by the global financial and economic crisis, for example, Italy, Greece, Spain and Cyprus. In all four of these Member States there were somewhat lower NEET rates in cities and towns and suburbs than in rural areas.

Figure 12.8: Proportion of young people aged 15–34 neither in employment nor in education and training, by degree of urbanisation, 2014

(%)



Source: Eurostat (online data code: edat_lfse_29)

The NEET rates for young people aged 15–34 living in the cities of several western EU Member States were higher than those recorded for rural areas. The difference was 2.0–3.0 percentage points in the Netherlands, France, Luxembourg, Germany and the United Kingdom, rising to 5.0 points in Austria and peaking at 8.1 points in Belgium. These figures provide further evidence of a recurrent theme, namely, that while cities appear to offer opportunities (in relative terms compared with rural areas) of lower poverty and social exclusion and higher education and employment opportunities in many of the eastern and southern Member States, the reverse seems to be true in many western Member States.

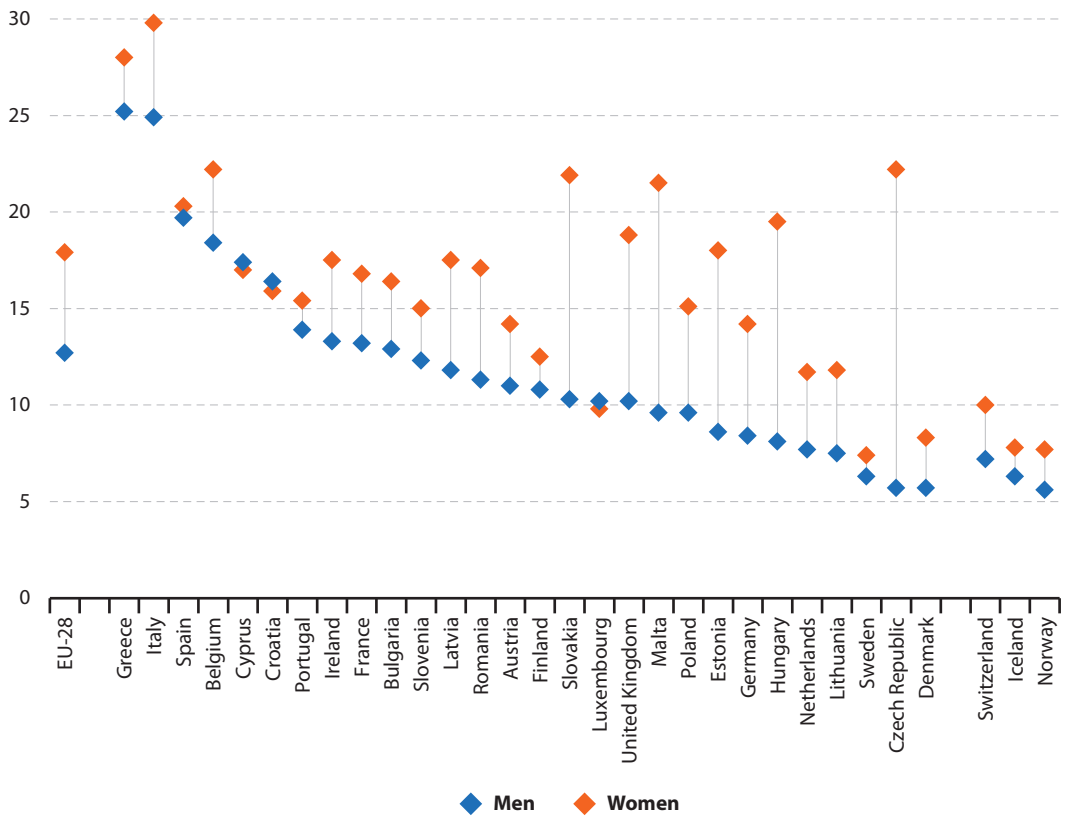
Young women were more likely to be neither in employment nor in education and training

A gender breakdown for the proportion of young people aged 15–34 living in cities and neither in employment nor in education and training is provided in **Figure 12.9**. It shows that in 2014 a higher proportion of young women in the EU-28 were classified as NEET (17.9 %) compared with young men (12.7 %). Note that the NEET rate for women may be higher than that for men as a result of a higher proportion of women taking a break from their studies/ career in order to raise a family.

This gender gap for the NEET rate was repeated in 25 of the EU Member States and rose to more than 10 percentage points in Hungary, Slovakia, Malta and the Czech Republic. Cyprus, Luxembourg and Croatia were the only EU Member States where the share of young men classified as NEET was higher than the corresponding share for young women; the difference in each case was less than 1.0 percentage points.

Figure 12.9: Proportion of young people aged 15–34 living in cities and neither in employment nor in education and training, by sex, 2014

(%)



Source: Eurostat (online data code: edat_lfse_29)

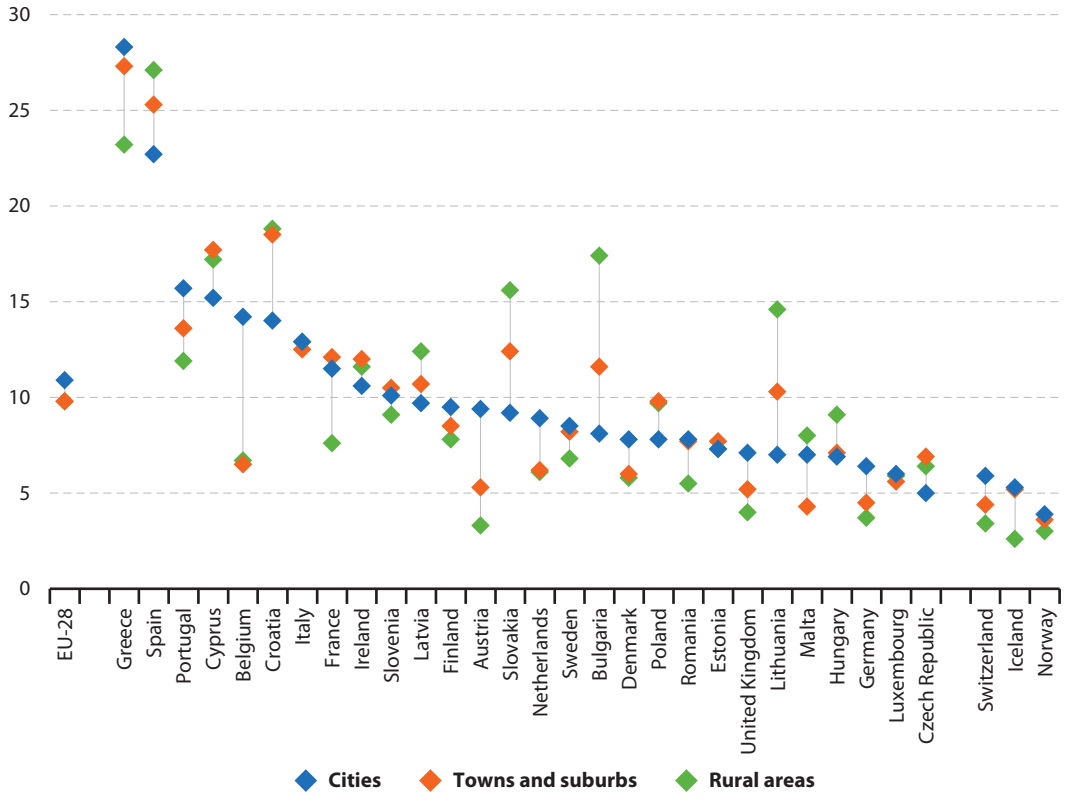
12.3 Unemployment

In 2014, the EU-28 unemployment rate (among those aged 15–74) stood at 10.2 % in 2014. An analysis by degree of urbanisation reveals that the unemployment rate (10.9 %) for people living in cities was higher than that recorded for towns and suburbs or for rural areas (9.8 % in both).

An urban paradox exists in some cities with a high concentration of job opportunities alongside a large number of disengaged people who remain outside the labour market

It is something of a paradox that unemployment rates in the EU-28 were higher in cities, considering that cities provide the nucleus around which most of Europe's employment opportunities are based. In 2014, unemployment rates in cities were higher than those in towns and suburbs or rural areas in 12 of the EU Member States — including Germany and the United Kingdom (see **Figure 12.10**). There were eight EU Member States — including Spain — where the highest unemployment rates were recorded for those living in rural areas, while the highest unemployment rates in seven EU Member States — including France and Poland — were recorded among those living in towns and suburbs; in Italy, the unemployment rates for cities and rural areas were the same.

Figure 12.10: Unemployment rates for persons aged 15–74, by degree of urbanisation, 2014
(%)



Source: Eurostat (online data code: lfst_r_urgau)

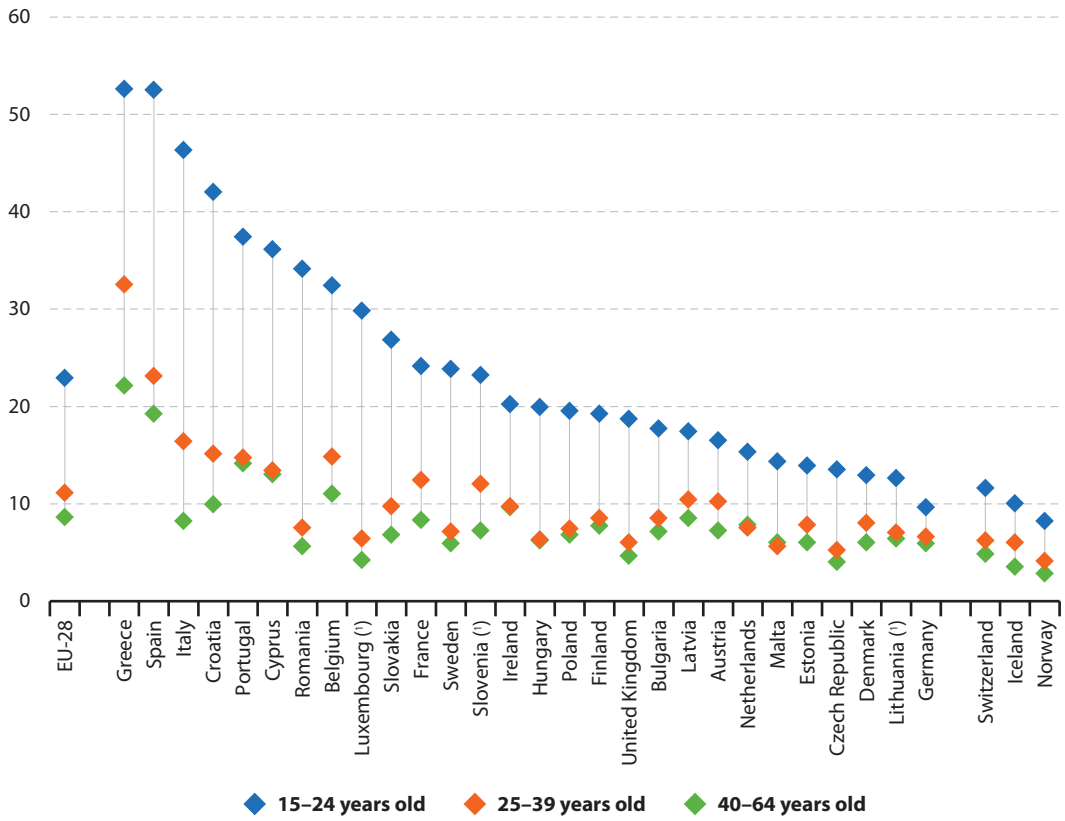
The gap in unemployment rates between those living in cities and rural areas widened to 5.1 percentage points in Greece (where the unemployment rate in cities peaked at 28.3 %), 6.1 points in Austria and 7.5 points in Belgium. On the other hand, unemployment rates in Spanish cities were 4.4 points lower than in rural areas, with this gap rising to 4.8 points in Croatia, 6.4 points in Slovakia, 7.6 points in Lithuania, and peaking at 9.3 points in Bulgaria.

