European Union
Regional Policy

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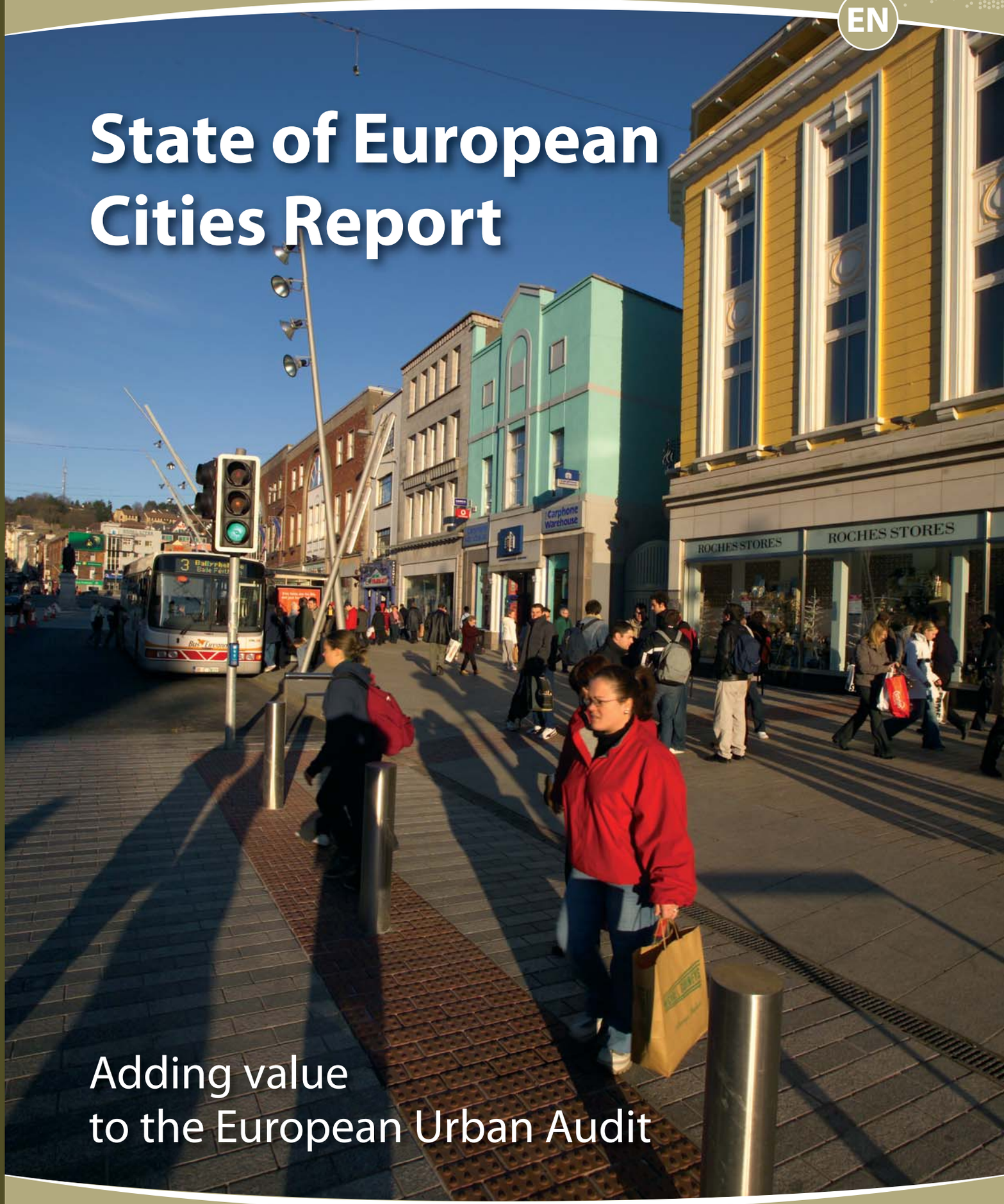
State of European Cities Report



Adding value to the European Urban Audit

State of European Cities Report – Adding value to the European Urban Audit

Study contracted by the European Commission

May 2007

The ***'State of European Cities Report'*** has been prepared by **ECOTEC Research and Consulting Ltd, in cooperation with NordRegio and Eurofutures**, following a call for tenders.

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It is based on the **European Urban Audit**, which is coordinated by **Eurostat** with **National Statistical Offices**.

The content of this publication does not necessarily reflect the opinions of the institutions of the European Union. It reflects the views of the authors.

Context of the study

In June 1999, the Commission conducted a data collection of comparable indicators in

European cities. This "Urban Audit Pilot Project" was designed to test the feasibility of

the approach and to learn for the future from possible errors in the design. Around 450 variables were collected for the 58 largest cities. However London and Paris were omitted since they were considered too difficult.

After the completion of the Urban Audit Pilot Project in 2001, the Commission decided that there was a clear need to continue and improve the collection of comparable information on urban areas. The results of the pilot project were evaluated thoroughly, involving statistical experts from city organisations and experts for a number of specific fields from Eurostat. This evaluation led to a more focussed list of variables and a significant expansion of participating cities, covering over 250 cities in the EU27.

The first full-scale European Urban Audit took place in 2003 for the EU15 and in 2004 for the ten new Member States plus Bulgaria, Romania and Turkey. **The current study is based on this data collection**.

A new round of Urban Audit data collection started in May 2006 and will be completed in September 2007. The collection of quantitative information on the quality of life in European cities will take place every three years.

A great deal of additional information on the Urban Audit may be found on the Internet at: www.urbanaudit.org
And http://epp.eurostat.ec.europa.eu
(after choosing the language, click "data" and then "urban audit")

Mailbox: urban-audit@ec.europa.eu
And estat-urban-audit@ec.europa.eu (statistical questions)

Foreword

Cities are crucial actors in the shaping of Europe's economy and territory. Cities and urban areas are home to an overwhelming majority of jobs, businesses and higher education institutions in the Union. They have been and will continue to be the engines for regional, national and European economic growth. On the other hand, many cities are confronted with severe problems of social exclusion. Despite progress in areas such as waste and water management, trends in urban transport and urban sprawl require careful management in order to avoid exacerbating difficulties. The battle for sustainable development will be largely decided in cities.

This report is the most comprehensive study on the evolution of European cities so far. It builds on a unique collection of urban statistics covering 258 cities in the 27 Member States gathered by the Commission services in the Urban Audit. It provides an in-depth analysis of demography, economy, social conditions, education, environment, transport and culture. It examines the development of urban areas at different geographical levels: core city, larger urban zone and neighbourhoods. And it investigates how the competences of city authorities and local governments vary across Europe.

The report helps us to understand better the changes in contemporary Urban Europe. It will provide local, regional, national and European decision makers with a useful tool to shape their future actions. But it will also be of interest for researchers and, more generally, for all those who are interested in European cities and their future development. We will continue to deepen our analysis of the different challenges confronting European cities as well as opportunities that are available to them.

Danuta Hübner

State of European Cities Report

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Executive Summary

Preamble

This State of the European Cities report is based on the Urban Audit, which allows 258 cities in the EU to be compared for the first time. After the completion of the Urban Audit Pilot Project in 1999, the European Commission decided to follow up this initial work, by launching a large scale data collection exercise in 2002[II]. The Urban Audit was jointly coordinated by the Regional Policy Directorate General of the European Commission and Eurostat, the European statistical office, with the involvement of national statistical offices and local authorities in all EU Member States and the then Candidate Countries. The Urban Audit collected data for 258 cities in the 27 current Member States of the EU. The resulting data set allows objective comparisons to be made between the cities included from across Europe, in the fields of demography, social conditions, economic aspects, education, civic involvement, environment, transport and culture.

Following a call for tenders, launched by the European Commission, the consortium responsible for producing this report was appointed to undertake an analysis of the Urban Audit data over a period of 12 months. This report is one of the main outputs of this work. During the analysis and report writing phases, the study team benefited greatly from exchanges with a Scientific Steering Committee composed of experts in the field of urban development in Europe[III].

The present report has sought to exploit the wide range of data gathered by the Urban Audit as far as possible. It draws on key elements of the data set in chapters on population change, urban competitiveness, living conditions and the administrative power of cities. It must be recognised that data refer to fixed time periods, namely 1991, 1996 and 2001. As such, the data set provides a basis for analysing structural patterns that affect today's societies. The European Commission is currently coordinating an update of the data, for the year 2004-2005, which will include additional cities and provide an additional wealth of information on urban development trends in the European Union.

A. Why read the "State of European Cities" report?

1. In the year 2007, for the first time in history, a *majority of the world's population will live in cities*. [IV] Within Europe, large-scale urbanisation is far from a recent

[II] See for data, city profiles and complementary information www.urbanaudit.org. All calculations have been based on the UA database as of 21/12/2005.

[III] Members of the Scientific Steering Committee were Prof. G. Gorzelak (University of Warsaw, Poland), Prof. J.G Lambooy (Emeritus Professor, University of Utrecht, The Netherlands), Prof. M. Parkinson (John Moores University, Liverpool, UK), and Mr M. Pezzini (OECD, Paris).

[IV] UN-Habitat (2006) "State of the World's Cities 2006/2007.

phenomenon. For centuries, towns, cities and metropolitan areas have shaped European society and civilisation. In today's Europe, cities are the main engines of economic development, but also places where specialised services are provided – such as higher education institutions, hospitals and major cultural attractions[V].

2. *This first State of European Cities Report* takes stock of the situation and developments in urban areas in Europe in the period 1996 to 2001, with a view to providing a basis for subsequent comparison exercises. It does so by examining developments in urban areas at different levels (core cities, larger urban zones and neighbourhoods), while taking into account regional and national contexts. The report acknowledges the role of cities as laboratories: the places where economic and societal changes are often experienced first and most profoundly and aims to provide a lens through which contemporary urban Europe can be observed. When cities seek to understand the changes around them and look for strategic re-orientation, this report provides a reference point, which can help them to identify their unique characteristics, as well as their commonalities with other European urban areas.

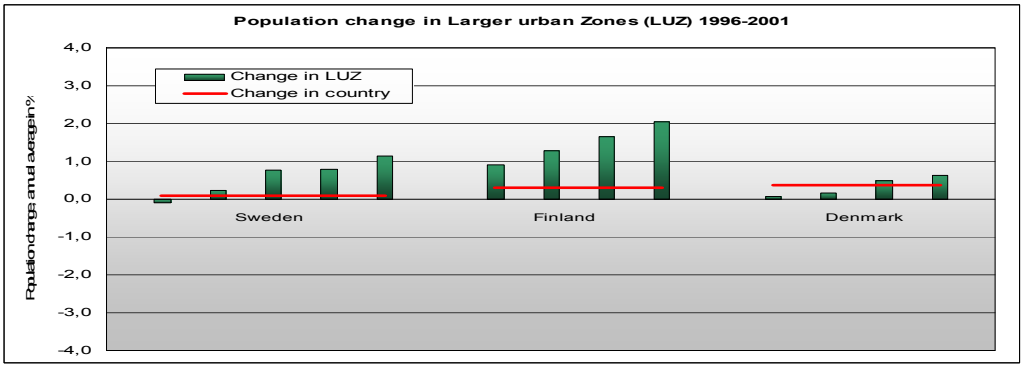
B. Population growth or stagnation?

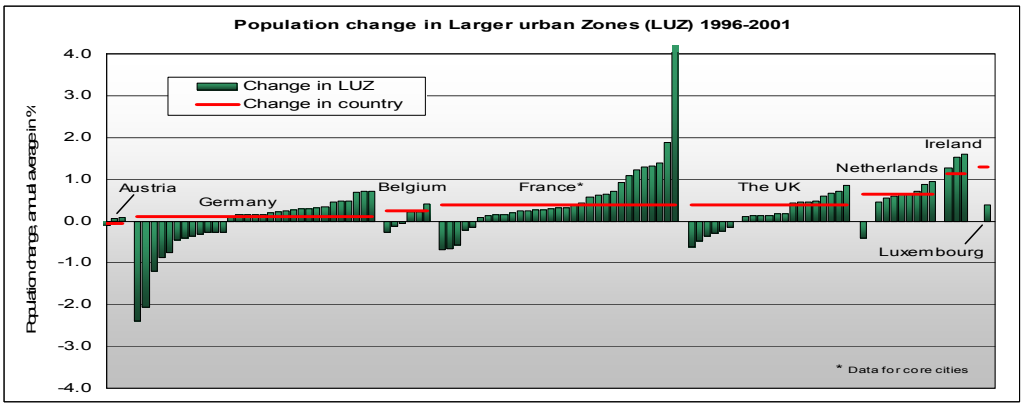
3. *In the period 1996-2001, a third of cities grew at a rate in excess of 0.2% per year, a third saw their populations remain stable (rates of population change between -0.2 and 0.2%) and a third experienced a notable decline in population.* The strongest population growth rates were recorded in Spain, where some urban areas saw average annual increases of 2% or more. Cities in Ireland, Finland, and Greece also experienced some of the highest population growth rates in the EU. In contrast, many urban areas in Central and Eastern Europe witnessed an overall population decline in the same time frame. In virtually all cities, suburbs grow and if they decline they still tend to decline less than the core city.

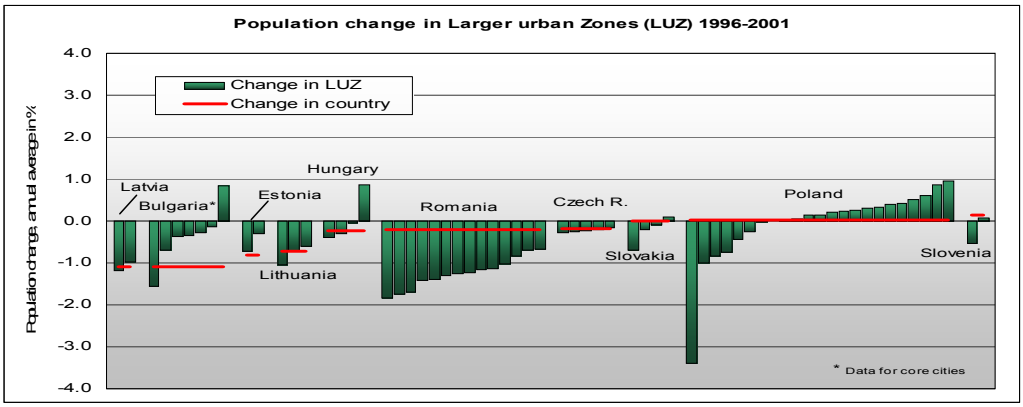
4. In general, Urban Audit cities in the *Nordic countries* grew at substantially faster rates than the national populations in the countries in question. The largest disparity could be observed in Finland, where population growth in Urban Audit cities exceeded the national rate of population change by 1 to 2 percentage points each year on average. The strong, service-led growth of the Finnish economy between 1996 and 2001 was an important contributing factor in this trend.

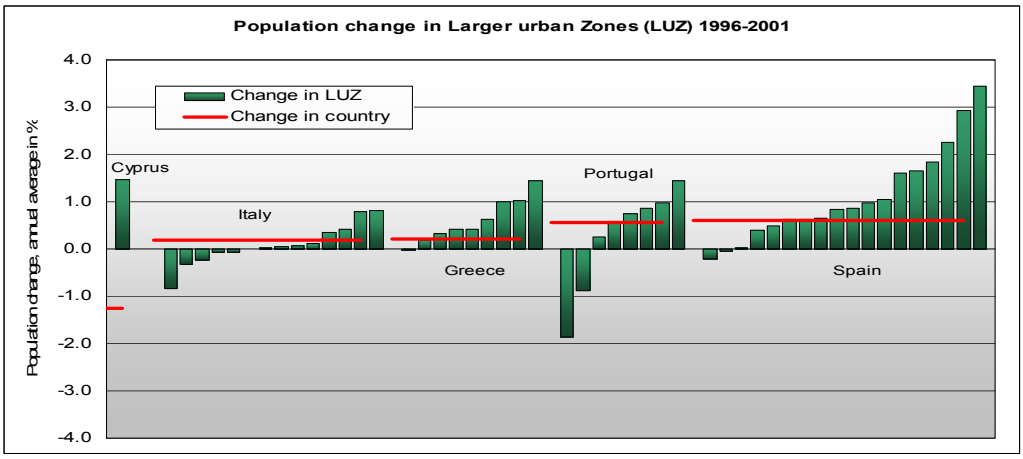
[V] See the communication from the Commission to the Council and Parliament: "Cohesion Policy and cities: the urban contribution to growth and jobs in the regions" [COM(2006) 385 final] at http://ec.europa.eu/regional_policy/consultation/urban/index_en.htm and its annex (staff working document) at: http://ec.europa.eu/regional_policy/consultation/index_en.htm

Figure S.1: Population growth in cities (larger urban zones) for different parts of Europe (1996-2001)









5. Patterns of urban population change in *Western Europe* are complex and varied. In most countries in this part of Europe, population growth, stagnation and decline all coincide within the national urban system. Between 1996 and 2001, population growth was strongest in Urban Audit cities in Ireland and a number of core cities in the United Kingdom also experienced rapid increases in the number of residents, while others saw a halt in a previous trend of population decline. Population developments were also generally positive in Dutch Urban Audit cities, while in Belgium, another highly urbanised country, urban areas witnessed both growth and stagnation. A similarly mixed picture could be observed in France and Germany, with urban centres in the former East Germany in many cases losing a considerable proportion of their population.

6. The changing economic and social context in *Central and Eastern Europe* has had a strong impact on urban demographic developments. Population loss in this region was not confined to smaller cities, but has also affected capitals – despite strong economic growth rates in many cases. This trend was primarily the result of stagnating natural population change. A considerable fall in the proportion of the population of productive age and younger (those below the age of 45) and an increase in the elderly population (65+) was evident in many cities. Over the same time period, a trend of counter-urbanisation became apparent in numerous cities in this part of Europe, as residents left the urban core for the suburbs on a comparatively large scale.

7. In the second half of the 1990s, many Urban Audit cities in *Southern Europe* grew strongly. Spanish cities in particular witnessed strong population growth, at rates far above the average for Spain as a whole. This is one of several factors behind the current shortage of affordable housing in larger Spanish cities, where, in Madrid and Barcelona particularly, housing prices are amongst the highest in Europe. Immigration as well as natural population increase has been driving these population increases. Similarly, Portuguese cities have experienced high levels of foreign immigration, particularly from Portuguese-speaking Africa, Brazil and Eastern Europe. A distinctly different picture emerges for Italy, where population stagnation was the dominant demographic characteristic in Urban Audit cities between 1996 and 2001.

8. *Cities are affected by broader demographic context.* As a general rule, the population of Urban Audit cities tends to grow faster when the cities in question are located in fast growing regions. As such, it appears to be much harder for smaller cities to increase their population (through immigration or natural increase) in peripheral and declining regions then for similarly-sized cities located in dynamic core regions, where overall levels of attractiveness are low.

9. *Age structure and demographic growth rates in cities are related*. While an ageing population is an overarching trend across Europe, Urban Audit data suggests that, in general, the cities with the fastest population growth are those with the lowest share of elderly people and, correspondingly, the highest the share of children and young people. Examples of fast growing and young cities are London, Dublin and Madrid. However, the relationship is not clear cut everywhere. In Central and Eastern European cities, no direct relation between population growth and age structure appears to exist in Urban Audit cities. Moreover, in cities around the Mediterranean in particular, population growth has gone hand in hand with ageing as a result of an influx of older residents ('sun seekers' in retirement).

10. *Migration plays a key role.* As a general rule, large Urban Audit cities tend to have experienced higher levels of inward migration than smaller cities and a substantial proportion of migrants are in the younger age groups (under 40). Furthermore smaller cities tend to attract new citizens from nearby (the surrounding region), whereas larger cities appear to have greater "pulling power", attracting migrants from further afield. This said, the pattern of inward migration varies considerable across Europe, with cities in Central and Eastern Europe, Italy and smaller cities in the Iberian Peninsula attracting comparatively few new residents from outside in the period covered by the Audit. In contrast, international migrants are highly concentrated in certain cities (notably in Spain, Italy and the Netherlands[VI]). The largest numbers of nationals from other EU countries can be found within UA cities in Western Europe, in Germany, the Nordic countries and Ireland.

C. How much do cities contribute to competitiveness, growth and jobs?

11. *Cities are the indisputable engines of economic growth* across Europe. In virtually all European countries, urban areas are the foremost producers of knowledge and innovation – the hubs of a globalising world economy. Bigger cities generally contribute more to the economy, but not all big cities do so. For cities with more than 1 million inhabitants, GDP figures are 25% higher than in the EU as a whole and 40% higher than their national average[VII]. The contribution of cities to GDP levels tends to level off with decreasing size. Smaller cities (up to 100 000) tend to lag behind their nations, but display average economic growth rates.

[VI] Immigration data is not available in the Urban Audit for the UK

[VII] These findings are in line with a recent OECD study on the subject, which found that 66 out of 78 metropolitan regions in OECD countries have a higher GDP per capita than their national averages. See OECD (2006) "Competitive Cities in a Global Economy".

12. *An employment paradox is ubiquitous in European cities.* The concentration of jobs in cities is even stronger than that of residents, many of Europe's main employment centres are within cities and its largest cities are truly economic powerhouses. Yet, as in other parts of the world, the generated wealth does not necessarily translate into corresponding rates of employment among urban citizens[VIII]. Only 28% of Urban Audit core cities have employment rates higher than the average for the country where they are located (corresponding to 33% of all Urban Audit city residents). Only 10% of Urban Audit cities have an employment rate of 70% - the EU's Lisbon target set for 2010. Employment rates are particularly low (less than 50%) in many Polish, Belgian and southern Italian cities. Particular challenges often stem from concentrations of comparatively disadvantaged groups in particular neighbourhoods and a related mismatch between the supply of skills available and those required by an increasingly knowledge-based economy[IX]. Overall employment rates are strongly influenced by female participation. In Urban Audit cities, women's participation in the labour force appears to supplement, rather than replace, the traditionally higher levels of participation among men. Women contribute considerably to the high employment rates in Northern and Central and Eastern Europe, in contrast to the situation in much of Southern Europe.

13. *Urban economies are rapidly becoming service economies*. The service sector is by far the most important source of employment in European cities. In Central and Eastern European cities, the service sector is not yet as dominant, but many cities are catching up with their counterparts elsewhere in the EU. Taken as a group, the growth rate of the services sector in Central and Eastern European cities has been faster than anywhere else – reflecting the fast and deep structural change and economic transition of the last decade. In Western European cities, the service sector is by far the most developed as a source of employment. Of the five largest urban labour markets in the EU 27 (London, Paris, Berlin, Madrid and Rome), service sector employment accounts for between 80% and 90% of all jobs.

[VIII] OECD Territorial Reviews (2006) "Competitive Cities in the Global Economy", Paris (p.76).

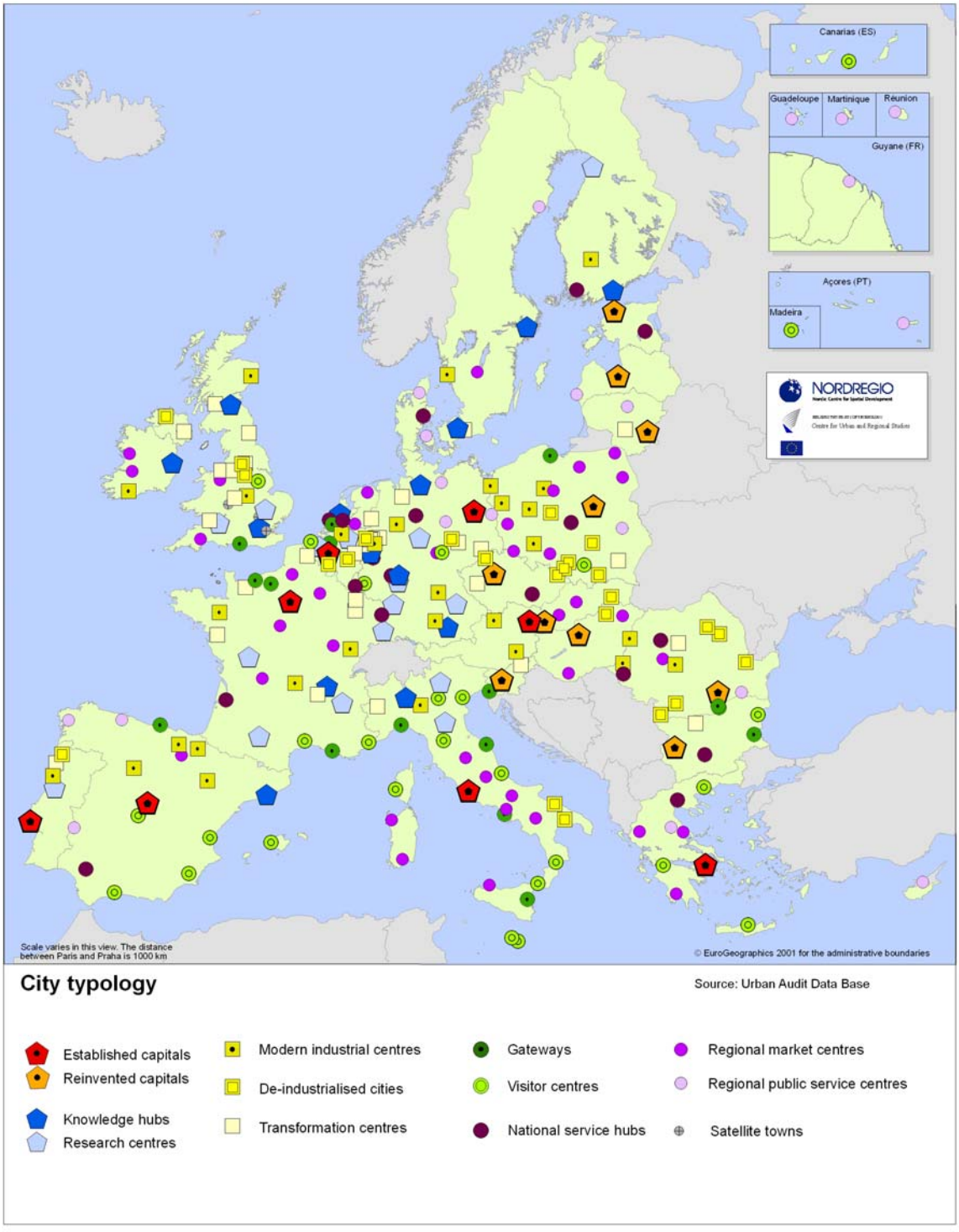
[IX] See also European Commission's DG REGIO Working Paper (2004) "Cities and the Lisbon Agenda: Assessing the Performance of Cities, p.16. See http://www.urbanaudit.org/Cities%20and%20the%20lisbon%20agenda.pdf

14. When using a broader measurement basis for economic competitiveness, *most of Europe's high performers are located in the north and the centre of the Union*. According to our so-called Lisbon benchmark (constructed on the basis of the Structural Indicators that apply to the city level [X]), many of Europe's high performers are located in Denmark, Sweden, Finland, the Netherlands and the western parts of Germany. High scores can also be found in large cities in France, southern England and the eastern part of Scotland and the capitals of the Iberian Peninsula. In the New Member States, Estonia ranks highly, while several capitals such as Prague and Budapest also perform well. The weakest cities on the Lisbon benchmark can be found in Poland, Romania, and Bulgaria. Southern parts of Italy, the whole of Greece and large parts of Spain also perform poorly. The performance of a number of English cities is also disappointing, as is the situation in Berlin and the Walloon Region of Belgium. Cities in Italy, the UK and Belgium feature in both the strongest and the weakest categories, highlighting the considerable disparities in urban competitiveness in these countries. A relation with city size no longer exists when using the Lisbon benchmark – both smaller and larger cities can become high performers.

15. This report presents *a typology of cities*, which aims to provide a better insight into urban developments and serve as a basis for city comparisons. The criteria for allocating Urban Audit cities to these typologies were size, economic structure, economic performance and drivers of competitiveness. Despite its advantages, the typology has some limitations. City types are defined using the characteristics of their core rather than by their wider boundaries and cities may recognise themselves in more than one grouping. The typologies should therefore be used as a complimentary tool for a better understanding urban dynamics and to help in addressing the question of which policy mixes are most appropriate for different types of cities.

[X] Variables used for the Lisbon Benchmark are 1) GDP per total resident population of area; 2) Labour productivity (GDP per person employed); 3) Employed residents in % of total resident population 15-64; 4) Employment rate of older workers: economically active population 55-64 in % of resident population 55-64; 5) Long-term unemployment: persons 55-64 unemployed continuously for more than one year in % of resident population 55-64; 6) Students in upper/further and higher education in % of resident population 15-24; 7) Youth unemployment: persons 15-24 unemployed continuously for more than six months in % of resident population 15-24. Lack of data can cause a bias in the benchmark.

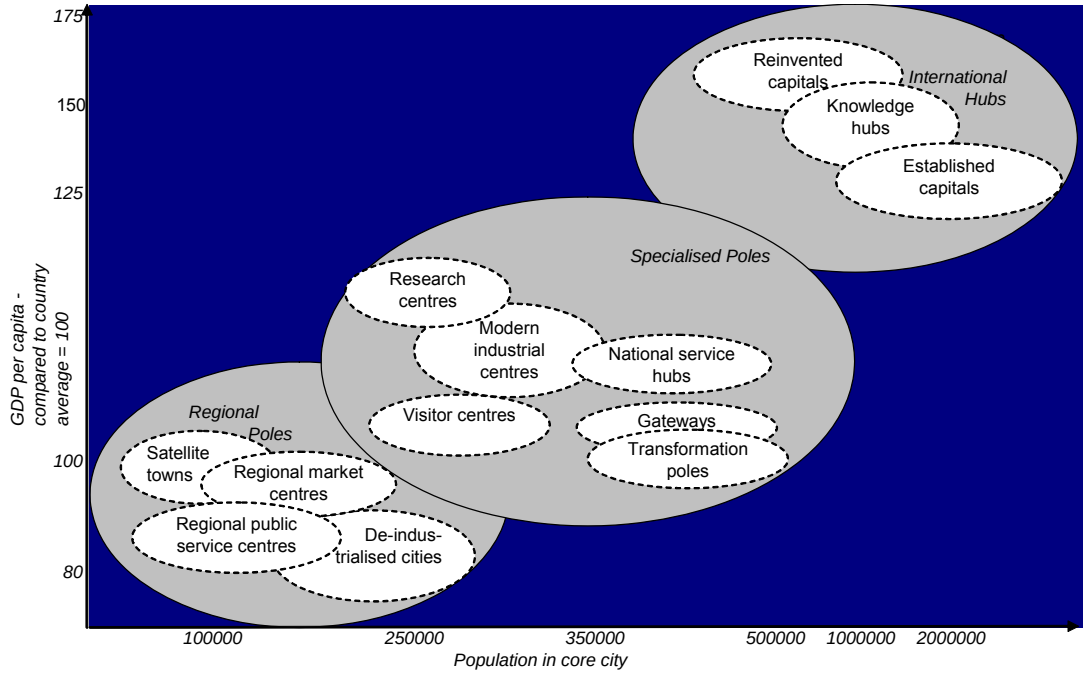
Figure S.2: City-types mapped



16. Among these city-types, Europe's *International Hubs* - international centres with a pan-European or even global influence – stand out:
    - *Knowledge hubs* – key players in the global economy, positioned above the national urban hierarchy and in the forefront of international industry, business and financial services, based on high levels of talent and excellent connections to the rest of the world;
    - *Established capitals* – firmly positioned at the top of national urban hierarchies, with a diversified economic base and concentrations of wealth;
    - *Re-invented capitals* – champions of transition, engines of economic activity for the New Member States.

17. Secondly, a wide range of *Specialised Poles* can be identified. These play a (potentially) important international role in at least some aspects of the urban economy:
    - *National service hubs* play an essential role in the national urban hierarchy - they fulfil key national functions and often some capital functions in the (public) services sector;
    - *Transformation poles* – with a strong industrial past, but well on their way to reinventing themselves, managing change and developing new economic activities;
    - *Gateways* – larger cities with dedicated (port) infrastructure, handling large flows of international goods and passengers;
    - *Modern industrial centres* – the platforms of multinational activities, as well as local companies exporting abroad; high levels of technological innovation;
    - *Research centres* – centres of research and higher education, including science and technology related corporate activities; well connected to international networks;
    - *Visitor centres* – handling large flows of people of national or international origin, with a service sector geared towards tourism.

Figure S.3: City-types positioned



18. Thirdly, a large number of *Regional Poles* can be distinguished, in many ways the pillars of today's, yesterday's or tomorrow's European regional economies:
    - *De-industrialised cities* – having a strong (heavy) industrial base, which is in decline or recession;
    - *Regional market centres* – fulfilling a central role in their region, particularly in terms of personal, business and financial services, including hotels/trade/restaurants;
    - *Regional public service centres* – fulfil a central role in their region, particularly in administration, health and education;
    - *Satellite towns* – smaller towns that have carved out particular roles in larger agglomerations.

19. *Fundamental differences between the city types exist in the strength of their 'ingredients'- the drivers of competitiveness*. A number of *drivers of urban competitiveness* can be distinguished: innovation, talent (in terms of qualified human resources), entrepreneurship and connectivity being among the most prominent. Research suggests that the precise composition and 'mix' of these drivers differs considerably between cities and regions in Europe[XI]. As such their ability to develop recipes for economic development and implement strategies for creating and maintaining growth and jobs varies accordingly. It is the use made of the key ingredients available that to a large extent determines the economic success of cities.

[XI] Cambridge Econometrics/ECORYS et al (2003) "Factors of Regional Competitiveness"- study carried out on behalf of EC DG REGIO.

20. A key characteristic of *Leading International hubs* is that they have strong drivers of competitiveness, whether in terms of innovation, entrepreneurship, talent or connectivity. In combination with their size, this allows these largest cities to pursue and obtain a dominant position in a range of economic domains. Leading international Hubs can be leaders in financial markets, house the headquarters of multinational companies, media centres, government centres and transportation hubs – often all at the same time. In many ways, these centres are positioned above the national urban hierarchy and in the forefront of international industry, business and financial services.

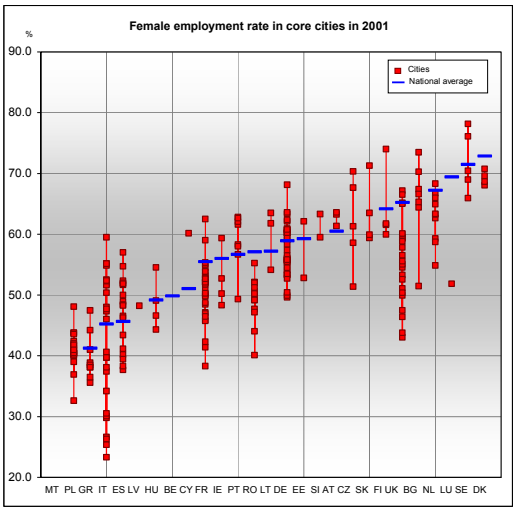
21. *Specialised Poles* also contribute significantly to growth, jobs and prosperity. However, the fundamental difference with Leading International Hubs is that the drivers are not nearly as strong and not always as evenly spread as in their larger counterparts. They also need to focus on particular economic activities if they want to dominate at an international level. These Specialised Poles can choose to develop their international competitiveness in the pharmaceutical sector, in car manufacturing, in fashion and design, or in tourism – but their size makes it very unlikely to excel in the full range of economic activities.

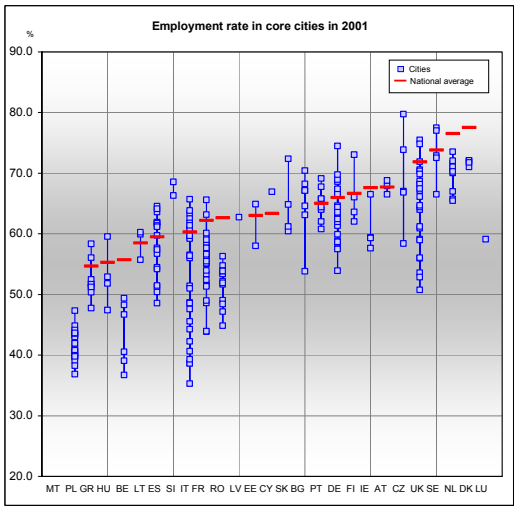
22. *Regional Poles* play a key role within more confined territorial boundaries. Their drivers of competitiveness are strong within a regional context, but not so much beyond that. Their challenge lies in carefully using their strengths and connecting them to future opportunities, while preserving their attractiveness and identity built up throughout centuries. It is certainly possible for these cities to play a role on the European stage, as they are important for holding the European territory together. Nevertheless, for this they need to have clear and convincing strategies – based on deliberate choices.

D. What is unique about city life?

23. *'Going to work' - but not everywhere for everyone.* In certain southern Italian cities with low overall female employment rates, fewer than 30% of women of working age have a job, compared to more than 70% of women in most Nordic Urban Audit cities. Although the relation between female participation rates and child care facilities is not very straightforward, it is evident that only very few Urban Audit cities with a high female participation rate have a low share of children in day care. Overall, therefore, the potential for increased participation rates is certainly greatest in Southern European cities.

Figure S.4: Female and Male employment rates, national averages and in cores cites, 2001

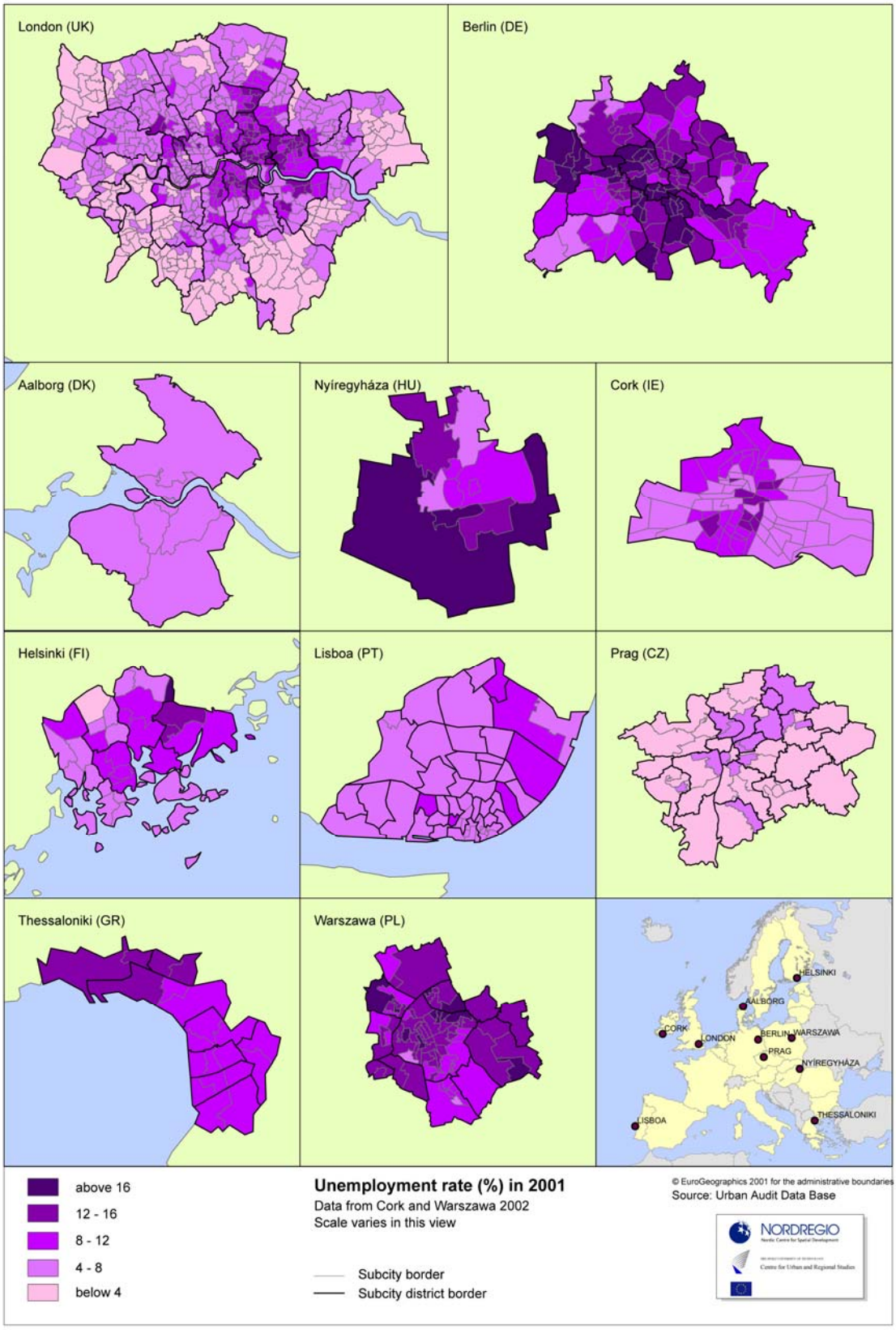




24. *Unemployment rates tend to be higher in cities.* Across Europe, the unemployment rate was higher than the national rate in two out of three Urban Audit cities in 2001. Unemployment rates were highest (over 25%) in Poland, Belgium and Southern Italy notably. The lowest unemployment rates were observed in the Netherlands, individual cities in Germany, and Northern Italy. Unemployment rates also differed between the core cities and the wider urban area, as well as between neighbourhoods, but there is no clear pattern. High unemployment rates can be found both in inner city neighbourhoods and in specific outlying neighbourhoods, depending on the city's morphology and its broader socio-economic structure. Long-term unemployment (>1 year) amongst elderly workers (55-64) was excessively high in Belgian cities (up to 50%), while youth unemployment was particularly high in many Central and Eastern European and French cities.

25. Within cities, *very large differences in unemployment rates can be observed between neighbourhoods*. One of the most striking indicators for a lack of social cohesion within any city is a large variation between unemployment rates of different neighbourhoods. The highest inter-neighbourhood differences were recorded in cities with high overall unemployment. Neighbourhood disparities in unemployment were particularly large in France, Belgium and Southern Italy, but are also significant in the cities of Eastern Germany, larger Spanish cities and the North of England.

Figure S.5: Unemployment rate at sub-city level – some examples

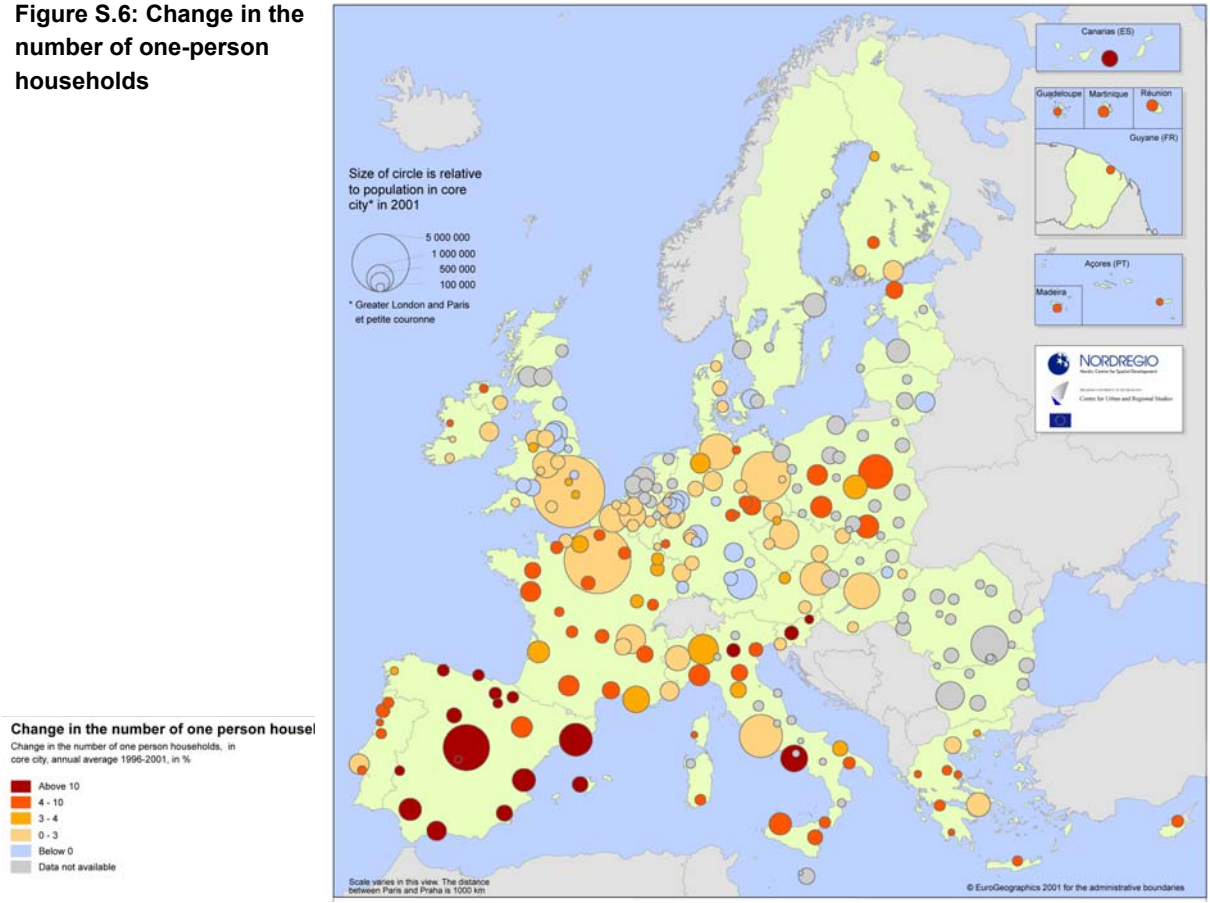


26. Differences in *living space per resident* are striking across Europe. The average living space per inhabitant in some cities is almost three times higher than in others. There are over 30 cities where the average area of living space per inhabitant is more than 40 m^2, and these are all situated in the western part of the EU, in Denmark, the Netherlands, Luxembourg, Sweden and Germany. Other cities characterised by relatively generous living space can be found in Portugal, Malta, and northern Italy. At the other end of the scale, city dwellers in the New Member States are much less well off. Urban dwellers in Bulgaria, Latvia, Romania, Slovakia, the Czech Republic, Lithuania and Poland have on average 15-20 m^2 living space per inhabitant. The living space per inhabitant is an indicator where the east-west divide is still most visible today.

27. Most of Europe's city dwellers live in *flats or apartments*, which account on average for 77% of all urban dwellings in the EU. The share of apartments is higher in large cities than in small, and there is a clear difference between the continent and the British Isles, where more than 50% of the urban population lives in houses rather than flats. About 50% of dwellings in European cities are owned by their occupants, although the pattern varies considerably between Member States. Following privatisation initiatives, home ownership is now amongst the highest in Hungary, Slovakia, Lithuania, Bulgaria and Romania, while remaining very high in Spain and Portugal. The share of households owning their own dwelling is significantly larger in the outer agglomeration than in core cities – in many city regions more than twice as high.

28. *One person households* tend to gravitate towards each other, commonly towards the centre of the city. There are various reasons for this. Clearly, city centres have high service levels and are well-placed to respond to the needs of single people and other individuals living alone. Younger citizens are likely to be attracted by the leisure facilities, while elderly citizens find comfort in the proximity to shops, public transport and health care facilities. The housing market responds to such demands, meaning housing for one-person households can often be difficult to find outside city centres. At the same time, families with children are overwhelmingly pushed towards the outskirts of cities, where homes are larger and often more affordable.

Figure S.6: Change in the number of one-person households



29. City dwellers are much better *educated* than other European citizens. Higher education qualifications are much more frequently held by inhabitants of cities than elsewhere in Europe. These concentrations of highly educated people play a crucial in the development of a knowledge society and in exploiting the economic potential associated with this. Almost all cities have a better score than their national averages; many of them have a significantly better score. The data suggest strongly that cities act as magnets for talent, as people with a higher education tend to be more mobile and more affluent. Within these cities, it is in the centres that the concentrations of highly educated people can be found.

30. In contrast, cities are *not always the healthiest places* to live. The average life expectancy for those born in 2001 is 79 years for women and 73 years for men living in Urban Audit cities. This is approximately two years less than the average for the EU 27 overall. Cities with the longest life expectancy can be frequently found in Spain and Italy, where women can expect to live until 83 or 84 on average. The top 30 cities in terms of the longevity of their inhabitants, with life expectancy over 81 years for women and 75 years for men, are located in Germany, Italy, Spain, Belgium, the UK, Austria and Luxembourg. Central and Eastern European cities dominate the bottom of the list. The differences between cities within the same country can sometimes be

quite large. In Romania and the Netherlands, life expectancy is lower in cities than in the country in general, while the opposite is true for Slovakia and Latvia. Italy, Germany, UK and Poland have significant differences between cities, while differences are very limited in Bulgaria and Finland. These seemingly large variations are often results not so much of present wealth and prosperity, but above all of previous ways of living. A combination of lifestyle, economic standards and healthcare – now and in the past - are probably the most important factors determining people's health.

31. The major divide in terms of *air quality* is between Southern European cities on the one hand and Northern cities on the other. A majority of cities recording a substantial number of days a year with bad air quality are in the south of Europe. Athens and Thessaloniki, and to a lesser extent Irakleio, in Greece are the most affected cities in this respect. In Central and Eastern Europe, especially Vilnius (Latvia) and Bratislava (Slovakia) have substantial problems with air quality. Among their western European counterparts, the significant problems are found in Manchester in the UK, Karlsruhe in Germany, as well as the Italian cities of Venice and Milan. Most of these cities are either old cities with narrow streets, often situated in valleys, or industrial cities with substantial traffic flows.

32. Living in cities increasingly means that time is spent in *urban transport.* Especially in larger cities, travelling to work has become a major challenge in everyday life. The major dividing line in terms of transport mode in European cities rests between the Old and New Member States, with public transport playing a much more important role in the New Member States. In cities such as Bratislava and Budapest more than two out of three journeys to and from work are made either by underground, tram or bus. The opposite situation prevails in certain other Member States, especially in the UK. In most British cities, more than 80% of journeys to and from work are made by car.

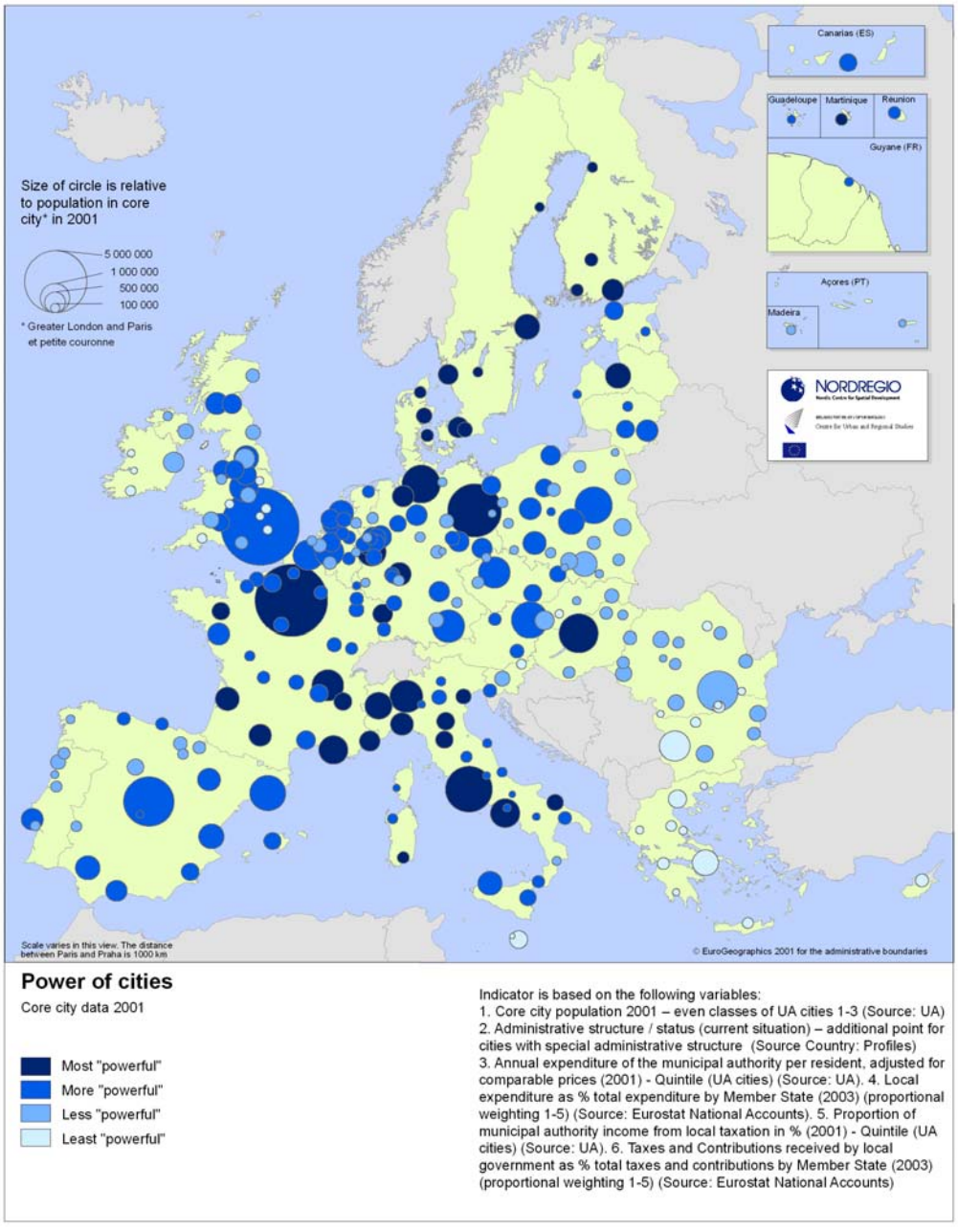
33. Returning to the question what is so characteristic about living in cities, the Urban Audit paints a picture of urban dwellers, increasingly living in one-person households, surrounded by an increasing diversity of neighbours and with very different capacities to participate the developing urban societies around them. The well educated are best placed to exploit the economic opportunities available, while the poorly educated are at most risk of exclusion. Addressing this duality lies at the heart of the social cohesion challenge of cities.

E. How much power do cities have?

34. Whether dealing with economic, social or other challenges, the findings of the report illustrate that individual cities can swim against the current, formulate and implement strategies and oversee investments that make a difference. However, the extent to which particular *city authorities can shape the future* of their cities depends on their

power. Taking into account size and administrative structure and drawing on data from the Urban Audit on city authority expenditure and local tax income, as well as national level data on local government income and expenditure, we used available quantitative data to develop an index of the relative “power” of city governments in the EU. Using these indicators, our index seeks to capture the relative “weight” of city-level governments within national governance systems (the proportion of public spending they control) and provide an initial indication of the degree of control they may exert of their own income, by including data on local taxation. The results of the index are illustrated in Figure S.7 below.

Figure S.7: An Index of City Power



35. We recognise that this index currently has several limitations. Firstly, it is constrained by limited data availability. Urban Audit data on expenditure and income from local taxes is not available for all cities, while national level data relates to the spending and income of all local government in most countries[XII], not simply city governments. Secondly, there are inherent difficulties in comparing different institutional structures and settings on the basis of quantitative information. This prompted the qualitative assessment of the role of city government in each Member State, undertaken as part of the study (see below). As such, the index results should be treated with some caution and viewed as a starting point for further detailed analysis, rather than a finished product.

36. Above all, the index as it stands highlights *the power of municipalities in the Nordic countries and Italy*, where the proportional weight of local government expenditure and local taxes are the highest in the EU. In contrast, city authorities in Greece, Malta, Cyprus and Ireland, where the role of local government is more restricted, emerge as among the least powerful in the Union. Within some Member States, our index reveals considerable variation between cities, as a result of differences in city-level data on size, administrative status, spending and taxation patterns. In Germany, for example, the status and resources of three "city states" of Berlin, Hamburg and Bremen, mean they stand out from most other German cities, while large French cities, including Paris, also feature in the group of "most powerful" cities, again because of local tax income and reported expenditure above the levels of other cities in France.

37. The UK has one of the most diverse systems of local government in the EU, which explains the considerable variation in the ranking of its cities. The status and structure of urban governments varies between England, Scotland, Wales and Northern Ireland and, to a very significant degree, within England itself. Thus, while large English cities, with "unitary authority" status emerge as more powerful (the second group in our index), smaller cities, with "District Council" status stand out as having some of the least powerful city governments in Europe. Considerable variation also exists between city administrations in Central and Eastern Europe, where local government has undergone considerable reform in the last decade, resulting in increased devolution of authority to local government. Although the available data highlights comparatively low levels of spending per head by city authorities in many cases (even after adjustment for relative price levels), reported levels of expenditure per inhabitant in several Hungarian and Czech cities are comparable with or above those in many

[XII] The National Accounts data on income and expenditure by local government used in the index excludes "State" or regional governments in Austria, Belgium, Germany and Spain.

western European cities, while Polish local authorities (including cities) are responsible for a higher proportion of total public spending than the average in EU Member States.

38. The diversity of local government units and structures in the EU means that *not all cities are equal.* Although municipalities are usually the principal unit of city government in the EU, closer inspection reveals significant variety. Firstly, certain cities, including 10 out of the 27 capitals, have a administrative status or structures different from the rest of the cities in that country. In Germany, historical factors explain the existence of the three City States of Berlin, Hamburg and Bremen, which are simultaneously cities and *Länder*. Several countries with two-tier systems of local government merge these two levels in larger cities to create a "single tier" of city government. The classic examples of this are the 116 *Kreisfreie Städte* in Germany, which simultaneously perform the roles of *Kreis* (county or "district") and *Gemeinde* (municipality).

39. Alongside size and structure, *financial resources are naturally of key importance.* Our index of city power has been based primarily on data relating to the expenditure and income of city authorities in the EU. The strong position of local government (municipalities and counties together) in the three Nordic countries is particularly striking. In Denmark and Sweden, local authorities control budgets equating to over a quarter of national GDP. The comparatively high spending power of Dutch and Italian municipalities is also evident, while local authorities (primarily municipalities) also control over 20% of government expenditure in the Czech Republic, Hungary and the Baltic States. This is in sharp contrast to the situation in Greece, Malta and Cyprus, where local government budgets account for less than 5% of total public spending. Overall, the European picture regarding the proportion of total tax revenue received by local government tends to follow the same pattern as local government expenditure as a proportion of total government expenditure. This is particularly the case in the Nordic countries and two of the three Baltic States (Latvia and Estonia). In these countries, local taxation accounts for in excess of 50% of municipalities' total income, in all cases. Notable exceptions to this general pattern are the Netherlands and the UK, where local authorities are responsible for a considerable proportion of total public expenditure (27% and 24% respectively), but receive a comparatively small proportion of total tax revenue directly (5.1% of total taxes in the Netherlands and 5.3% in the UK).

40. *The tasks which city governments undertake lie at the heart of the debate about the power of cities* As part of the research undertaken for this report, we examined the assignment of responsibility for undertaking certain public sector tasks in all 27 EU Member States, with a particular focus on the role of city-level governments. For each of a range of clearly defined tasks in key policy areas where local government might be expected to have a role, we have assessed the level of involvement of city authorities on a scale of 0 to 4, by making use of expert opinion.

41. As expected, *considerable variation exists in the EU in the distribution of responsibilities* in key local policy areas. The pattern reinforces the picture of city power indicated by the income and expenditure data. Thus, the high level of responsibility devolved to municipalities in the three EU Nordic countries, the Netherlands and Italy is most evident. Also, a comparatively high level of decentralisation in many Central and Eastern European countries, including Poland, Hungary, Lithuania and Latvia, comes to the fore. Contrary to certain popular perceptions, local government in the UK emerges as comparatively important, notably because of a strong role in the fields of education, business support and housing. The role of local authorities in France is more restricted in terms of policy domains, despite the comparatively high levels of expenditure at local level, reflecting a strong role in economic development, but a rather limited role in education and shared responsibilities in transport, which is coordinated at the metropolitan level or shared with regional government. In Spain and Portugal, municipal government has a comparatively limited role, with central and regional government leading or sharing responsibility for many public sector tasks. In Greece, municipal governments are involved in a wide range of policy areas, but in many cases operate under close supervision of central government, given their limited budgets. City authorities have only limited responsibilities in Luxembourg, Malta, Cyprus and Ireland.

42. The variation in the power of cities across Europe raises the question of why power and responsibilities at city level might be important. This brings us back to the overarching factor of the *socio-economic context* in which a city finds itself. Needs will be stronger if socio-economic conditions are adverse – as they place extra demands on services, reduce locally-raised income and pose serious challenges to local leaders. Our report highlights a need for detailed research at the level of individual cities in order to fully understand the “room for manoeuvre” possessed by cities and their leaders. However, the ability of city leaders to seize the opportunities available to them will often be determinant for cities’ future development.

1.0 Introduction

1.1 Today's Europe, its cities and their evolution

In the year 2007, for the first time in history, the majority of the world's people live in cities. This is partly due to the rapid expansion of the world's biggest cities – including a growing number of conurbations with more than 10 million people. London, New York and Tokyo have been joined by Mumbai, Shanghai, Sao Paulo and Mexico City as key drivers of the global economy. An even more significant factor in explaining the fact that the world's citizenry is now predominantly urban, however, has been the steady growth of smaller and medium-sized cities all over the world[1].

Within Europe, large-scale urbanisation is far from a recent phenomenon. For centuries, towns, cities and metropolitan areas have shaped European society and civilisation. Here too, small and medium-size cities have played an important role in the urbanisation process. In today's European Union, over 60% of the population lives in urban areas of over 50 000 inhabitants[2].

Cities have always been the main drivers of economic growth and jobs, social change and innovations in government. This Report will demonstrate that this is still the case today. Europe's wealth, innovation potential, creativity and talent is largely located in a range of urban areas that are increasingly well-connected to each other and with the global economy at large - by air, fast rail connections, road and advanced information technology. From the east of Hungary to the western tip of Ireland, from the Black Seas to the Baltic Sea, citizens are taking advantage of the the opportunities offered by increased mobility, low-cost transportation and modern communications.

Europe's cities also contain pockets of long-term unemployment, poverty, crime, air pollution and congestion. Today's media commonly reports on the restructuring of industries, the (limited) flexibility of labour markets, the (un-)affordability of housing, and the consequences of (in-)tolerance and social exclusion. Across Europe's cities, citizens are concerned about the integration of new minorities and international migration flows, as well as the ageing of the workforce and the maintenance of public services in the future.

[1] UN-Habitat (2006) "State of the World's Cities 2006/2007.

[2] See the communication from the Commission to the Council and Parliament: "Cohesion Policy and cities: the urban contribution to growth and jobs in the regions" [COM(2006) 385 final] at http://ec.europa.eu/regional_policy/consultation/urban/index_en.htm and its annex (staff working document) at: http://ec.europa.eu/regional_policy/consultation/index_en.htm

European citizens are adapting to change and this is especially true in urban areas – as the places where things tend to happen first, faster and more intensely than anywhere else. Cities provide constant new opportunities for those who have the desire and ability to seize them, but they also provide refuge for large groups of citizens who are not in a position to respond effectively to these changes. Cities have therefore become places of diversity and contrast, of abundant wealth and abject poverty, of opportunity and threat, places where beauty and ugliness lie in close proximity and where the future collides with the past.

If Europe's cities have become the locus of change, then they can be regarded as a useful laboratory for tomorrow's society. What ethnic food is the latest rage in Berlin? Why have London's citizens suddenly started buying bicycles? What is the impact of electronic ticket pricing on the Rotterdam underground? Are Prague's citizens getting used to newcomers with an alternative life style? How are Madrid's residents responding to extremely high flat prices? And why do citizens of Aubervilliers no longer consider themselves Parisians?

While many of the cities mentioned above belong to Europe's "urban elite", as already noted, the majority of urban population growth has occurred and is occurring in Europe's medium and small-sized cities. Some of these are surprisingly well-placed to take advantage of global opportunities, and have become attractive, well-known and popular. Other cities have been able to strengthen their position within a regional or a national context – with seemingly little effort. Others have suffered enormously from external shocks, from which they are yet to recover. Yet other cities in equally difficult situations have successfully fought back and have managed to re-invent themselves. This Report will highlight the great variance in the capacity of Europe's cities to deal with change at the beginning of this millennium - different baselines from which to grow, develop and prosper in the years to come. A key to success lies in the ability of cities to foresee and shape their future, building on a better knowledge of their strengths and weaknesses.

Urban practitioners, politicians and experts, as well as many European citizens tend to look at cities within a purely national framework. For instance Darmstadt often compares itself to Stuttgart; Birmingham is measured against Manchester; Amiens looks towards Dijon; and Poznań is bracketed with Wrocław. However, there is much to gain from broadening the comparative framework to the European level. For example, comparing Birmingham to Leipzig, Darmstadt to Eindhoven, Amiens to Oviedo or Poznań to Zaragoza may offer additional insight into the position these cities find themselves in, the dynamic forces at play and perspectives for the future.

1.2 The aim of this report

This report aims to provide a lens through which contemporary Europe can be observed. The objective is to record the current state of European economy and society – by looking at cities as their prime laboratories, and provide insight into the ability of Europe's cities to deal with change.

The report is intended to be more than just a monitor of urban development, prepared for a small group of urban development specialists. It should also be of interest to a wide range of policy makers and practitioners working at the local, regional, national and international level, as well as to European citizens in general.

When cities are trying to make sense of the many developments taking place around them and seek strategic guidance, the State of the European Cities Report can help by providing a broad comparative context. It can be used as a reference point, where cities' unique characteristics, as well as their commonalities with other European urban areas, become more clearly apparent.

The report is based on the Urban Audit – a set of reliable and comparative information on the quality of life in selected urban areas in Europe, which allows 258 cities in the EU to be compared directly for the first time. It allows comparisons in as areas including demography, society, economy, education, civic involvement, environment, transport and culture. The report will not address the whole range of Urban Audit variables, but will focus on areas where there is a wealth of relevant data that can be compared. In order to track key trends, the various subjects are combined into chapters on competitiveness, social cohesion and governance.

In taking stock of the current situation in Europe's urban areas, as well as developments that are in progress, this report seeks to provide a solid basis for subsequent comparative work. Importantly, the data is valid for fixed periods in time: 1991, 1996 and 2001 and can therefore provide a framework for analysing structural patterns and dynamic processes that affect today's societies. An update of the data, covering 2006, is currently (in 2007) being carried out by national statistical offices under EUROSTAT coordination.

1.3 About the Urban Audit

In 1998, the Directorate-General for Regional Policy of the European Commission (DG REGIO) launched a project to collect data from European urban agglomerations, called the "Urban Audit Pilot Project". Data for 1981, 1991 and 1996 was collected for 58 cities in the European Union. In addition, statistical information was collected for 27 wider territorial units and for 2500 sub-city areas. The project, designed to test feasibility, included nearly

500 variables selected to measure the quality of life in European cities. The Urban Audit Pilot Project finished in early 2000 and drew an overwhelmingly positive response[3]. It demonstrated, for the first time, the feasibility of collecting and presenting information on a consistent pan-European basis for a wide range of indicators at the respective levels of the sub-city, the city (as an administrative unit) and the wider urban area.

After the completion of the pilot phase, the European Commission decided to launch a large-scale exercise - the "Urban Audit" we know today, covering 258 cities in the 27 Member States and Accession countries of the EU. The selection of the cities was undertaken through collaboration between EUROSTAT, national statistical offices and local authorities. The selection took into account geographical spread, as well as size and both large and medium-sized cities were chosen. The combined population of the 258 cities in 2001 was 107 million inhabitants, accounting for more than 20% of the EU-27 population. 333 variables were requested, covering the following nine fields:

1. Demography: population by age, gender, nationality and household structure
2. Social Aspects: housing, health and crime
3. Economic Aspects: income, employment by sector and unemployment
4. Civic Involvement: elections and local administration
5. Training and Education: educational level by gender and enrolled students
6. Environment: climate, air quality, noise, water and waste management
7. Travel and Transport: journey to work, public transport, accidents
8. Information Society: use of ICT, local e-government and the ICT sector
9. Culture and Recreation: cultural activities and the tourism sector

Of these 333 variables requested, not all were available or could be estimated. As a result, some variables have a low to very low response rate. For this report, the data for the year 2001 for the 258 cities in the EU-27 has been collected and checked. It will be complemented by a restricted data set for 1991 and 1996. All the data is stored by EUROSTAT in an Oracle Express database and in NewCronos. More information about the Urban Audit can be found on the main website http://www.urbanaudit.org, which is continuously updated.

The Urban Audit collected indicators at three geographical levels: the level of the city, the larger urban zone (LUZ: an approximation of the functional urban region) and the sub-city "district". For all the geographical levels digital boundaries have been assembled by EUROSTAT in an ArcInfo/ArcView format. The dataset is complemented by a number of variables at the national level.

[3] For further information: http://europa.eu.int/comm/regional_policy/urban2/urban/audit/index.html

1.4 Key questions for this report

The fundamental question which this report seeks to answer is “What is the current State of European cities?”. This meta-question can be broken down into several key components that will be examined in this report.

Question 1: What are the current patterns of population growth and stagnation? (Chapter 2)
The pace of change differs enormously amongst Europe’s cities. Some cities have been subject to population decline for several decades, some have gone through a major crisis and have emerged as models of growth and success. To what extent is growth and stagnation influenced by national demographic developments? How are Europe’s cities growing or declining? What is the role of an ageing population and what is the role of migration? In which parts of Europe are cities tending to grow or stagnate? And what are the particular challenges related to growth or decline?

Question 2: How much do cities contribute to competitiveness, growth and jobs? (Chapter 3)
What is the importance of cities as engines of economic growth, added value and jobs? Is there a relationship between economic performance and city size? Can urban competitiveness be solely explained by geographic location, city size, or economic structure, or are more factors to be taken into account? What then are the main types of cities and their key characteristics? In what way do key players in the knowledge economy, traditional national capitals, and cities with a strong industrial past differ? Which features do cities that handle large flows of visitors have in common, or cities that are the platforms of multinational activities or centres of research and higher education? And what are the core characteristics of those cities that – more modestly - provide personal, business, financial and administrative services within their own region?

Question 3: What is unique about city life? (Chapter 4)
Does unemployment tend to be concentrated in certain neighbourhoods? How much space do Europe’s urban residents demand and do they tend to live in houses or in flats? Is home ownership commonplace? What is the average household size? Where do one-person households tend to live? Do families concentrate in certain areas? In which cities do we find the best educated population? Where do the higher educated citizens live? What is the life expectancy of urban citizens? What is the quality of the air we breathe? And how do urban citizens travel to work?

Question 4: What power do cities have to determine their own future? (Chapter 5)
What is the role of Europe's city governments in public service delivery and design? Do cities exhibit differing abilities to respond to change? If so, what determines this? How can municipal authorities best influence the course of events? Can they determine levels of investment in areas such as education, health or economic development? Is there a link between the power to influence outcomes and size, level of expenditure, ability to levy taxes, or the responsibilities that they have been assigned?

These and many other questions will be addressed in this report. This is not to say that definitive answers will be provided. Nevertheless, by drawing on the data set of the Urban Audit, the State of the European Cities Report is the first opportunity to make comparisons and look for patterns at a pan-European level, providing unique insights and a solid basis for further exploration.

2.0 Growth and Stagnation of Europe's Cities

2.1 Are Europe's cities expanding or contracting?

Our description of the state of urban development begins with an overview of population and population change. The basic assumption on which our analysis rests is that "healthy" cities tend to grow and attract people while "less healthy" cities stagnate or even shrink – they lose population, a symptom that might call for remedial action.

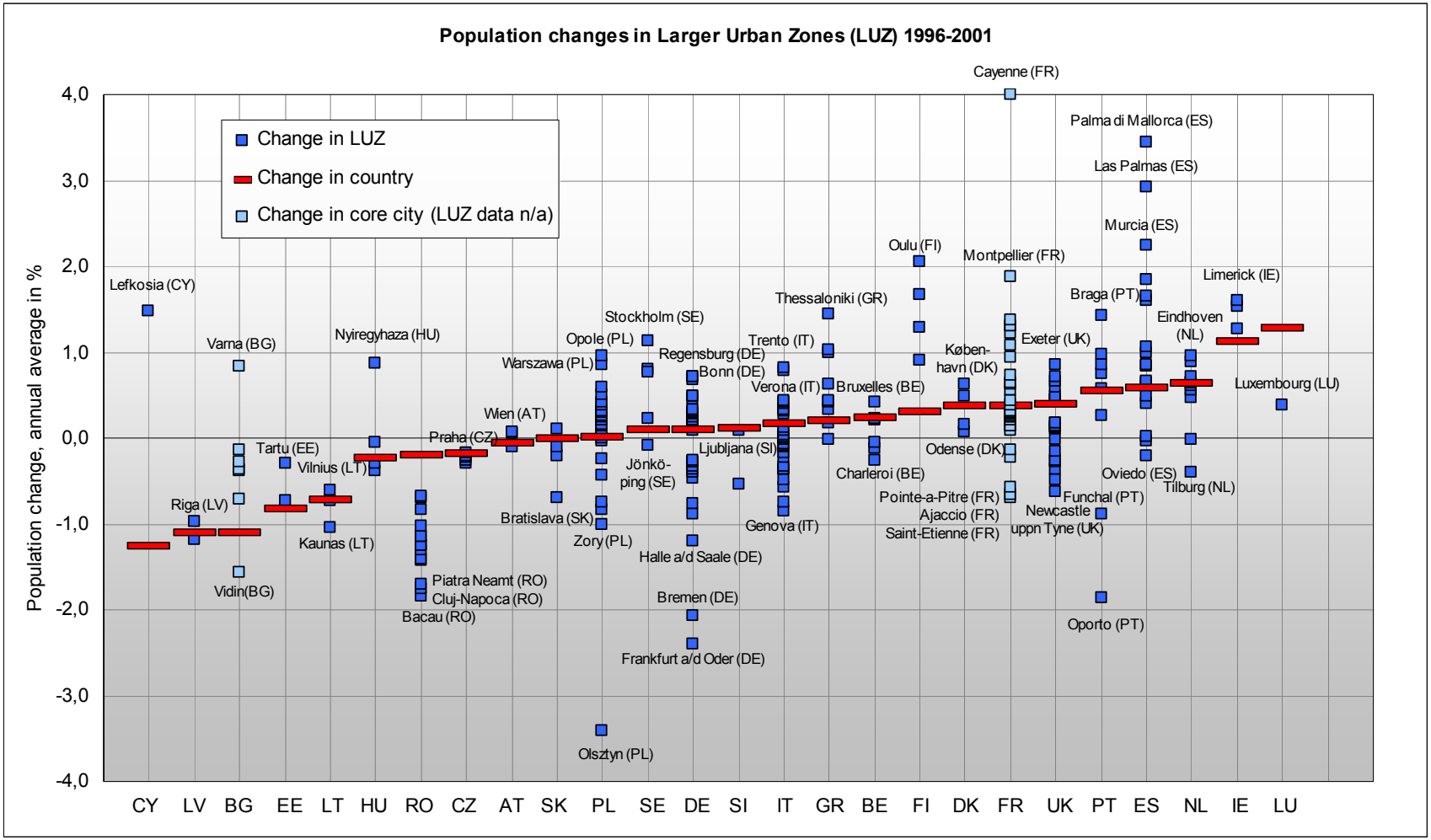
The Urban Audit indicates that the population of Europe's urban areas have been growing at a rate of 0.35% per year between 1996 and 2001[4]. This is about twice the annual population growth rate of Europe as a whole in the same period (0.2% per year)[5]. Thus, urban areas have clearly been growing faster than non-urban areas. However, considerable variation exists in the pattern of population change across Europe. In the same period, a third of cities grew at a rate in excess of 0.2% per year, a third saw their populations remain stable (rates of population change between -0.2 and 0.2%) and a third experienced a notable decline in population. The strongest population growth rates were recorded in Spain, where some urban areas saw average annual increases of 3% or more. Urban areas also expanded quickly in Ireland, Finland, Greece and Cyprus. At the other end of the spectrum, urban areas in some countries have been subject to overall population decline, most notably in Romania and Italy.

In many other countries, there have been instances of both growth and stagnation. In the UK for example, a number of southern English cities have been growing steadily, including Exeter and Bristol in the South-West. At the same time, urban areas in northern England, such as Newcastle upon Tyne, have lost population. Cities in Germany also show significant variance in this respect. Decline is common in urban areas in the east of the country (reaching particularly high levels in Frankfurt an der Oder and Halle an der Saale), while other more prosperous cities (such as Regensburg or Bonn) have been gaining in population size. In France, the majority of cities has been able to register population growth, although a smaller number of cities notably in the north of the country have faced population loss.

Extremely large differences in population dynamics are also evident in Poland, where a number of urban areas including Warsaw and Opole have been growing steadily, while others, notably in the north and east of the country have been losing population rapidly (Olsztyn is a notable example of this). Internal variations in the rate of urban population have been more modest in Belgium, Denmark and the Netherlands (see Figure 2.1).

[4] Data is available for 192 out of 231 LUZ-zones. At this spatial level no data are available for Bulgaria and France.
[5] We are referring here only to the countries in which the Urban Audit cities are located.

Figure 2.1: Population changes in Larger Urban Zones



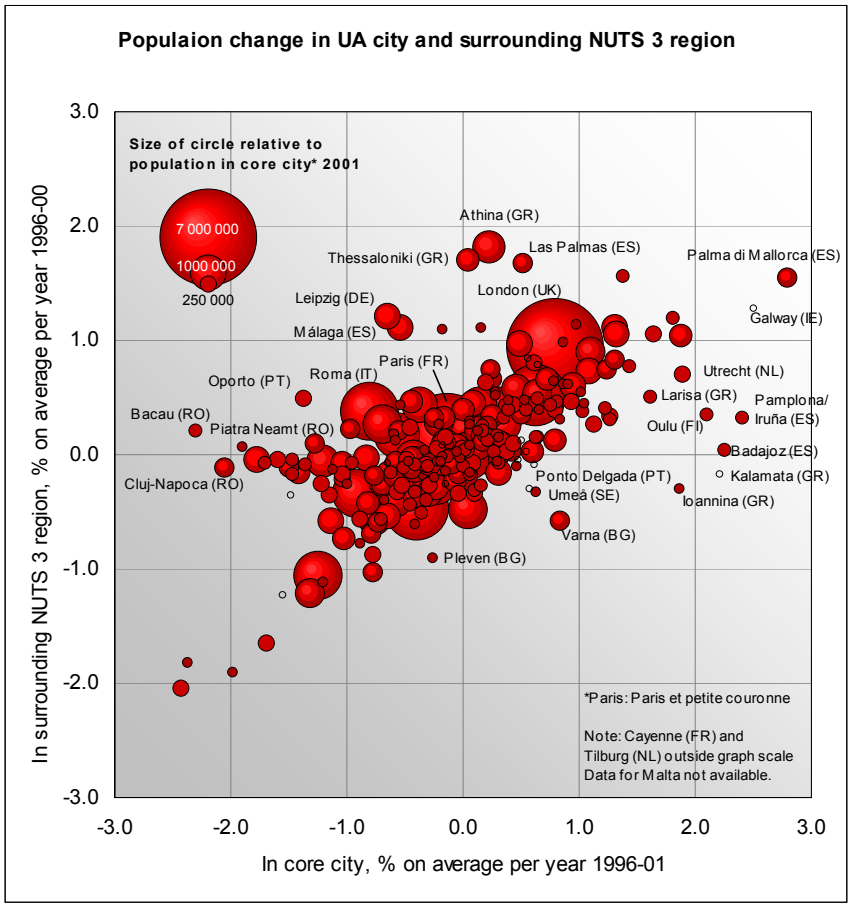
Population change can be placed in a long-term perspective. During a period stretching from the mid-1950s to the 1970s, the urbanised core of north western Europe first saw a process of rapid urban population growth, followed by a trend towards de-centralisation and suburbanisation and a partial de-urbanisation. Thus, by the 1970s most metropolitan cores in the UK, and by the late 1970s also in France, Germany and Italy, were in a process of rapid decline. Many larger cities of northern Europe experienced similar trends. At the same time virtually all metropolitan areas in Central and Eastern Europe grew very rapidly[6].

