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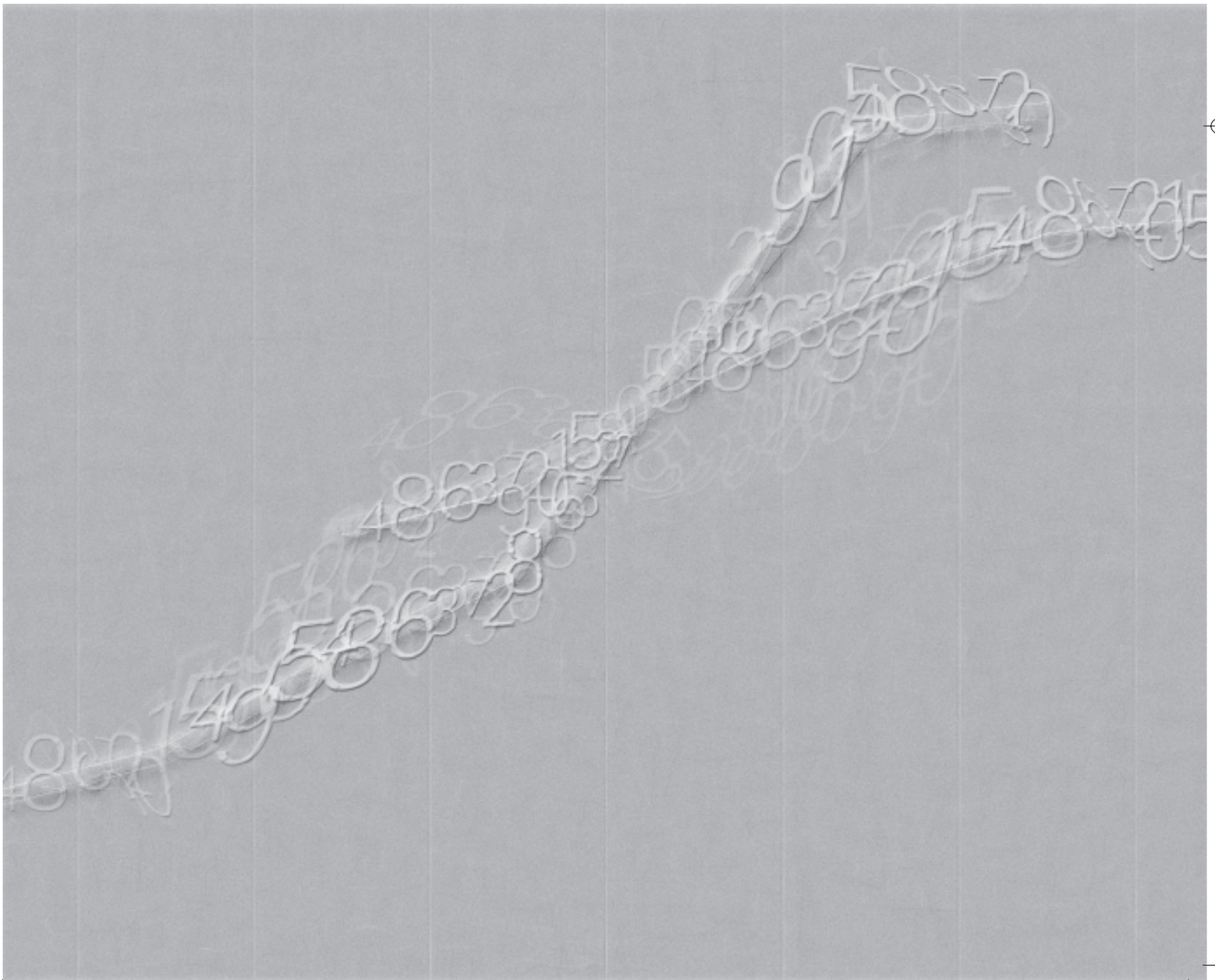
INTRODUCTION



Regional data in the spotlight

The decisions on the Structural Funds for 2007–13 will probably be taken in 2005. As these political decisions are based on objective quantitative regional data, Eurostat's offer of a rich set of comparable regional statistics is in the media spotlight.

This yearbook highlights many aspects of regional data and the analyses which can be made with them. Some fundamental chapters, such as regional GDP, regional household accounts, the labour market, demographic statistics and agriculture, are a recognised backbone of the book. One chapter is new this year: education, giving interesting insights into topics such as lifelong learning participation in the various regions.

As last year for the first time, all regional analysis in this yearbook is based on NUTS 2003. In the meantime, the 10 new Member States have also been integrated formally into the new regional classification (in the form of an amendment to the NUTS regulation). The texts of the regulation and the amendment are available on the CD-ROM — as is the annex, which lists the regions making up the nomenclature in each country.

Enlargement

No distinction is made in the yearbook between the old Member States, the countries that became Member States in 2004 and those due to join around 2007: wherever data are available for Bulgaria and Romania, these of course also feature in the maps and commentaries. In the case of Turkey and Croatia, the situation is rather different. Although a regional breakdown has been agreed between these two countries and Eurostat, there are still too few regional data to justify including them in the analyses.

Structure

In each chapter, regional distributions are highlighted by colour maps and graphs which are then evaluated by experts in text commentaries. In keeping with the traditions of the yearbook, an effort has been made to focus on aspects not recently covered. The population chapter, for example, is this year devoted to the fertility rates across the regions where we see a large regional spread. The transport chapter, which reappears this year, focuses on maritime and aviation data.

As last year, the CD-ROM does not contain the data tables previously specially compiled for the yearbook. With Eurostat's databases available online, free of charge, since 1 October 2004, there is no justification for such tables when users have the entire wealth of tables in the database New-Cronos available. However, to assist comprehension of the maps, the data series used for the maps in the yearbook are provided as Excel files on the CD-ROM.

To enable readers to make the fullest possible use of the public database, the CD-ROM again contains the latest edition of the reference guide to the database.

Specialist input

The commentaries in each thematic chapter reflect the specialist knowledge of Eurostat's thematic units ([1]). By exploiting their experience of data at national level, the authors are in a position to place the regional variation noted in an appropriate context. The regional statistics team gratefully acknowledges the contribution made by the following authors, each of whom has had to find the necessary time within an already overcrowded schedule:

Chapter	Author(s)
1. Population	Erik Beekink, Joop de Beer
2. Agriculture	Dagmar Binova
3. Regional GDP	Andreas Krüger
4. Household accounts	Andreas Krüger
5. Regional labour market	Michal Mlady
6. Transport	Carla Sciullo
7. Science, technology and innovation	August Götzfried, Simona Frank and Håkan Wilén

([1]) In the case of the chapters on regional GDP, household accounts, regional labour market and urban statistics, the authors are simultaneously members of the regional statistics team and the subject specialists within Eurostat.

8. Structural business statistics	Petra Sneijers
9. Health	Sabine Gagel
10. Urban statistics	Teodóra Brandmüller, Berthold Feldmann
11. Education	Birgitta Andrén
12. Tourism	Hans Werner Schmidt

NUTS 2003 — regions list

In the maps in this yearbook, the statistics are presented at NUTS 2 level. A map giving the code numbers of the regions can be found in the sleeve of this publication. At the end of the publication there is a list of all the NUTS 2 regions in the European Union, together with a list of the level 2 statistical regions in Bulgaria and Romania. Full details of these national regional breakdowns, including lists of levels 2 and 3 regions and the appropriate maps, may be consulted on the RAMON server ([2]).

More regional information needed?

The public NewCronos database contains more extensive time series (which may go back as far as 1970) and more detailed statistics than those given in this yearbook, such as population, death and birth by single years of age, detailed results of the Community labour force survey, etc. Moreover, there is coverage in NewCronos of a number of indicators at NUTS 3 level (such as area, population, births and deaths, gross domestic product, unemployment rates). This is important because there are no fewer than eight EU Member States (Cyprus, Denmark, Estonia, Latvia, Lithuania, Luxembourg, Malta and Slovenia) that do not have a level 2 breakdown.

For more detailed information on the contents of the database in NewCronos, please consult the Eurostat publication 'European regional and urban statistics — Reference guide 2005', a copy of which is available in PDF format on the accompanying CD-ROM.

Regional interest group on the web

Eurostat's regional statistics team maintains a publicly accessible interest group on the web ('CIRCA site') with many useful links and documents.

To access it, simply use the URL:

http://forum.europa.eu.int/Public/irc/dsis/regstat/information

Among other resources, you will find:

- a list of all regional coordination officers in the Member States, the candidate countries and the EFTA countries;
- the 'Regional Gazette' published at intervals by the regional team;
- the latest edition of the regional and urban reference guide;
- PowerPoint presentations of Eurostat's work concerning regional and urban statistics;
- the regional classification NUTS for the Member States and the regional classification of the candidate countries.

Closure date for the yearbook data

The cut-off date for this issue is 4 May 2005.

([2]) See http://europa.eu.int/comm/eurostat/ramon/index.cfm?TargetUrl=DSP_PUB_WELC

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1

POPULATION

Introduction

Since the 1960s, fertility has decreased considerably in the Member States of the European Union and in Bulgaria and Romania. However, figures show that not all countries experience this decline in the same way, and to the same level. This raises the question of the extent to which countries experience a common development in fertility due to common socio-cultural and socioeconomic trends (labelled the 'second demographic transition') and the extent to which differences in fertility levels between countries are persistent. When looking for an answer, it is useful to examine differences in the fertility level between regions. This chapter compares differences in fertility rates from region to region in the same country with differences between countries. If regional differences within countries are relatively small compared with differences between countries, this suggests that country-specific causes are predominant in explaining the fertility level. If the opposite is true, this suggests that explanations for differences in fertility are to be found in factors that apply transnationally.

The next section of this chapter gives a general overview of fertility trends in the 25 Member States of the European Union. The following section examines differences in the fertility rates of regions at NUTS 2 level. The subsequent section discusses possible influences on the fertility level on the basis of available literature. Finally, the extent to which regional differences can be explained by differences between countries is examined, i.e. the extent to which country-specific causes are likely to affect the level of fertility.