Among those living in cities, young people aged 15–24 were most likely to be unemployment

In 2014, the EU-28 unemployment rate for city-dwellers aged 15–24 was 22.9 %, which was more than twice as high as for those aged 25–39 (11.1 %). The lowest unemployment rate for people living in cities was recorded among those aged 40–64, at 8.6 %.

An analysis of unemployment rates for city-dwellers shows that the 15–24 age group consistently displayed the highest unemployment rates; this pattern was reproduced in all of the EU Member States (see **Figure 12.11**). It is important to note that a high proportion of people aged 15–24 are outside the labour market (many are studying full-time and are therefore not available for work) and as such are not included in labour force statistics. That said, youth unemployment rates for Greece and Spain — two of the economies that were

Figure 12.11: Unemployment rates in cities, by age, 2014
(%)



(1) 15–24 years: unreliable data.

Source: Eurostat (online data code: lfst_r_urgau)

most affected by the global financial and economic crisis and subsequent sovereign debt crisis — rose above 50 % in Greek and Spanish cities, while unemployment rates of 40–50 % were recorded in the cities of Italy and Croatia, and 30–40 % in the cities of Portugal, Cyprus, Romania and Belgium. Germany (9.6 %) was the only EU Member State where the youth unemployment rate in cities was below 10.0 %; this was also the case in Norway (8.2 %).

In 26 of the EU Member States, the lowest unemployment rates among city-dwellers were recorded for those people within the 40–64 age group. The only exceptions to this rule were the Netherlands and Malta, where the lowest unemployment rate was recorded among city-dwellers aged 25–39.

Five metropolitan regions in southern Germany recorded some of the lowest unemployment rates in the EU …

Figure 12.12 presents information for the metropolitan regions in each of the EU Member States with the lowest/highest unemployment rates (for those aged 15–74). In 2014, the unemployment rate was less than 3.0 % in eight metropolitan regions of the EU-28. Five of these were located in Germany, including the Bavarian region of Regensburg, which had the lowest unemployment rate (2.3 %) in the EU among metropolitan regions. The other four German regions with very low unemployment rates were München, Offenburg, Ulm and Würzburg; all of these are located in the south of Germany. The remaining metropolitan regions which reported unemployment rates of less than 3.0 % were Cambridge (the United Kingdom), Timişoara (Romania; 2011 data) and Innsbruck (Austria; 2012 data).

It was relatively common for the capital city region to record the lowest unemployment rate; this was particularly true for several of the eastern EU Member States — Croatia, Slovenia, Bulgaria, Hungary, Slovakia and the Czech Republic — but was also the case in Greece, Ireland, Lithuania and Finland. By contrast, in Denmark and Austria, the metropolitan regions for the capital cities of København and Wien recorded the highest unemployment rates. The unemployment rate in Wien was much higher than in the other metropolitan regions of Austria, with the latest rate some 3.4 times as high as that recorded for Innsbruck.

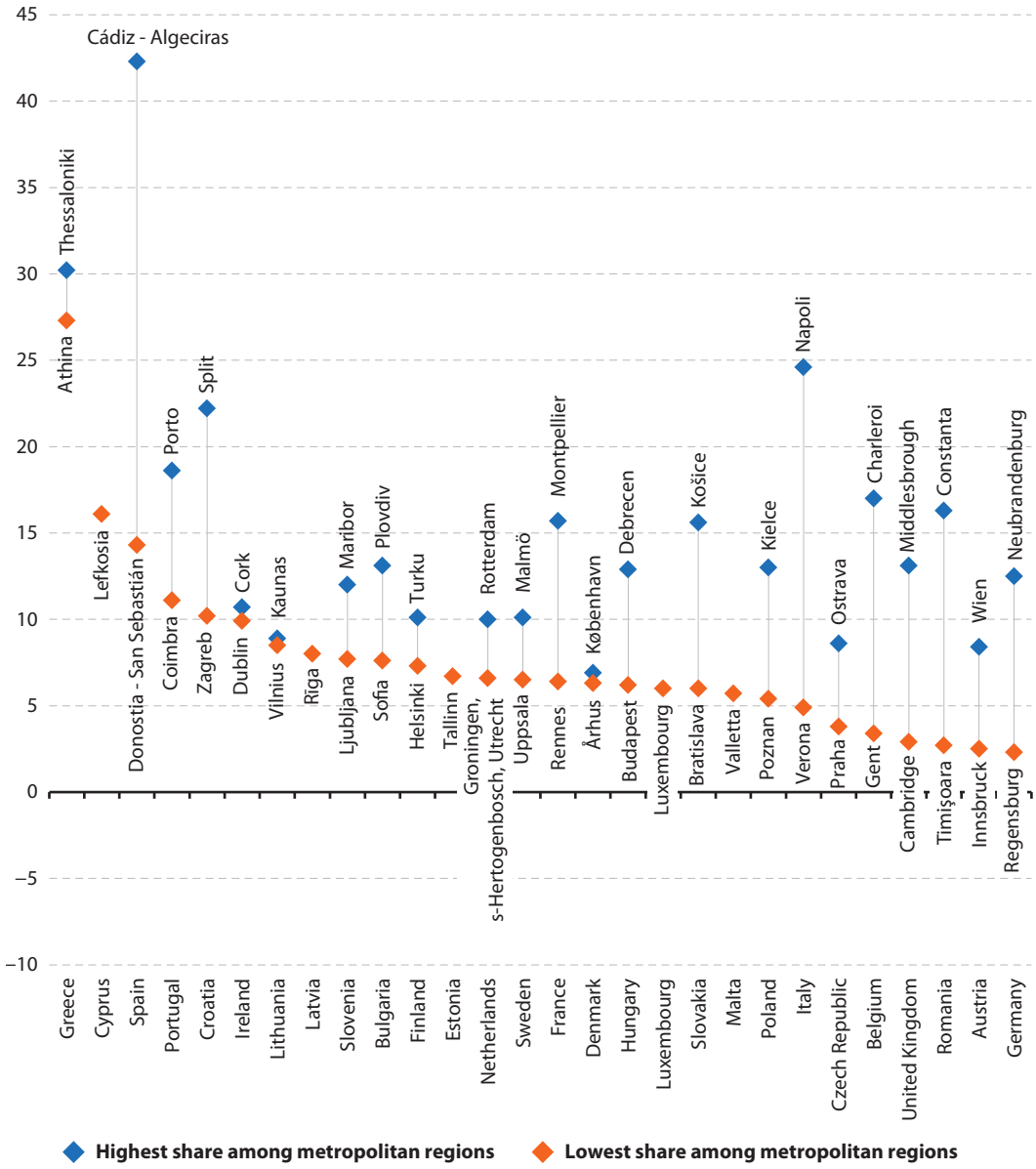
… while the highest unemployment rates in metropolitan regions were recorded in Spain and Italy

Among the 23 Member States for which data are available for more than one metropolitan region, there was a gap of at least 10.0 percentage points between the highest and lowest unemployment rates in Spain, Italy, Belgium, Romania, Croatia, Germany and the United Kingdom. The biggest difference was recorded in Spain, as the unemployment rate peaked at 42.3 % in the southern region of Cádiz - Algeciras but fell to a low of 14.3 % in the northern region of Donostia-San Sebastián. The next largest gap was recorded in Italy, where a similar pattern was observed, as a high of 24.6 % was recorded in the southern metropolitan region of Napoli, while the lowest unemployment rate was recorded in the northern region of Verona (4.9 %).

Having identified that the widest range in unemployment rates between metropolitan regions in 2014 was in Spain and Italy, **Figure 12.13** provides an analysis of their unemployment rates broken down by age. Youth unemployment rates (among those aged 15–24) in Spain ranged from 31.9 % in Donostia-San Sebastián to 65.1 % in Cádiz - Algeciras, while the same two regions appeared at either end of the range for unemployment rates

Figure 12.12: Unemployment rates for persons aged 15–74 in selected metropolitan regions, 2014 (1)

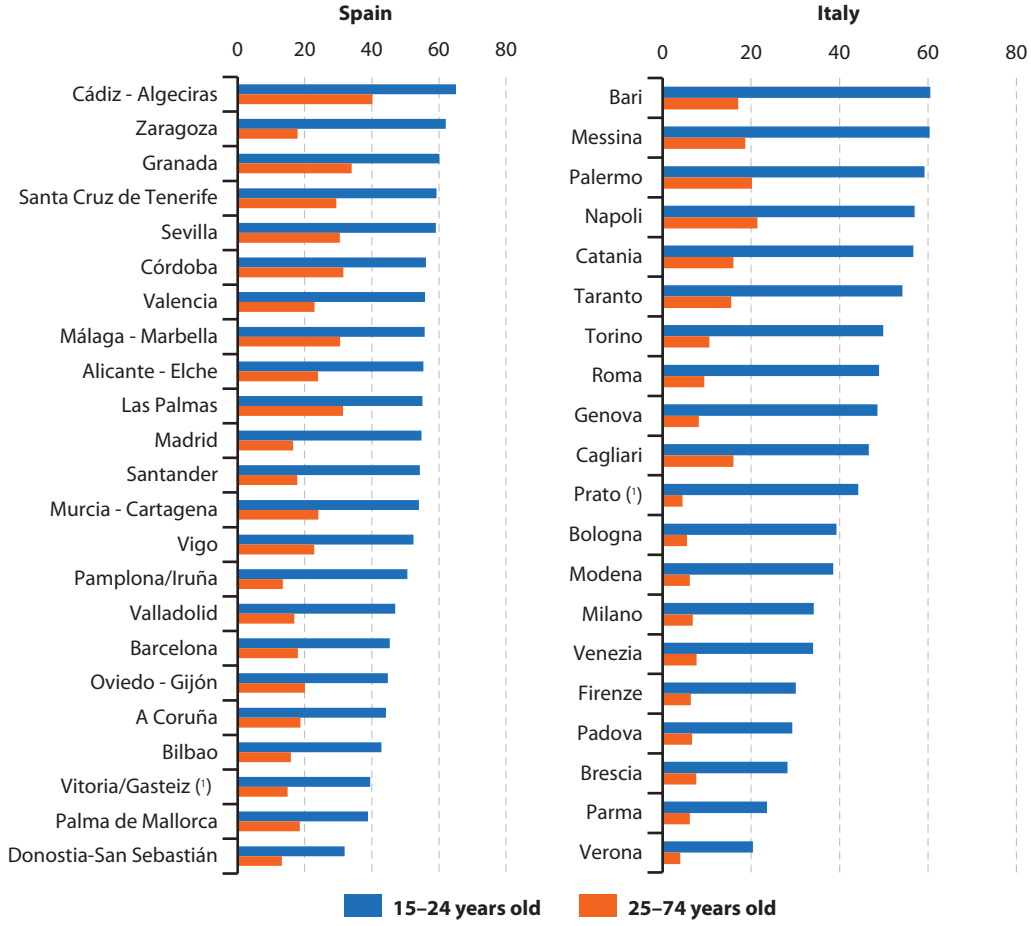
(%)



(1) The figure shows (subject to data availability) the metropolitan regions with the lowest/highest unemployment rates in each EU Member State. Estonia, Cyprus, Latvia, Luxembourg and Malta: only data for the capital city is collected, this is shown as the lowest share. France: 2010. Innsbruck (Austria): 2012. Timişoara (Romania): 2011. Ingolstadt, Konstanz, Reutlingen and Rosenheim (all Germany): not available.

Source: Eurostat (online data code: met_lfu3rt)

Figure 12.13: Unemployment rates by age, metropolitan regions of Spain and Italy, 2014



(1) 2012.

Source: Eurostat (online data code: met_lfu3rt)

among those aged 25–74, with a low of 13.2 % in Donostia-San Sebastián and a high of 40.2 % in Cádiz - Algeciras. In Spain, the largest gaps between youth unemployment rates and unemployment rates for those aged 25–74 were recorded in Zaragoza (44.1 percentage points difference), Madrid (38.3 points) and Pamplona/Iruña (37.1 points); in all three cases the unemployment rate for those aged 25–74 was lower than the Spanish national average.