In more recent times, the opposite has generally been the case. In the period 1996-2001, a large proportion of Europe's overall population growth (urban and non-urban areas taken together) occurred in the original EU-15 Member States, while population declined in the New Member States. The highest overall population decline was seen in Bulgaria, Romania and the three Baltic States, although Hungary, the Czech Republic and Poland also recorded falls. At the same time, urban areas in these countries also suffered more heavily from population loss than their counterparts in most other parts of Europe. There is clearly a strong correlation between population change at the national level and at the level of urban areas and it is very difficult for cities to successfully adopt counter measures within a context of national population decline.

Having said this, the national context alone does not explain all the variations we see. Clearly, the regional context of cities is also a crucial determinant (see Figure 2.2). Across Europe, those urban areas located within rapidly growing regions tend to experience higher than average population growth. This pattern is most visible in Germany and the UK, where contraction in urban areas in the North of England and in eastern Germany has occurred in parallel to expansion of city populations in more prosperous, growing regions of these two countries. Exceptions to this link between region context and urban population development can be grouped into two categories. First, there are a number of regional urban growth centres located in more peripheral areas, which have attracted population at a much faster rate than the rest of the region to which they belong. Examples of this type of city are prevalent in Greece, Spain, Ireland and northern Europe. Second, there is a smaller group of cities, whose economic performance and population growth is lagging behind that of the region to which they belong. The most prominent examples of cities of this type can be found in Romania.

[6] Commission of the European Communities – Directorate General for Regional Policy (1991): Europe 2000. Outlook for the Development of the Community's Territory. Brussels – Luxembourg, pp 133-143.

Figure 2.2: Population change in UA core cities and surrounding NUTS 3 region 1996-2000/1

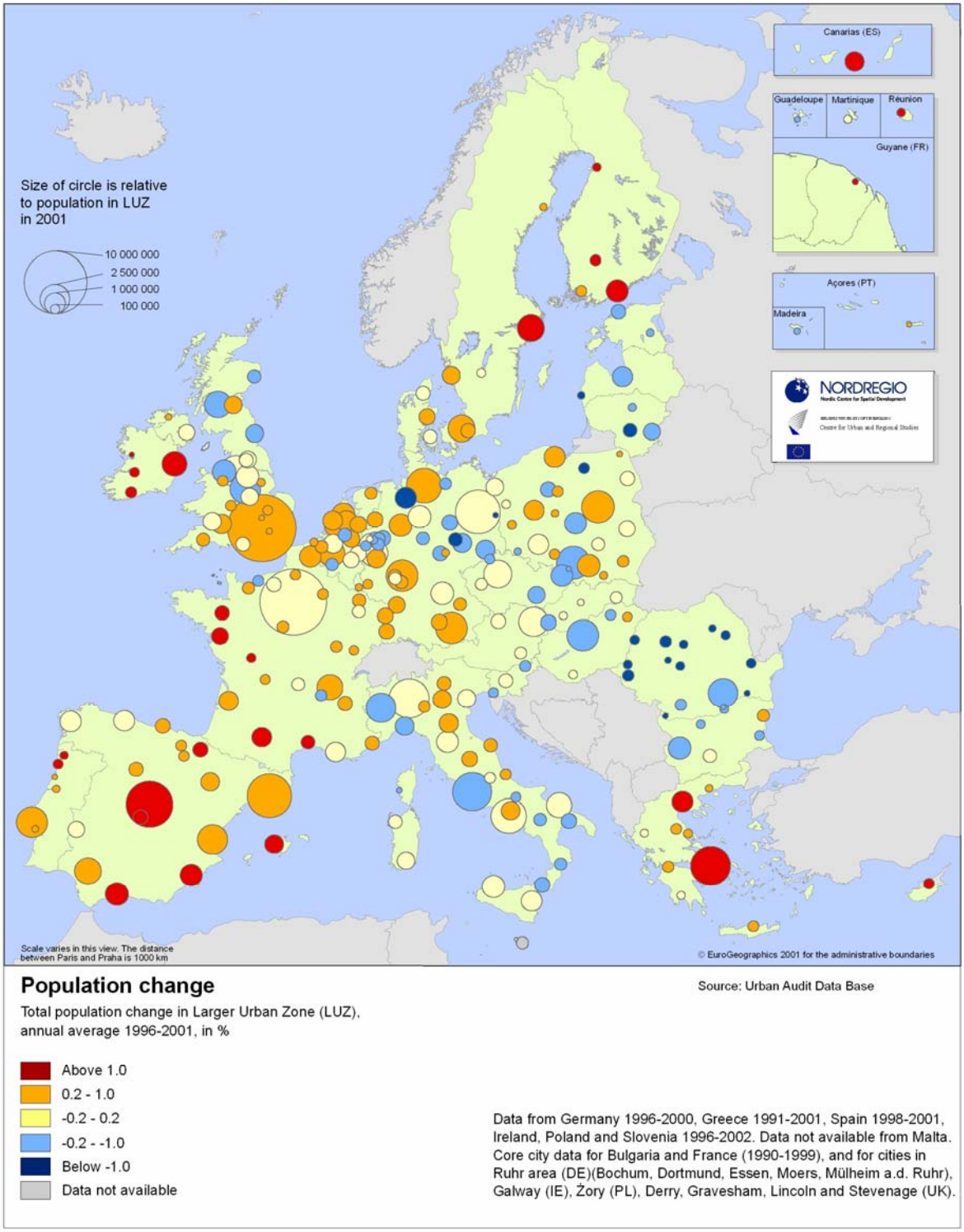


Data source: The Urban Audit and Eurostat.

This leads us to important questions about the potential of urban areas to act as engines of growth. To what extent are urban areas able to play a leading role in the development of their broader regions? This of course depends on a range of economic, social, political, and even historical factors. However, the size of urban areas is also a determining factor. Larger urban areas tend to have a greater influence on their hinterlands than smaller cities, although the relationship is not clear-cut. This aspect will be examined later in Chapter 3 of this report.

As shown in figure 2.3, in general, larger cities in Europe have been expanding at a faster rate than smaller urban areas. This is the case in most countries, especially so in the Netherlands, the western parts of Germany, the Nordic countries, Greece and Spain.

Figure 2.3: Population change in Larger Urban Zones 1996-2001

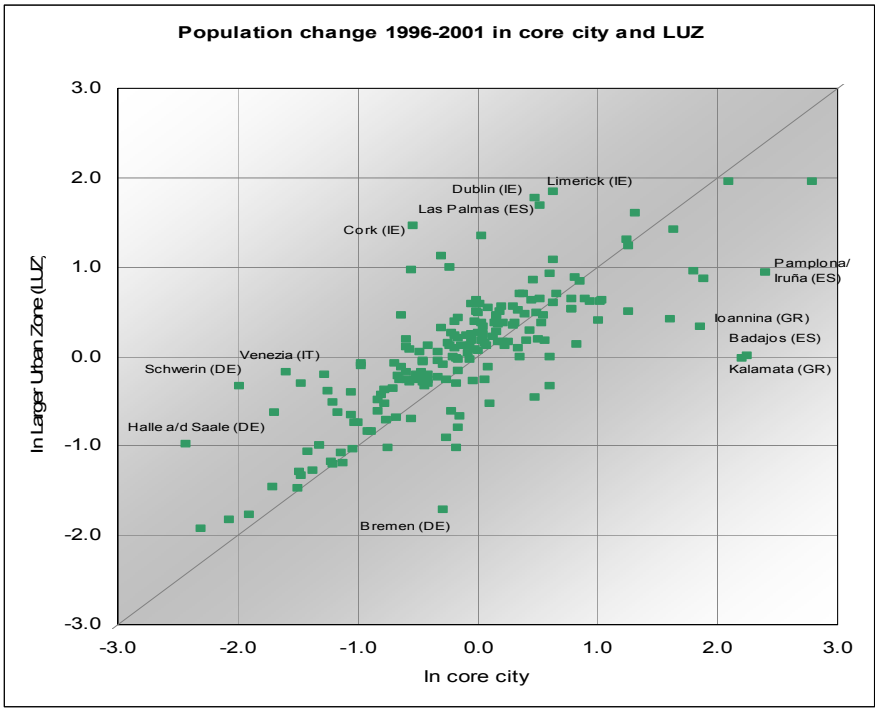


In examining differences in urban population change, it is also important to take into account intra-urban dynamics. Considerable variation in the rates and direction of population change are evident between entire urban areas (agglomerations) and the core

cities that lie within them. Overall, while the urban areas covered by the Urban Audit grew at an average rate of 0.35% per year, core cities within these wider urban areas frequently experienced population losses[7]. Clear regional differences are discernable on a European scale. In the east, the population of core cities in the Czech Republic, Hungary, the Baltic States and especially in Romania decreased significantly (more than 0.5% per year on average). Although a number of core cities in northern Italy also experienced substantial population decreases, core cities in western and maritime parts of Europe, were generally more robust, with population increases recorded in the Nordic countries, western France and Portugal (Figure 2.3).

In most cases, core city growth went hand in hand with growth at the level of the whole urban agglomeration, although the growth rate of outer urban areas exceeded that of the core city in about two thirds of all cases (see figure 2.4). While there were instances where the growth rate of core cities was faster than that of the periphery (the opposite trend), this was far less common.

Figure 2.4: Population change in core cities and LUZ 1996-2001



Broadly speaking, four different types of urban population development can be distinguished: urbanisation, overall urban decline, suburbanisation and re-urbanisation.

Urbanisation entails the growth of the entire agglomeration, including both the core city and the outer urban areas. This phenomenon takes place in about a third of the UA urban

[7] Excluding data from the two Maltese cities (Valletta and the island of Gozo)

areas, especially in large and dynamic cities in Spain (Madrid, Seville, Zaragoza), Greece (Athens, Thessaloniki), and the Benelux (Amsterdam, Rotterdam, Brussels). In the Nordic countries, second-tier cities such as Turku or Odense also display this pattern, as do several dynamic German centres.

Overall urban decline refers to the decline of the entire agglomeration, including both the core city and peripheral areas. This pattern can also be observed in about one in three UA cities. A large number (80) of the Urban Audit cities are experiencing overall urban decline, with particular concentrations in eastern Germany and all Central and Eastern European countries with the exception of Bulgaria. The Ruhr area of Germany and many Italian cities also fall into this category. Commonly in these cases, the core city has experienced a faster rate of decline than the surrounding areas. In certain cases, this process is not as negative as it first appears. For instance, in Italian cities (including Milan and Rome), suburbanisation is taking place outside the borders of the agglomeration[8]. A similar development can be detected in north-eastern Romania around the cities of Bacău and Piatra Neamț and around Budapest in Hungary. In these cases a re-jigging of statistical boundaries would help to clarify the true nature of the dynamic processes taking place.

Suburbanisation refers to population growth in the periphery of the urban area at the expense of the core city. This phenomenon has occurred in about a quarter of all UA cities. Suburbanisation is common in urban areas on the Iberian Peninsula and in Poland. Other scattered cases can be found - mainly in Italy and the UK. Notable larger cities where suburbanisation is occurring include Barcelona, Vienna, Warsaw and Berlin. In the case of Berlin, suburbanisation is a new phenomenon that has its origins in the reunification of the city at the beginning of the 1990s.

The label "*re-urbanisation*" is used to describe instances where both the core city and the periphery are experiencing growth, but the core city is expanding faster than its surrounding area. This is a comparatively rare phenomenon, and takes place in about 5% of UA cities[9]. In most such cities, suburbanisation cannot be accommodated, due to a lack of available land. Cities experiencing re-urbanisation can be found in Spain, Greece, Denmark and Finland. In some cases, re-urbanisation takes place at the expense of the more rural areas.

In conclusion, even though the population of urban areas is generally growing at a faster rate than the national average, great variation exists across Europe and the situation is very fragmented. The national and regional context has an important bearing on population change in cities, particularly at the level of core cities. Generally, growth is more prevalent in peripheral urban areas than in the urban core. An encouraging signal for

[8] As revealed by a comparison with data on NUTS 3 level (for 1995-2000).
[9] London and Copenhagen are notable examples of this phenomenon.

local politicians and urban development practitioners is that factors such as city size and the national and regional context are not wholly responsible for determining the destiny of individual cities in Europe. There is room to influence development trajectories. In order to achieve this, however, an understanding of the factors behind growth and shrinkage in urban population is necessary.

2.2 What factors lie behind the expansion and contraction of Europe's cities?

Two fundamental parameters affect population dynamics: natural population change (births and deaths) and migration.

2.2.1 Natural population change and the role of ageing

Natural population change is a product of the birth rate and the death rate. Given the prominence of the ageing population in contemporary debate, we focus first on trends in the elderly population of UA cities (people over 65 years of age). Overall, it is clear that the number of elderly people has increased in a large proportion of UA cities, and this trend is broadly consistent with increases at national level in most EU Member States. There were only a few instances where the number of elderly people did not grow at city level, despite increases in the same age bracket at national level in the countries concerned. These divergent cities were Paris, Florence and Trieste in Italy, Lisbon, Frankfurt am Main and Darmstadt in Germany, Prague, Budapest, Tilburg and Enschede in the Netherlands and Bruges and Ghent in Belgium.

The growth in the number of elderly residents in the cities of Spain, Italy and Germany is particularly striking, as these countries already have the highest share of elderly citizens in the EU-27. The ageing population is a more recent phenomenon in many French, Polish, Romanian and Estonian Urban Audit cities. In contrast, a significant minority of cities have a small and declining percentage of elderly residents. The most notable examples are London, several Dutch UA cities, most Danish and all Lithuanian cities. A possible explanation in these cases is that elderly citizens are moving away and settling in quieter, often rural residential areas, while handing over the core cities to the younger generation.

A final group of urban areas deserves mention. These are cities that have traditionally had a large elderly population, but have been 'rejuvenated' in recent years, with the trend of an ageing population effectively reversed. Notable examples are Vienna, The Hague, Brussels, Bristol and Belfast. Rather than senior citizens moving out in these cases, this trend is more likely to be driven by younger and middle-aged citizens moving into the core cities.

The question remains to what extent the existence of an aging population lies at the root of population decline in certain urban areas. For this, we need to look at population developments in other age groups as well. Figure 2.5 illustrates data on population change by age group in the UA core cities of Europe.

Figure 2.5: Population change in UA cities 1996-2001 by age group: 0-14 years; 15-64 years; 65+ years; total

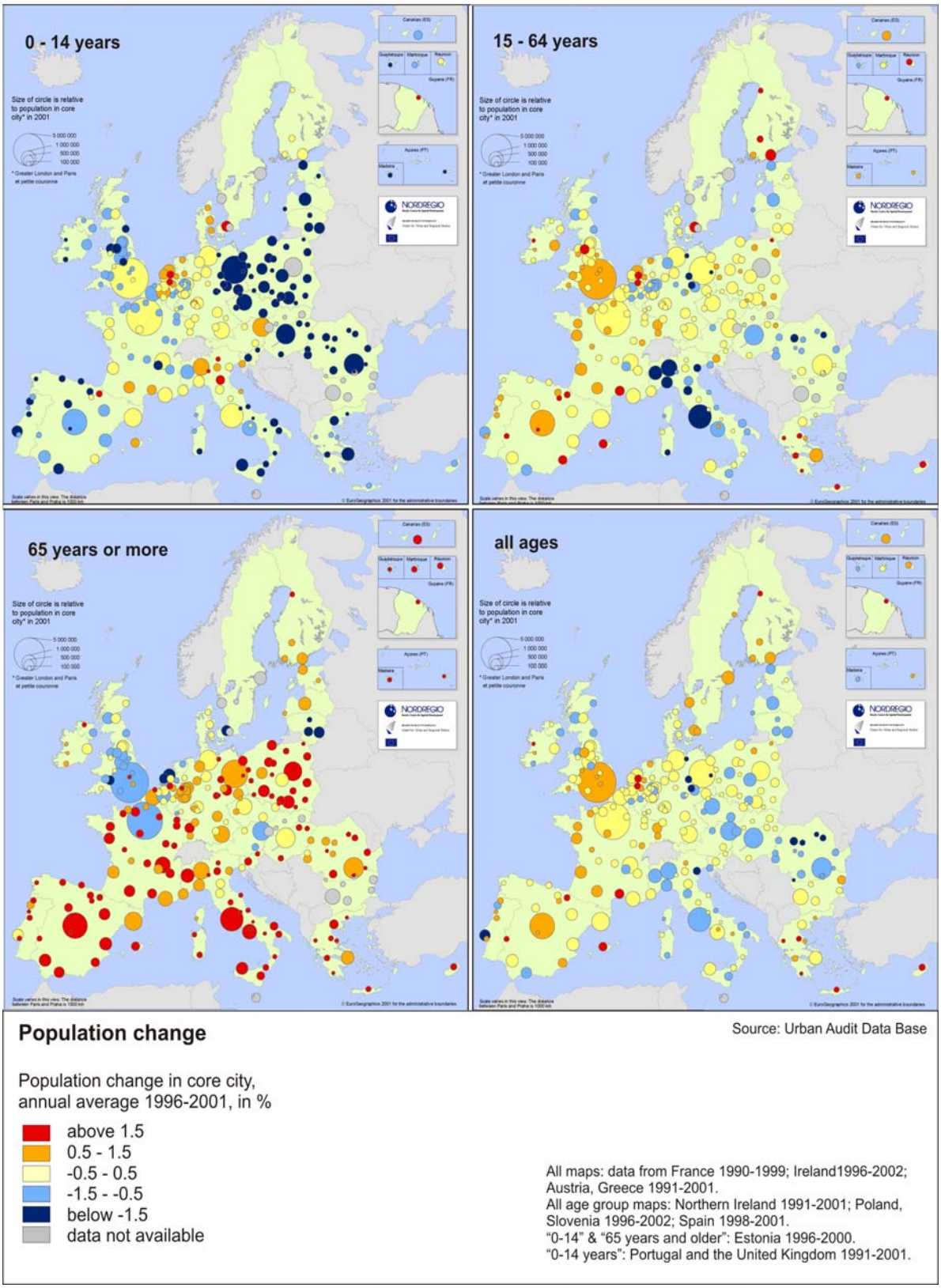


Figure 2.5 highlights that core cities in Central and Eastern Europe faced a sharp decline in the number of children between 1996 and 2001. Such a decline can also be seen in southern Italy and Greece and, to a lesser extent, in Ireland, Portugal and the northern UK cities. Meanwhile, the number 0 to 14-year olds remained more or less stable in many French and German cities, while Dutch and Danish UA cities actually saw an increase in the number of children.

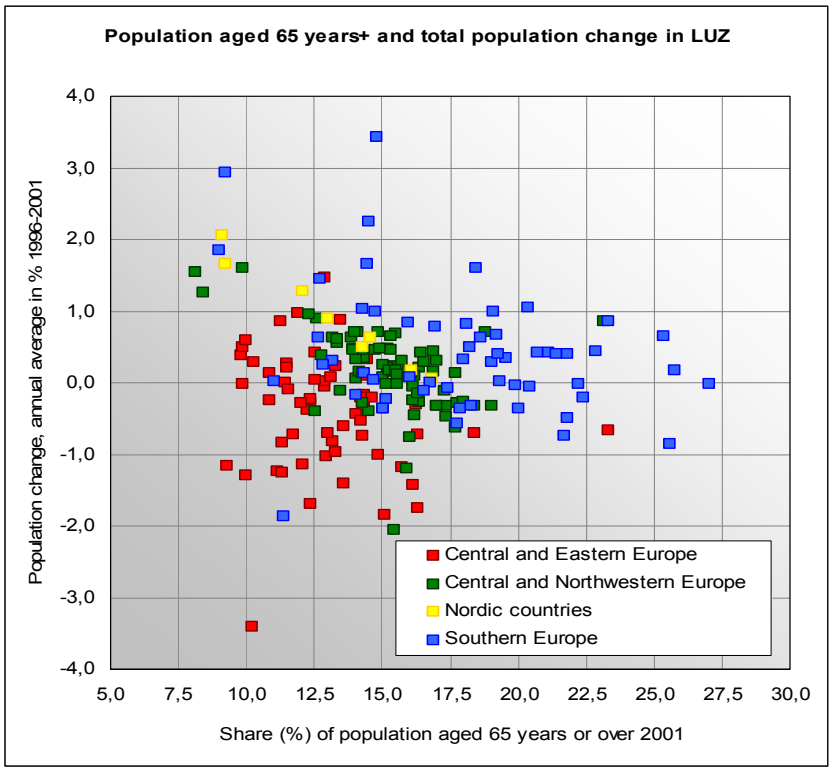
At the other end of the age range covered, increases in the proportion of elderly residents are most noticeable in Poland, Spain and Greece. Of all 98 Urban Audit cities where the "rate of ageing" exceeded 2% each year on average, 20 are in Poland, 16 in France, 15 in Spain, 14 in Italy, 8 in Greece and 7 in Romania.

Whether or not there is a correlation between ageing cities and shrinking cities is, however, less clear-cut. Cities with a *high* proportion of senior citizens do tend to have *lower* than average population growth rates. This is particularly notable in the Nordic countries, but also a common pattern in the cities of "Central and north-western Europe" and "Southern Europe" (see Figure 2.6 below). Conversely, cities with a *lower* share of elderly residents and a *higher* share of children have generally experienced *faster* population growth rates. However, many UA cities in Central and Eastern Europe combine a comparatively low proportion of elderly residents, a high proportion of children *and* a declining total population. The relationship between age structure population change is thus less clear.

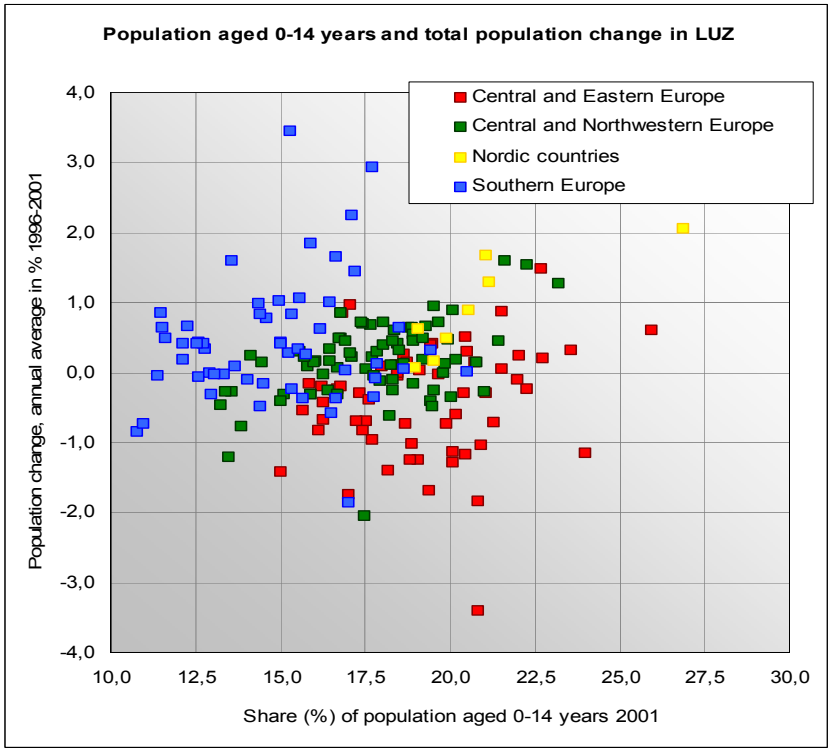
One explanation for this situation in many cities in the New Member States is a relatively recent decline in birth rates. Many Central and Eastern European cities have a high proportion of young residents, resulting from comparatively high birth rates during the late 1980s. However, this proportion is now showing signs of decreasing rapidly, as birth rates have fallen significantly in recent years. This is an important underlying cause of the overall population loss these cities experienced in the period covered by the Urban Audit. It is realistic to expect Central and Eastern European cities to "conform" to the pattern of the rest of Europe in the coming decades.

Figure 2.6: Population change and age structure

A. Senior residents and population growth



B. Younger residents and growth



2.2.2 The role of migration

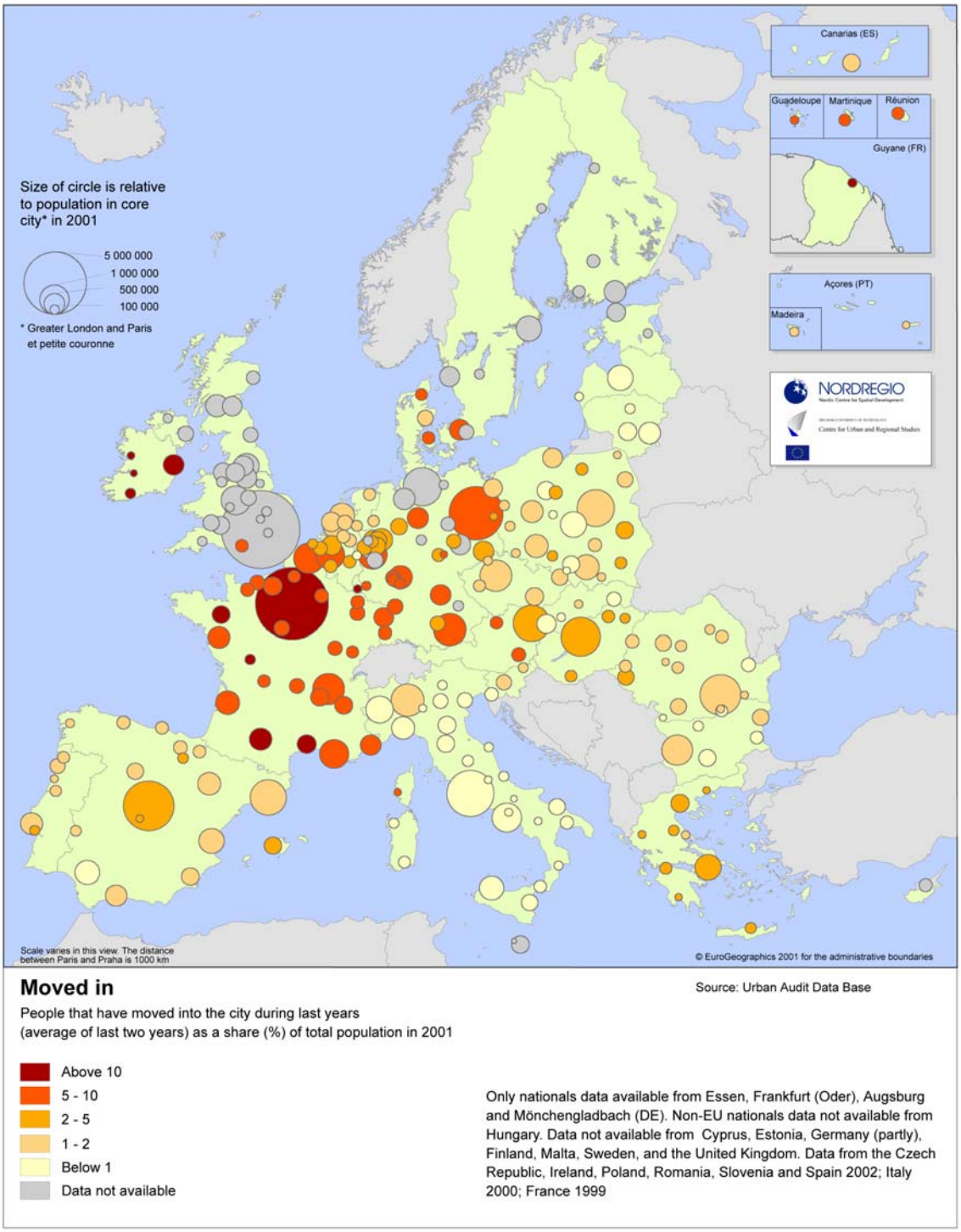
If natural population growth is one determinant of urban population change, then migration is clearly the second driver. Although immigration has always played an important role in the demographic development of Europe's cities, evidence from the Urban Audit points to growing migration flows in an increasingly mobile Europe. Moreover, high levels of migration can have an even stronger demographic effect than natural population change[10]. For analytical purposes, it is useful to distinguish three categories of migrant: – those who move within a country; those who move between EU Member States; and those who come from outside the EU. National trends, border changes and economic developments were important underlying causes of migration in Europe in the late 1990s. For instance in Germany, East–West migration became an important phenomenon in this period, while the UK (and England in particular) has seen strong migration flows from the North to the South.

Measuring migration is far from easy, as a range of variables are at play. One indicator is the share of "newcomers" (those who have moved to the city in the previous two years), in the total population of Urban Audit cities. This share varies widely across Europe, as shown in Figure 2.7. The data available for the cities covered by the Urban Audit[11] indicate a high proportion of "newcomers" in cities in Ireland, France, Denmark and the southern half of Germany. In most of these cases more than 5% of the city's inhabitants had moved into the within two preceding years (since 1999, in the case of 2001 data). In Paris the share exceeded 11% and in Dublin it was nearly 13%.

The single highest share of "newcomers" was also recorded in Ireland, in Galway, where more than a fifth of its total population (21%) migrated into the city between 1999 and 2001. In absolute terms, Berlin and Paris attracted the highest numbers urban migrants, among the Urban Audit cities[12]. In addition to Paris, many other French cities (Lyon and all UA cities on the Mediterranean and Atlantic coasts), Madrid, Dublin, Vienna, Copenhagen and Budapest have high levels of immigration. Next to Berlin, Munich and the cities of the Rhineland have been important magnets for migrants in Germany. Labour market opportunities lie behind many migratory decisions and modern communication tools allow migrants to be better informed about such opportunities than ever before. As in past generations, 'first wave' migrants often encourage relatives and friends to follow. The strong inflow of migrants into cities such as London and Madrid are cases in point.

[10] See also ESPON project 1.1.4 "The Spatial Effects of Demographic Trends and Migration".
[11] No data are available from the Urban Audit for the UK, Sweden, Finland and Estonia
[12] Data for London are not available from the Urban Audit.

Figure 2.7: Share of newcomers to UA cities 2001



It is often argued that cities act as integrators and transformers of society. They are generally the places where migrants first arrive to start a new life and potentially seek citizenship of their new country of residence. The share of new nationals - citizens who were born in another country - is another measure for the migratory dynamic. Among the

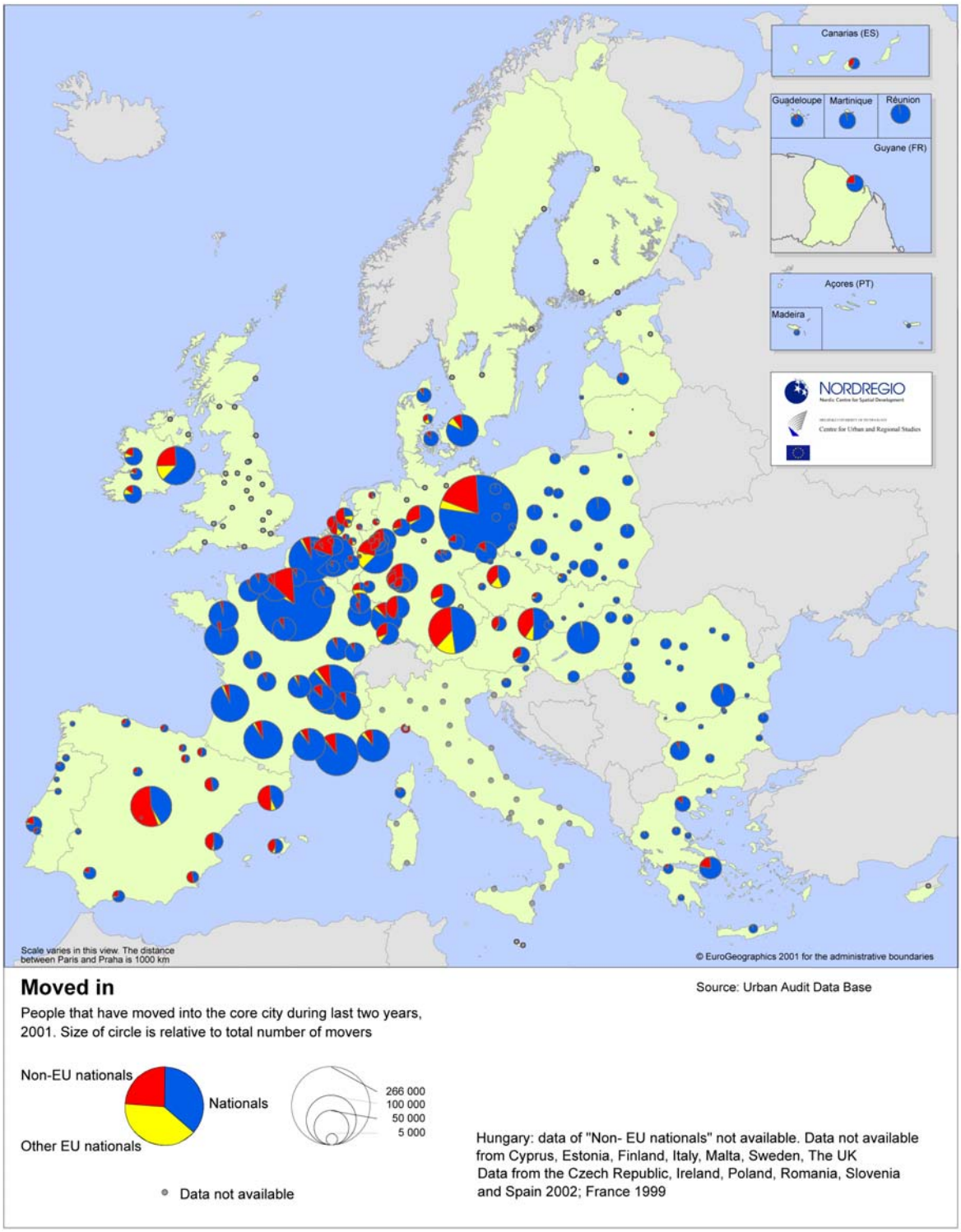
Urban Audit cities, the highest rates of naturalisation were found in the Baltic States. In Riga and Liepaja large numbers of people from other parts of the former Soviet Union remained after Latvian independence. Nearly a quarter of the citizens residing in these two cities were born outside of Latvia. The share of new nationals is also high in the cities of other Baltic states, for example Vilnius (11%) and Tallinn (8%). In other parts of Europe, large numbers of new nationals can be found in the Netherlands (about 18% in Amsterdam, The Hague and Rotterdam) and Sweden (between 10% and 15% in the main Swedish cities)[13]. Cities with lower than average numbers of new nationals are predominant in many of the New Member States, where foreign-born nationals commonly make up less than 2% of the population. Having said this, the percentage tends to be higher in capital cities such as Budapest (3%) and Prague (5%). Many Italian cities are also quite homogenous in this respect, with new nationals making up just 0.2% of the population of Palermo, for example.

The Urban Audit reveals sizeable differences in the extent to which migration affects cities across Europe. A general pattern is for large cities to have a high inflow of migrants, while smaller ones tend to have much lower shares of immigrants. An additional pattern is that smaller cities tend to attract new residents from nearby – often from the surrounding region. Their power of attraction does not reach as far as that of larger cities.

Patterns of migration in Europe are extremely complex and take many forms. Migrants are frequently categorised according to their place of origin, ethnicity or potential contribution to the economy. While much debate in this area tends to focus on international (and inter-continental) migration, the facts reveal that the majority of movements take place within national boarders. In most cities, more than three quarters of all population movements concern citizens of the country in question. In Central and Eastern Europe nearly all migrants to cities are nationals (Figure 2.8).

[13] No data are available for the UK, France, Italy and Germany

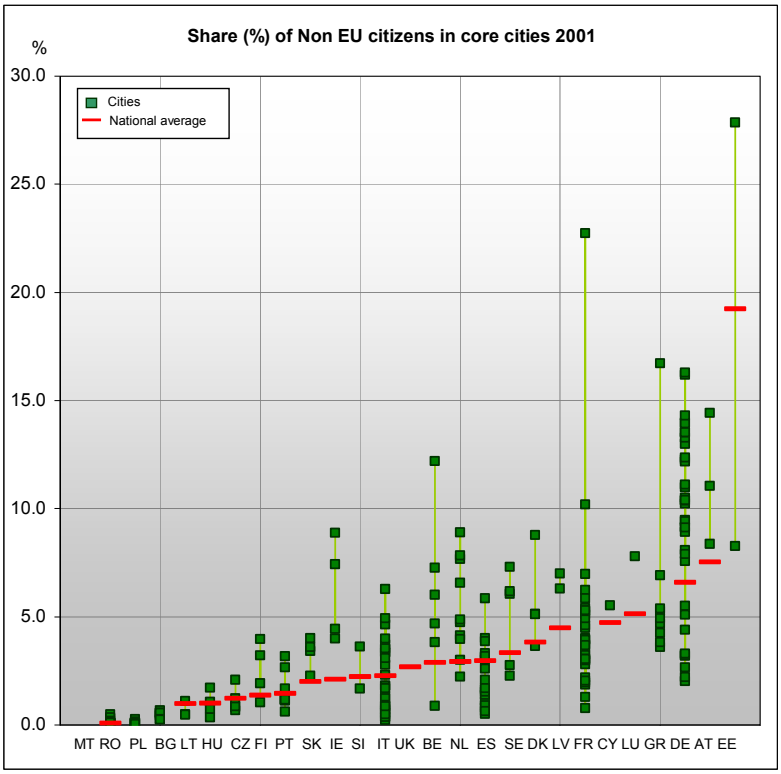
Figure 2.8: Number and origin of newcomers to UA cities 2001



When discussing issues of social cohesion, attention tends to be focused on non-EU citizens, who have different cultural, linguistic, social backgrounds and face considerable adjustment problems on arrival in Europe and often for a lengthy period thereafter. Cities

tend to host a large share of these non-EU migrants, as revealed by the Urban Audit, although the situation varies widely between and within countries (Figure 2.9). Cities in France, Belgium, Austria, Denmark, Finland, Latvia, and Slovakia tend to be front runners in this respect, although Urban Audit data are not available for countries which receive large numbers of immigrants, such as the UK and Italy. Large numbers of non-EU migrants can also be found in certain cities outside these countries however, for example in Madrid and Barcelona in Spain.

Figure 2.9: Share of non-EU citizens, national average and core cities, 2001



The percentage of non-nationals living in Europe's cities is steadily increasing as a result of continued European and global integration processes. In 1981, the average share of non-nationals in UA cities was 7.8%. By 1996, this share had increased to 10.4%. The largest increase concerned the share of non-EU nationals. Cities in Spain, Greece and Northern Italy and, to a slightly lesser extent, in Ireland and Portugal experienced the most rapid shifts. The top ten in this respect are "internationalising" cities such as Athens and Thessaloniki in Greece, Nicosia in Cyprus, Dublin, Madrid, Palma de Mallorca, Barcelona and Pamplona/Iruña in Spain, Ljubljana and Luxembourg City.

The role of migration in explaining population change in Europe's cities is complex. There is a general correlation between levels of migration and population change evident in Urban Audit cities, with inward migration is certainly acting as a key driver of population growth in a number of cities. Nevertheless, on a pan-European scale, it is not always easy to untangle the relative contribution to city population developments of migration, in its

many forms, from natural population trends, including birth rates and ageing. What is clear is that migration and mobility are on the increase in Europe's cities and are likely to play an even greater role in urban population change in the coming decades.

2.3 Which cities in Europe are growing and which are stagnating?

Important regional distinctions can be made when looking at the population growth dynamics in cities across Europe. In this section the situation in the cities of northern Europe, western Europe, Central and Eastern Europe and southern Europe are dealt with in turn.[14]

2.3.1 Northern European cities: generally positive growth

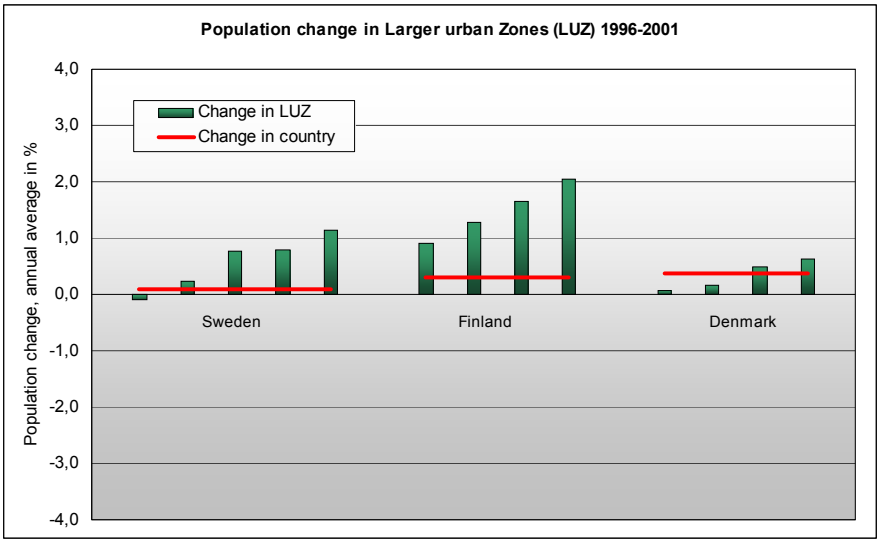
Overall, urban population developments in Nordic countries have been positive. The population of cities has on the whole grown substantially faster than their respective countries. The largest growth differential was seen in Finland, where the Urban Audit cities outgrew the country average by between 1 and 2 percentage points each year. The strong (service-led) economic growth of Finnish cities during this period is the fundamental cause. Urban growth has also been strong in Denmark and Sweden.

The Nordic countries have a geography and urban structure which is unique in Europe. Large stretches of sparsely-populated land contain networks of towns and cities – originally developed because of their proximity to raw materials – that are today small by international standards. For example, in Finland, nearly two thirds of the population lives in settlements with fewer than 50 000 inhabitants. However, these smaller towns play a key role in modern Nordic society, with functions far beyond those of their continental counterparts of similar size, often having their own symphony orchestras and regional universities.

The challenges facing the larger cities of northern Europe are increasingly similar to those in western Europe. Large numbers of foreign immigrants have arrived in Sweden's biggest cities in the last 15 or 20 years. The fact that many of these newcomers are concentrated in certain suburbs of the major metropolitan areas, in combination with the effects of economic restructuring on certain sections of the workforce, have led to higher levels of social segregation than was previously the case. The (re)integration of immigrant populations and those made unemployed through industrial restructuring are key challenges facing Sweden's towns and cities. The issues are similar in Danish cities, where immigration in particular has become an increasingly important topic on the political agenda.

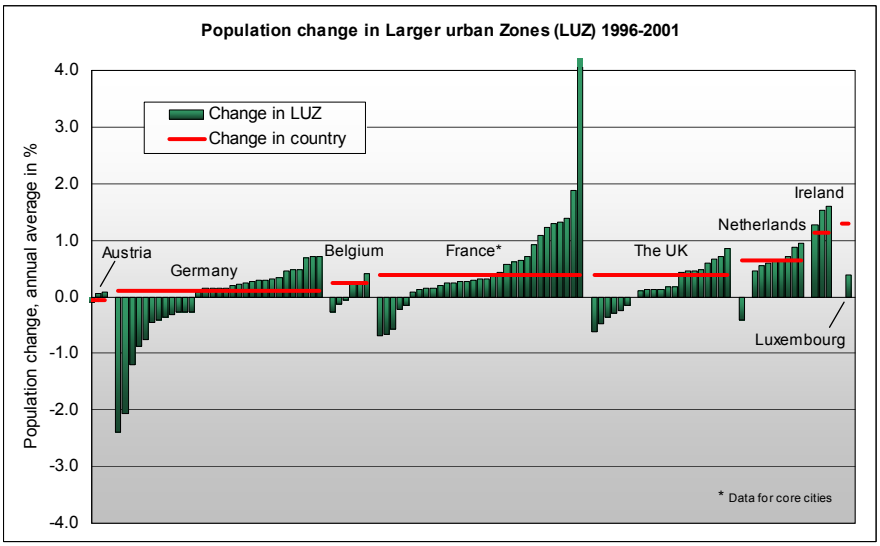
[14] This section draws on the European Evidence Review of Sustainable Communities and Cities, prepared for the Informal Bristol Ministerial, 6-7 December 2005.

Figure 2.10: Population change in Nordic cities (1996-2001)



2.3.2 Western Europe: a diverse pattern

Figure 2.11: Population Change in Central and Northwest European cities (1996-2001)



In many ways, the urban pattern of Western Europe is a mixed one and there are clearly complex and diverse forces at play. Most of these countries have comparable shares of growing, stagnating and declining cities.

The growth experienced by Irish cities has been most pronounced. Fuelled by an unprecedented period of economic development, the capital, Dublin, and smaller settlements in the commuter belt around the city have been at the forefront of this growth. This has resulted in vastly increased pressure on housing (leading to considerable price increases) and a transport system which has come under increasing strain.

Luxembourg also grew between 1996 and 2001. The urban population is concentrated in Luxembourg City and the old industrial belt that surrounds it, an urban area home to some 230 000 people. A great deal of the growth can be attributed to a significant inflow of foreign nationals, predominantly from other EU countries, often working for the EU institutions or the country's financial sector. The main challenges faced by Luxembourg City are congestion and the availability of affordable housing, both pressures related to the country's strong economic performance.

Many key cities in the United Kingdom have experienced a revival in recent years, following years of relative population decline and economic difficulties. Nevertheless, fortunes continue to vary to a significant extent. London has continued to be a success story in terms of economic performance, and has consolidated and strengthened its position among world capitals. At the same time, the capital, and the Greater South East region in general, have experienced considerable population growth pressures, driven particularly by immigration from elsewhere in the UK, as well as international migration. Population pressures have given rise to very high housing prices and the affordability of housing has emerged as a major bottleneck to sustaining the economic success of this urban area. Although at a smaller scale, Edinburgh has been faced with similar growth pressures. In comparison, demand for housing is much lower in urbanised parts of northern England and some parts of the English Midlands, where comparative weaknesses in the local economy remain a problem. This said, there are examples of new opportunities emerging in these cities, and that years of decline and decay can successfully be reversed[15].

As in the UK, urban areas in some parts of Germany have been growing - particularly in the west and south of the country, with dynamic cities such as Munich, Frankfurt am Main and Freiburg im Breisgau as key examples. Other urban areas, in the east, such as Magdeburg and Frankfurt an der Oder have been declining.. Unlike in the UK however, overall demographic growth of Germany has been weak in recent years and this is reflected in more modest urban population growth dynamics. Many urban centres in the former East Germany have lost population, leaving large swathes of unoccupied housing, an increasingly ageing population and placing additional strain on local finances due to the declining number of local tax payers. In contrast, cities in the northern part of Germany (for example Bremen, Hamburg, Hannover) have been relatively stable in size.

In the post-war period, France underwent rapid industrialisation and urbanisation which went hand in hand with rural depopulation. Today, France's cities are still dynamic and often growing, particularly in the southern part of the country which attracts (senior) citizens for its high quality of life. Suburbanisation is an important driver for growth. At the same

[15] On this, see, for example Office of the Deputy Prime Minister (2006), State of the English Cities.

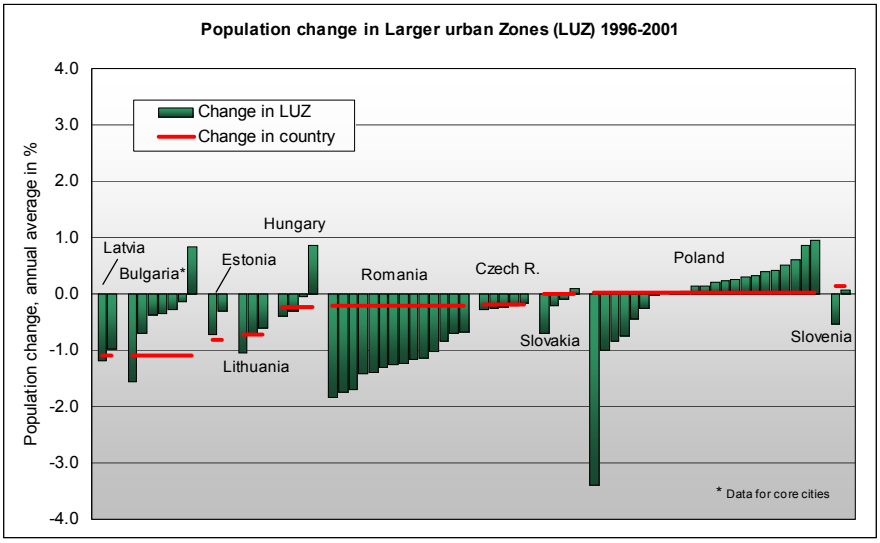
time, French cities face important challenges in integrating the large numbers of immigrants, often from a North African origin.

The Netherlands is highly urbanised, with exceptionally high population densities, particularly in and around the four main cities of the *Randstad* area in the western part of the country. In recent decades a number of medium sized cities outside the *Randstad* have been gaining in size and popularity. The urban dynamic is generally positive, although the situation is complex: examples of growth, affluence, stagnation and social exclusion can be found in urban areas close to one another. Urban challenges include the integration of immigrants, the increasing suburbanisation of middle-class families, a shortage of affordable quality housing and a run down housing stock (both pre- and post WW-II) in certain areas.

Belgium is another strongly urbanised country, where growth and stagnation are both present. The dense network of small and medium-sized cities centred on Brussels and Antwerp is home to around 80% of the country's population. The core problem facing Flemish towns and cities is widely acknowledged to be the strong suburbanisation of higher income groups and unemployment and deteriorating living conditions in poor inner city areas. Despite significant efforts to revitalise the urban core in recent years, many cities continue to face large restructuring challenges – especially those in the Walloon region which have been stagnating for several decades.

2.3.3 Central and Eastern Europe: facing population loss

Figure 2.12: Population change in Central & Eastern European cities (1996-2001)



In Central and Eastern Europe, the changing economic and social context has also had a strong impact on urban development. An overall trend is that many cities in the region face population loss. In the Czech Republic, cities have lost population through both natural change and migration. This is also the case in the Slovak Republic, where the country's

urban population declined in the period following 1991 at a faster rate than the national population as a whole. An analysis of the population reveals a considerable decrease in the number of young people (below 45 years of age) and an increase in the number of elderly people (65 years and older) in the country's cities.

Population loss in Central and Eastern Europe affects both small and large cities, despite strong economic growth in many of the region's capitals. For instance, the Latvian capital Riga shares the national trend of population decline, caused by falling birth and rising mortality rates, combined with net outward migration. An examination of the population by age group reveals a decline in the number of 0-14 year olds (indicative of a low birth rate in recent years) and a growth in the number of people over the age of 65. Similarly, the population of the Estonian capital Tallinn has continued to decline because of a low birth rate. These negative trends pose a major challenge for the labour market and the education system in the country and demographic forecasts predict a further loss of people over the next few decades.

In Hungary, population growth has occurred in urban areas, but has mainly been confined to the small and medium-sized towns. The capital city Budapest is steadily losing residents due to more deaths than births, in combination with suburbanisation processes. Again, population decline is most prevalent in the younger half of the citizenry (those under the age of 45). This decline in the number of people belonging to the most vital and active age groups is a threat to a city’s economic strength. The sub-standard quality of the pre-war housing stock, as well as that of the panel houses from the 1960s, is an important driver behind suburbanisation in and around Budapest.

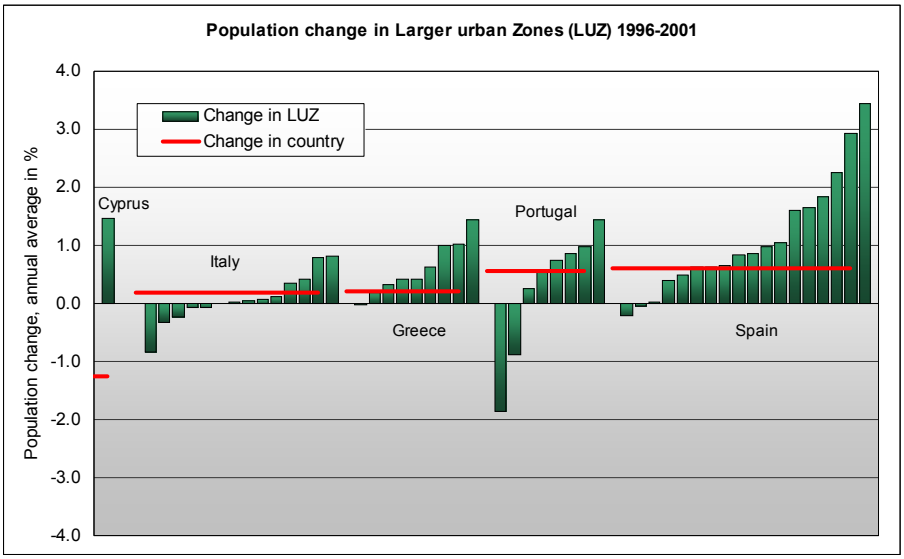
Suburbanisation is an important cross-cutting phenomenon in the New Member States, from Budapest and Prague to Warsaw and Tallinn. This often takes the form of unplanned and unregulated sprawl, which is recognised to be a significant threat to sustainable development in these metropolitan areas.

Very few cities in the region have witnessed significant levels of immigrants. In this respect, Prague stands out, with high numbers of newcomers from other EU countries and from outside the Union (including Americans and citizens of countries to the east).

2.3.4 Southern Europe: growth pressures – but not everywhere

Many cities in southern European have been growing in recent years and this has brought with it a number of pressures and challenges. In Greece, the population is strongly concentrated in Athens and Thessaloniki. Athens, in particular, is suffering from a legacy of ad hoc development and underinvestment in public infrastructure (transport networks and public space), both in the centre and in more peripheral areas. Although recent investments, particularly in transport, have improved the situation, traffic-related pollution remains a serious problem.

Figure 2.13: Population change in Southern European cities (1996-2001)



A lack of affordable housing in Spain's two biggest cities, Madrid and Barcelona, is recognised to be a significant problem. House prices in these two urban areas are now amongst the highest in Europe, especially in relation to local income levels. Spain's tradition of private home ownership, combined with rigid housing markets have tended to limit the supply of housing in the private sector, while the level of social housing provision has been inadequate despite a recent National Housing Plan. Furthermore, demand has been increasing, fuelled by high levels of immigration. There is evidence that social segregation (between the middle class on the one hand and low income and immigrant groups on the other) is on the increase, particularly in larger urban areas.

Similarly, Portugal's urban population is concentrated around Lisbon and Porto, where much of the country's economic activity is centred. A period of urbanisation in the 1960s and 70s was driven primarily by economic development and rural-urban migration and led to large-scale construction on the periphery of the main cities. In recent decades, Portugal, which had previously seen considerable levels of emigration, has experienced higher levels of immigration, particularly from Eastern Europe, Portuguese-speaking Africa and Brazil. These immigrant communities are largely concentrated in certain urban areas, both in the outer and inner cities of Lisbon and Porto. Despite generally high employment rates, including among the immigrant population, poverty, low educational attainment and social segregation remain significant issues in Portuguese cities. Immigrants of African origin tend to be concentrated in the lowest skill, lowest paid jobs. Urban insecurity and crime levels have become an important political issue in recent years.

The urban pressures and problems mentioned above have resulted in large-scale suburbanisation in Southern Europe. In particular, households with middle and high incomes have tended to leave the core urban areas. The result has been urban sprawl, often uncontrolled and sometimes illegal, and this presents important challenges for policy

makers who are often tasked with planning public infrastructure with limited resources after initial (private) development has taken place. There has also been rapid urban growth on the islands of Cyprus and Malta, particularly in the form of suburban development on the periphery of existing core cities. Traffic congestion and a loss of open space are negative consequences of this. Urban sprawl has gone hand in hand with the increased use of private cars, which has brought with it a range of environmental problems. In many coastal areas, population increases have placed particular strains on water supply, a problem often aggravated by antiquated distribution networks and a lack of control of water consumption.

Italy is somewhat divergent to other countries in Southern Europe, with population growth in some cities. The continued economic strength of the north of the country has been accompanied by the common urban problems of pressure on transport networks, housing supply and pollution in many cities, while the relative stagnation of many southern towns and cities has led to a range of social problems in poorer districts and areas of depopulation. The industrial and commercial heartlands of northern Italy are dynamic, with high levels of economic activity attracting large numbers of foreign immigrants. A strong contrast exists between significant numbers of highly mobile foreign immigrants who are successfully entering the entering the labour market in northern cities and the continued difficulties experienced by unemployed Italians with relatively low levels of mobility in the south of the country. Although the immigrants to the large cities of northern Italy face a range of social problems, particularly linked to their legal status and access to housing, they represent an important source of labour and tax revenue, and offset natural population decline. That is important in a country which has the highest share of elderly people in Europe.

2.3.5 Conclusions

This initial overview of European cities has revealed a number of key patterns in relation to population change. Despite diversity in terms of size, demography and geography, it is striking to see that cities right across Europe are grappling with similar sorts of urban problems. Broadly speaking, we can distinguish two main challenges for European cities: the pains of growing cities and the symptoms of stagnating or declining cities.

Growth and development brings with it a host of problems that need to be addressed. In dynamic urban regions, managing urban growth is a major challenge for policy makers and others. In cities right across Europe, from Dublin, London and Amsterdam to Madrid, Barcelona and the Central and Eastern European capitals of Prague, Budapest and Tallinn, there are upward pressures on the housing market resulting in a lack of affordable housing and contributing to uncoordinated suburbanisation, extended commuting distances, traffic congestion and environmental degradation. The construction of new business and shopping centres on the periphery of cities has further contributed to suburban sprawl and increased car usage. A key question facing growing cities is how to develop in a sustainable way. This entails an integrated approach to managing social, economic and environmental growth issues.

Cities experiencing population loss are generally characterised by high unemployment and a range of other socio-economic difficulties. The fundamental problems are often deep seated and there is a cyclical relationship between economic decline, a low birth rate and net out-migration. Stagnating and declining cities tend to be clustered in certain parts of Europe including parts of the North of England, the north of France, the Walloon region of Belgium, the former East German *Länder* and large parts of Central and Eastern Europe including cities such as Katowice, Miskolc, Ostrava, and Narva. These urban areas tend to have a common industrial past and are now faced with large challenges as a result of economic restructuring.

Whether a city is growing or stagnating, it is clear that population change cannot be seen in isolation. Demographic dynamics are closely linked to economic and social developments, as well as with housing and transportation issues. A further explanation of population change therefore requires a better understanding of underlying factors and these will be examined in the following chapters.

3.0 The Competitiveness of Cities

In the context of European policies, the challenge is to live up to the objective of the Lisbon Agenda, that the EU becomes the most competitive and dynamic knowledge-based economy in the world over the decade, capable of sustainable economic growth with more and better jobs and greater social cohesion.

Competitiveness at the urban level can be defined as the ability of cities to generate relatively high income and employment levels, while being exposed to external competition. In other words, for a city to be competitive, it is important to ensure both quality and quantity of jobs. Thus, urban competitiveness is more than GDP – and determined by a complex set of variables, mainly turning around the concepts of productivity and employment. [16] [17]

In order to become productive and create jobs, cities need to attract production factors and compete in different markets with other cities and regions, notably for inward investment, public funding, residents and visitors[18]:

- *Inward investment:* cities compete with each other to attract businesses and entrepreneurs. The location and investment decisions of private sector companies are important to job creation and growth;
- *Public funding:* cities also compete for public funding which includes large scale projects such as cultural and educational facilities, centres for research and development and administrative offices. Such investment flows also create jobs, stimulate growth and add to the attractiveness of cities;
- *Residents:* cities compete to attract certain types of residents, namely talented individuals, the well-educated and the affluent;
- *Visitors:* cities are increasingly competing for visitors, both tourists and business travellers.

This Chapter will first provide a brief overview of the economic performance of cities, focusing on some key indicators such as GDP levels and economic growth, employment and the cities contribution to growth and jobs overall – the Lisbon Benchmark (section 3.1). We will then examine in more detail aspects as economic specialisation, differences relating to city size, agglomeration economies and key drivers of urban competitiveness (section 3.2). Following this a typology of urban competitiveness will be presented in which

[16] Parts of this Section are based on Cambridge Econometrics/ECORYS et al. (2003) 'Factors of Regional Competitiveness' – study carried out for DG Regio. See http://ec.europa.eu/regional_policy/sources/docgener/studies/study_en.htm

[17] The Sixth Periodic Report on the Regions (1999)

[18] Adjusted, after I. Gordon "The Competitiveness of Cities – why it matters in the 21st century and how we can measure it", in IAURIF Cahier No. 135, 4th quarter 2002. Paris

thirteen different city types will be identified, each with their own characteristics, strengths, weaknesses and development challenges (sections 3.3, 3.4 and 3.5).

3.1 The Economic Performance of Cities

3.1.1 GDP and the importance of cities

Cities in general and urban agglomerations in particular are viewed as the main engines of the economy. The concentration of economic added-value in cities is substantial and in virtually all European countries urban areas are the foremost producers of knowledge and innovation. Cities are also the core node of a globalising world economy.

Europe is characterised by substantial disparities in economic performance, as the following figure makes clear.

The east-west economic divide in Europe is clearly evident in the statistics presented in Figure 3.1. The city with the GDP per capita Frankfurt am Main in Germany outscored the city with the lowest one (Vidin in Bulgaria) by nearly 50 times. Inhabitants in cities of the New Member States have a purchasing power of about half the EU 27 average. The purchasing power is strongest in Northwestern Europe, where the major cities of London, Paris, Amsterdam, Brussels, Hamburg and the Nordic capitals stand out. Cities in and around the Alpine region, such as Munich, Vienna and Milan, have comparable living standards[19].

There is however some indication that a convergence of living standards across European cities is taking place (Figure 3.2). The strongest growth (1996-2001) has come from the European periphery rather than from its core. In the North of Europe, Swedish or Estonian cities belong to the strongest growers, and so do many Polish cities. Growth rates have been strong in many other Central & Eastern European cities as well, including those of Bulgaria and Romania. Further south, Greek and Spanish cities have seen significant increases in GDP, and so have the South of France and a number of Irish and some UK cities in the west. It is striking that strong regional differences exist in the UK – with considerable growth not only in London but also in other cities such as Manchester and Bristol.

[19] Although the Urban Audit provides GDP data at city level, we have used GDP at the NUTS3 region instead for both methodological and theoretical reasons. See also Annex 1 – Methodological note on GDP.

Figure 3.1: Gross Domestic Product per inhabitant in purchasing power standards in UA cities 2001

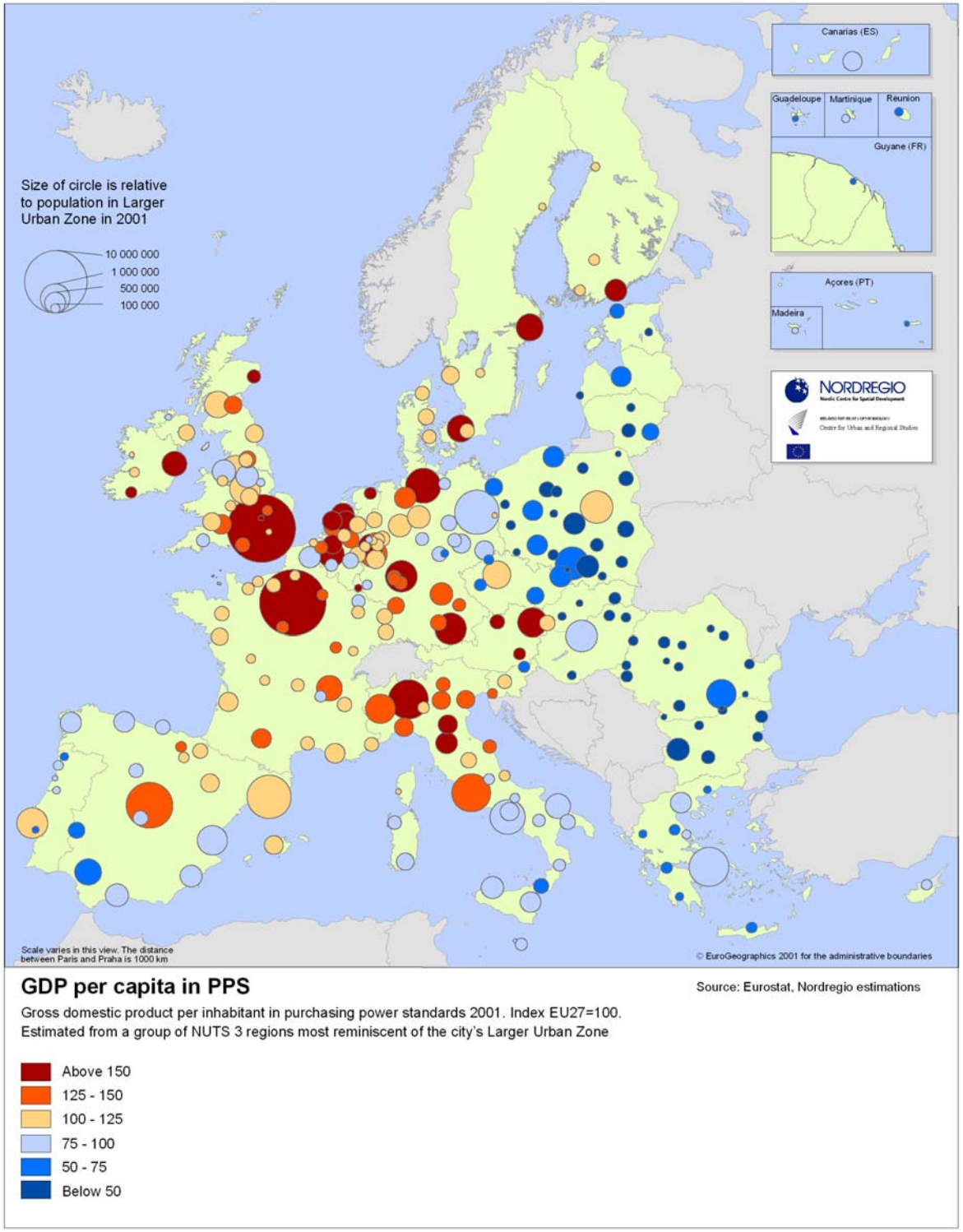
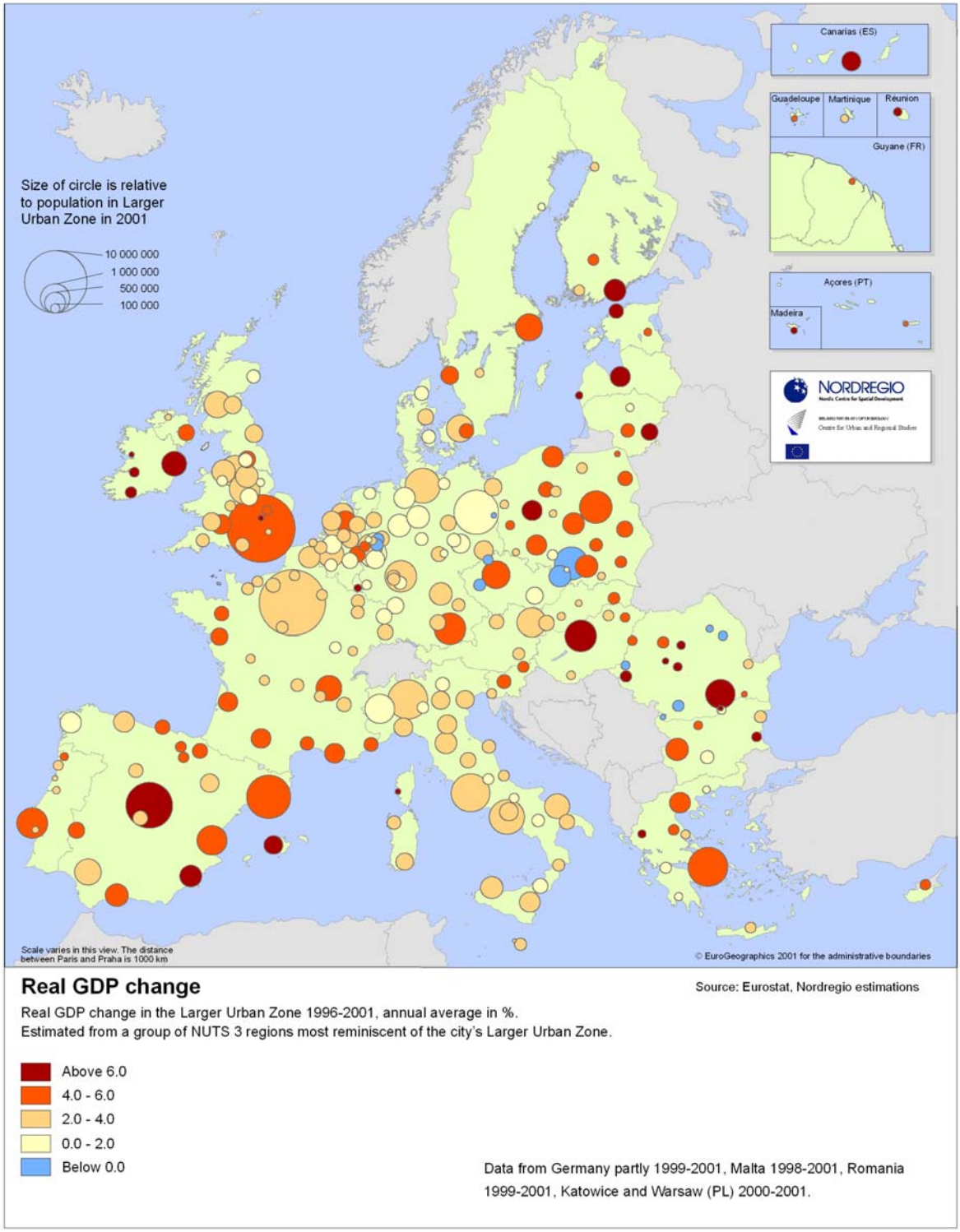


Figure 3.2: Real GDP growth in UA cities 1996-2001



Box 3.1: The Challenge of Estimating GDP for Cities

Gross Domestic Product (GDP) is the most commonly utilised measurement of a country's or region's economic output. GDP refers to the monetary value of all market and certain non-market goods and services that are produced within a given territory. Some countries or regions are small in size while others are large, which renders a meaningful comparison between different spatial entities difficult. Therefore some sort of denominator is normally used in order to make spatial units more comparable in size. GDP per capita (i.e. per inhabitant or per head) or GDP per person employed are some of the most frequently utilised methods.

GDP per capita (based on place of residence) is the most widely utilised measurements of a territory's economic performance and is as such difficult to bypass in any comprehensive analysis. This is also still today the cornerstone indicator within the framework of European regional policy.

Nonetheless, when measuring regional economic performance GDP per capita is problematic from the point of view of not taking into account commuting that occurs across the regional boundaries. Regions with higher in- than out-commuting get higher per capita values simply because the denominator in this case is smaller than would be the case if all employed persons within the region would have been utilised. This is most often the case for European regions containing larger cities. Similarly, regions with higher out- than in-commuting get lower per capita values because their population "produces" their value-added in a neighbouring region. This is in the European context often the case for smaller regions surrounding large metropolises.

In this report, we have used NUTS 3 regions as proxies for city GDP. In larger cities, we have used several NUTS 3 regions in order to comply with urban labour markets, with a significant reduction of the community problem as a consequence. See Annex 3 for a list of NUTS 3 regions used.

In comparison to these peripheral regions, economic growth has been much more sluggish in the central parts of Europe – traditionally seen as Europe's heartland. Real GDP growth has been particularly low across cities in Germany, Austria and Italy. The performance of cities in the Benelux countries was average in the period studied.

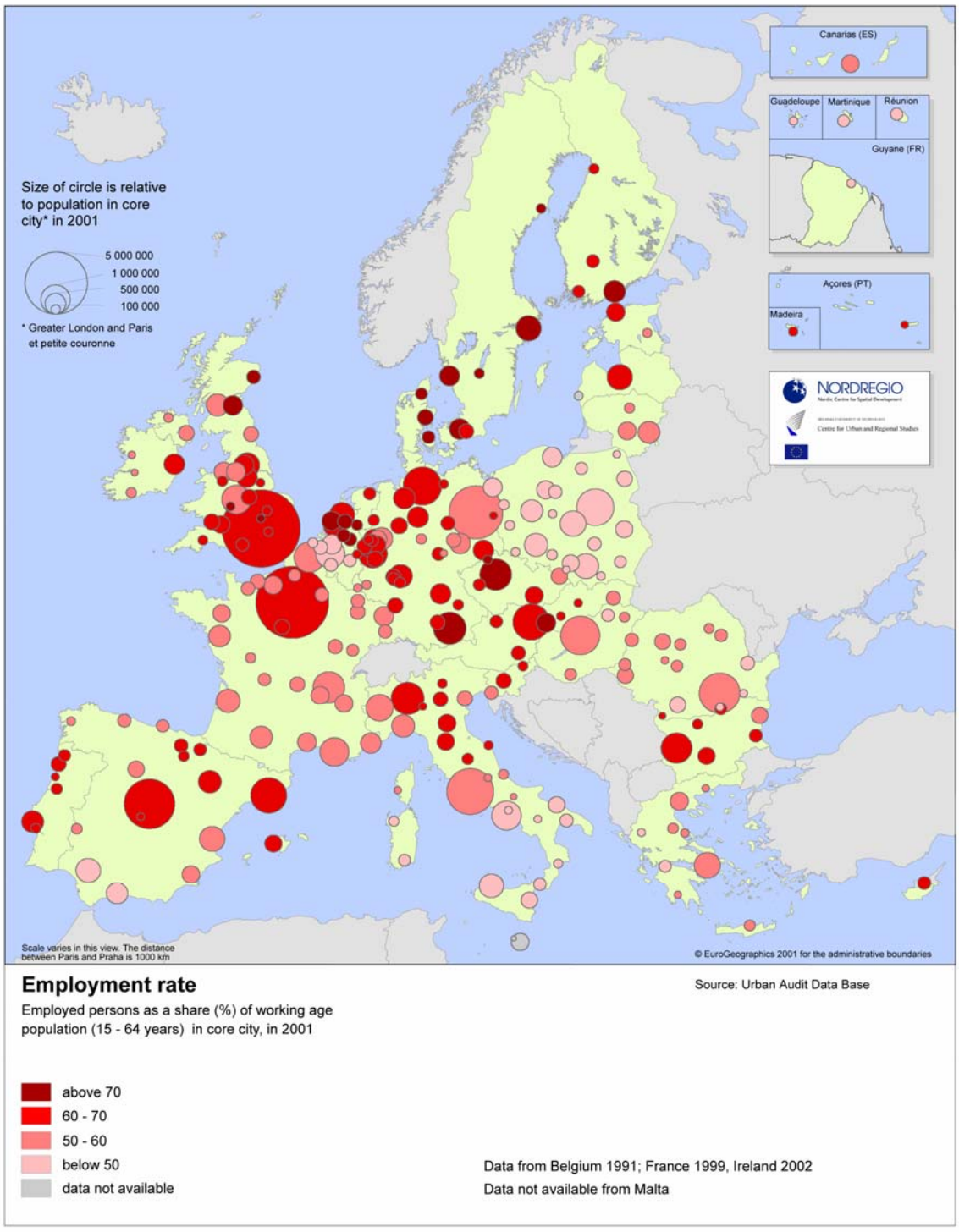
3.1.2 Cities as employment centres: the urban paradox

The concentration of economic activity in Europe's cities is also in evidence when one examines the employment statistics. The concentration of jobs in cities is even stronger than that of residents: many of Europe's main employment centres are within cities and its largest cities are truly economic powerhouses. London and Paris are unrivalled as Europe's employment centres – each of them hosting more than 2 million jobs. Madrid, Berlin and Rome come next, with Hamburg and Barcelona following. Other cities are unparalleled employment centres within their national contexts – such as Riga (Latvia), Vienna (Austria), Budapest (Hungary) and Bucharest (Romania).

Yet, as in other parts of the world, the generated wealth does not necessarily translate into corresponding rates of employment among urban citizens themselves - this is called the urban paradox. Only 28% of Urban Audit core cities have employment rates higher than the average for the country where they are located (corresponding to 33% of all Urban Audit city residents). Only 10% of Urban Audit cities have an employment rate of 70% - the EU's Lisbon target set for 2010. The high-performing cities are primarily located in Northern Europe; in Denmark, the Netherlands and the UK more than six out of ten UA cities have an employment rate above the national average. In many other countries the

picture is less rosy. The employment rate is under the national average and fairly low (between 50 and 60%) in UA cities of Greece, Romania and in most French cities outside Paris. Employment rates are particularly low in Poland, Southern Italy and in some UA cities of Belgium, the UK, and Germany (see Figure 3.3).

Figure 3.3: Employment rates in cores cites, 2001

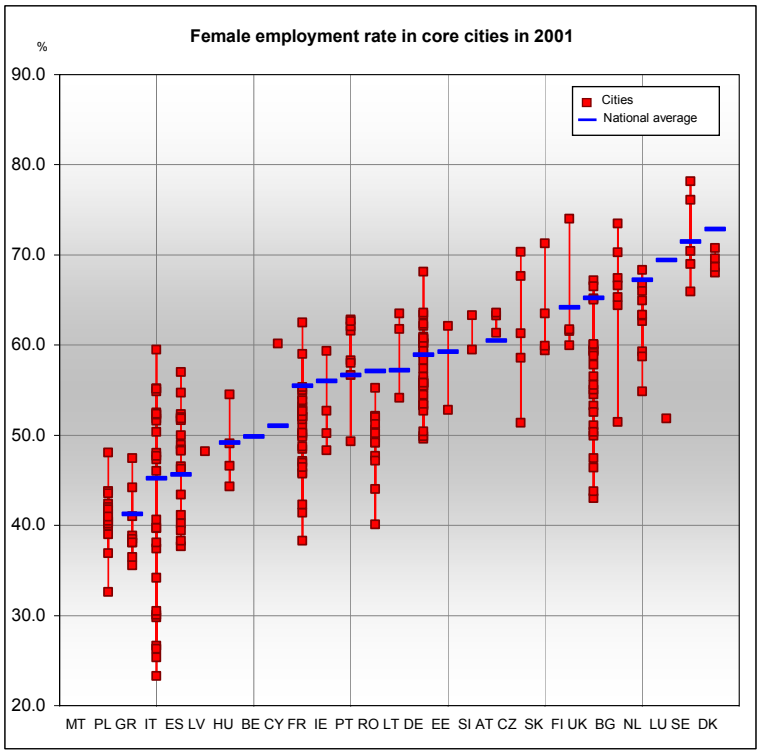


An underlying reason for the importance of the national context lies in the demographic structure. It turns out that the employment rate is high if the age group of interest (15-64 years) is relatively small in relation to other age groups (e.g. less than 15 or over 64 years), and vice versa. Thus, European countries with low employment rates, such as Italy, Greece or Spain, have substantially higher shares of their population in working age. On the other hand, those European countries with the highest employment rate have a relatively low share of persons in that age group.