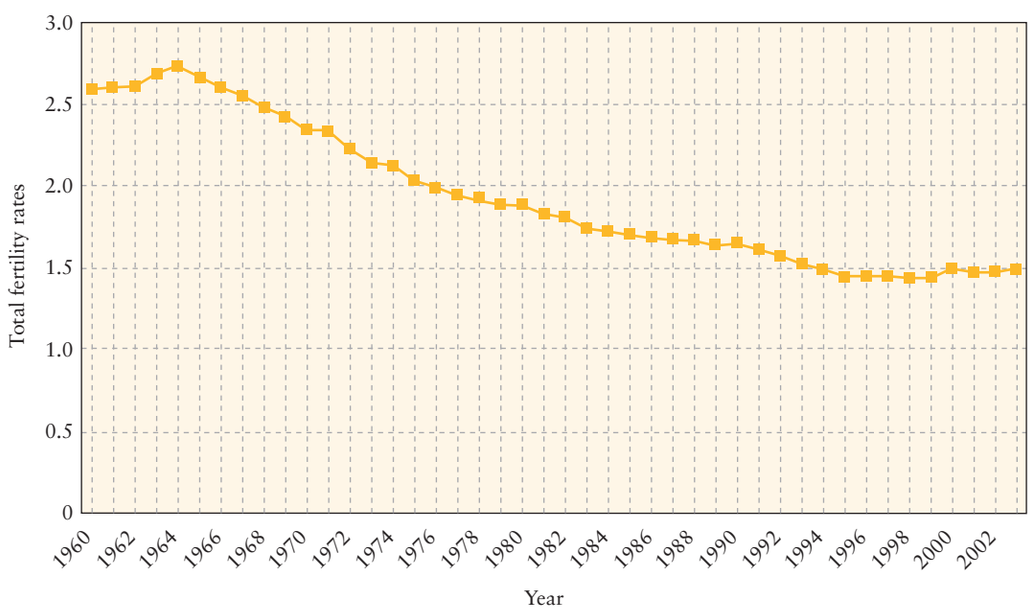
Fertility trends in the 25 EU countries

From the mid-1960s until the end of the 1990s, the total fertility rate in the EU-25 showed a nearly constant downward trend (Graph 1.1). The total fertility rate (TFR) is often used as an indicator for the fertility level, since it makes adjustments for changes in the size and structure of the female population. The TFR of a given year is the mean number of children born alive to women who experienced, during their childbearing years, the age-specific fertility rates of that specific year.

In 1964, the average total fertility rate of the EU-25 was 2.72 children per woman. By 1999, the rate had decreased to 1.42. During the last couple of years, the fertility rate for the European Union seems to have stabilised at around a level of 1.46 children per woman.

Not all countries in the Union experienced this decrease in the same way. Graph 1.2 shows the total

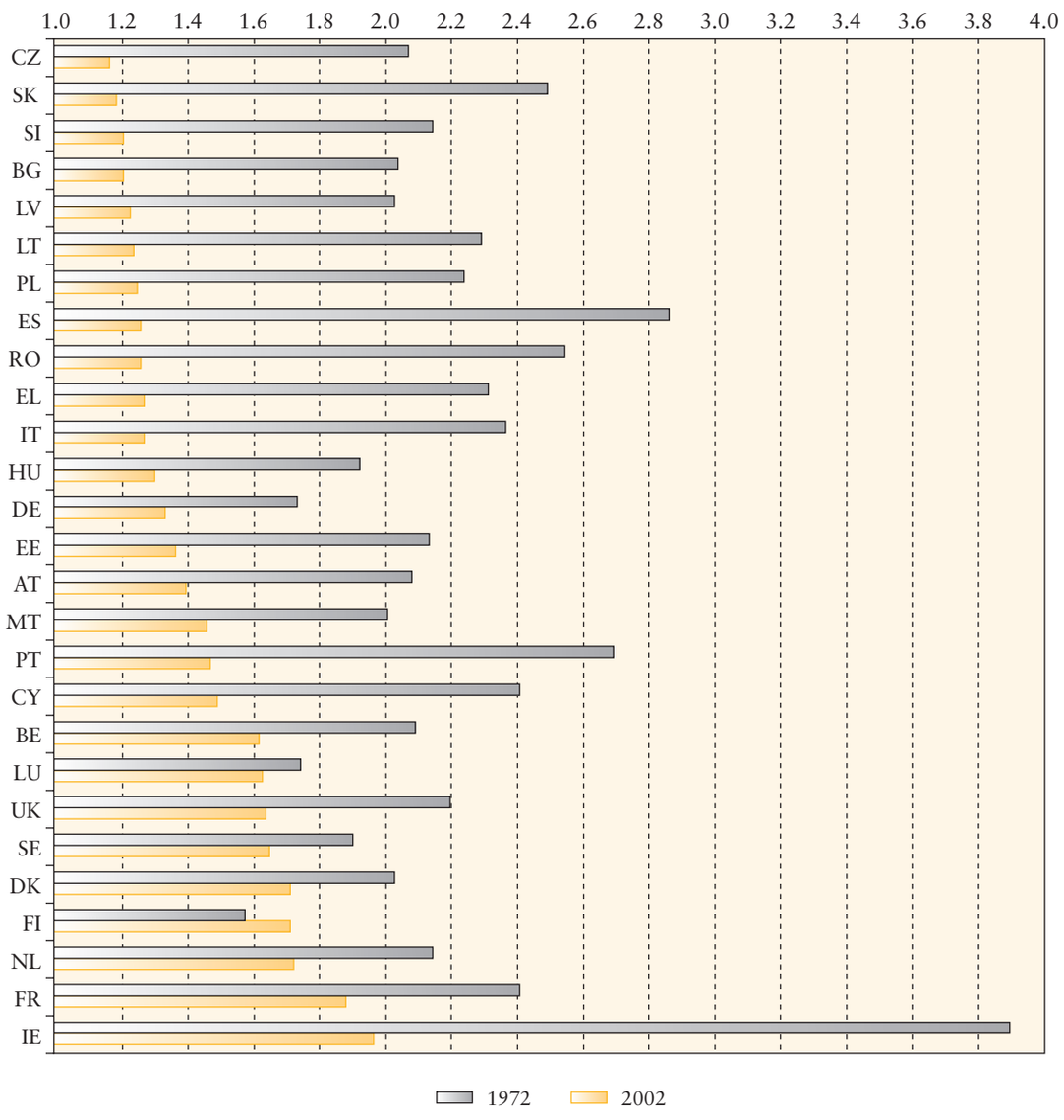
Graph 1.1 — Total fertility rates in the EU-25, 1960–2003



fertility rates by Member State for the years 1972 and 2002. In 1972 as well as in 2002, the highest fertility rate occurred in Ireland, where the TFR was nearly 3.9 and 2 respectively. In 1972, the country in the EU with the lowest total fertility rate was Finland with 1.6. Finland is the only country for which the TFR in 2002 exceeded that in 1972. This difference with the general trend is caused by a very low fertility rate in relative terms in Finland for 1972.

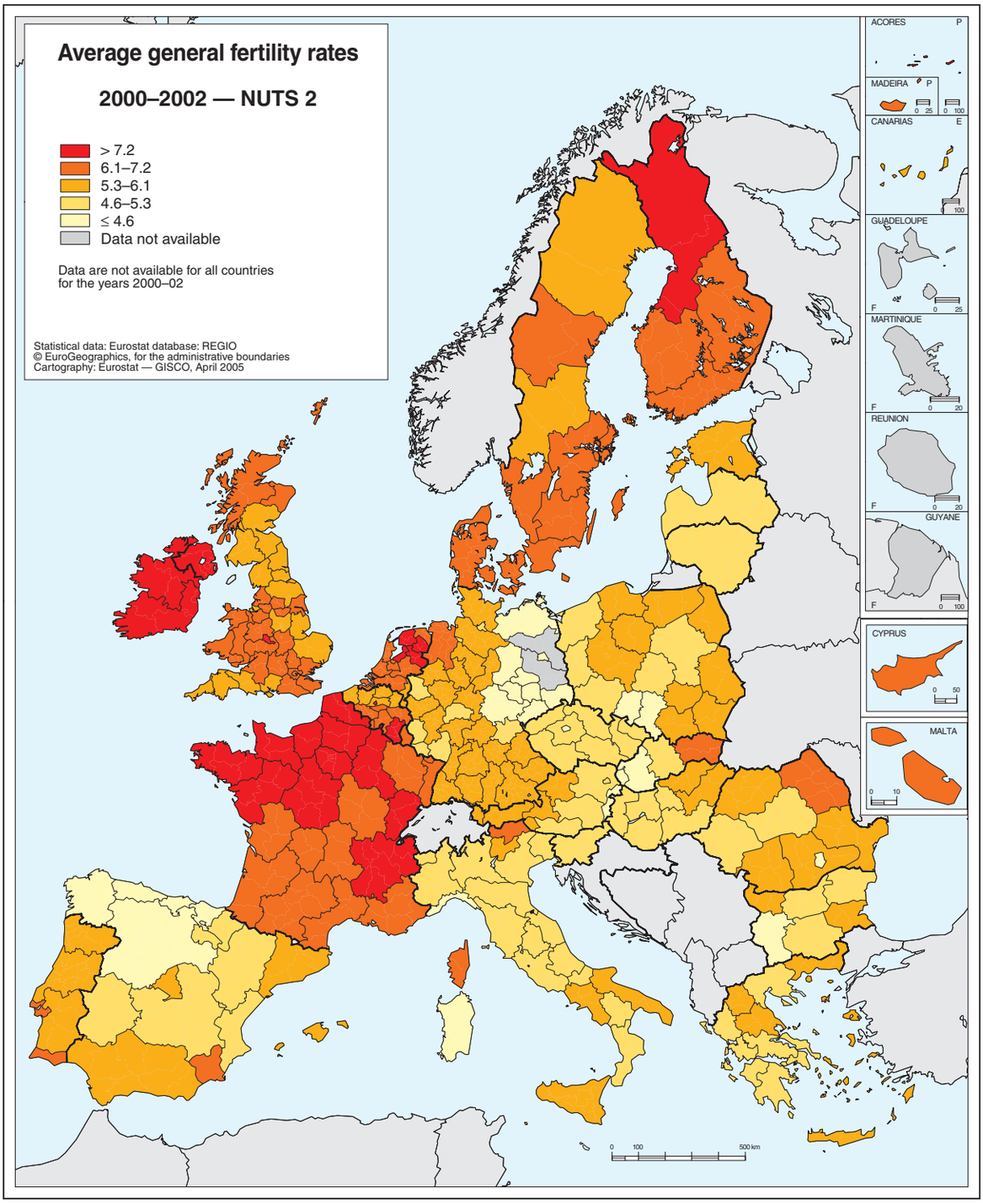
In 2002, the Czech Republic had the lowest fertility rate (1.2). The graph shows that the largest decrease during this period took place in countries where the TFR in 1972 was high: Ireland, Spain, Portugal, Romania and the Slovak Republic. A relatively small decrease took place in countries where the TFR was already low in 1972: Germany, Luxembourg, and Sweden. This indicates that the total fertility rates in the EU-25 and in Bulgaria and Romania have converged. In 1972, the difference between the highest (Ireland) and lowest (Finland) rates equalled 2.7. In 2002, the difference, then between Ireland and the Czech Republic, was down to 0.8 (see also Chapter D in the 2004 edition of 'Population statistics'). Even though there has been a converging downward trend in the TFR, there are still considerable differences in fertility rates between EU countries, as shown by the graph. The overall picture can be summarised by noting that low TFR values are measured in central and south European countries, whereas high values are observed in west and north European countries.