In Italy, youth unemployment rates ranged from 20.4 % in Verona to 60.5 % in Bari. Verona also recorded the lowest unemployment rate among Italian metropolitan regions for those aged 25–74 (4.0 %), while the highest rate was recorded in Napoli (21.4 %). There was a clear north–south divide insofar as each of the northern metropolitan regions in Italy recorded an unemployment rate among those aged 25–74 that was less than or equal to the national average of 10.6 %, while unemployment rates in the southern metropolitan regions were consistently higher than the national average. The metropolitan region of Prato (2012 data) in Tuscany, as well as the regions of Genova, Roma and Torino all recorded youth unemployment rates that were higher than the Italian national average of 42.7 %; this pattern was repeated in each of the southern Italian metropolitan regions.

12.4 Self-perceived poverty and social exclusion

This final section is based on a perception survey on the quality of life in 79 European cities in 2015; note that the statistics presented for Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and the Tyneside conurbation (all in the United Kingdom) relate to the concept of the greater city.

A high share of the population living in Italian cities declared themselves unsatisfied with the state of the streets and buildings in their neighbourhood

Map 12.1 provides information on the proportion of respondents who were satisfied with the state of the streets and buildings in their neighbourhood. In 2015, the highest share of respondents in agreement with this premise was recorded in the Swedish capital of Stockholm (90 %), closely followed by two other capital cities, namely, Luxembourg (89 %) and Wien (88 %); an even higher share of respondents was satisfied with the state of the streets and buildings in their neighbourhood in the Swiss city of Zürich (93 %).

There were 13 cities in the EU (among those surveyed) where less than half of the respondents were satisfied with the state of the streets and buildings in their neighbourhood; this was also the case in the Turkish city of Istanbul. The lowest level of satisfaction was recorded in the Italian capital of Roma (20 %), while two other Italian cities, Napoli and Palermo (both 22 %) and the Bulgarian capital of Sofia (28 %) were the only other cities where less than one third of respondents were satisfied. Those cities with low levels of satisfaction regarding the state of streets and buildings were primarily in the southern and eastern EU Member States, although there were two German cities where less than half of all respondents were satisfied, both of these were in the region of Nordrhein-Westfalen, namely, Dortmund (42 %) and Essen (41 %).

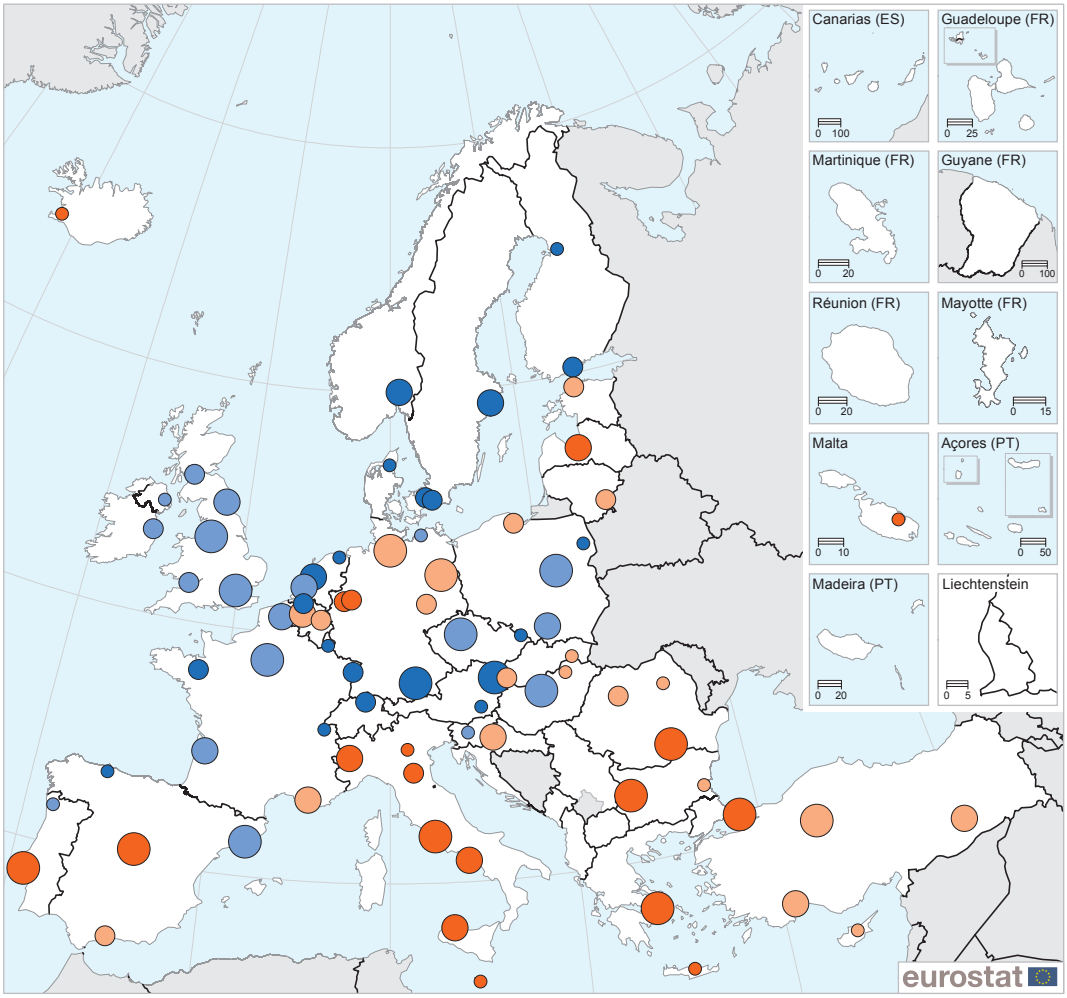
People living in the Greek cities of Irakleio and Athina faced the greatest difficulties in paying their bills

Map 12.2 shows the proportion of people who agreed that, during the previous 12 months, they had difficulties to pay their bills at the end of most months. The highest share among the 79 cities surveyed in 2015 was recorded in the Greek city of Irakleio (the capital of Crete), where 36 % of respondents indicated they had faced difficulties in paying their bills; these figures are clearly influenced by the sovereign debt crisis. The next highest share was also recorded in a Greek city, namely the capital of Greater Athina (31 %), while there were two Turkish cities where just less than one third of all respondents faced difficulties paying their bills — Ankara and Diyarbakir (both 32 %).

The share of people facing difficulties in paying their bills at the end of most months was generally below 10.0 % in the majority of cities that were surveyed in 2015. Indeed, the proportion facing difficulties fell to 3.0 % or less in 12 EU cities — two each from Denmark, Germany, Finland and Sweden, and one from each of Luxembourg, Austria, Poland and Slovakia — including five capital cities: København, Luxembourg, Bratislava, Helsinki and Stockholm. In addition, there were also two cities from outside of the EU where only 3 % of respondents reported that they faced difficulties paying their bills at the end of most months: the Norwegian capital of Oslo and the Swiss city of Zürich.

Map 12.1: Proportion of people who are satisfied with the state of the streets and buildings in their neighbourhood, 2015 (1)

(%)

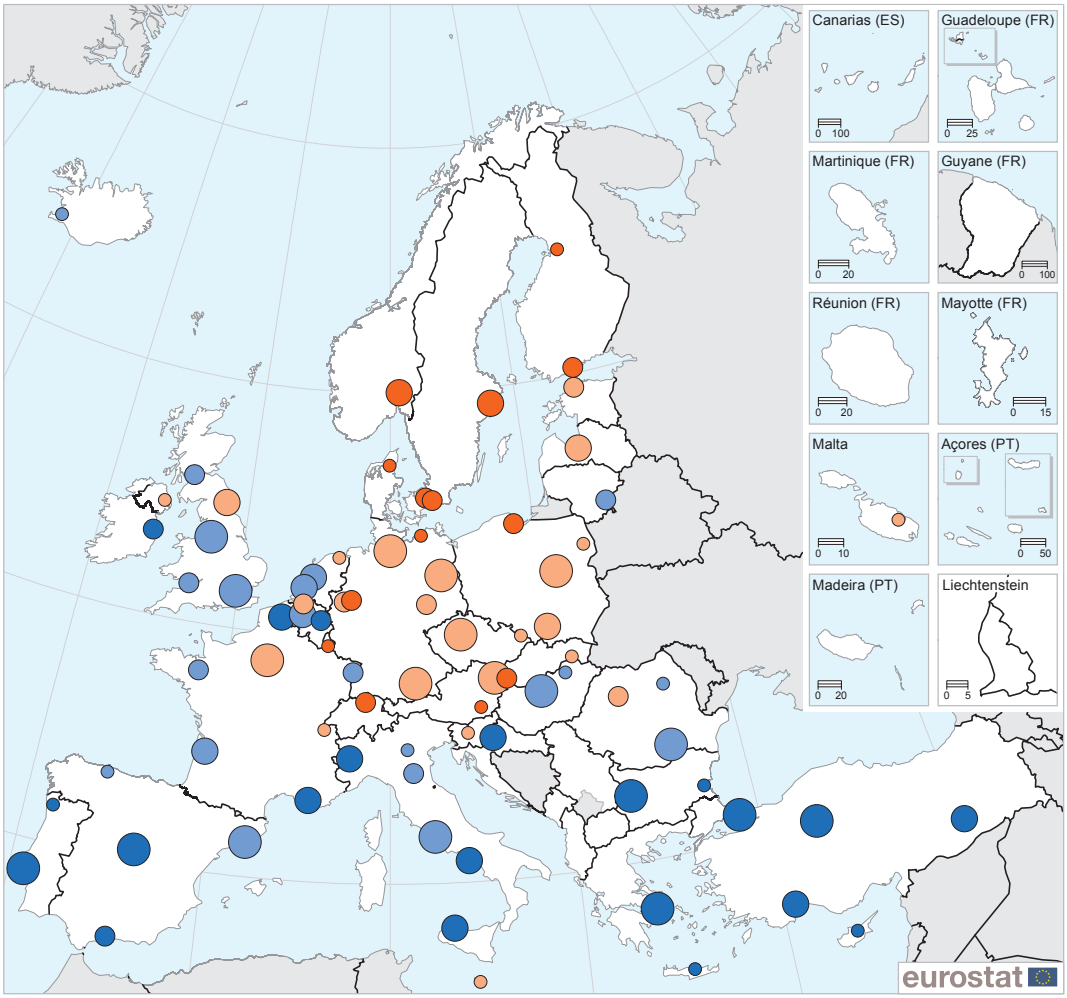


(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

Map 12.2: Proportion of people who had difficulties paying their bills at the end of the month, 2015 ([1])

(%)



([1]) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

13 Satisfaction and quality of life in cities

Economic output has traditionally been measured by gross domestic product (GDP), while GDP per capita is often used as a proxy for analysing living standards. However, the prominence given to GDP has resulted in a number of critiques that a wider range of indicators are needed to capture social developments, welfare, or environmental aspects of (sustainable) growth.

Moving beyond GDP

Following the publication of work done by the Commission on the Measurement of Economic Performance and Social Progress and a range of studies grouped under the heading of 'GDP and beyond', the measurement of economic and social progress has been refocused on a range of issues. This broader approach provides a means of measuring well-being and prosperity while considering environmental sustainability, focusing on distributional aspects of income, consumption and wealth, as well as the quality of life. These pillars are interlinked: for example, a household's disposable income affects its level and patterns of consumption, which in turn may affect the environment, which will likely impact on well-being.

While overall economic output in the European Union (EU) has continued to rise, many commentators point out that higher overall living standards and prosperity have failed to deliver a better quality of life, especially with respect to the distributional aspects of income and wealth, which is increasingly concentrated in the hands of globalised business and the super-rich. Furthermore, studies have shown that if an individual receives an increase in his/her material wealth this does not necessarily imply that they will also experience an increase in well-being, happiness or overall life satisfaction.