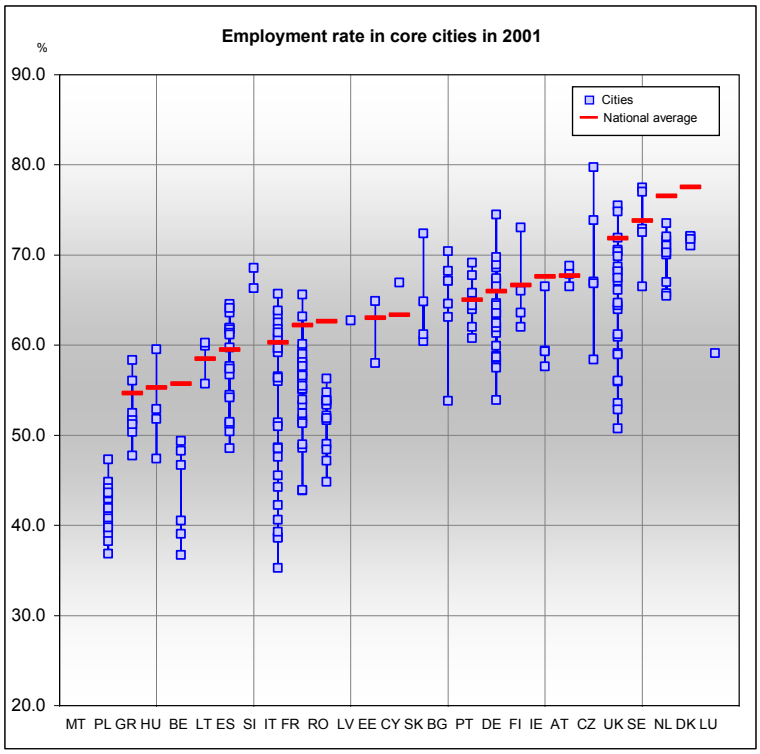
Overall employment rates are also strongly influenced by female participation. In Urban Audit cities, women's participation in the labour force appears to supplement, rather than replace, the traditionally higher levels of participation among men. Women contribute considerably to the high employment rates in Northern and Central and Eastern Europe, in contrast to the situation in much of Southern Europe (Figure 3.4).

Figure 3.4: Female and Male employment rates, national averages and in cores cites, 2001

A – Female employment



B – Male employment



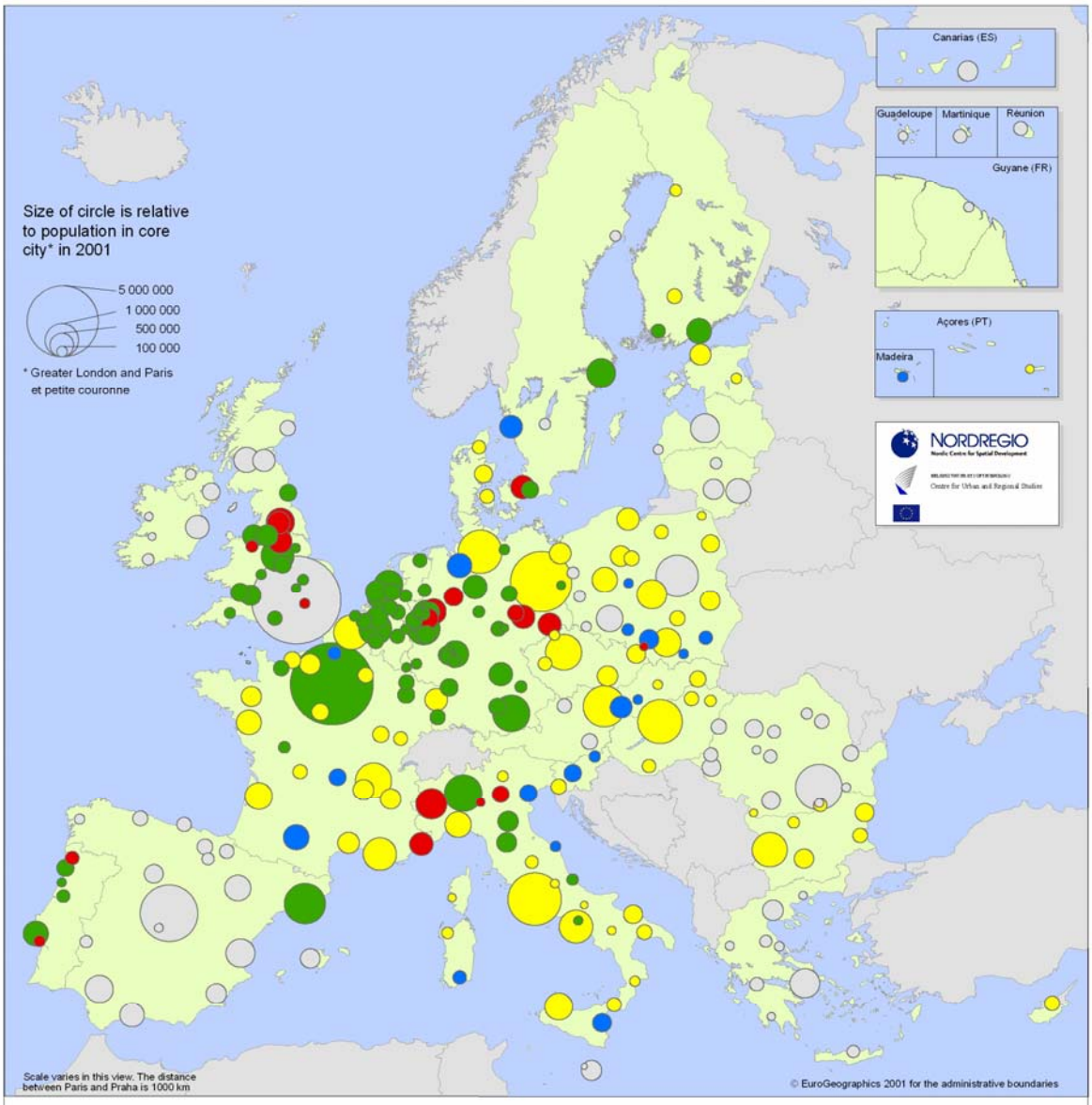
Changes in female and male employment are in general following the same path in most cities – we do not find many examples where an increase for one gender is accompanied by a decrease for the other; a higher female participation rate does therefore not go at the cost of the male participation rate. From 1996 to 2001, female employment developed stronger than male employment. In average for UA cities, the female employment rate increased by 0.4% per year, while male employment decreased by 0.5%.

High labour market participation, one of the core indicators for the fulfilment of the Lisbon targets, is so far met only in cities where both males and females are economically active. The potential for improvement is therefore largest in Southern European cities. A development towards increased competitiveness may however raise challenges regarding the lifestyles in these cities.

Given that the concentration of jobs in cities is higher than the concentration of population, it logically follows that workers need to commute into the city on a daily basis. Not only do large cities function as strong magnets of employment, but medium-sized cities play this role too. Levels of commuting are increasing due to suburbanisation pressures – as mentioned in the previous Chapter – resulting in traffic problems that are so typical of dynamic cities around the world. But commuting patterns in today's urban areas are typically more complex than simple periphery to centre commuting flows. Many core cities with strong in-commuting also tend to have higher rates of commuting in the opposite direction which is due to the location of offices and commercial centres on the urban fringe.

The result is a varifocal pattern of radial traffic flows and cross-commuting, a symptom of more complex relationships between core city and other areas within the urban agglomeration (Figure 3.5).

Figure 3.5: In- and out-commuting in UA cities 2001



The data suggest that the extent to which cross-commuting takes place varies between different parts of Europe. Cities in Northwestern Europe, such as those in the Netherlands, Belgium, England and Germany are functionally highly connected to their surrounding areas ('Networked cities'). This can often be explained by the shape of the urban landscape – with urban areas made up of several medium-sized or smaller cities, such as in the Randstad conurbation or the Ruhr area. But cross-commuting is also strong in more 'traditional' cities such as Paris, Barcelona, Lisbon, Stockholm or Helsinki[20]. Over the last few decades, all of these cities have seen strong employment growth in satellite towns, within transport corridors or near airports – with a reduced dominance of city centres as a result.

Commuting levels in Central & Eastern Europe are still substantially lower than in the western part of the Union. Cities in this part of the continent tend to be 'stand alone' in the way they function, rather than being part of a network, which results in a high number of 'self-supporting' cities. This is related to settlement patterns and above all to lower levels of mobility and lower levels of car ownership. However increasing car ownership and suburbanisation in many Central & Eastern European cities is currently fuelling large-scale urban planning challenges. Congestion levels are increasing rapidly, and the need to invest in transport infrastructure is becoming urgent.

3.1.3 Cities and the Lisbon Agenda – the Lisbon Benchmark

The Lisbon Agenda refers to reforms intended to implement the EU's strategic goal, set at the Lisbon European Council in March 2000, to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. Clearly the Lisbon Agenda is about more than just economic performance and this complexity is recognised by a range of more refined Structural Indicators to be used to monitor progress towards the Lisbon goals. Although some of these indicators are applicable to the national level only, others can also be measured at the level of cities. This allows us to address the question: how well do Europe's cities contribute to the Lisbon Goals?

To this end, we have developed a 'Lisbon Benchmark' – built on the following variables:

- GDP per total resident population;
- Labour productivity; GDP per person employed;
- Employed residents: percentage of 15-64 year olds with jobs;
- Employment rate of older workers: percentage of 55-64 year olds who are economically active;
- Long-term unemployment of older workforce: percentage of 55-64 year olds unemployed continuously for more than one year;

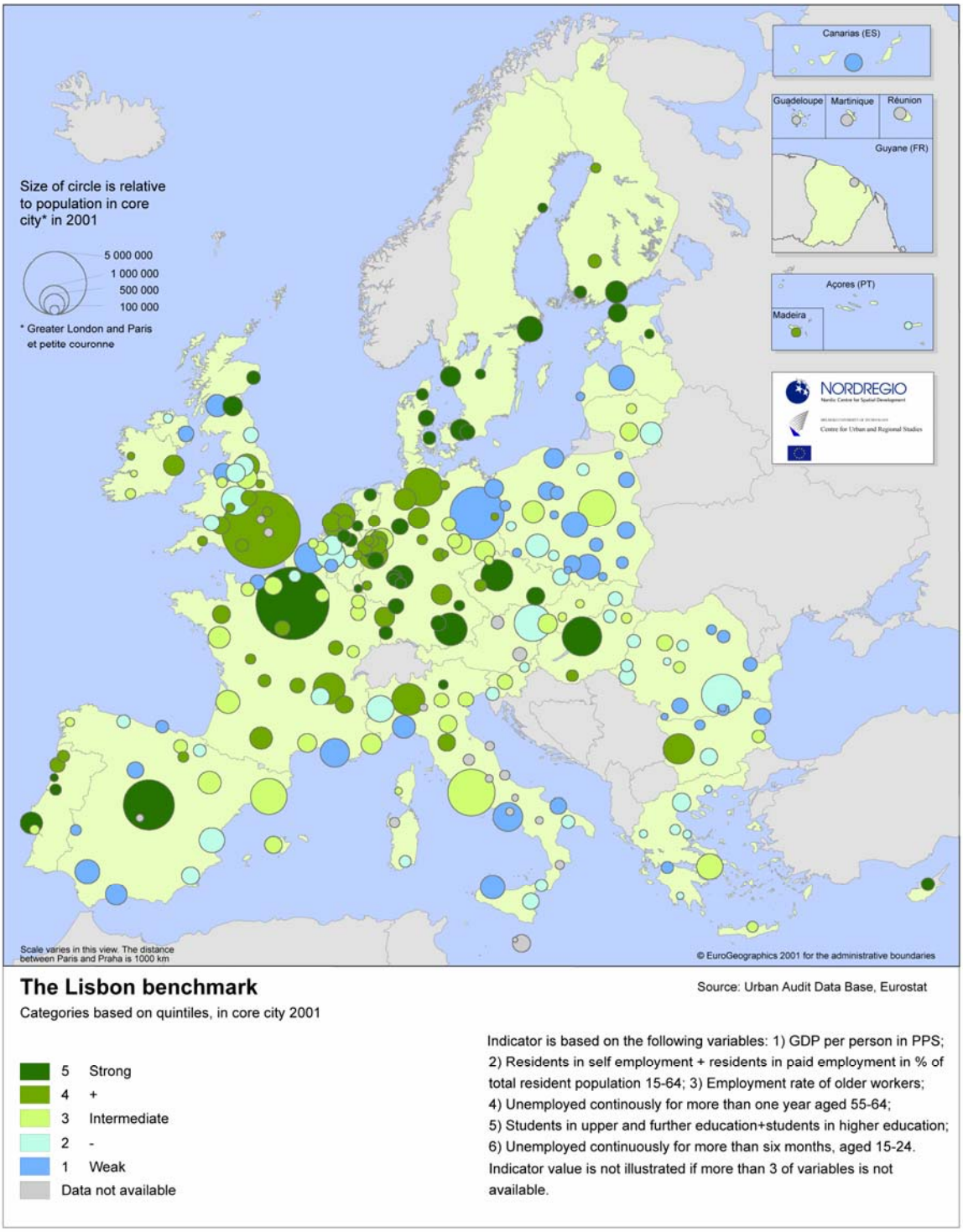
[20] Differences in commuting between UA cities as recorded can also be related to differences in boundaries. Cities with narrowly defined borders tend to have higher commuting rates than cities with larger surrounding areas.

- Youth education attainment level: students in upper/further and higher education as a percentage of the resident population in the age group15-24;
- Youth unemployment: percentage of 15-24 year olds unemployed continuously for more than six months.

A full overview of the performance of UA cities according to the Lisbon Benchmark and its individual variables is presented in Annex 4.

If all available variables are being given equal weight, then it becomes clear that many of Europe's high performers are located in Denmark, Sweden, Finland, the Netherlands and the western parts of Germany. High scores can also be found in large cities in France, Southern England and the eastern part of Scotland and the capitals of the Iberian Peninsula. In the New Member States, Estonia ranks highly, while several capitals such as Prague and Budapest also perform well. The weakest cities on the Lisbon benchmark can be found in Poland, Romania, and Bulgaria. Southern parts of Italy, the whole of Greece and large parts of Spain also perform poorly. The performance of a number of English cities is also disappointing, as is the situation in Berlin and the Walloon Region of Belgium. Cities in Italy, the UK and Belgium feature both the strongest and the weakest categories, highlighting the considerable disparities in urban competitiveness in these countries. A relation with city size no longer exists when using the Lisbon benchmark – both smaller and larger cities can become high performers. Overall, there is considerable variation between cities when measuring their performance against the Lisbon benchmark. It is therefore time to explore some of the underlying reasons for this diverse performance.

Figure 3.6: The Lisbon benchmark



3.2 Economic performance of cities - some pieces of the puzzle

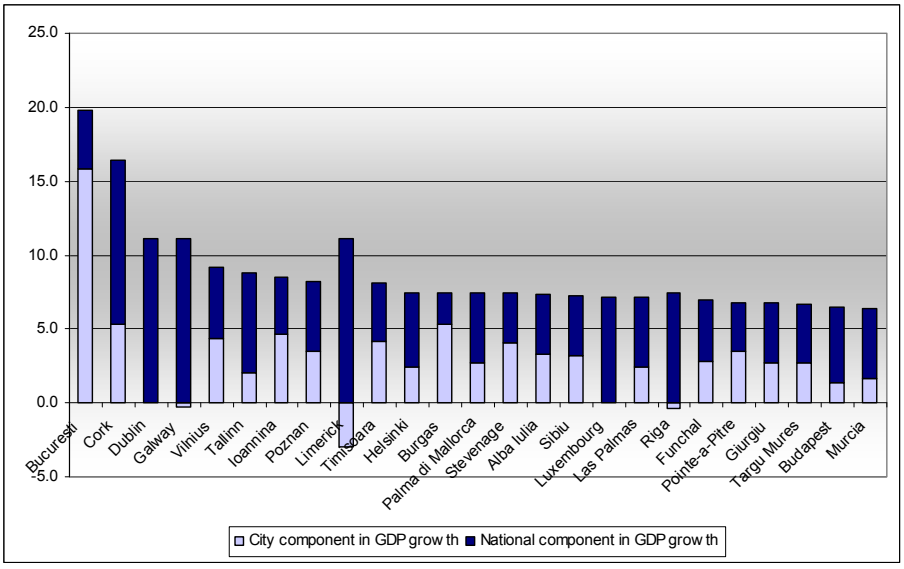
3.2.1 The national context

Although economic performance across Europe's cities varies strongly, it would be unfair and incorrect to contribute all the variation to the performance of cities themselves. After all, cities function within national frameworks and their capabilities and opportunities are partly determined by fiscal and monetary regimes and policies (now often determined at the Union level), labour market regulation and swings in producer and consumer confidence. Above all, there are large differences in economic growth and performance at the national level across the EU, both in the period under investigation (1996-2001) and in more recent times.

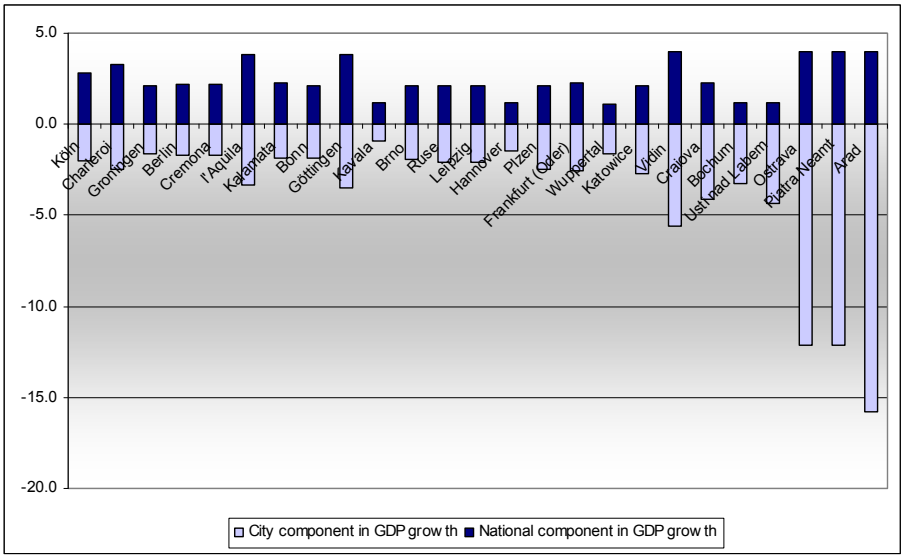
Despite these sizeable differences between countries, there appears to be considerable variation in the extent to which the national economy influences the growth of individual cities. The fastest growing cities (Figure 3.7 A) were amongst other located in Ireland, the Baltic States, Romania, Poland and Finland. With the exception of Romania these cities benefited from a favourable national context, with annual economic growth rates of 4% or higher at the national level between 1996 and 2001. Clearly, the national economy and its underlying urban economies are closely intertwined. For instance Tallinn's growth (almost 10% per year) is strongly related to the Estonian growth rate of close to 8% over the same period and the Estonian performance would not have been so strong without Tallinn as its main engine. The national context is less influential when explaining the growth of Polish and Romanian cities.

Figure 3.7: The importance of national influences for fast-growing and declining cities

A. Fast-growing cities



B. Declining cities

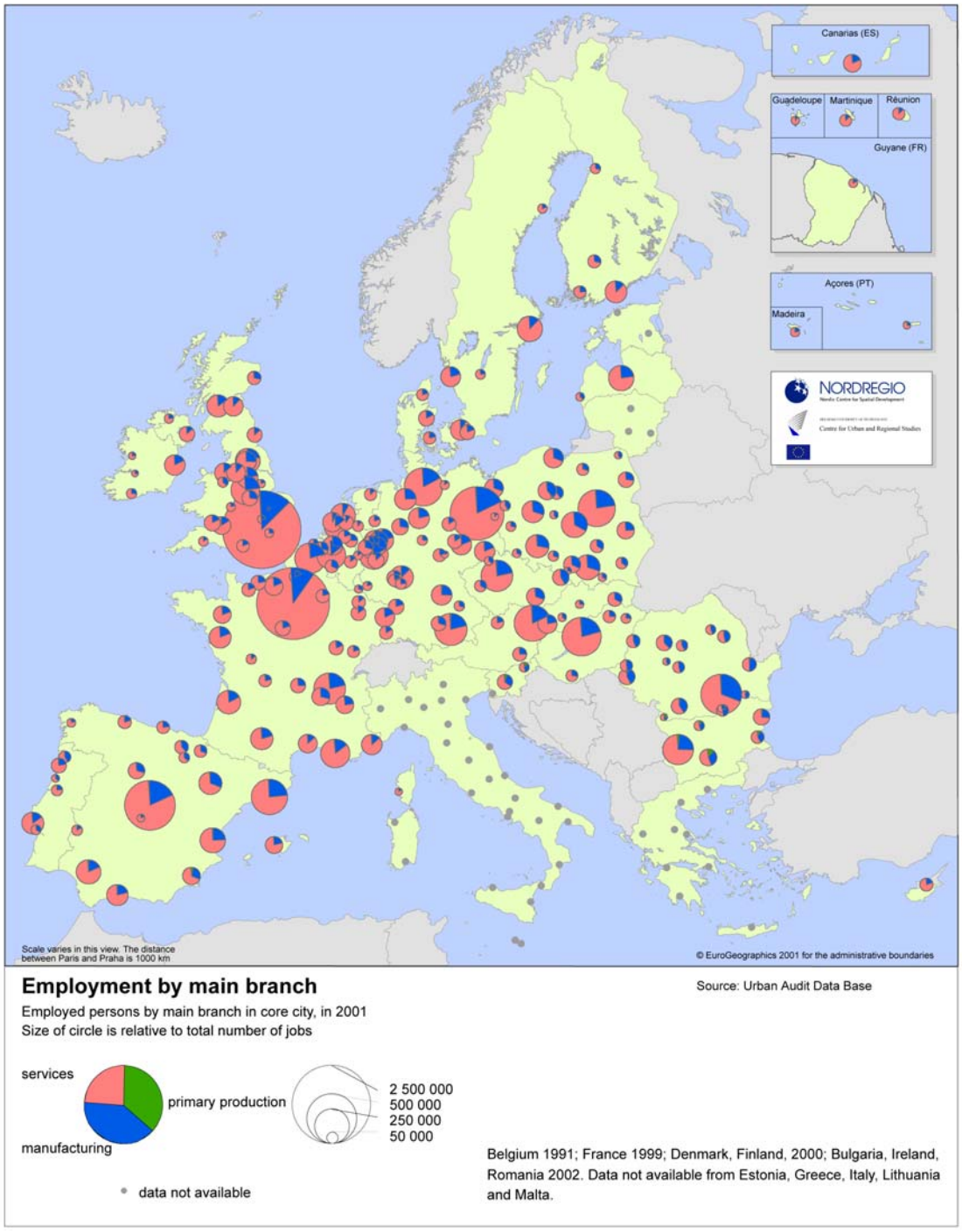


But it would be inaccurate to conclude that the poor performance of individual cities is entirely due to national performance (Figure 3.7B) as the national component cannot really be blamed for many cities which suffered from economic decline. Indeed, some of them – particularly those in Germany or Italy – have been operating within a context of slow growth. However, many of these cities are dealing with major structural adjustment problems, independent from the level of national growth. They can often – but not exclusively - be found in Central and Eastern Europe. More in-depth analysis is required in order to understand the poor economic performance of these cities.

3.2.2 Economic specialisation

Europe's urban economies are rapidly becoming service economies and it is in this sector that the majority of new jobs have been created. The service sector is both the largest source of employment in European cities as well as the fastest growing one. In Central & Eastern European cities, the service sector is not yet as dominant as in other regions but many cities are catching up. The growth rate of the services sector in Central & Eastern European cities has been faster than anywhere else – reflecting the rapid and fundamental economic transition of the last decade. In Western European cities, the service sector is already highly developed as a source of employment. Of the five largest labour markets in the EU27 (London, Paris, Berlin, Madrid and Rome), the service sector employment accounts for between 80 and 90% of all jobs. This percentage is highest in three distinct types of cities: a) capitals that have substantial administrative functions and/or are economic powerhouses (such as the above-mentioned largest labour markets); b) cities with a strong link to higher education ('university towns'); and c) medium-sized cities acting as 'dormitory' suburbs within large conurbations.

Figure 3.8: Employment by main branch in UA cities 2001



The industrial (manufacturing) sector accounts for approximately a quarter of all employment in the cities of the EU15. There are particularly high levels of employment in manufacturing in the countries of Central and Eastern Europe. Of the 16 Urban Audit cities with more than 40% employment in manufacturing, ten are Romanian, three Polish and

one Czech. There are only three cities where manufacturing accounts for less that 10% of all jobs - Amsterdam and The Hague in the Netherlands and Copenhagen in Denmark.

Generally, cities with a concentration of economic activity in the primary and secondary sectors are less dynamic than those with higher service sector employment – especially those cities specialising in market services. The Urban Audit data however goes some way to challenge this conventional wisdom. The fastest growing cities – as mentioned above – have an economic structure that varies little from the average. In fact these frontrunners have smaller than average services sectors.

Table 3.1: GDP growth and economic structure

Type of cities	*Share (%) of employment in manu-facturing incl. con-struction 2001*	*Share (%) of employment in services 2001*	*Share (%) of employment in transport and Communica-tion 2001*	*Share (%) of employment in trade, hotels, restaurants 2001*	*Share (%) of employment in financial interme-diation, business activities 2001*	*Share (%) of employment in public admini-stration, health, education, other services, 2001*
Fastest growing cities (25)	22.2	65.4	7.2	16.3	14.1	27.8
Declining cities (25)	22.4	85.7	7.3	22.2	19.7	36.5
All Urban Audit Cities (unweighted)	**24.4**	**74.0**	**7.4**	**19.5**	**16.4**	**30.7**

The economic structure of declining cities also differs little from the Urban Audit average. These cities also have a high share of employment in the services sector and a similar employment share in the manufacturing sector –not significantly different from the fast-growing cities. Clearly, the relation between GDP growth and economic structure is complex.

3.2.3 City size and agglomeration economies

As already illustrated in the previous Chapter, city size can be an important variable for understanding urban dynamics. This becomes clear when GDP growth rates of various city size classes are compared. Our analysis confirms that larger cities (> 1 million inhabitants) are amongst the fast growers: GDP figures [21] are 25% higher than in the EU as a whole, and even 40% higher than their national average. Their growth rates are also higher than their country average – about 2% per year. Typical examples are London, Warsaw and Paris - their GDP/capita rates are substantially higher than the national average. Other strong economic “engines” can be found in Munich, Prague and Budapest. At the other end of the scale Berlin and especially Naples have GDP levels which are considerably lower than their respective national averages.

[21] GDP figures presented relate to the corresponding NUTS 3 level.

Cities which serve as “strong economic engines” are also common in the 500.000 - 1 million inhabitants range – although less prevalent than among the largest sized cities. Overall GDP levels of these cities are about 15% higher than their national averages. Düsseldorf, Riga, Brussels, Poznan and Lisbon do very well in this league, while contributions to national wealth are weak in cities such as Sheffield, Leeds, Seville and Palermo.

Table 3.2: GDP and city size

Size category (population in core city)	*Average annual population change (%) 1996-2001 for LUZ*	*GDP per capita in PPS 2001 - Index EU27 =100*	*GDP per capita in PPS 2001 - Index, country average = 100*	*Annual average GDP per capita change (%) 1996-2001*	*Annual average GDP per capita change - % difference from country average*
> 1 mln. inhabitants	0.2	127.1	140.9	4.8	1.9
0.5 - 1 mln. inhabitants	1.2	115.9	112.4	4.0	0.3
250.000 - 500.000 inhabitants	0.5	99.4	103.3	3.2	0.0
150.000 - 250.000 inhabitants	-0.2	91.2	94.7	2.8	-0.6
100.000 - 150.000 inhabitants	0.3	89.3	91.4	3.1	-0.6
< 100.000 inhabitants	-0.1	78.7	85.1	3.5	-0.4
All Urban Audit Cities (weighted) *)	**0.3**	**118.7**	**127.6**	**4.3**	**1.2**

*) by overall population per size category

The contribution of cities to the GDP / capita levels tends to decrease with size. Cities in the 250 – 500.000 range still have higher GDP levels than their nations as a whole (index = 103), but those between 150.000 and 250.000 inhabitants and between 100 and 150.000 inhabitants score lower than their national averages. Smaller cities (less than 100.000) score even lower, although the average level of growth is closer to the national average.

It would be erroneous to conclude from these findings that all medium-sized and smaller cities contribute little to national wealth and the attainment of the Lisbon goals. To the contrary, across the EU, a range of medium-sized and smaller cities make a positive contribution to national GDP averages and have good growth rates. Well performing medium-sized cities can be especially found in Germany, for example Darmstadt, Mainz and Freiburg im Breisgau. There is however considerable variation in the extent to which medium-sized cities contribute to national GDP levels and also substantial variation with respect to growth rates, which can range from 2 % above the national average to 4 % below the national average.

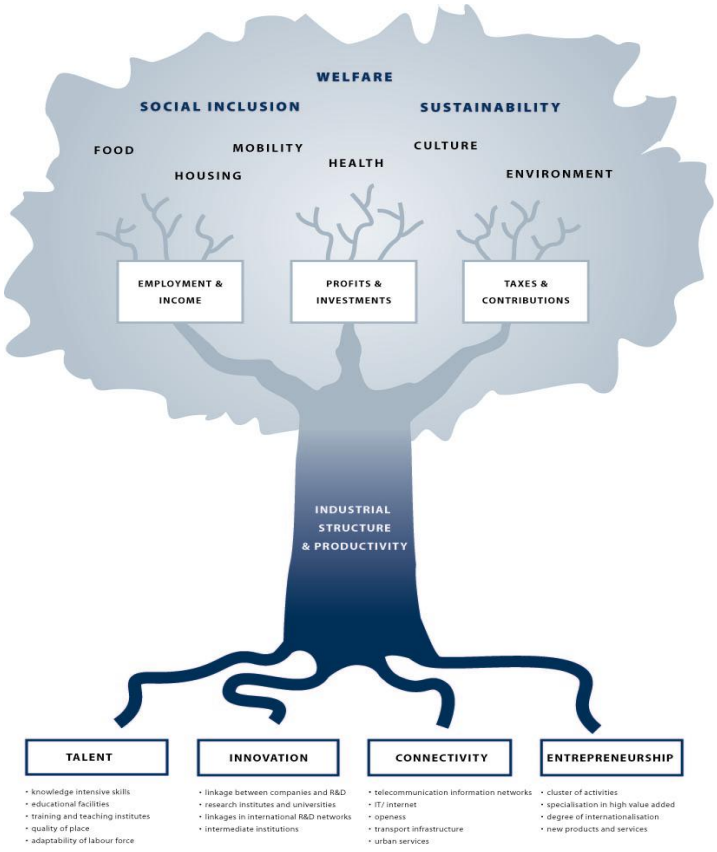
A few possible reasons for the rather modest performance of smaller and medium-sized cities can be suggested. First of all, the afore-mentioned issue of commuting plays an important role. Larger cities attract more commuters from further distances than smaller

cities, which influences GDP/capita data. Secondly, smaller cities tend to be more dependent on developments at the regional level and are therefore handicapped when located within lagging regions. Large cities, to the contrary, appear to be increasingly functioning within a national or international context and are therefore less dependent on the functioning of their own region. Thirdly, larger cities benefit more from 'agglomeration economies', such as those derived from the concentration of large numbers of employees, intensive business activity (both supportive and competitive), advanced business infrastructure and economies of scale providing clear advantages to firms. The attractiveness of cities also rests to a certain extent on the level of services being provided as well as educational and cultural assets. These factors combine to explain why businesses tend to gravitate towards larger cities where cost levels are actually higher than elsewhere.

3.2.4 Drivers of urban competitiveness

What other factors lie behind differences in economic performance between cities? A number of drivers of urban competitiveness can be distinguished: innovation, talent, entrepreneurship and connectivity. They are portrayed in the 'competitiveness tree' below.

Figure 3.9: The competitiveness tree: drivers of urban competitiveness



Source: ECORYS Competitiveness Programme: http://www.ecorys.com/competitiveness

Innovation, the first driver of urban competitiveness, is of general importance to all cities. Yet, there are significant differences in the way innovation is expressed. Sometimes, it takes the form of cutting edge research that is subsequently utilised by locally based high tech businesses, generating foreign direct investment and a forming the basis for a network of international academic and commercial relationships. In other occasions, a key source of innovation remains the university and college base – without much primary research - and a greater emphasis on product development linked to local industries. Such innovation systems have considerably less international linkages.

Entrepreneurship is another important driver. Some cities have a history of entrepreneurship. Other cities benefit more from outside investment, national business relocations and high levels of intrapreneurship (in-house new-ventures). Some cities also have a stronger risk-taking culture than other. But entrepreneurship does not necessarily lead to higher GDP, as it can also reflect a shortage of regular jobs.

Talent is amongst the strongest drivers of competitiveness. Certain cities manage to educate or attract mobile and talented people, at both national and international levels. Attracting talent is by no means easy, as the pool of such workers is limited and competition is therefore strong. Urban Audit data clearly suggest a relationship between economic performance and talent: cities with a large share of higher educated people tend to have GDP levels that are well above the national average. However cities with lower levels of higher education attainment tend to also have lower levels of GDP (see Figure 3.10 below).

Connectivity is seen as the fourth key driver of urban competitiveness. It concerns communication and exchange of goods, people and information between cities and can be divided into two components. First, there is the aspect of accessibility, which involves all modes of transportation including rail, road and air. The second aspect is access to information infrastructure which is now becoming equally important[22]. Urban Audit data demonstrates a relation between economic performance and connectivity. European cities which score higher on an index of accessibility (100 or higher) tend to have higher GDP levels as well. However, cities with below average accessibility (80 points or less) are usually week economic performancers (Figure 3.10 below).

[22] See ESPON project 1.2.1 http://www.espon.eu/mmp/online/website/content/projects/259/652/index_EN.html

Figure 3.10: Economic performance and drivers of competitiveness: the role of talent

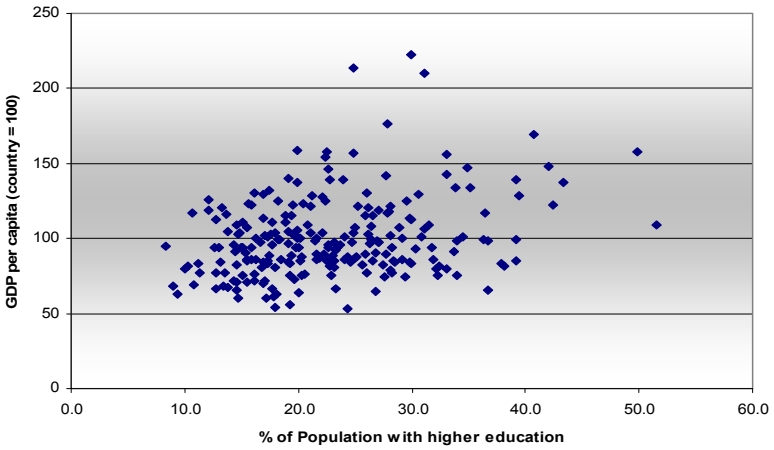


Figure 3.11: Economic performance and drivers of competitiveness: entrepreneurship

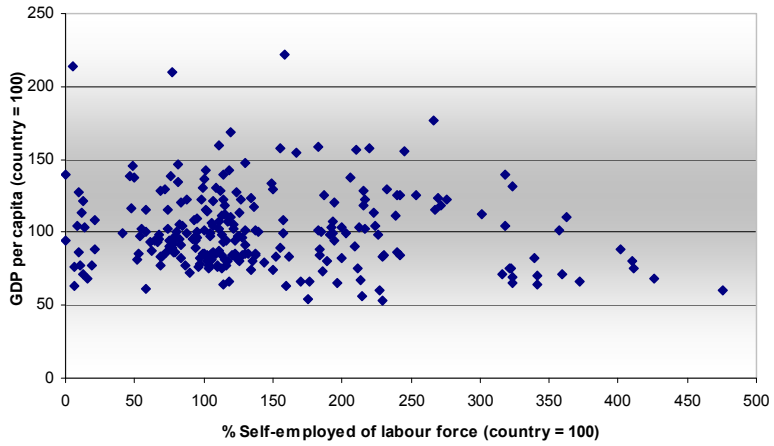
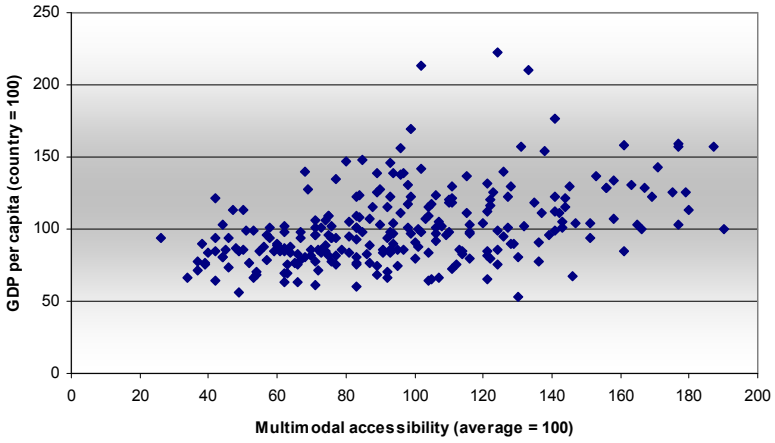


Figure 3.12: Economic performance and drivers of competitiveness: the role of connectivity



Research indicates that the precise composition and 'mix' of these drivers differs considerably between cities and regions in Europe. A city's success is determined to a large extent by the mix of these key ingredients present. In the rest of this Chapter, we will examine which patterns can be distinguished and in this way introduce a new typology of urban competitiveness.

3.3 A Typology of Urban Competitiveness

Before describing our tentative typology of urban competitiveness, it is to be understood from the outset that the typology work only serves as a tool to better understand the dynamics of city economies – complementing the pieces of the puzzle as presented above. The city types are defined by their core rather than by their boundaries; they have fluid borders and are at times interwoven. Therefore, cities may recognise themselves in more than one type.

3.3.1 Towards a typology

An important finding from the above analysis is that urban competitiveness cannot be solely explained by geographic location, city size, economic structure, agglomeration economies or any individual driver of competitiveness. Therefore, we will now examine these dimensions in combination and define a range of city types with the aim of providing better insight into urban developments and a basis for cross-city comparisons.

The typology rests on the following criteria:

1. *Size:* large cities have different dynamics, opportunities and threats than smaller cities and these need to be recognised.
2. *Economic structure;* certain cities are shaped by their main economic activities, such as port cities, de-industrialised cities, university cities, tourist cities, administrative centres.
3. *Economic performance;* certain cities need to be recognised as economic powerhouses, in terms of their wealth, growth or employment opportunities; other cities have a disappointing performance, as has already been commented on in the previous sections.
4. *Key drivers of competitiveness;* how do cities rank in terms of the four key drivers - innovation, entrepreneurship, talent base and connectivity?

In preparing these typologies, the following steps have been executed:

a. Step 1: Analyse GDP Performance by Size Class
b. Step 2: Grouping and interpretation
c. Step 3: Adding additional criteria
d. Step 4: Classifying remaining cities
e. Step 5: Verification and final adjustment.

Annex 2 provides a methodological underpinning of the typologies.

Using the above methodology, Europe's cities have been grouped into a total of thirteen types, which will now be presented.

First of all we can distinguish the leading ***International Hubs***. These are well-known international centres that are operating at the European level or in some cases the global level:

- *Knowledge hubs* – key players in the global economy, positioned above the national urban hierarchy and in the forefront of international industry, business and financial services, well-connected to the world and based on high levels of talent.
- *Established capitals* – firmly positioned at the top of national urban hierarchies, with a diversified economic base and concentrations of wealth
- *Re-invented capitals* – champions of transition, engines of economic activity in the New Member States

Secondly, there are a range of different types of ***Specialised Poles***, which play a (potentially) important international role in at least some aspects of the urban economy:

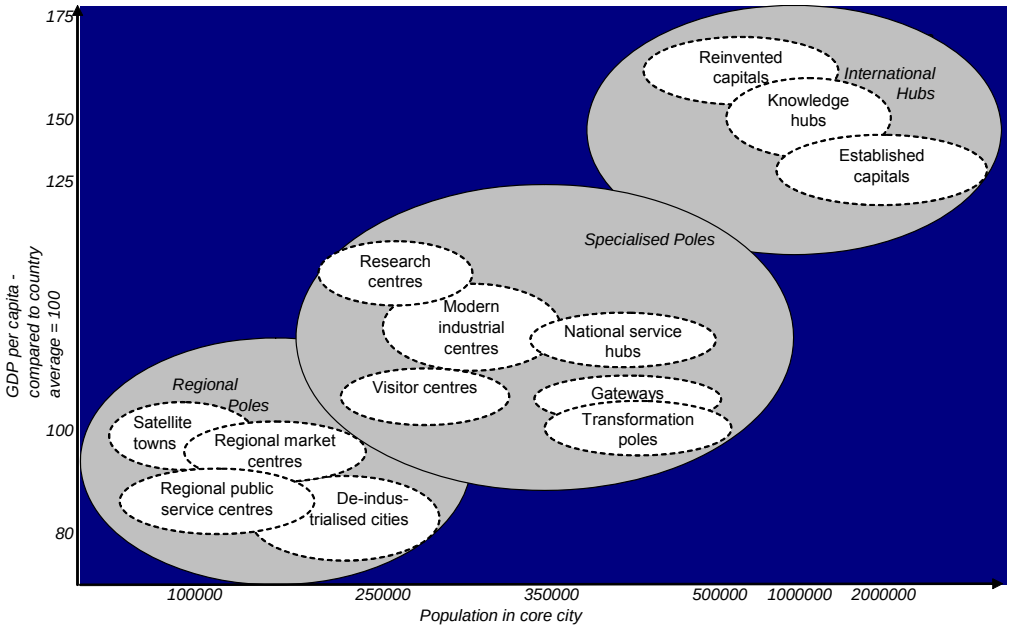
- *National service hubs* play an essential role in the national urban hierarchy; they fulfil key national functions and often some capital functions within the (public) services sector
- *Transformation poles* – with a strong industrial past, but well on their way to managing change and developing new economic activities
- *Gateways* – larger cities with dedicated (port) infrastructure, handling large flows of international goods and passengers
- *Modern industrial centres* – platforms for multinational activities as well as local companies exporting abroad; high levels of technological innovation
- *Research centres* – centres of research and higher education, including science and technology related corporate activities; well-connected at the international level
- *Visitor centres* – handling large flows of people from national or international origin, with a service sector geared towards tourism.

Thirdly, there are a large number of ***Regional Poles,*** the pillars of Europe's regional economies:

- *De-industralised cities* – having a strong (heavy) industrial base, which is usually in decline or recession
- *Regional market centres* – fulfilling a central role at the regional level particularly in terms of personal, business and financial services, leisure and hospitality.
- *Regional public service centres* – fulfil a central role within their region, particularly in the areas of government administration, health and education
- *Satellite towns* – smaller nodes of economic activity within larger urban agglomerations

These various city-types can now be positioned in terms of population size and GDP levels (Figure 3.13).

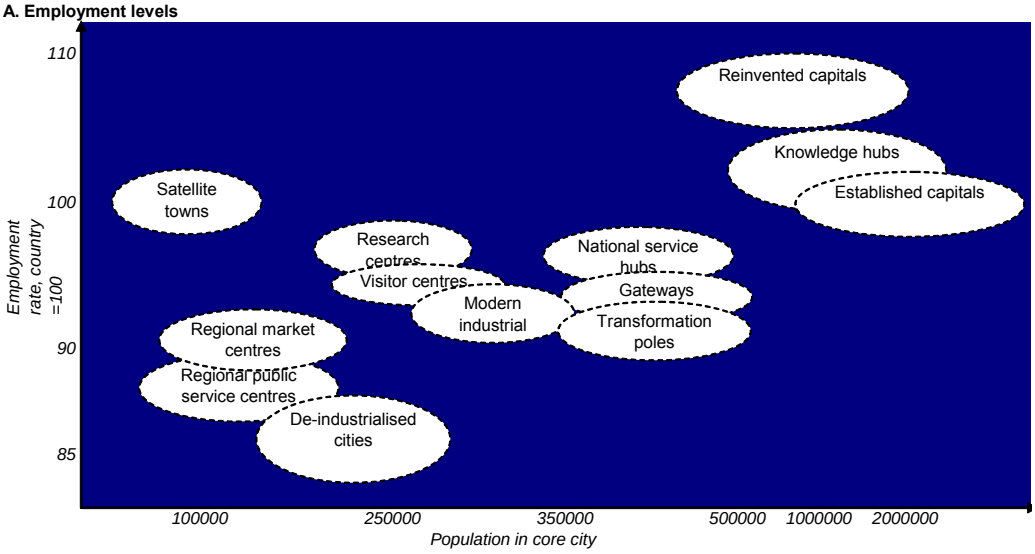
Figure 3.13: City-types positioned

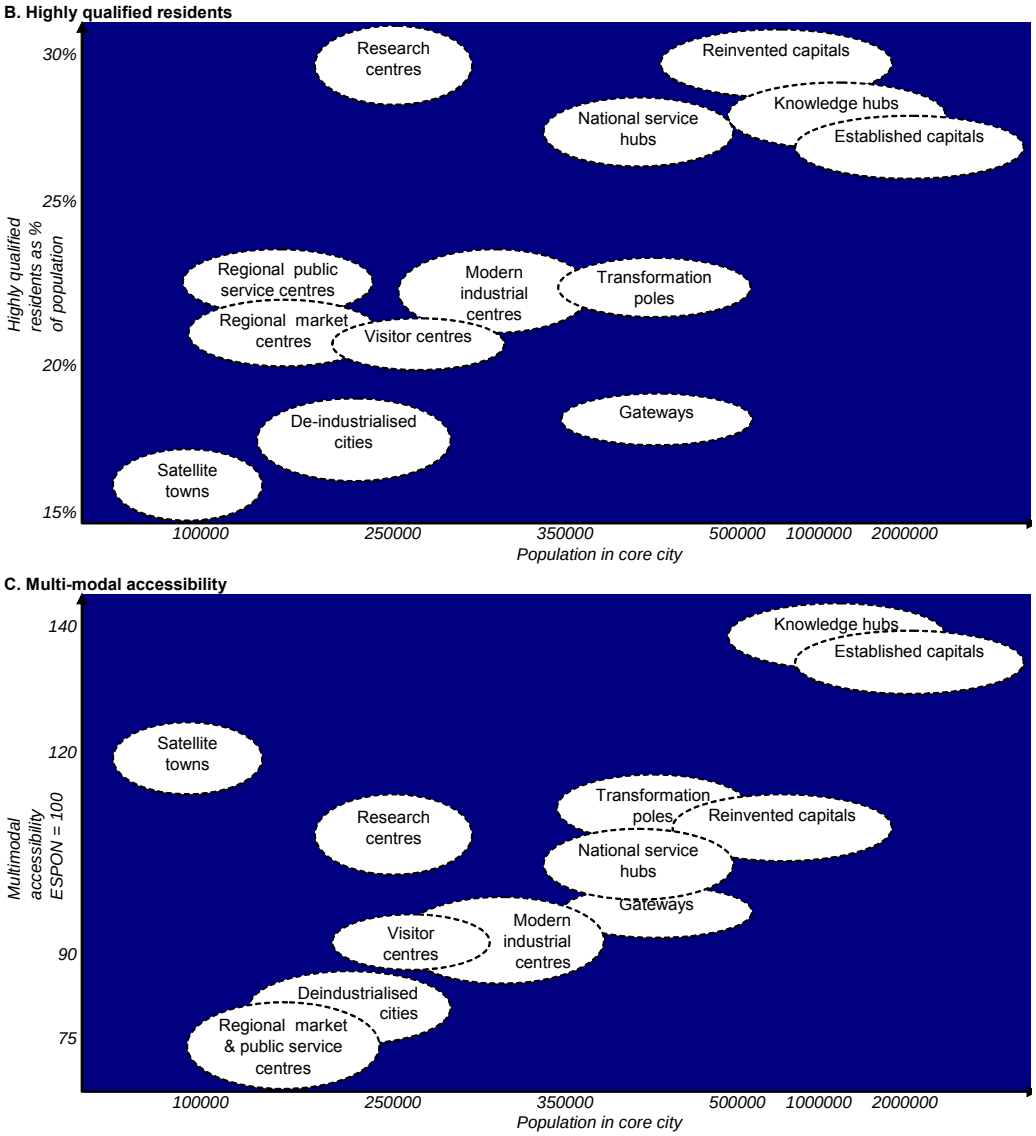


The above schematic overview positions the various typologies in relation to each other. Clearly, the international hubs are in a league on their own. Established capitals, Knowledge hubs and Re-invented capitals are all large in terms of population size, and have GDP levels that are up to 50-75% above the national average. Re-invented capitals are particularly prominent, confirming their important role as engines of national growth.

Figure 3.14: City-types positioned – by some driving factors of competitiveness

A. Employment levels



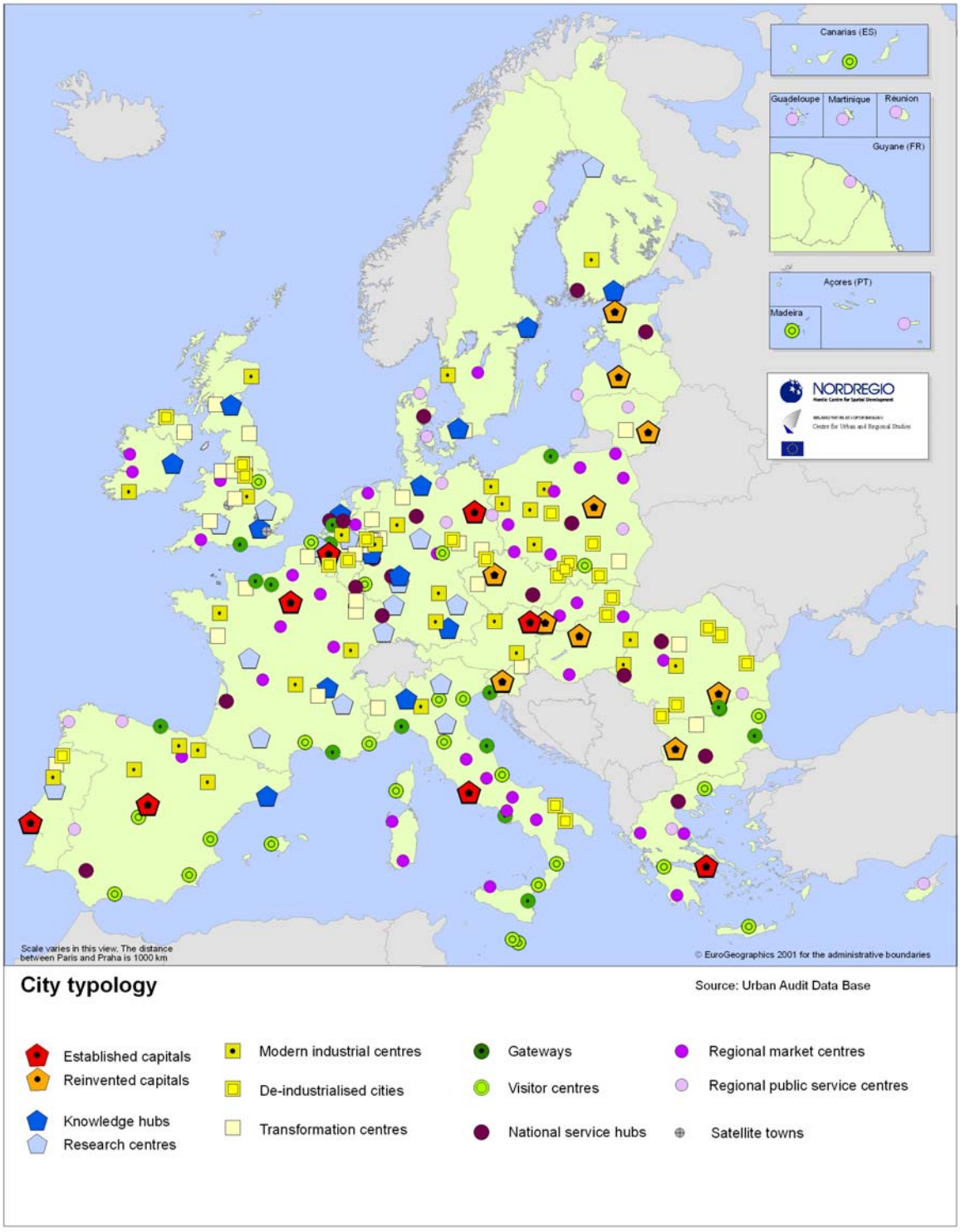


Specialised Poles, although often similar in size to some of the International Hubs, tend to be quite different in nature. Transformation poles and Gateways (for example Birmingham, Turin and Naples) have populations approaching 1 million inhabitants, but they are not as economically powerful as the International Hubs, with GDP levels around the national average. Some Modern industrial centres and especially Research centres have more impressive GDP figures, even though they are considerably smaller than the aforementioned city types.

Regional Poles are more modest in terms of economic performance and population size, and therefore have a regional sphere of influence. But within this context, Regional market centres are in many ways complete and unrivalled cities, while Regional public service centres play a key role within their region as well. De-industrialised cities have a poor economic performance when compared to other cities of similar size, and their influence is

therefore limited. Finally, Satellite towns are relatively small but are significant due to their location within larger, dynamic agglomerations.

Figure 3.15: City-types mapped



The ultimate aim of these typologies is to allow urban policy makers and practitioners to compare their own cities with other cities across Europe. The various city-types tend to be spread right across the European territory (Figure 3.15) although there is a degree of clustering evident. Re-invented capitals for example are typical for Central and Eastern Europe, as are De-industrialised cities. Visitor centres are prevalent on the shores of the Mediterranean.

3.4 International Hubs

International Hubs are Europe's well-known international centres that have a high profile at European and even global level:

- Knowledge hubs;
- Established capitals;
- Re-invented capitals.

3.4.1 Knowledge hubs

Knowledge hubs – key players in the global economy, positioned above the national urban hierarchy and in the forefront of international industry, business and financial services based on high levels of talent and well-connected to the world.	
Key characteristics	**Examples**
• High core city population • High LUZ population • High share of other EU nationals • High share of non-EU nationals • Above average real annual average GDP growth • High GDP per capita • High employment rate • Low unemployment rate • High share of highly qualified residents • High share of self-employed persons • High accessibility	• London • Hamburg • Frankfurt am Main • München • København • Barcelona • Helsinki • Lyon • Dublin • Milano • Amsterdam • Stockholm

In many ways, Knowledge hubs top the European league. What distinguishes them from other cities is first of all their size: they have an average population of 1.3 million in the core city and this is doubled when the agglomeration is taken into account. In addition, Knowledge hubs are impressive economic performers. Their GDP levels are 65% above the EU average, and almost 40% above the national average. Furthermore, their annual growth rates have been high– which means that they continue to forge ahead within their national contexts. Employment rates in knowledge hubs are high (68%), approaching the 70% target set by the Lisbon Agenda. Furthermore, elderly people tend to remain longer in employment than in virtually any other city-type. Finally, average unemployment rates are just 6.5%, and trending downward. The list of Knowledge hubs includes national capitals, but only in those cases where their economic performance is based rather on international market forces than on a purely national role. This is the prime reason why London has

been classified as a Knowledge hub as well – even though it can be considered a class on its own. After all, London's recent economic development has been primarily driven by the unprecedented growth of its financial sector.

What explains the strong performance of Knowledge hubs? The key lies in the fact that their development is primarily based on the market sector. Their market services are more predominant within the economy than in any other city-type with on average 28% of the workforce being engaged in financial or business services. In some cities this percentage is even higher, with 30% in London, 33% in Amsterdam and Stockholm and 40% in Milan. Some Knowledge hubs have a strong manufacturing base (Barcelona, Lyon, Milan), that is often well-linked into the broader urban economy. Although a number of these cities are national capitals as well (Dublin, London, Stockholm, Helsinki, Copenhagen), the governmental sector in terms of employment share is often less dominant than in other large metropolitan areas.

At the root of this strong economic performance lie powerful drivers of competitiveness. The population is well-educated: on average 28% of the population has completed tertiary education, but this rate is far higher in Helsinki (39%) and Edinburgh (42%). Many talented workers have recently moved into these cities. Knowledge hubs have a relatively high number of immigrants from other EU countries, with German cities leading the way. In Munich for example, 7.5% of the population is from other EU 15 countries.

Levels of self-employment are also high with again the German cities performing strongly in this respect. Finally, Knowledge hubs score highly on an index of multimodal accessibility, with an average of 141 points being the highest for all city-types. Because of the 'hub' function these cities are extremely well-placed to profit from flows of ideas and creative people. Economic vitality and success has effectively lifted Knowledge hubs out of the national urban context and placed them in an international, and in some cases global league of cities.

Nevertheless Knowledge hubs are faced with a number of important challenges as well, particularly those associated with rapid growth and economic expansion. Firstly, Knowledge hubs are invariably very expensive cities to live in. Housing has for many become unaffordable, as can be clearly seen in cities such as Dublin and Barcelona. This implies that overall wealth, success and prosperity are not necessarily translated into quality of life for all residents and large numbers of people are forced to, or prefer to live outside the core cities. This is driving strong suburbanisation pressures, in turn contributing to increasing car usage, road congestion and other transportation problems. Another common problem stemming from increased economic activity is the growth in air traffic with noise pollution impacting on residential areas. One response has been to construct completely new airports (e.g. Milan Malpensa and Lyon St. Exupery) at a considerable distance from the cities but this often generates even more road traffic. Economic success has also attracted many migrants – whether wanted or less wanted. In cities such as Milan

and Barcelona, many national as well as international migrants have moved in, putting the housing stock under a great deal of pressure. Coping with all these challenges is complex and costly; it requires astute and timely choices and unprecedented urban planning skills.

Table 3.3: Key information for Knowledge hubs

City name	Core city popula-tion 2001	LUZ popu-lation 2001	Other EU nationals (%)	Non-EU nationals (%)	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Employ-ment rate	Highly qualified residents	Self-employed persons index	Accessi-bility index
Düsseldorf *)	570,765	1,520,928	5.5	12.2	2.8	181	157	67	22.5	220	187
Frankfurt/M. *)	641,076	2,494,485	6.0	16.3	2.4	180	156	67	26.4	245	190
Hamburg *)	1,726,363	3,079,032	2.9	12.3	2.8	158	137	67	20.0	206	153
Köln *)	967,940	1,854,892	4.8	14.0	0.9	148	129	64	21.2	215	167
München *)	1,227,958	2,446,014	7.5	16.2	4.5	204	177	74	27.9	267	141
København *)	499,148	1,806,667	2.7	8.8	3.2	159	122	72	28.1	n/a	144
Barcelona	1,505,325	4,804,606	0.8	4.0	4.3	119	122	65	n/a	127	127
Helsinki *)	559,718	1,213,743	0.7	4.0	7.5	168	139	73	39.2	47	97
Lyon *)	1,167,532	1,648,216	2.4	6.2	4.0	140	117	60	30.8	137	127
Dublin *)	495,781	1,535,446	4.2	8.9	11.2	162	120	67	26.1	83	110
Milano	1,256,211	3,904,882	0.7	6.3	2.5	186	158	63	19.9	183	161
Amsterdam *)	734,594	1,320,137	3.2	8.9	3.4	190	143	70	33.1	118	171
Stockholm	750,348	1,823,210	3.6	6.1	5.1	168	139	78	24.0	76	89
Edinburgh *)	448,624	778,367	n/a	n/a	2.5	145	123	71	42.4	98	93
London *)	7,172,091	11,624,807	n/a	n/a	5.2	159	134	67	33.8	149	158
Average	*1,314,898*	*2,790,362*	*3.5*	*9.5*	*4.2*	*165*	*138*	*68*	*28.2*	*155*	*141*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Other EU nationals (%): Other EU (15) nationals as a share (%) of all resident population, 2001
Non-EU nationals (%): Non-EU (15) nationals as a share (%) of all resident population, 2001
GDP per capita index: GDP per capita in 2001, index, country average =100
Employment rate: Employed persons as a share of all working-age (15-64) population, 2001
Highly qualified residents: Residents qualified at ISCED levels 5-6 as a share (%) of popu-lation 24 and over, 2001
Self-employed persons index: Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100
Accessibility index: Multimodal accessibility, index ESPON space =100

3.4.2 Established capitals

Established capitals – firmly positioned at the top of national urban hierarchies, with a diversified economic base and concentrations of wealth	
Key characteristics	**Examples**
• High core city population • High LUZ population • High share of other EU nationals • High share of non-EU nationals • High GDP per capita • Diversified Economy • High accessibility	• Wien • Berlin • Madrid • Paris • Athina • Roma

Renowned the world over, built and rebuilt throughout long and colourful histories, Established capitals are at the top of Europe's urban hierarchy. The cities belonging to this group are all located on the European mainland and are typically large in size: on average almost 2 million people in the core city and more than double in the entire agglomeration.

The core population of established capitals is trending downwards whilst expansion is taking place on the periphery. This is especially the case in Southern Europe where the larger urban zones of capitals such as Lisbon and Athens are gaining population rapidly.

Established capitals are wealthy both by European and national standards. GDP levels are on average 30% above the national and 40% above the EU average. All of them fulfil crucial political and cultural roles; many fulfil a central economic role as well (e.g. Paris, Vienna, Madrid, Lisbon). Yet, the economy of some Established capitals is less dominant within a national framework, most notably Rome and Berlin. Overall, Established capitals have witnessed good growth rates in recent years, maintaining their already firmly established positions.

Through their size and wealth, Established capitals are in a relatively comfortable position. Their economies are more diversified than any other city-type. They combine central governmental, higher education and health functions with leadership in financial and business services, trade/restaurants/hotels, transport and communication as well as (advanced) manufacturing. This broad spread of economic activity ensures a certain robustness and this translates into stable and solid property markets, that are well trusted by foreign investors. This inflow of capital and people is facilitated by the excellent multimodal accessibility (an index score of 137). Established capitals all have international airports, often more than one and they are also strategically located at the heart of railway and motorway networks.

Established capitals function as magnets which attract young people from the countryside, professionals from across the EU and economic migrants from all over the world. In Brussels and Berlin for example one out of eight inhabitants has moved into the city within 2 years prior to the date of measurement. In Paris this was as high as one out of three inhabitants. Established capitals are home to large numbers of foreign nationals. On average one out of ten inhabitants originate from non-EU countries and one out of thirty comes originate from other EU countries (in Brussels this is one out of six). Many migrants initially come to study and subsequently stay to develop their careers. Key to all this is the fact that Established capitals provide large and diverse labour markets with a wide range of employment opportunities. But not all fortune-seekers are successful on the labour market, as a significant portion (12%) of the workforce in Europe's established capital cities is unemployed. Brussels has unusually high unemployment for this city-type (18%).

High unemployment in combination with average growth levels gives rise to important questions. Will these Established capitals be able to generate more jobs to tackle unemployment, or will this group remain excluded in the foreseeable future, irrespective of economic and employment growth? And will these vulnerable inhabitants have sufficient access to healthcare and social services? Challenges such as these often remain unanswered.

Table 3.4: Key data for Established capitals

City name	Core city population 2001	LUZ population 2001	Other EU nationals (%)	Non-EU nationals (%)	Real GDP growth 1996-2001, annual %	GDP/capita EU27 = 100	GDP/capita country = 100	Employ-ment in services (%)	Highly qualified residents	Accessi-bility index
Wien *)	1,550,123	2,121,704	1.6	14.4	2.4	166	130	81.4	16.9	145
Brussels *)	964,405	1,750,328	14.8	12.2	3.6	196	160	77.2	n/a	177
Berlin *)	3,388,434	4,935,524	2.0	11.0	0.6	97	84	81.3	28.5	161
Madrid	2,957,058	5,372,433	0.6	5.9	6.2	134	137	81.2	n/a	115
Paris *)	2,125,246	10,952,011	4.3	10.2	3.2	188	158	88.7	49.9	177
Athina	789,166	3,894,573	0.7	16.7	4.5	82	107	n/a	25.0	103
Roma	2,546,804	3,700,424	0.5	3.4	2.6	147	125	78.2	18.3	123
Lisboa *)	564,657	2,363,470	0.8	2.7	4.8	122	146	83.6	22.7	93
Average	*1,860,737*	*4,386,308*	*3.2*	*9.5*	*3.5*	*142*	*131*	*81.6*	*26.9*	*137*

*) GDP / capita
Other EU nationals (%): Other EU (15) nationals as a share (%) of all resident population, 2001
Non-EU nationals (%): Non-EU (15) nationals as a share (%) of all resident population, 2001
Employment in services (%): Share (%) of employment in trade, hotels, restaurants 2001
Highly qualified residents: Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001
Accessibility index: Multimodal accessibility, index ESPON space =100

3.4.3 Re-invented capitals

Re-invented capitals – champions of transition, engines of economic activity in the New Member States	
Key characteristics	**Examples**
• Population loss in core city • Population loss in LUZ • High real GDP growth • Above country GDP growth • High GDP per capita • High older workers employment rate	• Sofia • Praha • Tallinn • Warszawa • Ljubijana • Bratislava

In many ways, Re-invented capitals are the champions of transformation and growth. During the last 15 years, the capitals of the New Member States have gone through drastic changes. Although they have faced as much restructuring and plant closures as many other cities in the region, they have been able to take advantage of new opportunities as evidenced by their impressive growth rates. Although GDP levels are still well below the EU average (at 88%), they are catching up quite quickly. Between 1996 and 2001, the Re-invented capitals achieved an average annual economic growth rate of more than 7%. Warsaw, Bucarest, Vilnius and Tallinn with front runners were burgeoning economic activity. The Re-invented capitals are the unrivalled growth engines of national economies. Their GDP performance is 70% above the national levels and growth rates have been 3% up on the respective national figures. These are unquestionably the fastest growing cities of Europe and they are making a significant contribution to Europe's overall competitiveness.

It may be surprising to observers to note that this economic growth has not gone hand in hand with population growth. Virtually without exception both core cities and Larger Urban Zones have lost population during the period covered. An important underlying reason for this decline is the housing market; the lack of adequate housing stock has led to a sharp

increase in housing prices, which makes living in the Re-invented capitals an expensive matter. Suburbanisation – often beyond the boundaries of the Larger Urban Zone – has become an important development. As a consequence, increasing numbers of workers commute into the cities on a daily or weekly basis – with a rapid increase in congestion as a consequence.

The spectacular economic growth of Re-invented capitals has coincided with a complete overhaul of the economic structure as well as the physical appearance of these cities. With the exception of Bucharest, the service sector has been expanding rapidly. All cities are developing financial and business services at a fast rate. The Re-invented capitals of the former Soviet Union (Tallinn, Riga, Vilnius) have reassumed their position as independent national capitals with much growth in employment in the public sector as a result. And in cities such as Prague and Tallinn, tourism has also grown at an impressive rate, with over 20% of employees working in trade, restaurants and hotels. As traditionally the case in Central and Eastern Europe, many of the workers have high educational levels. 31% of the workforce have completed tertiary education, amongst the highest rates to be found in Europe's cities.

On the down side, Re-invented capitals must deal with the problem of an old housing stock that no longer meets the standards of its aspiring citizens. Strong suburbanisation pressures are resulting in population decline, increased traffic and parking problems. This is prompting offices and commercial centres to leave the core cities as well, adding to the vicious cycle of car dependency and also the loss of vitality in city centres. In some cases however this vacuum is being readily filled by tourists.

The impressive growth of the Re-invented capitals has led to debate about the appropriate national economic strategy to follow. Will these growth rates be maintained as these economies catch up with the rest of Europe? Or will growth slow down due to shortages of labour, rising property prices and congestion? Is it a good thing that the Re-invented capitals are forging ahead within their national contexts or should more balanced growth involving a larger number of smaller cities be encouraged?

It is probable that the growth rates of some of these cities will slow down as they enter the league of Established capitals – with a predominantly national focus. Alternatively, some Re-invented capitals may continue on their growth trajectories and eventually enter the league of Knowledge hubs. It is too early to say which cities will go on to achieve this status but important prerequisites include improved international accessibility, an increase in the levels of entrepreneurship as well as the continued growth of business and financial services.

Table 3.5: Key data for Re-invented capitals

City name	Core city population 2001	LUZ population 2001	Population change per year (%)	Population change in LUZ per year (%)	Real GDP growth 1996-2001, annual %	GDP/capita EU27 = 100	GDP/capita country = 100	Employment rate index
Sofia	1,091,772	1,263,807	-0.4	n/a	4.4	50	169	142
Praha *)	1,169,106	1,941,803	-0.6	-0.2	4.9	107	155	114
Tallinn	399,685	524,972	-1.0	-0.7	8.8	68	148	106
Budapest *)	1,777,921	2,453,315	-1.2	-0.4	6.4	93	157	106
Vilnius	554,281	709,137	-0.8	-0.6	9.2	58	138	97
Riga *)	756,627	1,020,389	-1.3	-1.0	7.1	54	139	107
Warszawa *)	1,609,780	2,631,902	-0.2	1.0	4.0	101	210	89
Bucuresti *)	1,936,724	2,144,442	-0.9	-0.8	19.8	59	214	86
Ljubljana	270,506	488,364	0.3	0.1	5.4	110	142	107
Bratislava	428,672	599,015	-1.0	-0.7	3.7	113	222	127
Average	*999,507*	*1,377,715*	*-0.7*	*-0.4*	*7.4*	*81*	*169*	*108*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Population change per year in %: Population change in core city 1996-2001, annual average, in%
Population change in LUZ per year (%): Population change in LUZ 1996-2001, annual average, in %
Employment rate index: Country average =100

3.5 Specialised Poles

Specialised Poles play a (potentially) important international role in at least some aspects of the urban economy:

- *National service hubs*
- *Transformation poles*
- *Gateways*
- *Modern industrial centres*
- *Research centres*
- *Visitor centres*

3.5.1 National service hubs

National service hubs play an essential role in the national urban hierarchy; they fulfil key national functions and often some capital functions in the (public) services sector	
Key characteristics	**Examples**
• High share of other EU nationals • High share of employment in public sector • Above average GDP per capita • High share of employment in public administration • High share of employment in trade, hotels and restaurants	• Hannover • Tartu • Brno • Seville • Turku • Utrecht • Timisoara

National service hubs are, in terms of size, often the second or third cities in the national hierarchy. They carry out substantial tasks in areas of government, higher education, and culture – that exceed the regional level. Some are *de facto* capitals (e.g. The Hague, Luxembourg) whilst others are former capitals (Bonn, Tartu, Turku). A number have important international functions and are seats of European institutions (Strasbourg, The Hague, Luxembourg). Still others fulfil a number of decentralised functions (Brno, Wiesbaden) or have a prominent position within the national context as a place to meet (Hannover, Utrecht) or trade (Lodz, Cluj, Timisoara, Aarhus).

National service hubs have an average size of 370,000 inhabitants (agglomeration 700,000) and they are relatively prosperous, with GDP just above the national average. The cities of Utrecht and Wiesbaden are leaders in this respect with strong economic growth and unemployment below the Urban Audit average.

The economic structure of National service hubs is fairly balanced; the public sector accounts for 34% of the economy on average with peaks as high as 44% in The Hague and 48% in Bonn. But market services, trade and manufacturing are not far behind the Urban Audit average. Those cities that specialise as 'meeting places' in the form of conferences and trade fairs (e.g. Utrecht, Hannover, and Brno) tend to have higher employment levels in the market services sector.

Due to their position within the urban hierarchy, National service hubs host large numbers of specialised institutes and agencies – which attracts foreign workers, especially from other member states. Some National service hubs therefore have relatively large numbers of other EU nationals among their residents; Bonn, Wiesbaden, The Hague and Malmo are examples of this. The most "Europeanised" of all cities is Luxembourg with no less than 45% of its population coming from other EU nations.

So what challenges lie ahead for National service hubs? At first glance, their economic performance is somewhat 'average', but this can also generally be said of the size of their problems. Perhaps it is the fact that they are often regarded as 'second' or 'secondary' cities that needs to be addressed. National service hubs have a strong tendency to compare themselves with national capitals and this does not always lead to productive development strategies. What are the ramifications of being second in a competitive environment where unique selling points are increasingly important? And does the 'winner take all'? Often an appreciation of the special qualities that this type city possesses is missing, both within a national and especially within a transnational reference framework. Strategic initiatives supporting a better positioning at the European level and stronger subsequent appeal, could provide the way forward. An example here is The Hague, which has managed to position itself not only as the centre of government of the Netherlands, but also as the international capital of justice. The challenge is to reconsider the national context as the solitary comparative framework. For instance the city of Hannover has built upon its attractiveness as an international meeting point following the Expo 2000. The

strategic location of National service hubs allows them to attract businesses and visitors from beyond their national boundaries. This international role is particularly common for cities located close to international borders, such as Brno, Bonn, or Strasbourg.

Table 3.6: Key data for National service hubs

City name	Core city population 2001	LUZ population 2001	Other EU nationals (%)	Real GDP growth 1996-2001, annual %	GDP/capita EU27 = 100	GDP/capita country = 100	Employ-ment in public admin.(%)
Plovdiv	338,224	439,061	0.2	1.0	25	84	n/a
Brno	376,172	729,510	0.6	0.3	62	90	28.5
Bonn *)	306,016	879,240	3.6	0.4	108	94	48.8
Hannover *)	516,415	1,284,111	3.1	0.0	120	104	32.1
Wiesbaden *)	271,076	454,685	6.0	2.0	144	125	34.0
Aarhus	286,668	640,637	1.1	2.8	122	93	n/a
Tartu	101,207	149,488	0.3	5.1	30	66	30.2
Sevilla	702,520	1,747,441	0.2	3.9	74	76	35.3
Turku	173,686	292,145	0.5	3.7	113	94	34.0
Bordeaux	659,998	925,253	2.1	4.3	124	104	38.4
Strasbourg	451,240	612,104	3.0	2.0	122	102	34.5
Thessaloniki	385,406	1,084,001	0.4	4.3	90	117	n/a
Luxembourg	76,688	136,625	45.9	7.2	228	101	n/a
s' Gravenhage *)	442,356	955,243	2.4	2.6	153	115	44.3
Utrecht	256,420	1,117,997	1.7	4.8	171	129	34.7
Lodz *)	786,526	1,178,029	0.0	5.7	46	96	31.1
Cluj-Napoca	299,541	330,178	0.1	5.2	33	121	28.0
Timisoara	307,786	318,807	0.1	8.2	35	128	25.1
Average	*374,330*	*737,475*	*4.0*	*3.5*	*100*	*102*	*34.2*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Other EU nationals (%): Other EU (15) nationals as a share (%) of all resident population, 2001
GDP per capita index: GDP per capita in 2001, index, country average =100
Employment in public admin.(%): Share (%) of employment in public administration, health, education, other services, 2001

3.5.2 Transformation poles

Transformation poles – with a strong industrial past, but well on their way to manage change and develop new economic activities	
Key characteristics	**Examples**
• GDP per capita at national average • GDP growth at national level • High unemployment rate • Average share of employment in manufacturing • Low older workers employment rate	• Plzen • Glasgow • Lille • Torino • Kaunas • Birmingham

Transformation poles are larger cities with a rich industrial past that have been forced into change by great economic shifts which impacted heavily on their traditional economic base. This process has certainly left its mark in the form of abandoned factories, deprived neighbourhoods, limited appeal and modest visual attractiveness overall. However transformation poles have responded by seizing on new opportunities and implementing economic strategies which have provided them with a positive way forward. The visible change is often impressive. For example new city centres have been built, districts

upgraded and state of the art transportation systems put in place. Cities such as Turin, Birmingham and Glasgow are the prime examples here.

The assertiveness and aggressiveness with which Transformation poles have been tackling challenges and pursuing new opportunities is the key. Typically large-scale projects are implemented. Examples include the renovation of the former Fiat plant in Turin into an impressive design and exhibition space, the city centre upgrade of Glasgow including turning the banks of the Clyde river into a 'hip' artistic zone and the new Bullring shopping centre In Birmingham which is attracting many visitors from far afield. Leipzig and Dresden have invested massively in restoring their cultural heritage, while Heerlen has gone far in 'greening' the area's former coal mines. Manchester is now emerging as a well-connected and fashionable city in the UK, well-positioned to be a viable alternative to London in areas of services, culture and arts. Key to this transformation has been the renovation and improved connectedness of its city centre. Lille has reshaped its own geographical position vis-à-vis London, Paris and Brussels by exploiting its TGV-connection through the Euralille venture. Most cities have focused their investments on city centres – where most citizens, workers and visitors convene and where investment impulses tend to have the most spin off effects.

These transformation projects have not been equally successful everywhere and in some cases expectations have not been met and disappointments are frequent. Nevertheless, these new initiatives have gone some way to counteracting negative trends by creating fresh opportunities. Indeed, GDP and growth levels in Transformation poles tend to lie around the national average, and this can also be said of the economic structure and unemployment levels. The manufacturing sector is not predominant across the board although there remain strong differences between individual cities.

A main challenge for the Transformation poles is to build on the existing successes and to provide a sustainable basis for creating future prosperity and well-being. In their desire to move forward, Transformation poles sometimes tend to ignore their past, their raison-d'être, their roots. As investment in modern transport, infrastructure and the urban environment can be quite uniform, it remains an on-going challenge for these cities to redefine their identity. Only longer-term and consistent urban development strategies are likely to bring more durable, harmonious and high-quality development that can win the confidence to citizens and investors alike.