Graph 1.2 — Total fertility rates by country, 1972 and 2002



Regional differences in fertility

At regional level, the differences in the level of fertility within the EU-25 are even more pronounced than at national level. Map 1.1 shows the so-called 'general fertility rates' for the NUTS 2 regions in the EU-25 and in Bulgaria and Romania. A lack of appropriate data for all regions made it necessary to use general fertility rates (GFR) instead of total fertility rates. It is important to note that the general fertility rate only makes adjustments for the total number of women of childbearing age, but not for the age structure of that



Map 1.1

group; these rates are calculated by dividing the number of births in a given year by the mean total number of women of childbearing age (in this study, we used women in the 20–44 age group). In contrast to the TFR, the GFR does not take account of age-specific differences in fertility rates. However, the outcomes of this less precise rate will not change the overall picture of the fertility differences between EU regions. The figures used here are based on a calculated average for the years 2000–02. For some countries, data for 1999 had to be used.

The map shows that, during this period, the highest fertility rates were in North Finland (Pohjois-Suomi), both Irish NUTS 2 regions 'Border, Midland and Western' and 'Southern and Eastern', parts of the Netherlands (Friesland, Drenthe, Overijssel and Flevoland), and France (Nord-Pas-de-Calais, Champagne-Ardenne, Picardie, Haute-Nomandie, Île-de-France, Centre, Basse-Normandie, Bretagne, Pays de la Loire, Franche-Comté and Rhône-Alpes).

Some of the regions with the lowest general fertility rates were in northern Spain (Galicia, Principado de Asturias, Cantabria, País Vasco and Castilla y León) and the eastern part of Germany (Mecklenburg-Vorpommern, Magdeburg, Dessau, Halle, Leipzig, Thüringen, Chemnitz, Dresden, Hamburg and Bremen).

The three regions with the highest general fertility rates were Ciudad Autónoma de Melilla in Spain (10.6), followed by the Irish region 'Border, Midland and Western' (10.5) and Flevoland in the Netherlands (10.2). Two of the three regions with the lowest fertility were also in Spain: Principado de Asturias (4.3) and Galicia (4.8). The third was the region of Bucureşti in Romania (4.7).

Even without sophisticated technical analyses, a visual inspection of the map clearly shows geographical clusters of regions with similar fertility levels. Fertility is relatively high in most regions of Ireland, the Netherlands, Finland and France and low in most regions of Spain, Italy, Greece and the central European Member States. More specifically, fertility in northern regions of France tends to be higher than in southern regions. In Belgium, fertility in the Walloon provinces exceeds that in the Flemish provinces. In Germany, fertility is relatively low in the eastern regions.

Towards an explanation of regional differences in fertility

As mentioned before, the decline of fertility to levels below the so-called replacement level (about 2.1 children per woman) that started in the mid-1960s occurred in most European countries. This suggests that there may be one general explanation for this trend. Van de Kaa and Lesthaeghe introduced the concept of the 'second demographic transition' in an attempt to provide a framework for explaining changes in family life. These demographers claim that 'the new shifts in demographic patterns result from the interplay of structural, cultural, and technological factors during a complex process of social change. The welfare state ensures citizens an income and protects them from the vagaries of life. New, highly efficient contraception has been introduced; restrictions on abortion and sterilisation have in many cases been lifted. Significant changes in value systems have been documented. These ideational transformations accentuate individual autonomy, involve the rejection of all forms of institutional controls and authority, and show a rise of expressive values connected with self-fulfilment'. Van de Kaa notes in a more recent essay that, for a while, it looked like the new transition process would remain limited to northern and western Europe. However, data for the 1990s show that southern and eastern Europe are increasingly affected. Especially in the 10 new Member States, a period of rapid demographic change can be observed after 1989. Fertility declined sharply. At first, this was attributed to crisis conditions, but it soon turned out that these 'changes in fertility are part of a broader transition in reproductive and family life marked by the spread of alternative family forms, non-marital births, postponement of births and decline in marriage rates which has been gaining ground in the west European societies since the 1960s' (Sobotka, 2001).

In their Working Paper for the European Commission (3/2004/F/nr 4), Duchêne, Gabadinho, Willems and Wanner study the causes of differences in regional fertility. In an overview of the literature, they conclude that two main types of factors can be used to explain regional differences:

the socioeconomic structure of the population (by socio-occupational class, level of education, nationality, etc.) and 'contextual' factors linked to the place of residence (for example, cultural features, availability of infrastructure, the housing market situation). In their conclusion, they point out that 'the few studies simultaneously using regional data for several countries would tend to show that the State to which a region belongs is an important parameter in explaining the level of fertility; variations within States are less substantial than variations between States. In other words, at European level, a large part of the variance of regional fertility indicators is "international" rather than "intranational".'

This very concise overview of the aforementioned literature raises the question of the extent to which European regions experience a common development in fertility and the extent to which differences between countries persist. The concept of the second demographic transition suggests that there is one common development in fertility across Europe. This seems to be confirmed by the convergence of fertility rates in the separate EU countries. However, as noted above, considerable differences between countries still exist. The conclusion of Duchêne et al., namely that regional variations in fertility within States are smaller than between States, suggests that country-specific factors affecting the fertility level play an important part. This would support the hypothesis that even though there has been a tendency towards the convergence of fertility levels across European countries, there will not be complete convergence, and important inter-country differences will persist.

Regional fertility differences within and between countries

Graph 1.3 shows the minimum and maximum values of the general fertility rate for each country. This graph indicates the extent to which fertility differs between countries and the extent to which fertility differs between NUTS 2 regions within countries. The graph shows that the degree of variability differs between countries. Spain shows by far the biggest differences, as it includes both the regions with the lowest and the highest levels of fertility in the European Union. Romania also shows relatively high variability of fertility levels between regions. Other countries show less differences in fertility levels between their regions. Nevertheless, the ranges of the regional fertility levels in most countries do show some overlap.

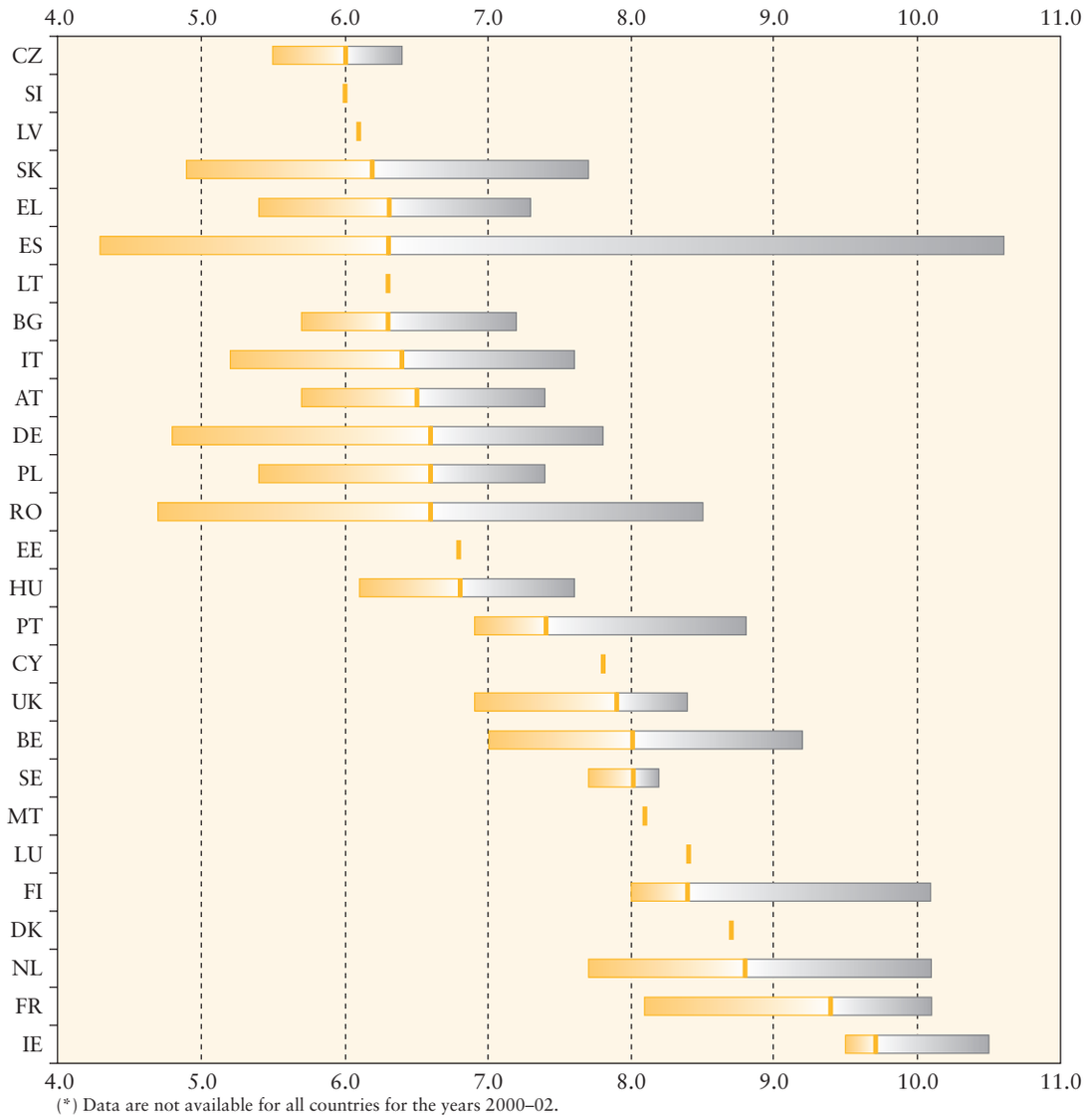
In order to examine the extent to which inter-country differences affect regional differences, a regression model is estimated in which the general fertility rates of all NUTS 2 regions in the European Union are explained using dummy variables for separate countries. These variables are assumed to reflect the economic and cultural differences between countries that affect the fertility level (in the absence of more detailed information at NUTS 2 level, only a few explanatory variables could be used for this model).