European policy initiatives linked to the quality of life

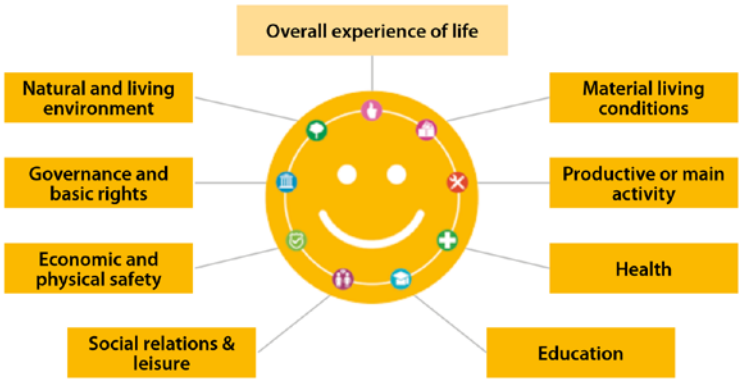
The EU's renewed sustainable development strategy aims to identify and develop actions that enable the EU to achieve continuous improvements in the quality of life for both current and future generations, through the creation of sustainable communities that are able to manage and use resources efficiently, while promoting the ecological and social innovation potential of the economy, thereby ensuring prosperity, environmental protection and social cohesion.

The Leipzig charter on sustainable European cities aims to deliver '… high quality in the fields of urban design, architecture and environment', so as to promote sustainable communities as places where people want to live and work, now and in the future: safe and inclusive places that are planned, built and run well, which offer equality of opportunity and good services for all.

The EU's 2014–20 cohesion policy and more specifically its urban agenda are designed to invest heavily in urban areas, with EUR 15 billion directly managed by city authorities for sustainable urban development. They aim to deliver smart, sustainable and inclusive urban growth via initiatives for: smart cities, green cities and inclusive cities.

Analysing the quality of life: Eurostat's approach

Diagram 13.1: framework for analysing the quality of life in the EU



Eurostat and representatives of the EU Member States have designed an overarching framework for analysing the quality of life through eight dimensions which feed into the measurement of the overall experience of life. This multidimensional data has the potential to provide a detailed picture of how Europeans feel about their day-to-day lives and the societies they live in. It seeks to capture and balance objective measures of income, living conditions, education or health, with subjective measures such as an individual's appreciation of their living environment, how safe they feel, or whether they can rely on friends/family.

This final chapter is divided into two parts. The first provides a selection of data based on the EU's statistics on income and living conditions (EU-SILC) which are analysed by degree of urbanisation, highlighting urban challenges that result from the interplay between quality of life issues and sustainable development issues. The second half focuses more on subjective measures and is based on results from a perception survey on the quality of life in 79 European cities in 2015; note that the statistics presented for Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and the Tyneside conurbation (all in the United Kingdom) relate to the concept of the greater city.

Definitions of territorial units

The various territorial units that are presented within *Urban Europe — statistics on cities, towns and suburbs* are described in more detail within the introduction. Readers are encouraged to read this carefully in order to help their understanding and interpretation of the data presented in the remainder of the publication.

13.1 Satisfaction and quality of life by degree or urbanisation

Table 13.1 provides an overview of overall life satisfaction with contrasting data on the highest and lowest income quintiles (in other words, the top and bottom 20 % of the population in terms of their income). Life satisfaction is a measure of how respondents evaluate or appraise their life as a whole. It does not aim to gauge the current emotional state of the respondent, but rather to capture a reflective judgement on their current level of satisfaction, based on a broad appraisal of life; the indicator is measured on a scale of 0–10 for each respondent.

In 2013, an analysis for the EU-28 for both the highest and the lowest income quintiles reveals the difference in overall life satisfaction between those living in the three different degrees of urbanisation was no more than 0.1 (on the basis of a scale from 0–10), in other words minimal. The highest earners living in cities had an overall level of life satisfaction of 7.6, which was 0.1 lower than in towns and suburbs or rural areas. The lowest earners living in cities had an overall level of life satisfaction of 6.3, which was the same as that recorded in rural areas, and 0.1 lower than in towns and suburbs.

High earners recorded a higher level of overall life satisfaction than those with the lowest incomes

Overall life satisfaction tended to be lower in some of the eastern EU Member States, the Baltic Member States and some of the Member States most affected by the financial and economic crisis, while it was generally higher (irrespective of the degree of urbanisation) in the Nordic Member States, the Netherlands and Austria. In all of the EU Member States, the top income quintile had higher levels of overall life satisfaction than the lowest income quintile for all three degrees of urbanisation; suggesting, at least in part, that money alleviates some of the challenges in life and help individuals to be more satisfied.

An analysis by degree of urbanisation reveals that people living in the cities of Croatia, Portugal, Estonia, Bulgaria, Greece and Slovenia generally had a higher level of overall life satisfaction than their compatriots living in towns and suburbs or rural areas. The opposite was true in Denmark, Ireland, Cyprus, Luxembourg and the United Kingdom, where those living in rural areas recorded the highest levels of overall life satisfaction.

Concentrating on people living in cities, the difference in overall life satisfaction between those in the highest and lowest income quintiles was 1.0 or less in Denmark, Luxembourg, Sweden, Finland and the Netherlands — all of which are characterised by their relatively high levels of expenditure on social policies and cohesion. By contrast, there were larger differences in levels of life satisfaction between those at either end of the income distribution in Bulgaria and Hungary (those in the upper quintile recorded a level of satisfaction that was 2.5 higher than for those in the lowest quintile), Estonia and Lithuania (2.2) and Croatia (2.1), where income differentials appeared to have a greater impact on overall life satisfaction.

Single persons living in cities tended to record a higher level of overall life satisfaction than those living alone elsewhere

The data presented in **Figure 13.1** details the overall rating for life satisfaction in cities according to household type; information is presented for those living alone (single persons) and for households composed of two adults (without children).

In 2013, life satisfaction among those living in the cities of the EU-28 stood at 6.7 for single persons and 7.2 for those living in a household composed of two adults; this pattern of higher levels of satisfaction for households composed of two adults was repeated consistently in each of the EU Member States. The biggest difference was recorded in United Kingdom (0.9), while those living in households composed of two adults also recorded a relatively high level of overall life satisfaction in Germany and Denmark (0.8 difference compared with those living alone), Belgium, Poland and Sweden (0.7).

Table 13.1: Overall life satisfaction, by income quintile and degree of urbanisation, 2013
(rating, 0–10)

	First quintile			Fifth quintile		
	Cities	Towns and suburbs	Rural areas	Cities	Towns and suburbs	Rural areas
EU-28	6.3	6.4	*6.3*	7.6	7.7	*7.7*
Belgium	6.7	7.0	6.9	8.0	8.0	8.2
Bulgaria	3.5	3.2	3.3	6.0	5.4	5.8
Czech Republic	6.3	6.2	6.1	7.7	7.7	7.6
Denmark	7.4	7.6	7.6	8.4	8.4	8.6
Germany	6.3	6.4	6.4	7.9	7.9	7.9
Estonia	5.5	5.6	5.5	7.7	7.5	7.4
Ireland	6.4	6.8	7.2	7.9	8.1	8.0
Greece	5.5	5.4	5.6	6.9	6.7	6.7
Spain	6.1	6.3	6.2	7.5	7.4	7.4
France	6.3	6.3	6.3	7.6	7.4	7.6
Croatia	5.6	5.2	5.2	7.7	7.2	7.1
Italy	6.0	6.0	5.9	7.2	7.2	7.3
Cyprus	5.1	5.8	5.8	6.8	7.2	7.1
Latvia	5.5	5.7	5.6	7.4	7.3	7.5
Lithuania	5.5	5.6	5.9	7.7	7.5	7.9
Luxembourg	6.7	6.6	6.7	7.7	8.0	8.3
Hungary	4.6	5.1	5.0	7.1	7.3	7.1
Malta	6.5	6.9	:	7.6	7.8	:
Netherlands	7.3	7.4	7.8	8.1	8.2	8.2
Austria	6.8	7.3	7.4	8.3	8.5	8.3
Poland	6.3	6.4	6.9	7.9	7.9	7.9
Portugal	5.4	4.9	5.4	7.1	7.0	6.6
Romania	6.3	6.6	6.8	7.6	7.8	7.7
Slovenia	6.4	6.3	6.2	7.9	7.7	7.7
Slovakia	6.4	5.9	6.3	7.6	7.5	7.5
Finland	7.6	7.4	7.6	8.4	8.4	8.4
Sweden	7.3	7.4	7.7	8.3	8.4	8.4
United Kingdom	6.4	6.7	7.0	7.9	7.9	8.1
Iceland	7.5	:	7.8	8.3	:	8.3
Norway	7.4	7.3	7.4	8.2	8.2	8.2
Switzerland	7.5	7.7	7.9	8.3	8.4	8.4
Serbia	3.7	3.5	3.8	6.4	6.4	6.2

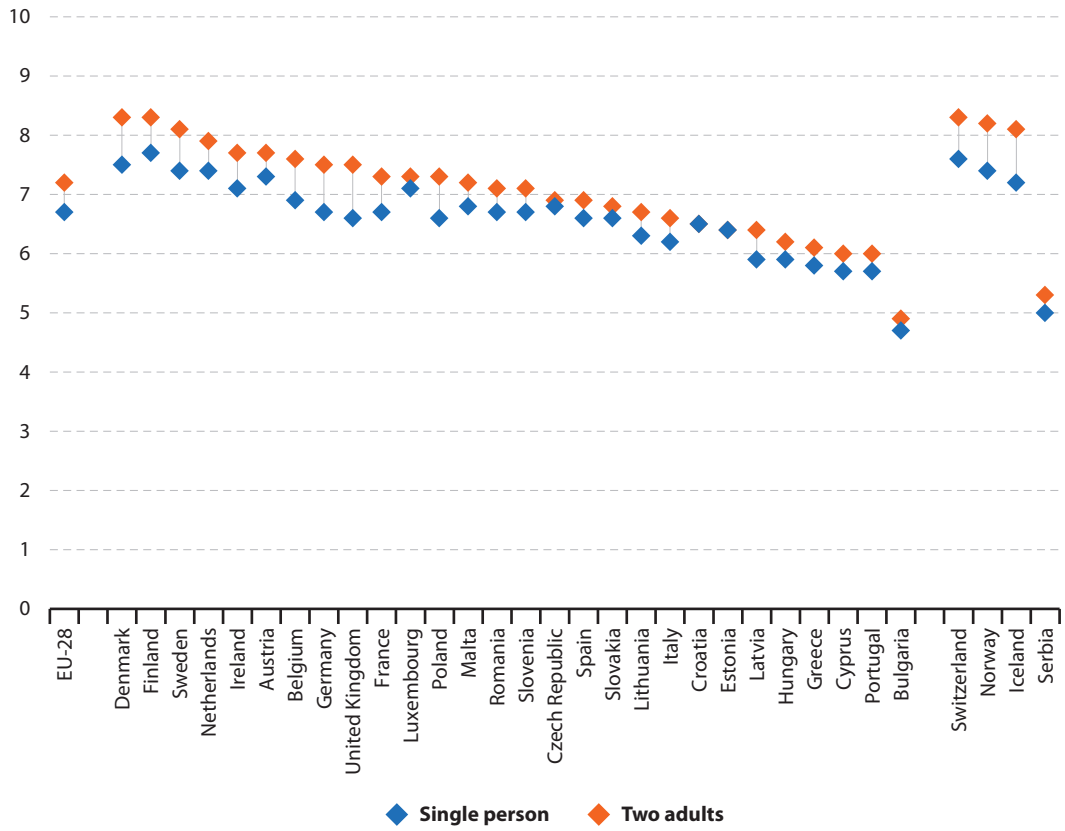
Source: Eurostat (online data code: ilc_pw02)

In a majority of the EU Member States, the level of life satisfaction among single persons living in cities was higher than the national average recorded for those living alone; this was particularly the case in Bulgaria and Croatia (a difference of 0.6), as well as Romania, Slovakia and Hungary (0.3). These figures might suggest that single people living in cities profited from the wide range of opportunities that exist in many European cities for education, work, entertainment, culture, or friendship, while those living alone in the two other types of areas might feel more isolated and disconnected from life. There were six Member States where overall life satisfaction among single persons living in cities was lower than for the whole population living alone (although their differences were not very large), they were: Denmark, Sweden, Ireland, Belgium, Cyprus (a difference of 0.1) and the United Kingdom (0.2).