Table 3.7: Key data for Transformation poles

City name	Core city population 2001	LUZ population 2001	Real GDP growth 1996-2001, annual %	GDP/capita EU27 = 100	GDP/capita country = 100	Unemployment rate in 2001	Employment in manufacturing (%):
Pleven	121,880	190,154	5.0	24	83	11.7	n/a
Plzen	166,118	352,362	-0.3	65	94	6.7	33.6
Bochum	390,087	390,087	-1.9	124	107	7.8	28.4
Bremen *)	540,950	1,121,786	1.9	128	111	8.3	25.5
Dortmund	589,240	589,240	3.8	119	104	9.6	21.5
Dresden *)	478,631	903,586	2.3	94	82	14.7	18.7
Essen	591,889	591,889	1.0	141	122	7.7	20.8
Leipzig *)	493,052	912,064	0.1	87	75	17.4	19.2
Mönchengladbach	262,963	263,014	5.2	115	100	7.2	28.4
Mülheim a.d.Ruhr	172,332	172,332	3.9	118	103	6.1	28.6
Caen	216,181	370,851	3.0	102	86	14.0	20.4
Lille	1,091,438	1,143,125	2.3	100	84	14.4	20.4
Metz	213,000	429,588	2.1	98	82	11.9	14.8
Nancy	258,268	410,508	2.3	104	87	11.1	14.8
Nantes	554,478	711,120	5.1	121	101	13.2	19.1
Saint-Etienne	384,042	321,703	2.1	97	81	13.5	28.9
Torino	865,263	2,165,619	1.5	142	121	8.5	35.9
Kaunas	379,706	461,079	5.4	42	99	17.6	n/a
Enschede	150,449	608,827	3.2	111	83	3.9	20.6
Heerlen	95,149	647,894	4.2	121	91	4.1	15.7
Oporto	263,131	244,998	2.1	86	103	9.5	22.6
Rzeszow	162,153	329,685	5.9	37	77	18.8	36.0
Targu Mures	151,932	175,790	6.7	31	113	7.6	41.1
Malmö	259,579	522,857	4.1	114	94	9.1	19.4
Maribor	114,891	310,743	4.7	65	84	10.3	29.7
Belfast *)	277,391	646,550	5.3	119	101	9.6	14.1
Birmingham *)	977,087	2,335,652	2.9	117	99	9.5	23.6
Cardiff *)	305,353	826,097	3.3	101	85	4.9	17.7
Glasgow *)	577,869	1,749,154	3.0	115	97	10.8	16.2
Leeds	715,399	715,399	4.4	143	121	5.1	21.1
Liverpool *)	439,476	1,362,004	2.9	85	72	11.1	13.5
Manchester *)	418,600	2,512,300	3.2	113	96	9.0	12.3
Newcastle upon Tyne	259,531	795,169	3.4	109	92	8.0	13.8
Average	*392,046*	*766,158*	*3.2*	*100*	*95*	*10.1*	*22.5*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Employment in manufacturing (%): Share of employment in manufacturing incl. construction 2001

3.5.3 Gateways

Gateways – larger cities with dedicated (port) infrastructure, handling large flows of international goods and passengers

Key characteristics	Examples
• High accessibility • High share of employment in transport and communication • Below average employment rates • High unemployment rates • Below average share of residents with higher qualification	• Antwerpen • Santander • Marseille • Napoli • Genova • Rotterdam • Portsmouth

Nearly all port cities have a long history and this port function lies at the centre of their identity. They base their very existence and wealth on the advantages afforded by a natural harbour. These are the Gateway cities – all located near important waterways, whether rivers or seas. They are the platforms for freight transport, distribution and related industries and services – 11% of their workers are active in transport and communication (7% in all Urban Audit cities). In addition a wide variety of trade-related activities have been developed – such as the diamond centre in Antwerp (21% of employment in trade, versus 19% in all Urban Audit cities). Furthermore, some cities have been successful in building (financial) services, such as the insurance industry in Rotterdam. Some cities are also home to navy fleets and have given rise to related employment opportunities (Portsmouth, Naples).

On average Gateway cities have a little less than 400,000 inhabitants in the core city and almost 800,000 in the larger urban zone. Despite all their achievements their strong specialisation gives rise to a number of specific challenges. Their port activities are becoming increasingly capital-intensive and automated, providing an ever narrower employment basis. Gateways often appear to be highly industrialised due in particular to concentrations of (petro-) chemical facilities (for example Le Havre and Genoa) and many of these industrial activities tend to be very capital-intensive, and have been shedding labour over the last years. This is somehow reflected in the lower employment rates (94% of national average), but especially through higher unemployment rates – 14% compared to 11% for all Urban Audit cities. Coming from a somewhat protected labour market position, redundant port workers often find it difficult to get other jobs and this may lie behind the fierce protests against any moves to liberalise the ports of Europe. Employees in Gateways have lower levels of educational attainment – 18% completed tertiary education against 23% for all Urban Audit cities.

Gateways clearly face important economic challenges. Their origin is based on accessibility by land and water, but nowadays the uniqueness of their position has been eroded by the development of other modes of transport and the broadening of the scale of competition, especially when air transport is taken into account. Unlike Transformation poles, Gateways are still firmly locked into their traditional port functions – and this can hamper the pursuit of new opportunities and diversification initiatives. Furthermore a strong dependence on freight handling generates large traffic volumes causing pollution, congestion and the need for large-scale programmes of investment in transport infrastructure. Low or unclear returns often make these investments difficult to justify. Due to their physical appearance Gateway cities are often less attractive to tourists, investors and residents alike. Some Mediterranean as well as Baltic Gateways have been quite successful in exploiting cruiseship terminals – with ample spin-offs for local commerce and an added impulse for inner city renewal (e.g. Genova). But not all Gateways have been successful in generating large flows of tourists. Those Gateways that are seen as ‘Cities with a Port’ (e.g. Antwerp, Genova) are possibly less vulnerable than Gateways which can be viewed as ‘Ports with a City’ (e.g. Rotterdam, Le Havre, Marseille).

Table 3.8: Key data for Gateways

City name	Core city population 2001	LUZ population 2001	Real GDP growth 1996-2001, annual %	GDP/capita EU27 = 100	GDP/capita country = 100	Employment rate index	Older workers employment rate index	Unemployment rate in 2001	Employment in transport (%)	Highly qualified residents	Accessibility index
Antwerpen	445,570	902,632	1.4	158	129	83	127	11.2	13.7	n/a	156
Burgas	192,390	236,147	7.4	29	98	135	65	8.3	n/a	26.9	85
Ruse	161,453	189,471	0.2	26	88	130	n/a	14.2	n/a	24.3	64
Santander	185,230	537,606	4.9	94	96	94	102	15.7	n/a	n/a	75
Le Havre	255,082	296,773	2.6	117	98	88	110	17.1	14.2	16.9	93
Marseille	981,769	981,769	4.4	121	101	84	122	20.3	10.0	23.3	107
Rouen	391,375	518,316	2.6	117	98	93	120	14.6	9.6	23.2	93
Ancona	100,507	448,473	2.6	130	111	112	n/a	6.0	8.0	15.2	96
Catania	313,110	1,054,778	3.8	80	68	70	116	29.4	9.0	13.4	89
Genova	610,307	878,082	2.9	132	112	102	89	8.7	11.3	12.8	121
Napoli	1,004,500	3,059,196	3.5	77	65	64	116	31.8	12.7	14.6	121
Trieste	211,184	242,235	3.7	148	126	109	91	7.0	10.3	12.1	89
Rotterdam	595,255	1,345,339	2.6	140	105	89	86	5.9	11.2	20.0	143
Gdansk *)	455,464	1,098,379	5.6	50	104	81	119	17.3	9.8	22.1	94
Giurgiu	71,227	73,787	6.8	17	63	72	27	17.2	11.0	9.3	66
Portsmouth	186,699	487,950	4.0	136	115	98	100	4.6	7.4	19.4	104
Average	*385,070*	*771,933*	*3.7*	*98*	*99*	*94*	*99*	*14.3*	*10.6*	*18.1*	*100*

*) GDP estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Employment rate index: Country average =100
Older workers employment rate index: Employment rate, older workers, index country average =100
Employment in transport (%): Share (%) of employment in transport and communication 2001
Employment in services (%): Share (%) of employment in trade, hotels, restaurants 2001
Highly qualified residents: Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001
Accessibility index: Multimodal accessibility, index ESPON space =100

3.5.4 Modern industrial centres

Modern industrial centres – the platforms of multinational activities as well as local companies exporting abroad; high levels of technological innovation	
Key characteristics	**Examples**
• High share of employment in manufacturing • Strong base in services and financial intermediation • Above average GDP per capita • High employment rate • Below average unemployment rate • High share of students • Highly qualified residents	• Linz • Augsburg • Vitoria-Gasteiz • Tampere • Clermont-Ferrand • Cork • Tilburg • Poznan • Göteborg

In many ways, Modern industrial centres are the powerhouses of international production; the main production basis for multinationals– including key coordination centres and manufacturing plants. Some of these cities owe a great deal to home-grown multinational companies, such as Goteborg (Volvo), Clermont-Ferrand (Michelin), Tampere (Nokia), and Zaragoza (Opel). Others are engaged in important niche activities such as Aberdeen (off-shore drilling) and Besancon (time pieces). Other cities have developed modern large-scale manufacturing sectors in more recent years, such as Valladolid (Renault), Pamplona-Iruña (Volkswagen), Cork, Poznan and Arad. Still others have a longer industrial past but have been successful in adjusting to new industrial activities (e.g. Tilburg, Leicester).

The characteristics of Modern industrial centres clearly shine through in the Urban Audit data. Their GDP levels are about 10% higher than the national average, and their growth rates are higher as well. Employment rates are about average while unemployment is slightly below that of the average Urban Audit city (10% instead of 11%). One out of three workers are employed in manufacturing and construction (one out of four in all cities), but employment in trade, hotels and restaurants is fairly well developed as well. These indicators all point to fairly competitive and productive local economies. The qualifications of the workforce are in line with this; 22% of the workforce has enjoyed higher education. Some cities have well-developed universities, and attract high numbers of students (e.g. Graz, Tampere, Poznan and Wroclaw).

The challenges faced by Modern industrial centres are clearcut: strong competitive pressures require multinationals to constantly re-assess their strategies. Production plants are threatened by closure or reorganisation on a constant basis. Many of the Modern industrial centres are heavily reliant on car manufacturing and this industry is a highly competitive and volatile one with a seemingly unstoppable trend of relocation to areas of the world where labour is cheap. Even Modern industrial cities in Central and Eastern Europe (e.g. Poznan or Szczecin) are starting to 'feel the heat' in this regard. If they want to remain 'Modern', these industrial centres will need to continue to adjust to the changing requirements of international production.

In order to maintain its productive function, it is crucial to capture and hold onto international companies by providing international business with an excellent production climate. They need to address bottlenecks such as schooling, accessibility, lack of space and levels of service. This strategy may be more feasible for capital-intensive industries with much 'sunk' capital. Modern industrial centres with a strong endogenous potential and those with a well developed entrepreneurial culture have a clear advantage. However there are strong differences in this respect. Overall, German cities (e.g. Augsburg, Wuppertal, Bielefeld) have high levels of self-employment when compared to their national averages. So do cities such as Graz, Cremona and northern Spanish cities including Vitoria-Gasteiz and Pamplona-Iruña. These cities are well-placed to take advantage of large industry through spin-offs, whether in manufacturing or in related business services, such as logistics, packaging, catering, hotels, trading, etcetera. However levels of self-employment are lower in Modern industrial centres elsewhere, such as in the UK, Ireland, France or Sweden.

An alternative strategic choice is to promote continuous innovation, and support technological excellence, building on the existing strengths. The next type of cities provides thereto the necessary inspiration.

Table 3.9: Key data for Modern industrial centres

City name	Core city population 2001	LUZ population 2001	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Employment rate index	Older workers employment rate index	Unemployment rate in 2001	Employment in manufacturing (%)	Employment in trade (%)	Number of students per 1000	Highly qualified residents
Graz	226,244	357,548	3.1	158	123	97	101	7.8	25.8	24.0	151	n/a
Linz	183,504	524,444	3.1	166	130	100	90	7.0	22.1	18.7	66	n/a
Augsburg *)	257,836	614,667	2.5	128	111	106	124	5.5	29.0	18.2	n/a	18.8
Bielefeld *)	323,373	1,286,897	1.7	119	103	98	121	7.8	27.0	21.4	81	19.7
Nürnberg *)	491,307	1,271,914	2.5	141	122	102	117	7.7	24.3	18.8	33	19.5
Wuppertal	364,784	366,434	-0.3	119	103	98	118	6.5	30.4	17.8	40	17.9
Aberdeen	212,125	438,996	4.8	125	128	101	102	5.0	28.6	19.0	94	35.1
Pamplona/Iruña	186,245	556,263	2.9	100	102	106	107	10.7	30.9	18.8	n/a	n/a
Valladolid	318,293	497,961	5.0	136	139	94	90	14.6	29.0	19.5	n/a	n/a
Vitoria/Gasteiz	218,902	288,793	3.4	103	106	107	103	9.9	38.3	18.7	n/a	n/a
Zaragoza	610,976	857,565	5.9	119	98	107	109	11.8	30.9	20.3	n/a	n/a
Tampere	197,774	298,655	3.6	120	101	97	112	13.8	28.6	15.6	156	34.0
Besançon	170,696	222,381	3.3	112	94	94	139	11.1	20.3	15.7	130	29.1
Clermont-Ferrand	260,762	409,558	5.1	117	98	94	129	10.6	25.4	16.4	131	26.5
Rennes	364,652	521,188	16.4	166	123	95	129	9.0	19.6	16.0	153	32.4
Cork	123,062	311,479	0.5	123	105	88	85	8.7	25.9	20.2	76	20.5
Cremona	70,887	335,939	3.3	119	90	111	n/a	4.5	42.3	24.0	n/a	13.8
Tilburg	195,819	443,992	5.2	49	101	96	77	3.5	20.8	20.3	106	22.3
Bydgoszcz	383,213	583,091	3.1	45	94	83	101	18.7	38.2	13.7	110	17.3
Gorzow Wielkopolski	126,336	188,795	8.2	63	130	73	97	24.3	39.8	11.6	53	15.9
Poznan *)	571,985	1,011,172	3.7	53	109	84	132	14.7	30.6	18.9	250	26.1
Szczecin	415,576	778,060	4.7	56	116	76	110	20.3	30.8	13.8	187	20.9
Wroclaw *)	634,047	1,029,876	3.9	80	96	82	119	18.3	28.4	15.2	222	25.9
Aveiro	73,335	73,521	-8.2	30	109	100	107	4.9	35.3	23.2	155	14.3
Arad	172,759	194,556	5.5	28	103	88	32	5.4	44.5	17.6	52	14.6
Oradea	209,939	221,261	7.2	29	105	86	36	6.0	42.2	18.3	89	17.6
Sibiu	156,530	188,084	4.5	121	100	86	36	7.3	45.6	16.3	126	19.2
Göteborg	466,990	796,705	1.8	115	97	99	99	5.6	22.1	16.1	62	19.9
Leicester *)	279,915	756,139	1.7	159	134	85	89	7.9	27.5	21.0	115	19.1
Aberdeen 1)	212,125	438,996	1.7	159	134	101	102	5.0	28.6	70.7	94	35.1
Average	*282,666*	*528,831*	*3.7*	*105*	*110*	*94*	*100*	*9.8*	*30.4*	*20.0*	*114*	*22.3*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
1) High GDP due to oil and gas extraction
Employment rate index: Country average =100
Older workers employment rate index: Employment rate, older workers, index country average =100
Employment in manufacturing (%): Share of employment in manufacturing incl. construction 2001
Employment in trade (%): Share (%) of employment in trade, hotels, restaurants 2001
Number of students per 1000: Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001
Highly qualified residents: Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001

3.5.5 Research centres

Research centres – centres of research and higher education, including science and technology related corporate activities; well-connected to the international world	
Key characteristics	**Examples**
• Medium sized cities • High recent immigration • International community • Above average GDP per capita • High share of students • Highly qualified residents • High share of self-employed persons • High accessibility	• Darmstadt • Karlsruhe • Oulu • Grenoble • Bologna • Eindhoven • Coimbra • Cambridge

For a long time, regional economists and urban planners have aspired to copy the 'Silicon Valley' model. In a similar way, many European cities have looked to Oxford or Cambridge in the UK for inspiration. But an attempt to copy other cities is not likely to be very fruitful and this is usually recognised by cities that are developing as Research centres. Although these cities have clear commonalities, each of them has emerged through unique pathways and over long time periods. Some, such as Bologna, Göttingen or Coimbra owe a great deal of their historic identity to their universities. Others have developed more recently due to corporate business investment and now include large-scale privately-funded research laboratories (e.g. Eindhoven, Stuttgart). Other Research centres have emerged following governmental decisions on the location of R&D facilities (Grenoble, Toulouse, Oulu). Still others have found a fruitful mix of long-standing universities and a dynamic, specialised local economy that takes advantage of this asset (Freiburg, Ghent, Karlsruhe).

Despite their modest size (about 200,000 inhabitants on average for the core city), Research centres have high GDP levels – about 10% above their national average. They tend to only have a modest influence on their hinterlands, which is often quite different in character. In this light, their modest growth rates - around the national average – can be better explained as these figures include the wider hinterland. While overall employment rates are about the same as for the average Urban Audit city, this does not hold true for older workers who are much more engaged in the workforce than in any other city-type of comparable size. This indicates that knowledge workers tend to work on longer than others in the workforce.

In terms of economic structure Research centres are fairly balanced. More important is the successful integration and interaction between the various economic sectors. Synergies are strong between public and corporate research for instance, or between business services, trade and manufacturing. Furthermore the key drivers of competitiveness are strong. Multi-modal accessibility is fairly high (index score 107), certainly when the modest size of these cities is taken into account. This score would be considerably higher if a number of peripheral cities (Oulu, 55 index points, Coimbra 42) would be taken out of the equation. Many Research centres are in fact located close to international airports, such as Cambridge (London Stansted), Darmstadt (Frankfurt am Main), Leuven (Brussels Zaventem), and Leiden (Schiphol Airport).

Entrepreneurship is another key driver behind the economic performance of Research centres: two out of three have higher levels of self-employment than their respective national average. Especially the German and Italian cities show a strong performance in this area. But the strongest asset of the Research centres lies undoubtedly in the amounts of accumulated talent: almost 20% of the population consists of students and 31% of the workforce has attained higher education. There are strong signals that many residents, including employees and especially students, only live for short periods in Research centres: 15% of the population of these cities have moved in during the last 2 years, a

higher share than in any other city-category. Furthermore many of these new residents have come from afar - from other EU countries or beyond.

The Research centres demonstrate that cities do not need to be excessively big in order to be economically strong and wealthy. They have successfully built good reputations in the specialist fields of science and technology and attract talented citizens from across the globe. Some Research centres have centuries of tradition behind them. However in order to stay ahead, Research centres must continue to invest in their academic and skills base to maintain a leading position. They also need to maintain and where possible improve the quality of life on offer as well as ensure good accessibility by air. Many talented workers have very specific requirements which need to be met. Take for instance the top sport facilities provided on the Hi-tech Campus in Eindhoven. Some Research Cities benefit from their proximity to attractive leisure possibilities nearby, as is the case with Grenoble which is close to ski slopes. 'Research centres' are typically in possession of other assets incuding education and cultural facilities, flexible housing arrangements, advanced telecommunications, a wide choice of international cuisine and in many cases, a diverse multi-cultural local flavour. Finally Research Centres are often well connected to larger cities which can add to their attractiveness.

Table 3.10: Key data for Research centres

City name	Core city popula-tion 2001	LUZ popu-lation 2001	Recent immi-gration	Other EU nationals (%)	Non-EU nationals (%)	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Number of students per 1000	Highly qualified residents	Self-employed persons index	Accessi-bility index
Gent	224,685	395,986	7.2	1.9	4.7	2.1	136	111	210	n/a	113	137
Darmstadt *)	138,457	425,022	15.1	3.8	10.4	1.6	131	114	282	29.7	224	180
Freiburg im Breisgau *)	208,294	597,061	19.9	4.4	9.4	2.4	114	99	128	36.7	227	124
Göttingen *)	123,822	416,508	n/a	1.9	8.9	0.3	96	83	221	37.9	230	104
Karlsruhe *)	279,578	698,113	16.8	4.3	10.4	1.9	149	129	n/a	30.6	232	128
Regensburg	127,198	411,253	n/a	1.7	9.1	2.6	136	118	162	28.0	216	111
Oulu	123,274	192,974	n/a	0.3	1.0	4.0	103	85	n/a	39.2	52	55
Grenoble	374,922	514,559	27.5	3.4	4.9	2.9	118	99	143	33.7	130	100
Poitiers	123,589	209,216	34.4	0.8	2.2	3.1	102	85	221	31.1	105	74
Toulouse	583,229	964,797	33.1	2.0	4.0	5.9	135	113	157	36.4	136	105
Bologna	371,217	915,225	1.3	0.4	3.5	2.1	164	140	n/a	19.1	318	126
Trento	104,946	477,017	1.1	0.3	2.8	1.9	145	124	n/a	15.7	269	84
Eindhoven	203,397	714,157	2.5	1.5	4.7	3.7	136	102	122	26.2	74	132
Coimbra	148,443	143,829	2.3	0.3	1.2	3.1	79	94	236	20.1	64	42
Bristol *)	380,616	983,873	n/a	n/a	n/a	4.3	141	119	96	27.1	116	110
Cambridge	108,856	238,959	n/a	n/a	n/a	5.0	129	109	177	51.6	95	104
Average	*226,533*	*518,659*	*14.7*	*1.9*	*5.5*	*2.9*	*126*	*108*	*180*	*30.9*	*163*	*107*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Recent immigration: People who have moved to the city in the last 2 years as a share (%) of total population
Other EU nationals (%): Other EU (15) nationals as a share (%) of all resident population, 2001
Non-EU nationals (%): Non-EU (15) nationals as a share (%) of all resident population, 2001
GDP growth deviation: Real annual average GDP growth 1996-2001, percentage points deviation from country average
GDP per capita index: GDP per capita in 2001, index, country average =100
Number of students per 1000: Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001
Highly qualified residents: Residents qualified at ISCED levels 5-6 as a share (%) of popu-lation 24 and over, 2001
Self-employed persons index: Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100
Accessibility index: Multi-modal accessibility, index ESPON space =100

3.5.6 Visitor centres

Visitor centres – handling large flows of persons from national or international origin, with a service sector geared towards tourism	
Key characteristics	**Examples**
• High share of employment in trade, hotels and restaurants • High share of employment in construction • Increasing accessibility • High share of self-employed persons • Average GDP per capita • Above average unemployment rate	• Trier • Málaga • Ajaccio • Kavala • Verona • Valleta • Krakow

Tourism is a major phenomenon across Europe but there is a group of cities which are heavily reliant on this economic sector. Some of these Visitor centres are internationally recognised historic cities of culture (e.g. Bruges, Florence, Venice, Krakow) whilst others are more recent tourist destinations (Nice, Valletta, Malaga, Las Palmas) or have become important stop-overs and connection points (Funchal, Irakleio, Reggio di Calabria). In any case, Visitor centres revolve around facilitating the long- or short-term stays of their guests. Many of them are located in Southern Europe, on the Mediterranean or Atlantic coasts where a warm climate can be enjoyed. Their multi-modal accessibility is on average rather low (90 points) yet the growth of low-cost airline operations has and is continuing to bring about improvement in this regard. In fact flying to a Visitor centre in Southern Europe from Northern Europe is often cheaper and easier than travelling between destinations within Northern Europe.

The high dependence on the visitor economy is visible in several ways: one out of four (26%) employees works in the hospitality sector (trade, hotels and restaurants) – more than in any other city-type. But employment can also be high in the construction sector, for instance along the Spanish coast where many hotels and second homes are being built. The numbers of self-employed tend to be very high as well – with an index of 199 nearly twice the national average. The visitor economy is clearly characterised by a large number of small businesses and this is especially so in Italian cities such as Catanzaro, Florence, Pescare and Reggio di Calabria.

But Visitor centres are not necessarily prosperous – on average their GDP per captita equates to just 94% of the country average. Some are of course more prosperous (e.g. Florence, Venice or Funchal), but that is not always entirely due to tourism. Visitor centres are often characterised by high levels of unemployment (on average 13%), and part-time work is more common than in any other city type. The challenge facing Visitor centres is how to maximise and sustain the economic advantage accruing from their attractiveness to tourists.

The fact that Europe's population is ageing offers an important opportunity tor Visitor centres, especially due to the numbers of senior citizens who are moving to Southern Europe on retirement. According to some, this trend is likely to become even stronger in the near future. For instance, the numbers of UK residents relocating to Southern Europe are large and likely to increase. But what effect is this increasing trend likely to have on destination cities? What are the precise needs of such residents? And what related business opportunities will there be? Is this limited to catering, leisure, trade and construction? Or does it extend to medical services, sports and adult education? Other issues facing these cities concern strong suburbanisation pressures, the affordability of housing for local residents, and the long term environmental sustainability of new developments. For example what is the best policy to address water shortages which may be caused by increasing numbers of private swimming pools and the irrigation of golf courses? Should contingencies be made for the possibility of increases in the price of air travel? Perhaps there is a case to be made for a strategy aimed at reducing ones reliance on the vagaries of the international tourist trade and developing instead a more rounded, robust and sustainable economy focussing on the strengths of the local area.

Table 3.11: Key data for Visitors centres

City name	Core city population 2001	LUZ population 2001	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Employment rate index	Unemployment rate in 2001	Employment in manufacturing	Employment in trade (%)	Self-employed persons index	Accessibility index
Brugge	116,559	165,575	2.5	118	96	88	6.1	21.3	16.7	128	109
Varna	312,889	360,396	3.9	32	109	108	10.2	n/a	n/a	158	83
Trier *)	100,024	237,020	1.3	99	86	89	7.6	19.5	21.7	240	124
Weimar *)	63,522	153,868	1.5	75	65	89	14.7	16.5	18.9	196	105
Las Palmas	364,777	924,558	7.2	98	100	89	19.9	18.3	26.5	95	n/a
Málaga	534,207	1,302,240	5.9	75	77	87	21.0	20.9	27.2	110	87
Murcia	367,189	1,190,378	6.4	83	85	103	11.5	27.7	22.4	121	59
Palma di Mallorca	346,720	878,627	7.4	120	123	107	12.0	20.9	29.4	114	99
Toledo	69,450	536,131	3.2	77	79	106	10.8	17.3	n/a	n/a	67
Valencia	746,612	2,227,170	4.8	95	97	100	14.2	23.8	22.2	125	94
Ajaccio	63,707	77,287	6.8	108	91	91	14.2	13.9	18.2	185	73
Montpellier	412,891	459,916	5.3	100	84	84	18.0	13.2	18.6	183	98
Nice	489,914	489,914	5.3	120	101	95	13.9	13.2	22.0	229	130
Irakleio	142,112	291,225	2.3	74	96	100	10.8	n/a	n/a	n/a	71
Kavala	63,572	141,499	0.3	66	86	92	12.1	n/a	n/a	n/a	50
Patra	171,616	318,928	1.7	67	88	85	16.1	n/a	n/a	n/a	56
Catanzaro	95,251	369,578	3.1	84	71	77	20.7	21.8	38.1	359	72
Firenze	356,118	1,161,746	3.2	154	132	114	5.7	23.8	30.4	323	121
Pescara	116,286	295,481	2.7	104	89	94	12.2	27.8	34.4	401	74
Reggio di Calabria	180,353	564,223	1.4	71	60	74	25.2	21.6	43.2	476	83
Venezia	271,073	809,586	2.1	139	119	108	5.2	21.1	39.6	272	135
Verona	253,208	826,582	2.0	136	116	113	4.9	33.7	23.2	267	122
Gozo	30,842	30,842	3.7	78	101	n/a	n/a	n/a	n/a	n/a	71
Valletta	363,799	363,799	3.7	78	101	n/a	n/a	n/a	n/a	n/a	83
Krakow *)	740,737	1,257,513	4.6	47	97	79	17.5	30.9	15.5	54	106
Funchal	103,961	101,256	6.9	98	117	93	4.1	21.6	29.0	48	n/a
Lincoln	85,579	164,418	1.2	91	77	93	6.4	21.6	26.5	96	83
Average	*257,888*	*581,472*	*3.7*	*92*	*94*	*94*	*12.6*	*21.4*	*26.2*	*199*	*90*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Employment rate index: Index, country average=100
Employment in manufacturing (%): Share of employment in manufacturing incl. construction 2001
Employment in trade (%): Share (%) of employment in trade, hotels, restaurants 2001
Self-employed persons index: Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100
Accessibility index: Multi-modal accessibility, index ESPON space =100

3.6 Regional Poles

Regional Poles are the pillars of Europe's regional economies. They include:

- *De-industralised cities*
- *Regional market centres*
- *Regional public service centres*
- *Satellite towns*

3.6.1 De-industrialised cities

De-industrialised cities – having a strong (heavy) industrial basis, which is in decline or recession	
Key characteristics	**Examples**
• Medium sized cities (often with larger LUZ zones) • High share of employment in manufacturing, declining • Loss of population • Below average economic growth • Below average GDP per capita, declining • Below average employment rate, especially among older workers • Below average share of residents with higher qualification	• Charleroi • Liège • Ostrava • Usti nad Labem • Halle an der Saale • Miskolc • Bari • Katowice • Nowy Sacz • Braila • Sheffield

De-industrialised cities commonly have a wealthy past. They tend to be medium-sized with an average population of a little over 200,000 although there is significant variation in this respect. The core cities often form part of a Larger Urban Zone that in some cases exceeds 500,000 inhabitants. De-industrialised cities were shaped by large-scale manufacturing, in sectors such as steel, coalmining, textiles, shipbuilding and chemicals. Yet, they have lost or are losing large numbers of jobs in these industries which have undergone or are undergoing large-scale restructuring. In relation to these developments, both De-industrialised core cities and their surrounding agglomerations generally lose population, on average about 0,6% per year.

A large number of these De-industrialised cities are located in the New Member States including Poland, the Czech Republic, Slovakia, Hungary, Romania and Bulgaria. Since the early 1990s, their local economies have undergone drastic changes – if not mega-adjustments. In former times, De-industrialised cities had been allocated essential production roles and were considered major wealth creators. In some instances, some of this accumulated wealth is still visible in the GDP data, particularly in cities where the process of restructuring is relatively new. An example here is Katowice which has a GDP per capita score 16% above the Polish national average. But a higher than average economic performance is never the case when restructuring processes are further advanced as is generally the case in countries such as the UK, Italy and Belgium. For instance, in the Walloon cities of Liège and Charleroi, the restructuring process began more than 30 years ago.

With an average of 78% of national GDP-levels, the economic performance of most De-industrialised cities is weak – especially given the size of the Larger Urban Zones. The lowest scorers in terms of per capita economic production as a percentage of the respective national average include Charleroi (77%), Ostrava (77%), Moers (67%) and Miskolc (63%). Furthermore, GDP growth in the period covered has been about 2% per year lower than the respective national averages.

These economic realities are reflected in modest employment rates. Overall employment rates in the age group 15-24 are at a level of 86% of the average for all Urban Audit cities. Young people in these cities tend to look for a job instead of studying and as a result only 17% of the workforce has a higher education qualification (22% for all Urban Audit cities). But the large-scale – often endless rounds - of restructuring and reorganisations have left their marks above all on the ageing workforce: only 30% of those aged 55-64 are still employed – which is considerably less than in the average in the Urban Audit cities as a whole (39%). A high unemployment rate (17%) is a logical outcome. In some Polish as well as Belgian (Walloon) cities, one out of every four members of the workforce are officially registered as unemployed.

Only the future will tell which De-industrialised cities will be able to adjust and take advantage of new opportunities, and which will remain caught in a negative economic spiral. Clearly, many citizens of De-industrialised cities are making big efforts to increase economic activity and it is encouraging to see that levels of self-employment are fairly high – on average about 20% higher than the respective national levels. Self-employment is particularly high in De-industrialised cities in Bulgaria, Poland and the UK. Activation, mobilisation and motivation are the keywords. Poverty, social exclusion, crime and loss of talent are the common consequences of a failure to break out of the negative economic cycle associated with deindustrialisation and it is alarming to see that some cities in the European core area have been caught in this cycle for several decades already. Hence, the challenge to break out of the cycle is a very urgent one indeed.

The big question is “how?”. Of course, much depends on individual situations but there are also patterns and the experience of cities belonging to the category Transformation poles can provide guidance in this respect. Key is to provide leadership, a forward looking orientation and a willingness to cooperate. If any city type needs strong economic policies and strategies then it is the De-industrialised cities. European Structural Funds are available to help the transformation process but this source of finance is only effective when used in conjunction with a broader strategic scheme that is supported by all stakeholders.

Above all, transformation requires a change in the mind-set of politicians, entrepreneurs and the citizens overall. In Central and Eastern Europe in particular, several cities are facing such challenges. Some seem to be on the verge of finding a positive way forward,

such as Ostrava. For others, the road ahead appears to be long. Cities that have remained in the "deindustrialised" category for a long time already, such as Bari in Southern Italy and Liège and Charleroi in Southern Belgium, are a particular cause for concern.

Table 3.12: Key data for De-industrialised cities

City name	Core city population 2001	LUZ population 2001	Population change per year in %	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Employment rate index	Older workers employment rate index	Unemployment rate in 2001	Employment in manufacturing (%)	Self-employed persons index	Highly qualified residents
Charleroi	200,233	385,682	-0.5	0.8	95	77	65	67	25.7	31.0	116	n/a
Liège	184,550	623,417	-0.6	1.5	99	81	69	101	24.4	14.7	125	n/a
Vidin	57,395	77,480	-1.6	-0.7	22	76	127	n/a	24.1	n/a	322	23.0
Ostrava	316,744	1,164,328	-0.4	-3.1	53	77	90	90	16.6	41.9	103	12.7
Usti nad Labem	95,436	243,878	-0.3	-2.0	55	80	123	114	12.7	35.9	102	10.0
Halle an der Saale *)	243,045	465,223	-2.4	1.2	91	79	89	115	20.8	15.9	144	32.1
Moers	107,421	107,421	0.1	1.4	77	67	94	95	6.6	32.7	214	13.8
Miskolc	184,125	281,867	-0.5	2.8	38	63	84	80	15.0	25.3	159	18.1
Bari	316,532	1,559,662	-1.0	2.7	83	71	81	108	19.2	23.4	316	15.5
Taranto	202,033	579,806	-1.0	2.9	81	69	72	83	22.3	32.8	323	10.8
Katowice	338,017	2,746,460	-0.7	-0.5	56	116	81	95	18.0	34.0	58	18.8
Kielce	210,266	407,318	-0.3	4.1	37	77	75	109	23.5	34.3	87	26.0
Konin	83,377	142,769	0.1	3.0	41	85	82	90	23.1	44.1	100	15.5
Nowy Sacz	84,465	156,446	0.4	2.7	30	61	69	80	25.2	34.2	59	17.8
Zory	65,637	65,637	-0.2	1.4	46	94	72	67	23.2	31.7	77	8.4
Braga	164,192	168,927	1.4	4.1	65	77	98	97	6.2	40.8	69	13.5
Bacau	185,022	205,691	-2.3	-11.8	24	86	86	36	12.8	45.3	9	15.9
Braila	223,113	229,216	-1.0	2.5	21	77	79	26	16.7	47.1	10	11.3
Craiova	301,364	319,841	-0.8	-1.6	21	77	76	34	13.7	39.8	6	20.5
Piatra Neamt	113,546	126,761	-1.9	-8.1	20	72	83	33	17.1	42.3	13	16.1
Kosice	236,093	343,092	-0.5	5.0	48	94	106	141	19.1	33.2	116	19.8
Bradford	467,657	467,657	0.0	2.0	100	85	90	93	6.9	26.4	128	17.3
Derry	105,066	105,066	0.3	2.1	78	66	74	61	12.0	24.1	118	17.8
Sheffield *)	513,231	1,264,698	-0.2	3.1	90	76	91	93	6.7	22.7	113	20.3
Average	*208,273*	*509,931*	*-0.6*	*0.6*	*57*	*78*	*86*	*83*	*17.1*	*32.8*	*120*	*17.0*

*) GDP / capita estimated for labour market area, composed of several NUTS 3 zones - see Annex 3 for details
Population change per year in %: Population change in core city 1996-2001, annual average, in%
Employment rate index: Country average =100
Older workers employment rate index: Employment rate, older workers, index country average =100
Employment in manufacturing (%): Share of employment in manufacturing incl. construction 2001
Self-employed persons index: Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100
Highly qualified residents: Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001

3.6.2 Regional market centres

Regional market centres – fulfilling a central role in their region, particularly in terms of personal, business and financial services, including hotels/trade/restaurants	
Key characteristics	**Examples**
• Medium sized cities • Diversified economy • Below average GDP per capita • Low accessibility • Average share of highly qualified people	• Erfurt • Logroño • Reims • Kalamata • Palermo

Regional market centres tend to be modest in size (on average 150.000 inhabitants), while playing a central role for their 'hinterland'. But they play out this role in several areas, not only by providing public services, but also business services and trade. At the same time, they tend to have relatively large manufacturing sectors. Many of these cities developed originally as market towns in de pre-industrial age and they are particularly predominant in

Poland, Italy, France and Greece. Regional market centres are the natural centres within their region and they tend to have an extensive hinterland. Typical examples are Dijon, Pecs, Limerick, and Ionnina.

Despite their more balanced economic structure and often attractive historical innercities Regional market centres face large economic challenges within the overall urban hierarchy. Their average GDP per capita is 87% of the national level despite some positive outliers such as Logrono (index 112), and Dyon (index 108) and Reims (index 107). Overall, Regional market centres are not growing quickly with only few cities doing better than their national average (e.g. Ioannina, Sassari).

Part of the explanation for this somewhat modest economic performance relates to the (rural) hinterland of these centres. For instance the Polish countryside is struggling enormously to adapt to new economic realities. Regional centres such as Torun, Olsztyn and Opole themselves are in fact growing quite well if they were to be seen in isolation from their surroundings[23]. However, much of the manufacturing base in these centres is related to agriculture, and this sector is not sheltered from wider restructuring. In relation to these developments, unemployment levels are running at on average 14%, well above the Urban Audit average. Very few new residents are attracted to these cities from outside the surrounding area as their appeal is simply more regional than national or international.

A promising sign in the Regional market centres are the high levels of entrepreneurship and self-employment, with Italian and Polish cities taking the lead. Many of the self-employed are active in trade and small scale manufacturing businesses. Due to the presence of higher education institutions, health and regional government functions, the labour force is generally well educated – at around the same level as the Urban Audit average.

Connectivity appears to be the weakest key driver of competitiveness. On the accessibility index Regional market centres have an average index score of about 73 points despite some better connected and more centrally located cities such as Erfurt (116) and Arnhem (128). Overall, Polish and Greek cities are least well connected to Europe as a whole. As a consequence, Regional market centres tend to be more autonomous, independent centres within their region. They tend to benefit less or later from large flows of people, goods, information and ideas and therefore face important economic challenges. Their regional identity and function, high levels of entrepreneurship and balanced economic structure are important assets to build on. More specific positioning exercises would be required to determine how to exploit these strengths.

[23] This statement can be confirmed by comparing the GDP data of the cities themselves with those from their NUTS 3 regions.

Table 3.13: Key data for Regional market centres

City name	Core city population 2001	LUZ population 2001	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Unemployment rate in 2001	Employment in finance (%)	Self-employed persons index	Highly qualified residents (%)	Accessibility index
Erfurt	200,126	552,101	-0.7	92	80	15.1	21.3	189	33.0	116
Logroño	131,655	270,400	-0.3	110	113	10.6	10.4	126	n/a	50
Amiens	171,240	270,870	-0.2	102	86	16.9	12.4	94	24.7	110
Dijon	238,309	326,631	-1.4	129	108	10.7	14.5	111	28.9	87
Limoges	184,241	247,944	-0.1	109	91	10.0	11.2	123	23.5	67
Orléans	266,446	355,811	-0.4	127	106	8.7	17.0	97	27.5	86
Reims	214,448	291,735	-0.2	128	107	13.5	15.6	111	25.1	101
Ioannina	75,550	161,027	4.7	69	89	13.1	n/a	n/a	27.7	60
Kalamata	61,373	166,566	-3.4	54	70	12.4	n/a	n/a	16.9	63
Volos	85,001	205,005	-0.5	75	98	12.1	n/a	n/a	21.5	62
Nyiregyhaza	118,795	221,927	-0.4	34	56	10.8	10.6	215	19.3	49
Pecs	162,498	187,345	-1.4	44	73	7.8	11.1	186	19.6	46
Galway	65,832	65,832	-0.3	101	75	7.5	14.1	103	33.9	63
Limerick	54,023	236,334	-2.9	116	86	9.6	14.3	78	16.3	73
Cagliari	164,249	760,311	-0.1	88	75	19.7	22.9	321	19.3	83
Campobasso	50,762	230,749	-0.8	89	76	15.2	21.1	411	15.0	66
Caserta	75,208	852,872	0.9	75	64	18.5	22.2	341	20.1	104
l'Aquila	68,503	297,424	-1.7	94	80	10.2	20.9	411	17.9	68
Palermo	686,722	1,235,923	0.4	78	66	29.6	27.2	372	12.7	92
Perugia	149,125	605,950	0.7	119	102	6.9	21.1	357	17.0	76
Potenza	69,060	393,529	-1.0	83	71	16.0	28.2	342	14.6	54
Sassari	120,729	453,628	1.2	96	82	20.8	32.8	339	14.5	75
Arnhem	139,329	696,162	-1.1	119	90	5.9	28.1	78	25.9	128
Groningen 1)	174,250	359,957	-2.5	196	147	6.4	21.7	81	34.9	80
Bialystok	286,365	524,282	-0.4	39	81	20.8	10.0	118	23.1	44
Jelenia Gora	92,394	128,597	-2.1	42	86	23.3	12.4	73	15.4	70
Olsztyn	174,080	283,609	-0.8	42	86	16.8	12.3	79	25.0	48
Opole	128,591	266,518	-3.2	40	83	16.7	11.7	83	25.6	66
Suwalki	69,054	82,359	-0.4	39	81	25.7	7.7	126	16.8	44
Torun	205,397	294,014	-1.9	41	85	20.2	10.2	102	20.2	49
Zielona Gora	119,152	206,053	-0.6	42	87	19.4	17.0	62	21.9	62
Alba Iulia	67,358	98,473	3.3	24	89	11.0	4.8	21	19.4	60
Jönköping	117,095	199,527	-0.5	114	94	3.4	11.0	94	12.6	77
Banska Bystrica	83,056	111,984	0.3	43	85	12.9	11.7	132	23.2	62
Nitra	86,726	163,540	-0.4	44	85	16.4	10.6	137	22.5	79
Exeter	111,080	427,309	-0.8	96	81	3.9	16.1	106	22.7	70
Wrexham	128,464	277,057	-2.4	116	98	5.1	8.5	126	16.7	102
Average	*145,846*	*338,091*	*-0.6*	*82*	*87*	*13.6*	*16.0*	*169*	*21.5*	*73*

Employment in finance (%): Share (%) of employment in financial intermediation, business activities 2001

Self-employed persons (%): Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100

1) High GDP due to oil and gas extraction

Highly qualified residents (%): Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001

Self-employed persons index: Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100

Accesibility index: Multi-modal accessibility, index ESPON space =100

Although they are attractive at a regional level, the appeal and impact of Regional market centres at national and international level is often rather limited. Some cities may harbour an ambition to grow which is beyond their capability and large-scale investments may lead to budget deficits for local governments which are not always justified by investment returns. In the worst case scenario the identity and attractiveness of such cities can be compromised.

Nevertheless it is worthwhile exploring whether there are unique selling points that could allow these cities to increase their profile beyond their own regional borders. Given their limited size, this is a difficult task to achieve alone and therefore an increasing number of cities are seeking co-operation with their neighbours, acting in unison to raise the profile of the entire region. In Germany, the Network of German Metropolitan Regions is a good example here. Its eight participating Metropolitan regions include both smaller and larger cities, all aiming to build a specific profile within European based on real strengths[24]. Similarly, in the Northeast of Italy, several cities such as Perugia are part of a broader network where high-profile cultural amenities in various locations are being promoted. In such cases, building urban competitiveness is not only a matter of competition, but also a matter of co-operation.

3.6.3 Regional public service centres

Regional public service centres – fulfil a central role in their region, particularly in administration, health and education	
Key characteristics	**Examples**
• Medium sized cities • High share of employment in public administration • High share of self-employed persons • Below average employment rate • Above average unemployment rate • Below average GDP per capita • Above average share of highly qualified residents • Low accessibility index	• Lefkosia • Schwerin • Odense • Badajoz • Oviedo • Pointe-a-Pitre • Lublin • Ponto Delgada • Clarasi • Umeå

Traditional economic analysis tends to focus on manufacturing and the tertiary sector as the main pillars of employment and growth. Yet, significant employment can also be created in the so-called 'fourth sector'. Regional public service centres are prime examples of this development. Commonly with a size of around 150,000 inhabitants, they fulfil an essential role in the administration of their wider regions, while providing important functions in the areas of health and higher education. These centres can above all be found in decentralised countries (for example Germany) or countries where a trend towards devolution and decentralisation is taking place (e.g. France, Spain, and Poland).

[24] See the website of this Network: http://www.deutsche-metropolregionen.org/html_e/start.htm

Overall, employment in public services has about a 40% share of all employment in these centres, but is as high as 50% in Umea in Sweden.

The importance of the public service sector is often underlined by the weakness of other economic sectors – whether manufacturing or market services. This leads to an overall economic imbalance which can be seen as a weakness especially when one considers the overall low rate of employment, (90%), high rate of unemployment rate (13%) and a low GDP per capita score (81%) which these cities have.

What key factors lie behind the generally poor economic performance of Regional public service centres? Is the public service sector perhaps 'crowding out' other economic activity, killing entrepreneurial spirit and reducing the chance of the market sectors to mature? Or should they rather be thankful for having such an employment base in the public sector? What makes fine places such as Santiago de Compostela, Odense and Lublin less attractive to private investors and deciders?

The first element to reflect upon is city size in relation to geographical delineation. Although fulfilling a central role in the region, the modest size of the average Regional public service centre does not allow it to dominate the overall (NUTS 3) region for which the GDP figure is measured. When measured in isolation, cities such as Odense and Oviedo are slightly more prosperous than their surrounding areas. This explanation can be applied to all smaller cities in the Urban Audit and not exclusively to this category.

When looking at the key drivers of competitiveness, self-employment tends to be lower in Regional public service centres, at a level of about 90% of the Urban Audit average. The quality of the labour force is another important aspect; 22% of the labour force in Regional public service centres has attained tertiary qualifications which is about equal to the Urban Audit average. Mainz is a frontrunner in this respect also with a 29% score. Other cities with a well educated population include Magdeburg, Lublin and Nicosia.

One of the most important explanations for the disappointing economic performances of many Regional public service centres appears to be the lack of good multimodal accessibility, on average 27 percentage points below the average for all European regions. Again, Mainz is the great exception here; conveniently located near Frankfurt airport and at the centre of motorway and railway networks this city scores 179 on the accessibility index.

A key challenge for Regional public service centres is therefore to diversify their economies and to mobilise entrepreneurship while improving their accessibility where possible. This may not be an easy task as there is no easy recipe for boosting the performance of these fine places that tend to be less well known.

Table 3.14: Key data for Regional public service centres

City name	Core city population 2001	LUZ population 2001	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Employment rate index	Unemployment rate in 2001	Employment in public admin.(%)	Highly qualified residents (%)	Self-employed persons index	Accessibility index
Lefkosia	200,686	273,642	4.6	88	99	99	3.1	32.6	39.1	87	51
Frankfurt/O.	70,308	72,131	-0.3	115	100	94	18.9	48.8	33.1	193	96
Magdeburg *)	229,755	608,677	2.6	86	75	93	19.0	43.1	29.4	150	95
Mainz *)	185,293	377,026	2.9	144	125	102	5.2	40.3	29.5	243	179
Schwerin *)	99,978	341,815	1.5	86	75	95	15.8	43.4	27.7	134	89
Aalborg	161,661	494,833	1.8	116	89	94	5.8	n/a	23.1	n/a	87
Odense	183,691	472,064	1.3	112	86	93	5.2	n/a	22.6	n/a	93
Badajoz	136,319	664,251	5.7	63	64	89	20.9	44.4	n/a	114	42
Oviedo	201,005	1,075,329	2.8	83	85	99	14.1	37.1	n/a	130	74
Santiago de Compostela	93,381	1,108,002	1.7	78	80	98	12.2	40.1	n/a	135	83
Cayenne	92,059	92,059	4.4	63	53	80	n/a	51.2	17.2	227	n/a
Fort-de-France	166,139	166,139	3.8	80	67	80	n/a	47.9	17.9	175	n/a
Pointe-a-Pitre	84,002	84,002	5.1	71	60	72	n/a	50.1	15.3	210	n/a
Saint Denis	176,283	176,283	6.1	65	54	72	n/a	52.1	18.2	157	n/a
Larisa	132,779	282,156	4.2	72	94	93	10.7	n/a	22.7	n/a	46
Panevezys	119,808	162,694	1.5	38	90	105	14.2	n/a	26.8	75	38
Liepaja	88,473	135,007	6.3	37	94	n/a	22.1	n/a	13.0	n/a	26
Lublin	354,026	651,578	5.5	38	79	74	20.5	41.1	28.1	98	57
Ponto Delgada	65,854	64,602	4.5	68	82	88	5.6	37.4	10.2	52	n/a
Calarasi	73,763	83,304	5.4	19	68	78	23.7	25.8	9.0	15	54
Umeå	104,512	136,783	0.9	101	84	98	11.0	48.2	24.6	68	64
Average	*143,799*	*358,208*	*3.4*	*77*	*81*	*90*	*13.4*	*42.7*	*22.6*	*133*	*73*

3.6.4 Satellite towns

Satellite towns – smaller urban nodes within larger agglomerations	
Key characteristics	**Examples**
• Population increase • High share of residents aged 0-14 years • Low unemployment and decreasing • High share of local employment in trade, hotels and restaurants • High share of local employment in public administration	• Setubal • Gravesham • Stevenage • Worcester

The conventional wisdom about cities is often based on the classical cities of yesterday yet Satellite towns are perhaps a city type of the future than of the past. They are by definition part of a larger agglomeration, in some cases agglomerations numbering several million inhabitants. Good examples of cities belonging to this category are Cergy-Pontoise, Almere, Milton Keynes, Potsdam, Szentendre, Espoo and Harburg. But none of these Satellite towns in Europe were covered by the first round of the Urban Audit and as a consequence this type of city is underrepresented. Cities belonging to this group which were covered by the Urban Audit include Setubal in Portugal and Gravesham, Stevenage and Worcester in the UK. These cities all numbered between 80,000 and 120,000 inhabitants.

Despite the limited size of this sample a general picture of Satellite towns can be painted. Being an integral part of an urban agglomeration has important consequences for the functions and specialisations of these cities. While some Satellite towns have a historic identity they tend to be young cities that perform an important residential function within the wider urban network they belong to. This gives them the character of 'dormitory suburbs' which are particularly attractive to middle-income families with children looking for space (a house with a garden). Almost one out of five residents is less than 14 years old while this figure is one out of seven in all Urban Audit cities. Satellite towns have in particular been developed with affordable housing in mind as a response to expensive housing in core urban areas. Examples here include Aubervilliers within the larger Paris agglomeration, Stevenage in the Greater London area and Almere near Amsterdam. While most Satellite towns are pleasant, green and family-friendly some are less attractive due to a high concentration of cheap and/or poor quality housing sometimes in combination with an inappropriately high urban density. Such places are experiencing high levels of crime, poverty and associated social problems.

Dwellers in Satellite towns are largely dependent for work and leisure on the larger agglomeration and this leads to the need for excellent intra-urban public transport infrastructure. Yet Satellite towns are nowadays much more than commuter towns and levels of employment in these areas have been growing steadily. Some, such as Worcester, have built upon an economic basis of their own. During the last two decades or so, they have started to become poles of employment in their own right attracting new manufacturing and logistics enterprises (Setubal) and above all office park development (Gravesham, Stevenage). Many of these economic functions have been relocated from central cities, either by market forces or by regional planning. These offices are not only used by private enterprise, but also by public administration, while there are also important health and education functions in these centres – one out of three jobs is in the public sector. New business sites and office complexes have thereto been built, giving the Satellite towns above all a modern appearence. At the same time, they have been equally strong in attracting large-scale retail facilities such as hypermarkets, furniture stores and automobile centres. Overall, GDP levels in Satellite towns have been growing slightly (0.5%) above their national averages.

Some indicators point to the fact that jobs created in Satellite towns is of greatest benefit to the local population as unemployment has been declining in all of them. But by their very nature, Satellite towns attract increasing numbers of commuters – filling the trains and roads in two directions at peak hours. Therefore, they are typified by high levels of cross-commuting (see also Figure 3.4 earlier in this Chapter).

Overall, Satellite towns have expanded greatly over the last two decades and at the same time have evolved in character. From typical commuter towns they have developed into important poles within their larger agglomerations. They often fulfil specialist functions that were previously carried out in the central (core) cities of the agglomeration. Clearly,

Satellite towns cannot be seen separately from their urban networks. But by the same token, these metropolises can no longer function without Satellite towns. The current challenge facing these cities is to attract and specialise in key functions that help to strengthen and maintain the competitiveness of the larger urban areas as a whole while simultaneously addressing issues associated with quality of life, social cohesion and identity.

Table 3.15: Key data for Satellite towns

City name	Core city population 2001	LUZ population 2001	Population change annually (%)	Share of young residents (%)	Real GDP growth 1996-2001, annual %	GDP / capita EU27 = 100	GDP / capita country = 100	Unemployment rate in 2001	Change in unemployment rate (%)	Employment in trade (%)	Employment in public admin.(%)
Setubal	113,934	118,696	0.9	15.5	3.8	70	83	9.1	-0.2	22.5	28.9
Gravesham	95,739	95,739	0.5	20.2	2.8	100	85	5.2	-0.5	23.7	29.7
Stevenage	79,734	79,734	0.9	21.1	7.4	155	131	4.0	-0.5	21.1	26.3
Worcester	93,372	278,485	0.7	19.0	2.1	102	86	3.8	-0.4	27.4	32.0
Average	*95,695*	*143,164*	*0.7*	*18.9*	*4.0*	*107*	*96*	*5.5*	*-0.4*	*23.7*	*29.2*

Population change annually (%): Population change in core city 1996-2001, annual average in %
Share of young residents (%): Share of total resident population aged 0-14 years, 2001 in %
Change in unemployment rate (%): Annual average change in unemployment rate in %-points, 1996-2001
Employment in trade (%): Share of employment in trade, hotels, restaurants 2001 in %
Employment in public admin.(%): Share of employment in public administration, health, education, other services, 2001in %

3.7 Conclusions

The primary conclusion of this Chapter is that cities are the indisputable engines of economic growth across Europe. In virtually all European countries, urban areas are the foremost producers of knowledge and innovation – they are the hubs of a globalising economy. Larger cities tend to be the strongest economic engines. GDP figures are 25% up on the EU as a whole. Most of the strongest performing cities have a well-developed and fast growing business service sector.

When using a broader measurement basis for economic competitiveness, most of Europe's high performers are located in the north and the centre of the Union. According to our so-called Lisbon benchmark (constructed on the basis of the Structural Indicators that apply to the city level[25]), many of Europe's high performers are located in Denmark, Sweden, Finland, the Netherlands and the western parts of Germany. High scores can

[25] Variables used for the Lisbon Benchmark are 1) GDP per total resident population of area; 2) Labour productivity (GDP per person employed); 3) Employed residents in % of total resident population 15-64; 4) Employment rate of older workers: economically active population 55-64 in % of resident population 55-64; 5) Long-term unemployment: persons 55-64 unemployed continuously for more than one year in % of resident population 55-64; 6) Students in upper/further and higher education in % of resident population 15-24; 7) Youth unemployment: persons 15-24 unemployed continuously for more than six months in % of resident population 15-24. Lack of data can cause a bias in the benchmark.

also be found in large cities in France, southern England and the eastern part of Scotland and the capitals of the Iberian Peninsula. In the New Member States, Estonia ranks highly, while several capitals such as Prague and Budapest also perform well. The weakest cities on the Lisbon benchmark can be found in Poland, Romania, and Bulgaria. Southern parts of Italy, the whole of Greece and large parts of Spain also perform poorly. The performance of a number of English cities is also disappointing, as is the situation in Berlin and the Walloon Region of Belgium. Cities in Italy, the UK and Belgium feature in both the strongest and the weakest categories, highlighting the considerable disparities in urban competitiveness in these countries. A relation with city size no longer exists when using the Lisbon benchmark – both smaller and larger cities can become high performers.

The overview of city typologies points to great variety in Europe's cities. These typologies, based on key characteristics of the core rather than the wider urban areas, are designed as a framework to aid cross-city comparisons. However, it is important not to treat them too rigidly and there is certainly room for discussion. Antwerp for example has been classified as a Gateway, but its business sector and its international cultural aspirations belong rather to those of a Knowledge hub. Copenhagen has been considered as a Knowledge hub, but it is also an Established capital. The fact that a case can be made to appoint cities to more than one category indicates that there is a certain degree of overlap in the typologies and also that cities have more than one potential development path in the future.

Based on the Competitiveness tree as introduced in this chapter, fundamental differences between the city-types stem from the strength of their drivers of competitiveness – and hence their ability to develop and implement strategies for creating growth and jobs (Table 3.16).

Table 3.16: Ingredients of Urban Competitiveness: the Drivers of Competitiveness

Driver / *City-type*	*Innovation*	*Entrepreneur-ship*	*Talent*	*Connectivity*
International Hubs				
Knowledge hubs	♦♦♦	♦♦♦	♦♦♦	♦♦♦
Established capitals	♦♦	♦♦	♦♦♦	♦♦♦
Re-invented capitals	♦♦	♦♦	♦♦♦	♦♦
Specialised Poles				
National service hubs	♦♦	♦	♦♦	♦♦
Transformation poles	♦♦	♦♦	♦♦	♦♦
Gateways	♦	♦♦	♦	♦♦
Modern industrial centres	♦♦♦	♦♦♦	♦♦	♦
Research centres	♦♦♦	♦♦♦	♦♦♦	♦♦♦
Visitor centres	♦	♦♦♦	♦	♦♦
Regional Poles				
De-industrialised centres	♦	♦♦	♦	♦
Regional market centres	♦	♦♦	♦	♦
Regional public service centres	♦	♦	♦	♦
Satellite towns	♦♦	♦	♦♦	♦♦

♦♦♦ = International strength ♦♦ National strength ♦ = Regional strength

Characteristic for the International hubs is that they have consistently strong drivers of competitiveness of all types, whether in terms of innovation, entrepreneurship, talent or connectivity. In combination with their size, this allows them to be dominant economic players; International hubs are leaders in financial markets, they are the preferred choice of location of head offices of large multinational companies, as well as serving as media centres, government centres and major transportation hubs. In many ways, these centres are positioned above the national urban hierarchy and at the forefront of international industry, business and financial services. The strong performance of the Re-invented capitals in recent years indicates that they are rapidly catching up to the traditionally strong cities in other parts of Europe.

Specialised Poles, in particular Research centres, Modern industrial centres and to some extent the National service hubs, also contribute significantly to growth, jobs and prosperity. But the fundamental difference with International Hubs is that the drivers are generally weaker and not as evenly spread. Specialised Poles also need to focus on particular economic activities if they want to achieve a dominant position on the international stage. For instance, they may choose to focus on being competitive at the international level in the pharmaceutical sector, or in car manufacturing, in fashion and design or tourism. But their size makes it very unlikely that they will excel in the full range of economic activities and markets simultaneously. Research centres tend to possess particularly strong drivers of competitiveness and are therefore successful in attracting private funding, talented residents and visitors from afar.

Regional Poles play a key role within smaller territorial areas. Their drivers of competitiveness are strong within the regional context, but not so much beyond that. In many ways, these cities perform a key economic role at a lower level in the urban hierarchy across Europe. Challenges lie in the careful use of their strengths to seize future opportunities, while preserving their attractiveness and historical identity. It is certainly possible for these cities to play a role at the European level, but they need to be quite clear when it comes to demonstrating their uniqueness.

Cities need to build and implement unique strategies that accentuate their strengths and minimise their weaknesses, and take full stock of possible opportunities and threats. They need to be unique not only within their own regions, but preferably on a larger scale as well. In practice however, urban strategies may look more similar to each other, resulting often in unnecessary competition between cities. This report and the underlying Urban Audit data set provide a good basis for shifting the reference framework from the regional and national levels to the transnational and European levels. An important reason to apply this broad comparative framework is ultimately to be able to identify the factors that contribute to a city's uniqueness, and that provide a basis for future prosperity.

4.0 Living in Cities

What is characteristic about living in Europe's cities? The Urban Audit provides a wealth of information which can be used to provide an answer to this question. This chapter examines the issues of unemployment and social disparity, housing, household size, education, life expectancy, environmental quality and transportation. In doing so a multifaceted view of life in Europe's cities is presented and similarities and differences across the continent are explored.

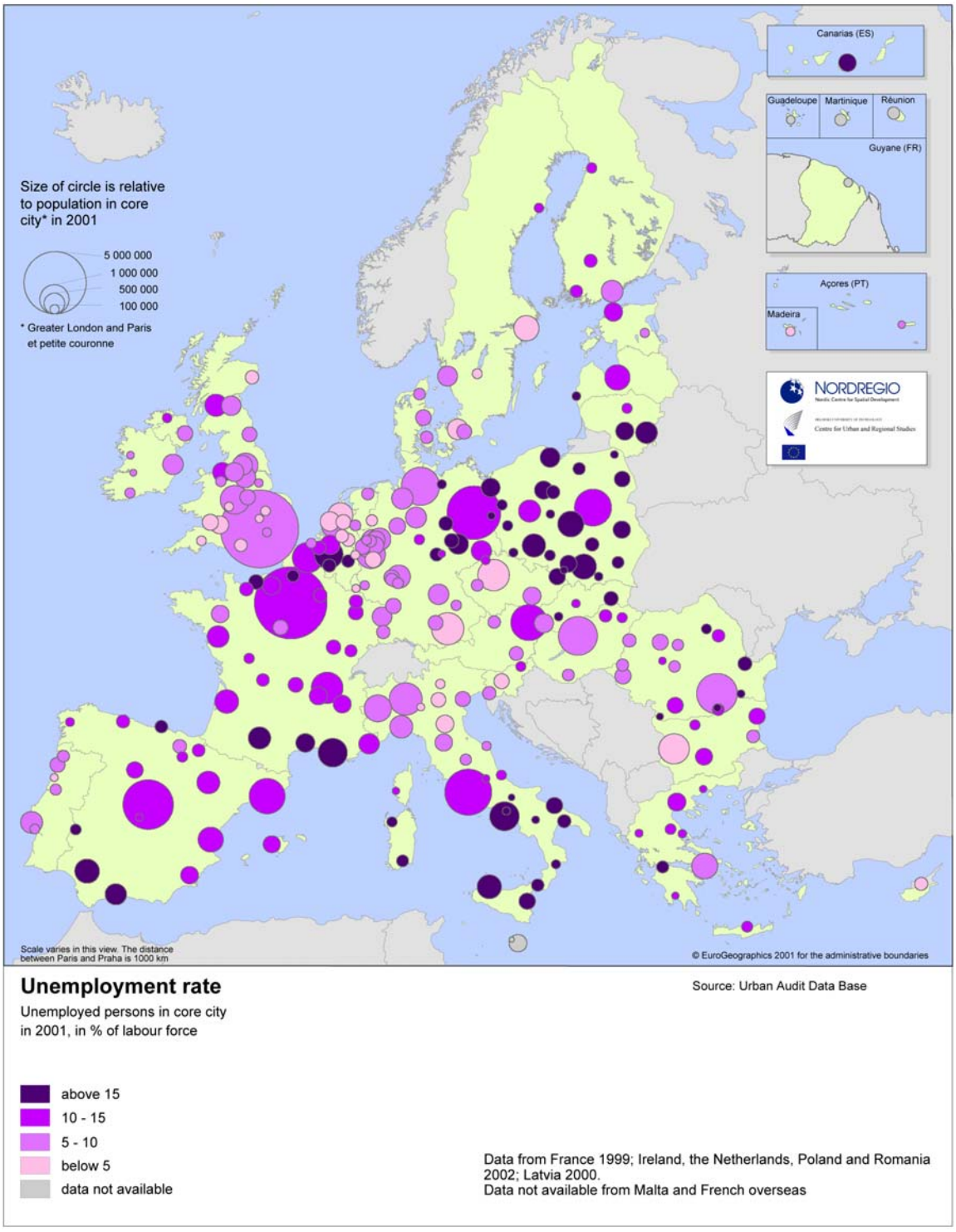
4.1 Unemployment as a key challenge for social cohesion

Access to employment is tied closely to societal participation. It underpins family life, helps to create a sense of wellbeing and provides confidence in the future. Unemployment on the other hand goes hand in hand with poverty, social exclusion and disillusionment. In this section we will focus on unemployment and how it is concentrated to certain neighbourhoods within cities.

4.1.1 Patterns of unemployment

The unemployment rate in European cities varies enormously, ranging between 3% and 32% in 2001. Most cities with less than 5% of the labour force unemployed are located in Northwestern Europe. The lowest unemployment rates were observed in the Dutch cities of Eindhoven, The Hague, Tilburg and Utrecht as well as in Luxembourg, Munich (Germany) and Trento (Italy). At the other end of the scale, particularly high unemployment was registered in cities located at the periphery of Europe, such as in the Italian cities of Catania and Palermo in Sicily, Vidin in Bulgaria, Calarasi in Romania and several cities in southern Spain (Andalucía). Not unexpectedly, there are numerous exceptions to this core-periphery pattern. Peripheral cities with low unemployment include Stockholm in Sweden, Aberdeen in the UK and Lefkosia in Cyprus. More centrally located cities with high levels of unemployment include Brussels and Liège in Belgium and Frankfurt a/d Oder in Germany (Figure 4.1). Unemployment in Polish cities is also particularly high as job numbers in this country have fallen dramatically.

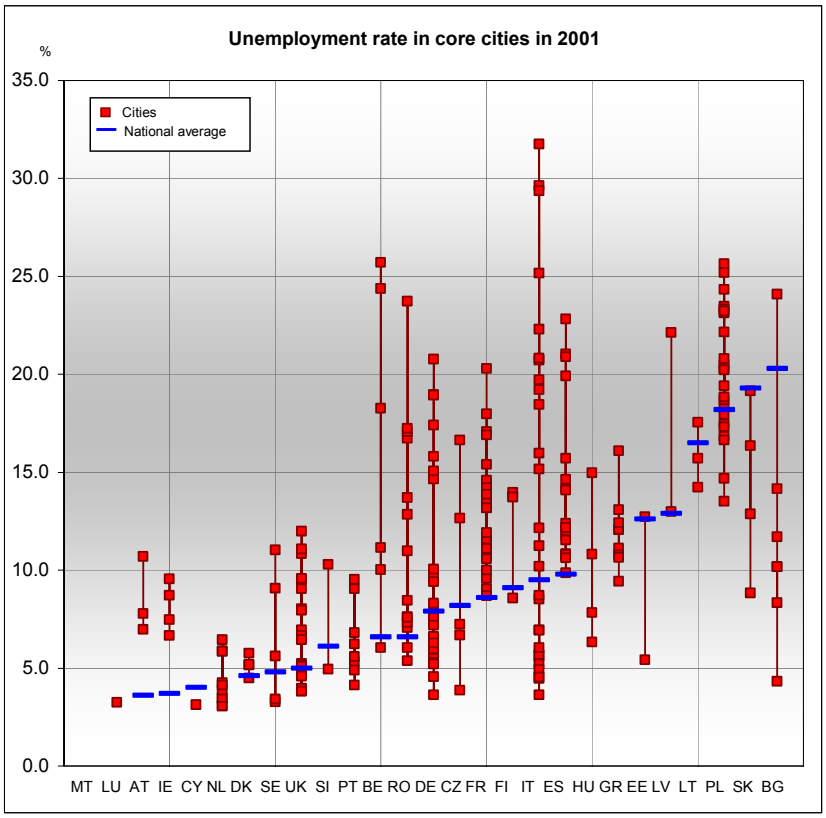
Figure 4.1: Unemployment rate in Urban Audit cities, 2001



This begs the question “can the level of unemployment in Europe’s cities be explained primarily by the national context, or do specific city characteristics play a role as well?” Figure 4.2 shows the unemployment rate for each UA city compared to their respective national averages. In Austria, Belgium, France, Ireland, Spain and Latvia unemployment

levels are higher in the cities than in the respective countries, while the opposite is the case in Estonia, Slovakia and Bulgaria.

Figure 4.2: Unemployment rate in Urban Audit cities, compared with national averages



The largest disparities between unemployment rates within a single country are found in Italy where the difference is 28 percentage units between Naples (32%) and Trento (4%). Bulgaria is another country with large internal differences, with extreme values found in Vidin (24%) and Sofia (4%). Large disparities are also found in Belgium, Romania and Germany. The most homogenous countries in this respect are Denmark, the Netherlands, Ireland, Lithuania and Austria.

4.1.2 Unemployment differences within city regions

Not only does the severity of unemployment differ between European cities but there are also significant disparities within these cities. While the former phenomenon constitutes a cohesion problem primarily at the national level, the latter one is primarily an issue that needs to be addressed at the city level itself, although national labour market policies and urban initiatives often coincide here.

Generally speaking the labour market area consists of the core city itself plus the surrounding region. Historically the most advanced and intense economic activity was located in the core city area. In the past two or three decades however there has been a

shift of urban economic activity out of the urban core, part of the process of suburbanisation and urban sprawl.

Given this general spatial shift in economic activity we will firstly look to see if there are differences in unemployment between the core city and the rest of the urban agglomeration. Overall, unemployment rates are higher in UA core cities than in their surrounding regions. Several Belgian cities including Charleroi, Liège and Brussels stand out in this respect with high unemployment in the central municipality. In these urban areas poverty is highly concentrated in the inner cities. These Belgian cities however are fairly extreme cases. Overall the Urban Audit data points to the fact that variations within regions tend to be fairly small. This makes clear that in most cases the agglomeration as a whole constitutes an integrated economic unit.

The situation *within* core cities however is quite different. One of the most striking indicators for a lack of social cohesion within any city is a significant variation between the unemployment rates of different neighbourhoods. Figure 4.3 shows the differences between sub-city units expressed in terms of deviation from the city average. The higher the value of deviation, the larger is the difference between different neighbourhoods in terms of unemployment.

The largest differences between neighbourhoods were recorded in cities with high overall unemployment. Disparities are particularly large in France, Belgium and Southern Italy. Individual examples here include Marseille in France, Catania in Italy, Pecs in Hungary and Kosice in Slovakia. The largest differential was recorded in Pecs with unemployment ranging from 6.2% in one neighbourhood to 55.6% in another. Also cities like Derry in the UK and Malmö in Sweden have significant internal differences.

At the other end of the scale the smallest differences in unemployment rates between neighbourhoods within individual cities were recorded in Nordic cities as well as Greek, North Italian, German, Portuguese and Dutch cities. Stand out examples in this respect include Ponta Delgada and Funchal in Portugal, Enschede in the Netherlands, Luxembourg and finally Firenze in Italy.

Neighbourhood unemployment disparities can be further illustrated by a neighbourhood analysis in 20 European cities (Figure 4.4). Of these cities, only Aalborg in Denmark has the same level of unemployment in all parts if the city. All other cities looked at had disparities between neighbourhoods. These disparities appear to be larger as city size and overall unemployment levels increase. Furthermore the analysis has revealed contrasting spatial patterns with high levels of inner city unemployment being recorded in London, Brussels and Berlin and the opposite in Helsinki, Glasgow and Stockholm where the unemployment rate tends to be higher in some of the outlying neighbourhoods. These areas commonly consist of large housing estates built during the 1970s and 1980s.

Figure 4.3: Neighbourhood unemployment disparities

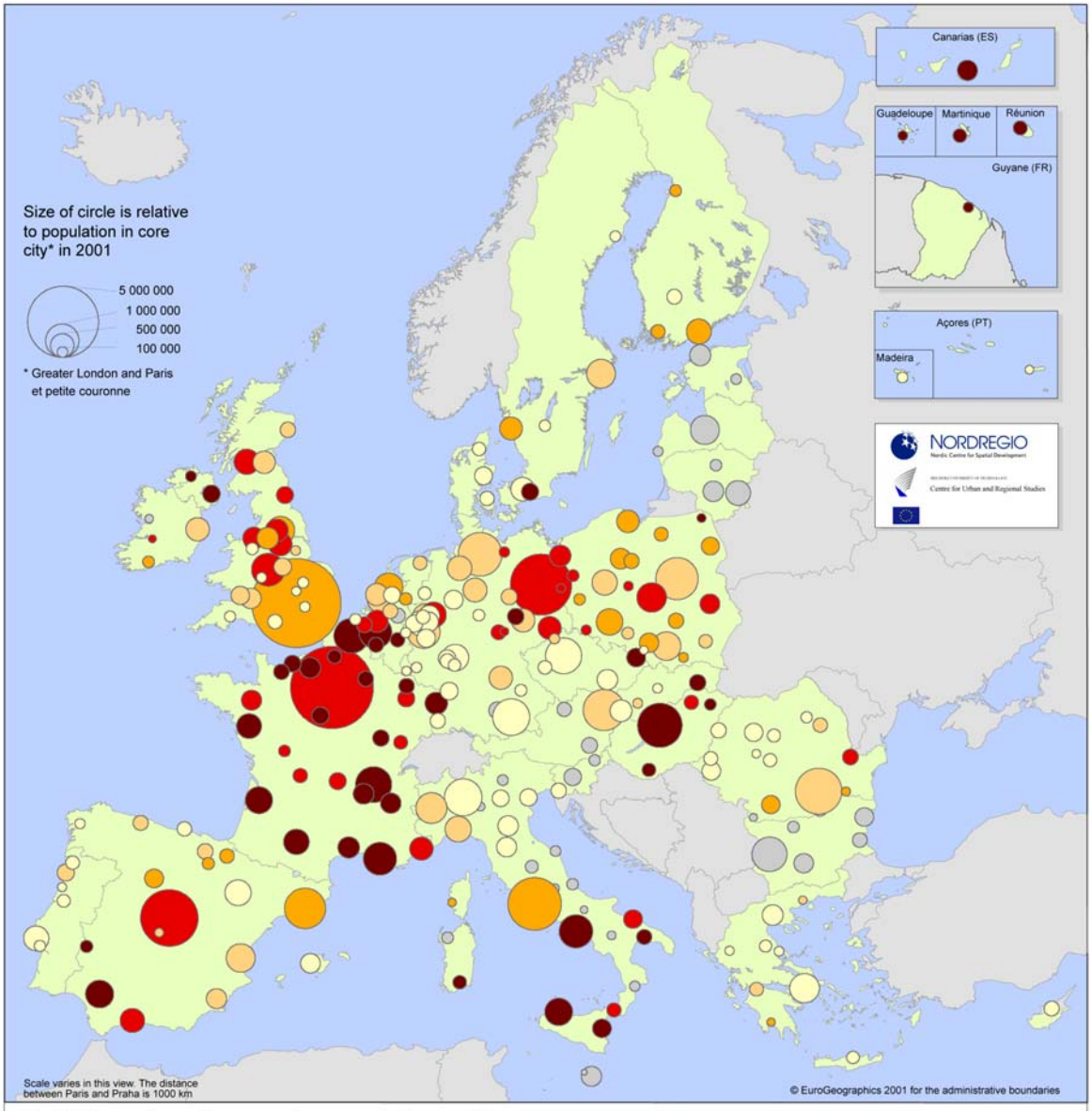
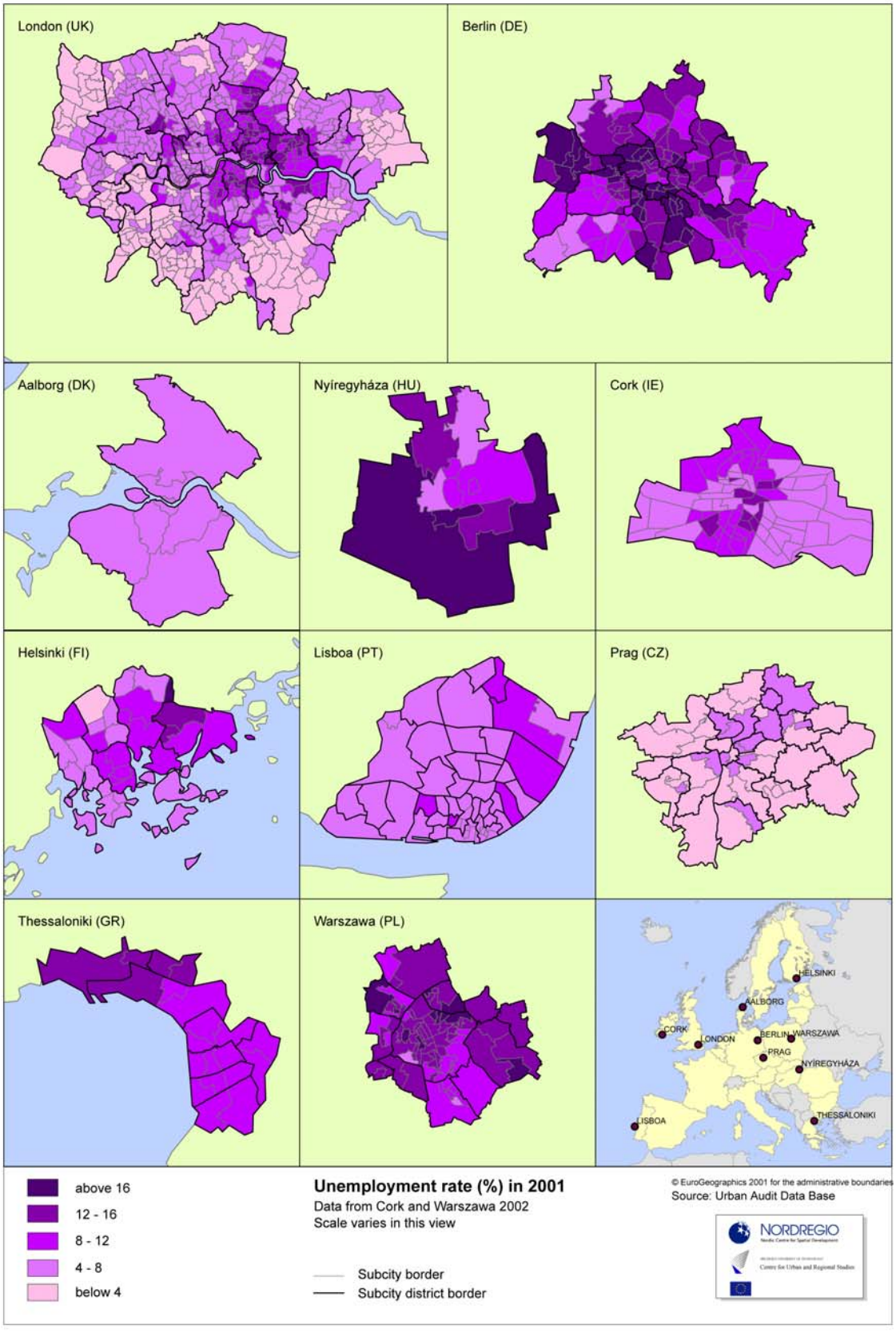
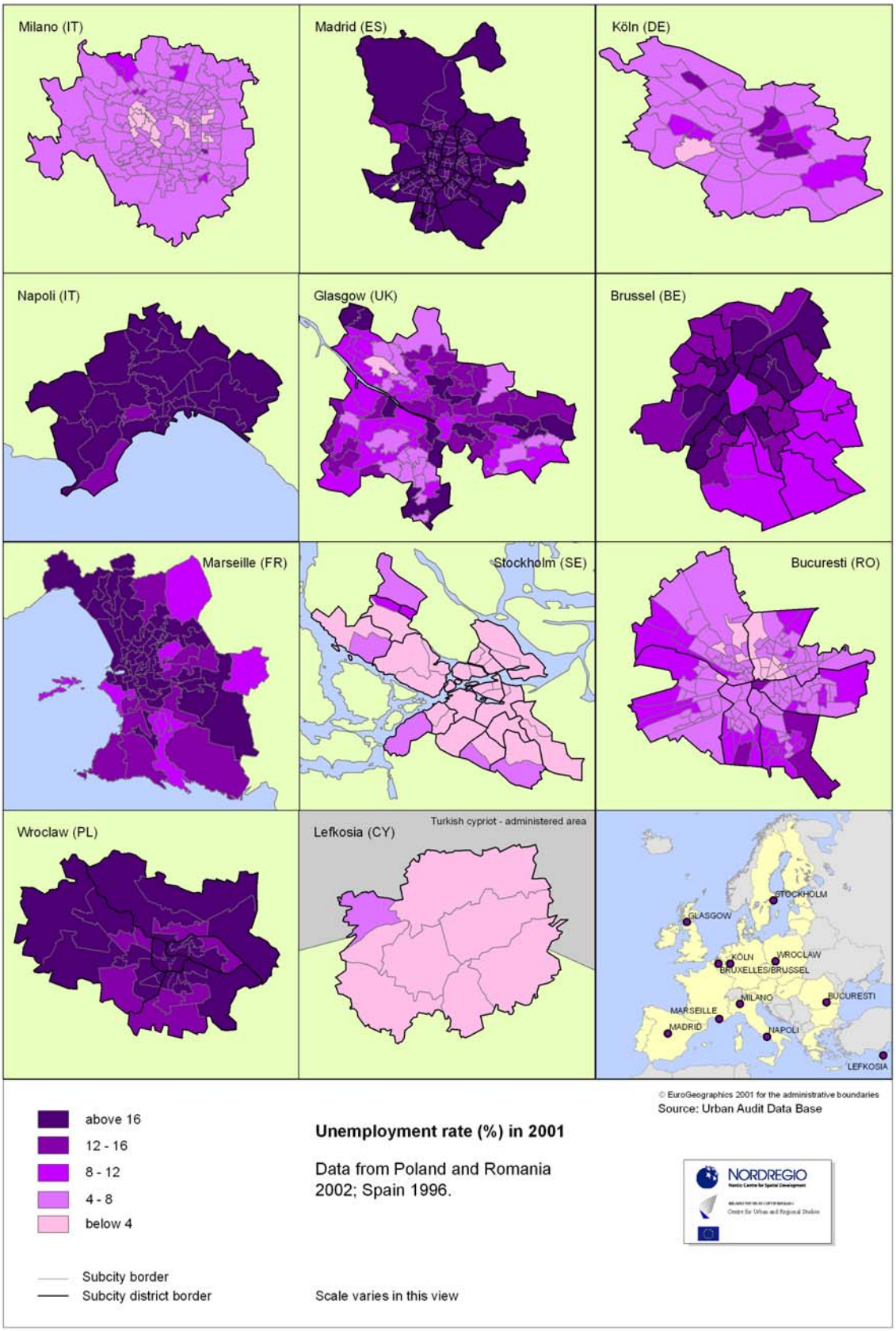


Figure 4.4: Unemployment rate at sub-city level

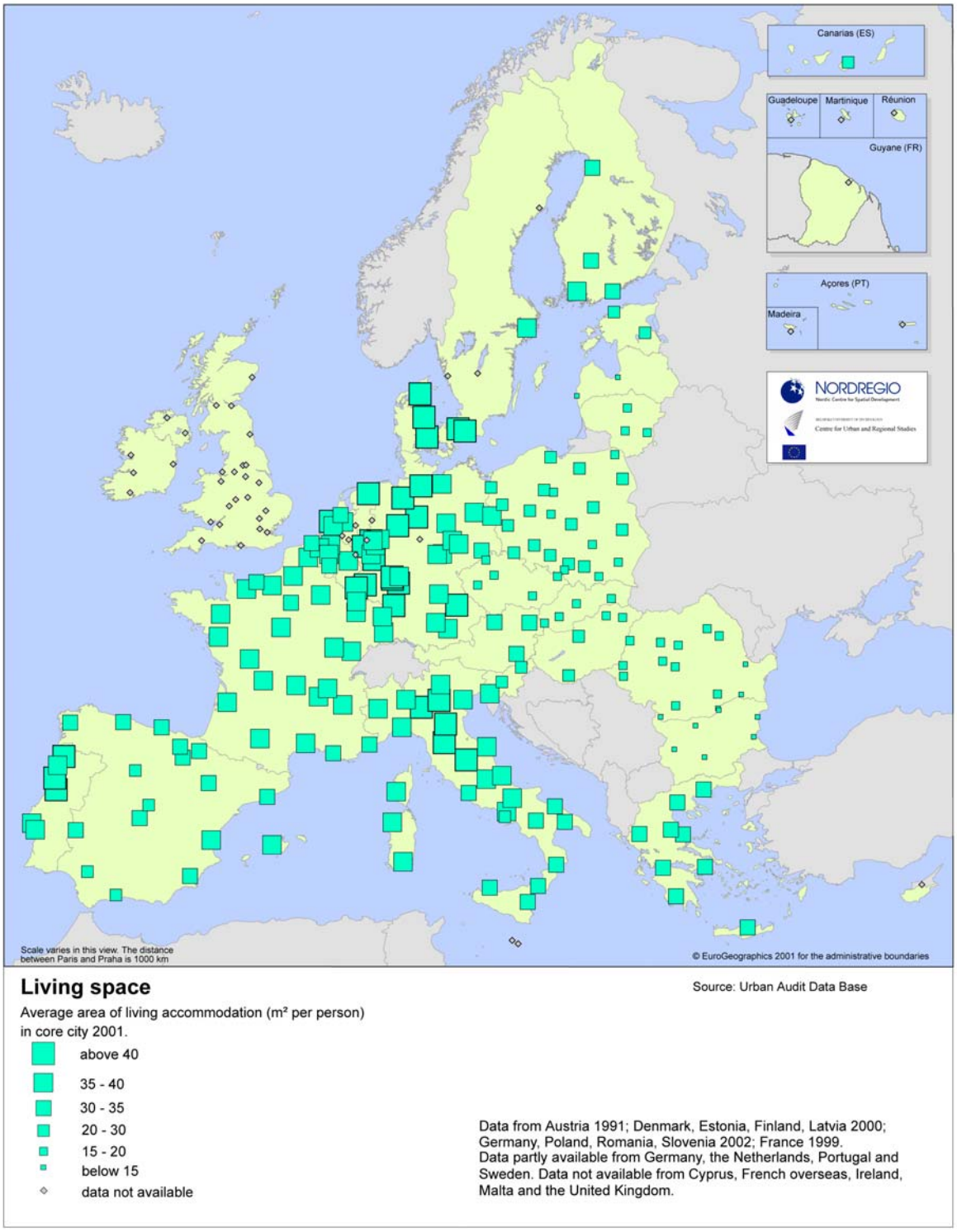



Milano (IT)
Madrid (ES)
Köln (DE)
Napoli (IT)
Glasgow (UK)
Brussel (BE)
Marseille (FR)
Stockholm (SE)
Bucuresti (RO)
Wroclaw (PL)
Lefkosia (CY)
Turkish cypriot - administered area
STOCKHOLM
GLASGOW
KÖLN
WROCLAW
BRUXELLES/BRUSSEL
MILANO
BUCURESTI
MARSEILLE
MADRID
NAPOLI
LEFKOSIA
above 16
12 - 16
8 - 12
4 - 8
below 4
Subcity border
Subcity district border
© EuroGeographics 2001 for the administrative boundaries
Source: Urban Audit Data Base
Unemployment rate (%) in 2001
Data from Poland and Romania 2002; Spain 1996.
Scale varies in this view
NORDREGIO

4.2 Housing

4.2.1 How much space do Europe's citizens demand?

Figure 4.5: Average floor space per resident



The size of citizen's homes can be used as a standard of living indicator and cities can be easily compared to one another. It also provides us with an indication of the ability of cities to effectively cater for housing demand, which varies and evolves according to the size of households. Differences across Europe are striking, with some cities averaging nearly three times as much living space per inhabitant than others (Figure 4.5). As is to be expected, city dwellers consume on average less space than non-city dwellers. Even in Denmark, where inhabitants of Aalborg, Odense and Copenhagen have more space at their disposal than in any other European city, non-urban citizens still have more space at their disposal. Other cities that score highly in terms of living space per person are The Hague and Groningen in the Netherlands, where each inhabitant occupies on average more than 45 m². There are over 30 UA cities where the average amount of living space per inhabitant is more than 40 m², and these are all situated in the Western part of the EU, in Denmark, the Netherlands, Luxembourg, Sweden and Germany. Other cities with spacious housing can be found in Portugal, Malta, and Northern Italy.