Cultural factors refer to norms for the 'ideal' family size. Socioeconomic factors refer to opportunities and restrictions, for example income level, employment and childcare facilities. In addition to factors at national level, economic differences within countries affect the fertility level at regional level. It appears that in regions with relatively high long-term unemployment, the fertility level is significantly lower than in other regions. If long-term unemployment as a proportion of total unemployment in region A exceeds that in region B by 10 percentage points, the GFR in region A is on average 0.3 lower than that in region B.

The regression results show that for the regions of nine countries, the GFR differs significantly from the average for the European NUTS 2 regions. The unweighted average GFR for the NUTS 2 regions equals 8.4. Taken together, the inter-country differences and the economic conditions (as measured using the long-term unemployment figures) explain 73 % of the variance of the GFRs for the regions of the European Union and the accession countries.

For regions in four countries, the general fertility rate is systematically higher than the EU average: Ireland, France, the Netherlands, and (part of) Belgium. In the two regions of Ireland, the GFR is on average 2.5 higher than the European average. In France, fertility in the north is higher than in the south. In its northern and southern regions, the GFR is respectively 2.0 and 1.4 higher than the average European level. In the Netherlands, the GFR is 1.4 higher than the European average.

Graph 1.3 — Minimum and maximum regional general fertility rates by country, average 2000–02, NUTS 2 (*)



(*) Data are not available for all countries for the years 2000–02.

In Belgium, the GFR is high in the Walloon regions (2.0 higher) but not in the Flemish regions.

The regions of five countries have a low GFR. In the regions of Austria, the GFR is 1.2 lower than average. It was mentioned above that the regions in Spain show a very wide range of values. Nevertheless, the fertility level in the regions of Spain is generally significantly lower than the European average. The average GFR for the Spanish regions is 1.0 lower than the EU average, indicating that the regions with a high level of GFR in Spain are clearly an exception. In the Czech Republic, the GFR is 0.9 lower and in Italy 0.8 lower than the EU average. In Germany, there are systematic differences between eastern and other *Länder*. In the eastern *Länder*, the GFR is 1.4 lower than the EU average, while fertility in other *Länder* is only 0.3 lower.

In the above discussion of the map, the regions with the highest and lowest levels of fertility were identified. As mentioned, some of these regions are part of clusters of regions with high or low fertility rates. However, there are also regions in which fertility is considerably lower or higher than in the other regions of the same country. These regions can be identified by inspecting the residuals of the regression model. For example, as already noted, the highest GFR is measured in Spain, in the Ciudad Autónoma de Melilla. Its GFR equals 10.6, which is considerably higher

than in the other Spanish regions. In the Italian province Campania, the GFR equals 7.4, which is not very high compared with all other European regions, but it is relatively high if one considers that the GFR in Italy in general is relatively low, and that the proportion of long-term unemployment in this region is very high (74 % of total unemployment). Another region with a relatively high fertility rate is Pohjois-Suomi, the northernmost part of Finland. The GFR there equals 10.1, compared with 8.3 on average in the rest of Finland. If we look at regions with a low fertility level, it turns out that in Bucureşti the GFR is considerably lower than in the other regions of Romania, in Bratislavský kraj considerably lower than in the other Slovakian regions and in the Principado de Asturias lower than in the other Spanish regions.

Conclusion

Since the 1970s, there has been a general downward trend in the fertility level in the countries of the European Union and in Bulgaria and Romania. During this process, differences in the level of fertility between countries have declined. This converging trend can be explained by the concept of the 'second demographic transition', assuming a common pattern of cultural change across Europe. Nevertheless, considerable differences still continue to exist. This is reflected in the considerable regional differences in the level of fertility. The general fertility rate of most NUTS 2 regions ranges between 4 and 8. There are considerable differences in the regional fertility level within countries, which can only partly be explained by differences in economic conditions (if long-term unemployment is relatively high, fertility tends to be low). Regional differences in fertility can to a large extent be explained by differences between countries. This indicates that economic and cultural differences between countries have an important effect on the level of fertility. In view of these significant differences, one may question whether differences in fertility in Europe will disappear. It seems more likely that regional differences will persist.

Literature

Duchêne, J., A. Gabadinho, M. Willems and P. Wanner, 'Study of low fertility in the regions of the European Union: places, periods and causes'. Working Paper population and social condition 3/2004/f/nr. 4, Luxembourg, 2004.

Eurostat, 'Population statistics', Luxembourg, 2004

Lesthaeghe, Ron and Dirk J. van de Kaa, 'The second demographic transition revised: theories and expectations'. In: *Population and family in the low countries*, Amsterdam, 1994.

Sobotka, T., 'Ten years of rapid fertility changes in European post-communist countries: evidence and interpretation'. Paper presented at the EAPS Conference, Helsinki, 1–9 June 2001.

Van de Kaa, Dirk, 'Demographies in transition: an essay on continuity and discontinuity in value changes'. In E. Kotowska and J. Jozwiak (eds.), *Population of central and eastern Europe. Challenges and opportunities*, Warsaw 2003.

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2

AGRICULTURE

Introduction

Agriculture, including forestry and aquaculture, as a major land user plays a key role in determining food and feed safety, as well as the formation of the rural landscape. Half of the EU's land is farmed, highlighting the importance of farming for the EU's natural environment. Production of high-quality products demanded by the market in harmony with the environment is a priority of European agriculture. This year's edition of regional yearbook focuses on certain types of crop production, namely on arable crops in 2002. The content is divided into two main parts. The first one looks at cereal production (wheat, barley and grain maize), the second one is wider and consists of a regional comparison of potatoes, sugar beet and rape production.

Methodological note

All data used in this chapter for comparison of the regions were the latest which were completely known and available in the NewCronos database in March 2005, and relate to the year 2002.

The indicator in Map 2.1 is calculated as the area under cereal production as a proportion of the utilised agricultural area (UAA). The indicator in Map 2.5 is calculated as the area under potato production as a proportion of the UAA. According to nomenclature for land-use statistics, the UAA includes arable land, land under permanent crops, permanent grassland, kitchen gardens, crops under glass (and excludes wooded area, other area). The level of shares in % is influenced by the surface of the UAA and its proportion of the land area and of the total area (land area + inland waters). In particular, this affects Finland, Sweden, Estonia, Latvia and Slovenia, where the UAA portion of the total area is lower than 25 %.

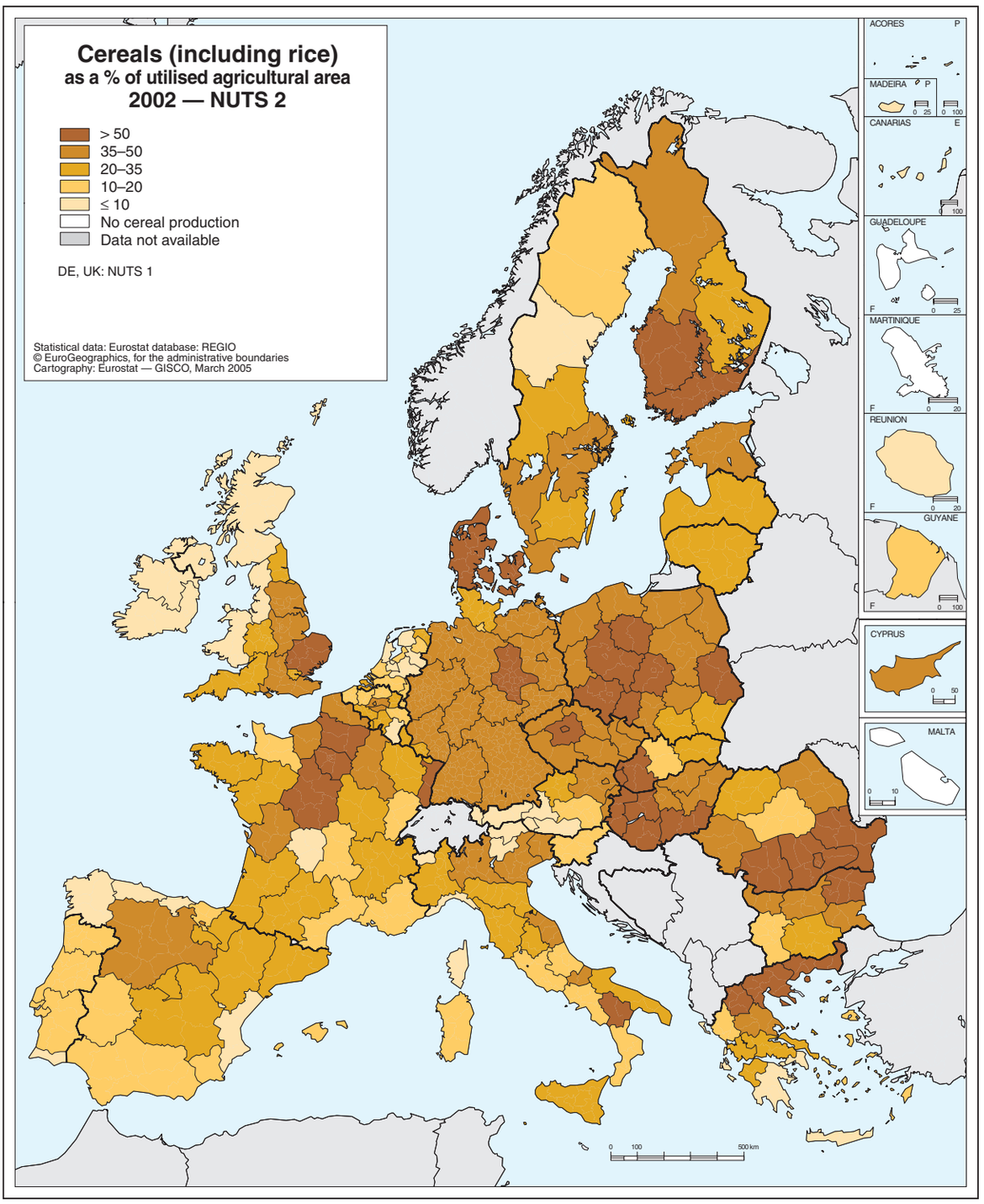
Comparison of areas, production and yields at national level was done on the basis of agricultural database (not regional). Some minor differences between national and regional statistics are due to using different statistical approaches (e.g. oilseeds don't include flax and cotton seeds at regional level).