Satisfaction with accommodation tended to be somewhat lower among those living in cities

Housing is an important dimension for measuring the quality of life, as appropriate shelter is one of the most basic human needs. The quality of housing can be measured in an objective manner by recording the existence of structural problems, a lack of space, or a lack of basic amenities (see Chapter 10 for more details), or in a subjective manner, through the respondent's satisfaction, on a scale of 0–10, in relation to whether their accommodation: meets the household's needs; is of sufficient quality; is a financial burden; provides adequate space; is in a desirable neighbourhood; is a relatively short distance to work.

Figure 13.1: Overall life satisfaction in cities, by household type, 2013
(rating, 0–10)



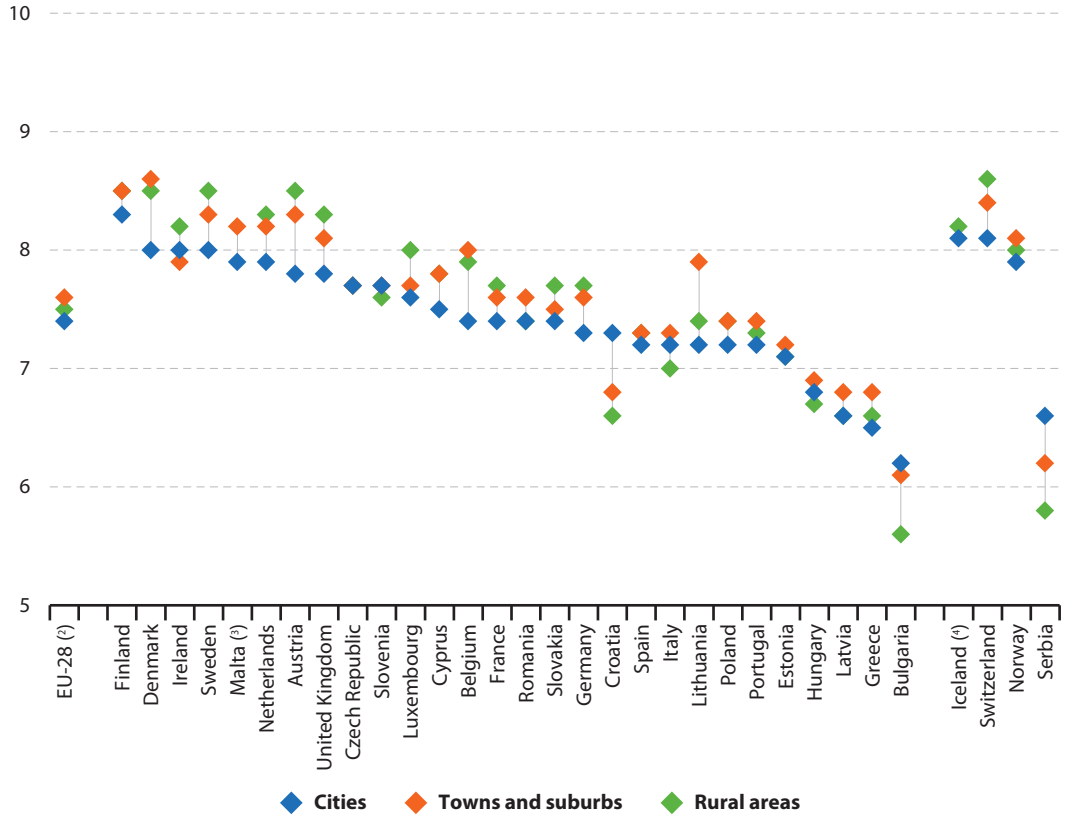
Source: Eurostat (online data code: ilc_pw02)

One may imagine that overall levels of satisfaction with accommodation might be lower in cities, given that city-dwellers generally have less space to live in, tend to live much closer to their neighbours and may therefore be more affected by issues such as noise, and often pay higher rent or prices. Average levels of satisfaction with accommodation were highest in the EU-28 (7.6 on a scale of 0–10) among those living in towns and suburbs, while the corresponding values for people living in rural areas (7.5) and cities (7.4) were slightly lower. This pattern of people living in cities recording lower levels of satisfaction with their accommodation was particularly evident in Austria, Belgium, Denmark, Lithuania, Sweden, the United Kingdom, Germany, the Netherlands and Cyprus. On the other hand, in Croatia and Bulgaria those living in cities were more satisfied with their accommodation than people living in towns and suburbs or rural areas.

City-dwellers in most of the western Member States were relatively unsatisfied with their living environment

An indicator on a person's satisfaction with their living environment aims to measure access to a range of services (for example, shops or public transport) and the presence of entertainment in the form of cinemas, museums or theatres. It refers, within the context of EU-SILC, to an area within close proximity of the respondent's home (where they usually go shopping, for a walk, or their route/journey home).

Figure 13.2: Satisfaction with accommodation, by degree of urbanisation, 2013 (1)
(rating, 0–10)



(1) Note the y-axis starts at 5.
(2) Rural areas: estimate.
(3) Rural areas: not available.
(4) Towns and suburbs: not applicable.

Source: Eurostat (online data code: ilc_pw02)

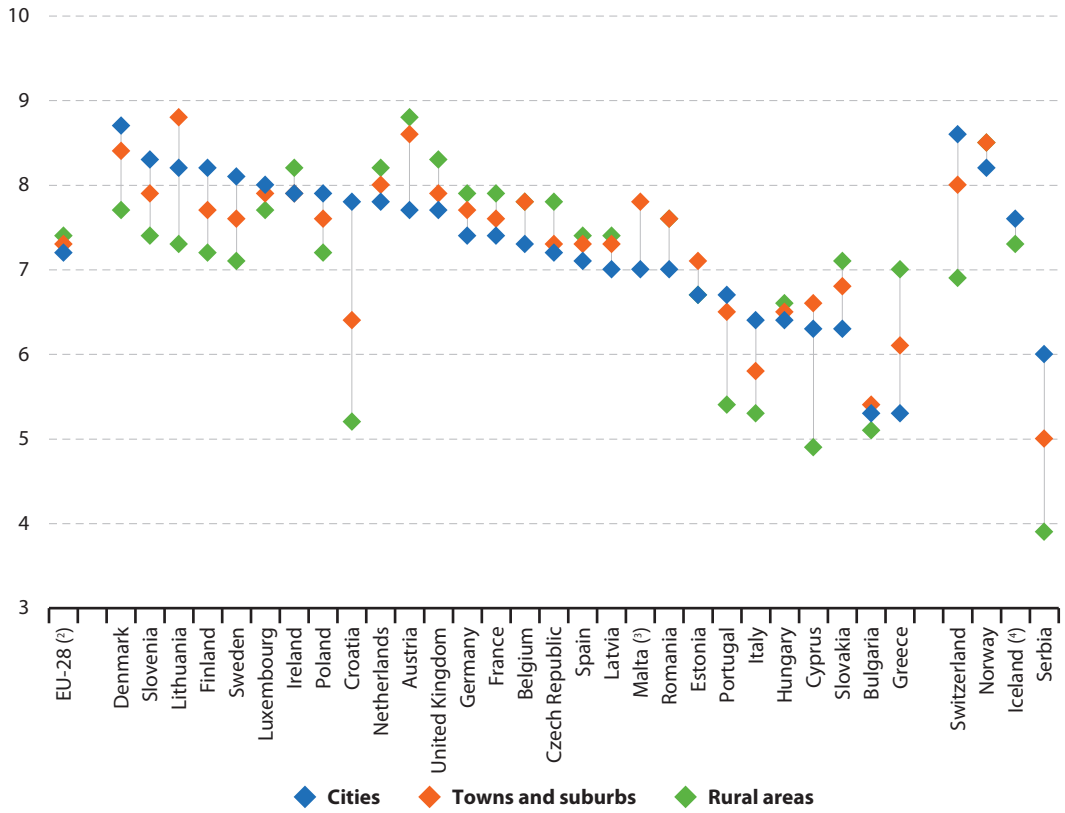
In 2013, the satisfaction of EU-28 city-dwellers with their living environment was rated with an average score of 7.2 for cities; by contrast, slightly higher ratings were recorded for both towns and suburbs (7.3) and rural areas (7.4).

The level of satisfaction among city-dwellers with their living environment was higher than for those living in rural areas in 12 of the 27 EU Member States for which data are available (Malta, incomplete data); this was particularly the case in Croatia, the southern Member States of Cyprus, Portugal and Italy and the Nordic Member States. However, city-dwellers recorded a lower level of satisfaction (than those living in rural areas) with their living environment in 14 EU Member States; this was particularly the case in the Czech Republic, Romania and the United Kingdom, as well as Germany, France and Belgium.

Bulgarians and Greeks living in cities were least satisfied with their commute to/from work

The average satisfaction with commuting time is an indicator that refers to the respondent's opinion/feeling about their degree of satisfaction with the time it takes to commute to work. While it may be expected that the indicator is lower in cities if commuters face congestion and

Figure 13.3: Satisfaction with living environment, by degree of urbanisation, 2013 (1)
(rating, 0–10)



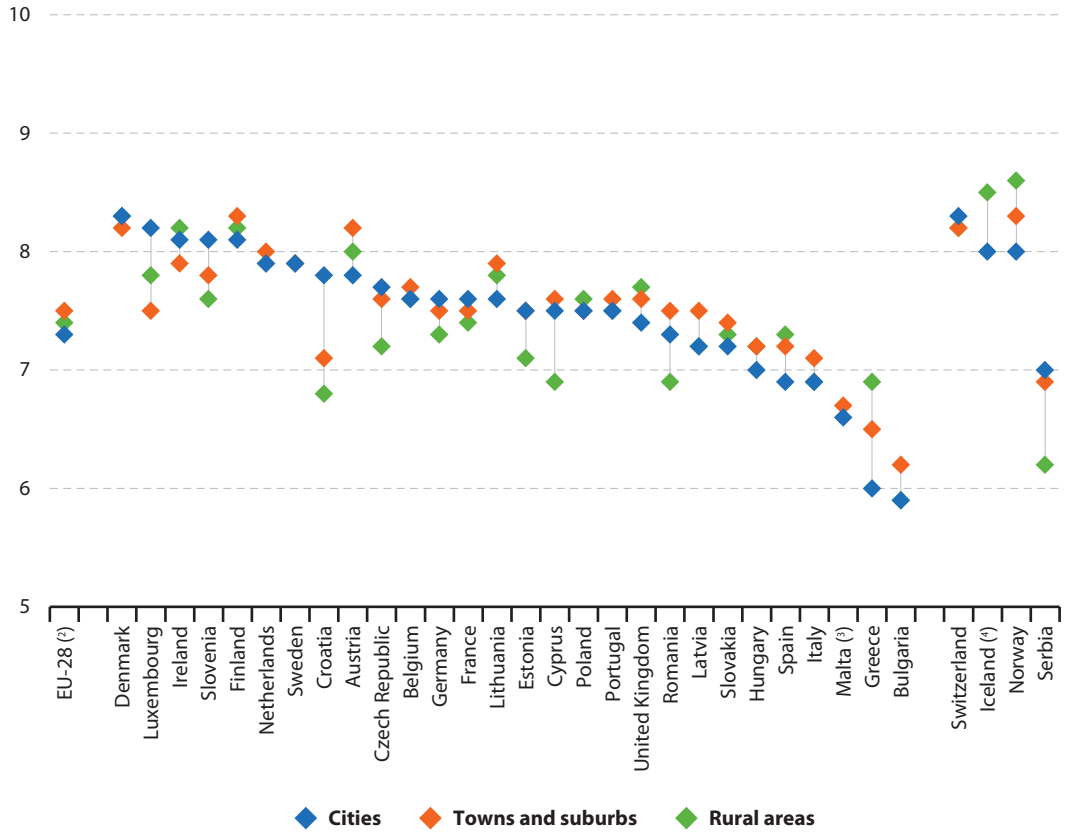
(1) Note the y-axis starts at 3.
(2) Rural areas: estimate.
(3) Rural areas: not available.
(4) Towns and suburbs: not applicable.