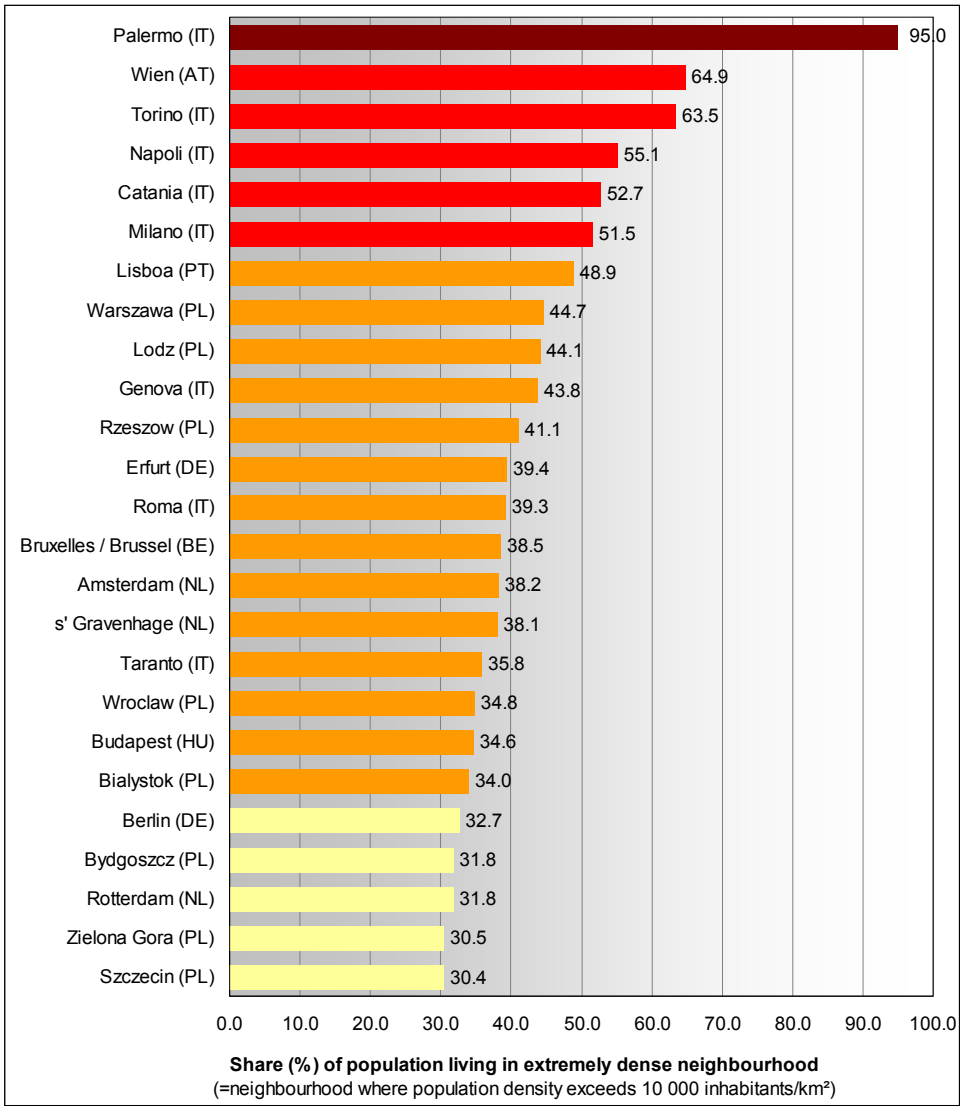
At the other end of the scale, the housing stock in the New Member States is far more cramped. Urban residents in Bulgaria, Latvia, Romania, Slovakia, the Czech Republic, Lithuania and Poland have on average between 15 and 20 m² living space per inhabitant at their disposal. The lowest scores are recorded in the cities of Pleven and Ruse in Bulgaria and in Riga in Latvia where most households live in apartments offering on average less than 13 m² per person.

There is clearly an east-west divide here which follows the old political division line across Europe. All cities in Central and Eastern Europe have an average living space per person that is below the averages recorded in all Urban Audit cities of the original EU 15 countries. These differences can be interpreted both as an expression of lower standards of material wealth in Central and Eastern Europe and also of the lower priority that was given to housing and the private sphere in general under the communist system. The quality of the housing is currently one of the most clearly visible legacies of the old east-west divide in Europe.

This difference is also reflected in the price of housing. The average house price per square meter clearly reflects income and GDP levels. The highest prices are found in North-West Europe, particularly in and around capital cities, where the average price per m² often exceeds € 2000. Prices are considerably lower in Southern European cities and much lower in Central and Eastern European cities where the average price in 2001 in many cities was less than € 500 per m². It should be noted however that house prices have been increasing rapidly in recent years across Europe, and the affordability of housing has become a major concern not only for the poor but also for middle classes and in particularly younger households.

Another measure of living space is neighbourhood density expressed in terms of the number of citizens per km². Again, Europe's core cities display huge variations both internally and in comparison to each other. Figure 4.6 below lists the 25 'core' cities which have the highest share of population living in extremely crowded neighbourhoods, although data is not available for a significant number of countries. Crowded neighbourhoods are defined as neighbourhoods that have more than 10,000 inhabitants per km². In these neighbourhoods, there is less than one hundred square metres of space per resident available including the space required for businesses, public space, infrastructure and the like. These areas tend to be one of two types: either historic city centres typified by narrow streets and a fine grained urban structure or residential neighbourhoods in industrial cities (primarily in Central and Eastern Europe) with a predominance of high-rise apartments. Counter to what many may expect, densely populated cities are not necessarily the largest cities.

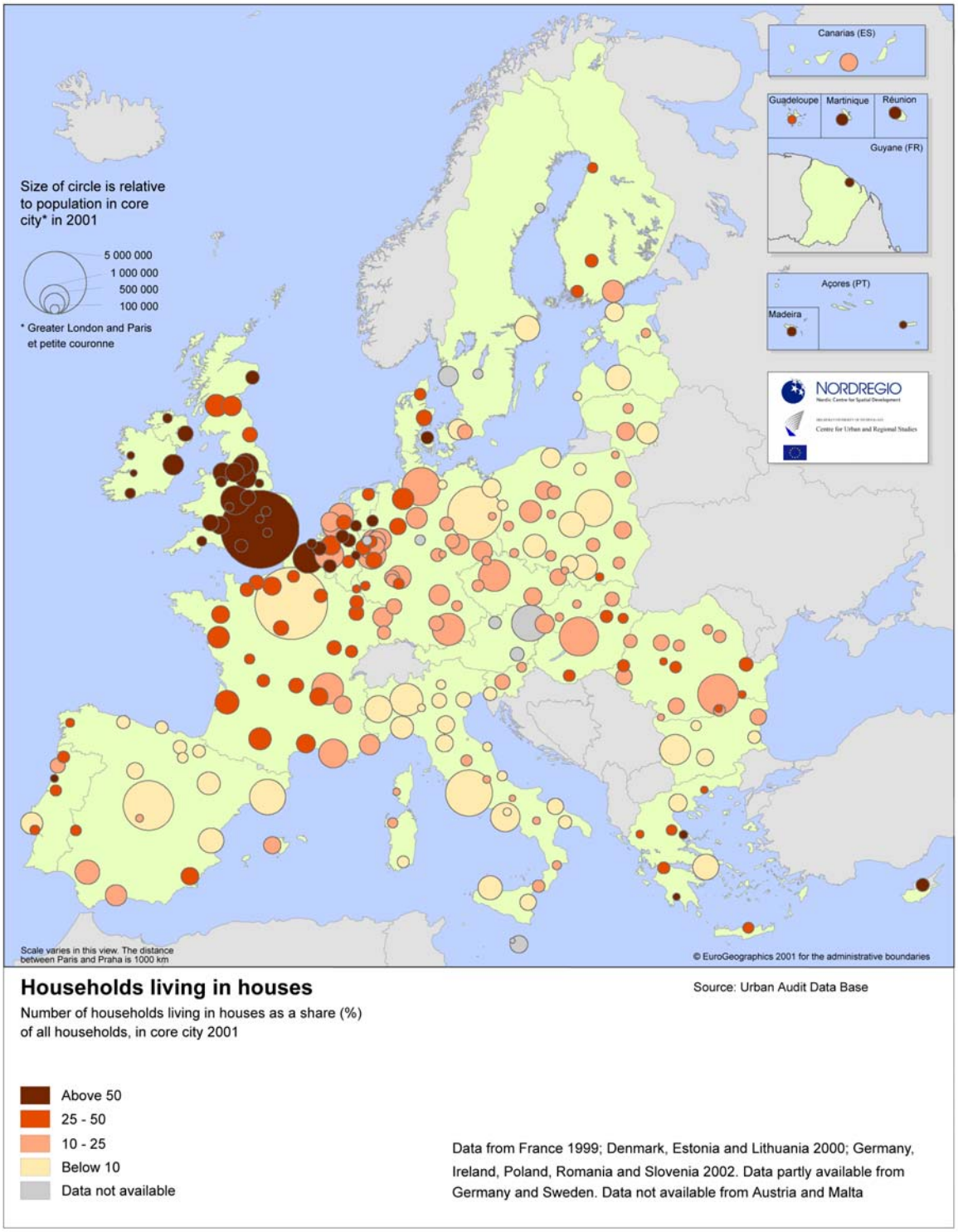
Figure 4.6: Top 25 UA core cities with the highest share of population living in extremely dense neighbourhoods



Data not available for: BG, ES, FI, FR, GR, IE, LT, LV, MT, RO, SE and UK.

4.2.2 A house or an apartment?

Figure 4.7: Households living in houses



The need for space is clearly related to the type of dwellings that urban residents occupy. Most of Europe's city dwellers live in flats or apartments, on average 77% of all urban dwellings. But again there are significant variations across the continent. The share of apartments tends to be higher in larger cities than in smaller ones, and this pattern is particularly apparent when comparing cities within the same country (Figure 4.7). The cities with the highest 'stacking' percentage include Milan, Paris and Pamplona, where apartments make up more than 99% of all dwellings. More than 90% of households live in apartments in 54 of the 250 UA cities. These are above all located in Italian and Spanish cities.

Housing in urban areas in the British Isles clearly looks and feels different from the norm elsewhere in Europe. Here more than 50% of the urban population lives in houses rather than apartments. The cities of Derry and Wrexham top the list in this regard with more than 90% of dwellings being houses.

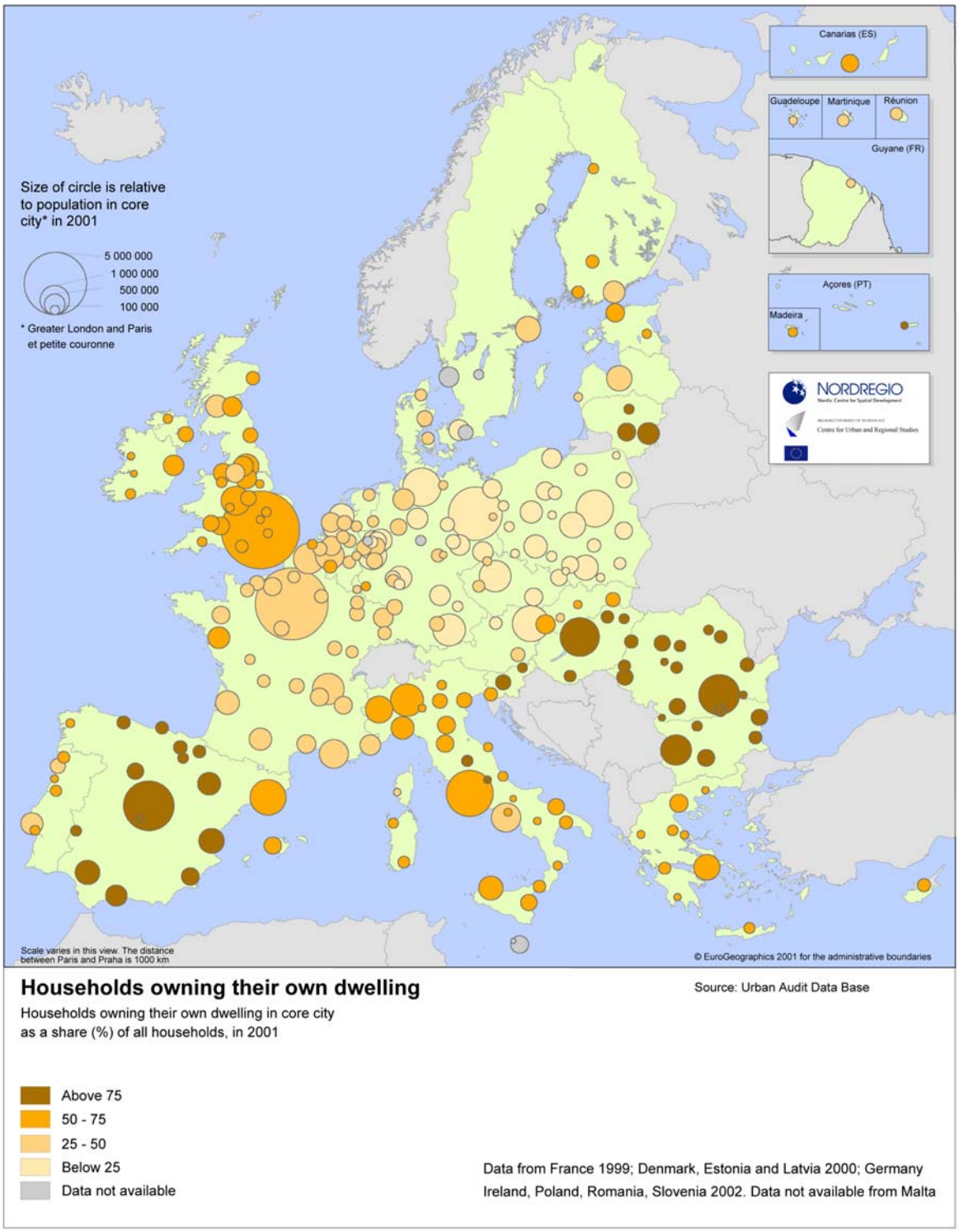
4.2.3 Home ownership

Half of Europe's urban households owns their own homes (Figure 4.8). In some cities, especially those located in parts of Central and Eastern Europe, home ownership is as high as 75%. An important point here is that high levels of home ownership in countries such as Hungary, Slovakia, Lithuania, Bulgaria and Romania has been the result of a collective move rather than an individual choice. Large parts of the housing stock were signed over to their occupiers during the 1990s.

Large scale privatisation of this type did not take place in all of ex-communist Central and Eastern Europe however. In Polish cities, less than 25% of dwellings are owner-occupied. In the Polish cities of Zory, Katowice, Suwalki, Poznan, Lublin and Nowy Sacs as well as the German city of Leipzig this figure is less than 10%. Low home ownership levels were also recorded in UA cities in Austria, the Netherlands and Denmark, where social housing corporations play an important role on the urban housing market.

Private home ownership rates are highest in Spain, followed by the United Kingdom, Ireland, Italy, Portugal and Greece. In the case of the Netherlands numbers of owner-occupied dwellings have been increasing rapidly during the past 10 years as a result of fiscal policy, the sale of social rented housing as well as demolition and new-build programmes which heavily favour home ownership.

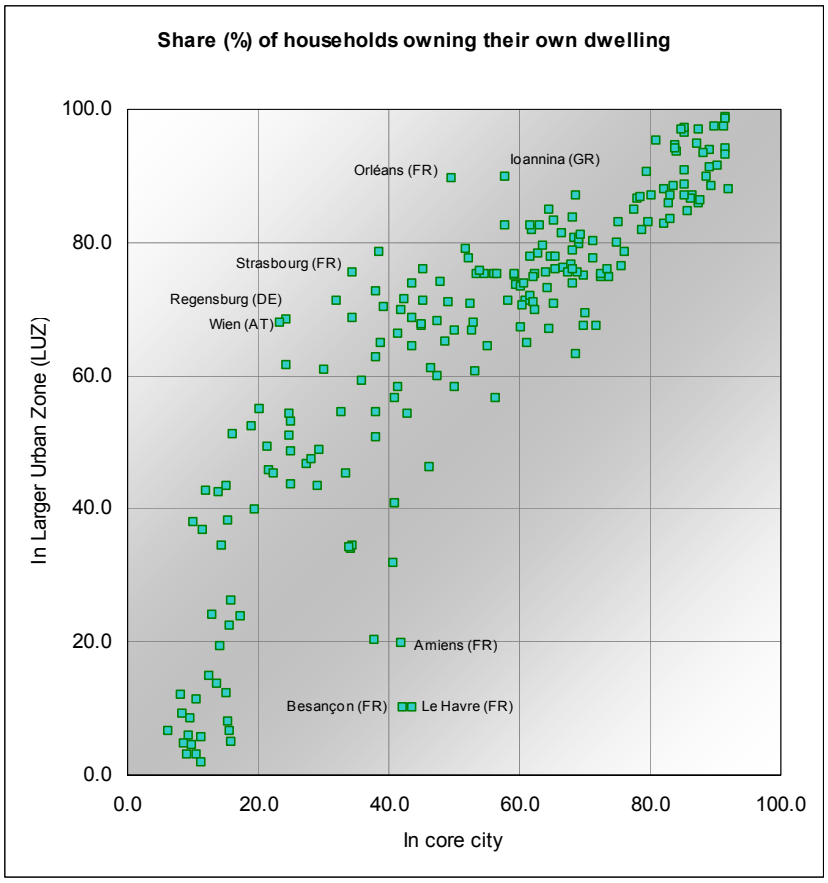
Figure 4.8: Households owning their own dwelling



Home ownership is not equally spread within the urban zones as can be seen in Figure 4.9. The share of households owning their own dwelling is significantly higher in the outer agglomeration (and therefore in the LUZ as a whole) than in the core cities – in many city regions more than twice as high. This suggests a relationship between the age of the

housing stock and the tenure. The suburbanisation trend taking place in recent decades has coincided with a shift away from social housing towards more market driven private sector housing development.

Figure 4.9: Share of households owning their own dwelling in the core city and the LUZ



4.3 Household size

A possible underlying reason for the variation in living space per person across Europe's cities is differences in household size. These are now examined.

In 2001, the average household size in the Urban Audit cities was 2.4 persons. Household size is smallest in Northern Europe, with an average household size of just 1.6 in Stockholm being the lowest figure measured. Households tend to be slightly larger in Central and Eastern Europe, which may help to explain the limited amount of living space per person in this region as mentioned above. This is due to the tendency for larger households to "share" space within their homes. Cities in Southern Europe tend to have a higher proportion of larger households. On average, there are more than three members per household in the Spanish cities of Badajoz, Santiago de Compostela, Las Palmas, Malaga, Murcia, Sevilla and Toledo, the Greek cities of Irakleio, Patra and Larisa and the

Portuguese cities of Braga, Funchal and Ponto Delgada. This last city tops the list with an average household size of 3.4 persons.

Figure 4.10: Average household size

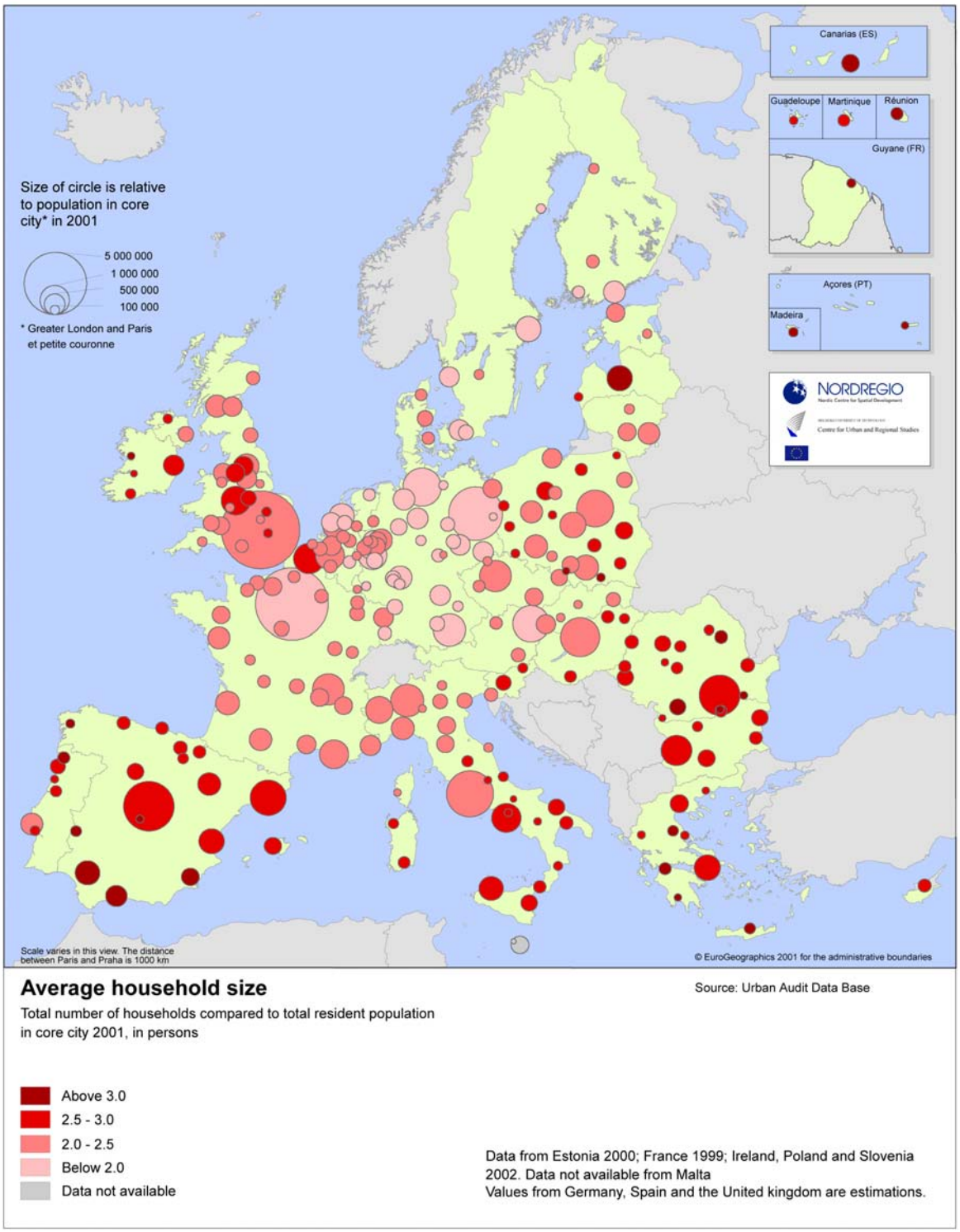
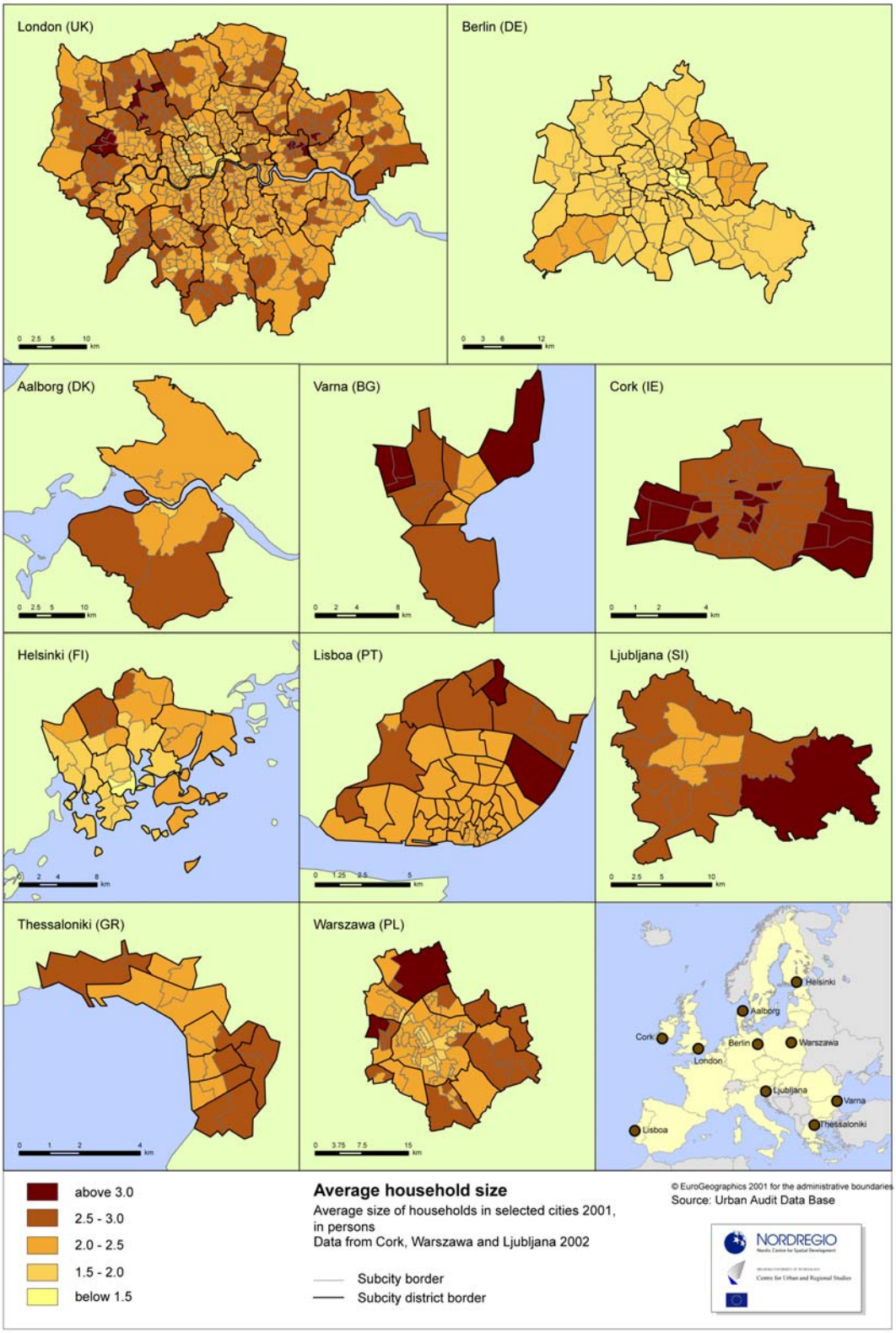


Figure 4.11: Differences in household size at sub-city level



In capital cities, households tend to be much smaller and a larger proportion of people live alone. The average number of people per household is less than two persons in cities such as Amsterdam, Berlin, Copenhagen, Helsinki, Paris, Stockholm and Vienna. In London, by many standards the most expensive city in Europe, living alone is unaffordable for most citizens and this has resulted in the tendency for many, particularly young people, to share dwellings, raising the average household size in this city.

Even though regional differences within each country are relatively small, a core-periphery pattern is discernable in the data, with smaller households tending to live in the core city areas and larger ones in the surrounding urban zone (Figure 4.11). Another pattern worth mentioning here is an increase in the average household size of UA cities the further south one looks in Italy, France and Spain.

The average household size has been decreasing over time in recent years across Europe. The largest decreases took place in Poland, Portugal, Slovenia and Spain with decreases of between 0.3% and 0.4% in the period 1996-2001. The only countries where the average household size in core cities remained unchanged were Belgium, Denmark, Hungary, Italy and the UK.

4.3.1 One-person households

The growth in the number of one-person households is related to widespread individualisation within society. This trend has been taking place over a number of decades now. Back in 1961, 15 million one-person households were counted in the original EU 15 countries. By 1995 this number had almost tripled to 42 million. The Eurostat baseline scenarios predict a continued increase in the future, to 62 million people by 2025. This trend is also taking place in the New Member States although not necessarily at the same speed[26].

One third of all people living in the UA cities in 2001 lived alone, a much higher proportion than in non-urban areas in Europe. In almost all countries, the share of one-person households was significantly higher in cities than in the nation as a whole although even larger differences were recorded between cities as revealed in Figure 4.12.

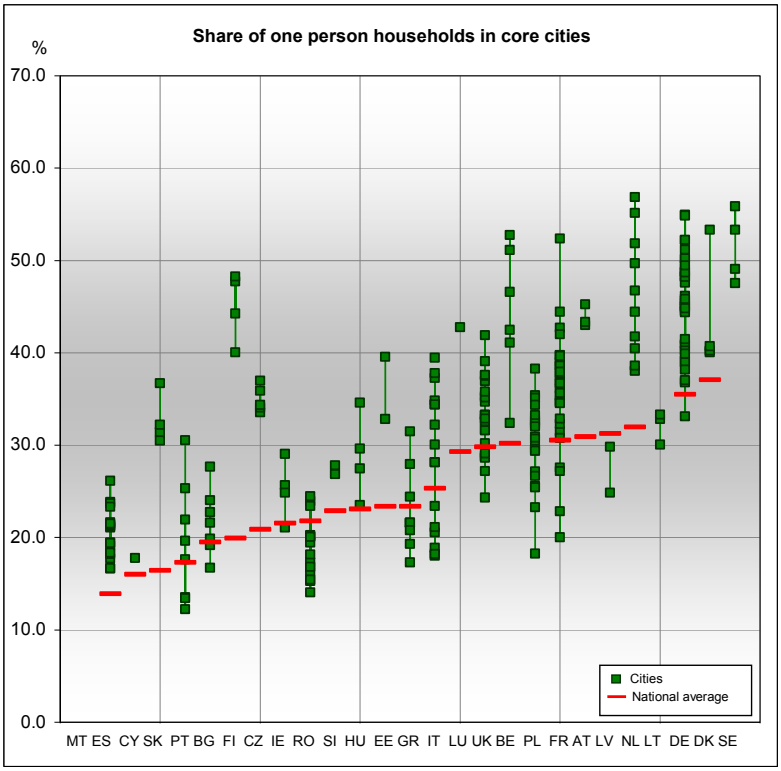
Cities with more than 50% of all households consisted of only one person include Groningen, Amsterdam and Utrecht in the Netherlands, Göttingen, Trier, Schwerin, Hannover, München, Regensburg and Frankfurt am Main in Germany, Stockholm and Göteborg in Sweden and Copenhagen in Denmark. In some of these cities a large student population has a significant bearing on the figures.

[26] The social situation in the European Union 2004: European Commission, 2004.

At the other end of the scale living alone is less common in the Mediterranean and Central & Eastern European Member states where the share of one-person households is less than 35%. In several cities in Bulgaria, Italy, Portugal and Spain the share was less than 20%.

It is interesting to note that, across Member States, more women live alone than men. This can largely be explained by the fact that women tend to live longer than men and they also tend to marry men older than themselves. As a result women more often than not outlive their husbands. However, in most Member States a greater number of younger men live on their own than younger women[27].

Figure 4.12: Share of one person households, national average and core city, 2001



As indicated above the percentage of one-person households is highest in cities in Sweden, Denmark, Germany and the Netherlands. However numbers of people living alone are now increasing in all parts of the EU, especially in those areas where the figures were previously low. Most notably the number of one-person households in Spain has increased rapidly by more than 10% per year between 1996 and 2001 – albeit from a low starting point. This suggests a fast paced individualisation of society in this country (Figure 4.13).

[27] Statistics in focus: Population and Social Conditions: Trends in households in the European Union 1995-2025. Theme 3-24/2003. Eurostat 2003.

Figure 4.13: Change in the number of one-person households

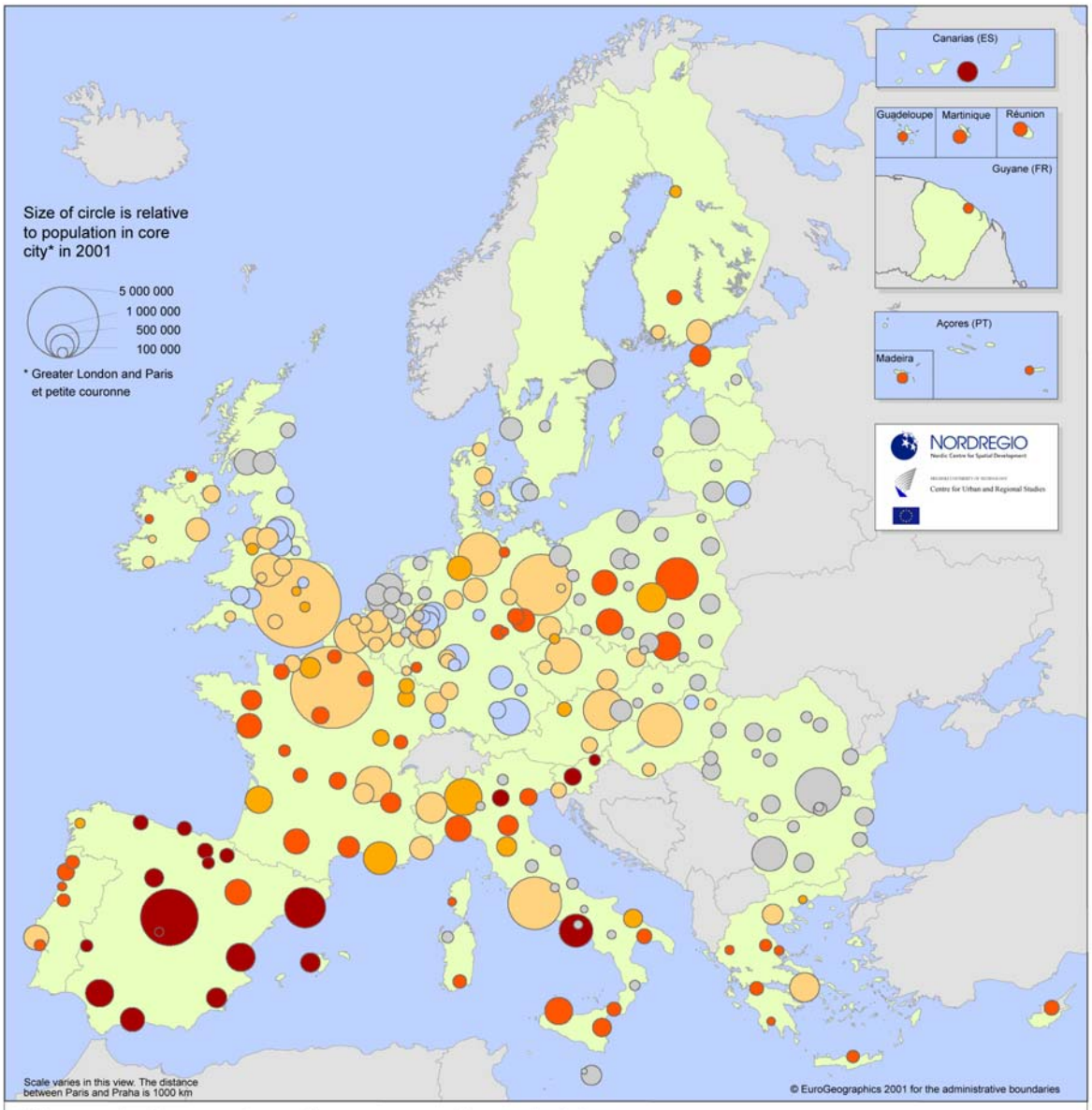
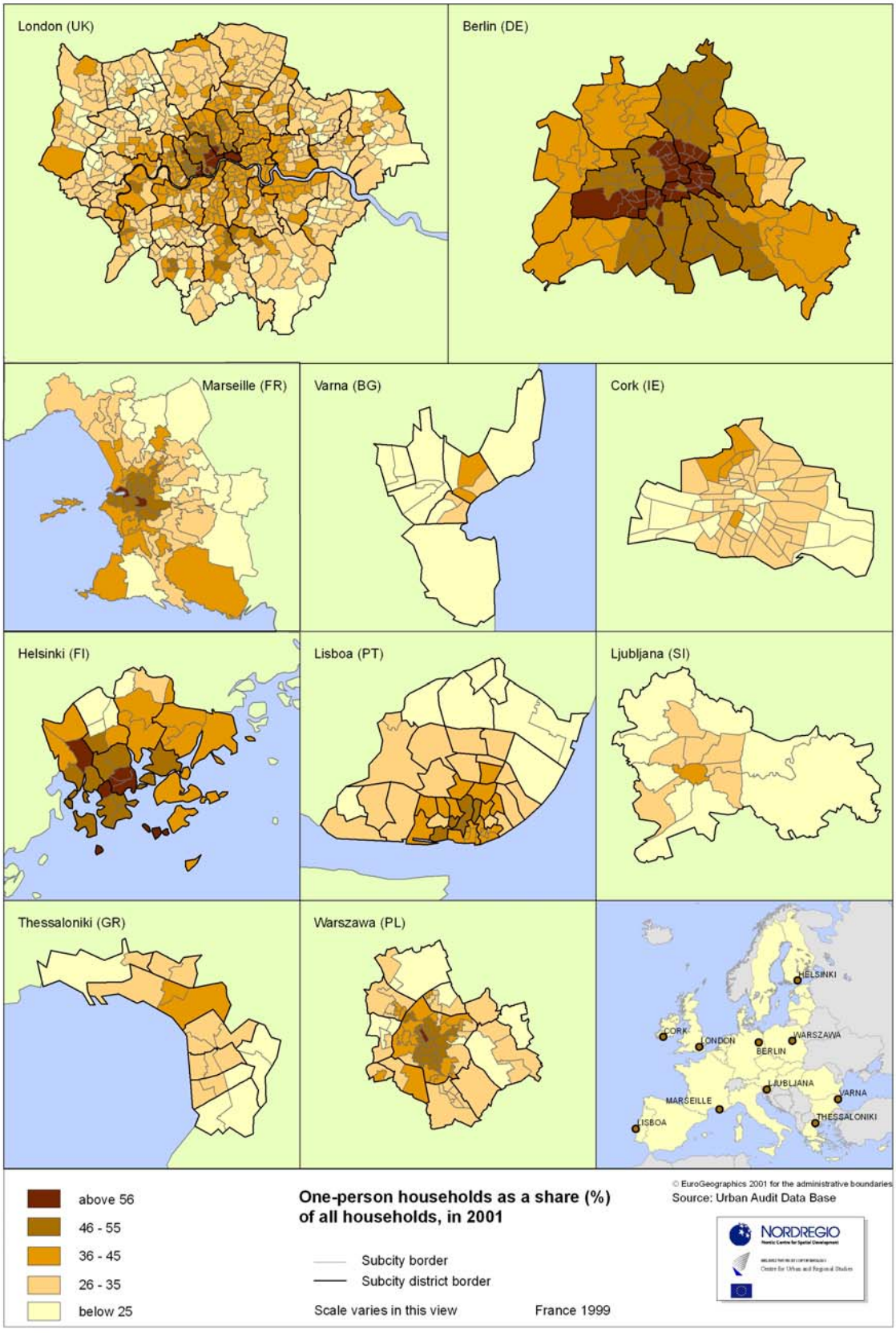


Figure 4.14: One-person households – variation within the city

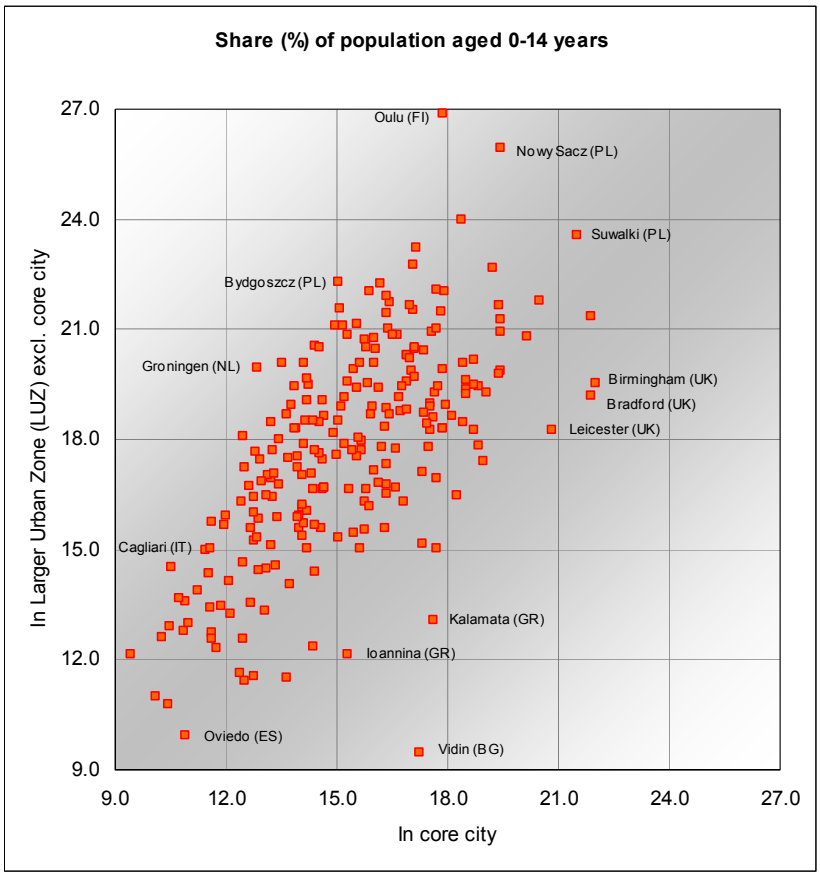


4.3.2 Children and suburbanisation

If one can speak of social segregation between various life-styles, it is not only because singles and one-person households gravitate towards urban centres but also because families with children appear to be leaving the urban core 'en masse'. This is illustrated in Figure 4.15, which compares the percentage of children living in core cities with the percentage living in surrounding urban agglomerations. All capital cities report a larger share of children in the larger agglomeration than in the core city. The highest numbers of children in the wider agglomeration were found in Oulu (Finland), Nowy Sacs and Suwalki (Poland), Calarasi (Romania) and Cork (Ireland). In these urban areas 23 to 27% of the population were children.

There are very few cities where the share of children is higher in the core city than in the wider agglomeration. These exceptions are located in the UK, Spain, Greece and Romania, examples being Vidin (Romania), Kalamata, Ioannina and Larisa (Greece) and Bradford (UK).

Figure 4.15: Share of population aged 0-14 years in the core city and the agglomeration



Why do one-person households tend to gravitate towards the inner city while larger households flock to the city fringe? There are a number of reasons for this. Clearly, city centres have high service levels and are well-placed to respond to the needs of singles and other individuals living alone. Younger citizens are likely to be attracted by jobs and recreational opportunities ('city life'), while the elderly find comfort in the proximity to stores, public transport and health care facilities. There is also a 'cause and effect' relationship within the housing stock and the housing market. Firstly older properties, which tend to be concentrated in inner city areas, are usually smaller and therefore more suitable to small households. Secondly higher prices per square meter in inner cities contribute to the preponderance of smaller dwellings in these areas. Larger households, in particular households with children (families), move out of inner city areas because of the lack of affordable housing that suits their size requirements (push factor). At the same time they may be attracted by more spacious living environments at the city fringe, children friendly neighbourhoods where a house with a garden can be purchased (pull factor). The dwellings they leave behind in the inner city tend to be occupied by small households, especially people living alone.

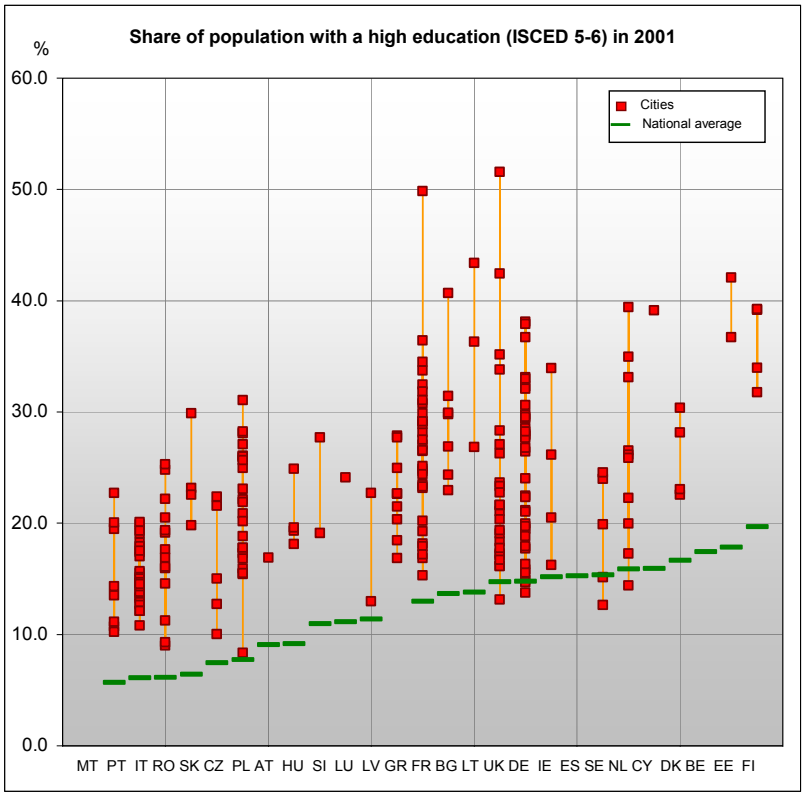
4.4 Education

Education, vocational training and lifelong learning play a vital role in the economic and social development of Europe, and educational measures are included in almost every Structural Fund programme promoted by the EU. But how do cities compare to each other regarding educational attainment? And is the urban population better educated than the non-urban population in Europe?

One indicator of educational attainment is the share of population over the age of 25 with qualifications at ISCED level 5-6, i.e. a university qualification normally demanding at least four years of study or a three year more job-specific tertiary course.

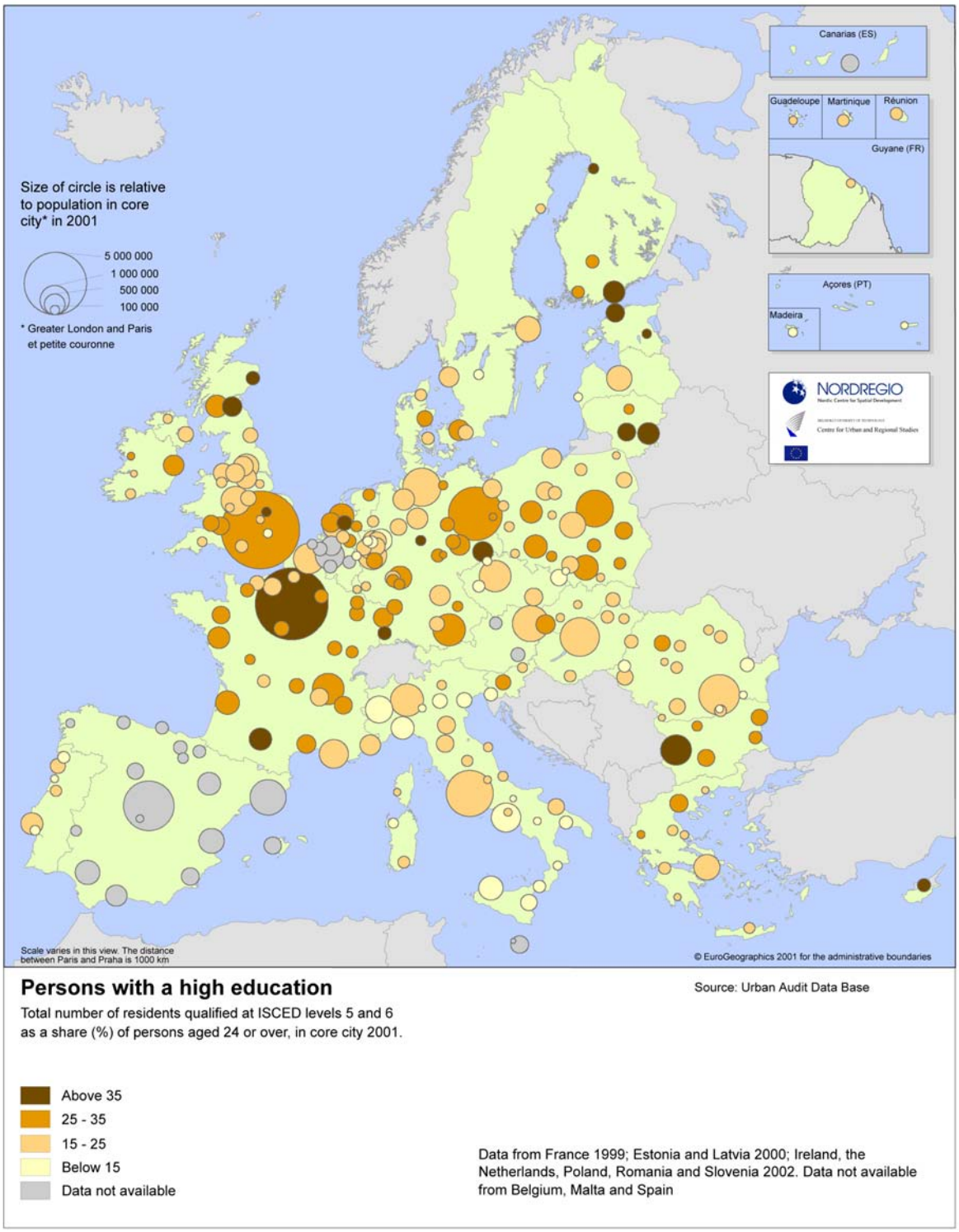
The figures reveal that city dwellers are on average much better educated than other European citizens. Almost all UA cities score higher with regard to completed tertiary education than their respective national averages, and many of them have a significantly better score (figure 4.16).

Figure 4.16: Share of persons with a high education (ISCED 5-6), core cities and national average, 2001



The percentage of residents with tertiary qualifications is particularly high in the cities of the United Kingdom, France, the Netherlands, Finland, Germany, Italy and Ireland. But numbers are also high in many New Member States, particularly the Baltic States, Bulgaria and Poland. Capital cities are also prominent in the list of cities in which more than 30% of the population have attained ISCED level 5-6 qualification: Paris, Tallinn, Sofia, Helsinki, London, Amsterdam, and Warszawa for example (Figure 4.17). Logically the cities with the best educated population are those offering large numbers of high-skilled jobs and/or are home to universities and research facilities. The 'Research-centres', as identified in Chapter 3, score strongly here. Cambridge for example, has the highest proportion of tertiary qualified inhabitants of all the Urban Audit cities in the UK.

Figure 4.17: Share of persons with a high education (ISCED 5-6), core cities, 2001



At the opposite end of the scale UA cities with a low proportion of inhabitants who have attained tertiary qualifications (less than 15% at ISCED levels 5 and 6) include a number of smaller cities in Portugal and Italy. In Italy, lower educational attainment is recorded not only in the South but also in coastal cities in the North. While low educational attainment in

Southern Italy has long been recognised as a contributing factor to the lack of prosperity in this region the low figure recorded in some Northern cities may reflect an emphasis on alternative training including an emphasis on craftsmanship[28].

Disparities between the numbers of males and females with tertiary qualifications were considerable in some cities, particularly in Germany, where an average of 31% of men and 19% of women over 25 years of age have completed an education at ISCED level 5-6. In the cities of Göttingen, Freiburg, Regensburg, Karlsruhe and Mainz in the Western part of the country disparities exceeded 20 percentage points. A smaller difference in educational achievement between the sexes is apparent in the Eastern part of Germany where patterns of labour market participation and division of labour within the family tend to be quite different. Large disparities in educational achievement in favour were also found in the cities of the Czech Republic and Slovakia and to a slightly lesser degree in Belgium, Greece, Hungary and Romania.

4.4.1 In which part of the urban area do highly educated people tend to live?

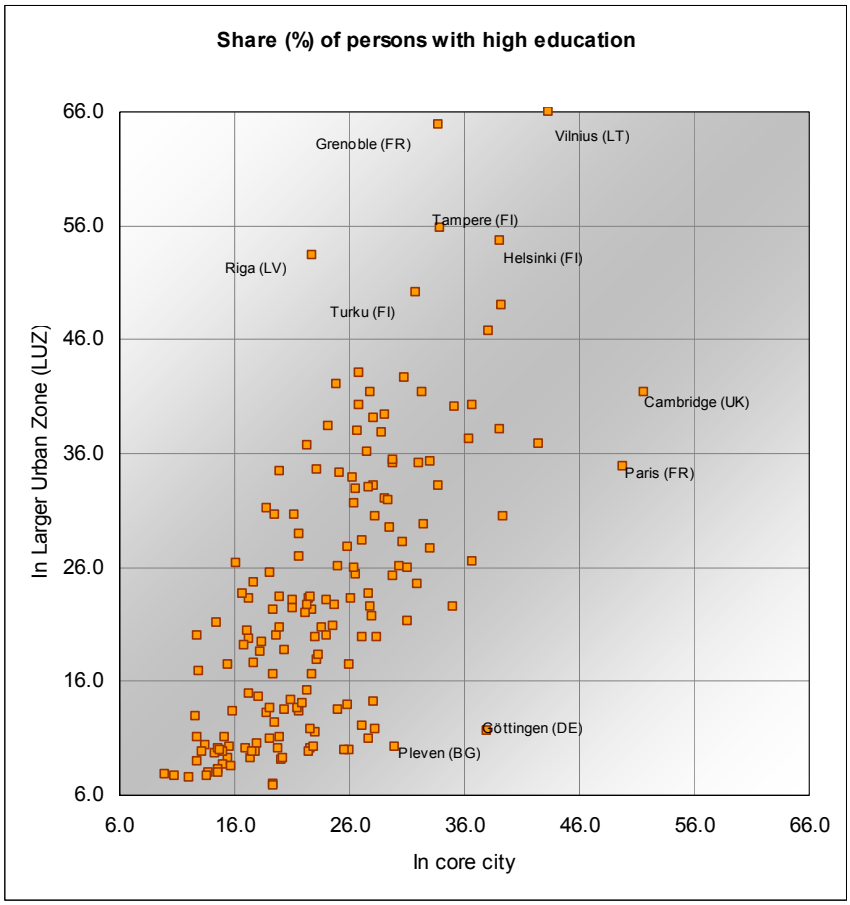
People with a tertiary qualification generally have a higher income and therefore greater housing choice than the average citizen. It is to be expected that they gravitate to areas where a higher quality housing stock is available. A comparison between the core cities and the rest of the Larger Urban Zones reveals an interesting pattern (Figure 4.18). In UA city regions where the overall share of highly residents is low, this group tends to be more concentrated in the core city. These city regions are more common in Central and Eastern Europe, Italy and Greece.

In those urbanised regions containing a high proportion of well educated citizens these people are more likely to reside outside the core city. This is particularly the case in the cities of Grenoble (France), Riga (Latvia), Vilnius (Lithuania) and Tampere and Turku (Finland). This suggests that the best residential areas are located in the wider urban zone on the periphery of these particular cities.

The cities of Cambridge and Paris are exceptions here, as they have a highly educated citizenry *and* significant concentrations of these highly educated living within the core city. Cambridge is a university town, while the most affluent and desirable residential neighbourhoods in the Paris region are located within the core city itself.

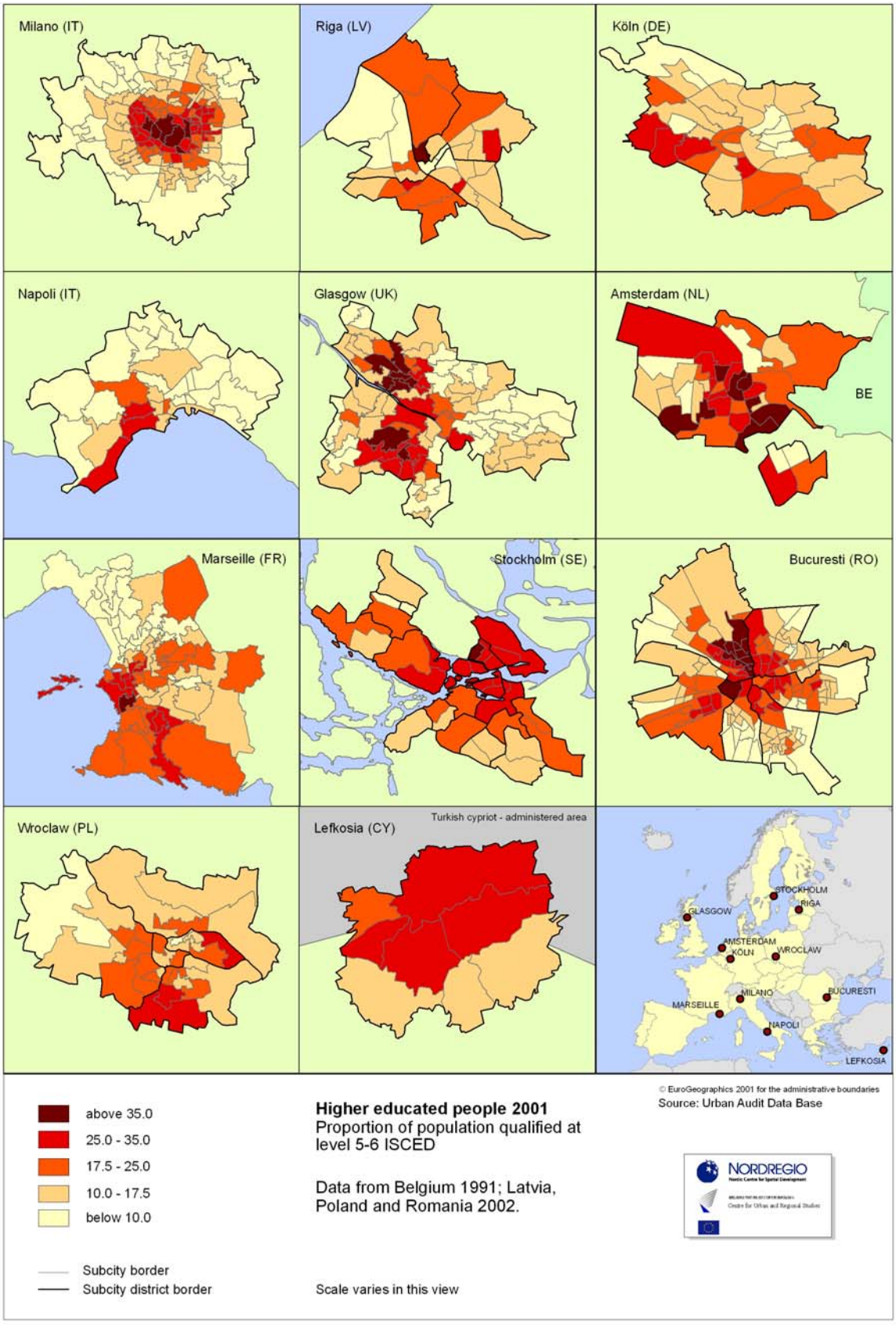
[28] Eurostat (2005): Regions: Statistical Yearbook 2005. Luxembourg: Eurostat

Figure 4.18: Share of persons with high education (ISCED level 5-6) in the core city and the LUZ



These large intra-urban differences in educational level are strongly reflected in the selected city profiles below. Very high concentrations of well-educated people can be found in the centres of Milan, Glasgow and Bucharest. Differences in educational level are significant in other selected areas as well. Outlying areas are rarely better educated than city centres.

Figure 4.19: Share of persons with high education (ISCED level 5-6) in selected cities



4.5 Are cities healthy places to live in?

4.5.1 Life expectancy – a not too rosy picture

There are many possible indicators that could be used to provide insight into the well-being of citizens in cities. One such indicator is life expectancy which is closely related to prosperity and economic welfare, and also reflects to some extent the quality of the environment and the extent to which citizens are exposed to pollutants throughout their lives.

The average life expectancy for people in the Urban Audit cities born in 2001 was 79 years for females and 73 years for males. This is approximately 2 years *less* than the average for the EU 27 in total[29].

A closer look at the UA cities reveals significant variations. Life expectancy in the top ranking city was almost 12 years longer than in the bottom ranking city, with the extremes lying at 84 and 72 years for females and at 78 and 66 years for males (Figure 4.21).

Cities with the longest life expectancy include Madrid and Santiago de Compostela in Spain and Bologna in Italy. The top 30 cities in this regard, with life expectancy over 81 years for females and 75 years for males, are located in Germany, Italy, Spain, Belgium, the UK, Austria and Luxembourg.

Central and Eastern European cities predominate in the bottom half of the list. Those cities where life expectancy is below 77 years for females and below 71 years for males are found in Estonia, Romania, Latvia, Bulgaria, Portugal, Hungary, the Czech Republic and Poland. The shortest male life expectancy is found in Tallinn and Tartu in Estonia (66 years), while the life expectancy for females is shortest in Calarasi (Romania) and Riga (Latvia) (72-73 years).

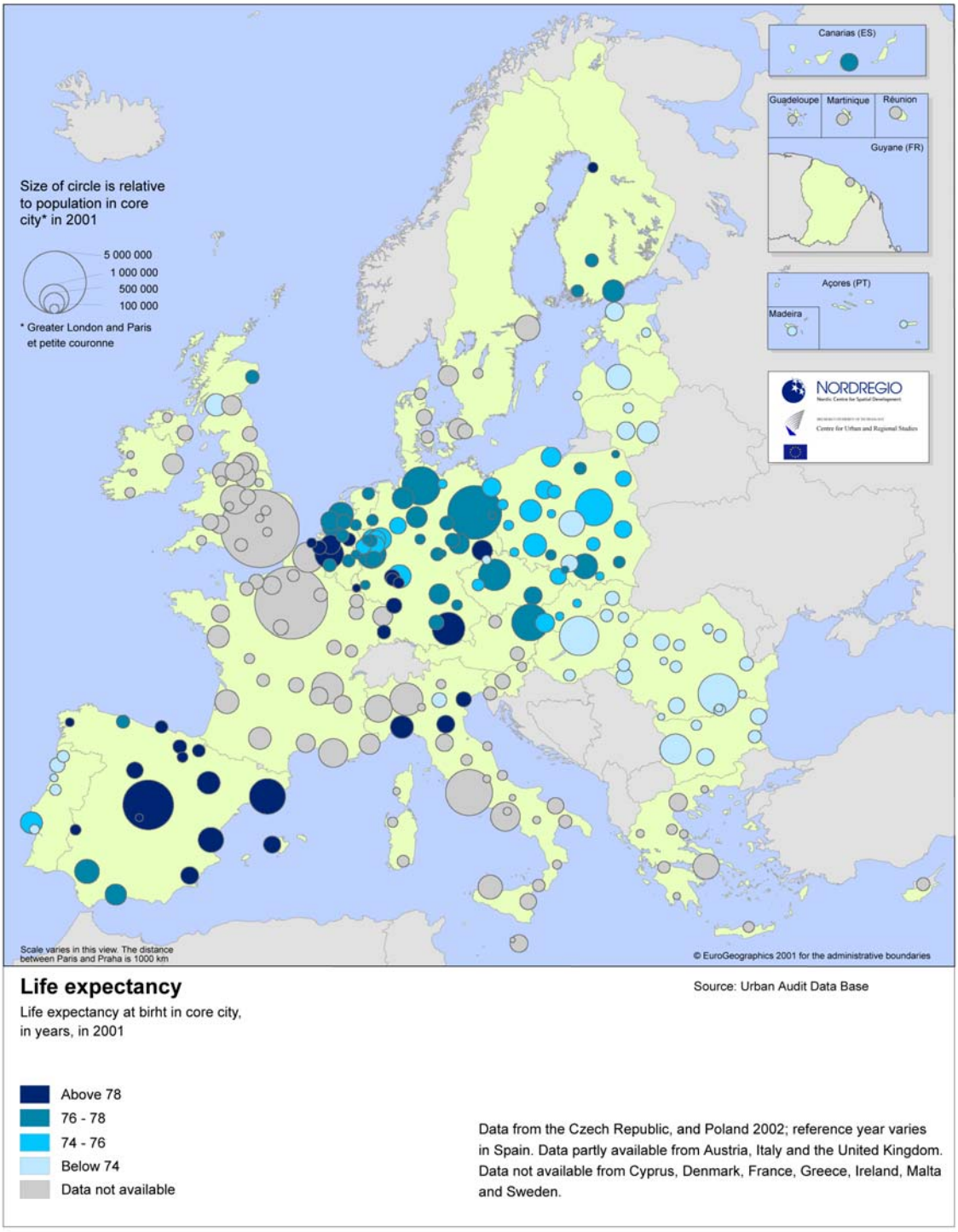
In Romania and the Netherlands life expectancy is lower in the UA cities than in the country as a whole, while the opposite is true for the UA cities in Slovakia and Latvia. Within Italy, Germany, the UK and Poland significant differences between cities were measured. For example life expectancy was a full five years longer in Suwalky than in Lodz. In Bulgaria and Finland the differences between cities were negligible.

Life expectancy figures are a reflection of living conditions and well-being in the past as well as the present. Lifestyle, economic standards and healthcare play a role here as do traffic accidents and suicide rates. High numbers of sudden deaths are recorded in

[29] Eurostat (2005): Statistics in Focus 15/2005. Luxembourg: Eurostat.

Lithuania, Latvia, Estonia and Slovakia, while very few are recorded in Sweden, the Netherlands and the UK[30].

Figure 4.20: Life expectancy at birth



[30] Eurostat (2006): Statistics in Focus 10/2006. Luxembourg: Eurostat.

4.5.2 Environmental challenges – air quality

Not unrelated to health concerns are environmental problems which is becoming an increasingly important issue facing Europe's cities. One of the most pressing issues in urban areas is the quality of the air that we breathe. Historically industrial production, especially heavy industry, was the primary cause of poor air. As the amount of heavy industry is declining across European cities, other sources of air pollution have come to the fore, most notably that caused by increased road traffic. This is closely tied to the process of suburbanisation which has gone hand in hand with ever increasing car ownership. The health risks associated with urban sprawl, road traffic and poor air quality have been recently emphasized in a report from the European Environment Agency[31].

Ozone (O_3, a major component of smog), nitrogen dioxide (NO_2) and particulate matter (PM) are three main air pollutants posing a threat to people's health in Europe's cities. Table 4.1 below presents the worst UA cities in terms of air quality, measured in terms of how many days per year these gasses/substances exceed normal acceptable levels.

Table 4.1: Top UA core cities that have most days per year of poor air quality

Number of days per year that:					
Ozone (O_3) exceeds 120 µg/m³ (Summer smog)		NO_2 concentrations exceed 200mg/m³		Particulate matter PM_{10}* concentrations exceed 50 µg/m³	
City	Days	City	Days	City	Days
Karlsruhe (DE)	68	Torino (IT)	47	Thessaloniki (GR)	208
Luxembourg (LU)	54	Athina (GR)	39	Miskolc (HU)	201
Venezia (IT)	52	Bratislava (SK)	33	Athina (GR)	174
Graz (AT)	49	Palermo (IT)	22	Budapest (HU)	166
Freiburg/Breisgau (DE)	49	Bari (IT)	18	Larisa (GR)	151
Milano (IT)	42	Napoli (IT)	17	Lefkosia (CY)	144
Bologna (IT)	37	Vilnius (LT)	16	Patra (GR)	138
Mainz (DE)	33	Dublin (IE)	15	Liège (BE)	132
Genova (IT)	30	Venezia (IT)	12	Vilnius (LT)	118
Irakleio (GR)	28	Thessaloniki (GR)	8	Oporto (PT)	109
Odense (DK)	26	Bradford (UK)	7	Coimbra (PT)	99
Frankfurt am Main (DE)	26	Karlsruhe (DE)	4	Gdansk (PL)	97
Ljubljana (SI)	25	Ancona (IT)	4	Volos (GR)	95
Banska Bystrica (SK)	25	Milano (IT)	3	Pecs (HU)	93
Athina (GR)	24	Perugia (IT)	3	Bydgoszcz (PL)	93
Wiesbaden (DE)	24	Cork (IE)	3	Ostrava (CZ)	91
Brno (CZ)	23	Manchester (UK)	2	Bratislava (SK)	87
Kosice (SK)	22	Bruxelles/Brussel (BE)	2	Usti nad Labem (CZ)	87
Nürnberg (DE)	22	Edinburgh (UK)	2	Manchester (UK)	71
Warszawa (PL)	21	Rouen (FR)	2	Irakleio (GR)	69
Frankfurt (Oder) (DE)	21	Lille (FR)	2		
		Caen (FR)	2		

* Coarse particles, i.e. particulate Matter up to 10 micrometers in size

[31] Urban Sprawl in Europe – the ignored challenge, EEA Report No. 10/2006, see also http://www.eea.europa.eu.

The major divide in terms of air quality is between Southern European cities on the one hand and Northern on the other, as well as between east and west. Most cities with a substantial number of days with bad air quality are in southern Europe. Athens and Thessaloniki and to a lesser extent Iraklion in Greece are the most problematic cities in this respect. In Central and Eastern Europe especially Vilnius (LT) and Bratislava (SK) have substantial problems with air quality. Western European cities with high air pollution include Manchester in the UK, Karlsruhe in Germany and the Italian cities of Venice and Milan. Most of these cities are either old cities with narrow streets, often situated in valleys, or they are industrial cities with substantial traffic with a particular geographic handicap.

4.6 Urban transport

The outward expansion of cities as well as increasingly complex patterns of economic and social activity have resulted in higher levels of mobility in Europe's cities. People are spending more and more time in cars or public transport and especially in larger cities, a long commute to work is becoming the norm. The quality of transport systems can therefore make an important contribution to overall quality of life, especially when one takes into account the issue of air quality.

The modal split associated with travelling to work in European cities is in part determined by factors such as the availability and quality of public transport, the size of the city concerned and the associated distances that need to be covered, the type of the city, and existing traditions, habitual patterns and attitudes. Public transport dominates travel to work in the large cities of countries such as the Czech Republic, Finland and Spain. Private car use as well as walking and/or cycling are more frequent in smaller cities. Generally speaking, public transport is better organised in larger cities and this is partly due to economies of scale. Furthermore the problems of traffic congestion and lack of available parking space are more acute in these cities which tends to discourage private car usage if a viable public transport alternative is available.

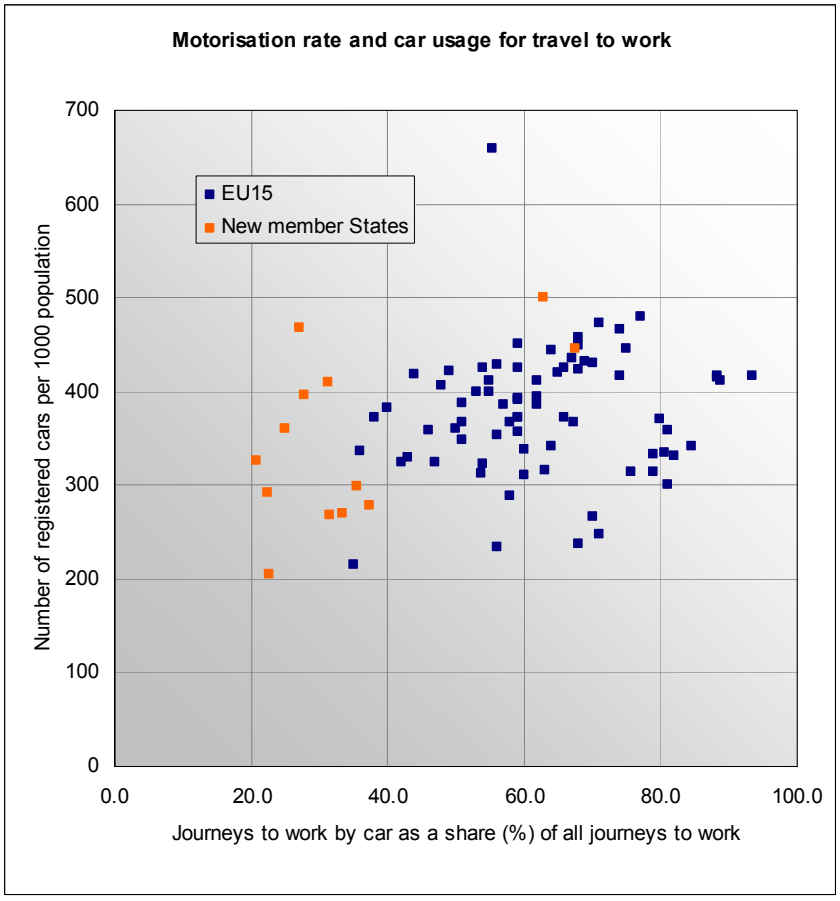
However the major divide in terms of commuter modality in Europe is between the original EU 15 countries and the New Member States, with public transport being much more frequently used in cities in the latter group. The top ten UA cities in terms of commuting on public transport are all located in the New Member States. In Cities such as Bratislava and Budapest more than two out of every three home to work journeys are made by subway, tram or bus. In terms of high car usage the UK stands out with more than 80% of commuters choosing the car in most British cities, while about 60% of commuters use their cars for this purpose in Italy and Belgium.