Cereal production in Europe's regions

Arable crops include a wide range of annual crops of primary importance, such as wheat, barley, maize, rape, sugar beet, potatoes, etc. In 2002, they covered around 42.5 % of the European Union's utilised agricultural area, and are found in all the Member States. Cereal production is one of the most important outputs of European agriculture. Cereals are herbaceous plants of the graminaceous family (except for buckwheat) cultivated mainly for their grain. Whole cereals are used primarily for animal feed and human consumption. They are also used to produce drinks and industrial products (e.g. starch).

Cereals (including rice) are the largest group of growing crops in the world. In 2002, the EU-25 produced nearly 267.6 million tonnes of cereals and the area under cereals reached 53.2 million hectares. France, the largest cereal producer in the EU-25, harvested 69.7 million tonnes of cereals, followed by Germany (43.4 million tonnes), Poland (26.9 million tonnes) and the United Kingdom (23.0 million tonnes). France, Germany and Poland account for more than half of total production. The 10 new Member States accounted for around 20 % of the EU-25 total harvest and 29 % of the EU-25 area under cereals.

Cereals are of considerable importance in regions where they account for more than 50 % of utilised agricultural area (Map 2.1). These regions are found in Balkan countries (Severoiztochen in Bulgaria, Sud-Est, Sud, Sud-Vest, Bucureşti in Romania, Anatoliki Makedonia, Thraki, Kentriki Makedonia and Dytiki Makedonia in Greece), in central Europe — mainly in Hungary (Közép-Dunántúl, Nyugat-Dunántúl, Dél-Dunántúl, Dél-Alföld), then in Slovakia (Bratislavský, Západné Slovensko), in Poland (Lódzkie, Lubelskie, Wielkopolskie, Dolnośląskie, Opolskie and Kujawsko-Pomorskie), in the Czech Republic (Praha, Střední Čechy) and in Germany (Sachsen-Anhalt). Coverage of greater than 50 % also exists in northern Europe (Denmark, Finnish regions Etelä-Suomi and Länsi-Suomi) as well as in southern Europe (Italian region Basilicata). In western Europe the significant portion of cereal area of UAA is recorded in the East of England, in Belgian Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest (although this region is the smallest in comparison to all European regions) and in



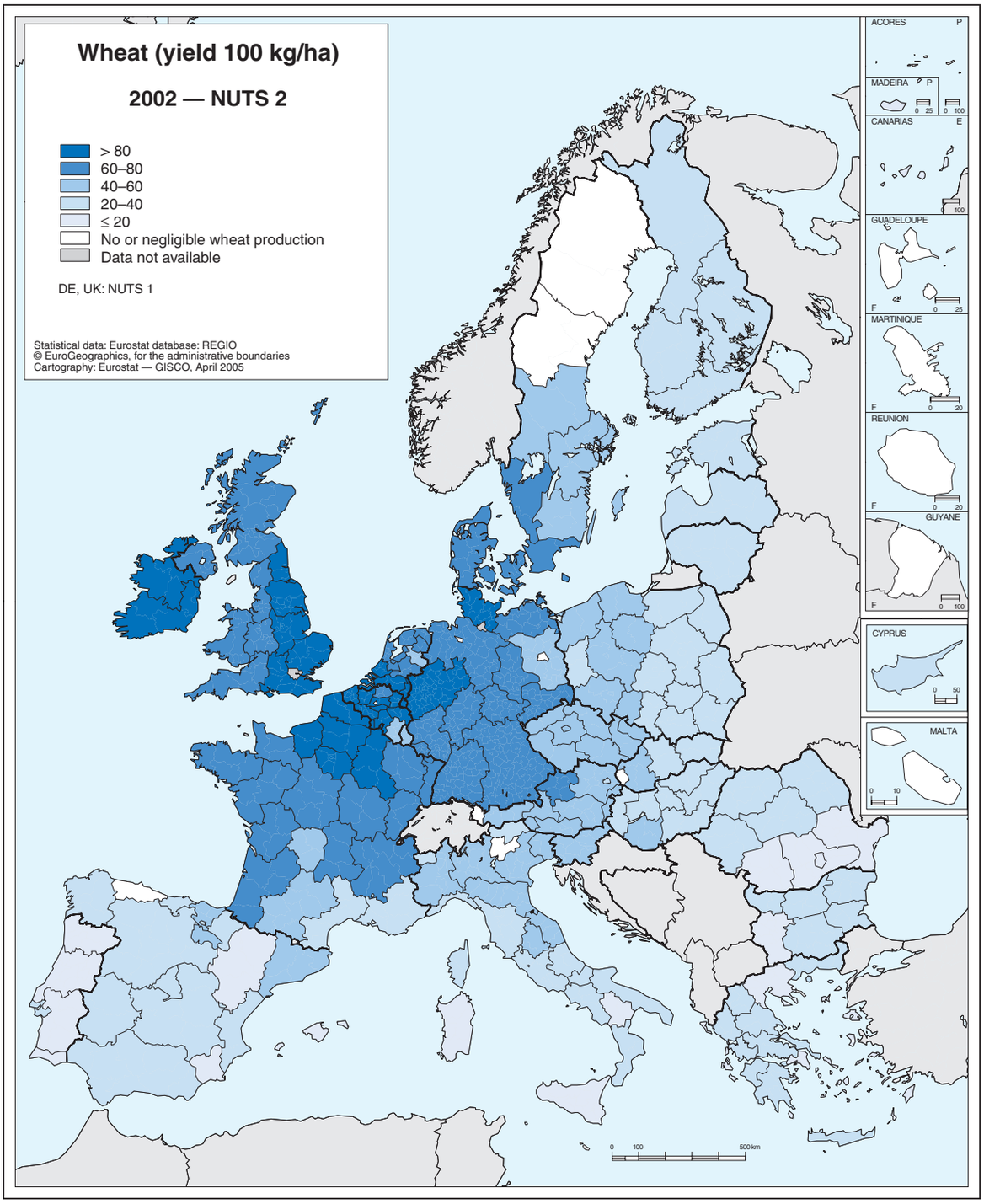
Map 2.1

French regions: Île-de-France, Picardie, Centre and Alsace.

Low representation of cereals in the utilised agricultural area is found firstly in southern regions, Alpine regions and the British Isles, where they occupy less than 10 % of UAA. In detail, this includes seaside areas in Spain (Galicia, Principado de Asturias, Cantabria, Comunidad Valenciana and Canarias), in Portugal (Algarve, Região Autónoma dos Açores, Região Autónoma da Madeira), in Italy (Liguria) and in Greece (Ionia Nisia, Peloponnisos, Attiki and Kriti). Alpine regions in Austria (Kärnten, Salzburg, Tirol, Vorarlberg) and in Italy (Valle d'Aosta/Vallée d'Aoste, Provincia Autonoma Bolzano/Bozen, Provincia Autonoma Trento) and highlands in Belgium (Prov. Luxembourg), in France (Corse, Limousin and overseas department Réunion) and in the United Kingdom

(North West, Wales, Scotland and Northern Ireland) prefer grasslands, possibly green fodder, to arable lands for cereal growing. Some regions in the Netherlands (Friesland, Overijssel, Gelderland, Utrecht and Noord-Holland) as well as the whole of Ireland, Bremen urban region in Germany and Mellersta Norrland in Sweden, also occupy a low proportion of area under cereals compared to all UAA. Malta is not a producer of cereals, neither are the French Caribbean regions (Guadeloupe, Martinique).

The most commonly grown cereal crops in the EU-25 are wheat, barley and grain maize, even though rice, for instance, predominates in French Guyane. In 2002, area under cereals other than wheat, barley and grain maize made up only



Map 2.2

19.4 % of the total area under cereals in the EU-25 (13.5 % of cereal production).

Wheat growing

Wheat (Map 2.2), including soft wheat, durum wheat and spelt, accounted for 43.9 % of the total area under cereals and 46.6 % of the total EU-25 cereal production in 2002. Wheat production at 125 million tonnes, of which durum wheat production reached 9.9 million tonnes, was 9.3 % higher than in 2001. Average yield in the EU-25 was 53.4 quintal per hectare in 2002. The EU-15 recorded 57.8 quintal per hectare, which shows a yield of 19.3 quintal per hectare higher than in the 10 new Member States. The three largest producers of wheat in the EU-25, France, Germany and the United Kingdom, accounted for more than 60 % of the total production.

The highest level of yields occurs in north-western Europe. In the first place, this includes Belgium (Prov. Limburg, Prov. Oost-Vlaanderen, Prov. Vlaams Brabant, Prov. West-Vlaanderen, Prov. Brabant Wallon, Prov. Hainaut, Prov. Liège, Prov. Namur) where the highest value of yields was reached in Provinces Limburg and Liège — around 88.8 quintal per hectare. Also Germany (Nordrhein-Westfalen, Schleswig-Holstein), Northern France (Île-de-France, Champagne-Ardenne, Picardie, Haute-Normandie, Nord-Pas-de-Calais), Ireland, the Netherlands (Zuid-Holland, Zeeland, Noord-Brabant, Limburg) and the United Kingdom (North East, Yorkshire and The Humber, East Midlands, Eastern, South East) recorded yields higher than 80 quintal per hectare. High productivity in these regions is caused by the use of modern technology, artificial and natural fertiliser, well-developed technique and last but not least by favourable climatic conditions. Similar potential also exists in some regions in eastern Europe, but local units are learning how to use these tools effectively, and holdings are applying for support (subsidies, grants) to invest in modern instrumentation and machinery. It will be interesting to see whether these regions capitalise on these possibilities.