Source: Eurostat (online data code: ilc_pw02)

delays on intra-urban transport, this may be balanced against people living closer to their place of work in cities. Rated on a scale of 0–10, those living in cities across the EU-28 in 2013 gave an average score of 7.3 in terms of their satisfaction with their commuting time, which was slightly lower than the ratings for those living in rural areas (7.4) or towns and suburbs (7.5).

There were 9 out of 27 EU Member States for which data are available (Malta, incomplete data), where the level of satisfaction with commuting time was higher in cities than it was in rural areas, while there were 10 Member States where the level of satisfaction was higher among those living in rural areas. Those living in the cities of Bulgaria and Greece were particularly unsatisfied with their commute to work, and this was also the case (although to a lesser degree) for those living in the cities of Spain and the United Kingdom (see **Figure 13.4**). On the other hand, those living in the cities of Croatia, Cyprus, the Czech Republic, Slovenia, Estonia, Luxembourg, Romania, Germany and France were more satisfied than people living in rural areas with their commuting time.

Figure 13.4: Satisfaction with commuting time, by degree of urbanisation, 2013 (1)
(rating, 0–10)



(1) Note the y-axis starts at 5.
(2) Rural areas: estimate.
(3) Rural areas: not available.
(4) Towns and suburbs: not applicable.

Source: Eurostat (online data code: ilc_pw02)

13.2 Self-perceived satisfaction and quality of life in European cities

When individuals search for a better quality of life their choices can often be summarised as trade-offs, for example: they could pay less for a much bigger house in the suburbs, but then lose easy access to a range of cultural amenities and need a longer commute to work. This final section presents information on a range of issues and the perceptions that Europeans have in relation to each of these.

Some of the most common concerns of city-dwellers include having a decent job with a regular income and access to good quality health and education services

Table 13.2 provides information based on results of a 2015 perception survey for 79 cities across Europe; it shows the three factors that city-dwellers considered as being the most/least important in terms of their impact on the city where they lived. While a high proportion (76 %) of city-dwellers from Ostrava (the Czech Republic) considered air pollution to be the most important item for their city, some 73 % of inhabitants from Napoli (Italy) named (un) employment, while around two thirds (67 %) of respondents from the Hungarian capital of Budapest cited health services. There are clearly trade-offs in each city: for example, while housing was considered an important item in cities including Stockholm, München, Geneva or Zürich, this could, at least in part, reflect low levels of unemployment and high-quality education and health services in each of these cities, as well as relatively high property prices and a shortage of supply for accommodation.

People living in Antwerpen, Groningen and Graz recorded the highest levels of satisfaction among EU cities in relation to the provision of healthcare services, doctors and hospitals …

Ill health can undermine an individual's quality of life, while at a collective level it may hinder economic and social developments. Living a long and healthy life is therefore not just a personal aim, as it also has the potential to impact upon societal well-being, which is particularly important given Europe's ageing population. While health conditions are often measured using objective indicators such as life expectancy, healthy life years or infant mortality, a subjective evaluation of health issues can provide important information in relation to an individual's well-being.

Maps 13.1–**13.5** are based on results from the perception survey, with the circles for each city having been scaled proportionally to reflect their total number of inhabitants; note that the same classes have been used to classify the cities for the first four maps. In relation to health issues (see **Map 13.1**), respondents were asked to what degree they were satisfied with healthcare services, doctors and hospitals in their city. In 2015, the share of the city-dwellers who were satisfied with healthcare services, doctors and hospitals peaked in the EU at 93 % in Antwerpen (Belgium), Groningen (the Netherlands) and Graz (Austria); an even higher share was recorded in the Swiss city of Zürich (97 %).

A majority of respondents in most cities were generally satisfied with their healthcare services, doctors and hospitals. However, there were 16 cities in the EU where the satisfaction rate fell below 50 %. The lowest level of satisfaction was recorded in the Greek capital of Greater Athina (32 %), while seven other capitals reported that their satisfaction rate was lower than 50 % — Warszawa, Budapest, Bucureşti, Rīga, Bratislava, Roma and Sofia. It was relatively common (among those countries for which multi-city data are collected) to find that the capital city had the lowest proportion of people who were satisfied with their healthcare services, doctors and hospitals; the only exceptions where a city other than the capital city

had the lowest levels of satisfaction were Burgas in Bulgaria, Ostrava in the Czech Republic, Palermo in Italy, Rotterdam in the Netherlands, Oulu in Finland, and Malmö in Sweden.

… while people living in Rennes and Groningen recorded the highest levels of satisfaction in relation to the provision of education and training

Education can also play an important role in determining life chances and has the potential to increase the quality of life for individuals, while increasing overall human capital; by contrast, a failure to invest in educational skills and qualifications may impact upon the variety of jobs that are open to particular individuals; while also lowering the skills and productivity of the workforce. As with health, education can be measured using objective indicators (such as

Table 13.2: Items perceived as being most/least important for respondents in selected European cities, 2015 (1)
(% of respondents naming the issue as one of the three most important items for their city)

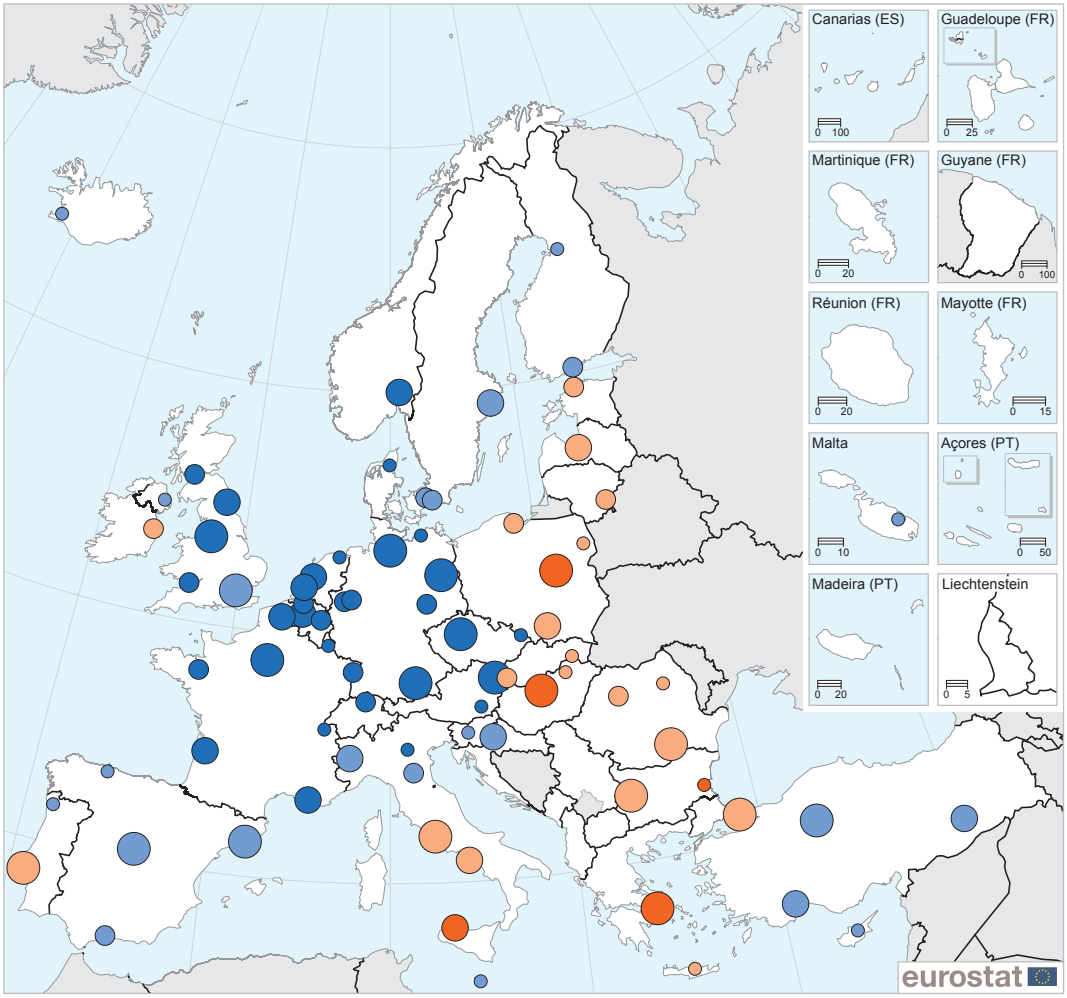
Most important issue	Highest rating	(%)	Second highest rating	(%)	Third highest rating	(%)
Education and training	Oulu (FI)	60	Wien (AT) and Belfast (UK)	58	Aalborg (DK), Hamburg (DE) and Zürich (CH)	55
Health services	Budapest (HU)	67	Belfast (UK) and Reykjavik (IS)	66	Bialystok, Gdansk and Warszawa (all PL)	63
Social services	Leipzig (DE), Vilnius (LT) and Groningen (NL)	31	Rostock (DE), Rīga (LV) and Budapest (HU)	29	Dortmund (DE) and Zürich (CH)	28
Unemployment	Napoli (IT)	73	Ostrava (CZ)	71	Miskolc (HU)	70
Housing	Stockholm (SE)	61	München (DE)	56	Geneva and Zürich (both CH)	51
Road infrastructure	Tallinn (EE)	52	Irakleio (EL)	50	Praha (CZ)	49
Public transport	Helsinki (FI)	49	Oslo (NO)	45	Istanbul (TR)	42
Air pollution	Ostrava (CZ)	76	Burgas (BG)	62	Krakow (PL)	60
Noise	Praha (CZ)	35	Valletta (MT)	28	Burgas (BG)	20
Urban safety	Marseille (FR)	52	Liège (BE)	47	Rotterdam (NL)	44
Least important issue	**Third lowest rating**	**(%)**	**Second lowest rating**	**(%)**	**Lowest rating**	**(%)**
Education and training	Praha (CZ)	13	Miskolc (HU)	11	Ostrava (CZ)	4
Health services	München (DE)	21	Praha (CZ)	17	Ostrava (CZ)	7
Social services	Bruxelles/Brussel (BE) and Napoli (IT)	12	Paris (FR), Malmo (SE) and Istanbul (TR)	11	Krakow (PL)	10
Unemployment	Reykjavik (IS)	15	München (DE)	14	Valletta (MT)	5
Housing	Sofia (BG) and Napoli (IT)	5	Palermo (IT)	4	Burgas (BG)	3
Road infrastructure	Barcelona (ES)	9	Paris (FR)	8	Madrid (ES) and Malmo (SE)	7
Public transport	Tallinn (EE)	8	Ostrava (CZ)	5	Burgas (BG)	4
Air pollution	Dublin (IE) and Tyneside (UK)	7	Belfast (UK)	6	Bialystok (PL)	5
Noise	Roma (IT), Stockholm (SE), Belfast (UK) and Oslo (NO)	4	Helsinki (FI) and London (UK)	3	Dublin (IE), Rīga (LV), Oulu (FI), Malmo (SE) and Glasgow (UK)	2
Urban safety	Burgas (BG), Rostock (DE), Tallinn (EE) and Bialystok (PL)	16	Stockholm (SE)	14	Cluj (RO)	12

(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city.

Source: Eurostat (online data code: urb_percep)

Map 13.1: Proportion of people who are satisfied with healthcare services, doctors and hospitals in their city, 2015 (1)

(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

the number of early school leavers, participation rates in lifelong learning and educational attainment), but may alternatively be analysed in relation to the proportion of people who are satisfied with schools and other educational facilities in their city.