This profound difference stems partly from the historical legacy of the more stringent planning systems previously in place in Central & Eastern Europe under which a rigid demarcation between urban and rural areas was enforced. Land speculation and urban

sprawl were largely unknown in the east prior to the mid-1990s, but these phenomena have recently become commonplace as strict planning controls have all but fallen away. Secondly private consumption including car ownership was discouraged under the old system and investment in public transportation had a higher priority. Since the end of the communist era suburbanisation has been picking up pace in the New Member States, accompanied by if not fuelled by increasing affluence, changing life styles and the desire for more spacious living conditions. The result has been more dispersed settlement patterns particularly around larger cities. Public transport is a far less viable option in low density areas and therefore car usage is more prevalent in these new suburbs.

However, owning a car does not always equate to using a car, as demonstrated in Figure 4.21. Here, the percentage of commuter trips by car is compared to the motorisation rate (i.e. the number of cars per 1,000 people). No clear pattern emerges in Western, Central and Eastern UA cities alike. The quality of the public transport system in connection with the obstacles to private car usage clearly influences travel-to-work behaviour. The spatial structure of the individual city in terms of the distances and connectivity between residential areas and employment areas also plays a role here.

Figure 4.21: Motorisation rate and private car usage for travel to work in UA core cities



Data for 87 UA cities available.

4.7 Conclusion – the main characteristics of urban life

At the beginning of this Chapter the question was posed “what is characteristic about living in Europe’s cities?” It is of course impossible to provide a single answer here but by looking at Urban Audit statistics concerning unemployment and social disparity, housing, household size, education, life expectancy, environmental quality and transportation a number of important insights have been provided.

Diversity appears to be the main characteristic of urban life. A growing number of people is living alone, particularly in the core city areas. Families tend to be coalescing in suburbs at the periphery of urban agglomerations and this group too are following increasingly varied lifestyles. Although city dwellers are considerably better educated than the population at large, the benefits flowing from economic wealth generated in cities is not evenly distributed. Many urban residents face the uncertainties of unemployment, social exclusion and poverty, and these problems are strongly concentrated in particular neighbourhoods. Life expectancy is also lower in urban areas, and this can be partially blamed on pollution of the living environment. Clearly creating and maintaining prosperity while ensuring social cohesion and tackling environmental problems continues to be the central challenge facing Europe’s cities today.

5.0 Governing Cities

This chapter sets out to explore the role of city governments. In so doing, it seeks to investigate both the extent of cities' involvement in different policy areas and the degree of flexibility they possess in designing and implementing public sector interventions, particularly in the field of socio-economic development. The complexity of local government structures in Europe and a lack of both established governance indicators and comparable data[32] make this a challenging exercise. It is, moreover, an exercise that cannot be completed within the scope of this project and one which will require considerable further research. Nevertheless, given the subject of this report and the ongoing debates in many EU Member States concerning the appropriate role and form of city authorities, it is appropriate to provide a first overview of the state of city governance in Europe.

5.1 The role of city government – an ongoing debate

It is clear that the last 20 to 30 years have seen a widespread, albeit far from uniform, pattern of decentralisation in Europe. In Spain, power has progressively been devolved to the Autonomous Communities; regional authorities have been greatly empowered in Italy; and regional government was introduced in France, challenging the once supreme authority of the Jacobin State. From 1989 onwards, the highly centralised governance systems characteristic of state Socialism across Central and Eastern Europe have been radically reformed to provide for greater local autonomy. More recently still, the United Kingdom has transferred power in many fields to devolved government in Scotland and Wales[33] and created a new regional government for London. Meanwhile, as historically centralised states have taken steps towards greater devolution, countries with a tradition of strong local government, including the Nordic Countries, Germany or Austria, have continued to defend their models and, in some cases, sought to enhance local or regional autonomy further[34].

Advocates of decentralisation generally argue that public services should be delivered by the lowest level of government that can still provide these services efficiently. Three core arguments are frequently advanced:

[32] The Urban Audit itself contains data for a limited number of governance-related indicators in the "Local Administration" category (CI2). This chapter has also drawn on data on local government spending and income from National Accounts and qualitative information on city government responsibilities (competencies) collected during research for this report.

[33] The status of devolution in Northern Ireland remained unclear at the time of writing

[34] For example, the new system of local government in Denmark, which came into force on 1 January 2007, is explicitly designed to maximise decentralisation and proximity to citizens, while improving efficiency.

- *Proximity and accountability*: local government is closer to local residents, can understand their concerns and could be considered more transparent from the perspective of democratic accountability;
- *Flexibility*: local decision making can be responsive to the people for whom the services are intended and can tailor local services to local needs;
- *Efficiency*: local decision making can encourage fiscal responsibility and efficiency, as local politicians are directly answerable for the performance of local services. This is especially the case if the financing of services is also decentralised.

If in political theory decentralised systems are frequently argued to offer certain advantages, in the real world, the desire to ensure local accountability and responsibility inevitably has to be balanced against requirements for efficiency, high quality and consistency in the provision of public services. In this respect, decentralisation also has a number of widely accepted limitations.

Firstly, the scale and complexity of some public service tasks mean that they require a certain level of population or territory to allow them to be organised and managed in an efficient and sustainable manner. In the field of healthcare, for example, hospital services are rarely the responsibility of the lowest tiers of government, simply because of the size of the population required to justify (and help pay for) such resource-intensive facilities. Similarly, local public transport is often the responsibility of intermediate or regional levels of government to allow for better coordination of services over a wider geographical area.

A second limitation relates to finance. If decentralised political decision-making is accompanied by decentralised revenue-raising, the income available to decentralised public authorities is likely to vary (perhaps considerably) between wealthier and poorer areas. In the absence of well-designed redistributive mechanisms, this can lead to significant disparities in the level of service provision and a lack of funds for services in the areas most in need. For these reasons, social security – the ultimate "redistributive" policy area – is almost always the responsibility of central government, even in countries with federal systems, where responsibility for many public services is decentralised.

As we shall go on to explore in relation to city government specifically, the degree of decentralisation in policy-making and delivery varies greatly between EU Member States and there is by no means a consensus on the most appropriate balance between central and local responsibility. Although there is widespread support for the principle of “Subsidiarity”, whereby higher level authorities should perform only those tasks which cannot be performed effectively at a more immediate or local level, there is little agreement on how this should be interpreted in practice.

In the context of the subsidiarity debate, a complex range of factors and questions come into play when it comes to considering the most appropriate role for city governments (something many EU countries, particularly those in Central and Eastern Europe[35], have been grappling with in recent years). These include:

- The *territory and structure* of city government – Where do we draw city boundaries? How will the city territory relate to other levels of local government? Do we need to create government for the "city region"? Over what scale?
- The *resources* of city government – How will the city's activities be financed? Should cities be able to raise their own taxes? If so, how much? Should public services be delivered directly by the city authority or delegated to other actors?
- The *responsibilities* accorded to city government – Which public sector tasks should the city administration (as opposed to other levels of government) deal with? How much freedom should they have to shape their own policies and initiatives? How do these relate to the roles of other levels of government?

In practice, a complex range of historical and political factors have influenced the actual form (territories, structures, resources and responsibilities) of city governments in Europe. In the remainder of this chapter, we seek to gain a clearer picture of the varied urban governance landscape that has emerged over time and assess the relative "power" of city governments between and within Member States.

Measuring the "power" of cities in an effective manner presupposes both a clear definition of what is meant by "power" in this instance and adequate and appropriate information with which to measure this. Neither of these elements is readily available and we do not claim to have found perfect solutions. However, our working definition of "power" in relation to city governments comprises two components:

- The relative "*weight*" of city governments in the national governance system (resources and responsibilities of city government as a proportion of all public sector resources and responsibilities) and;
- The relative "*flexibility*" of city governments to influence their resources and the way they discharge their responsibilities (the level of autonomy they have over taxation or other income and in the focus and design of policy interventions).

Our basic contention is that "powerful" city administrations require both "weight" and "flexibility"[36]. The following sections present the results of our investigation of these issues in relation to Europe's cities, drawing on data from the Urban Audit and elsewhere.

[35] On this, see, for example, the extensive work of the Local Government and Public Service Reform Initiative http://lgi.osi.hu/

[36] To be powerful, cities need to control a high proportion of resources and responsibilities (undertake a significant proportion of public sector tasks) in a national system and have the ability to influence revenue raising and policy design.

5.2 Towards an index of city power?

Given that the Urban Audit provides a set of quantitative data, designed to measure the situation in Europe's cities, our starting point in the investigation of city power was to explore how far it is possible to measure the relative "power" of cities using statistical information.

Taking into account the key factors of territory, structure, resources and responsibilities mentioned previously, we identified four main areas where quantitative measurement is possible:

1. *Size* – common sense and experience suggest that larger cities (and their governments) carry more weight in national political contexts than smaller cities – even if many other factors may have a greater impact on real city power. In this line of thinking, irrespective of other factors, Paris, London and Berlin will have a head start over Bordeaux, Nottingham and Dortmund on the basis of their relative population size. The way administrative boundaries are drawn can come into play here, as they determine the size of the "city";
2. *Structure and status* – not all cities have the same governance structures and political status, even within the same country. Some may be city regions, others merely subdivisions of larger local or regional government entities;
3. *Spending power* – the size of the budget and resources controlled by the city authority. This can be measured both in absolute terms and as a proportion of overall public spending in a particular country[37]. In international comparisons, in nearly all cases, both these indicators tend to highlight the overall levels of responsibility of city governments rather than tell us much about levels of investment in specific service areas;
4. *Control over income*[38] – the ability to influence income levels, notably through local taxes and charges is widely seen as a key element of local government autonomy[39]. When viewed alongside overall income and expenditure levels, the proportion of income obtained from local taxes provides a basic measure of local financial autonomy.

[37] The "spending power" of cities in a particular country can be considered in absolute terms (eg annual spending per inhabitant in euros) or in relation to the spending of other levels of government in that country. Thus, if a city in a given country has a lower level of spending per inhabitant than a similar city in another country (even when adjusted for Purchasing Power Parity), it may still be responsible for spending a comparatively higher proportion of total public spending in its national context. In international comparison, its "spending power" may appear "low" in absolute terms, but "high" as a proportion of total public spending.

[38] Level or proportion of total income are not included as these is assumed to be similar to "spending power", assuming income and expenditure are broadly in line.

[39] On this subject, see in particular the work of the OECD Fiscal Federalism Network https://www.oecd.org/department/0,2688,en_2649_35929024_1_1_1_1_1,00.html

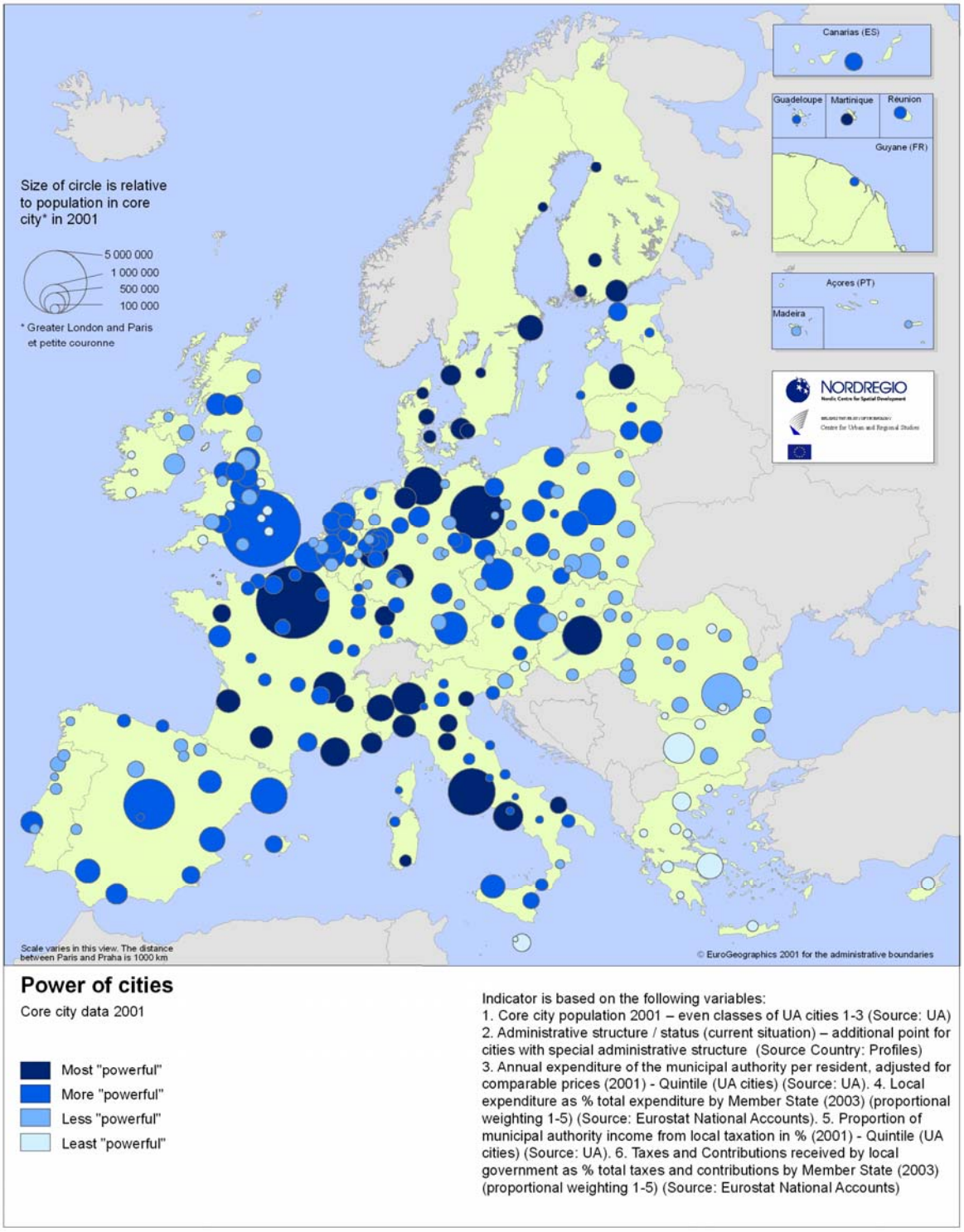
Size, structure and status, spending power all correspond to the "weight" component of our definition of power, whereas data on control over income provides some, albeit basic, indication of the "flexibility" enjoyed by city administrations.
Data on city size[40], spending per inhabitant (in absolute terms)[41] and the proportion of city authority income received from local taxes[42] is available from the Urban Audit for a majority of cities covered. In addition, harmonised data on the proportion of total public spending spent by local government[43] and the proportion of total tax revenue received directly by local government[44] is available at Member State level from Eurostat. Data for these five indicators were brought together, with an additional weighting to take account of cities with special administrative status[45], to classify cities into a broad four-category scale[46], in an attempt to illustrate the relative "power" (weight and flexibility) of their administrations. The resulting index of city power in the EU is mapped in Figure 5.1 overleaf.

In its current form, the index should be interpreted with some caution. It is based on a comparatively limited set of data and the variables used (those which are available) cannot do justice to the complexity of the issues and factors at stake. In particular, a quantitative approach to measuring city power such as this cannot at present reveal the relative importance of different policy areas falling under city council competence (it simply measures the overall scale of city government expenditure). Nor can it capture the diversity of inter-relationships which exist between city governments and other government levels, which affect the real level of responsibility and power at city level. In addition to such structural issues as legal competence and administrative hierarchies, a range of other, "softer" factors, including the calibre and skills of city leaders and administrators and the networks of which city governments are part, can play an important role in determining the real capacity of cities to influence policy and their own development paths.

Above all, the index mapped in figure 5.1 highlights the power of municipalities in the Nordic countries and Italy, where the proportional weight of local government expenditure and local taxes are the highest in the EU. In contrast, city authorities in Greece, Malta, Cyprus and Ireland, where, as we will go on to discuss, the role of local government is more restricted, emerge as among the weakest in the Union.

[40] Core city population – the "core city" definition used in the Urban Audit corresponds to the "administrative city" with political responsibility (usually the municipality or equivalent) in all cases except: Brussels (where the Brussels Capital Region has been used); France (where core cities correspond to the level of *Communauté Urbaine* or *Communauté d'Agglomération*) and Cyprus (where the core city of Nicosia encompasses 9 administrative units).
[41] Annual expenditure of the municipal authority per resident, adjusted for comparative prices.
[42] Proportion of total municipal authority income obtained from local taxation.
[43] Local government expenditure as % total government expenditure. Local government includes all sub-national authorities except *Länder* in Germany and Austria and Regions in Belgium and Spain.
[44] Taxes and contributions received by local government as % total taxes and contributions. Local government includes all sub-national authorities except *Länder* in Germany and Austria and Regions in Belgium and Spain.
[45] An additional point allocated to cities with special (more "powerful") administrative status in their national context, such as German "City States".
[46] For more details on the indicators and methodology used, see Box 5.1.

Figure 5.1: An Index of City Power



Within some Member States, our index reveals considerable variation between cities, as a result of differences in city-level data on size, administrative status, spending and taxation patterns. In Germany, for example, the three “city states” of Berlin, Hamburg and Bremen,

along with three other large cities (Frankfurt am Main, Düsseldorf and Cologne), stand out from other cities as among the most powerful in the EU, principally on the basis of their high reported levels of expenditure per resident, their size and the importance of local tax revenues. Large French cities, including Paris, also feature in the group of "most powerful" cities, again because of local tax income and reported expenditure above the levels of other cities in France.

The UK has one of the most diverse systems of local government in the EU, which explains the considerable variation in the ranking of its cities. The status and structure of urban governments varies between England, Scotland, Wales and Northern Ireland and, to a very significant degree, within England itself. Thus, while large English cities, with "unitary authority" status emerge as more powerful (the second group in our index), smaller cities, with "District Council" status stand out as having some of the least powerful city governments in Europe (largely on the basis of expenditure levels dramatically lower than their unitary authority counterparts). London is a particular case. Urban Audit data on the spending and income of boroughs and the Greater London Authority suggests levels of spending per capita on a par with other large UK cities and, in terms of the most obvious European comparator, the City of Paris. However, in comparison to their French counterparts, London and other UK cities have less control over local taxes, resulting in a lower ranking in the index.

Another interesting pattern illustrated in Figure 5.1 is the variation that exists between city administrations in Central and Eastern Europe. Local government in this part of Europe has undergone considerable reform in the last decade, resulting in a considerable devolution of authority to local government in many countries. Although the available data highlights comparatively low levels of spending in many cities (even after adjustment for relative price levels), reported levels of expenditure per inhabitant at city level in several Hungarian and Czech cities are comparable with or above those in many Western European cities, while Polish local authorities are responsible for spending an above average proportion of government expenditure in their country.

Naturally, the index of city power presented here is far from perfect and, as noted, cannot hope to capture the intricacies of the different local government systems that exist in the EU. Data availability means that we have had to use information from different reference years, rather than from a fixed point in time. Moreover, further research would be required to improve the relative weighting of the different variables we have used: notably the balance between expenditure (as an indicator of responsibilities and relative "weight" in the national government system) on one hand, and income from taxation on the other. As we shall examine further, the link between proportionally high local taxes and "power" is not direct and open to considerable discussion. With a view to elucidating some of this complexity, we will now look at the factors included in the index in a little more detail.

Box 5.1: An Index of City Power – methodology

The index of "city power" presented in Figure 5.1 is based on an index of **six** variables. Cities or Member States (depending on the variable) were ranked according to each variable and attributed a score, based on their relative position in the ranking, as follows (full index included in Annex 5):

Variable / Indicator	Year	National / City Level	Source	Scoring used in index
1. Core city population	2001	City	Urban Audit	Even classes 1-3
2. Administrative structure / status	Situation 2006	City	Country Profiles	1 additional point for special administrative status (eg City States)
3. Annual expenditure of the municipal authority per resident, adjusted for comparative prices	2001	City	Urban Audit / Eurostat	Quintiles (1-5)
4. Local government expenditure as % total government expenditure	2003	National	Eurostat (National Accounts)	Proportional rating (1-5)
5. Proportion of municipal authority income from local taxation in %	2001	City	Urban Audit	Quintiles (1-5)
6. Taxes and contributions received by local government as % total taxes and contributions	2003	National	Eurostat (National Accounts)	Proportional rating (1-5)

The reference year 2003 was used for National Accounts data (as opposed to 2001) owing to better data coverage – all cities in the same Member State were attributed the same score. Adjustments were made for UK cities, to take account of different administrative systems in England, Scotland, Wales and Northern Ireland. In a limited number of instances (Sweden, Germany, Ireland) data gaps in the Urban Audit data (on city expenditure and income from local taxation) were estimated based on available data from the cities in question (notably from Annual Reports). An average "score" was then calculated, taking necessary account of missing data points, to produce a ranking of the 258 Urban Audit cities. In the light of accompanying research on the structures and responsibilities of city administrations in the EU, this ranking was used as the basis for the four classes (city types) presented in Figure 5.1.

Source: ECOTEC

5.3 Does size matter?

Europe's city governments are part of a complex patchwork of regional and local authorities covering the European territory, all operating within the context of distinct national governance systems. The way national territories are subdivided provides the fundamental framework for local and city government by determining the area (and local population) for which they have responsibility and over which their policies can have a direct influence. Although some countries have only one tier of local self-government, others have several. This leads to different forms of "multi-level governance" and the responsibilities of these different levels and the way they interact, both legally and in everyday practice, can also influence the power of city authorities to design and implement policy on their own turf.

The municipality is the basic unit of local government in nearly all EU countries and usually the most important unit of urban self government[47]. Although the United Kingdom and Ireland do not generally use the term "municipality" in their local government systems, UK and Irish local authorities (including city councils and unitary authorities) can be considered as "municipalities" for practical and comparative purposes. For a complex range of historical reasons, however, there is very considerable variation in the average size of local authorities between Member States and between formally equivalent local authorities within a single Member State. The average population of the basic unit of local government (all settlement types included) varies between less than 2000 in France, the Czech Republic and Cyprus to over 100 000 in the UK[48]. The Nordic Countries (Denmark, Sweden, Finland), Belgium and the Netherlands are also characterised by comparatively large municipalities (over 30 000 inhabitants on average).

These basic differences in local government size help to explain some of the variation we see in urban government structures in Europe today. In several EU countries with traditionally small urban municipalities, local authorities have been encouraged to group together to facilitate the provision of local services, such as local transport, waste management and economic development. This reflects a desire to achieve economies of scale and match the allocation of public tasks to the most appropriate or efficient spatial level. Formalised cooperation structures between groups of municipalities of this type are most developed in France and Portugal[49], although less institutionalised inter-municipal cooperation for service delivery is widespread elsewhere in the EU.

[47] The "core" towns and cities used in the Urban Audit in most cases correspond to municipalities, reflecting a desire from the outset to use administrative towns and cities with real political responsibility as the basis for developing comparable urban statistics in Europe.

[48] This situation in the UK has developed over the last 35 years, with the gradual replacement of smaller urban and rural districts and borough councils with larger "unitary authorities" and District Councils (second tier local authorities in England).

[49] In Portugal, since 2003, there have been seven Greater Metropolitan Areas (*Grandes Áreas Metropolitanas* -GAM: total population over 350 000) bringing together municipalities in the country's largest urban areas (including Lisbon) and a set of 12, smaller Urban Communities, performing a similar role in medium-sized towns (*Comunidades Urbanas*: total population between 150 000 – 300 000).

Box 5.2: Grouping Municipalities in France

In France, municipalities (*communes*) remain the basic unit of local government, but are encouraged to enter into alliances with other *communes* to deliver common services. Given the very small size of many French *communes* this is often necessary to achieve a viable scale for the effective delivery of public services. The municipality groupings, collectively known as *Etablissements Publics de Coopération Intercommunale* (EPCI), were created in 1999 by the so-called *loi Chevènement* and can take three main forms, two of which are relevant to urban government[50]:

1. **Communautés urbaines** (more than 500 000 inhabitants) covering large towns. There are currently 14 *Communautés urbaines* in France, including cities such as Lyon, Lille, Marseille, Nancy and Bordeaux.
2. **Communautés d'agglomération** (between 50 000 and 500 000 inhabitants) in theory covering medium-sized towns. There are 164 *Communautés d'agglomération*, including Urban Audit cities such as Dijon, Reims, Ajaccio, Metz and Rouen.

Existing *Communautés urbaines* (some of which had existed since 1966) was generally allowed to maintain their status and title under the new legal framework, meaning that many *Communautés urbaines* actually have fewer than 500 000 inhabitants. Both types of government structure undertake tasks explicitly assigned to them by the constituent *communes.* These nearly always include economic development, waste and environmental management and local public transport.

As the *Communautés urbaines* and *Communautés d'agglomération* relate more directly to the functional city than the original municipalities of the same name, these units of local government have been used as the definition of the "core city" in France for the Urban Audit.

Source: ECOTEC

5.4 Not all cities are equal

The diversity of local government units and structures in the EU means that not all cities are equal. Although, as mentioned, municipalities are usually the principal unit of city government in the EU, closer inspection reveals three main categories of city government structure:

- *Cities with special status or structure* – Capital cities in many Member States (10 out of 27[51]) have a different administrative structure to the rest of the cities in that country. Often this gives on capitals the status of a region or equivalent higher level unit, as a reflection of their larger size. In a more limited number of countries (including France, Hungary, the Netherlands, Slovakia), the largest two or three cities are subdivided into districts, while smaller cities are not. In Germany, historical factors explain the existence of the three City States of Berlin, Hamburg and Bremen, which are simultaneously cities and *Länder*.

[50] The third form – the *communauté de communes* (for settlements with fewer than 50 000 inhabitants) – is widespread in predominantly rural areas.

[51] 1. Vienna (Both a Statutory City and a *Land*); 2. Brussels (Region); 3. Prague (Region and municipality); 4. Berlin (City state); 5. Madrid (metropolitan status); 6. Paris (municipality and *département*); 7. Budapest (City-wide municipality above 23 districts); 8. Warsaw (separate administrative status); 9. Bucharest (municipality with county status); 10. London (Region with elected mayor and assembly).

- *"Single-tier" cities* – These are city administrations that form the only tier of local government responsible for the city, directly below the regional level. This includes a) cities in countries with no intermediate (county) level of government and b) cities which combine the functions of the intermediate and municipal levels in countries which elsewhere do have a "county" level (Cities with County Status or "unitary authorities"). The classic example of the latter type are the 116 *Kreisfreie Städte* in Germany, which simultaneously perform the roles of *Kreis* (county or "district") and *Gemeinde* (municipality);
- *Cities in "two-tier" systems* – These are cities which share responsibilities with an intermediate level of local government as they are situated within (although often not subordinate to) counties or provinces. This is the case of nearly all cities in a majority of Member States (including Belgium, Denmark, Spain, France and Italy). In some other Member States (including Germany, Austria, Hungary, Ireland and the UK) this structure exists only for smaller cities, which do not have county or unitary authority status.

The pattern of city government structures in the EU is summarised in Table 5.1 below. This table also highlights where groupings of municipalities exist and where city sub-divisions exist at neighbourhood level. The structure which applies in the majority of cities and large towns in each country is highlighted in grey.

Table 5.1: City administrative structures in the EU

	Cities with special structure	Single tier cities	Groups of municipalities	Cities in two tier systems	Neighbourhood level
AT	Vienna (Statutory City + Land)	**Statutarstadt (Statutory City)**		Gemeinde (small cities / towns)	
BE	Brussels (Region with 19 communes)			**Commune / Gemeente**	Districts (Only in Antwerp)
BU		**Obština**			Districts in 3 largest cities
CY		**Municipality**			
CZ	Prague (region + municipality)	**Obec (includes "Statutory Cities")**			Municipal districts (in "Statutory Cities")
DE	Berlin, Hamburg, Bremen (City States)	**Kreisfreie Stadt (city with county status)**		Gemeinde (small cities / towns)	Bezirke (districts) in Berlin and Hamburg
DK				**Kommun**	
EE				**Linn (urban municipality)**	Districts in large municipalities
EL				**Dimos (urban municipality)**	Districts in large municipalities
ES	Madrid, Barcelona (metropolitan status)			**Municipio**	Districts in large municipalities
FI		**Kunta (municipality)**			
FR	Paris (simultaneously municipality and département)		Communauté d'agglomération Communauté urbaine	**Commune**	Arrondissement in Paris, Lyon, Marseille
HU	Budapest (City wide municipality and 23 municipalities)	**Megyei jogú város (City with county status)**		Municipalities (smaller cities and towns)	Districts in cities with county status
IE		**City Councils**		Town councils (smaller cities / towns)	
IT				**Commune**	
LT				**Savivaldyb (municipality)**	
LU		**Commune**			
LV		**Lielpilseta (city)**		Municipalities ((smaller cities / towns)	
MT		**Local Authorities**			
NL				**Gemeente**	Deelgemeente / Stadsdelen in Amsterdam and Rotterdam
PL	Warsaw	**Powiat grodzki (urban powiat)**		Gmina (small cities / towns)	
PT		**Concehlo / municipio**	Metropolitan Areas Urban Communities		Freguesia (parish)
RO	Bucharest (Municipality with county status)			**Municipiu (Large municipalities)**	
SE				**Kommun**	
SI		**Obcina (Urban Municipalities)**			
SK		**Obec (municipality)**			Districts and sections (Bratislava, Kosice)
UK	Greater London (Region with elected mayor + assembly)	**Urban Unitary Authorities**	6 English metropolitan authority areas	Cities with District Council status	

Source: ECOTEC Country Profiles

Alongside these structural issues for local government, models of democratic local government and leadership continue to be a subject of debate. In particular, the question of whether or not mayors should be directly elected has been on the policy agenda in several EU countries in the last decade. Box 5.3 presents the current situation regarding city leadership models in the EU. While there is certainly considerable diversity, there is no apparent link between the existence of directly elected mayors and "powerful" city administrations.

Box 5.3: City leadership models in the EU

	Mayor directly elected	Mayor elected by City Council	Mayor appointed	Civil servant holds executive power	Ceremonial mayor in addition to executive
AT (1)	x	x			
BE		x			
BU	x				
CY	x				
CZ		x			
DK		x			
EE		x			
FI		x			
FR		x			
DE (2)	x	x			
EL		x			
HU	x				
IE				x	x
IT	x				
LT		x			
LT		x			
LU			x		
MT		x			
NL			x		
PL		x			
PT (3)	x				
RO	x				
SK	x				
SI	x				
ES		x			
SE		x			
UK (4)	x	x			x

Source: ECOTEC Country Profiles

(1) The mayor is elected by and from the members of the municipal council in four *Länder*. In the other five *Länder,* s/he is elected directly by the population.

(2) Mayors are elected directly in all *Länder* except the three City States (Berlin, Bremen and Hamburg), where mayors are elected indirectly by the combined city and *Land* parliament.

(3) The executive of the city is the directly elected Municipal Chamber – a collegiate body, rather than an individual

(4) Under the Local Government Act of 2000, local authorities in England and Wales could choose to adopt an executive model with a directly elected mayor or a more collegial model with a council chairman and a cabinet. There are currently 11 authorities with directly elected mayors, in addition to the Mayor of London, who has a legal status and powers unique to London.

Directly elected mayors exist in 11 of the 27 EU Member States, although in Austria mayors are not elected in all *Länder* and in the UK, elected mayors only exist in a few cities. In 13 countries mayors are always elected indirectly by the city or municipal council. This is the case elsewhere in Austria and is the norm in the United Kingdom, where the holder of the post equivalent to that of a mayor in many other countries is usually referred to as "leader" of the council. In larger cities (those with historical city status), this is important to distinguish the position of head of the council executive from the purely ceremonial position of Lord Mayor (Lord Provost in Scotland).

The Netherlands and Luxembourg have unusual systems, where the mayor is not elected in the city (either directly or indirectly), but rather appointed by another level of government. In the Netherlands, this appointment is made by the Queen's Commissioner, the representative of the Queen and central government in the province (equivalent to prefect or provincial governor in other countries), while in Luxembourg appointments are made by central government.

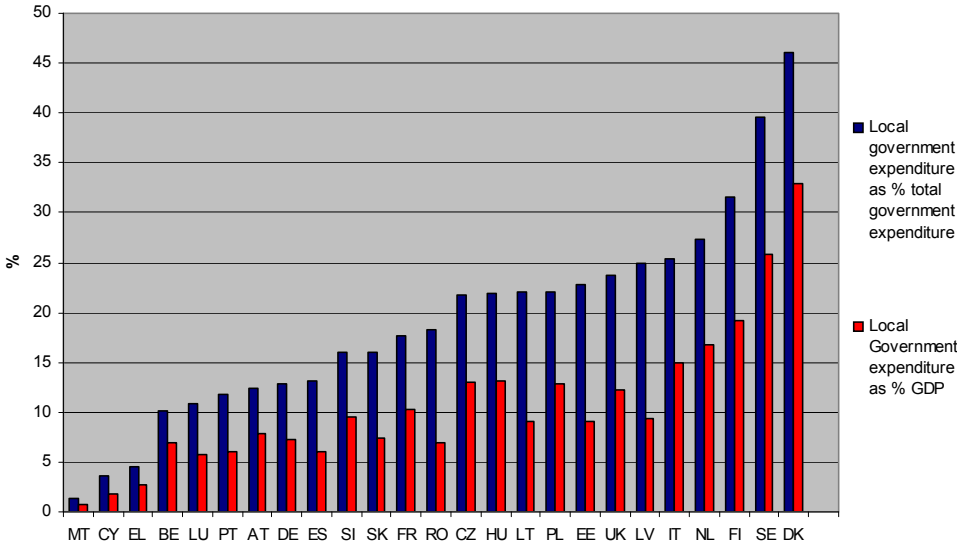
The last exception is Ireland, where the executive functions of city councils (and county councils) are undertaken by an official appointed through civil service recruitment procedures, rather than an elected politician. The "City Manager" follows the decisions of the city council in the (limited) areas for which the council is responsible, but in other areas acts independently.

Source: ECOTEC

5.5 Money matters too

Alongside size and structure, our index of city power has been based primarily on data relating to the expenditure and income of city authorities in the EU, drawn from the Urban Audit at city level and National Accounts data at national level. On the expenditure side, given the methodological difficulties of relying solely on the city-level data, harmonised national data on local government expenditure as a proportion of total government expenditure was introduced to provide an indication of the overall "weight" of local governments (including city governments) in national policy systems. Figure 5.2 presents local government expenditure in EU Member States both as a proportion of total public expenditure in each country and as a proportion of GDP.

Figure 5.2: Local government expenditure in the EU in 2003



Source: Eurostat – National Accounts. No data for Bulgaria and Ireland

The data presented include intermediate and local government expenditure[52], not just expenditure at the city level. However, given the predominance of the city level of government (municipality, city with county status or unitary authority) in most local government systems, the data still provides a valid basis for comparison[53]. The strong position of local government (municipalities and counties together) in the three Nordic countries is particularly striking. In Denmark and Sweden, local authorities control budgets equating to over a quarter of national GDP. The comparatively high spending power of Dutch and Italian municipalities is also evident. In the case of Italy, while municipalities

[52] All local government expenditure, except for Germany, Austria, Belgium and Spain, where regional (State) government expenditure is excluded.

[53] In France, the predominance of the municipal level in "local government" expenditure is less pronounced than elsewhere – although municipalities account for the largest share of local government expenditure (53% in 2004), the *départements* accounted for 35.2% in 2004 and the regions for 11.4%. Source: http://www.vie-publique.fr

(*comune*) remain the most important level of local government for many day to day services, it is important to note that the data presented also include expenditure by the regions. Local authorities (primarily municipalities) also control over 20% of government expenditure in the Czech Republic, Hungary and the Baltic States, in sharp contrast to the situation in Greece, Malta and Cyprus, where local government budgets account for less than 5% of total public spending.

Income is naturally an important prerequisite for expenditure. In our index of city power, we assumed that the sources of income available to city authorities were an important factor in determining their level of autonomy and power and suggested that greater control over local taxes is an element in achieving greater power. The picture in Europe is, however, rather complex.

Returning to basics, it is clear that city governments obtain their income from three main sources: taxes; grants (transfers) from other levels of government and fees and charges for services. *Local taxation* takes many forms. In very broad terms, property taxes (on residential and business premises) are by far the most common source of direct tax revenue for city governments. Local business taxes exist in 11 EU countries, including Germany, France, Spain, Hungary and Denmark, while local income taxes account for a significant proportion of municipal income in the Nordic countries and are also used (albeit at a much lower level) in Italy and Belgium. In addition, there is a wide variety of other local taxes, ranging from taxes on dogs to hotel accommodation, which defies easy classification[54].

In some countries, city governments receive a specific share of taxes which also benefit the county, regional or national level. Under these circumstances, the share received at the local level is generally fixed by national (or regional) government or in negotiation between the different administrative levels. *Grants are transfers* of funds from another level of government (usually national or regional) to the local level, which can take the form of block grants (which the local level can use at its discretion, within legal limits) or "ear-marked" or "ring-fenced" grants, which must be used for a specific purpose. The latter type of grant is the most prevalent in the EU.

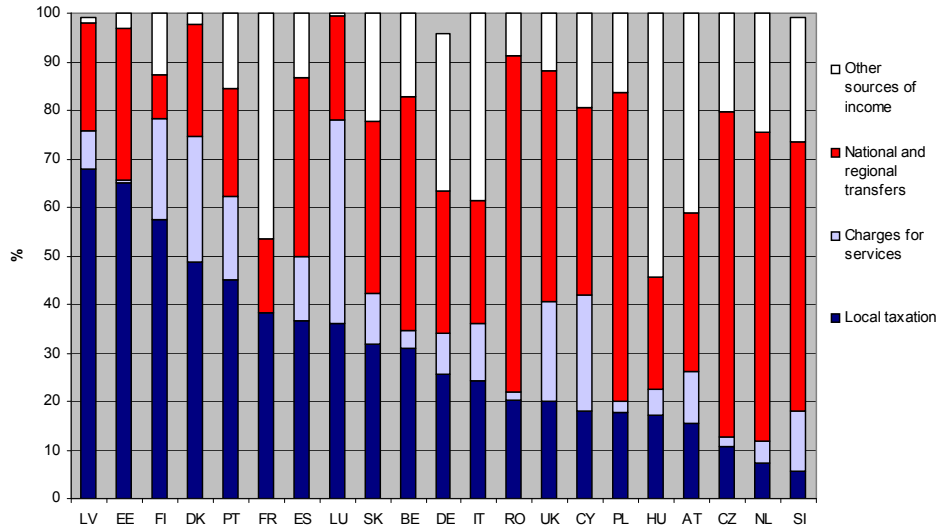
Fees and charges received by city administrations can include charges for specific services and amenities and revenue from city-owned organisations, as well as rent from city-owned properties (including council housing). Charges for services may frequently not cover the actual cost of providing the service. For example, this is almost certainly the case with public swimming pools in all EU countries, where such facilities are provided as a public good. In other areas, such as public transport or housing rents, the level of cost

[54] For a relatively comprehensive and accessible overview, see Dexia (2004)

coverage varies from country to country depending on traditions and deliberate policy choices.

The Urban Audit data relating to municipal authority income from local taxes, transfers, charges and "other" sources, based on un-weighted averages for each Member State is presented in Figure 5.3. The proportion of income from local taxation (shown below in dark blue) is the indicator used in the index of city power.

Figure 5.3: Municipal authority income by source (2001)



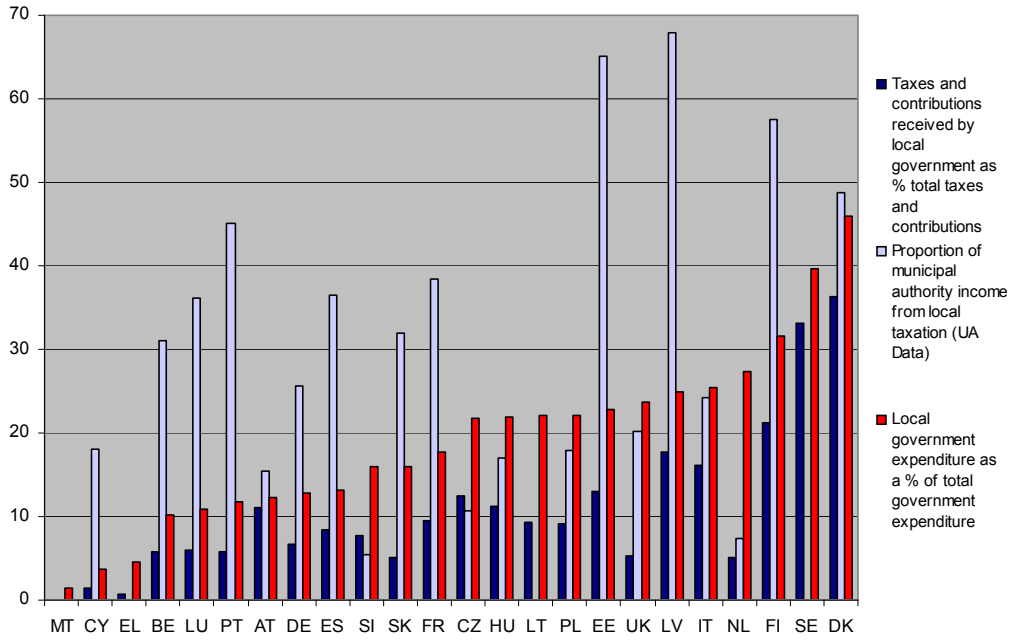
Source: Urban Audit

On its own, data on the proportion of city government income obtained from local taxation tells us little about the overall sums of money involved. We need to consider the role of local taxation in the context of total income and expenditure. Figure 5.4 brings together the Urban Audit data on municipal authority income from local taxation and National Accounts data on local government expenditure (presented above) and on the proportion of total tax revenue received directly by local government in each Member State.

Overall, the European picture regarding the proportion of total tax revenue received by local government tends to follow the same pattern as local government expenditure as a proportion of total government expenditure. Thus, in Member States where local government is responsible for a high proportion of total *public expenditure*, local authorities also tend to receive a high proportion of total *tax revenue* directly. This is particularly the case in the Nordic countries (Denmark, Sweden and Finland), and two of the three Baltic States (Latvia and Estonia). In these countries, local taxation accounts for in excess of

50% of municipalities' total income, in all cases[55] (illustrated by the light-coloured bars in Figure 5.4).

Figure 5.4: Local taxation in perspective



Source: Proportion of municipal authority income from local taxes: Urban Audit; Other data: Eurostat National Accounts. Data not available from Bulgaria, Romania and Ireland

There are nevertheless important exceptions to this pattern. In particular, the Netherlands and the UK are characterised by local government systems, where local authorities are responsible for a comparatively high proportion of total public expenditure (27% and 24% respectively), but receive a comparatively small proportion of total tax revenue (5.1% of total taxes in the Netherland and 5.3% in the UK). As a consequence, in both countries, local taxes account for a relatively small proportion of overall local authority income, particularly in the case of the Netherlands.

Local governments in France, Spain[56], Portugal, Slovakia, Luxembourg and Belgium are responsible for a lower proportion of total public spending (below the EU average of 19.1% of total government spending) and receive under 10% of total tax revenue in all cases. However, Urban Audit data highlights that local taxes account for over 30% of municipality income on average in these countries, making the most important contribution in France (38% of the income of French Urban Audit cities on average) and Portugal (on average

[55] Data are not available from the Urban Audit for Sweden. The Swedish Association of Local Authorities and Regions states that on average 67% of municipal income comes from local and shared taxes (SALAR, *Levels of local democracy in Sweden*, p.10 – www.skl.se)

[56] National Accounts data for local government in Spain (as in Germany, Austria and Belgium) excludes data relating to regional or state governments. As such data for Spain relates principally to the municipal level.

48% of Portuguese Urban Audit city income). The situation is generally similar for Germany, although the proportion of municipality income obtained from local taxes is lower than in France, as is the share of public spending by municipalities and *Kreis* administrations compared to expenditure by municipalities, *départements* and regions. As noted earlier, the situation in the three *Staatstädte* (Berlin, Hamburg, Bremen), where there is considerable overlap between regional (Land) and city administrations and governance structures, differs from the general picture in Germany's *Kreisfreie Städte*.

5.6 At the heart of the differences: local responsibility

The differences in expenditure levels between city authorities are naturally linked to the number and scale of tasks for which they are responsible. However, this kind of information cannot be obtained from the quantitative data examined so far and are not part of our index. Exploring further the reasons behind the variations between cities and Member States requires a more qualitative approach, focusing on city authority responsibilities and areas of competence.

Municipal authorities have long played a leading role in delivering public services to citizens. From the 19th century onwards, city governments were instrumental in the development of core municipal services such as water supply, sanitation and gas and subsequently became involved in an increasing number of tasks, with the spread of universal primary and secondary education (involving some role for municipalities in many countries), the development of telecommunications and the expansion of urban public transport.

Despite considerable variation in urban structures, the pattern of municipal responsibility in pre-1945 Europe was broadly similar across the continent, albeit with far more sophisticated levels of service provision in the wealthy cities of the northern and central Europe. After 1945, the development of welfare states and collectivisation in much of Central and Eastern Europe resulted in governments as a whole assuming responsibility for a far greater number of tasks. These included healthcare, social insurance, and care for the elderly and disabled, which in most countries had previously been individual rather than collective matters. Differences in the allocation of these tasks between central or local government over the last 50-60 years help to explain some of diversity in local government roles that we see in Europe today. While in some countries these developments led to a significantly increased role of city governments, in others, including those with Communist governments, centralised control of budgets shifted the balance of power away from the municipal level.

Perhaps, the next major challenge to the status quo in urban government came with the rise of a neo-liberal political agenda and the development of New Public Management theories from the 1980s onwards. The policies associated with the new economic and social doctrine, which challenged the post war settlement, were pioneered and most

vigorously pursued in the United Kingdom. Here, local authorities were increasingly held directly accountable for their expenditure by central government and encouraged (and frequently coerced) into policies of budgetary restraint and partial or complete privatisation of traditionally publicly-controlled services. The most notable example of this was the deregulation of local public transport provision in 1986. While few European countries undertook reforms on a similar scale (in some cases owing to stronger legal independence of local government), the impact of free market thinking on public policy across Europe is well documented. Certain trends, such as the "contracting out" of local services to private or voluntary sector operators, can be observed in many countries.

A final significant development in the last two decades has been the wholesale reform of the local government structures in Central and Eastern Europe in the period after 1989. In these countries, where local government had generally been relegated to the role of implementing central government directives, the 1990s saw the (re)establishment of democratically-elected local governments with enhanced responsibilities and freedom. In the field of urban government, examples include the re-establishment of Urban Powiats (similar in structure to German *Kreisfreie Städte*) in Poland or the empowerment of the municipal level in the Latvia, Lithuania and Estonia.

City-level governments are responsible for delivering many of the services on which we all rely on a day to day basis and for spending a significant proportion of public sector resources in a majority of EU Member States. However, the degree of involvement in different policy areas and the level of discretion that local government can exercise in executing public sector tasks varies considerably between countries.

Box 5.4: Types of public sector task

Public sector tasks are frequently classified into three main types (although terminology varies), which differ in the degree of discretion allowed to the authority undertaking them:

1 **Delegated tasks** – these are tasks that are "delegated" to local government to undertake on behalf of a higher level authority, usually allowing no or only very little discretion in their application. In these cases, local government effectively acts as an agency of a higher level of government, engaged in the implementation phase of a policy formulated elsewhere[57]. Typical examples include administration of population registers, issuing of identity cards and driving licences or, in some countries, administration and payment of social security benefits.

2 **Obligatory tasks** – these are tasks which local government is obliged to perform as a result of national or regional level legislation or regulation. Although the local authority is obliged to provide the service in question, it may have considerable discretion in the way this service is provided. In many countries, however, strict national guidelines limit local government's real room for manoeuvre in numerous policy fields. Typical examples include social services for the elderly or nursery level education.

3 **Discretionary tasks** – as the name suggests, these are tasks which the local authority provides at its own discretion. As such, city administrations have greatest autonomy in the policy areas falling into this category. Typical examples include cultural policy or development of parks and green space.

[57] This is the so-called "agency model". See, for example OECD (2002), p.91

As part of the research undertaken for this report, we examined the assignment of responsibility for undertaking certain public sector tasks in all 27 EU Member States, with a particular focus on the role of city-level governments. For each of a range of clearly defined tasks in key policy areas where local government might be expected to have a role, we have sought to indicate the level of involvement of city authorities on a scale of 0 to 4[58]. In making this assessment, the level of discretion city authorities possess in the way the task in question is carried out naturally comes into play – in the case of delegated and many obligatory tasks (see box 5.4), responsibility is, in practice, shared between the city authority (that executes the task) and a higher level of government (usually national), which defines it.

The full results of the assessment of city government responsibilities are presented in the country profiles in the annex to this report. Below, we focus on the role of EU city governments in 20 defined public sector tasks in five thematic areas of particular relevance to urban development, namely:

1. Planning and economic development;
2. Labour market policy;
3. Education and training;
4. Transport;
5. Housing.

For this report, we have selected a limited number of key areas in order to get a more focussed vision of cities' responsibilities and their possible impact in terms of competitiveness. A more thorough analysis would involve other or more specific domains such as culture, which can play a prominent role in cities' attractiveness, or infrastructure management and development.

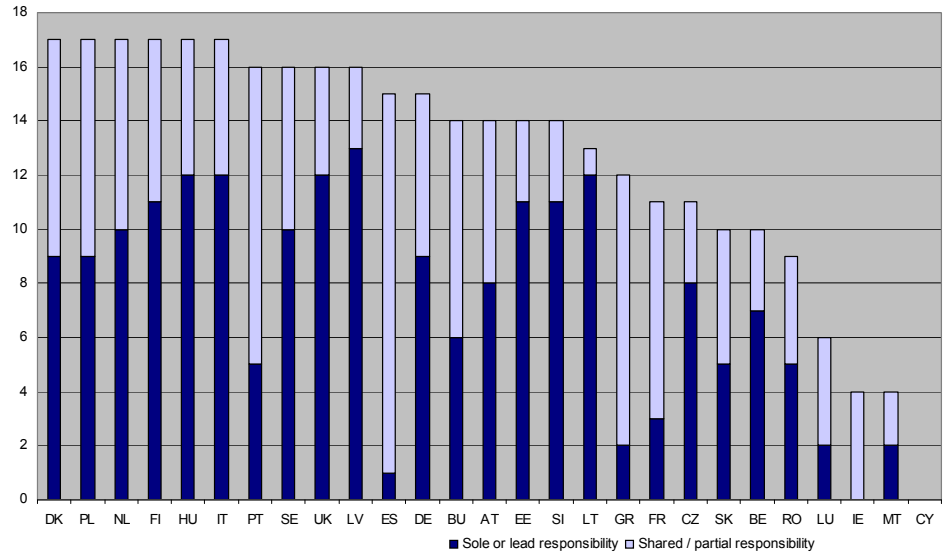
Figure 5.5 summarises the information results of our survey, highlighting for each Member State the number of instances where city governments assume sole, lead or partial responsibility for each of the 20 public sector tasks included in our assessment. Thus, in the case of Denmark, city (municipal) authorities take sole or lead responsibility for 9 of the 20 tasks, and share responsibility for another 8 with another level of government (in most instances in this case, the newly-created Danish regions). The detailed results on which this summary figure is based are presented in Table 5.2. The ratings shown seek to reflect the reality of service provision and decision-making, rather than simply the formal legal assignment of responsibilities. As such, our classifications are based on a combination of

[58] The scale used was defined as follows:

0. no involvement
1. limited responsibility / involvement (for example, a consultative role)
2. partial or shared responsibility (other levels of government also have significant involvement)
3. lead responsibility (other levels of government have much more limited involvement)
4. sole responsibility

examination of the formal legal framework in each country and more subjective expert judgement about the reality on the ground, particularly where responsibilities in a particular policy area are shared between government levels (as is frequently the case). The complexity of the subject matter and the breadth of policy areas covered mean that our approach was necessarily designed to provide a broad brush picture of where responsibility lies, rather than an in-depth analysis of each national context.

Figure 5.5: Selected City Government Responsibilities in the EU 27



Source: ECOTEC Country Profiles

The figure highlights the considerable variation in the distribution of responsibilities in certain key local policy areas and reinforces the picture of city power indicated by the expenditure data examined previously. In particular:

- The high level of responsibility devolved to municipalities in the **three EU Nordic countries**, the Netherlands and Italy is clearly evident. Moreover, in the case of the Nordic countries (particularly Denmark), the composition of tasks examined does not take into account the uniquely important role of local authorities in health and social services;
- The comparatively **high level of devolution in many Central and Eastern European countries**, including Poland, Hungary, Lithuania and Latvia, once more comes to the fore. In Poland, this particularly reflects the role of city administrations (Urban Powiats) in employment policy (including the public employment service) – tasks frequently undertaken by central government agencies in other Member States – as well as their strong role in housing provision and policy. Cities with county status (and Budapest Districts) also maintain lead responsibility for housing policy and a role in social housing in Hungary, where the education system is also administered by local government (albeit within clear national guidelines). In the cases of Latvia and Lithuania, and to a large extent in Estonia and Slovenia, the size of the countries, the absence of intermediate levels of local government and deliberate decentralisation

policies explain why responsibility for many public services falls to the municipal level (including city councils) in these countries.

- Contrary to certain popular perceptions, local government in **the UK** plays a comparatively important role in the national governance system, notably in the fields of education, business support and housing (despite changes in ownership of social housing in the last two decades). Even in transport – where deregulation, privatisation and limited funds have considerably reduced the scope of local authorities to act - real responsibilities remain.
- In comparison, the role of local authorities in **France** is more restricted in terms of policy domains, despite the relatively high levels of expenditure at local level. This reflects the comparatively limited role of local government in education (which is largely controlled by central government) and shared responsibilities in transport, which is coordinated at the level of *Communauté urbaine / d'agglomération* and shared with regional level in the area of rail transport (TER);
- In **Spain and Portugal** municipal government has a comparatively limited role, with central and regional government leading or sharing responsibility for many public sector tasks. In Spain decentralisation over the last two decades has greatly increased the power of the Autonomous Communities, but often left untouched or diminished the power of the local level. The result is that municipalities are involved in many policy areas, but nearly always share responsibility with other levels of government, which are generally more powerful.
- In **Greece**, municipal governments are also involved in a wide range of policy areas, but in many cases operate under close supervision of central government, given their limited budgets.
- The limited responsibilities of city authorities in **Luxembourg, Malta and Cyprus and Ireland**. In the case of the first three, this relates to the small size of the countries. Although size is a factor in Ireland, the current situation results from an ongoing trend of centralisation, and has led to a notable divergence from the UK system of local government, with which it has common origins.

Table 5.2: City Government Responsibilities in Five Thematic Areas

Thematic Area	Activity	AT	BE	BU	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	UK
Planning and Economic Development	Developing and managing strategic regeneration plans for the City	**4**	**3**	**3**	1	**3**	**3**	**3**	**3**	2	**4**	2	2	2	2	**3**	2	2	3	1	**3**	**3**	2	2	**4**	**3**	2	**3**
	Taking planning decisions for development and granting planning permission	2	**3**	2	1	**3**	**4**	**4**	**4**	**3**	**4**	**3**	**3**	**4**	2	**4**	**4**	**4**	**4**	1	**3**	**4**	**4**	**3**	**4**	**4**	**4**	**3**
	Providing direct support for inward investors	1	1	1	1	2	2	**3**	1	2	2	1	0	1	0	**3**	0	1	2	0	**3**	2	2	0	2	2	1	2
	Providing direct support for small businesses / entrepreneurs	1	1	1	1	2	2	**4**	1	2	2	1	2	2	0	2	0	1	1	0	2	1	**3**	0	2	2	**3**	2
Labour Market	Developing and overseeing employment strategy	1	1	1	0	0	0	2	0	0	2	2	0	2	1	2	0	0	2	0	2	2	2	1	1	1	0	1
	Managing public employment service	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	0	0	0	0
	Managing active labour market schemes	1	0	1	0	0	0	2	0	2	0	2	0	2	0	2	0	0	1	0	2	2	2	1	1	1	0	1
Education and Training	Strategic management of nursery schools / childcare provision	**4**	**3**	2	0	**4**	**4**	**4**	**4**	2	**4**	**3**	**4**	**4**	0	**4**	**3**	2	**4**	1	**3**	**4**	2	**3**	**4**	**3**	1	**3**
	Strategic management of primary schools	**4**	**3**	2	0	**4**	2	**4**	**3**	2	**4**	2	2	**3**	0	**3**	**3**	**3**	**3**	1	**3**	**4**	2	**3**	**4**	**3**	0	**3**
	Strategic management of secondary schools (10/11-16)	2	2	2	0	0	0	**4**	**3**	2	**4**	0	2	**3**	0	**3**	**3**	0	**3**	1	**3**	**3**	0	1	**4**	1	0	**3**
	Strategic management of institutions for 16-19 education	2	2	2	0	0	2	0	**3**	2	**3**	0	2	**3**	1	0	**3**	0	**3**	1	**3**	0	0	1	**3**	1	0	**3**
	Strategic management of adult education	**4**	2	2	0	0	**4**	0	**3**	2	**3**	0	2	**4**	1	**3**	0	0	2	1	**3**	2	2	1	**3**	**3**	0	**3**
	Strategic management of Higher Education Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Transport	Developing and overseeing local transport strategy	**4**	1	**3**	0	2	**3**	2	**3**	0	**3**	2	2	**3**	0	**3**	**3**	2	**3**	2	2	**3**	2	1	2	**3**	2	**3**
	Direct role in operating local public transport	**4**	1	**3**	0	**4**	**3**	2	2	2	2	2	1	**3**	0	**4**	**3**	1	**3**	**3**	2	2	2	2	2	**3**	2	2
	Direct role in procuring local public transport	**3**	1	**3**	0	**4**	**3**	2	2	2	2	2	1	**3**	0	**4**	**3**	1	**3**	**3**	2	2	2	2	2	**3**	2	**3**
	Planning and financing new local transport infrastructure	2	1	2	0	**4**	**3**	2	2	2	2	1	1	2	0	2	**3**	1	**3**	2	**3**	2	2	1	2	**3**	2	**3**
Housing	Developing and managing housing strategy	**4**	**3**	2	1	**4**	**3**	**4**	**3**	0	**4**	**3**	2	**3**	2	**3**	**3**	2	**3**	1	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
	Planning and financing construction of social housing	2	**3**	**3**	0	0	2	**3**	**3**	2	**4**	2	2	**3**	1	**3**	**3**	1	**3**	1	2	**3**	**3**	2	**3**	**3**	**3**	2
	Ownership of social housing	2	**3**	**3**	0	0	2	2	**3**	2	**4**	1	2	**3**	2	2	**3**	1	**4**	0	1	2	**3**	**3**	**3**	2	**3**	**3**

Legend

0 - no involvement
1 - limited responsibility / involvement (for example, a consultative role)
2 - partial or shared responsibility (other levels of government also have significant involvement)
3 - lead responsibility (other levels of government have much more limited involvement)
4 - sole responsibility

Source: ECOTEC, Country Profiles

5.7 Conclusions

This chapter set out to explore the extent to which city councils in Europe are involved in administering policies in their territory – their comparative *weight* in national governance systems – and their scope to influence policies in important areas such as planning and economic development, education and transport – their level of *flexibility* in discharging their responsibilities. We started with the assumption that more weight and more flexibility equates to more "power".

It is fair to say we have been able to progress further in the investigation of the first of these two areas than with the second. Taking into account differences in the size, structure and status, we have highlighted the considerable variation in the spending power and responsibilities of city governments between and sometimes within EU Member States. It has been possible to measure the scale of decentralisation of responsibility and spending power in Nordic cities, the strong involvement of municipal government in Italy and the Netherlands in many areas of policy delivery and the comparative weight of large city authorities in the UK. In contrast, the comparatively limited spending power and responsibilities of city governments not only in Greece and Ireland, but also in Spain and Portugal has also emerged. Nevertheless, simply measuring city government expenditure (even by policy area) or formal and actual responsibilities tells us little about the capacity of city authorities to *influence* or even *change* the way they provide services and design and implement policies – the other key component of city "power".

"Flexibility", discretion and autonomy are, by their very nature, more difficult to measure. We have attempted to shed some light on these issues, by highlighting the relative proportion of city council income obtained from local taxes and by classifying the level of cities' responsibility in different policy domains on a four-point scale. While this has been a useful exercise, it has served to highlight further the complexity of the subject matter we are dealing with. As the OECD has shown in its work on fiscal autonomy[59], the basic indicator of the proportion of income received by local taxes, does not, on its own, reveal the real degree of autonomy local authorities possess in determining the level or design of these local taxes. Similarly, it is difficult to assess the real room for manoeuvre possessed by urban governments in particular policy fields without going to the micro level, as so many factors come into play and can act as constraints on the opportunities available. Regulations set by higher levels of government, the effects of the economic context on local tax revenue, borrowing restrictions, political and ideological considerations and the skills of the people involved can all impact greatly on the real level of "flexibility" enjoyed by city authorities.

[59] See, for example, OECD (2002) https://www.oecd.org/dataoecd/10/47/2765013.pdf

These issues all warrant further exploration at the city level. An area of particular interest is the contribution of leadership and the skills of those working for the city to maximising urban development opportunities. A body of recent evidence[60] suggests that these "human" factors can play a crucial role in the design and implementation of successful city development strategies in a wide range of contexts.

[60] See for example, the results of the "European Skills Symposium" of November 2006 http://www.ascskills.org.uk/pages/international/skills-symposium

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Annexes

Annex 1: Methodological note on GDP estimations

Gross Domestic Product (GDP) is the most commonly utilised measurement of a country's or region's economic output. GDP refers to the monetary value of all market and certain non-market goods and services that are produced within a given territory. Some countries or regions are small in size while others are large, which renders a meaningful comparison between different spatial entities difficult. Therefore, GDP is measured per capita (i.e. per inhabitant or per head) or GDP per person employed.

GDP per capita may be viewed as a rough indicator of a country's or region's prosperity, while GDP per employed person can provide a general picture of a given territory's overall productivity. Using the number of persons employed as a measure of labour productivity ignores differences in the actual number of hours worked and in differing skill levels between persons. Therefore also GDP per hour worked is at times used as an estimate for labour productivity.

Therefore, GDP per capita is the most widely utilised measurement of a territory's economic performance and is as such difficult to bypass in any comprehensive analysis. GDP per capita is also the cornerstone indicator within the framework of European regional policy. Furthermore, at the time of commencing the analysis, employment data on six regions with UA cities was not available and therefore we opted for a 100 percent coverage and chose to utilise GDP per capita instead of per employed.

Nonetheless, when measuring regional economic performance GDP per capita is additionally problematic from the point of view of not taking into account commuting that occurs across the regional boundaries. Regions with higher in- than out-commuting get higher per capita values simply because the denominator in this case is smaller than would be the case if all employed persons within the region would have been utilised. This is most often the case for European regions containing larger cities. Similarly, regions with higher out- than in-commuting get lower per capita values because their population "produce" their value-added in a neighbouring region. This is in the European context often the case for smaller regions surrounding large metropolises.

Therefore, in case the spatial delimitation does not coincide with the functional one, several regions get highly distorted values. In this context of the urban Audit, where we have utilised NUTS 3 regions as proxies for city GDP, this is most often the case with city regions such as those in the UK (e.g. Glasgow, Edinburgh, Liverpool, Bristol, Newcastle, etc.) or Germany (the Rhine-Ruhr cities, Frankfurt, Munich, etc.), where a single central city constitutes the entire "region". The same applies also to several Polish cities such as Lodz, Wroclaw or Poznan or e.g. Trieste in Italy. On the other hand the large regions in

e.g. the Nordic countries are also problematic since commuting within them is literally impossible, and practically non-existent. For example, the “regions” surrounding the cities of Oulu in Finland or Umeå in Sweden are 35 000 and 55 000 km² in size respectively, i.e. larger than the entire country of Belgium. In this report, we have used NUTS 3 regions as proxies for city GDP. In larger cities, we have used several NUTS 3 regions in order to comply with urban labour markets, with a significant reduction of the community problem as a consequence.

In each country's national statistics, GDP is estimated in terms of the national currency units. These have to be modified into a common unit which takes into account not only the exchange rate between different currencies but also the actual buying power of the currency. This hypothetic currency is labelled Purchasing Power Standard (PPS) or Purchasing Power Parity (PPP). Even PPSs however do not take into account that prices and hence the buying power within a country might differ considerably from one end of it to the next, such as is the case between Eastern and Western Germany. We have nonetheless adjusted all GDP per head data with PPS so that comparison between countries is possible.

Eurostat does not report figures relating real GDP growth or change on NUTS 3 level (only on NUTS 2) so we also had to estimate the growth rates ourselves. To add more complexity, also the inflation rate needs to be taken into account when GDP is compared across different years. We have here utilised a national GDP deflator to adjust Gross Domestic Product in Euro in current prices (primarily 1996 and 2001) so that both years are comparable (constant prices). We have then calculated either real growth or growth also taking into account changes in population (per capita growth), both which are utilised throughout the sections. When comparing regional growth to the average country growth rate, in case the preferred 1996-2001 data was missing from a city and we had to utilise e.g. 1997-2001, we have compared to the national growth for this period as well, not 1996-2001.

Annex 2: Methodological underpinning for the Typology of Urban Competitiveness

The typology of urban competitiveness was built up in an iterative process influenced by conceptual thinking, data availability and available expertise.

The criteria for selecting the city type have been:

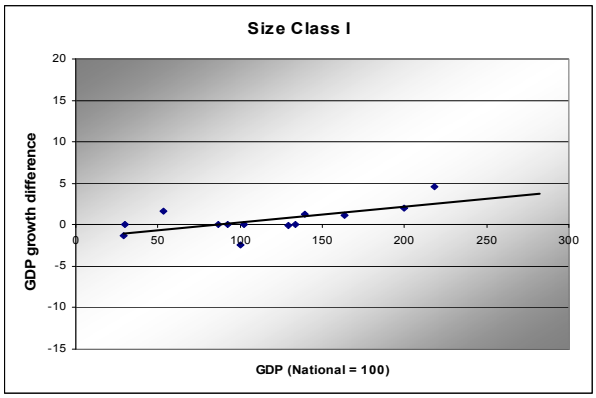
1. *Size:* large cities have different dynamics, opportunities and threats to smaller cities and these need to be recognised
2. *Economic structure*; certain cities are shaped by their main economic activities, such as port cities, de-industrialised cities, university cities, tourist cities, and administrative centres. These economic activities shape the urban economy to a large extent in terms of strengths and weaknesses
3. *Economic performance;* certain cities need to be recognised as economic powerhouses, in terms of their wealth, growth or employment opportunities; other cities have a disappointing performance, as has already been recorded in the previous sections.
4. *Key drivers of competitiveness*; how do cities rank in terms of innovation, entrepreneurship, talent base and connectivity? These key drivers vary between city type, hence the summary tables in Chapter 3 provide different indicators for different city types.

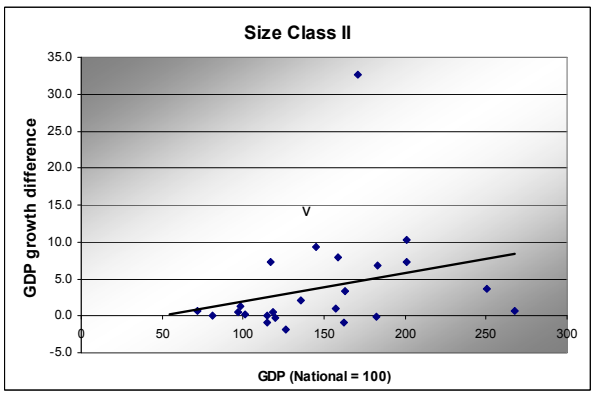
The city typology described in Chapter 3 was developed in the period July to November 2006. Its preparation was carried out with the greatest possible care and with the help of all objective sources available[61] and involved the following steps:

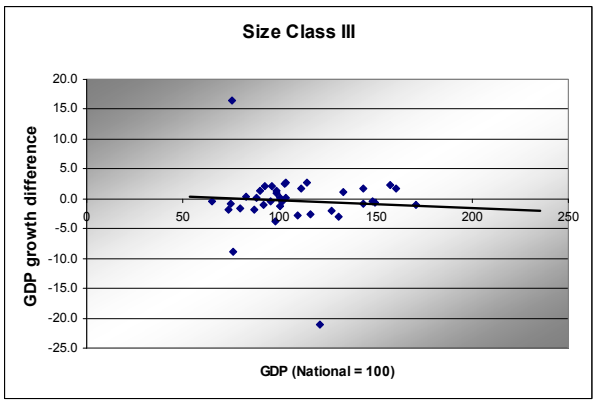
[61] A key source has been the document EC DG REGIO (2005) "Key indicators on living conditions in European Cities'. Brussels, 2005.

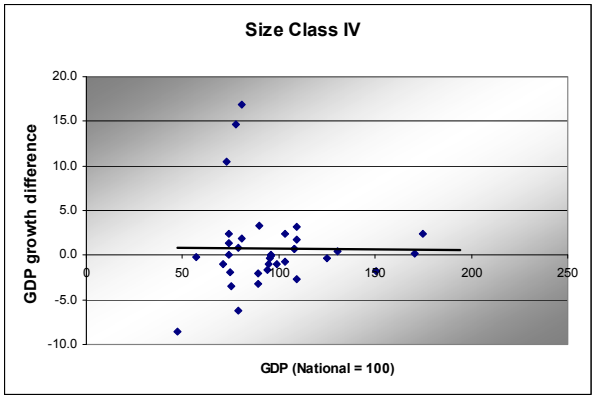
Step 1: Analyse GDP Performance by Size Class

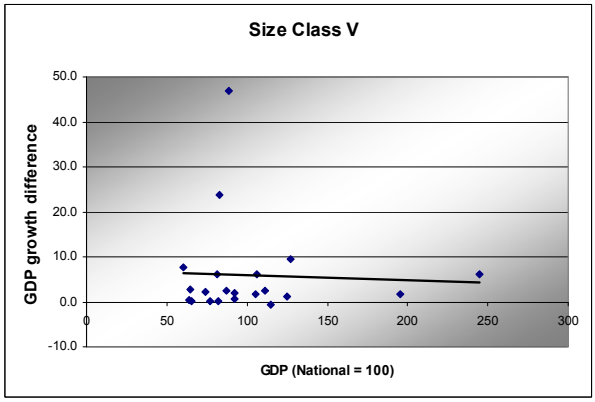
The first step was to group all UA cities according to city size (see Table 3.2) and to rank these in terms of GDP/capita and GDP growth (both compared to national value and by looking at GDP growth). After all, GDP is the prime output indicator of competitiveness. The results of this grouping are presented below.

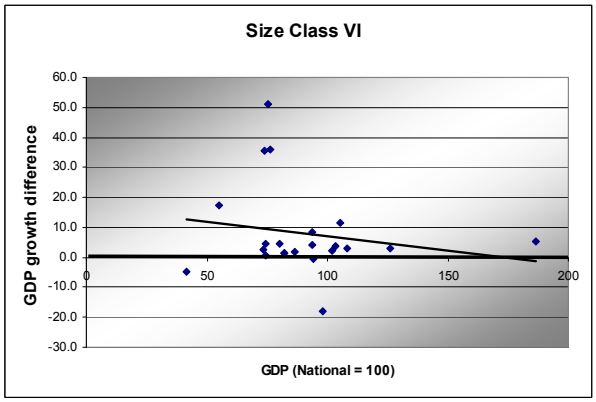








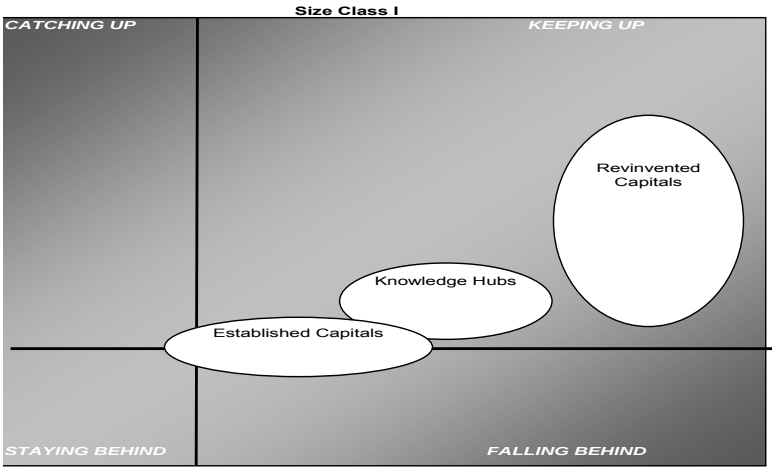


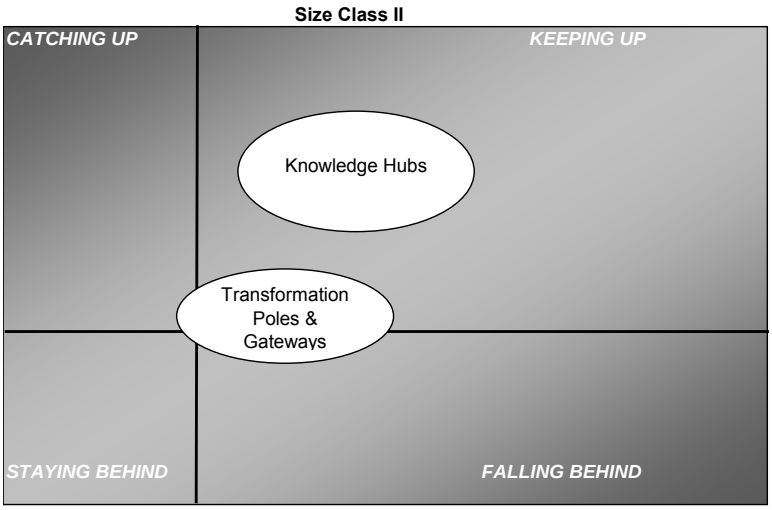


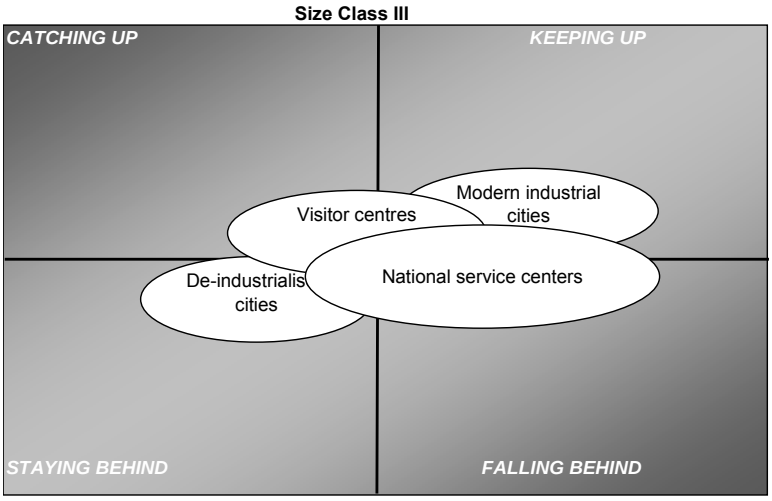
The graphs show that larger cities contribute more to overall GDP levels and GDP growth than medium-sized cities and smaller cities. "Mid class" cities show a particularly varied performance.

Step 2: Grouping and interpretation

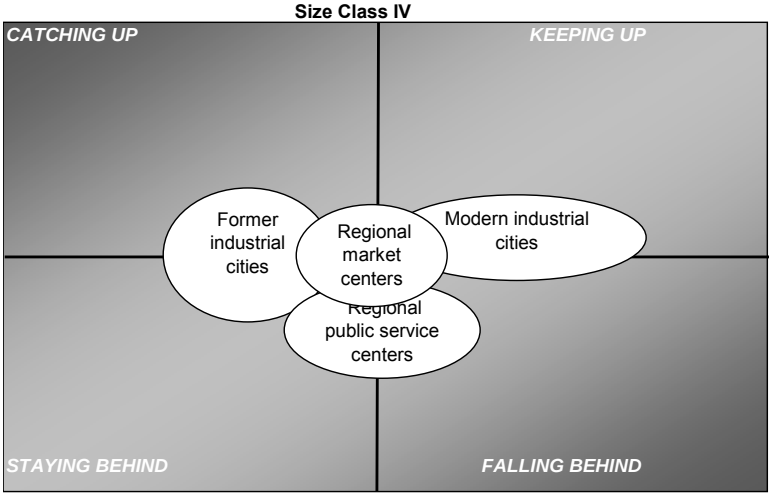
The patterns demonstrated above were studied in more detail and groupings identified, with typical cities taken as an example. This resulted in the following stylised overview.







Size Class IV



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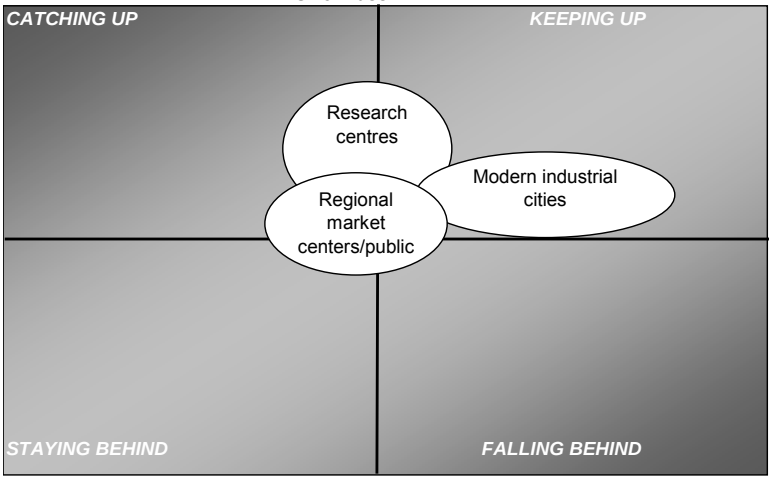
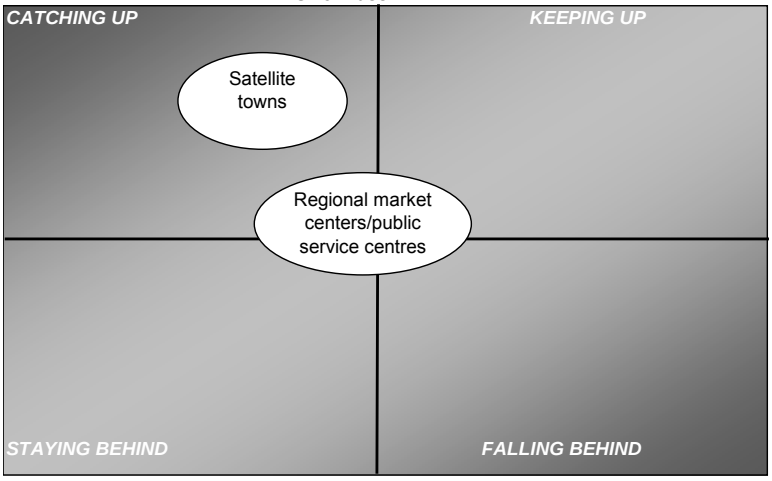


Size Class VI



As can be observed, several clusters could be identified on the basis of economic performance and city size. City types are not necessarily restricted to one city size class, but no city type extends to more than three size classes.