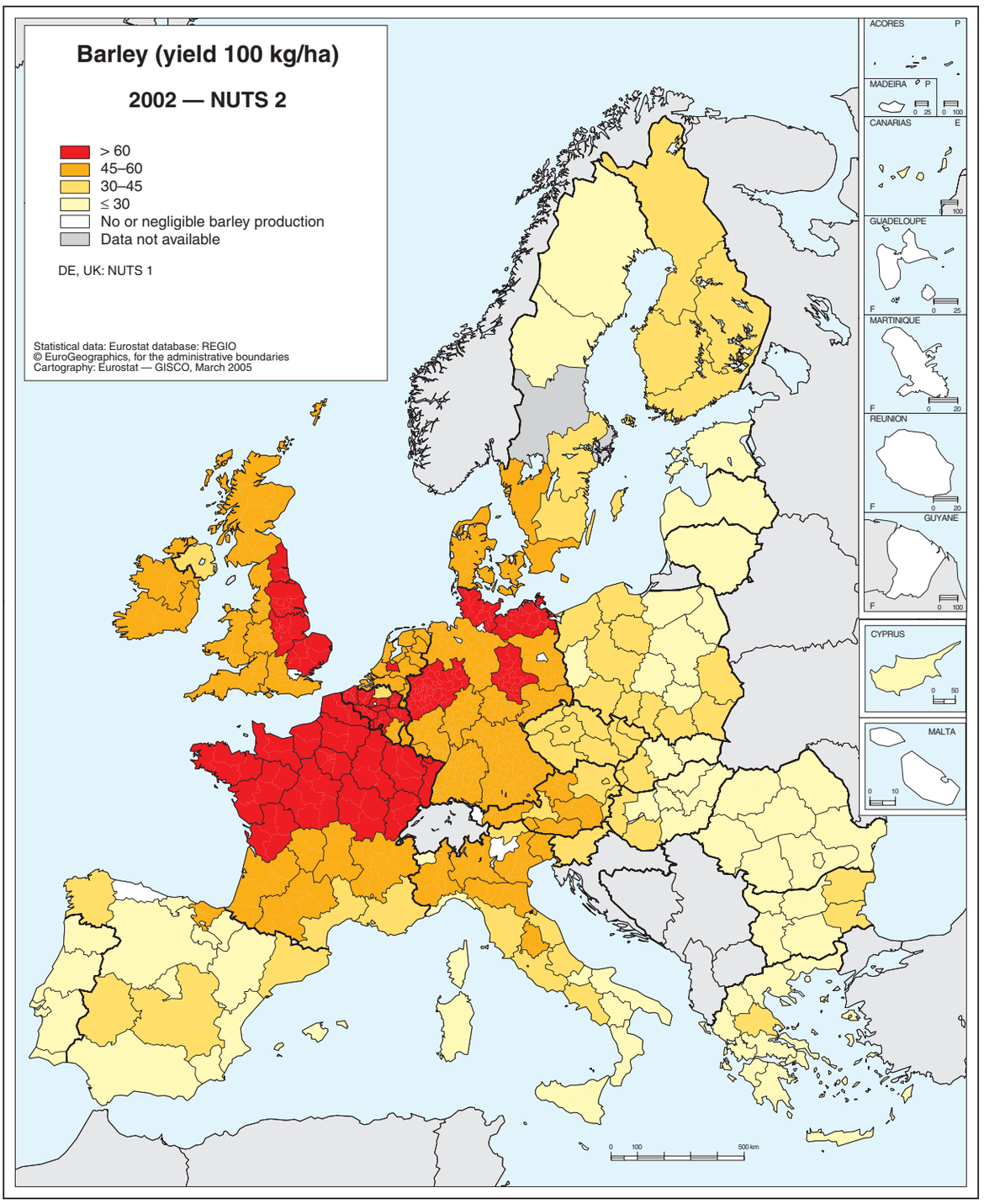
The lowest level of yields is recorded in the south of Europe, especially for regions below 45 degrees latitude. Pyrenean peninsula regions such as Aragón and Región de Murcia in Spain, almost the entire mainland of Portugal and their islands (Iles Balears, Canarias, Região Autónoma da Madeira) are among areas with lowest wheat productivity, although Spain is one of the six biggest producers in the EU-25. Basilicata, Sicilia and Sardegna fall among the least wheat fertile regions in Italy. The mountainous environment does not favour high yields in regions in the Balkan peninsula (Sud-Est, Sud, Sud-Vest, Bucureşti, Yugozapaden, Kentriki Makedonia, Attiki) and in islands (Ionia Nisia, Voreio Aigaio, Notio Ai gaio).

Some urban regions (Bremen, Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest, Berlin, Bratislavský, Hamburg and London) recorded a very low volume of production with regard to small surface areas (in comparison with 'larger' regions). Alpine regions (Provincia Autonoma Trento, Provincia Autonoma Bolzano/Bozen, Valle d'Aosta/Vallée d'Aoste, Vorarlberg, Tirol, Salzburg) as well as overseas and island regions (Guadeloupe, Martinique, Guyane, Réunion, Região Autónoma dos Açores, Canarias, Região Autónoma da Madeira, Corse, Malta), Nordic regions (Mellersta Norrland, Övre Norrland, Pohjois-Suomi) almost never grow any wheat. Similar cases are the coastal regions of Principado de Asturias, Cantabria, Liguria and Ipeiros.

Barley growing

Barley production in the EU-25 was 56.5 million tonnes and was harvested from 13.3 million hectares in 2002. It accounted for 25.0 % of the total area under cereals and 21.1 % of the total EU-25 cereal production in 2002. The EU-25 barley production recorded an average yield of 42.4 quintal per hectare: in the EU-15 the average yield was up by 3.2 quintal per hectare, whereas in the 10 new Member States it was down by 12.2 quintal per hectare. The EU-15 made up around 85 % of the harvest and occupied 79 % of the area under barley. The three largest producers of barley in the EU-25, France, Germany and Spain, accounted for almost 54 % of the total production and 50.4 % of the total area.

Map 2.3 shows that the western countries and their regions belong to the most productive barley zones, except for cities such as Berlin, Bremen, Hamburg in Germany and the surroundings of Brussels and London; bearing in mind that these largely urban areas have an area under barley lower than 500 hectares. Yields in 14 regions of North France, in eight regions of Belgium, eastern United Kingdom and Germany (both countries: four regions) exceeded the level of 60 quintal per hectare. Both France and Germany, the two largest producers, reached harvests of almost



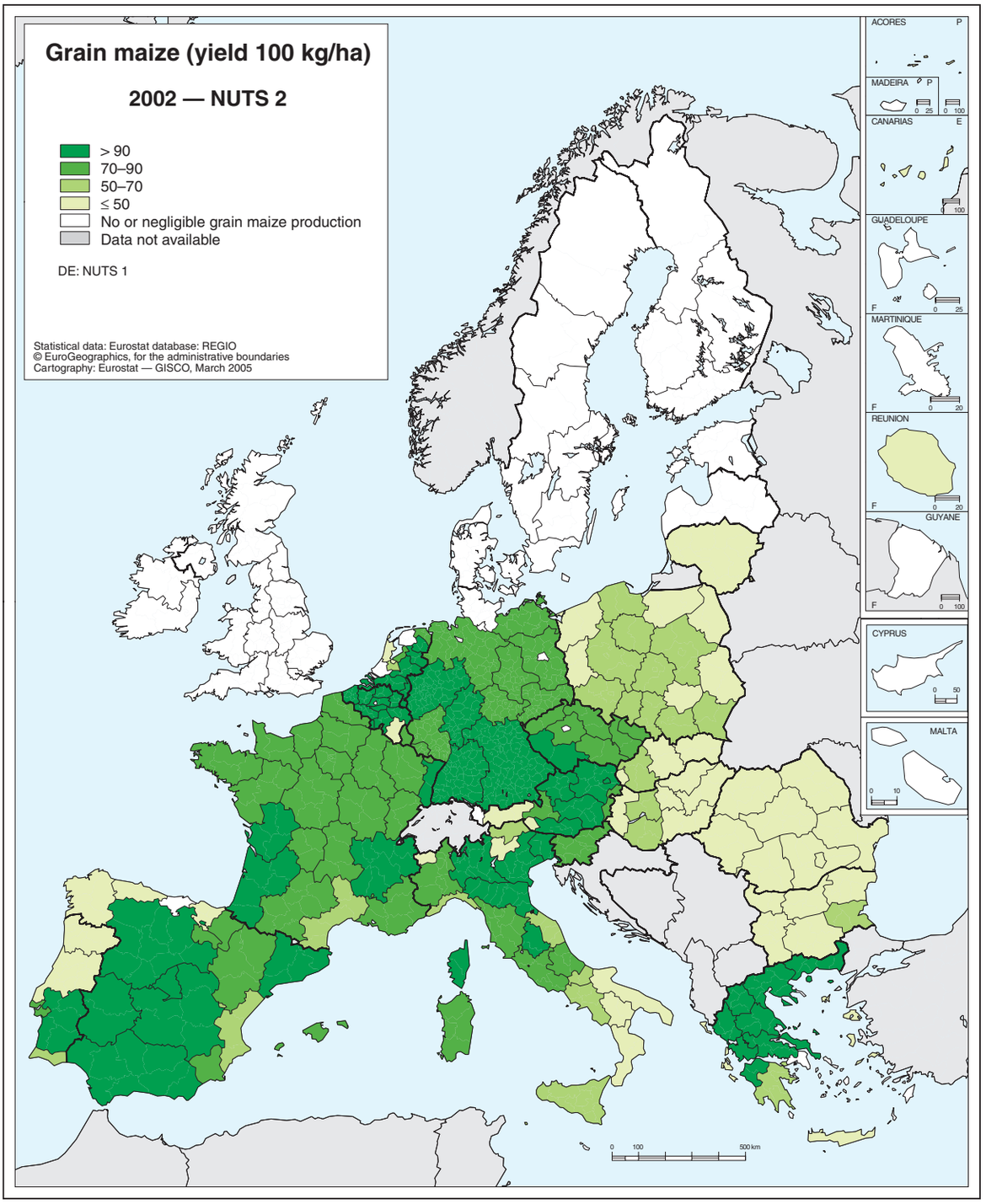
Map 2.3

11 million tonnes and their average yields accounted for 66.9 and 55.5 quintal per hectare respectively. In particular, in southern France, northern Italy, south-western Austria, the majority of Germany, Denmark, western United Kingdom and Ireland, yields of between 45 and 60 quintal per hectare are typical.