In 2015, satisfaction with schools and other educational facilities peaked at 88 % in the western French city of Rennes and the Dutch city of Groningen, while high satisfaction rates were also recorded in the northern Portuguese city of Braga as well as Antwerpen in Belgium (see **Map 13.2**). There were only three cities in the EU where less than half the respondents were satisfied with their schools and other educational facilities: Bucureşti (48 %), Sofia (47 %) and Palermo (43 %); there were also two Turkish cities, Diyarbakir (49 %) and Istanbul (44 %).

Satisfaction levels were, once again, relatively low in capital cities, insofar as the capital city recorded the lowest satisfaction rate for schools and other educational facilities in 16 of the 19 EU Member States for which data are collected for multiple cities; the exceptions, where another city recorded the lowest satisfaction, were: Marseille in France, Palermo in Italy and Malmö in Sweden.

A high proportion of people living in Oulu and Aalborg felt they could trust others living in their city …

Within the perception survey, respondents were asked to state what level of trust they had in others. **Map 13.3** provides an analysis of the results for 2015, with Oulu (Finland) and Aalborg (Denmark) the two cities in the EU with the highest shares of people feeling that they could trust most people in their city (shares of 92 % and 91 % respectively).

There were 13 cities in the EU where the share of respondents who felt they could trust most people fell to less than 50 %. All but three of these were capital cities — Greater Paris, Lefkosia, Roma, Warszawa, Praha, Budapest, Bucureşti, Bratislava, Sofia and Greater Athina — with the exceptions being Liège in Belgium, Marseille in France and Miskolc in Hungary; there were also two Turkish cities where the level of trust in others was below 50 %, Antalya and Istanbul (where the lowest share was recorded, 26 %).

It was once again common to find that the lowest levels of trust in others were often recorded in capital cities: this pattern was repeated in most of the EU Member States for which multi-city data are available; the only exceptions being Liège, Marseille and Miskolc (as detailed above), as well as Malmö in Sweden.

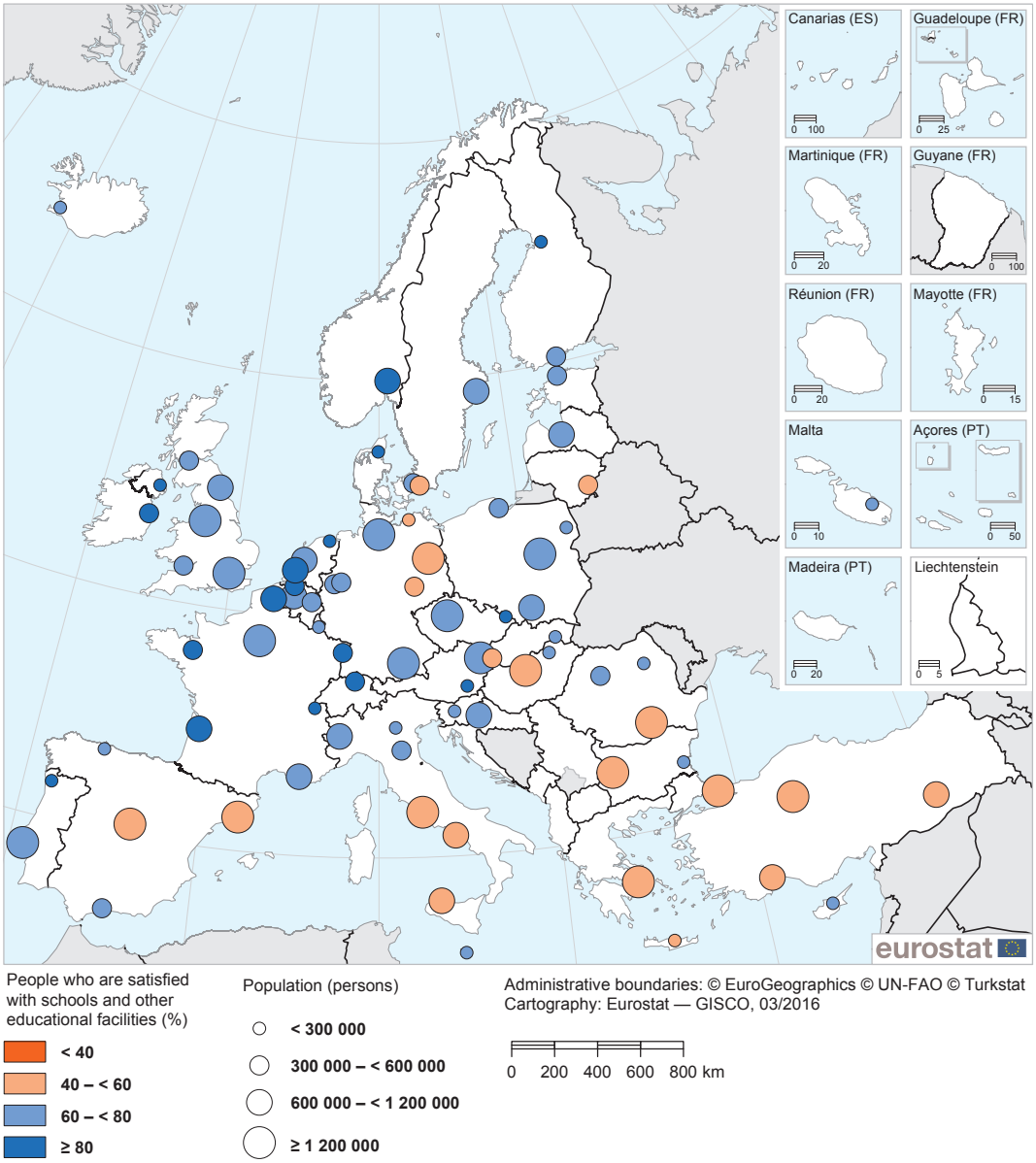
… while people living in Luxembourg recorded the highest levels of satisfaction in relation to the provision of administrative services

In 2015, the highest share of respondents agreeing that the administrative services in their city helped people efficiently was recorded in Luxembourg (80 %), well ahead of Belfast in the United Kingdom (71 %) and Aalborg in Denmark (70 %); the highest proportion of people in cities of non-member countries who agreed with this premise was recorded in the Swiss city of Zürich (78 %).

At the other end of the range, the lowest shares of respondents who felt that administrative services in their city helped people efficiently were recorded in the Italian cities of Roma (27 %), Napoli (22 %) and Palermo (19 %). This pattern was in contrast to the situation in the two northern Italian cities of Bologna and Verona, where a majority of respondents agreed with the premise (56 % and 60 % respectively).

Map 13.2: Proportion of people who are satisfied with schools and other educational facilities in their city, 2015 (1)

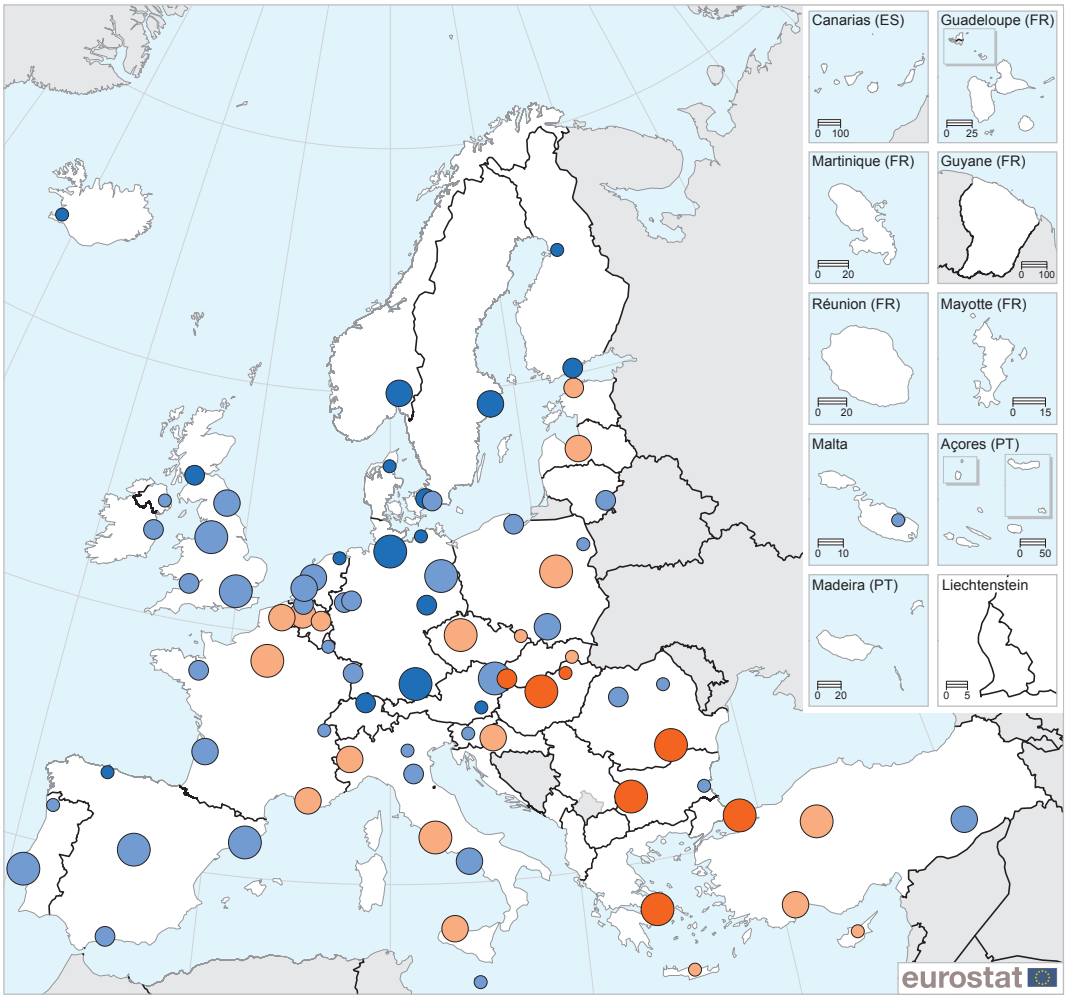
(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

Map 13.3: Proportion of people who feel that most people in their city can be trusted, 2015 (1)
(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

A majority of respondents agreed that the administrative services in their city helped people efficiently in 41 out of the 71 cities in the EU for which data are available (see **Map 13.4**); in the German city of Dortmund and the Portuguese capital of Greater Lisboa, half (50 %) of the population was in agreement with the premise.

An analysis of **Maps 13.1**–**13.4** reveals that a relatively high proportion of the population was satisfied with their healthcare services, doctors and hospitals, as at least four fifths of those surveyed declared they were satisfied in 33 out of the 79 participating cities (as shown by the dark blue shading in **Map 13.1**). The level of satisfaction with schools and other educational facilities was somewhat lower, as only 17 cities reported that at least four fifths of their population was satisfied with these services. In 16 out of the 79 cities surveyed, at least four fifths of the population felt that most people in their city could be trusted. The lowest levels of satisfaction were recorded with respect to the proportion of people who agreed that the administrative services in their city helped people efficiently, as Luxembourg was the only city where at least four fifths of the population agreed with this premise.