Step 3: Adding additional criteria

On the basis of the initial groupings established, additional criteria that lie at the heart of the city type concerned were added. For instance, a high share of employment in trade, hotels and restaurants is important to distinguish "Visitor centres", while a high share of employment in "public service" sectors including public administration, heath and education is typical for "Regional public service centres". The criteria used are found in the summary tables for each city type and have been brought together in the table below.

	Typologies												
Criteria	Knowledge hubs	Established capitals	Re-invented capitals	National service hubs	Transformation poles	Gateways	Modern industrial centres	Research centres	Visitor centres	De-industrialised cities	Regional market centres	Regional public service centres	Satellite towns
Core city population	H	H	H	H	H	L	=	=	=	=	=	=	L
Population change in core city			<							<			>
Share of residents aged 0-14 years													H
LUZ population	H	H	H	H	H	L	=	=	=	H	L	L	L
Population change in LUZ			<										
Share of other EU nationals	H	H		H				H					
Share of non-EU nationals	H	H											
Recent immigration								H					
Average GDP growth	H	=	H	H	=	=	=	=	=	L	L	L	H
GDP per capita (compared to nat.)	H	H	H	H	=	=	H	H	=	L	L	L	L
Diversified economy											H		
Share of employment in construction									H				
Share of employment in manufacturing					=		H			H / <			
Share of employment in services		H											
Share of employment in transport						H							
Share of employment in trade/hotels							H		H				H
Share of employment in public sector				H								H	H
Employment rate	H		H			L			L	L		L	
Older workers employment rate						=				L			
Unemployment rate					H	H	L		H			H	L
Share of highly qualified residents	H	H				L	H	H		L	=	H	
Share of students							H	H					
Self-employed persons	H							H	H	=	H	H	
Multi-modal accessibility	H	H				H		H	>		L	L	

Legend				
	H	= High	<	= decrease
	L	= Low	>	= increase
	=	= Average		

Step 4: Classifying remaining cities

On the basis of the criteria established, additional cities were added, until all UA cities were regrouped. Cities were allocated to the first possible city typology. For example, a city that could belong to a "Knowledge hub" as well as an "Established capital" has been classified as a "Knowledge hub".

Step 5: Verification and final adjustment.

The listings of cities have been verified by internal peer reviews, review by experts, through the Urban Audit workshops and the national Urban Audit Contact Points. This has led to a limited number of revisions. In all cases, the key variables selected have been taken as the main criteria.

Finally: a word of caution

The use of typologies in the area of urban analysis remains the subject of considerable debate and care should be taken when using this tool for purposes other than its intended aim, namely to assist cities in identifying comparator urban areas facing comparable economic development patterns and challenges in the EU.

Borderline cases

As would be expected, many cities of the UA sample fall between two or even more categories. The following examples illustrate our reasoning for the final type selection for a selection of such borderline cases:

Erfurt (Regional market centre)

As the capital of the Federal State of Thüringen, Erfurt shows typical characteristics of a "Regional public service centre". Nevertheless, a distinction needs to be made with other, similar state capitals including Mainz or Schwerin, all categorized in this city type. While in the latter cities up to 50% of the working population is employed in public service sectors including administration, the equivalent figure for Erfurt (35%) is considerably lower: the result of the growing importance of the private sector as provider of jobs, with 20% employment in manufacturing and 21% employed by the financial services industry.

Dresden (Transformation pole)

Here, the main indicator that facilitates the decision is the higher growth in GDP than the national average. Dresden is catching up fast with other cities in the rest of the country and is already more affluent than Germany as a whole. Nevertheless, GDP per capita in PPS is still close to the national average which speaks for its more regional character as the capital of Saxony. Hence, transformation pole seems to be more adequate than the "re-invented capital" (of Saxony) category.

Nürnberg (Modern industrial city)

Although the share of manufacturing has decreased considerably in the last decades in Nürnberg, a quarter of the working population is still employed in this sector. The city is well above the average in terms of GDP per capita and no other sector is particularly strong, a sign for a well diversified economy. However, the share of highly qualified residents and the number of students among the population is below average (which excludes the city type "research centre"), and economic growth is below average (thus excluding the type "transformation pole").

Mönchengladbach and Mühlheim an der Ruhr (Transformation poles)
Located in the heart of the Ruhr area with a rich industrial past, these two cities have seen above average economic growth and are as affluent as the rest of the country. Unemployment is moderate in both cities and the level of self employed people is higher than average (at more than double than the national average) and the important but decreasing share of employment in the manufacturing sector indicate that these two cities have managed to tackle structural changes with some success.

Wiesbaden (National service hub)
As the capital of the federal state of Hesse, Wiesbaden's role goes beyond its regional borders. Not only is the city home to federal agencies including the Federal Statistical Office and the Federal Police, it is also a service centre of national and international importance. 82% of the international workers population is employed in the services sector with public administration, consulting, insurance, health, media and technology being among the most important fields. The significance of the regional and national public administration is shown by the high proportion (34%) of workers employed in traditional "public sector" fields (including education and health, as well as public administration), despite the city being one of the few Federal State capitals without a public university.

Berlin (Established capital)
Berlin's large population and its national and international position mean it has to be either a Knowledge hub, re-invented capital or established capital. The low share of knowledge intensive sectors and the minor role of research institutes or universities, together with the below average GDP per capita figure makes it impossible to classify it as a knowledge hub. Nevertheless, Berlin could be placed in the category of "re-invented capital", taking into account the exceptional transformation it has undergone. However, the city's comparative economic stagnation, high unemployment levels and its limited economic role in the national context leaves "established capital" as the only real option.

Cardiff (Transformation pole)
Rapid economic growth between 1996 and 2001, at 7% per year on average, is the most striking characteristic of Cardiff. The adjustment of the economy, historically very dependent on heavy industry, has not prevented the development of new businesses, which have more than compensated for the decline in traditional industries. In addition, Cardiff has undergone large-scale regeneration, including the redevelopment of the former docks, another typical characteristic of "transformation poles",

Wrexham (Regional market centre)
With an employment rate of 36% in the manufacturing sector, Wrexham seems at first sight to have an important, in comparatively small, industrial centre. However, its more regional character is manifested by its below average GDP per capita, low employment in financial intermediation and below average share of highly qualified residents.

Malmö (Transformation pole)
Malmö experienced considerable economic difficulties in the second half of the 1990s. As such, GDP per capita in the Malmö region decreased in comparison with the rest of the country, falling slightly below the country average by 2001. However, economic dynamism increased in later years, shown in above average economic growth rates. In addition, workers are predominantly employed in the services sector (80%) which, in a city with a rich industrial past, is an indication that economic restructuring is coming to an end and new businesses are expanding.

Bristol (Research centre)
The Bristol region's GDP per capita is well above the national average. Furthermore, is the differential increased in the period up to 2001 through above average growth rates. The city has a high share of highly qualified residents and self-employed people, together with high accessibility. In addition, employment in the service sector is clearly dominant with significant university and commercial-based research. However, the low level of university students among the resident population makes it a borderline case.

Krakow (Visitor centre)
Tourism is one of the predominant sectors in Krakow. The high share of workers employed in trade, hotels and restaurants and the fact that the city hosts more than 7 million visitors per year are striking characteristics. Furthermore, Krakow has the second most important airport in Poland, explaining the comparatively high accessibility index. Nonetheless, the city also has an important role as a university town, with a high share of students among the residents and a high share of highly qualified residents. Krakow also has a significant proportion of the workforce employed in public service sectors (public administration, health and education), demonstrating that the city is much more than a "Visitors centre".

Bydgoszcz (Modern industrial centre)
Bydgoszcz is one of the largest cities in Poland, with a GDP per capita level in the surrounding NUTS 3 regions at around the national average. The unemployment rate is similar to other Polish cities and comparatively high. Nevertheless, solid economic growth and a high share of highly qualified residents, together with a large share of workers employed by the manufacturing sector, classifies it as a "Modern industrial Centre".

Annex 3. Core indicators of Urban Audit cities

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
1. KNOWLEDGE HUBS															
Düsseldorf	Düsseldorf, Mettmann, Neuss	570,765	1,520,928	0.0	0.1	18.1	12.9		5.5	12.2	2.8	0.5	181	157	67
Frankfurt (Main)	Frankfurt, Offenbach, Gross-Gerau + 5 more	641,076	2,494,485	-0.2	0.2	16.3	12.7	11.8	6.0	16.3	2.4	0.3	180	156	67
Hamburg	Hamburg, Harburg, Stade, Laurenbg , Pinnebg, Segebg, Stromarn	1,726,363	3,079,032	0.2	0.4	17.1	13.5		2.9	12.3	2.8	0.6	158	137	67
Köln	Koln, Leverkussen, Erft, Rheinisch-Bergisch	967,940	1,854,892	0.1	0.1	16.3	14.2	11.4	4.8	14.0	0.9	-1.3	148	129	64
München	München, Dachu, Ebersbg, Erding, Freising, Furstenfeldbr, Landsberg	1,227,958	2,446,014	0.0	0.4	16.0	12.6	15.6	7.5	16.2	4.5	2.3	204	177	74
København	København commune + amt, Frederiksborg, Roskilde	499,148	1,806,667	0.9	0.6	13.1	14.2	17.5	2.7	8.8	3.2	0.6	159	122	72
Barcelona		1,505,325	4,804,606	0.0	0.6	22.0	11.5	3.7	0.8	4.0	4.3	-0.4	119	122	65
Helsinki	Uusima, Itä-Uusimaa	559,718	1,213,743	1.3	1.6	13.4	14.9		0.7	4.0	7.5	2.4	168	139	73
Lyon	Ain, Rhone	1,167,532	1,648,216	0.3		14.7	17.7	27.9	2.4	6.2	4.0	0.8	140	117	60
Dublin	Dublin, Mid-East	495,781	1,535,446	0.5	1.8	12.8	16.2	12.9	4.2	8.9	11.2	0.0	162	120	67
Milano		1,256,211	3,904,882	-0.7	-0.1	22.8	10.7	2.0	0.7	6.3	2.5	0.3	186	158	63
Amsterdam	Groot-Amsterdam, Zaanstreek	734,594	1,320,137	0.5	0.6	12.0	16.0	3.7	3.2	8.9	3.4	0.1	190	143	70
Stockholm		750,348	1,823,210	1.1		16.1	15.8		3.6	6.1	5.1	1.8	168	139	78
Edinburgh	Edinburgh, East Lothian, West Lothian	448,624	778,367	0.2	0.5	15.4	16.3				2.5	-0.8	145	123	71
London	Inner, Outer London, Berkshire, Buckinghamshire, Surrey	7,172,091	11,624,807	0.8	0.6	12.4	19.0				5.2	1.9	159	134	67
Average		*1,314,898*	*2,790,362*	*0.3*	*0.6*	*15.9*	*14.6*	*11.8*	*3.5*	*9.5*	*4.2*	*0.6*	*165*	*138*	*68*
2. ESTABLISHED CAPITALS															
Wien	Wien, Wiener Umland Nordteil, Wiener-Umland-Südteil	1,550,123	2,121,704	-0.6	0.1	16.0	14.7	5.9	1.6	14.4	2.4	-0.3	166	130	68
Bruxelles / Brussel	Bruxelles, Halle-Vilvoorde, Nivelles	964,405	1,750,328	0.3	0.5	16.4	18.4	15.8	14.8	12.2	3.6	0.8	196	160	41
Berlin	Berlin, Barnim, Märkisch, Oberhavel, Oder, Potsdam, Teltow	3,388,434	4,935,524	-0.4	0.1	15.0	13.1	15.7	2.0	11.0	0.6	-1.6	97	84	60
Madrid		2,957,058	5,372,433	0.6	1.1	19.5	12.0	4.9	0.6	5.9	6.2	1.5	134	137	64
Paris	Paris, Sein-et Marne, Yvelines, Essonne, Hauts-de-Seine +	2,125,246	10,952,011	-0.1		15.4	13.5	33.7	4.3	10.2	3.2	-0.1	188	158	66
Athina	(con'd) Seine-St.Denis, Val-de-Marne, Val d'Oise	789,166	3,894,573	0.2	11.8	17.0	11.5	5.3	0.7	16.7	4.5	0.7	82	107	58
Roma		2,546,804	3,700,424	-0.8	-0.4	19.0	12.8	1.4	0.5	3.4	2.6	0.4	147	125	57
Lisboa	Grande Lisboa, Peninsula de Setubal	564,657	2,363,470	-1.8	23.4	23.6	11.6	3.7	0.8	2.7	4.8	0.7	122	146	66
Average		*1,860,737*	*4,386,308*	*-0.3*	*5.2*	*17.8*	*13.5*	*10.8*	*3.2*	*9.5*	*3.5*	*0.3*	*142*	*131*	*60*

City name	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
1. KNOWLEDGE HUBS																
Düsseldorf	102	54	121	6.4	447,200	17.2	82.4	6.4	21.9	29.4	24.7	59	22.5	11.0	220	187
Frankfurt (Main)	101	52	118	5.4	601,300	12.9	86.6	13.0	15.0	38.4	20.2	74	26.4	12.2	245	190
Hamburg	102	54	122	7.6	984,700	17.9	81.7	8.3	20.9	25.2	27.3	41	20.0	10.3	206	153
Köln	97	50	113	7.3	597,700	18.0	81.5	6.6	21.2	24.9	28.8	88	21.2	10.7	215	167
München	113	57	127	3.6	902,500	20.7	77.9	4.4	17.4	28.8	27.4	73	27.9	13.3	267	141
København	95	52	86	4.5		9.6						104	28.1			144
Barcelona	112	49	118	10.9	645,419	24.1	75.5	7.9	21.3	17.8	28.5			15.9	127	127
Helsinki	107	62	119	8.6	372,352	13.9	84.5	9.6	16.6	23.3	35.1	113	39.2	4.1	47	97
Lyon	98	44	144	11.5	552,043	22.1	77.4	7.5	16.5	19.4	34.0	93	30.8	8.3	137	127
Dublin	102	48	101	6.7	224,013	16.4	72.5	8.2	16.2	21.9	26.3	55	26.1	9.6	83	110
Milano	116	34	117	5.6	981,716	28.0	72.0	5.7	20.8	39.9	5.6	27	19.9	20.9	183	161
Amsterdam	95	37	90	4.3	523,600	8.6	91.3	6.9	19.6	33.1	31.6	93	33.1	9.1	118	171
Stockholm	105	83	114	3.3	531,912	13.4	86.4	7.3	16.4	33.6	29.2	51	24.0	5.1	76	89
Edinburgh	99	52	96	5.2	278,308	12.6	87.0	6.5	17.8	29.3	33.4	97	42.4	8.6	98	93
London	94	54	100	6.5	3,754,038	13.2	86.5	8.9	17.7	30.0	30.0	36	33.8	13.1	149	158
Average	*102*	*52*	*112*	*6.5*	*814,057*	*16.6*	*81.7*	*7.7*	*18.5*	*28.2*	*27.3*	*72*	*28.2*	*10.9*	*155*	*141*
2. ESTABLISHED CAPITALS																
Wien	99	35	116	10.7	674,886	18.6	81.4	7.2	25.2	21.8	27.1	74	16.9	8.9	151	145
Bruxelles / Brussel	72	33	126	18.3	554,744	13.9	77.2	7.3	14.8	19.1	36.0	72		10.5	111	177
Berlin	91	33	75	14.9	1,469,100	18.3	81.3	5.6	16.8	20.8	38.0		28.5	12.0	242	161
Madrid	110	47	112	12.4	1,287,388	18.2	81.2	10.3	18.6	19.7	32.6			12.6	101	115
Paris	108	56	184	11.7	1,600,815	10.6	88.7	7.9	16.7	29.4	34.7	135	49.9	9.4	156	177
Athina	104	34	79	9.4									25.0			103
Roma	103	38	131	11.2	1,200,787	21.8	78.2	32.2	16.1	21.0	8.8	62	18.3	21.4	187	123
Lisboa	95	51	117	6.8	576,902	15.9	83.6	9.5	19.8	19.5	34.8	233	22.7	10.0	49	93
Average	*98*	*41*	*117*	*11.9*	*1,052,089*	*16.8*	*81.6*	*11.4*	*18.3*	*21.6*	*30.3*	*115*	*26.9*	*12.1*	*142*	*137*

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
3. REINVENTED CAPITALS															
Sofia		1,091,772	1,263,807	-0.4		15.2	13.3	2.9	0.1	0.7	4.4	2.4	50	169	70
Praha	Hlavni mesto Praha, Stredocesky	1,169,106	1,941,803	-0.6	-0.2	16.2	13.4	3.8	0.9	2.1	4.9	3.7	107	155	74
Tallinn		399,685	524,972	-1.0	-0.7	14.1	15.5		0.1	27.9	8.8	2.1	68	148	65
Budapest	Budapest, Pest	1,777,921	2,453,315	-1.2	-0.4	17.6	12.8		0.2	1.7	6.4	1.4	93	157	60
Vilnius		554,281	709,137	-0.8	-0.6	11.5	17.0	0.4	0.0	1.1	9.2	4.4	58	138	56
Riga	Riga, Pieriga	756,627	1,020,389	-1.3	-1.0	16.1	14.4	1.6	0.1	6.3	7.1	-0.3	54	139	63
Warszawa	Warszawski, Miasto Warszawa	1,609,780	2,631,902	-0.2	1.0	17.3	13.0	3.1	0.1	0.3	4.0	2.9	101	210	47
Bucuresti	Bucuresti, Illfov	1,936,724	2,144,442	-0.9	-0.8	14.0	12.9	2.5	0.1	0.5	19.8	15.8	59	214	53
Ljubljana		270,506	488,364	0.3	0.1	15.3	13.5	2.8	0.3	3.6	5.4	0.8	110	142	69
Bratislava		428,672	599,015	-1.0	-0.7	16.0	14.0	1.8	0.1	3.4	3.7	0.1	113	222	72
Average		*999,507*	*1,377,715*	*-0.7*	*-0.4*	*15.3*	*14.0*	*2.3*	*0.2*	*4.8*	*7.4*	*3.3*	*81*	*169*	*63*
4. NATIONAL SERVICE HUBS															
Plovdiv		338,224	439,061	-0.1		12.7	14.6	1.9	0.2	0.5	1.0	-1.1	25	84	67
Brno		376,172	729,510	-0.6	-0.3	15.7	14.4	2.4	0.6	0.8	0.3	-0.9	62	90	67
Bonn	Bonn, Rhein-Sieg-Kreis	306,016	879,240	0.2	0.6	16.9	14.6		3.6	13.5	0.4	-1.9	108	94	63
Hannover	Region Hannover, Schumburg	516,415	1,284,111	-0.2	0.1	18.4	12.8	12.9	3.1	12.4	0.0	-2.1	120	104	62
Wiesbaden	Wiesbaden, Rheingau-Taunus-Kreis	271,076	454,685	0.3	0.2	17.7	14.1	10.8	6.0	13.9	2.0	-0.1	144	125	67
Aarhus		286,668	640,637	0.5	0.5	11.7	17.9	2.6	1.1	5.1	2.8	0.3	122	93	72
Tartu		101,207	149,488	-0.4	-0.3	14.1	17.4		0.3	8.3	5.1	-1.7	30	66	58
Sevilla		702,520	1,747,441	0.1	0.4	15.1	15.1	1.8	0.2	0.8	3.9	-0.8	74	76	49
Turku		173,686	292,145	0.8	0.9	16.5	14.4		0.5	3.2	3.7	-1.4	113	94	62
Bordeaux		659,998	925,253	0.6		15.2	15.9	28.0	2.1	3.0	4.3	1.0	124	104	57
Strasbourg		451,240	612,104	0.7		13.2	17.4	28.9	3.0	7.0	2.0	-1.3	122	102	60
Thessaloniki		385,406	1,084,001	0.0	1.4	16.0	12.5	5.3	0.4	6.9	4.3	0.5	90	117	52
Luxembourg		76,688	136,625	-0.2	0.4	14.7	15.6	24.3	45.9	7.8	7.2	0.0	228	101	59
s' Gravenhage	Agglomeratie 's-Gravenhage, Delft en Westland	442,356	955,243	0.0	0.6	15.4	16.9	3.6	2.4	7.7	2.6	-0.7	153	115	71
Utrecht		256,420	1,117,997	1.9	0.9	11.9	15.6	2.2	1.7	6.6	4.8	1.5	171	129	74
Lodz	Lodzki, Miasto Lodz	786,526	1,178,029	-0.8	-0.5	16.5	12.4	1.5	0.0	0.1	5.7	1.0	46	96	41
Cluj-Napoca		299,541	330,178	-2.1	-1.8	11.0	14.1	3.3	0.1	0.3	5.2	1.2	33	121	52
Timisoara		307,786	318,807	-1.5	-1.5	11.0	14.2	4.3	0.1	0.3	8.2	4.2	35	128	52
Average		*374,330*	*737,475*	*0.0*	*0.1*	*14.7*	*15.0*	*8.9*	*4.0*	*5.5*	*3.5*	*-0.1*	*100*	*102*	*60*

City name	Employment rate: Index, country average =100	Employment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employment rate, older workers, index country average=100	Unemployment rate in 2001	Total employment (work place based) 2001	Share of employment in manufacturing incl. Concstruction 2001	Share (%) of employment in services 2001	Share (%) of employment in transport and communication 2001	Share (%) of employment in trade, hotels, restaurants 2001	Share (%) of employment in financial intermediation, business activities 2001	Share (%) of employment in public administration, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibility, index ESPON space= 100
3. REINVENTED CAPITALS																
Sofia	142	35	115	4.3								93	40.7	10.8	120	99
Praha	114	63	156	3.9	697,796	22.5	77.0	10.0	20.0	17.9	29.1	83	22.4	18.2	167	138
Tallinn	106	62	117	12.7	210,400	28.7	70.9	13.0	21.3	12.2	24.3	86	42.1	6.0	130	85
Budapest	106	31	129	6.3	746,018	21.3	78.2	8.9	21.5	18.1	29.6	80	24.9	17.5	211	131
Vilnius	97	44	90	15.7								114	43.4	7.4	50	96
Riga	107	40	100	13.0								112	22.7			94
Warszawa	89	43	145	13.5	761,148	23.2	76.4	9.0	17.9	22.7	26.8	209	31.1	15.1	77	133
Bucuresti	86	16	43	7.1	767,362	31.4	68.0	9.0	19.0	12.6	27.3	91	24.8	1.3	5	102
Ljubljana	107	26	94	4.9	176,502	22.3	46.5	5.4	13.6	8.9	18.6	62	27.7	7.9	101	102
Bratislava	127	50	195	8.8	288,377	22.7	76.9	9.2	18.0	17.9	31.8	86	29.9	8.5	158	124
Average	*108*	*41*	*118*	*9.0*	*521,086*	*24.6*	*70.5*	*9.2*	*18.8*	*15.8*	*26.8*	*102*	*31.0*	*10.3*	*113*	*110*
4. NATIONAL SERVICE HUBS																
Plovdiv	135	26	84	10.2								73	29.8	20.8	230	42
Brno	103	52	129	7.2	222,609	30.6	68.8	6.7	19.3	14.3	28.5	131	21.6	16.9	155	94
Bonn	96	52	118	4.6	199,000	12.9	86.7	4.5	14.1	19.3	48.8		28.2	9.7	195	151
Hannover	94	54	121	9.4	365,700	20.8	77.7	6.8	19.3	19.5	32.1	76	21.1	11.1	224	147
Wiesbaden	102	53	119	6.0	165,000	16.6	82.4	3.0	19.9	25.4	34.0	23	22.4	11.9	240	175
Aarhus	95	58	97	5.2		18.1						100	30.4			83
Tartu	95	56	106	5.4	48,600	28.0	70.2	7.6	20.4	11.9	30.2	203	36.7	8.2	177	34
Sevilla	84	37	90	22.8	238,160	17.7	80.6	7.9	23.6	13.8	35.3			13.8	110	77
Turku	91	58	111	14.0	90,986	24.4	74.0	8.7	15.1	16.2	34.0	160	31.7	5.4	61	76
Bordeaux	94	41	135	14.3	313,938	17.8	81.6	8.4	17.5	17.3	38.4	106	29.1	8.5	140	106
Strasbourg	99	41	133	9.6	224,352	18.5	79.9	8.1	18.6	18.7	34.5	111	29.9	6.9	115	141
Thessaloniki	92	31	73	11.1									27.9			98
Luxembourg	94	37	145	3.2		10.1						28	24.1	2.8	130	143
s' Gravenhage	96	44	106	3.4	265,300	6.7	92.0	7.5	14.4	25.8	44.3	43	26.5	7.8	101	144
Utrecht	99	35	83	3.1	223,900	10.5	89.1	7.8	14.8	31.8	34.7	226	39.4	5.2	68	156
Lodz	77	32	109	22.2	213,427	34.0	65.7	6.6	14.6	13.3	31.1	133	17.8	18.1	92	71
Cluj-Napoca	84	18	48	8.5	130,455	37.7	60.9	7.5	18.4	6.9	28.0	183	25.3	3.3	13	42
Timisoara	83	14	38	7.6	127,017	41.8	56.6	7.8	17.0	6.6	25.1	130	22.2	2.5	10	90
Average	*95*	*41*	*102*	*9.3*	*202,032*	*21.6*	*76.2*	*7.1*	*17.7*	*17.2*	*34.2*	*115*	*27.3*	*9.6*	*129*	*104*

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
5. TRANSFORMATION POLES															
Pleven		121,880	190,154	-0.3		11.3	15.5	1.7	0.1	0.5	5.0	2.9	24	83	68
Plzen		166,118	352,362	-0.5	-0.2	15.1	14.1	2.7	0.3	0.9	-0.3	-1.5	65	94	67
Bochum		390,087	390,087	-0.4	-0.3	19.1	13.2	7.2	2.1	9.5	-1.9	-4.1	124	107	58
Bremen	Bremen, Diepholz, Rotenburg, Verden, Delmenhorst	540,950	1,121,786	-0.3	-1.7	18.7	13.7		1.4	11.1	1.9	-0.2	128	111	62
Dortmund		589,240	589,240	-0.3	-0.3	18.7	14.6	8.6	2.9	13.0	3.8	1.6	119	104	58
Dresden	Dresden, Meissen, Sachsische Schweiz, Weisseritzkreis	478,631	903,586	-0.4	-0.2	18.3	11.6	8.2	0.7	3.2	2.3	0.2	94	82	64
Essen		591,889	591,889	-0.7	-0.3	20.3	14.0		2.3	9.1	1.0	-1.2	141	122	62
Leipzig	Leipzig, Delitzsch, Leipziger Land, Muldentalkreis	493,052	912,064	-0.7	-0.2	18.7	10.9		0.8	5.1	0.1	-2.1	87	75	58
Mönchengladbach		262,963	263,014	-0.3		17.7	15.9		3.0	7.9	5.2	2.9	115	100	64
Mülheim a.d.Ruhr		172,332	172,332	-0.4	-0.3	20.9	13.9	7.7	1.9	7.6	3.9	1.7	118	103	63
Caen		216,181	370,851	0.6		13.3	17.0	29.3	0.7	2.0	3.0	-0.2	102	86	54
Lille		1,091,438	1,143,125	0.3		12.8	20.5	24.2	1.9	4.0	2.3	-1.0	100	84	55
Metz		213,000	429,588	0.4		13.2	17.6	25.6	2.1	4.5	2.1	-1.2	98	82	58
Nancy		258,268	410,508	0.1		13.6	16.2	28.4	1.5	3.7	2.3	-1.0	104	87	55
Nantes		554,478	711,120	1.1		13.8	17.8	26.7	0.6	1.9	5.1	1.8	121	101	58
Saint-Etienne		384,042	321,703	-0.7		18.4	17.0	23.2	2.0	5.8	2.1	-1.1	97	81	56
Torino		865,263	2,165,619	-1.2	-0.5	22.3	11.0	1.4	0.3	3.7	1.5	-0.7	142	121	60
Kaunas		379,706	461,079	-1.4	-1.1	13.1	17.6	0.2	0.0	0.5	5.4	0.6	42	99	60
Enschede		150,449	608,827	0.4	0.7	13.7	17.1	2.5	1.6	4.0	3.2	-0.1	111	83	67
Heerlen		95,149	647,894	-0.2	0.0	16.9	15.8	1.5	2.2	3.0	4.2	0.9	121	91	65
Oporto		263,131	244,998	-1.4	23.5	19.4	13.1	2.9	0.5	1.1	2.1	-2.0	86	103	62
Rzeszow		162,153	329,685	0.2	0.3	10.9	15.9	5.2	0.0	0.1	5.9	1.2	37	77	41
Targu Mures		151,932	175,790	-1.7	-1.5	10.9	14.9	3.3	0.0	0.1	6.7	2.7	31	113	54
Malmö		259,579	522,857	1.1		18.4	16.7		2.5	7.3	4.1	0.7	114	94	67
Maribor		114,891	310,743	-0.2	-0.6	16.4	12.0	2.8	0.2	1.7	4.7	0.2	65	84	66
Belfast	Belfast, Outer Belfast	277,391	646,550	-0.8		15.3	20.2				5.3	2.0	119	101	56
Birmingham	Birmingham, Solihull, Dudley & Sandwell, Walsall & Wolverhampton	977,087	2,335,652	-0.4	-0.3	14.5	22.0				2.9	-0.4	117	99	59
Cardiff	Central Valleys, Gwent Valleys, Cardiff and Vale of Glamorgan	305,353	826,097	0.2	0.1	14.6	19.5				3.3	0.0	101	85	64
Glasgow	Glasgow City, E. & W. Dunbartonshire, Inverclyde, N+S Lanarkshire	577,869	1,749,154	-0.7	-0.4	15.7	18.4				3.0	-0.4	115	97	56
Leeds		715,399	715,399	0.0	0.2	15.3	18.7				4.4	1.1	143	121	68

City name	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
5. TRANSFORMATION POLES																
Pleven	137			11.7								10	29.9	13.7	152	40
Plzen	103	39	98	6.7	94,573	33.6	66.0	10.6	19.4	11.5	24.5	82	15.0	12.4	114	92
Bochum	88	42	95	7.8	177,400	28.4	70.9	4.6	19.7	13.4	33.3	108	15.6	9.6	194	158
Bremen	95	49	109	8.3	297,400	25.5	74.2	9.3	19.4	18.0	27.5	52	17.7	5.9	119	142
Dortmund	88	41	93	9.6	261,500	21.5	77.4	6.9	19.9	21.5	29.2	58	14.9	10.6	213	151
Dresden	97	59	134	14.7	268,900	18.7	80.6	6.7	17.2	21.2	35.5	71	38.1	9.9	200	121
Essen	94	46	104	7.7	295,000	20.8	78.1	5.0	19.6	24.5	29.0	41	15.8	10.8	217	169
Leipzig	88	53	120	17.4	254,200	19.2	80.4	6.7	16.8	24.5	32.3	67	32.3	10.5	212	124
Mönchengladbach	97	50	112	7.2	115,900	28.4	70.2	4.7	23.3	15.4	26.7	19	16.3	10.1	203	166
Mülheim a.d.Ruhr	96	47	106	6.1	75,300	28.6	69.9	4.0	26.6	16.5	22.8		14.7	10.8	216	177
Caen	89	38	125	14.0	111,198	20.4	79.2	5.8	17.7	14.3	41.4	138	26.6	6.6	109	72
Lille	90	36	117	14.4	451,255	20.4	78.9	6.7	18.5	17.2	36.4	87	24.9	6.5	107	120
Metz	95	37	120	11.9	104,701	14.8	84.6	9.2	16.8	14.3	44.3	101	27.1	6.3	105	116
Nancy	91	41	134	11.1	127,288	14.8	84.8	7.6	16.8	15.5	44.9	169	31.9	6.4	106	97
Nantes	95	37	123	13.2	254,482	19.1	80.0	8.1	17.3	17.7	36.9	83	28.2	7.3	121	108
Saint-Etienne	92	34	111	13.5	148,890	28.9	70.1	5.4	15.5	13.2	36.0	50	19.3	9.8	161	91
Torino	109	28	97	8.5	492,899	35.9	64.1	19.5	14.6	24.4	5.6	17	13.3	22.4	195	122
Kaunas	104	55	113	17.6								106	36.3	6.0	41	53
Enschede	90	33	78	3.9	75,900	20.6	78.8	3.8	18.2	18.4	38.3	111	17.3	8.0	105	114
Heerlen	88	34	82	4.1	52,900	15.7	84.3	5.7	18.9	22.1	37.6	127	14.4	6.4	84	136
Oporto	90	48	110	9.5	218,261	22.6	76.9	6.1	23.3	14.6	32.9	247	19.5	11.4	55	90
Rzeszow	76	32	108	18.8	69,720	36.0	63.9	5.5	17.0	10.1	31.3	337	28.2	3.7	19	52
Targu Mures	86	14	37	7.6	61,409	41.1	57.7	6.2	19.0	5.1	27.4	62	16.9	3.0	12	47
Malmö	90	60	83	9.1	134,577	19.4	80.3	8.2	18.2	19.7	34.2	49	15.1	5.1	75	126
Maribor	104	23	85	10.3	59,424	29.7	45.5	5.7	13.5	7.3	18.9	50	19.1	10.7	137	81
Belfast	78	38	69	9.6	171,472	14.1	85.7	6.9	18.1	18.7	42.0	66	21.6	7.0	80	83
Birmingham	83	48	89	9.5	445,202	23.6	76.1	6.5	18.8	19.6	31.2	47	18.4	9.2	105	141
Cardiff	90	49	89	4.9	164,821	17.7	82.0	6.7	20.0	19.4	35.9	87	28.3	8.7	99	95
Glasgow	78	34	62	10.8	325,841	16.2	83.4	7.3	20.2	21.6	34.4	94	26.3	6.8	78	99
Leeds	95	53	96	5.1	374,166	21.1	78.3	7.1	21.0	21.8	28.5	64	21.1	9.3	107	111

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
5. TRANSFORMATION POLES (continued)															
Liverpool	Liverpool, E. Merseyside, Sefton, Wirral	439,476	1,362,004	-0.8	-0.5	15.3	18.7				2.9	-0.5	85	72	54
Manchester	Greater Manchester South, Greater Manchester North	418,600	2,512,300	0.6	0.0	13.2	19.4				3.2	-0.1	113	96	51
Newcastle upon Tyne		259,531	795,169	-1.2	-0.6	15.9	17.6				3.4	0.1	109	92	59
Average		*392,046*	*766,158*	*-0.3*	*0.7*	*15.9*	*16.1*	*10.7*	*1.3*	*4.5*	*3.2*	*0.1*	*100*	*95*	*60*
6. GATEWAYS															
Antwerpen		445,570	902,632	-0.5	-0.1	20.2	16.6	6.0	4.0	7.3	1.4	-1.4	158	129	47
Burgas		192,390	236,147	-0.4		11.6	15.0	1.7	0.0	0.4	7.4	5.4	29	98	67
Ruse		161,453	189,471	-0.7		13.4	14.4	1.3	0.0	0.3	0.2	-1.9	26	88	65
Santander		185,230	537,606	0.0	0.4	19.1	11.7	2.6	0.3	1.5	4.9	0.1	94	96	54
Le Havre		255,082	296,773	-0.2		15.0	19.4	22.5	0.7	2.8	2.6	-0.7	117	98	53
Marseille		981,769	981,769	0.1		18.4	17.1	24.3	1.0	5.3	4.4	1.1	121	101	51
Rouen		391,375	518,316	0.1		15.2	17.7	25.8	1.1	3.2	2.6	-0.7	117	98	56
Ancona		100,507	448,473	0.1	0.3	22.9	11.6	1.0	0.3	3.1	2.6	0.4	130	111	61
Catania		313,110	1,054,778	-0.6	-0.7	17.8	16.4	0.5	0.1	1.2	3.8	1.5	80	68	39
Genova		610,307	878,082	-1.1	-1.1	25.6	10.4	1.1	0.2	2.3	2.9	0.7	132	112	56
Napoli		1,004,500	3,059,196	-0.4	-0.3	15.6	17.1	0.2	0.1	0.8	3.5	1.3	77	65	35
Trieste		211,184	242,235	-0.9	-0.8	26.0	10.1	1.1	0.4	4.0	3.7	1.4	148	126	60
Rotterdam		595,255	1,345,339	0.1	0.5	15.0	17.5	3.1	1.7	7.8	2.6	-0.7	140	105	66
Gdansk	Gdanski, Gdansk-Gdynia-Sopot	455,464	1,098,379	-0.3	0.3	13.8	14.6	2.1	0.0	0.1	5.6	0.8	50	104	43
Giurgiu		71,227	73,787	-0.7	-0.7	10.5	16.8	2.0	0.0	0.0	6.8	2.8	17	63	45
Portsmouth		186,699	487,950	-0.1	0.1	15.4	18.1				4.0	0.6	136	115	70
Average		*385,070*	*771,933*	*-0.3*	*-0.2*	*17.2*	*15.3*	*6.4*	*0.7*	*2.7*	*3.7*	*0.7*	*98*	*99*	*54*
7. MODERN INDUSTRIAL CENTRES															
Graz		226,244	357,548	-0.5	0.1	17.0	14.0	10.2	1.1	8.4	3.1	0.4	158	123	67
Linz		183,504	524,444	-1.0	-0.1	18.1	13.9	10.1	1.0	11.1	3.1	0.3	166	130	69
Augsburg	Augsburg Kr. Freie Stadt, Aichach-Friedberg, Augsburg Landkreis	257,836	614,667	0.0	0.3	19.0	14.1		3.6	14.3	2.5	0.4	128	111	70
Bielefeld	Bielefeld, Gütersloth, Herford, Lippe	323,373	1,286,897	0.0	0.2	18.9	15.2	8.1	2.5	10.2	1.7	-0.6	119	103	64
Nürnberg	Fürth, Nürnberger Land, Roth	491,307	1,271,914	-0.1	0.1	18.7	13.1	10.1	4.9	13.3	2.5	0.3	141	122	67
Wuppertal		364,784	366,434	-0.8		18.7	14.9	6.9	5.0	10.5	-0.3	-2.6	119	103	65
Pamplona/Iruña		186,245	556,263	2.4	0.9	17.6	12.7	3.7	0.7	3.3	4.8	0.1	125	128	61
Valladolid		318,293	497,961	-0.1	0.2	16.1	11.6	2.2	0.1	0.5	2.9	-1.8	100	102	54

City name	Employment rate: Index, country average =100	Employment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employment rate, older workers, index country average=100	Unemployment rate in 2001	Total employment (work place based) 2001	Share of employment in manufacturing incl. Concstruction 2001	Share (%) of employment in services 2001	Share (%) of employment in transport and communication 2001	Share (%) of employment in trade, hotels, restaurants 2001	Share (%) of employment in financial intermediation, business activities 2001	Share (%) of employment in public administration, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibility, index ESPON space= 100
5. TRANSFORMATION POLES (continued)																
Liverpool	75	37	69	11.1	201,539	13.5	86.2	7.8	19.5	17.8	41.1	90	17.1	7.9	90	111
Manchester	71	39	71	9.0	265,163	12.3	87.5	11.7	18.7	25.3	31.8	134	23.6	7.3	83	139
Newcastle upon Tyne	83	43	78	8.0	157,632	13.8	85.9	7.3	19.1	19.7	39.8	125	23.3	6.9	79	106
Average	*92*	*41*	*97*	*10.1*	*203,513*	*22.5*	*76.2*	*7.2*	*18.8*	*17.6*	*32.6*	*92*	*22.1*	*8.7*	*121*	*111*
6. GATEWAYS																
Antwerpen	83	33	127	11.2	242,230	24.6	63.3	13.7	13.8	10.7	25.1	63		10.6	112	156
Burgas	135	20	65	8.3								56	26.9	17.3	191	85
Ruse	130			14.2								44	24.3	16.7	184	64
Santander	94	43	102	15.7		23.0										75
Le Havre	88	34	110	17.1	94,970	22.5	77.0	14.2	14.6	13.1	35.2	38	16.9	6.8	113	93
Marseille	84	37	122	20.3	345,066	15.0	84.5	10.0	16.4	14.8	43.3	43	23.3	10.3	170	107
Rouen	93	37	120	14.6	176,211	19.6	80.1	9.6	16.3	15.7	38.4	88	23.2	6.8	113	93
Ancona	112			6.0	29,320	25.3	74.7	8.0	30.4	21.7	14.5		15.2	41.6	362	96
Catania	70	34	116	29.4	53,421	23.0	77.0	9.0	37.4	17.4	13.2		13.4	48.9	426	89
Genova	102	26	89	8.7	185,723	35.8	64.2	11.3	23.7	20.5	8.7		12.8	34.5	301	121
Napoli	64	34	116	31.8	213,134	24.4	75.6	12.7	28.2	25.6	9.2	27	14.6	37.2	324	121
Trieste	109	27	91	7.0	67,437	30.1	69.9	10.3	24.1	27.9	7.6		12.1	29.1	254	89
Rotterdam	89	36	86	5.9	361,800	14.9	84.8	11.2	17.2	25.1	31.3	80	20.0	6.3	82	143
Gdansk	81	35	119	17.3	138,058	31.2	68.5	9.8	14.4	13.0	31.2	146	22.1	16.5	84	94
Giurgiu	72	10	27	17.2	22,779	29.0	67.5	11.0	15.9	5.9	34.7	4	9.3	1.6	7	66
Portsmouth	98	55	100	4.6	103,877	19.6	80.1	7.4	19.0	15.3	38.4	80	19.4	9.0	102	104
Average	*94*	*33*	*99*	*14.3*	*156,464*	*24.1*	*74.4*	*10.6*	*20.9*	*17.4*	*25.4*	*61*	*18.1*	*19.5*	*188*	*100*
7. MODERN INDUSTRIAL CENTRES																
Graz	97	30	101	7.8	120,943	25.8	74.2	6.0	24.0	18.7	25.5	151		8.0	134	106
Linz	100	27	90	7.0	122,420	22.1	77.9	4.7	18.7	28.0	26.5	66		4.3	72	111
Augsburg	106	55	124	5.5	165,700	29.0	69.7	3.7	18.2	18.2	29.7		18.8	11.9	239	115
Bielefeld	98	54	121	7.8	173,600	27.0	72.1	4.8	21.4	15.0	30.9	81	19.7	10.0	200	116
Nürnberg	102	52	117	7.7	344,500	24.3	73.3	7.3	18.8	25.7	21.6	33	19.5	13.7	275	141
Wuppertal	98	52	118	6.5	167,600	30.4	68.8	5.0	17.8	18.4	27.5	40	17.9	9.5	192	165
Pamplona/Iruña	106	45	107	10.7	79,635	30.9	68.1	4.9	18.8	12.0	32.4			15.6	124	69
Valladolid	94	38	90	14.6	125,225	29.0	69.6	6.9	19.5	11.4	31.9			14.0	111	62

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
7. MODERN INDUSTRIAL CENTRES (continued)															
Vitoria/Gasteiz		218,902	288,793	0.4	0.3	14.9	12.4	2.1	0.5	1.6	5.0	0.3	136	139	62
Zaragoza		610,976	857,565	0.3	0.4	18.0	12.7	2.7	0.3	2.1	3.4	-1.3	103	106	62
Tampere		197,774	298,655	1.3	1.2	14.7	15.6		0.3	1.9	5.9	0.8	119	98	66
Besançon		170,696	222,381	0.6		13.5	16.9	28.8	1.5	3.6	3.6	0.3	120	101	57
Clermont-Ferrand		260,762	409,558	0.2		15.1	14.5	25.9	3.5	3.0	3.3	0.0	112	94	57
Rennes		364,652	521,188	1.3		11.7	17.0	30.2	0.6	2.0	5.1	1.8	117	98	58
Cork		123,062	311,479	-0.5	1.5	12.9	17.2	11.2	2.9	4.4	16.4	5.3	166	123	58
Cremona		70,887	335,939	-0.2	0.3	23.7	10.8	1.2	0.2	3.4	0.5	-1.7	123	105	61
Tilburg		195,819	443,992	3.8	-0.4	12.4	17.7	2.0	0.7	4.1	3.3	0.0	119	90	71
Bydgoszcz		383,213	583,091	-0.2	-0.3	12.8	15.0	1.9	0.0	0.1	5.2	0.5	49	101	44
Gorzow Wielkopolski		126,336	188,795	0.2	0.2	10.6	16.0	2.1	0.0	0.1	3.1	-1.7	45	94	39
Poznan	Poznanski, Miasto Poznan	571,985	1,011,172	-0.6	0.5	13.8	13.9	3.6	0.0	0.1	8.2	3.5	63	130	45
Szczecin		415,576	778,060	-0.2	0.0	13.6	14.2	2.6	0.0	0.1	3.7	-1.0	53	109	41
Wroclaw	Wroclawski, Miasto Wroclaw	634,047	1,029,876	-0.2	0.0	14.9	13.2	3.5	0.1	0.1	4.7	0.0	56	116	44
Aveiro		73,335	73,521	1.0		14.4	16.2	3.2	0.3	1.7	3.9	-0.1	80	96	69
Arad		172,759	194,556	-1.4	-1.3	12.4	14.6	3.1	0.1	0.1	-8.2	-12.2	30	109	55
Oradea		209,939	221,261	-1.2	-1.2	9.8	16.0	2.8	0.1	0.2	5.5	1.5	28	103	53
Sibiu		156,530	188,084	-1.5	-1.3	11.5	14.1	2.3	0.0	0.1	7.2	3.2	29	105	54
Göteborg		466,990	796,705	0.8		16.0	16.4		2.7	6.2	4.5	1.1	121	100	73
Leicester	Leicester City, Leicester CC and Rutland	279,915	756,139	-0.6	0.1	13.5	20.8				1.8	-1.6	115	97	61
Aberdeen		212,125	438,996	-0.6	-0.3	15.3	16.4				1.7	-1.6	159	134	72
Average		*285,099*	*531,929*	*0.1*	*0.1*	*15.2*	*14.9*	*7.5*	*1.2*	*3.9*	*3.7*	*-0.2*	*103*	*109*	*59*
8. RESEARCH CENTRES															
Gent		224,685	395,986	-0.2	0.2	18.5	16.0	7.2	1.9	4.7	2.1	-0.7	136	111	48
Darmstadt	Darmstadt Kreisfreie Stadt, Darmstadt-Dieburg	138,457	425,022	0.0	0.3	17.5	13.3	15.1	3.8	10.4	1.6	-0.5	131	114	69
Freiburg im Breisgau	Freiburg, Breisgau-Hochschwarzwald, Emmendingen	208,294	597,061	0.8	0.5	15.0	13.3	19.9	4.4	9.4	2.4	0.2	114	99	57
Göttingen	Göttingen, Northeim	123,822	416,508	-0.4	-0.2	15.0	12.8		1.9	8.9	0.3	-1.8	96	83	54
Karlsruhe	Karlsruhe Stadtkries, Karlsruhe Landkreis	279,578	698,113	0.2	0.4	17.9	13.2	16.8	4.3	10.4	1.9	-0.3	149	129	67
Regensburg		127,198	411,253	0.3	0.6	18.1	12.5		1.7	9.1	2.6	0.4	136	118	69
Oulu		123,274	192,974	2.1	1.9	11.1	17.9		0.3	1.0	4.0	-1.1	103	85	64
Grenoble		374,922	514,559	0.2		14.0	16.5	27.5	3.4	4.9	2.9	-0.4	118	99	57
Poitiers		123,589	209,216	1.2		13.8	13.9	34.4	0.8	2.2	3.1	-0.2	102	85	52

City name	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
7. MODERN INDUSTRIAL CENTRES (continued)																
Vitoria/Gasteiz	107	43	103	9.9	98,338	38.3	60.8	5.5	18.7	10.2	26.4			14.3	114	68
Zaragoza	107	45	109	11.8	261,857	30.9	68.1	7.0	20.3	11.9	28.9			15.3	122	71
Tampere	97	58	112	13.8	102,650	28.6	69.5	7.6	15.6	15.6	30.7	156	34.0	6.0	68	67
Besançon	94	42	139	11.1	79,174	20.3	78.8	6.4	15.7	12.6	44.1	130	29.1	7.4	123	91
Clermont-Ferrand	94	39	129	10.6	135,555	25.4	74.0	7.5	16.4	12.7	37.5	131	26.5	7.1	118	84
Rennes	95	39	129	9.0	188,906	19.6	79.3	8.2	16.0	15.9	39.2	153	32.4	7.0	116	77
Cork	88	40	85	8.7	46,574	25.9	66.7	6.2	20.2	13.8	26.5	76	20.5	10.0	87	83
Cremona	111			4.5	22,513	42.3	57.7	3.3	24.0	22.1	8.2		13.8	36.5	318	107
Tilburg	96	32	77	3.5	108,000	20.8	78.6	4.4	20.3	19.7	34.2	106	22.3	7.2	94	129
Bydgoszcz	83	30	101	18.7	115,849	38.2	61.3	7.9	13.7	12.6	27.1	110	17.3	19.7	101	58
Gorzow Wielkopolski	73	29	97	24.3	36,805	39.8	59.4	7.4	11.6	10.6	29.7	53	15.9	13.0	66	58
Poznan	84	39	132	14.7	221,872	30.6	68.8	7.5	18.9	14.7	27.7	250	26.1	19.5	100	98
Szczecin	76	33	110	20.3	118,927	30.8	68.6	13.2	13.8	10.9	30.7	187	20.9	18.3	93	75
Wroclaw	82	35	119	18.3	191,056	28.4	71.2	7.0	15.2	16.7	32.3	222	25.9	14.5	74	92
Aveiro	100	47	107	4.9	48,420	35.3	62.8	3.8	23.2	7.5	28.3	155	14.3	13.8	67	57
Arad	88	12	32	5.4	70,202	44.5	53.5	8.2	17.6	5.8	22.0	52	14.6	5.3	21	75
Oradea	86	13	36	6.0	83,866	42.2	56.0	7.7	18.3	5.1	24.8	89	17.6	3.4	14	44
Sibiu	86	14	36	7.3	63,585	45.6	53.3	6.5	16.3	5.1	25.4	126	19.2	2.1	8	81
Göteborg	99	72	99	5.6	269,254	22.1	77.8	8.4	16.1	20.9	32.4	62	19.9	4.0	59	101
Leicester	85	48	89	7.9	152,930	27.5	72.3	5.0	21.0	13.5	32.8	115	19.1	8.4	95	116
Aberdeen	101	56	102	5.0	148,098	28.6	70.7	7.6	19.0	18.2	25.9	94	35.1	7.1	81	77
Average	*94*	*40*	*100*	*10.0*	*133,243*	*30.5*	*68.4*	*6.5*	*18.2*	*14.6*	*29.0*	*115*	*21.8*	*11.3*	*113*	*89*
8. RESEARCH CENTRES																
Gent	86	28	109	10.0	120,645	29.2	66.7	7.5	14.6	8.0	36.6	210		10.7	113	137
Darmstadt	104	53	119	5.3	114,200	23.6	75.7	2.9	17.7	21.6	33.5	282	29.7	11.1	224	180
Freiburg im Breisgau	87	53	120	6.0	130,400	16.9	82.4	4.3	21.1	16.1	40.9	128	36.7	11.3	227	124
Göttingen	82	51	114	10.0	82,200	24.0	73.7	4.6	17.8	13.0	38.3	221	37.9	11.4	230	104
Karlsruhe	101	54	121	5.3	203,300	20.1	79.1	5.5	18.2	24.2	31.3		30.6	11.6	232	128
Regensburg	105	54	121	6.3	122,800	29.2	70.3	6.2	17.6	16.0	30.5	162	28.0	10.7	216	111
Oulu	93	53	103	13.7	63,951	29.0	68.9	6.9	13.6	14.1	34.2		39.2	4.6	52	55
Grenoble	93	44	146	13.2	185,050	23.7	75.9	5.0	14.9	18.7	37.3	143	33.7	7.9	130	100
Poitiers	86	41	135	10.9	66,629	15.4	84.1	6.6	16.7	13.2	47.6	221	31.1	6.4	105	74

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
8. RESEARCH CENTRES (continued)															
Toulouse		583,229	964,797	1.3		14.0	15.3	33.1	2.0	4.0	5.9	2.6	135	113	56
Bologna		371,217	915,225	-0.2	0.1	26.6	9.4	1.3	0.4	3.5	2.1	-0.1	164	140	66
Trento		104,946	477,017	0.8	0.5	18.4	14.1	1.1	0.3	2.8	1.9	-0.3	145	124	64
Eindhoven		203,397	714,157	0.6	0.9	15.3	15.8	2.5	1.5	4.7	3.7	0.4	136	102	72
Coimbra		148,443	143,829	0.8		16.5	13.8	2.3	0.3	1.2	3.1	-0.9	79	94	66
Bristol	City of Bristol, N+NE Somerset	380,616	983,873	-0.2	0.4	14.9	17.9				4.3	0.9	141	119	69
Cambridge		108,856	238,959	0.2	0.4	13.2	13.8				5.0	1.7	129	109	61
Average		*226,533*	*518,659*	*0.5*	*0.5*	*16.2*	*14.3*	*14.7*	*1.9*	*5.5*	*2.9*	*0.0*	*126*	*108*	*62*
9. VISITOR CENTRES															
Brugge		116,559	165,575	0.1	0.2	19.0	15.7	6.2	1.5	0.9	2.5	-0.3	118	96	49
Varna		312,889	360,396	0.8		12.0	14.4	2.7	0.1	0.6	3.9	1.8	32	109	54
Trier	Trier Kreisfreie Stadt, Trier-Saarburg	100,024	237,020	0.1	0.2	18.4	13.3	12.2	2.9	5.5	1.3	-0.9	99	86	59
Weimar	Weimar Kreisfreie Stadt, Weimarer Land	63,522	153,868	0.5	0.2	17.1	12.1	14.3	0.5	2.0	1.5	-0.6	75	65	59
Las Palmas		364,777	924,558	0.5	1.7	12.7	15.4	2.9	0.8	3.1	7.2	2.4	98	100	51
Málaga		534,207	1,302,240	-0.5	1.0	14.2	15.8	2.2	0.5	1.1	5.9	1.2	75	77	50
Murcia		367,189	1,190,378	1.2	1.3	13.9	17.3	3.2	0.2	3.0	6.4	1.6	83	85	60
Palma di Mallorca		346,720	878,627	2.8	2.0	14.3	15.0	5.3	2.3	3.9	7.4	2.7	120	123	62
Toledo		69,450	536,131	1.0	0.6	14.4	16.3	4.3	0.3	1.7	3.2	-1.5	77	79	61
Valencia		746,612	2,227,170	0.0	0.5	17.6	12.9	3.6	0.4	2.6	4.8	0.1	95	97	58
Ajaccio		63,707	77,287	-0.7		17.1	17.3	22.0	2.9	5.4	6.8	3.5	108	91	55
Montpellier		412,891	459,916	1.9		14.3	16.3	33.3	1.7	5.1	5.3	2.0	100	84	51
Nice		489,914	489,914	0.3		22.7	14.9	28.0	2.9	5.3	5.3	2.1	120	101	58
Irakleio		142,112	291,225	1.8	0.9	10.9	18.2	4.6	0.5	3.6	2.3	-1.5	74	96	56
Kavala		63,572	141,499	0.6	0.2	16.8	15.6	4.0	0.4	4.7	0.3	-3.5	66	86	52
Patra		171,616	318,928	1.0	0.6	13.1	15.9	4.7	0.3	5.3	1.7	-2.2	67	88	48
Catanzaro		95,251	369,578	-0.2	-0.8	15.2	16.3	0.3	0.1	0.6	3.1	0.9	84	71	42
Firenze		356,118	1,161,746	-1.3	-0.2	25.6	10.3	1.7	0.6	4.7	3.2	1.0	154	132	63
Pescara		116,286	295,481	-0.6	0.2	21.3	12.7	0.5	0.1	0.9	2.7	0.5	104	89	51
Reggio di Calabria		180,353	564,223	0.1	-0.5	16.9	16.2	0.5	0.1	1.7	1.4	-0.8	71	60	41
Venezia		271,073	809,586	-1.6	-0.2	23.8	10.5	0.8	0.3	1.8	2.1	-0.1	139	119	59
Verona		253,208	826,582	0.2	0.5	21.3	12.5	1.7	0.4	4.9	2.0	-0.2	136	116	62
Gozo		30,842	30,842								3.7	0.0	78	101	
Valletta		363,799	363,799								3.7	0.0	78	101	

City name	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
8. RESEARCH CENTRES (continued)																
Toulouse	92	43	142	15.4	303,496	21.1	78.5	8.0	16.4	18.1	36.0	157	36.4	8.2	136	105
Bologna	120	32	110	4.5	147,419	27.5	72.5	6.6	23.7	31.7	10.4		19.1	36.5	318	126
Trento	117	30	103	3.6	39,586	24.5	75.5	9.1	31.9	26.7	7.8		15.7	30.9	269	84
Eindhoven	97	31	73	3.1	150,900	25.3	74.5	5.1	16.6	25.3	27.5	122	26.2	5.6	74	132
Coimbra	95	45	104	5.3	82,539	22.3	76.6	5.5	20.7	7.8	42.7	236	20.1	13.2	64	42
Bristol	96	57	104	4.6	212,562	16.2	83.5	6.9	19.7	26.0	30.9	96	27.1	10.1	116	110
Cambridge	86	64	117	3.8	77,429	11.4	88.1	5.7	16.7	23.4	42.5	177	51.6	8.3	95	104
Average	*96*	*46*	*115*	*7.6*	*131,444*	*22.5*	*76.6*	*6.0*	*18.6*	*19.0*	*33.0*	*180*	*30.9*	*12.4*	*163*	*107*
9. VISITOR CENTRES																
Brugge	88	24	91	6.1	54,290	21.3	73.1	9.1	16.7	6.5	40.8	31		12.1	128	109
Varna	108			10.2								92	31.4	14.3	158	83
Trier	89	48	108	7.6	68,700	19.5	78.7	3.9	21.7	12.2	40.9		24.0	11.9	240	124
Weimar	89	51	115	14.7	29,700	16.5	83.2	2.4	18.9	16.2	45.8	85	26.8	9.8	196	105
Las Palmas	89	42	99	19.9	134,414	18.3	80.1	9.0	26.5	11.8	32.8			12.0	95	
Málaga	87	37	88	21.0	188,527	20.9	77.9	8.2	27.2	11.9	30.5			13.8	110	87
Murcia	103	44	106	11.5	150,912	27.7	67.8	5.1	22.4	9.8	30.5			15.2	121	59
Palma di Mallorca	107	47	111	12.0	151,843	20.9	78.0	9.8	29.4	11.9	27.0			14.4	114	99
Toledo	106	47	113	10.8		17.3										67
Valencia	100	43	103	14.2	299,349	23.8	74.6	8.5	22.2	13.7	30.2			15.7	125	94
Ajaccio	91	39	128	14.2	25,587	13.9	84.7	9.3	18.2	9.5	47.7	7	20.2	11.2	185	73
Montpellier	84	41	134	18.0	164,959	13.2	85.8	6.9	18.6	17.7	42.6	143	34.5	11.1	183	98
Nice	95	41	135	13.9	175,173	13.2	85.6	7.2	22.0	16.2	40.2	64	24.4	13.8	229	130
Irakleio	100	37	87	10.8									22.6			71
Kavala	92	24	56	12.1									18.4			50
Patra	85	29	67	16.1									20.3			56
Catanzaro	77			20.7	17,258	21.8	78.2	9.9	38.1	18.8	11.4		14.3	41.2	359	72
Firenze	114	36	122	5.7	155,047	23.8	76.2	8.2	30.4	28.1	9.4		17.4	37.1	323	121
Pescara	94			12.2	33,269	27.8	72.2	5.9	34.4	20.5	11.4		17.5	46.0	401	74
Reggio di Calabria	74	34	116	25.2	20,480	21.6	78.4	6.1	43.2	16.5	12.6		14.7	54.6	476	83
Venezia	108	26	89	5.2	99,712	21.1	78.9	12.3	39.6	17.7	9.4		12.1	31.2	272	135
Verona	113	27	94	4.9	99,827	33.7	66.3	7.5	23.2	27.6	7.9		13.7	30.6	267	122
Gozo																71
Valletta																83

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
9. VISITOR CENTRES (continued)															
Krakow	Krakowsko-tranowski, Miasto Krakow	740,737	1,257,513	0.0	0.5	14.3	14.2	3.7	0.0	0.1	4.6	-0.1	47	97	42
Funchal		103,961	101,256	-0.9		14.0	17.0	2.7	0.5	1.1	6.9	2.9	98	117	64
Lincoln		85,579	164,418	0.3		15.4	18.8				1.2	-2.2	91	77	66
Average		*257,888*	*581,472*	*0.3*	*0.5*	*16.6*	*15.0*	*6.9*	*0.9*	*2.9*	*3.7*	0.3	92	94	*55*
10. DE-INDUSTRIALISED CENTRES															
Charleroi		200,233	385,682	-0.5	-0.3	17.7	17.9	6.9	10.8	3.8	0.8	-2.0	95	77	37
Liège		184,550	623,417	-0.6	-0.1	19.4	15.7	9.7	10.4	6.0	1.5	-1.3	99	81	39
Vidin		57,395	77,480	-1.6		9.1	17.3	1.0	0.0	0.3	-0.7	-2.7	22	76	63
Ostrava		316,744	1,164,328	-0.4	-0.3	12.7	16.4	2.2	0.5	0.7	-3.1	-4.3	53	77	58
Usti nad Labem		95,436	243,878	-0.3	-0.2	12.6	16.6	2.6	0.4	1.2	-2.0	-3.2	55	80	80
Halle an der Saale	Halle/Saale Stadtkreis, Merseburg-Querfurt, Saalkreis	243,045	465,223	-2.4	-1.0	17.7	11.9	8.2	0.3	3.2	1.2	-1.0	91	79	59
Moers		107,421	107,421	0.1	-0.3	18.7	14.6		2.2	8.1	1.4	-0.9	77	67	62
Miskolc		184,125	281,867	-0.5	-0.3	15.0	15.2		0.0	0.4	2.8	-2.3	38	63	47
Bari		316,532	1,559,662	-1.0	-0.1	17.2	14.1	0.4	0.1	0.7	2.7	0.5	83	71	44
Taranto		202,033	579,806	-1.0	-0.4	16.2	15.3	0.1	0.1	0.2	2.9	0.7	81	69	39
Katowice		338,017	2,746,460	-0.7	-1.0	13.0	14.1	2.0	0.0	0.1	-0.5	-1.6	56	116	43
Kielce		210,266	407,318	-0.3	0.1	11.9	15.1	2.5	0.0	0.1	4.1	-0.6	37	77	40
Konin		83,377	142,769	0.1	0.2	9.4	17.1		0.0	0.0	3.0	-1.7	41	85	44
Nowy Sacz		84,465	156,446	0.4	0.7	10.5	19.4	2.5	0.0	0.1	2.7	-2.0	30	61	37
Zory		65,637	65,637	-0.2	-1.0	5.1	16.4		0.0	0.0	1.4	-3.3	46	94	38
Braga		164,192	168,927	1.4		10.8	18.7	2.6	0.4	1.2	4.1	0.0	65	77	68
Bacau		185,022	205,691	-2.3	-1.9	8.5	16.7	2.5	0.0	0.1	-11.8	-15.8	24	86	54
Braila		223,113	229,216	-1.0	-1.0	11.7	15.1	1.6	0.0	0.1	2.5	-1.5	21	77	49
Craiova		301,364	319,841	-0.8	-0.7	9.4	15.5	2.8	0.1	0.1	-1.6	-5.6	21	77	47
Piatra Neamt		113,546	126,761	-1.9	-1.8	8.9	15.6	2.7	0.0	0.1	-8.1	-12.1	20	72	52
Kosice		236,093	343,092	-0.5	-0.1	11.2	17.9	1.5	0.0	3.6	5.0	1.5	48	94	60
Bradford		467,657	467,657	0.0	0.2	14.5	21.9				2.0	-1.4	100	85	64
Derry		105,066	105,066	0.3		9.8	25.0				2.1	-1.2	78	66	53
Sheffield	Barnsley, Doncaster & Rotherham, Sheffield, E. Derbyshire	513,231	1,264,698	-0.2	-0.2	16.4	17.9				3.1	-0.2	90	76	65
Average		*208,273*	*509,931*	*-0.6*	*-0.5*	*12.8*	*16.7*	*3.1*	*1.2*	*1.4*	0.6	-2.6	57	78	*52*

City name	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
9. VISITOR CENTRES (continued)																
Krakow	79	34	114	17.5	250,104	30.9	68.7	6.4	15.5	14.6	32.2	206	27.1	10.7	54	106
Funchal	93	43	100	4.1	59,555	21.6	76.9	5.9	29.0	7.6	34.4	27	10.7	9.8	48	
Lincoln	93	52	96	6.4	46,823	21.6	77.8	5.6	26.5	11.6	34.2	12	16.2	8.4	96	83
Average	*94*	*38*	*103*	*12.6*	*111,276*	*21.4*	*77.1*	*7.4*	*26.2*	*15.0*	*28.6*	*74*	*20.4*	*20.2*	*199*	*90*
10. DE-INDUSTRIALISED CENTRES																
Charleroi	65	17	67	25.7	74,709	31.0	63.8	7.7	14.9	6.0	35.2	22		10.9	116	136
Liège	69	26	101	24.4	89,139	14.7	80.1	8.4	17.4	10.0	44.3	150		11.8	125	130
Vidin	127			24.1									23.0	29.2	322	39
Ostrava	90	36	90	16.6	170,472	41.9	57.6	9.7	14.5	8.8	24.5	70	12.7	11.2	103	76
Usti nad Labem	123	46	114	12.7	55,734	35.9	63.0	12.0	15.3	8.3	27.3	67	10.0	11.1	102	100
Halle an der Saale	89	51	115	20.8	124,200	15.9	83.5	8.1	13.4	18.5	43.5	64	32.1	7.2	144	122
Moers	94	42	95	6.6	39,500	32.7	64.3	4.1	22.0	10.6	27.6		13.8	10.6	214	146
Miskolc	84	19	80	15.0	61,404	25.3	73.8	9.5	19.3	10.5	34.4	68	18.1	13.2	159	62
Bari	81	32	108	19.2	79,590	23.4	76.6	10.9	29.5	26.7	9.5		15.5	36.2	316	92
Taranto	72	24	83	22.3	33,200	32.8	67.2	6.9	28.0	21.7	10.5		10.8	37.1	323	62
Katowice	81	28	95	18.0	156,235	34.0	65.7	8.0	16.7	16.1	25.0	293	18.8	11.5	58	88
Kielce	75	32	109	23.5	70,126	34.3	65.4	6.9	14.7	9.8	34.0	281	26.0	17.0	87	65
Konin	82	27	90	23.1	27,095	44.1	55.5	8.6	12.8	7.5	26.7	37	15.5	19.6	100	61
Nowy Sacz	69	24	80	25.2	28,125	34.2	65.7	10.7	16.5	7.2	31.2	72	17.8	11.5	59	71
Zory	72	20	67	23.2	9,385	31.7	67.8	5.2	21.5	6.8	34.3		8.4	15.2	77	81
Braga	98	42	97	6.2	82,000	40.8	58.0	3.0	23.3	6.5	25.3	107	13.5	14.1	69	71
Bacau	86	13	36	12.8	71,238	45.3	52.8	6.0	17.5	4.9	24.4	38	15.9	2.3	9	45
Braila	79	10	26	16.7	78,039	47.1	49.5	6.5	15.2	4.8	23.0	11	11.3	2.6	10	37
Craiova	76	13	34	13.7	109,242	39.8	58.5	7.4	17.9	5.3	28.0	95	20.5	1.5	6	39
Piatra Neamt	83	12	33	17.1	40,920	42.3	55.5	5.8	18.4	5.7	25.7	3	16.1	3.3	13	37
Kosice	106	36	141	19.1	123,618	33.2	66.1	9.1	17.2	9.5	30.3	64	19.8	6.3	116	76
Bradford	90	51	93	6.9	192,294	26.4	73.1	5.4	23.5	14.8	29.4	20	17.3	11.2	128	114
Derry	74	33	61	12.0	37,592	24.1	74.8	4.3	20.9	10.2	39.5	186	17.8	10.3	118	53
Sheffield	91	51	93	6.7	241,045	22.7	76.8	5.7	22.5	15.6	33.1	79	20.3	9.9	113	112
Average	*86*	*30*	*83*	*17.1*	*86,735*	*32.8*	*65.9*	*7.4*	*18.8*	*10.7*	*29.0*	*91*	*17.0*	*13.1*	*120*	*80*

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
11. REGIONAL MARKET CENTRES															
Erfurt	Erfurt Kreisfreie Stadt, Gotha, Sommerda, Ilm-Kreis	200,126	552,101	-0.8	-0.4	16.5	12.1	6.9	0.3	2.2	2.9	0.8	92	80	63
Logroño		131,655	270,400	1.3	0.5	16.4	13.6	4.3	0.4	3.2	4.4	-0.3	110	113	64
Amiens		171,240	270,870	0.3		12.9	17.7	24.9	0.8	3.0	3.1	-0.2	102	86	52
Dijon		238,309	326,631	0.3		14.4	15.8	28.1	1.9	3.9	1.9	-1.4	129	108	59
Limoges		184,241	247,944	0.3		17.5	14.0	24.4	1.1	3.0	3.2	-0.1	109	91	59
Orléans		266,446	355,811	0.9		13.1	18.5	26.4	2.5	4.6	2.9	-0.4	127	106	63
Reims		214,448	291,735	0.4		13.0	16.9	28.1	1.7	3.2	3.1	-0.2	128	107	55
Ioannina		75,550	161,027	1.9	0.3	12.8	15.3	7.2	0.2	5.4	8.5	4.7	69	89	50
Kalamata		61,373	166,566	2.2	0.0	14.2	17.6	5.5	0.3	4.9	0.5	-3.4	54	70	51
Volos		85,001	205,005	1.0	0.4	16.0	15.8	3.8	0.3	3.8	3.3	-0.5	75	98	51
Nyiregyhaza		118,795	221,927	0.5	0.8	11.4	17.1		0.1	1.1	4.7	-0.4	34	56	52
Pecs		162,498	187,345	-0.3	0.0	15.2	14.5		0.1	0.7	3.7	-1.4	44	73	53
Galway		65,832	65,832	2.5		8.2	16.3	20.7	4.9	7.4	10.8	-0.3	101	75	59
Limerick		54,023	236,334	0.6	1.8	11.7	19.4	11.0	2.6	4.0	8.2	-2.9	116	86	59
Cagliari		164,249	760,311	-1.5	-0.3	18.6	10.5	0.4	0.8	0.8	2.1	-0.1	88	75	49
Campobasso		50,762	230,749	-0.1	-0.7	17.7	14.4	0.3	0.1	0.4	1.4	-0.8	89	76	51
Caserta		75,208	852,872	0.8	0.1	15.1	16.8	0.7	0.1	0.9	3.1	0.9	75	64	46
l'Aquila		68,503	297,424	0.5	-0.5	18.3	13.1	0.8	0.3	1.8	0.5	-1.7	94	80	56
Palermo		686,722	1,235,923	-0.3	-0.1	14.7	17.5	0.5	0.1	1.3	2.6	0.4	78	66	39
Perugia		149,125	605,950	0.4	0.0	20.8	12.5	1.6	0.4	3.5	2.9	0.7	119	102	61
Potenza		69,060	393,529	0.6	-0.3	16.0	14.4	0.2	0.1	0.4	1.2	-1.0	83	71	49
Sassari		120,729	453,628	0.0	-0.3	15.0	13.7	0.3	0.1	0.5	3.4	1.2	96	82	48
Arnhem		139,329	696,162	0.6	0.6	13.3	16.3	2.2	1.0	4.9	2.2	-1.1	119	90	72
Groningen		174,250	359,957	0.5	0.5	12.4	12.8	2.2	1.0	2.2	0.8	-2.5	196	147	70
Bialystok		286,365	524,282	0.4	0.2	11.5	16.8	3.2	0.0	0.1	4.4	-0.4	39	81	40
Jelenia Gora		92,394	128,597	-0.3	-0.9	14.2	13.7	2.4	0.0	0.1	2.7	-2.1	42	86	40
Olsztyn		174,080	283,609	0.6	-4.5	10.8	15.3	4.4	0.0	0.1	3.9	-0.8	42	86	44
Opole		128,591	266,518	-0.3	1.1	11.9	14.3	4.5	0.1	0.1	1.5	-3.2	40	83	42
Suwalki		69,054	82,359	0.5	0.4	8.8	21.5	2.4	0.0	0.0	4.4	-0.4	39	81	40
Torun		205,397	294,014	0.0	0.6	11.4	16.1	4.1	0.0	0.1	2.8	-1.9	41	85	43
Zielona Gora		119,152	206,053	0.3	0.3	11.9	14.5	3.9	0.0	0.1	4.2	-0.6	42	87	41
Alba Iulia		67,358	98,473	-1.5	-1.3	8.2	16.3	3.7	0.1	0.1	7.3	3.3	24	89	56
Jönköping		117,095	199,527	0.3		17.8	18.8		1.0	2.8	2.9	-0.5	114	94	77
Banska Bystrica		83,056	111,984	-0.5	-0.2	11.9	16.4	2.2	0.0	4.0	3.8	0.3	43	85	65
Nitra		86,726	163,540	-0.2	0.1	10.9	17.5	1.8	0.0	2.3	3.1	-0.4	44	85	61

City name	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
11. REGIONAL MARKET CENTRES																
Erfurt	96	55	123	15.1	132,700	20.2	78.5	6.3	15.4	21.3	35.5	35	33.0	9.4	189	116
Logroño	111	46	109	10.6	59,026	35.6	62.9	4.3	19.7	10.4	28.5			15.8	126	50
Amiens	85	38	124	16.9	83,554	19.9	79.6	8.7	15.0	12.4	43.5	145	24.7	5.7	94	110
Dijon	96	43	142	10.7	119,838	19.2	79.6	9.3	16.1	14.5	39.7	130	28.9	6.7	111	87
Limoges	97	38	126	10.0	89,357	22.3	76.8	9.0	15.6	11.2	41.0	94	23.5	7.4	123	67
Orléans	104	41	134	8.7	132,487	20.2	78.7	9.0	15.6	17.0	37.1	68	27.5	5.9	97	86
Reims	91	38	126	13.5	97,678	20.5	78.8	5.7	19.1	15.6	38.5	126	25.1	6.7	111	101
Ioannina	89	32	74	13.1									27.7			60
Kalamata	91	31	72	12.4									16.9			63
Volos	91	27	63	12.1									21.5			62
Nyiregyhaza	92	22	92	10.8	44,230	24.5	72.8	6.3	22.4	10.6	33.5	83	19.3	17.9	215	49
Pecs	94	22	93	7.8	60,948	27.2	71.5	7.7	19.9	11.1	32.7	146	19.6	15.4	186	46
Galway	91	51	106	7.5	28,139	22.6	69.1	4.3	21.5	14.1	29.2	136	33.9	11.9	103	63
Limerick	91	40	83	9.6	20,621	27.5	67.7	8.1	21.4	14.3	24.0	60	16.3	9.0	78	73
Cagliari	89	35	119	19.7	54,516	22.8	77.2	12.8	30.3	22.9	11.2		19.3	36.8	321	83
Campobasso	93			15.2	11,471	33.2	66.8	5.0	28.8	21.1	11.9		15.0	47.1	411	66
Caserta	83			18.5	16,454	34.6	65.4	7.6	22.1	22.2	13.4		20.1	39.1	341	104
l'Aquila	103			10.2	13,821	35.9	64.1	3.2	28.7	20.9	11.2		17.9	47.1	411	68
Palermo	71	33	112	29.6	99,575	19.3	80.7	9.0	32.6	27.2	11.9		12.7	42.7	372	92
Perugia	111			6.9	45,851	30.5	69.5	6.2	29.9	21.1	12.4		17.0	41.0	357	76
Potenza	89			16.0	15,523	31.3	68.7	3.9	28.4	28.2	8.2		14.6	39.2	342	54
Sassari	87			20.8	28,752	21.2	78.8	4.4	31.3	32.8	10.2		14.5	38.9	339	75
Arnhem	97	42	101	5.9	99,400	11.8	87.8	5.3	15.5	28.1	38.9	144	25.9	5.9	78	128
Groningen	95	34	81	6.4	120,300	13.2	86.6	7.7	17.3	21.7	39.9	215	34.9	6.2	81	80
Bialystok	75	28	95	20.8	79,026	27.5	72.1	8.2	16.5	10.0	37.4	166	23.1	23.1	118	44
Jelenia Gora	75	29	98	23.3	24,802	31.9	67.6	9.0	12.7	12.4	33.5	82	15.4	14.4	73	70
Olsztyn	82	34	117	16.8	58,364	29.9	69.6	9.9	14.5	12.3	32.8	265	25.0	15.5	79	48
Opole	79	35	119	16.7	46,389	29.3	69.0	8.5	12.9	11.7	35.9	294	25.6	16.3	83	66
Suwalki	74	26	89	25.7	16,363	40.5	59.0	9.3	8.7	7.7	33.3	36	16.8	24.6	126	44
Torun	80	31	106	20.2	64,844	40.4	59.1	7.1	13.5	10.2	28.3	162	20.2	20.0	102	49
Zielona Gora	76	34	114	19.4	39,431	28.9	70.9	7.5	16.4	17.0	30.1	207	21.9	12.2	62	62
Alba Iulia	90	18	49	11.0	28,796	43.1	53.4	6.0	16.1	4.8	26.5	121	19.4	5.3	21	60
Jönköping	104	75	103	3.4	58,167	24.7	73.8	8.0	16.5	11.0	38.3	44	12.6	6.4	94	77
Banska Bystrica	114	33	130	12.9	46,304	25.3	73.1	7.3	19.2	11.7	34.9	77	23.2	7.1	132	62
Nitra	108	32	125	16.4	54,344	34.3	64.1	6.0	18.0	10.6	29.5	133	22.5	7.4	137	79