The highest level of barley yields was recorded in the Dutch region of Utrecht (90 quintal per hectare), although its area and production is negligible from this point of view. Drier regions in Spain (Principado de Astúrias, Canarias), in Portugal (Lisboa, Região Autónoma dos Açores, Região Autónoma da Madeira), in French Corse and in Greek Ionia Nisia are not focused on barley growing. Neither are French overseas departments, nor mountainous areas in Austria and Italy (Tirol, Vorarlberg, Provincia Autonoma

Bolzano/Bozen, Provincia Autonoma Trento, Valle d'Aosta/Vallée d'Aoste, Liguria).

In the north, south and east of Europe, the barley yields level was less than 45 quintal per hectare. In evaluation of regions, the largest areas under barley were occupied by the Spanish region Castilla y León (1.3 million hectares) and the highest level of production was shown in Denmark (4.1 million tonnes). Generally, in countries which are big producers of beer (per capita: the Czech Republic, the Netherlands, Denmark, Belgium and Germany), part of the barley harvest serves to produce malt and processing in the brewing industry. Otherwise, the majority of barley production is used for animal feed (around 60 %).



Map 2.4

Grain maize growing

The EU-25 harvest of grain maize reached 50.3 million tonnes in 2002. The former EU-15 produced 40.5 million tonnes and made up almost 80.5 %. Grain maize plays an important role in animal feeding (in particular for pigs and poultry). It was grown in 16 Member States and occupied an area of 6.2 million hectares (in the whole of the EU-25), while Romania accounted for almost 2.9 million hectares. Grain maize accounted for 11.6 % of the total area under cereals and 18.8 % of the total EU-25 cereal production in 2002. In particular, high yields of this cereal generally contribute to the big proportion in that production.

According to the Map 2.4, the highest value yields (higher than 90 quintal per hectare) can be found in Austria, Belgium, Germany, Spain, France, Greece, Italy, the Netherlands and also one region in the Czech Republic and one in Portugal. Together, France (16.4 million tonnes) and Italy (10.6 million tonnes) accounted for half of the total production. The new Member States, except for the Czech Republic and Slovenia, had lower yields than 70 quintal per hectare or did not produce any grain maize at all. A similar situation is noticeable in regions of Bulgaria and Romania, where their yields were lower than 70 quintal per hectare (except for Yugoiztochen).

Although grain maize is a crop from tropical areas, it is grown in various climatic conditions: Nordic counties, Denmark, Sweden, Finland, the United Kingdom, Ireland, Estonia, Latvia and the most northern German region (Schleswig-Holstein) do not produce any grain maize in the colder climatic zone. Urban areas in Germany (Berlin, Bremen, Hamburg), in the Czech Republic (Praha) and in Belgium (Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest) did not grow grain because of the low amount of arable land and different priorities of its use. Also, islands such as Cyprus, Malta, Região Autónoma da Madeira, Guadeloupe, Martinique and French Guyane did not grow any grain maize at all. Greek Notio Aigaio and Attiki as well as the Alpine regions Vorarlberg, Valle d'Aosta/Vallée d'Aoste and Provincia Autonoma Bolzano/Bozen and Dutch Friesland and Zuid-Holland recorded only insignificant production of grain maize.

On the whole, it is necessary to say that maize is ranged with the principal fodder crops because of using green maize and silage.

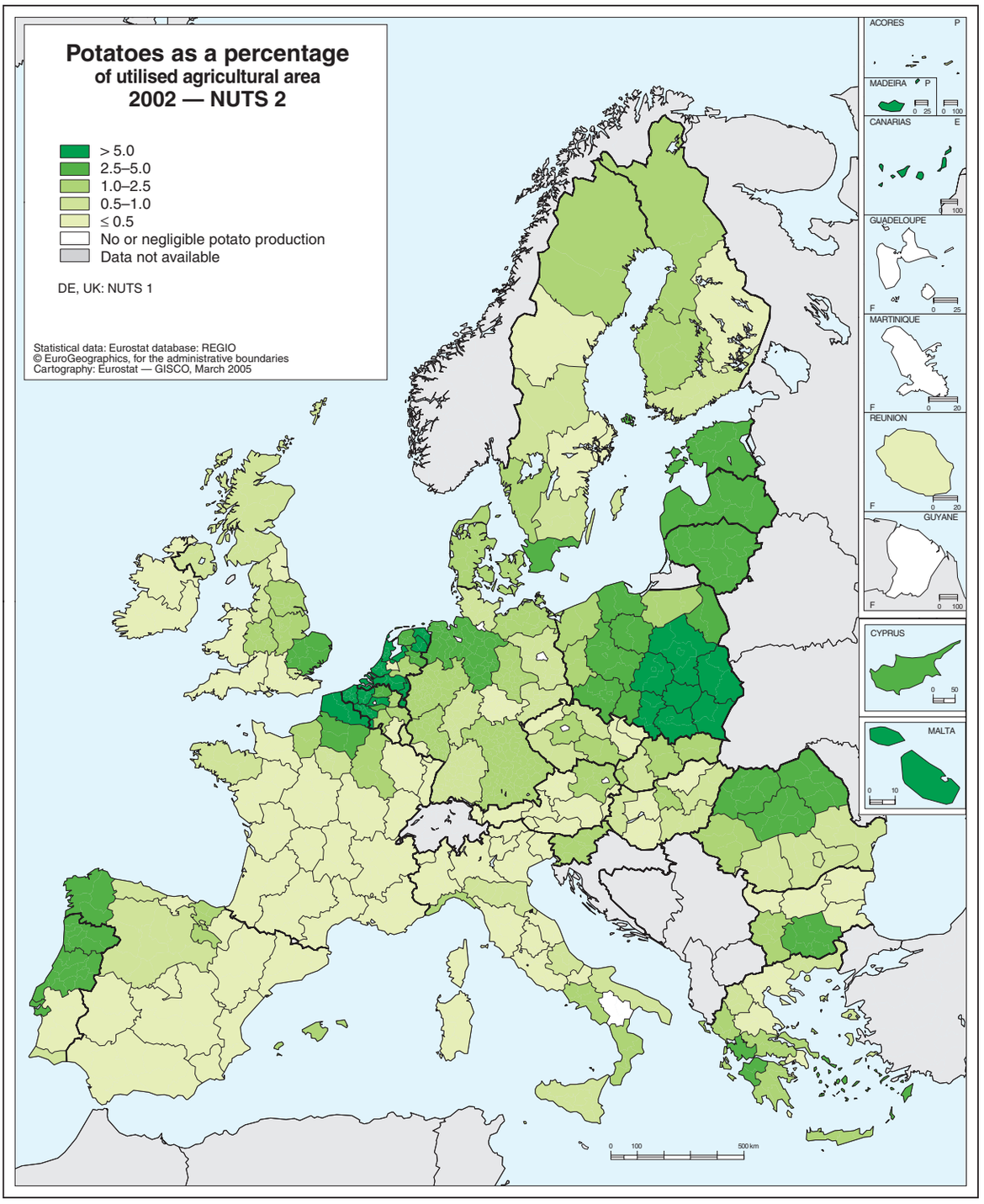
Crop production in Europe's regions

The domain of crop production other than cereals covers dried pulses, root crops, industrial crops, fodder crops, vegetables and fruit, including grapes and olives. From an arable land use point of view, root crops and oilseeds are the greatest all-European crops. Root crops are field crops, which are very productive and are able to achieve higher farming yields than other crops. Mostly, they produce energy rich substances and products with low dry matter contents. The importance of root crops is attached to the high production ability of organic matter, which assures the energy component in human consumption and animal feedingstuffs. Root crops serve for foods and animal feeds and are a raw material for industrial processing. The most important root crops are potatoes and sugar beet.

Potato growing

The potato is grown primarily for human consumption, but it is also used to feed cattle and produce alcohol and potato flour (starch). The potato is a tuber, the thickened underground stem of the potato plant, especially designed for the storage of starch. Starch and moisture content are key potato characteristics.

Potato growing has been steadily falling in the whole of Europe in the last 15 years. In 2002, potato production in the EU-25 was 66.7 million tonnes and was harvested from 2.3 million hectares (the 10 new Member States occupied 47 % of this area) with an average yield of 286.5 quintal per hectare. The EU-15 recorded an average yield of 371.4 quintal per hectare in potato production, whereas in the 10 new Member States the average yield reached only 189 quintal per hectare. Yields higher than 400 quintal per hectare were recorded only in regions of the former EU-15, namely in Belgium, Denmark, Germany, Spain (La Rioja), France, the Netherlands and the United Kingdom. These countries include the five most productive countries of the EU-15 (the Netherlands, France, Belgium, Germany and the United Kingdom) and in 2002 they made up around 35.7 % of the areas and 52.8 % of the production in the EU-25. It is evident that a different level of yields in regions of the new Member States and in regions of the former EU-15 influences the level of the production and market in