People living in some of the EU's largest cities recorded relatively low levels of satisfaction with life in their city

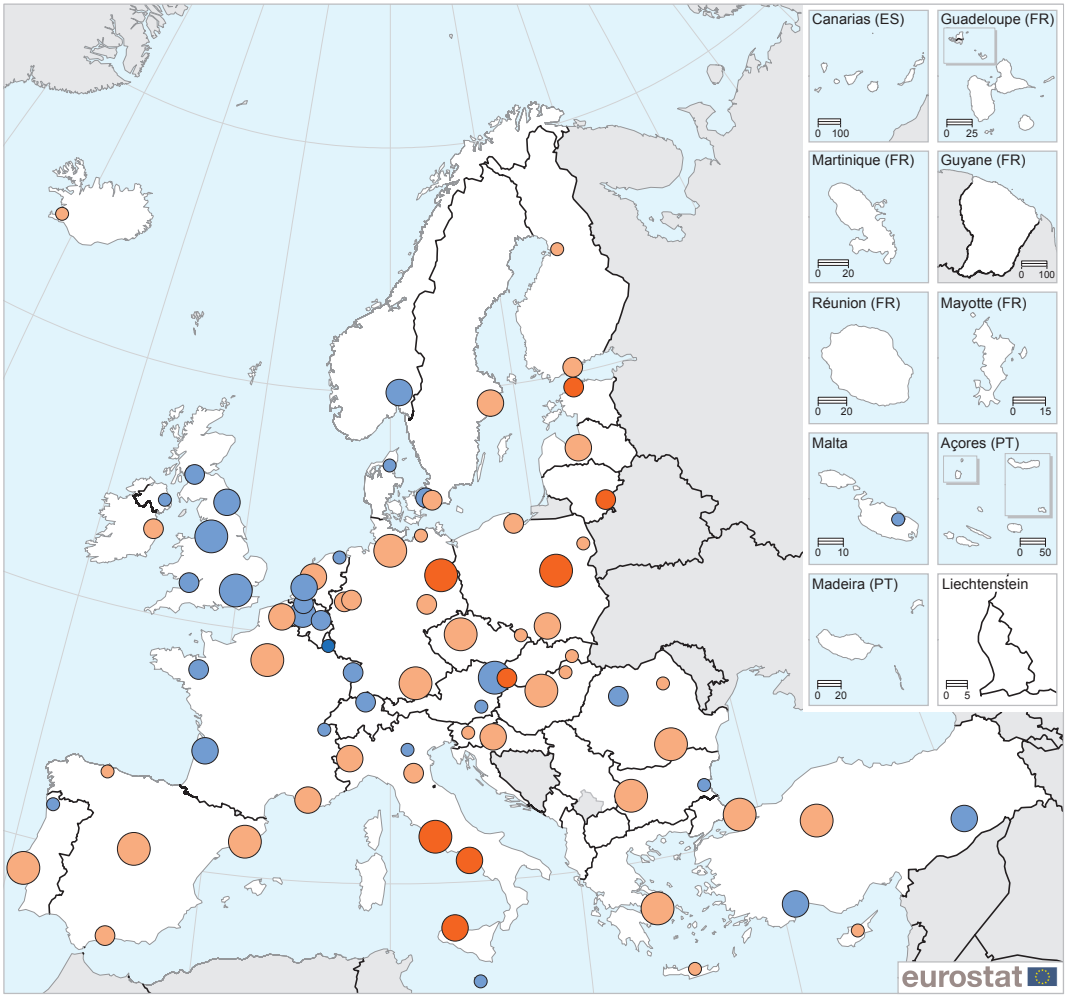
It might be imagined that Europe's largest and most vibrant metropolises (such as Paris and London) are among those cities where people enjoy life the most. However, as detailed above, a high number of capital cities reported relatively low levels of satisfaction when respondents were asked about their perceptions on a range of issues such as health, education, or trust in others. By contrast, **Maps 13.1**–**13.4** suggest that the highest levels of satisfaction were often recorded in smaller, more provincial cities.

In 2015, the overwhelming majority of people living in all 79 European cities covered by the perception survey were satisfied living in their city (see **Map 13.5**; note that the class boundaries used to categorise the cities in this map are different to those employed for **Maps 13.1**–**13.4**). The highest satisfaction rates in the EU — 97 % or 98 % — were recorded in Aalborg (Denmark), Hamburg, Leipzig, München and Rostock (all in Germany), Málaga (Spain), Braga (Portugal), Belfast and Cardiff (both in the United Kingdom), as well as the three northern capitals of København, Vilnius and Stockholm; even higher shares (99 %) were recorded in Oslo (Norway) and Zürich (Switzerland).

The lowest proportions of people who were satisfied living in their city were recorded in Palermo (67 %), Greater Athina (71 %) and Napoli (75 %); these were the only cities in the EU where no more than three quarters of the population were satisfied. Among all of the cities surveyed, the lowest proportion of people who were satisfied living in their city was recorded in the Turkish city of Istanbul (65 %).

Chapter 12 presented evidence in relation to the urban dimension of inclusive growth often appearing to be inversely related to the level of economic development: with more developed, western EU Member States tending to report less inclusive cities. This chapter has shown that those living in cities appear to be aware of the challenges they face, insofar as city-dwellers in large, western European cities are often less satisfied with life than those living in towns and suburbs or rural areas. However, a majority of eastern and some southern Member States have lower levels of social exclusion and poverty in cities. Results from the perception survey confirmed this view insofar as subjective responses suggest that a higher share of the population living in the cities of eastern Member States are satisfied with life, whereas lower levels of satisfaction were recorded in the rural areas of eastern Member States where poverty and social exclusion tended to be concentrated.

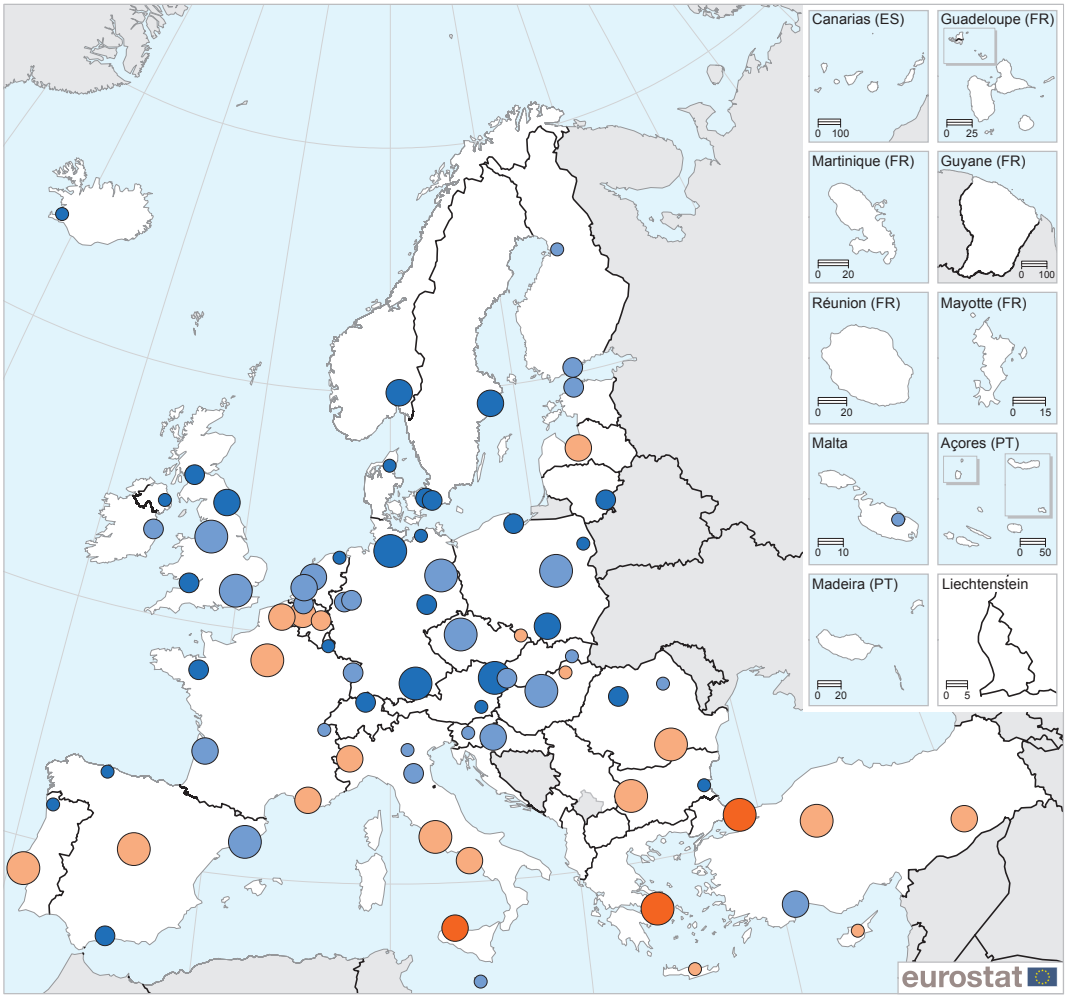
Map 13.4: Proportion of people who agree that the administrative services in their city help people efficiently, 2015 (1)
(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

Map 13.5: Proportion of people who are satisfied living in their city, 2015 (1)
(%)



(1) Athina (Greece), Paris (France), Lisboa (Portugal), London, Manchester and Tyneside conurbation (all United Kingdom): greater city. Population data generally refer to 1 January 2014. Portugal: 2015. Denmark, Estonia, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland and Norway: 2013. France, Slovenia and Finland: 2012. Greece and Sweden: 2011. Cyprus, Luxembourg and Malta: 2009. Turkey: 2004. Bulgaria, Ireland, Lithuania, Malta, Poland, Portugal, the United Kingdom and Turkey: estimates.

Source: Eurostat (online data codes: urb_percep and urb_cpop1)

Glossary of territorial terms

City: defined as an area where more than 50 % of the population lives in an urban centre of at least 50 thousand inhabitants.

Classification of territorial units for statistics (NUTS): is a geographical classification subdividing the economic territory of the EU into regions; it is composed of three different levels (NUTS levels 1, 2 and 3 respectively, which represent more aggregated to smaller territorial units).

Commuting zone: contains the surrounding travel-to-work areas of a city where at least 15 % of employed residents work in the city.

Degree of urbanisation: classifies local administrative units as cities, towns and suburbs, or rural areas based on a combination of geographical contiguity, population density and population thresholds applied to 1 km^2 grid cells.

Functional urban area: consists of a city and its commuting zone.

Greater city: is an approximation of the urban centre when this stretches beyond administrative city boundaries.

Intermediate region: a NUTS level 3 region where the population in rural grid cells accounts for 20–50 % of the total population.

Local administrative unit (LAU): a system used for dividing up the economic territory of the EU at a local level to provide administrative divisions that are generally below those covering provinces, counties, regions or states. There are two levels of LAUs:

- LAU1, an upper level (formerly NUTS level 4) is defined for most, but not all, EU Member States;
- LAU2, the lower level (formerly NUTS level 5) consists of municipalities or equivalent units, and is defined for all EU Member States.

Metropolitan region: a NUTS level 3 region or a grouping of NUTS level 3 regions that represents an urban agglomeration of more than 250 thousand inhabitants.

Population grid cell: a grid/matrix of 1 km^2 squares that are super-imposed over a territory with the aim of counting the number of inhabitants in each cell as a means of describing spatial distributions; each grid cell should be unique, while population counts should ideally be aggregated from geo-coded point based data sources.

Predominantly rural region: NUTS level 3 regions where the population in rural grid cells accounts for 50 % or more of the total; used as one of the territorial types in the urban–rural typology.

Predominantly urban region: NUTS level 3 regions where the population in rural grid cells accounts for less than 20 % of the total; used as one of the territorial types in the urban–rural typology.

Rural area: is an area where more than 50 % of the population lives in rural grid cells.

Towns and suburbs: are intermediate density areas where more than 50 % of the population lives in urban clusters, but is not classified as a city.

Urban area: defined as the sum/average of information that pertains to cities and towns and suburbs.

Urban–rural typology: classifies NUTS level 3 regions based on the share of the regional population living in rural grid cells and urban centres. The regions are classified into: predominantly urban regions (rural population accounts for less than 20 % of the total population); intermediate regions (the rural population accounts for a share between 20 % and 50 % of the total population); predominantly rural regions (the rural population accounts for 50 % or more of the total population).

A wide range of additional terms and abbreviations that are employed within this publication are linked to glossary pages (http://ec.europa.eu/eurostat/statistics-explained/index.php/Thematic_glossaries) on the Statistics Explained portal that forms part of Eurostat's website.

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