City name	NUTS 3 regions (used for GDP calculation)	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU (15) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
11. REGIONAL MARKET CENTRES (continued)															
Exeter		111,080	427,309	0.9	0.8	16.1	16.1				2.5	-0.8	96	81	68
Wrexham		128,464	277,057	0.4	0.5	16.0	18.5				1.0	-2.4	116	98	67
Average		*145,846*	*338,091*	*0.4*	*0.0*	*14.0*	*15.7*	*7.3*	*0.6*	*2.2*	*3.4*	*-0.5*	*82*	*87*	*54*
12. REGIONAL PUBL. SERVICE CENTRES															
Lefkosia		200,686	273,642	1.6	1.4	11.2	19.2		4.6	5.5	4.6	0.0	88	99	67
Frankfurt Oder		70,308	72,131	-2.4		15.2	11.8		0.3	4.4	-0.3	-2.5	115	100	62
Magdeburg	Magdeburg, Bördekreis, Jerichower Land, Ohrekries, Schönebeck	229,755	608,677	-1.7	-0.6	18.6	11.2		0.2	2.7	2.6	0.4	86	75	61
Mainz	Mainz Kreisfreie Stadt, Mainz-Bingen	185,293	377,026	0.1	0.2	16.0	13.7	13.3	5.3	13.5	2.9	0.7	144	125	67
Schwerin	Schwerin Kreisfreie Stadt, Ludwigslust, Parchim	99,978	341,815	-2.0	-0.3	17.0	11.6		0.2	3.3	1.5	-0.7	86	75	62
Aalborg		161,661	494,833	0.2	0.2	14.7	16.9	11.3	0.6	3.6	1.8	-0.7	116	89	72
Odense		183,691	472,064	0.0	0.1	14.4	17.5	10.4	0.8	5.1	1.3	-1.2	112	86	71
Badajoz		136,319	664,251	2.3	0.0	12.8	17.7	2.1	0.6	0.6	5.7	1.0	63	64	51
Oviedo		201,005	1,075,329	0.1	-0.1	19.1	10.9	3.1	0.3	1.4	2.8	-2.0	83	85	57
Santiago de Compostela		93,381	1,108,002	-0.1	0.0	15.9	12.5	2.4	0.4	0.9	1.7	-3.0	78	80	57
Cayenne		92,059	92,059	4.2		4.9	30.1	39.3	0.4	22.7	4.4	1.2	63	53	49
Fort-de-France		166,139	166,139	0.1		12.0	21.2	20.9	0.1	1.3	3.8	0.5	80	67	49
Pointe-a-Pitre		84,002	84,002	-0.6		10.5	22.4	23.3	0.1	3.7	5.1	1.8	71	60	44
Saint Denis		176,283	176,283	1.4		6.7	25.5	27.2	0.1	0.8	6.1	2.9	65	54	44
Larisa		132,779	282,156	1.6	0.4	11.7	17.7	4.4	0.1	4.3	4.2	0.4	72	94	52
Panevezys		119,808	162,694	-1.0	-0.7	12.1	19.4	0.1	0.0	0.5	1.5	-3.3	38	90	60
Liepaja		88,473	135,007	-1.2	-1.2	14.6	17.1	1.7	0.0	7.0	6.3	-1.1	37	94	
Lublin		354,026	651,578	-0.1	0.0	12.0	15.2	4.8	0.0	0.1	5.5	0.7	38	79	40
Ponto Delgada		65,854	64,602	0.6		10.8	22.1	2.1	0.1	0.6	4.5	0.5	68	82	61
Calarasi		73,763	83,304	-1.1	-1.2	8.0	18.4	2.2	0.0	0.0	5.4	1.4	19	68	48
Umeå		104,512	136,783	0.6		12.3	18.5		1.9	2.3	0.9	-2.5	101	84	73
Average		*143,799*	*358,208*	*0.1*	*-0.1*	*12.9*	*17.7*	*10.5*	*0.8*	*4.0*	*3.4*	*-0.3*	*77*	*81*	*57*
13. SATELLITE TOWNS															
Setubal		113,934	118,696	0.9		14.8	15.5	4.2	0.3	3.2	3.8	-0.3	70	83	64
Gravesham		95,739	95,739	0.5	0.6	15.3	20.2				2.8	-0.5	100	85	70
Stevenage		79,734	79,734	0.9	0.6	13.8	21.1				7.4	4.1	155	131	76
Worcester		93,372	278,485	0.7	0.7	14.3	19.0				2.1	-1.2	102	86	75
Average		*95,695*	*143,164*	*0.7*	*0.6*	*14.6*	*18.9*	*4.2*	*0.3*	*3.2*	*4.0*	*0.5*	*106.7*	*96.2*	*71*

City name	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
11. REGIONAL MARKET CENTRES (continued)																
Exeter	95	58	105	3.9	70,277	16.4	83.1	7.1	22.3	16.1	37.6	93	22.7	9.3	106	70
Wrexham	94	46	85	5.1	54,845	36.1	61.9	4.4	19.6	8.5	29.3	21	16.7	11.0	126	102
Average	*91*	*37*	*104*	*13.6*	*59,300*	*27.1*	*71.7*	*7.1*	*19.8*	*16.0*	*28.8*	*123*	*21.5*	*18.5*	*169*	*73*
12. REGIONAL PUBL. SERVICE CENTRES																
Lefkosia	99	49	95	3.1	105,646	20.7	77.9	4.9	22.8	17.6	32.6	51	39.1	12.5	87	51
Frankfurt Oder	94	54	122	18.9	42,600	14.6	84.7	8.5	11.7	15.5	48.8	59	33.1	9.6	193	96
Magdeburg	93	51	114	19.0	134,900	16.5	83.2	6.3	14.5	19.3	43.1	60	29.4	7.5	150	95
Mainz	102	51	115	5.2	133,400	17.3	81.8	5.1	16.4	19.9	40.3		29.5	12.1	243	179
Schwerin	95	53	119	15.8	64,300	15.9	83.7	8.2	14.6	17.4	43.4		27.7	6.7	134	89
Aalborg	94	55	91	5.8		20.6						70	23.1			87
Odense	93	53	88	5.2		19.7						68	22.6			93
Badajoz	89	41	99	20.9	48,763	15.1	81.6	4.8	21.3	11.1	44.4			14.3	114	42
Oviedo	99	45	107	14.1	80,729	19.8	79.4	6.7	22.5	13.1	37.1			16.3	130	74
Santiago de Compostela	98	52	124	12.2	37,929	19.0	78.7	6.5	22.4	9.7	40.1			16.9	135	83
Cayenne	80				29,032	14.1	81.1	6.5	15.5	8.0	51.2	12	17.2	13.7	227	
Fort-de-France	80				69,259	12.1	85.6	7.0	19.5	11.1	47.9	46	17.9	10.6	175	
Pointe-a-Pitre	72				33,966	10.2	88.7	8.1	18.2	12.4	50.1	76	15.3	12.7	210	
Saint Denis	72				59,010	11.4	86.5	5.8	16.4	12.1	52.1	62	18.2	9.5	157	
Larisa	93	30	70	10.7									22.7			46
Panevezys	105	44	90	14.2								26	26.8	11.1	75	38
Liepaja		36	90	22.1								50	13.0			26
Lublin	74	32	108	20.5	104,370	25.2	74.5	8.6	14.2	10.7	41.1	247	28.1	19.1	98	57
Ponto Delgada	88	33	75	5.6	31,716	22.2	71.3	6.2	20.4	7.3	37.4	49	10.2	10.7	52	
Calarasi	78	14	38	23.7	25,019	42.3	50.9	6.2	14.1	4.8	25.8	10	9.0	3.9	15	54
Umeå	98	84	115	11.0	51,855	20.2	79.1	6.3	12.9	11.7	48.2	116	24.6	4.6	68	64
Average	*90*	*46*	*98*	*13.4*	*65,781*	*18.7*	*79.3*	*6.6*	*17.3*	*12.6*	*42.7*	*67*	*22.6*	*11.3*	*133*	*73*
13. SATELLITE TOWNS																
Setubal	93	44	101	9.1	51,885	32.9	64.7	5.4	22.5	7.9	28.9	55	11.1	14.4	70	73
Gravesham	99	56	102	5.2	28,984	26.2	72.8	7.9	23.7	11.5	29.7		13.1	16.1	184	121
Stevenage	106	61	112	4.0	41,186	25.1	74.5	5.9	21.1	21.2	26.3		16.1	9.5	109	163
Worcester	105	58	107	3.8	50,434	20.7	78.9	6.3	27.4	13.2	32.0	40	21.6	9.4	107	113
Average	*101*	*55*	*106*	*5.5*	*43,122*	*26.2*	*72.7*	*6.4*	*23.7*	*13.5*	*29.2*	*47*	*15.5*	*12.3*	*117*	*118*

SUMMARY TABLE	Core city population 2001	LUZ population 2001	Population change in core city 1996-2001, annual average, in %	Population change in LUZ 1996-2001, annual average, in %	Share (%) of total resident population aged 65 years or over, 2001	Share (%) of total resident population aged 0-14 years, 2001	Recent immigration : People who have moved to the city in the last 2 years as a share (%) of total population	Other EU (15) nationals as a share (%) of all resident population, 2001	Non-EU 815) nationals as a share (%) of all resident population, 2001	Real GDP growth 1996 2001, annual average in %	Real annual average GDP growth 1996-2001, percen-tage points deviation from country average	GDP per capita in PPS 2001, index, EU27=100	GDP per capita in 2001, index, country average =100	Employ-ment rate: Employed persons as a share of all working-age (15-64) population, 2001
1. KNOWLEDGE CENTRES	1,314,898	2,790,362	0.3	0.6	15.9	14.6	11.8	3.5	9.5	4.2	0.6	164.5	138.2	68
2. ESTABLISHED CAPITALS	1,860,737	4,386,308	-0.3	5.2	17.8	13.5	10.8	3.2	9.5	3.5	0.3	141.5	130.8	60
3. REINVENTED CAPITALS	999,507	1,377,715	-0.7	-0.4	15.3	14.0	2.3	0.2	4.8	7.4	3.3	81.3	169.3	63
4. NATIONAL SERVICE CENTRES	374,330	737,475	0.0	0.1	14.7	15.0	8.9	4.0	5.5	3.5	-0.1	100.1	102.2	60
5. TRANSFORMATION POLES	392,046	766,158	-0.3	0.7	15.9	16.1	10.7	1.3	4.5	3.2	0.1	99.7	94.8	60
6. GATEWAYS	385,070	771,933	-0.3	-0.2	17.2	15.3	6.4	0.7	2.7	3.7	0.7	98.1	98.6	54
7. MODERN INDUSTRIAL CENTRES	285,099	531,929	0.1	0.1	15.2	14.9	7.5	1.2	3.9	3.7	-0.2	103.4	109.3	59
8. RESEARCH CENTRES	226,533	518,659	0.5	0.5	16.2	14.3	14.7	1.9	5.5	2.9	0.0	125.9	107.8	62
9. VISITOR CENTRES	257,888	581,472	0.3	0.5	16.6	15.0	6.9	0.9	2.9	3.7	0.3	92.1	94.1	55
10. DE-INDUSTRIALISED CITIES	208,273	509,931	-0.6	-0.5	12.8	16.7	3.1	1.2	1.4	0.6	-2.6	57.2	78.5	52
11. REGIONAL MARKET CENTRES	145,846	338,091	0.4	0.0	14.0	15.7	7.3	0.6	2.2	3.4	-0.5	82.3	86.8	54
12. REGIONAL PUBL. SERVICE CENTRES	143,799	358,208	0.1	-0.1	12.9	17.7	10.5	0.8	4.0	3.4	-0.3	77.3	81.0	57
13 .SATELLITE TOWNS	95,695	143,164	0.7	0.6	14.6	18.9	4.2	0.3	3.2	4.0	0.5	106.7	96.2	71
OVERALL (unweighted average)	**399,588**	**829,065**	**0.0**	**0.3**	**15.1**	**15.5**	**8.1**	**1.4**	**4.1**	**3.4**	**-0.1**	**97.1**	**100.7**	**58**

SUMMARY TABLE	Employ-ment rate: Index, country average =100	Employ-ment rate, older workers: Employed persons aged 55-64 years as a share of all persons that age, 2001	Employ-ment rate, older workers, index country average=100	Unemploy-ment rate in 2001	Total employ-ment (work place based) 2001	Share of employ-ment in manufactu-ring incl. Concstruc-tion 2001	Share (%) of employ-ment in services 2001	Share (%) of employ-ment in transport and communi-cation 2001	Share (%) of employ-ment in trade, hotels, restau-rants 2001	Share (%) of employ-ment in financial interme-diation, business activities 2001	Share (%) of employ-ment in public administra-tion, health, education, other services, 2001	Number of students in higher education (ISCED level 5-6) per 1000 persons, 2001	Residents qualified at ISCED levels 5-6 as a share (%) of population 24 and over, 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001	Self-employed persons as a share (%) of all employed persons (work place based), 2001, index country average =100	Multi-modal accessibi-lity, index ESPON space= 100
1. KNOWLEDGE CENTRE	102	52	112	6.5	814,057	16.6	81.7	7.7	18.5	28.2	27.3	72	28.2	10.9	155	141
2. ESTABLISHED CAPITA	98	41	117	11.9	1,052,089	16.8	81.6	11.4	18.3	21.6	30.3	115	26.9	12.1	142	137
3. REINVENTED CAPITAL	108	41	118	9.0	521,086	24.6	70.5	9.2	18.8	15.8	26.8	102	31.0	10.3	113	110
4. NATIONAL SERVICE CI	95	41	102	9.3	202,032	21.6	76.2	7.1	17.7	17.2	34.2	115	27.3	9.6	129	104
5. TRANSFORMATION PC	92	41	97	10.1	203,513	22.5	76.2	7.2	18.8	17.6	32.6	92	22.1	8.7	121	111
6. GATEWAYS	94	33	99	14.3	156,464	24.1	74.4	10.6	20.9	17.4	25.4	61	18.1	19.5	188	100
7. MODERN INDUSTRIAL	94	40	100	10.0	133,243	30.5	68.4	6.5	18.2	14.6	29.0	115	21.8	11.3	113	89
8. RESEARCH CENTRES	96	46	115	7.6	131,444	22.5	76.6	6.0	18.6	19.0	33.0	180	30.9	12.4	163	107
9. VISITOR CENTRES	94	38	103	12.6	111,276	21.4	77.1	7.4	26.2	15.0	28.6	74	20.4	20.2	199	90
10. DE-INDUSTRIALISED	86	30	83	17.1	86,735	32.8	65.9	7.4	18.8	10.7	29.0	91	17.0	13.1	120	80
11. REGIONAL MARKET (	91	37	104	13.6	59,300	27.1	71.7	7.1	19.8	16.0	28.8	123	21.5	18.5	169	73
12. REGIONAL PUBL. SEI	90	46	98	13.4	65,781	18.7	79.3	6.6	17.3	12.6	42.7	67	22.6	11.3	133	73
13 .SATELLITE TOWNS	101	55	106	5.5	43,122	26.2	72.7	6.4	23.7	13.5	29.2	47	15.5	12.3	117	118
OVERALL (unweighted a	**93**	**40**	**95**	**11.5**	**206,181**	**24.3**	**74.0**	**7.4**	**19.5**	**16.4**	**30.7**	**101**	**22.9**	**13.3**	**143**	**94**

Annex 4. Lisbon Benchmark

City code	City name	Labour productivity: GDP per person employed in PPS, Index EU25=100 (Data: 134)	SCORE: Labour productivity: GDP per person employed in PPS, Index EU25=100	Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64 (Data: 241)	SCORE: Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64	Employment rate of older workers: Total economic-ally active population 55-64 in % of total resident population 55-64 (Data: 242)	SCORE: Employment rate of older workers: Total economic-ally active population 55-64 in % of total resident population 55-64	Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64 (Data: 166)	SCORE: Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64	Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-24 (Data: 220)	SCORE: Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-	Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24 (Data: 171)	SCORE: Unemployed continuous-ly for more than six months, 15 24 in % of total resident population 15-24	Average score (Data: 241)	Quintiles
AT001C	Wien	130	5	N.A.	N.A.	0.35	2	0.09	2	1.17	4	0.02	3	2.8	2.0
AT002C	Graz			N.A.	N.A.	0.30	2	N.A.	N.A.	2.23	5	N.A.	N.A.	N.A.	N.A.
AT003C	Linz			N.A.	N.A.	0.27	1	N.A.	N.A.	1.84	5	N.A.	N.A.	N.A.	N.A.
BE001C	Bruxelles / Brussel	298	5	0.49	1	0.33	2	0.42	1	0.99	3	0.05	2	2.3	2.0
BE002C	Antwerpen	160	5	0.55	2	0.33	2	0.39	1	1.01	3	0.04	2	2.5	2.0
BE003C	Gent	125	5	0.60	3	0.28	1	0.40	1	2.42	5	0.05	2	2.8	3.0
BE004C	Charleroi	115	5	0.45	1	0.17	1	0.66	1	0.72	2	0.11	1	1.8	1.0
BE005C	Liège	115	5	0.46	1	0.26	1	0.49	1	2.00	5	0.11	1	2.3	2.0
BE006C	Brugge	107	5	0.63	4	0.24	1	0.38	1	1.16	4	0.02	3	3.0	3.0
BG001C	Sofia	47	1	0.70	5	0.35	2	0.01	5	0.92	3	0.00	5	3.5	4.0
BG002C	Plovdiv	27	1	0.67	5	0.26	1	0.06	3	0.81	2	0.02	3	2.2	1.0
BG003C	Varna	37	1	0.54	2	0.00	1	N.A.	N.A.	0.87	3	0.02	3	2.5	2.0
BG004C	Burgas	33	1	0.67	5	0.20	1	0.04	4	0.80	2	0.01	4	2.0	1.0
BG005C	Pleven	26	1	0.68	5	0.00	1	N.A.	N.A.	0.59	1	0.02	3	2.2	1.0
BG006C	Ruse	27	1	0.65	4	0.00	1	N.A.	N.A.	0.71	2	0.03	3	2.8	3.0
BG007C	Vidin	23	1	0.63	4	0.00	1	N.A.	N.A.	0.44	1	0.10	1	1.6	1.0
CY001C	Lefkosia	79	3	0.67	5	0.49	4	0.01	5	0.70	2	0.01	5	4.0	5.0
CZ001C	Praha	101	4	0.74	5	0.63	5	0.01	5	0.99	3	0.01	4	4.0	5.0
CZ002C	Brno	68	2	0.67	5	0.52	4	0.02	5	1.45	5	0.05	2	2.3	2.0
CZ003C	Ostrava	65	2	0.58	3	0.36	3	0.06	3	0.86	2	0.11	1	3.7	4.0
CZ004C	Plzen	71	2	0.67	5	0.39	3	0.04	4	1.16	4	0.01	4	3.8	5.0
CZ005C	Usti nad Labem	58	2	0.80	5	0.46	4	0.07	2	0.92	3	0.07	1	3.2	3.0
DE001C	Berlin	86	3	0.60	3	0.33	2	0.13	1	0.34	1	0.02	4	4.3	5.0
DE002C	Hamburg	123	5	0.68	5	0.54	5	0.06	2	0.79	2	0.01	5	4.2	5.0
DE003C	München	123	5	0.75	5	0.57	5	0.04	4	1.24	4	0.00	5	3.7	4.0
DE004C	Köln	110	5	0.65	4	0.50	4	0.07	2	1.36	5	0.01	5	3.2	3.0
DE005C	Frankfurt am Main	134	5	0.67	5	0.52	5	0.06	3	1.31	4	0.00	5	3.5	4.0
DE006C	Essen	107	5	0.62	4	0.46	4	0.07	2	0.85	2	0.01	5	3.0	3.0
DE008C	Leipzig	70	2	0.58	3	0.53	5	0.12	1	1.02	3	0.02	3	4.0	5.0
DE009C	Dresden	71	2	0.64	4	0.59	5	0.10	1	1.03	3	0.02	3	3.5	4.0
DE010C	Dortmund	96	4	0.58	3	0.41	3	0.09	1	0.95	3	0.01	4	3.8	5.0
DE011C	Düsseldorf	143	5	0.68	5	0.54	5	0.06	2	1.22	4	0.00	5	2.2	1.0
DE012C	Bremen	103	4	0.63	4	0.49	4	0.06	3	0.95	3	0.01	4	3.3	4.0
DE013C	Hannover	104	4	0.62	4	0.54	5	0.08	2	1.33	4	0.01	4	3.5	4.0
DE014C	Nürnberg	104	4	0.68	5	0.52	4	0.09	2	0.86	2	0.00	5	3.7	4.0
DE015C	Bochum	106	4	0.59	3	0.42	3	0.07	2	1.45	5	0.01	4	2.8	3.0
DE016C	Wuppertal	99	4	0.65	4	0.52	5	0.06	3	0.74	2	0.01	5	3.0	3.0
DE017C	Bielefeld	91	3	0.65	4	0.54	5	0.06	3	1.23	4	0.01	5	3.3	4.0
DE018C	Halle an der Saale	68	2	0.59	3	0.51	4	0.12	1	0.99	3	0.03	2	3.3	4.0
DE019C	Magdeburg	70	2	0.62	3	0.51	4	0.12	1	1.05	3	0.02	3	4.2	5.0
DE020C	Wiesbaden	119	5	0.68	5	0.53	5	0.06	2	0.73	2	0.00	5	4.0	5.0
DE021C	Göttingen	90	3	0.54	2	0.51	4	0.09	1	1.54	5	0.01	4	4.5	5.0
DE022C	Mülheim a.d.Ruhr	99	4	0.64	4	0.47	4	0.06	2	0.34	1	0.01	5	2.8	3.0
DE023C	Moers	81	3	0.63	4	0.42	3	0.07	2	N.A.	N.A.	0.01	4	4.3	5.0

City code	City name	Labour productivity: GDP per person employed in PPS, Index EU25=100 (Data: 134)	SCORE: Labour productivity: GDP per person employed in PPS, Index EU25=100	Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64 (Data: 241)	SCORE: Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64	Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64 (Data: 242)	SCORE: Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64	Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64 (Data: 166)	SCORE: Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64	Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-24 (Data: 220)	SCORE: Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-	Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24 (Data: 171)	SCORE: Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24	Average score (Data: 241)	Quintiles
DE025C	Darmstadt	103	4	0.69	5	0.53	5	0.05	3	3.57	5	0.01	5	3.5	4.0
DE026C	Trier	80	3	0.59	3	0.48	4	0.06	3	0.69	2	0.01	4	3.5	4.0
DE027C	Freiburg im Breisgau	91	3	0.58	3	0.53	5	0.05	4	1.56	5	0.00	5	3.4	4.0
DE028C	Regensburg	110	5	0.70	5	0.54	5	0.06	2	2.40	5	0.01	5	2.8	3.0
DE029C	Frankfurt (Oder)	71	2	0.62	4	0.54	5	0.13	1	0.92	3	0.02	4	3.7	4.0
DE030C	Weimar	64	2	0.59	3	0.51	4	0.07	2	0.97	3	0.02	3	3.8	5.0
DE031C	Schwerin	72	2	0.63	4	0.53	5	0.08	2	0.81	2	0.01	4	3.3	4.0
DE032C	Erfurt	69	2	0.64	4	0.55	5	0.10	1	0.88	3	0.02	3	4.0	5.0
DE033C	Augsburg	102	4	0.70	5	0.55	5	0.06	3	0.65	2	0.00	5	3.7	4.0
DE034C	Bonn	95	4	0.64	4	0.52	5	0.03	4	0.54	1	0.00	5	3.3	4.0
DE035C	Karlsruhe	105	4	0.67	5	0.54	5	0.06	2	0.65	2	0.00	5	4.0	5.0
DE036C	Mönchengladbach	87	3	0.64	4	0.50	4	0.06	2	0.60	1	0.01	4	3.3	4.0
DE037C	Mainz	100	4	0.68	5	0.51	4	0.05	3	0.60	1	0.00	5	4.2	5.0
DK001C	København	127	5	0.72	5	0.52	4	0.02	5	1.04	3	0.00	5	4.2	5.0
DK002C	Aarhus	86	3	0.72	5	0.58	5	0.02	5	1.00	3	0.01	5	4.3	5.0
DK003C	Odense	87	3	0.71	5	0.53	5	0.03	5	0.86	2	0.00	5	4.2	5.0
DK004C	Aalborg	88	3	0.72	5	0.55	5	0.04	4	0.84	2	0.00	5	4.3	5.0
EE001C	Tallinn			0.65	4	0.62	5	N.A.	N.A.	0.90	3	N.A.	N.A.	4.0	5.0
EE002C	Tartu			0.58	3	0.56	5	N.A.	N.A.	1.35	4	N.A.	N.A.	4.0	5.0
ES001C	Madrid			0.64	4	0.47	4	0.01	5	0.19	1	0.00	5	3.0	3.0
ES002C	Barcelona			0.65	4	0.49	4	N.A.	N.A.	0.27	1	N.A.	N.A.	3.0	3.0
ES003C	Valencia			0.58	3	0.43	4	N.A.	N.A.	0.21	1	N.A.	N.A.	2.0	1.0
ES004C	Sevilla			0.49	1	0.37	3	N.A.	N.A.	0.20	1	N.A.	N.A.	2.7	2.0
ES005C	Zaragoza			0.62	4	0.45	4	N.A.	N.A.	0.19	1	N.A.	N.A.	2.7	2.0
ES006C	Málaga			0.50	2	0.37	3	N.A.	N.A.	0.20	1	N.A.	N.A.	1.7	1.0
ES007C	Murcia	104	4	0.60	3	0.44	4	N.A.	N.A.	0.24	1	N.A.	N.A.	3.8	5.0
ES008C	Las Palmas			0.51	2	0.42	3	N.A.	N.A.	0.24	1	N.A.	N.A.	3.0	3.0
ES009C	Valladolid			0.54	2	0.38	3	N.A.	N.A.	0.23	1	N.A.	N.A.	2.0	1.0
ES010C	Palma di Mallorca			0.62	4	0.47	4	N.A.	N.A.	0.18	1	N.A.	N.A.	2.7	2.0
ES011C	Santiago de Compostela			0.57	3	0.52	5	N.A.	N.A.	0.56	1	N.A.	N.A.	3.3	4.0
ES012C	Vitoria/Gasteiz			0.62	4	0.43	4	N.A.	N.A.	0.19	1	N.A.	N.A.	2.0	1.0
ES013C	Oviedo			0.57	3	0.45	4	N.A.	N.A.	0.26	1	N.A.	N.A.	3.0	3.0
ES014C	Pamplona/Iruña			0.61	3	0.45	4	N.A.	N.A.	0.19	1	N.A.	N.A.	3.0	3.0
ES015C	Santander			0.54	2	0.43	3	N.A.	N.A.	0.27	1	N.A.	N.A.	2.7	2.0
ES016C	Toledo			N.A.	N.A.	0.47	4	N.A.	N.A.	0.26	1	N.A.	N.A.	2.0	1.0
ES017C	Badajoz			0.51	2	0.41	3	N.A.	N.A.	0.22	1	N.A.	N.A.	2.0	1.0
ES018C	Logroño			0.64	4	0.46	4	N.A.	N.A.	0.18	1	N.A.	N.A.	N.A.	N.A.
FI001C	Helsinki	103	4	0.70	5	0.62	5	0.09	1	1.36	5	0.00	5	3.7	4.0
FI002C	Tampere	94	3	0.64	4	0.58	5	0.14	1	1.58	5	0.01	4	3.8	5.0
FI003C	Turku	82	3	0.62	4	0.58	5	0.14	1	1.46	5	0.01	4	3.6	4.0
FI004C	Oulu	105	4	0.62	4	0.53	5	0.13	1	N.A.	N.A.	0.02	4	4.0	5.0
FR001C	Paris			0.66	4	0.56	5	0.06	3	1.52	5	0.01	4	3.6	4.0
FR003C	Lyon			0.60	3	0.44	4	0.05	3	1.06	3	0.02	3	3.2	4.0
FR004C	Toulouse			0.56	2	0.43	4	0.06	3	1.31	4	0.03	3	3.4	4.0

City code	City name	Labour productivity: GDP per person employed in PPS, Index EU25=100 (Data: 134)	SCORE: Labour productivity: GDP per person employed in PPS, Index EU25=100	Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64 (Data: 241)	SCORE: Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64	Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64 (Data: 242)	SCORE: Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64	Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64 (Data: 166)	SCORE: Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64	Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-24 (Data: 220)	SCORE: Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-	Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24 (Data: 171)	SCORE: Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24	Average score (Data: 241)	Quintiles
FR006C	Strasbourg			0.60	3	0.41	3	0.05	4	1.09	4	0.02	4	3.0	3.0
FR007C	Bordeaux			0.57	3	0.41	3	0.05	3	1.11	4	0.03	2	3.0	3.0
FR008C	Nantes			0.58	3	0.37	3	0.06	3	1.02	3	0.03	3	3.0	3.0
FR009C	Lille			0.55	2	0.36	3	0.11	1	0.92	3	0.03	2	3.2	4.0
FR010C	Montpellier			0.51	2	0.41	3	0.06	3	1.14	4	0.03	3	3.6	4.0
FR011C	Saint-Etienne			0.56	3	0.34	2	0.06	3	0.84	2	0.03	2	1.8	1.0
FR012C	Le Havre			0.53	2	0.34	2	0.09	1	0.79	2	0.05	2	4.2	5.0
FR013C	Rennes			0.58	3	0.39	3	0.03	4	1.21	4	0.01	4	3.4	4.0
FR014C	Amiens			0.52	2	0.38	3	0.10	1	1.35	4	0.04	2	3.2	4.0
FR015C	Rouen			0.56	3	0.37	3	0.08	2	1.08	4	0.04	2	3.0	3.0
FR016C	Nancy			0.55	2	0.41	3	0.05	3	1.34	4	0.02	3	2.4	2.0
FR017C	Metz			0.58	3	0.37	3	0.07	2	1.22	4	0.03	3	2.2	1.0
FR018C	Reims			0.55	2	0.38	3	0.07	2	1.10	4	0.03	3	3.6	4.0
FR019C	Orléans			0.63	4	0.41	3	0.05	4	1.01	3	0.02	3	N.A.	N.A.
FR020C	Dijon			0.59	3	0.43	4	0.06	2	1.19	4	0.02	3	2.4	2.0
FR021C	Poitiers			0.52	2	0.41	3	0.03	4	1.44	5	0.02	4	2.8	3.0
FR022C	Clermont-Ferrand			0.57	3	0.39	3	0.03	4	1.24	4	0.02	4	2.8	3.0
FR023C	Caen			0.54	2	0.38	3	0.05	3	1.26	4	0.03	2	2.8	3.0
FR024C	Limoges			0.59	3	0.38	3	0.04	4	1.04	3	0.02	3	N.A.	N.A.
FR025C	Besançon			0.57	3	0.42	3	0.07	2	1.26	4	0.02	3	3.0	3.0
FR026C	Grenoble			0.57	3	0.44	4	0.05	3	1.21	4	0.02	3	3.6	4.0
FR027C	Ajaccio			0.55	2	0.39	3	0.05	4	0.73	2	0.03	3	3.2	4.0
FR028C	Saint Denis			0.44	1	N.A.	N.A.	N.A.	N.A.	0.83	2	N.A.	N.A.	N.A.	N.A.
FR029C	Pointe-a-Pitre			0.44	1	N.A.	N.A.	N.A.	N.A.	1.10	4	N.A.	N.A.	N.A.	N.A.
FR030C	Fort-de-France			0.49	1	N.A.	N.A.	N.A.	N.A.	0.97	3	N.A.	N.A.	2.2	1.0
FR031C	Cayenne			0.49	1	N.A.	N.A.	N.A.	N.A.	0.54	1	N.A.	N.A.	3.0	3.0
FR203C	Marseille			0.51	2	0.37	3	0.08	2	0.78	2	0.04	2	3.0	3.0
FR205C	Nice			0.58	3	0.41	3	0.06	3	0.99	3	0.02	3	2.8	3.0
GR001C	Athina			0.58	3	0.34	2	0.04	4	N.A.	N.A.	0.03	3	2.3	2.0
GR002C	Thessaloniki			0.52	2	0.31	2	0.03	4	N.A.	N.A.	0.03	2	3.0	3.0
GR003C	Patra			0.48	1	0.29	2	0.06	2	N.A.	N.A.	0.03	3	3.0	3.0
GR004C	Irakleio			0.56	2	0.37	3	0.03	5	N.A.	N.A.	0.03	2	2.5	2.0
GR005C	Larisa			0.52	2	0.30	2	0.02	5	N.A.	N.A.	0.04	2	2.3	2.0
GR006C	Volos			0.51	2	0.27	1	0.04	4	N.A.	N.A.	0.03	2	2.5	2.0
GR007C	Ioannina			0.50	1	0.32	2	0.02	5	N.A.	N.A.	0.03	3	2.8	2.0
GR008C	Kavala			0.52	2	0.24	1	0.04	4	N.A.	N.A.	0.04	2	2.0	1.0
GR009C	Kalamata			0.51	2	0.31	2	0.03	4	N.A.	N.A.	0.03	2	2.8	2.0
HU001C	Budapest			0.60	3	0.31	2	0.02	5	1.40	5	0.01	5	3.4	4.0
HU002C	Miskolc			0.47	1	0.19	1	0.05	4	0.88	3	0.02	4	4.0	5.0
HU003C	Nyiregyhaza			0.52	2	0.22	1	0.02	5	0.65	2	0.01	4	2.6	2.0
HU004C	Pecs			0.53	2	0.22	1	0.02	5	1.21	4	0.01	5	2.8	3.0
IE001C	Dublin			0.63	4	0.48	4	0.01	5	0.43	1	0.01	4	3.6	4.0
IE002C	Cork			0.54	2	0.40	3	0.01	5	0.52	1	0.01	4	3.6	4.0
IE003C	Limerick			0.55	2	0.40	3	0.02	5	0.45	1	0.01	4	3.0	3.0

City code	City name	Labour productivity: GDP per person employed in PPS, Index EU25=100 (Data: 134)	SCORE: Labour productivity: GDP per person employed in PPS, Index EU25=100	Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64 (Data: 241)	SCORE: Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64	Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64 (Data: 242)	SCORE: Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64	Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64 (Data: 166)	SCORE: Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64	Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-24 (Data: 220)	SCORE: Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-	Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24 (Data: 171)	SCORE: Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24	Average score (Data: 241)	Quintiles
IE004C	Galway			0.56	2	0.51	4	0.01	5	0.62	2	0.00	5	3.0	3.0
IT001C	Roma	123	5	0.57	3	0.38	3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.0	1.0
IT002C	Milano	143	5	0.63	4	0.34	2	N.A.	N.A.	1.52	5	N.A.	N.A.	3.0	3.0
IT003C	Napoli	98	4	0.35	1	0.34	2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.7	2.0
IT004C	Torino	116	5	0.60	3	0.28	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.0	1.0
IT005C	Palermo	102	4	0.39	1	0.33	2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT006C	Genova	115	5	0.56	2	0.26	1	N.A.	N.A.	0.69	2	N.A.	N.A.	2.0	1.0
IT007C	Firenze	129	5	0.63	4	0.36	3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.5	4.0
IT008C	Bari	89	3	0.44	1	0.32	2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.7	2.0
IT009C	Bologna	123	5	0.66	4	0.32	2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.3	2.0
IT010C	Catania	91	3	0.39	1	0.34	2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.7	2.0
IT011C	Venezia	110	5	0.59	3	0.26	1	N.A.	N.A.	1.29	4	N.A.	N.A.	3.0	3.0
IT012C	Verona	106	4	0.62	4	0.27	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.3	2.0
IT013C	Cremona	106	4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.0	3.0
IT014C	Trento	112	5	N.A.	N.A.	0.30	2	0.03	5	N.A.	N.A.	0.02	4	2.0	1.0
IT015C	Trieste	114	5	0.60	3	0.27	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.3	4.0
IT016C	Perugia	99	4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.8	5.0
IT017C	Ancona	103	4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1.51	5	N.A.	N.A.	3.0	3.0
IT018C	l'Aquila	92	3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT019C	Pescara	94	3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2.3	2.0
IT020C	Campobasso	90	3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT021C	Caserta	94	3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT022C	Taranto	94	4	0.39	1	0.24	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT023C	Potenza	95	4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT024C	Catanzaro	97	4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT025C	Reggio di Calabria	94	3	0.41	1	0.34	2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT026C	Sassari	91	3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
IT027C	Cagliari	94	3	0.49	1	0.35	2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
LT001C	Vilnius			0.56	2	0.44	4	0.06	2	0.91	3	0.05	2	2.8	3.0
LT002C	Kaunas			0.60	3	0.55	5	0.09	1	0.92	3	0.04	2	2.6	2.0
LT003C	Panevezys			0.60	3	0.44	4	N.A.	N.A.	0.50	1	0.01	4	3.0	3.0
LU001C	Luxembourg	135	5	0.64	4	0.37	3	0.01	5	0.70	2	0.00	5	4.0	5.0
LV001C	Riga	53	2	0.00	1	0.00	1	0.04	4	1.16	4	N.A.	N.A.	2.2	1.0
LV002C	Liepaja	40	1	0.50	1	0.36	3	N.A.	N.A.	0.85	2	N.A.	N.A.	2.0	1.0
MT001C	Valletta			N.A.	N.A.	N.A.	N.A.	0.02	5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
MT002C	Gozo			N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
NL001C	s' Gravenhage			0.71	5	0.44	4	0.05	3	0.69	2	N.A.	N.A.	3.5	4.0
NL002C	Amsterdam			0.70	5	0.37	3	0.11	1	1.27	4	0.01	4	3.5	4.0
NL003C	Rotterdam			0.66	5	0.36	3	0.09	1	1.23	4	0.03	3	3.4	4.0
NL004C	Utrecht			0.74	5	0.35	2	0.07	2	2.19	5	N.A.	N.A.	3.2	4.0
NL005C	Eindhoven			0.72	5	0.31	2	N.A.	N.A.	1.89	5	N.A.	N.A.	4.0	5.0
NL006C	Tilburg			0.71	5	0.32	2	N.A.	N.A.	1.37	5	N.A.	N.A.	4.0	5.0
NL007C	Groningen			0.70	5	0.34	2	N.A.	N.A.	1.68	5	N.A.	N.A.	3.7	4.0
NL008C	Enschede			0.67	5	0.33	2	N.A.	N.A.	1.08	4	N.A.	N.A.	4.3	5.0

City code	City name	Labour productivity: GDP per person employed in PPS, Index EU25=100 (Data: 134)	SCORE: Labour productivity: GDP per person employed in PPS, Index EU25=100	Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64 (Data: 241)	SCORE: Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64	Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64 (Data: 242)	SCORE: Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64	Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64 (Data: 166)	SCORE: Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64	Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-24 (Data: 220)	SCORE: Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-	Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24 (Data: 171)	SCORE: Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24	Average score (Data: 241)	Quintiles
NL009C	Arnhem			0.72	5	0.42	3	N.A.	N.A.	1.73	5	N.A.	N.A.	3.7	4.0
NL010C	Heerlen			0.66	4	0.34	2	N.A.	N.A.	2.00	5	N.A.	N.A.	4.0	5.0
PL001C	Warszawa	79	3	0.57	3	0.43	3	0.05	3	1.69	5	0.06	2	2.8	3.0
PL002C	Lodz	56	2	0.50	1	0.32	2	0.10	1	1.29	4	0.08	1	2.0	1.0
PL003C	Krakow	61	2	0.50	1	0.34	2	0.05	3	1.58	5	0.07	1	2.3	2.0
PL004C	Wroclaw	60	2	0.52	2	0.35	2	0.06	3	1.71	5	0.07	1	2.8	3.0
PL005C	Poznan	70	2	0.55	2	0.39	3	0.04	4	1.82	5	0.06	2	1.7	1.0
PL006C	Gdansk	63	2	0.52	2	0.35	2	0.05	3	1.31	4	0.07	1	2.2	1.0
PL007C	Szczecin	54	2	0.49	1	0.33	2	0.07	2	1.51	5	0.08	1	2.0	1.0
PL008C	Bydgoszcz	46	1	0.51	2	0.30	2	0.06	2	1.15	4	0.08	1	2.0	1.0
PL009C	Lublin	31	1	0.47	1	0.32	2	0.06	3	1.81	5	0.07	1	2.2	1.0
PL010C	Katowice	59	2	0.50	1	0.28	1	0.07	2	2.35	5	0.09	1	2.2	1.0
PL011C	Bialystok	33	1	0.47	1	0.28	1	0.09	1	1.43	5	0.08	1	1.5	1.0
PL012C	Kielce	30	1	0.48	1	0.32	2	0.07	2	2.27	5	0.11	1	1.5	1.0
PL013C	Torun	38	1	0.50	1	0.31	2	0.07	2	1.35	5	0.09	1	2.3	2.0
PL014C	Olsztyn	44	1	0.51	2	0.34	2	0.06	3	1.94	5	0.06	2	2.5	2.0
PL015C	Rzeszow	29	1	0.47	1	0.32	2	0.06	3	2.31	5	0.07	1	2.2	1.0
PL016C	Opole	43	1	0.50	1	0.35	2	0.06	3	2.20	5	0.07	1	2.2	1.0
PL017C	Gorzow Wielkopolski	47	1	0.47	1	0.29	1	0.09	1	0.87	3	0.11	1	1.8	1.0
PL018C	Zielona Gora	47	1	0.49	1	0.34	2	0.05	3	1.77	5	0.07	1	1.7	1.0
PL019C	Jelenia Gora	44	1	0.48	1	0.29	2	0.08	2	1.28	4	0.10	1	2.0	1.0
PL020C	Nowy Sacz	24	1	0.44	1	0.24	1	0.04	4	1.22	4	0.13	1	1.5	1.0
PL021C	Suwalki	33	1	0.47	1	0.26	1	0.10	1	0.89	3	0.10	1	2.3	2.0
PL022C	Konin	33	1	0.49	1	0.27	1	0.05	4	1.08	4	0.15	1	2.0	1.0
PL023C	Zory	50	1	0.44	1	0.20	1	0.07	2	0.38	1	0.14	1	2.2	1.0
PT001C	Lisboa	88	3	0.66	5	0.51	4	0.04	4	2.20	5	0.02	4	3.8	5.0
PT002C	Oporto	67	2	0.62	4	0.48	4	0.05	3	2.17	5	0.02	3	3.5	4.0
PT003C	Braga	48	1	0.68	5	0.42	3	0.04	4	0.95	3	0.02	4	4.2	5.0
PT004C	Funchal	69	2	0.64	4	0.43	4	0.01	5	0.61	2	0.01	4	3.5	4.0
PT005C	Coimbra	62	2	0.66	5	0.45	4	0.03	4	1.98	5	0.01	4	4.0	5.0
PT006C	Setubal	69	2	0.64	4	0.44	4	0.05	3	0.68	2	0.02	3	3.5	4.0
PT007C	Ponto Delgada	52	2	0.61	3	0.33	2	0.01	5	0.50	1	0.02	3	2.7	2.0
PT008C	Aveiro	60	2	0.69	5	0.47	4	0.03	4	1.40	5	0.01	4	3.0	3.0
RO001C	Bucuresti			0.54	2	0.16	1	0.02	5	0.94	3	0.04	2	1.6	1.0
RO002C	Cluj-Napoca			0.58	3	0.18	1	0.03	4	1.52	5	0.03	2	3.0	3.0
RO003C	Timisoara			0.55	2	0.14	1	0.03	4	1.30	4	0.03	2	1.4	1.0
RO004C	Craiova			0.48	1	0.13	1	0.03	5	1.04	3	0.07	1	2.6	2.0
RO005C	Braila			0.48	1	0.10	1	0.06	3	0.50	1	0.10	1	2.6	2.0
RO006C	Oradea			0.53	2	0.13	1	0.01	5	1.04	3	0.03	2	1.0	1.0
RO007C	Bacau			0.51	2	0.13	1	0.04	4	0.71	2	0.06	2	2.6	2.0
RO008C	Arad			0.55	2	0.12	1	0.03	4	0.85	2	0.02	3	2.2	1.0
RO009C	Sibiu			0.54	2	0.14	1	0.02	5	1.20	4	0.03	3	1.2	1.0
RO010C	Targu Mures			0.54	2	0.14	1	0.02	5	0.93	3	0.03	2	2.6	2.0
RO011C	Piatra Neamt			0.48	1	0.12	1	0.04	4	0.53	1	0.09	1	2.2	1.0

City code	City name	Labour productivity: GDP per person employed in PPS, Index EU25=100 (Data: 134)	SCORE: Labour productivity: GDP per person employed in PPS, Index EU25=100	Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64 (Data: 241)	SCORE: Employment rate: Residents in self employment + residents in paid employment in % of total resident population 15-64	Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64 (Data: 242)	SCORE: Employment rate of older workers: Total economically active population 55-64 in % of total resident population 55-64	Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64 (Data: 166)	SCORE: Long-term unemployed: Unemployed continously for more than one year 55-64 in % of total economic-ally active population 55-64	Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-24 (Data: 220)	SCORE: Youth education attainment level: Students in upper and further education + students in higher education in % of total redisent population 15-	Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24 (Data: 171)	SCORE: Unemployed continuous-ly for more than six months, 15-24 in % of total resident population 15-24	Average score (Data: 241)	Quintiles
RO012C	Calarasi			0.46	1	0.14	1	0.12	1	0.59	1	0.14	1	2.6	2.0
RO013C	Giurgiu			0.44	1	0.10	1	0.08	2	0.50	1	0.07	1	3.0	3.0
RO014C	Alba Iulia			0.56	2	0.18	1	0.04	4	1.21	4	0.05	2	2.4	2.0
SE001C	Stockholm	118	5	0.73	5	0.83	5	0.00	5	0.93	3	0.00	5	4.3	5.0
SE002C	Göteborg	97	4	0.68	5	0.72	5	0.02	5	1.00	3	0.00	5	4.3	5.0
SE003C	Malmö	95	4	0.62	4	0.60	5	0.03	5	1.00	3	0.00	5	4.3	5.0
SE004C	Jönköping	88	3	0.74	5	0.75	5	0.01	5	0.85	2	0.00	5	4.3	5.0
SE005C	Umeå	81	3	0.69	5	0.84	5	0.01	5	1.06	4	0.00	5	4.8	5.0
SI001C	Ljubljana			0.67	5	0.26	1	N.A.	N.A.	0.95	3	0.03	3	2.3	2.0
SI002C	Maribor			0.62	4	0.23	1	N.A.	N.A.	0.86	2	0.06	2	3.0	3.0
SK001C	Bratislava	88	3	0.72	5	0.50	4	N.A.	N.A.	1.03	3	0.05	2	3.0	3.0
SK002C	Kosice	53	2	0.60	3	0.36	3	0.01	5	0.94	3	0.08	1	2.7	2.0
SK003C	Banska Bystrica	44	1	0.65	4	0.33	2	N.A.	N.A.	1.11	4	0.05	2	3.0	3.0
SK004C	Nitra	46	1	0.61	3	0.32	2	0.03	4	1.35	4	0.06	2	2.8	3.0
UK001C	London			0.64	4	0.54	5	N.A.	N.A.	0.57	1	N.A.	N.A.	3.3	4.0
UK002C	Birmingham			0.56	2	0.48	4	N.A.	N.A.	0.63	2	N.A.	N.A.	4.0	5.0
UK003C	Leeds			0.64	4	0.53	5	N.A.	N.A.	0.71	2	N.A.	N.A.	2.3	2.0
UK004C	Glasgow			0.56	2	0.34	2	N.A.	N.A.	0.70	2	N.A.	N.A.	2.7	2.0
UK005C	Bradford			0.61	3	0.51	4	N.A.	N.A.	0.51	1	N.A.	N.A.	2.3	2.0
UK006C	Liverpool			0.50	1	0.37	3	N.A.	N.A.	0.86	2	N.A.	N.A.	3.7	4.0
UK007C	Edinburgh			0.71	5	0.52	5	N.A.	N.A.	0.67	2	N.A.	N.A.	N.A.	N.A.
UK008C	Manchester			0.46	1	0.39	3	N.A.	N.A.	0.95	3	N.A.	N.A.	2.0	1.0
UK009C	Cardiff			0.60	3	0.49	4	N.A.	N.A.	0.53	1	N.A.	N.A.	2.7	2.0
UK010C	Sheffield			0.61	3	0.51	4	N.A.	N.A.	0.81	2	N.A.	N.A.	3.0	3.0
UK011C	Bristol			0.65	4	0.57	5	N.A.	N.A.	0.85	2	N.A.	N.A.	4.0	5.0
UK012C	Belfast			0.52	2	0.38	3	N.A.	N.A.	0.40	1	N.A.	N.A.	2.7	2.0
UK013C	Newcastle upon Tyne			0.55	2	0.43	3	N.A.	N.A.	1.03	3	N.A.	N.A.	2.0	1.0
UK014C	Leicester			0.57	3	0.48	4	N.A.	N.A.	0.96	3	N.A.	N.A.	3.7	4.0
UK015C	Derry			0.50	1	0.33	2	N.A.	N.A.	1.15	4	N.A.	N.A.	3.3	4.0
UK016C	Aberdeen			0.72	5	0.56	5	N.A.	N.A.	0.64	2	N.A.	N.A.	N.A.	N.A.
UK017C	Cambridge			0.57	3	0.64	5	N.A.	N.A.	0.75	2	N.A.	N.A.	2.7	2.0
UK018C	Exeter			0.63	4	0.58	5	N.A.	N.A.	0.53	1	N.A.	N.A.	3.3	4.0
UK019C	Lincoln			0.62	4	0.52	5	N.A.	N.A.	0.07	1	N.A.	N.A.	3.3	4.0
UK020C	Gravesham			0.68	5	0.56	5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.0	3.0
UK021C	Stevenage			0.72	5	0.61	5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.7	4.0
UK022C	Wrexham			0.65	4	0.46	4	N.A.	N.A.	0.17	1	N.A.	N.A.	2.0	1.0
UK023C	Portsmouth			0.65	4	0.55	5	N.A.	N.A.	0.78	2	N.A.	N.A.	3.3	4.0
UK024C	Worcester			0.72	5	0.58	5	N.A.	N.A.	0.32	1	N.A.	N.A.	3.7	4.0

Annex 5. Power of cities index

Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
DK001C	København	3	0	5	5	5	5	23	3.8333	4
SE002C	Göteborg	3	0	5	4	5	5	22	3.6667	4
SE001C	Stockholm	3	0	5	4	5	5	22	3.6667	4
DK002C	Aarhus	2	0	5	5	5	5	22	3.6667	4
DK003C	Odense	2	0	5	5	5	5	22	3.6667	4
SE003C	Malmö	2	0	5	4	5	5	21	3.5000	4
DK004C	Aalborg	1	0	5	5	5	5	21	3.5000	4
FI001C	Helsinki	3	0	5	4	5	3	20	3.3333	4
SE004C	Jönköping	1	0	5	4	5	5	20	3.3333	4
SE005C	Umeå	1	0	5	4	5	5	20	3.3333	4
FI002C	Tampere	2	0	5	4	5	3	19	3.1667	4
FI003C	Turku	2	0	5	4	5	3	19	3.1667	4
FI004C	Oulu	1	0	5	4	5	3	18	3.0000	4
IT011C	Venezia	2	0	5	3	4	3	17	2.8333	4
FR001C	Paris	3	1	4	2	5	2	17	2.8333	4
IT001C	Roma	3	0	4	3	4	3	17	2.8333	4
FR007C	Bordeaux	3	0	4	2	5	2	16	2.6667	4
FR026C	Grenoble	3	0	5	2	4	2	16	2.6667	4
FR003C	Lyon	3	0	4	2	5	2	16	2.6667	4
FR205C	Nice	3	0	4	2	5	2	16	2.6667	4
DE011C	Düsseldorf	3	0	5	2	5	1	16	2.6667	4
DE004C	Köln	3	0	5	2	5	1	16	2.6667	4
IT009C	Bologna	3	0	3	3	4	3	16	2.6667	4
IT007C	Firenze	2	0	5	3	3	3	16	2.6667	4
IT006C	Genova	3	0	4	3	3	3	16	2.6667	4
IT004C	Torino	3	0	5	3	2	3	16	2.6667	4
HU001C	Budapest	3	1	4	3	3	2	16	2.6667	4
DE012C	Bremen	3	1	5	2	3	1	15	2.5000	4
DE002C	Hamburg	3	1	5	2	3	1	15	2.5000	4
DE001C	Berlin	3	1	5	2	3	1	15	2.5000	4
FR030C	Fort-de-France	2	0	4	2	5	2	15	2.5000	4
FR203C	Marseille	3	0	5	2	3	2	15	2.5000	4
FR013C	Rennes	3	0	3	2	5	2	15	2.5000	4
FR006C	Strasbourg	3	0	4	2	4	2	15	2.5000	4
FR004C	Toulouse	3	0	3	2	5	2	15	2.5000	4

Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
DE005C	Frankfurt am Main	3	0	5	2	4	1	15	2.5000	4
IT008C	Bari	2	0	3	3	4	3	15	2.5000	4
IT027C	Cagliari	2	0	3	3	4	3	15	2.5000	4
IT002C	Milano	3	0	5	3	1	3	15	2.5000	4
IT003C	Napoli	3	0	4	3	2	3	15	2.5000	4
LV001C	Riga	3	0	1	3	5	3	15	2.5000	4
CZ003C	Ostrava	2	-1	3	3	5	2	14	2.3333	3
FR023C	Caen	2	0	3	2	5	2	14	2.3333	3
FR022C	Clermont-Ferrand	2	0	4	2	4	2	14	2.3333	3
FR020C	Dijon	2	0	4	2	4	2	14	2.3333	3
FR012C	Le Havre	2	0	3	2	5	2	14	2.3333	3
FR009C	Lille	3	0	3	2	4	2	14	2.3333	3
FR024C	Limoges	2	0	3	2	5	2	14	2.3333	3
FR010C	Montpellier	3	0	3	2	4	2	14	2.3333	3
FR016C	Nancy	2	0	4	2	4	2	14	2.3333	3
FR008C	Nantes	3	0	4	2	3	2	14	2.3333	3
FR019C	Orléans	2	0	4	2	4	2	14	2.3333	3
DE013C	Hannover	3	0	5	2	3	1	14	2.3333	3
DE003C	München	3	0	5	2	3	1	14	2.3333	3
DE014C	Nürnberg	3	0	5	2	3	1	14	2.3333	3
IT017C	Ancona	1	0	4	3	3	3	14	2.3333	3
IT005C	Palermo	3	0	3	3	2	3	14	2.3333	3
IT016C	Perugia	1	0	3	3	4	3	14	2.3333	3
IT022C	Taranto	2	0	4	3	2	3	14	2.3333	3
IT015C	Trieste	2	0	4	3	2	3	14	2.3333	3
IT012C	Verona	2	0	3	3	3	3	14	2.3333	3
ES001C	Madrid	3	1	2	2	4	2	14	2.3333	3
AT001C	Wien	3	1	5	2	1	2	14	2.3333	3
BE002C	Antwerpen	3	0	5	1	4	1	14	2.3333	3
EE001C	Tallinn	3	0	1	3	5	2	14	2.3333	3
ES002C	Barcelona	3	1	2	2	4	2	14	2.3333	3
LT002C	Kaunas	3	0	1	3	5	2	14	2.3333	3
LT001C	Vilnius	3	0	1	3	5	2	14	2.3333	3
PL001C	Warszawa	3	1	3	3	2	2	14	2.3333	3
UK001C	London	3	1	5	3	1	1	14	2.3333	3

Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
NL003C	Rotterdam	3	0	5	3	1	1	13	2.1667	3
NL001C	s' Gravenhage	3	0	5	3	1	1	13	2.1667	3
FR014C	Amiens	2	0	3	2	4	2	13	2.1667	3
FR025C	Besançon	2	0	3	2	4	2	13	2.1667	3
FR017C	Metz	2	0	3	2	4	2	13	2.1667	3
FR029C	Pointe-a-Pitre	1	0	3	2	5	2	13	2.1667	3
FR015C	Rouen	3	0	4	2	2	2	13	2.1667	3
FR028C	Saint Denis	2	0	3	2	4	2	13	2.1667	3
FR011C	Saint-Etienne	3	0	3	2	3	2	13	2.1667	3
DE017C	Bielefeld	2	0	4	2	4	1	13	2.1667	3
DE015C	Bochum	3	0	4	2	3	1	13	2.1667	3
DE006C	Essen	3	0	4	2	3	1	13	2.1667	3
DE020C	Wiesbaden	2	0	4	2	4	1	13	2.1667	3
IT021C	Caserta	1	0	4	3	2	3	13	2.1667	3
IT010C	Catania	2	0	3	3	2	3	13	2.1667	3
IT013C	Cremona	1	0	3	3	3	3	13	2.1667	3
IT018C	l'Aquila	1	0	2	3	4	3	13	2.1667	3
IT019C	Pescara	1	0	2	3	4	3	13	2.1667	3
IT023C	Potenza	1	0	5	3	1	3	13	2.1667	3
IT014C	Trento	1	0	5	3	1	3	13	2.1667	3
UK002C	Birmingham	3	0	4	3	2	1	13	2.1667	3
UK007C	Edinburgh	3	0	5	3	1	1	13	2.1667	3
UK004C	Glasgow	3	0	5	3	1	1	13	2.1667	3
UK006C	Liverpool	3	0	4	3	2	1	13	2.1667	3
CZ002C	Brno	3	0	4	3	1	2	13	2.1667	3
ES006C	Málaga	3	0	1	2	5	2	13	2.1667	3
ES003C	Valencia	3	0	2	2	4	2	13	2.1667	3
ES005C	Zaragoza	3	0	2	2	4	2	13	2.1667	3
AT003C	Linz	2	0	5	2	2	2	13	2.1667	3
LU001C	Luxembourg	1	0	5	2	4	1	13	2.1667	3
LV002C	Liepaja	1	0	1	3	5	3	13	2.1667	3
NL002C	Amsterdam	3	0	5	3	1	1	13	2.1667	3
PT001C	Lisboa	3	0	2	2	5	1	13	2.1667	3
NL005C	Eindhoven	2	0	5	3	1	1	12	2.0000	3
NL007C	Groningen	2	0	5	3	1	1	12	2.0000	3

Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
NL006C	Tilburg	2	0	5	3	1	1	12	2.0000	3
NL004C	Utrecht	2	0	5	3	1	1	12	2.0000	3
FR027C	Ajaccio	1	0	3	2	4	2	12	2.0000	3
FR031C	Cayenne	1	0	2	2	5	2	12	2.0000	3
FR021C	Poitiers	1	0	3	2	4	2	12	2.0000	3
FR018C	Reims	2	0	2	2	4	2	12	2.0000	3
BE001C	Bruxelles / Brussel	3	1	4	1		1	10	2.0000	3
BE005C	Liège	2	0	5	1	3	1	12	2.0000	3
DE034C	Bonn	2	0	4	2	3	1	12	2.0000	3
DE010C	Dortmund	3	0	4	2	2	1	12	2.0000	3
DE009C	Dresden	3	0	3	2	3	1	12	2.0000	3
DE027C	Freiburg im Breisgau	2	0	4	2	3	1	12	2.0000	3
DE018C	Halle an der Saale	2	0	4	2	3	1	12	2.0000	3
DE035C	Karlsruhe	2	0	4	2	3	1	12	2.0000	3
DE008C	Leipzig	3	0	3	2	3	1	12	2.0000	3
DE037C	Mainz	2	0	4	2	3	1	12	2.0000	3
DE036C	Mönchengladbach	2	0	4	2	3	1	12	2.0000	3
DE022C	Mülheim a.d.Ruhr	2	0	4	2	3	1	12	2.0000	3
DE016C	Wuppertal	3	0	4	2	2	1	12	2.0000	3
IT020C	Campobasso	1	0	2	3	3	3	12	2.0000	3
IT025C	Reggio di Calabria	2	0	2	3	2	3	12	2.0000	3
IT026C	Sassari	1	0	2	3	3	3	12	2.0000	3
PL008C	Bydgoszcz	3	0	2	3	2	2	12	2.0000	3
PL006C	Gdansk	3	0	2	3	2	2	12	2.0000	3
PL022C	Konin	1	0	2	3	4	2	12	2.0000	3
PL002C	Lodz	3	0	2	3	2	2	12	2.0000	3
PL005C	Poznan	3	0	2	3	2	2	12	2.0000	3
PL007C	Szczecin	3	0	2	3	2	2	12	2.0000	3
PL004C	Wroclaw	3	0	2	3	2	2	12	2.0000	3
UK011C	Bristol	3	0	3	3	2	1	12	2.0000	3
UK003C	Leeds	3	0	3	3	2	1	12	2.0000	3
UK008C	Manchester	3	0	4	3	1	1	12	2.0000	3
UK010C	Sheffield	3	0	3	3	2	1	12	2.0000	3
AT002C	Graz	2	0	5	2	1	2	12	2.0000	3

Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
CZ001C	Praha	3	1	2	3	1	2	12	2.0000	3
EE002C	Tartu	1	0	1	3	5	2	12	2.0000	3
ES008C	Las Palmas	3	0	1	2	4	2	12	2.0000	3
ES007C	Murcia	3	0	1	2	4	2	12	2.0000	3
ES013C	Oviedo	2	0	2	2	4	2	12	2.0000	3
ES010C	Palma di Mallorca	2	0	1	2	5	2	12	2.0000	3
ES015C	Santander	2	0	2	2	4	2	12	2.0000	3
ES004C	Sevilla	3	0	1	2	4	2	12	2.0000	3
ES016C	Toledo	1	0	2	2	5	2	12	2.0000	3
LT003C	Panevezys	1	0	1	3	5	2	12	2.0000	3
NL009C	Arnhem	1	0	5	3	1	1	11	1.8333	2
NL008C	Enschede	1	0	5	3	1	1	11	1.8333	2
BE006C	Brugge	1	0	3	1	5	1	11	1.8333	2
BE004C	Charleroi	2	0	4	1	3	1	11	1.8333	2
BE003C	Gent	2	0	4	1	3	1	11	1.8333	2
DE033C	Augsburg	2	0	3	2	3	1	11	1.8333	2
DE025C	Darmstadt	1	0	4	2	3	1	11	1.8333	2
DE019C	Magdeburg	2	0	3	2	3	1	11	1.8333	2
DE028C	Regensburg	1	0	4	2	3	1	11	1.8333	2
DE026C	Trier	1	0	4	2	3	1	11	1.8333	2
HU002C	Miskolc	2	0	3	3	1	2	11	1.8333	2
HU003C	Nyiregyhaza	1	0	3	3	2	2	11	1.8333	2
IT024C	Catanzaro	1	0	2	3	2	3	11	1.8333	2
PL011C	Bialystok	2	0	2	3	2	2	11	1.8333	2
PL012C	Kielce	2	0	2	3	2	2	11	1.8333	2
PL003C	Krakow	3	0	2	3	1	2	11	1.8333	2
PL014C	Olsztyn	2	0	2	3	2	2	11	1.8333	2
PL021C	Suwalki	1	0	2	3	3	2	11	1.8333	2
PL013C	Torun	2	0	2	3	2	2	11	1.8333	2
PT003C	Braga	2	0	1	2	5	1	11	1.8333	2
PT002C	Oporto	2	0	1	2	5	1	11	1.8333	2
SK002C	Kosice	2	0	1	2	5	1	11	1.8333	2
UK016C	Aberdeen	2	0	4	3	1	1	11	1.8333	2
UK012C	Belfast	2	-1	1	3	5	1	11	1.8333	2
UK005C	Bradford	3	0	3	3	1	1	11	1.8333	2

Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
UK013C	Newcastle upon Tyne	2	0	3	3	2	1	11	1.8333	2
SK001C	Bratislava	3	1	2	2	2	1	11	1.8333	2
ES017C	Badajoz	1	0	1	2	5	2	11	1.8333	2
ES018C	Logroño	1	0	2	2	4	2	11	1.8333	2
ES014C	Pamplona/Iruña	2	0	2	2	3	2	11	1.8333	2
ES009C	Valladolid	2	0	1	2	4	2	11	1.8333	2
ES012C	Vitoria/Gasteiz	2	0	2	2	3	2	11	1.8333	2
BG003C	Varna	2	0	1		4	2	9	1.8000	2
IE001C	Dublin	3	-1	2		4	1	9	1.8000	2
RO007C	Bacau	2	0		2	3		7	1.7500	2
RO002C	Cluj-Napoca	2	0		2	3		7	1.7500	2
RO004C	Craiova	2	0		2	3		7	1.7500	2
RO003C	Timisoara	2	0		2	3		7	1.7500	2
NL010C	Heerlen	1	0	4	3	1	1	10	1.6667	2
DE029C	Frankfurt (Oder)	1	0	5	2	1	1	10	1.6667	2
DE021C	Göttingen	1	0	4	2	2	1	10	1.6667	2
DE023C	Moers	1	0	3	2	3	1	10	1.6667	2
DE031C	Schwerin	1	0	4	2	2	1	10	1.6667	2
HU004C	Pecs	1	0	3	3	1	2	10	1.6667	2
PL010C	Katowice	2	0	2	3	1	2	10	1.6667	2
PL009C	Lublin	2	0	2	3	1	2	10	1.6667	2
PL016C	Opole	1	0	2	3	2	2	10	1.6667	2
PL015C	Rzeszow	1	0	2	3	2	2	10	1.6667	2
PT008C	Aveiro	1	0	1	2	5	1	10	1.6667	2
PT005C	Coimbra	1	0	1	2	5	1	10	1.6667	2
PT006C	Setubal	1	0	1	2	5	1	10	1.6667	2
UK009C	Cardiff	2	0	3	3	1	1	10	1.6667	2
UK015C	Derry	1	-1	1	3	5	1	10	1.6667	2
UK014C	Leicester	2	0	3	3	1	1	10	1.6667	2
UK023C	Portsmouth	2	0	3	3	1	1	10	1.6667	2
CZ004C	Plzen	2	0	2	3	1	2	10	1.6667	2
ES011C	Santiago de Compostela	1	0	1	2	4	2	10	1.6667	2
RO001C	Bucuresti	3	1	1	2	1		8	1.6000	2

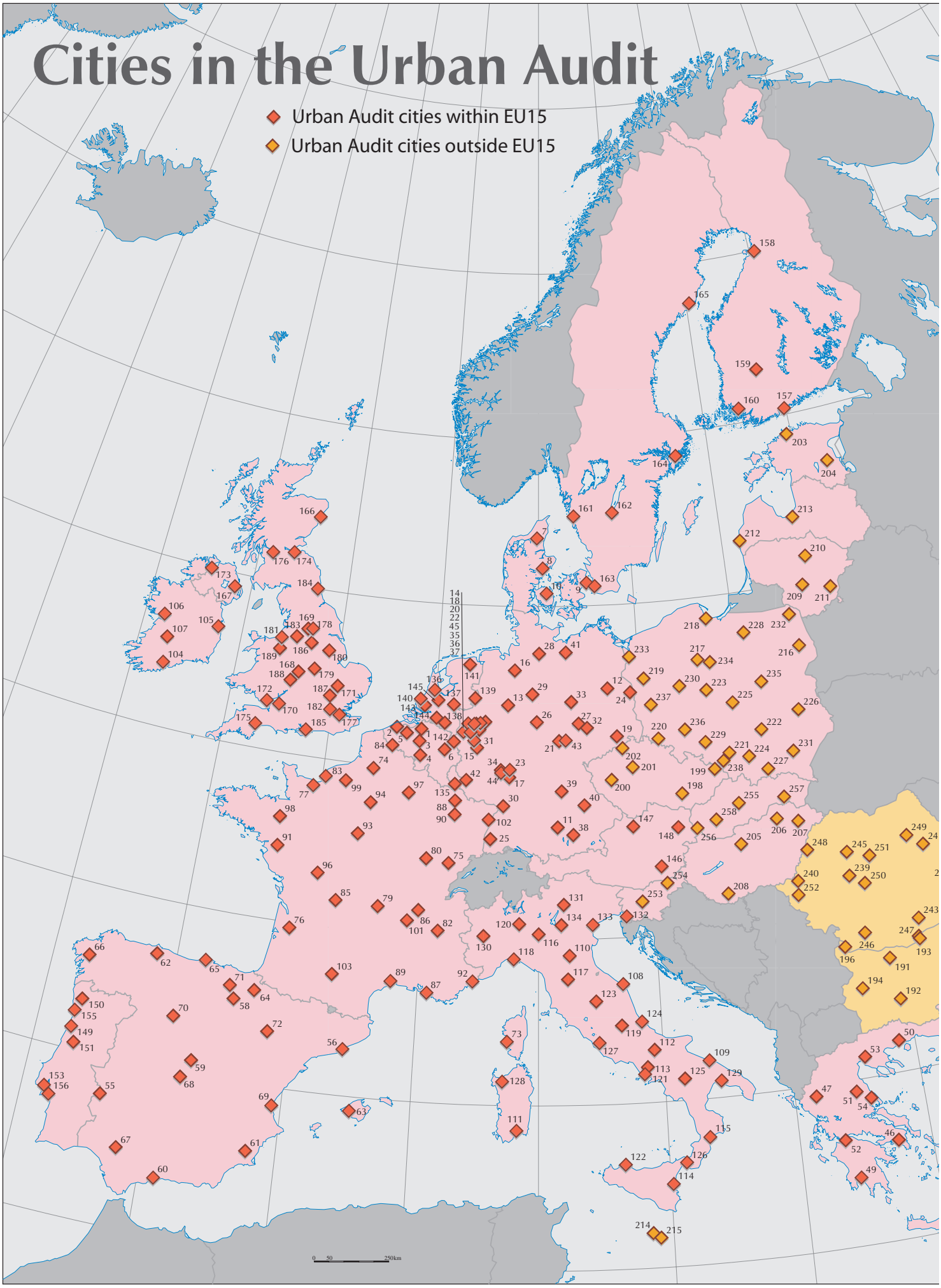
Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
BG004C	Burgas	2	0	1		3	2	8	1.6000	2
BG002C	Plovdiv	2	0	1		3	2	8	1.6000	2
RO014C	Alba Iulia	1	0		2	3		6	1.5000	2
RO008C	Arad	2	0		2	2		6	1.5000	2
RO005C	Braila	2	0		2	2		6	1.5000	2
RO006C	Oradea	2	0		2	2		6	1.5000	2
RO009C	Sibiu	1	0		2	3		6	1.5000	2
RO010C	Targu Mures	1	0		2	3		6	1.5000	2
DE032C	Erfurt	2	0	3	2	1	1	9	1.5000	2
DE030C	Weimar	1	1	3	2	1	1	9	1.5000	2
PL017C	Gorzow Wielkopolski	1	0	2	3	1	2	9	1.5000	2
PL019C	Jelenia Gora	1	0	2	3	1	2	9	1.5000	2
PL020C	Nowy Sacz	1	0	2	3	1	2	9	1.5000	2
PL018C	Zielona Gora	1	0	2	3	1	2	9	1.5000	2
PL023C	Zory	1	0	1	3	2	2	9	1.5000	2
PT004C	Funchal	1	0	1	2	4	1	9	1.5000	2
PT007C	Ponto Delgada	1	0	1	2	4	1	9	1.5000	2
SK003C	Banska Bystrica	1	0	1	2	4	1	9	1.5000	2
UK022C	Wrexham	1	0	3	3	1	1	9	1.5000	2
SI001C	Ljubljana	2	0	2	2	1	2	9	1.5000	2
CZ005C	Usti nad Labem	1	0	2	3	1	2	9	1.5000	2
BG001C	Sofia	3	0	1		1	2	7	1.4000	1
UK020C	Gravesham	1	0	1	3	2	1	8	1.3333	1
UK019C	Lincoln	1	0	1	3	2	1	8	1.3333	1
SI002C	Maribor	1	0	2	2	1	2	8	1.3333	1
RO012C	Calarasi	1	1		2	1		5	1.2500	1
RO013C	Giurgiu	1	0		2	2		5	1.2500	1
RO011C	Piatra Neamt	1	0		2	2		5	1.2500	1
GR002C	Thessaloniki	3	0		1		1	5	1.2500	1
GR001C	Athina	3	0		1		1	5	1.2500	1
IE002C	Cork	1	-1	1		4	1	6	1.2000	1
IE004C	Galway	1	-1	1		4	1	6	1.2000	1
IE003C	Limerick	1	-1	1		4	1	6	1.2000	1
BG005C	Pleven	1	0	1		2	2	6	1.2000	1

Citycode	City name	Core city population 2001 - 1-3	Status Adjustment	ci2006i_de1001: Annual expenditure of the municipal authority per resident, adjusted for comparative prices - Quintile (UA cities)	Local expenditure as % total expenditure (proportional weighting 1-5)	ci2002i_ci2001: Proportion of municipal authority income from local taxation in % - Quintile (UA cities)	Taxes and Contributions received by local government as % total taxes and contributions (proportional weighting 1-5)	Sum	Average	Ranking 1-4
BG006C	Ruse	1	0	1		2	2	6	1.2000	1
BG007C	Vidin	1	0	1		2	2	6	1.2000	1
SK004C	Nitra	1	0	1	2	2	1	7	1.1667	1
UK017C	Cambridge	1	0	1	3	1	1	7	1.1667	1
UK018C	Exeter	1	0	1	3	1	1	7	1.1667	1
UK021C	Stevenage	1	0	1	3	1	1	7	1.1667	1
UK024C	Worcester	1	0	1	3	1	1	7	1.1667	1
CY001C	Lefkosia	2	0	1	1	2	1	7	1.1667	1
GR003C	Patra	2	0		1		1	4	1.0000	1
MT001C	Valletta	2	0		1		1	4	1.0000	1
MT002C	Gozo	1	0		1		1	3	0.7500	1
GR007C	Ioannina	1	0		1		1	3	0.7500	1
GR004C	Irakleio	1	0		1		1	3	0.7500	1
GR009C	Kalamata	1	0		1		1	3	0.7500	1
GR008C	Kavala	1	0		1		1	3	0.7500	1
GR005C	Larisa	1	0		1		1	3	0.7500	1
GR006C	Volos	1	0		1		1	3	0.7500	1

- **Core city population 2001** – even classes of UA cities 1-3 (Source: UA);
- **Administrative structure / status** (current situation) – additional point for special cities with special administrative structure (Source Country: Profiles)
- **Annual expenditure of the municipal authority per resident, adjusted for comparable prices** (2001) - Quintile (UA cities) (Source: UA)
- **Local expenditure as % total expenditure by Member State (2003)** (proportional weighting 1-5) (Source: Eurostat National Accounts)
- **Proportion of municipal authority income from local taxation in %** (2001) - Quintile (UA cities) (Source: UA)
- **Taxes and Contributions received by local government as % total taxes and contributions by Member State (2003)** (proportional weighting 1-5) (Source: Eurostat National Accounts)

Very limited additional adjustments to account for inconsistencies which cannot be explained by available information (eg to avoid a single city from one country being in a different class to all other cities from that country)

Cities in the Urban Audit



Belgique/België
1 Antwerpen
2 Brugge
3 Bruxelles/Brussel
4 Charleroi
5 Gent
6 Liège

Danmark
7 Aalborg
8 Århus
9 København
10 Odense

Deutschland
11 Augsburg
12 Berlin
13 Bielefeld
14 Bochum
15 Bonn
16 Bremen
17 Darmstadt
18 Dortmund
19 Dresden
20 Düsseldorf
21 Erfurt
22 Essen
23 Frankfurt am Main
24 Frankfurt an der Oder
25 Freiburg im Breisgau
26 Göttingen
27 Halle an der Saale
28 Hamburg
29 Hannover
30 Karlsruhe
31 Köln
32 Leipzig
33 Magdeburg
34 Mainz
35 Moers
36 Mönchengladbach
37 Mülheim an der Ruhr
38 München
39 Nürnberg
40 Regensburg
41 Schwerin
42 Trier
43 Weimar
44 Wiesbaden
45 Wuppertal

Ellada
46 Athina
47 Ioannina
48 Iraklio
49 Kalamata
50 Kavala
51 Larissa
52 Patra
53 Thessaloniki
54 Volos

España
55 Badajoz
56 Barcelona
57 Las Palmas
58 Logroño
59 Madrid
60 Málaga
61 Murcia
62 Oviedo
63 Palma de Mallorca
64 Pamplona/Iruña
65 Santander
66 Santiago de Compostela
67 Sevilla
68 Toledo
69 Valencia
70 Valladolid
71 Vitoria/Gasteiz
72 Zaragoza

France
73 Ajaccio
74 Amiens
75 Besançon
76 Bordeaux
77 Caen
78 Cayenne
79 Clermont-Ferrand
80 Dijon
81 Fort-de-France
82 Grenoble
83 Le Havre
84 Lille
85 Limoges
86 Lyon
87 Marseille
88 Metz
89 Montpellier
90 Nancy
91 Nantes
92 Nice
93 Orléans
94 Paris
95 Pointe-à-Pitre
96 Poitiers
97 Reims
98 Rennes
99 Rouen
100 Saint-Denis
101 Saint-Etienne
102 Strasbourg
103 Toulouse

Ireland
104 Cork
105 Dublin
106 Galway
107 Limerick

Italia
108 Ancona
109 Bari
110 Bologna
111 Cagliari
112 Campobasso
113 Caserta
114 Catania
115 Catanzaro
116 Cremona
117 Firenze
118 Genova
119 L'Aquila
120 Milano
121 Napoli
122 Palermo
123 Perugia
124 Pescara
125 Potenza
126 Reggio di Calabria
127 Roma
128 Sassari
129 Taranto
130 Torino
131 Trento
132 Trieste
133 Venezia
134 Verona

Luxembourg (G.D.)
135 **Luxembourg**

Nederland
136 Amsterdam
137 Arnhem
138 Eindhoven
139 Enschede
140 's Gravenhage
141 Groningen
142 Heerlen
143 Rotterdam
144 Tilburg
145 Utrecht

Österreich
146 Graz
147 Linz
148 Wien

Portugal
149 Aveiro
150 Braga
151 Coimbra
152 Funchal
153 Lisboa
154 Ponta Delgada
155 Porto
156 Setúbal

Suomi/Finland
157 Helsinki/Helsingfors
158 Oulu/Uleåborg
159 Tampere/Tammerfors
160 Turku/Åbo

Sverige
161 Göteborg
162 Jönköping
163 Malmö
164 Stockholm
165 Umeå

United Kingdom
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170 Bristol
171 Cambridge
172 Cardiff
173 Derry
174 Edinburgh
175 Exeter
176 Glasgow
177 Gravesham
178 Leeds
179 Leicester
180 Lincoln
181 Liverpool
182 London
183 Manchester
184 Newcastle-upon-Tyne
185 Portsmouth
186 Sheffield
187 Stevenage
188 Worcester
189 Wrexham

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191 Pleven
192 Plovdiv
193 Ruse
194 Sofija
195 Varna
196 Vidin

Kypros
197 Lefkosia

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198 Brno
199 Ostrava
200 Plzeň
201 Praha
202 Ustí nad Labem

Eesti
203 Tallinn
204 Tartu

Magyarország
205 Budapest
206 Miskolc
207 Nyíregyháza
208 Pécs

Lietuva
209 Kaunas
210 Panevėžys
211 Vilnius

Latvija
212 Liepāja
213 Rīga

Malta
214 Gozo
215 Valletta

Polska
216 Białystok
217 Bydgoszcz
218 Gdańsk
219 Gorzów Wielkopolski
220 Jelenia Góra
221 Katowice
222 Kielce
223 Konin
224 Kraków
225 Łódź
226 Lublin
227 Nowy Sącz
228 Olsztyn
229 Opole
230 Poznań
231 Rzeszów
232 Suwałki
233 Szczecin
234 Toruń
235 Warszawa
236 Wrocław
237 Zielona Góra
238 Żory

România
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241 Bacău
242 Brăila
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244 Călăraşi
245 Cluj-Napoca
246 Craiova
247 Giurgiu
248 Oradea
249 Piatra Neamţ
250 Sibiu
251 Tirgu Mures
252 Timişoara

Slovenija
253 Ljubljana
254 Maribor

Slovenská Republika
255 Banská Bystrica
256 Bratislava
257 Košice
258 Nitra


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Inforegio

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