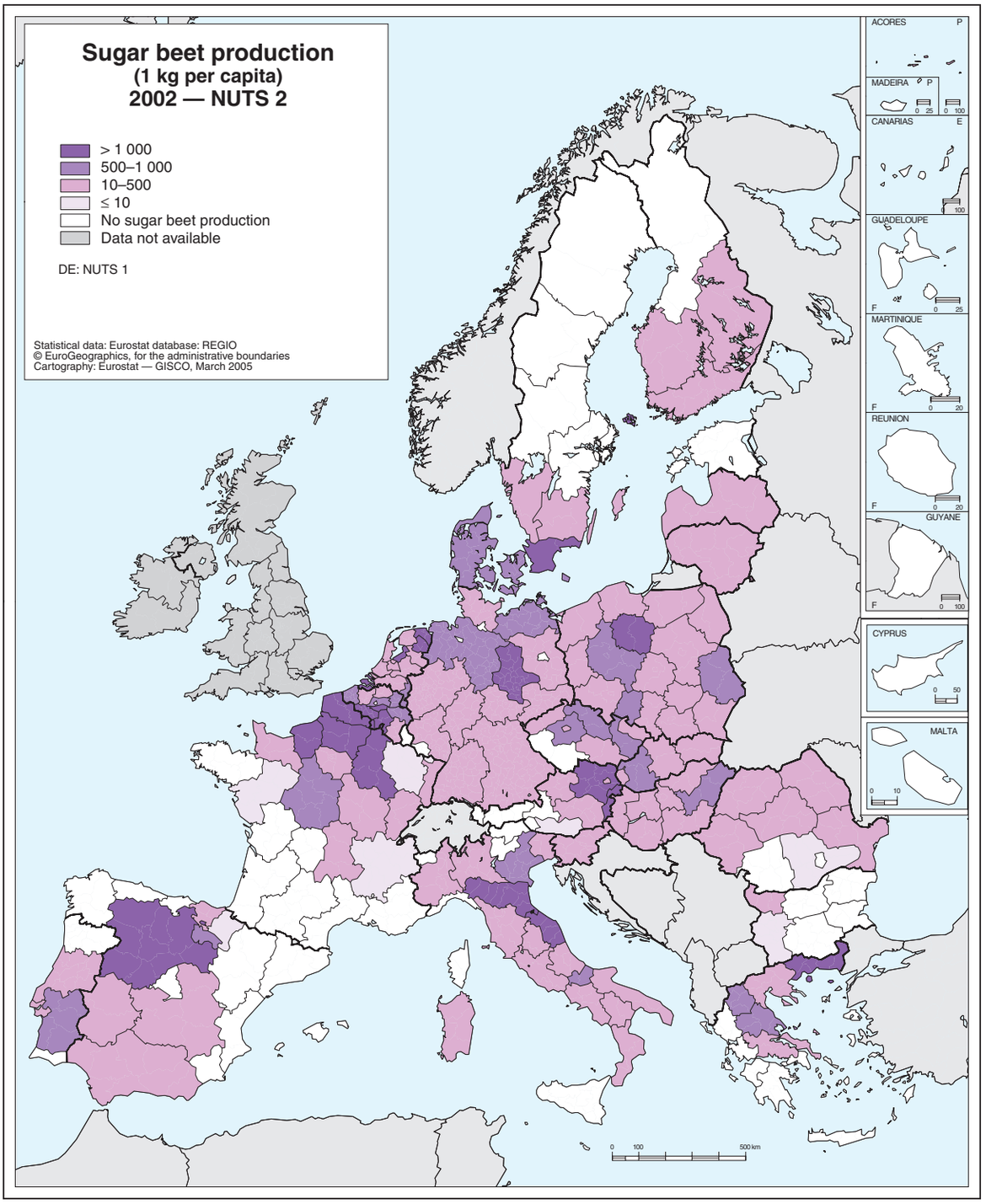
Map 2.5

the whole of Europe. The level of yields in countries and regions is also determined by the portion of early and other potatoes out of total potato areas and production.

Map 2.5 shows that the biggest areas under potatoes as a proportion of UAA dominate in regions of Belgium (Prov. Oost-Vlaanderen, Prov. Vlaams Brabant, Prov. West-Vlaanderen, Prov. Hainaut), the Netherlands (Groningen, Drenthe, Flevoland, Noord-Holland, Zuid-Holland, Zeeland, Noord-Brabant, Limburg) and Poland (Lódzkie, Mazowieckie, Malopolskie, Slaskie, Lubelskie, Podkarpackie, Swietokrzyskie). If we add Spanish Canarias, French Nord-Pas-de-Calais, Portuguese Região Autónoma da Madeira (30.9 %) and Malta, we have all the areas with more than a 5 % proportion of the UAA. Map 2.5 points out

that Poland reached the largest area with a high proportion of UAA. Poland as the biggest producer of potatoes in the EU-25, occupied 34.5 % of the total area under potatoes (harvested 23.3 % of production) in 2002. Viewed in the longer term, Poland shows a downward trend in the area under potatoes, although it constantly occupies around 77.6 % (74 % in 2002) of the new Member State areas and has a predominant role. Generally, regions in eastern countries produce, process and consume (people, possibly animal) more potatoes per capita than in the former EU-15 (mainly in west and south European regions).

Not all European regions produce potatoes in a significant volume. In particular, urban regions in Belgium (Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest), the Czech Republic



Map 2.6

(Praha), Germany (Berlin, Bremen, Hamburg), French overseas departments (Guadeloupe, Martinique, Guyane), Austria (Wien) and also Basilicata in Italy.

Sugar beet growing

In 2002, sugar beet was the most extensive root crop grown in Europe. It is primarily grown as a processing/industrial crop (raw material for sugar production), and in a small measure it is used for feeding purposes. The root of sugar beet is used to produce sugar or alcohol. The leaves and top are used for animal feed or are left in the field. Sometimes, the roots are also used for animal feed.

Sugar beet occupied 2.4 million hectares and accounted for 48.3 % of the total EU-25 area under root crops in 2002. Germany, France and Poland each farmed more than 10 % of area under sugar beet (49.7 % in total) in the EU-25. The largest areas (more than 80 000 hectares) are found in German Niedersachsen (117 100 hectares), in French Champagne-Ardenne and Picardie (88 100 and 164 000 hectares respectively) and in eastern Britain (93 200 hectares). From the volume point of view, Germany and France were the best producers (50.9 % of the EU-15 and 42.7 % of the EU-25). The highest production (more than 5 million tonnes) was recorded in German Bayern (5.3 million tonnes) and Niedersachsen (6.4 million tonnes) and in French regions Champagne-Ardenne (6.9 million tonnes), and Picardie (12.4 million tonnes). The highest levels of average yields (more than 800 quintal per hectare) were reached in Spain regions La Rioja (807 quintal per hectare), Castilla y León (838 quintal per hectare) and Castilla-la Mancha (836 quintal per hectare) and in French regions Centre (852 quintal per hectare) and Alsace (813 quintal per hectare). Western Europe dominated the successful growing of sugar beet. The contribution of the 10 new Member States was 16.1 % of the EU-25 production. This is a similar percentage as a share of the EU-25 population.

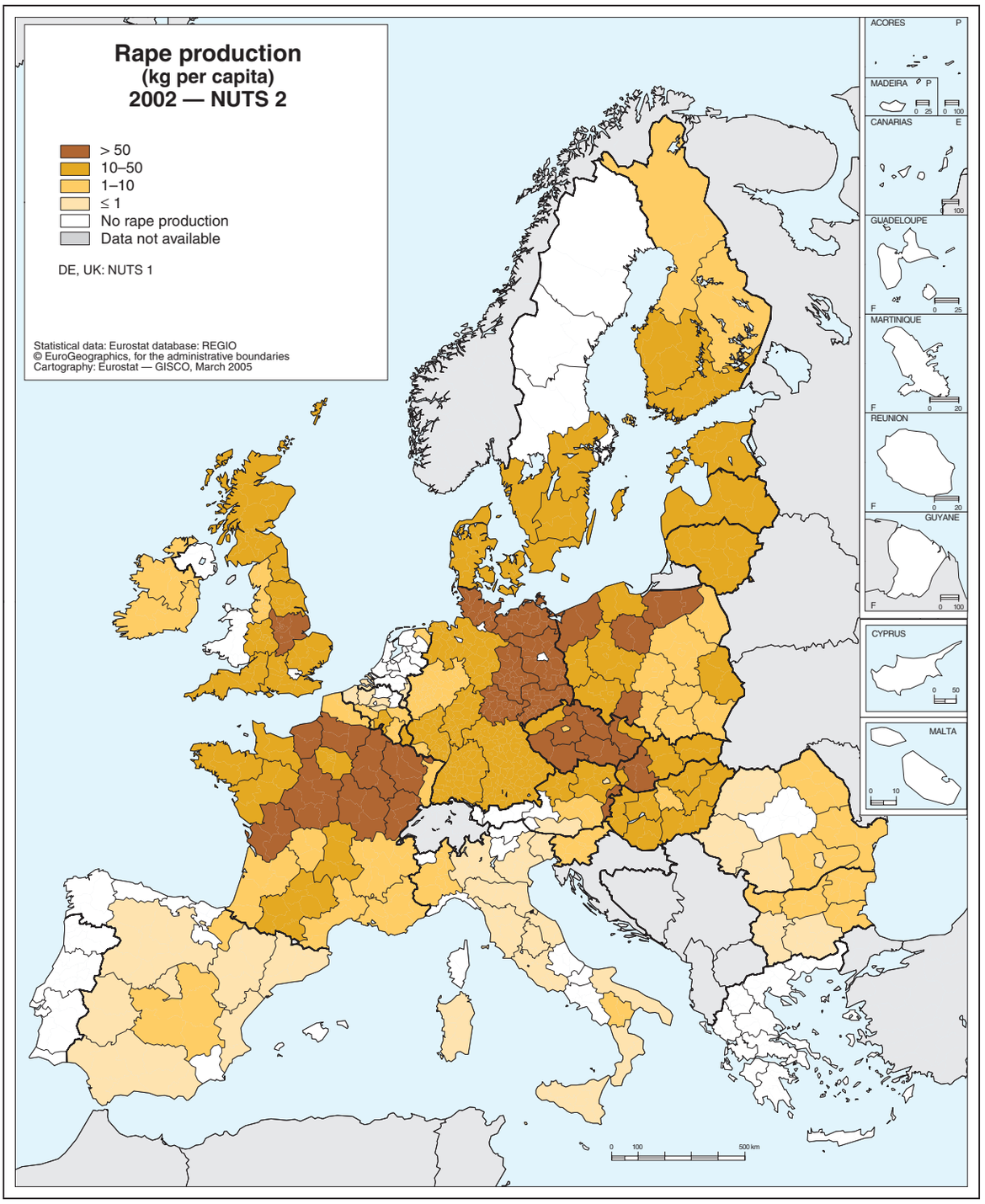
Map 2.6 provides a comparison of sugar beet production level per capita. It is understandable that some European regions produce more than their inhabitants can use and some of them produce less or almost nothing (Kärnten in Austria, Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest in Belgium, Yugozapaden in Bulgaria, Comunidad Foral de Navarra in Spain; Lorraine, Pays de la Loire and Rhône-Alpes in France, Sud in Romania). In 2002, more than one tonne of sugar beet per person was predominantly produced in regions of the former EU-15. This includes eastern regions of Austria (Burgenland, Niederösterreich), central Walloon regions (Prov. Brabant Wallon, Hainaut, and Namur), German Sachsen-Anhalt, Spain Castilla y León, Finnish islands (Åland), north France (Champagne-Ardenne, Picardie, Haute-Normandie and Nord-Pas-de-Calais), north-eastern Greece (Anatoliki Makedonia, Thraki), Italy (Emilia-Romagna and Marche), northern Netherlands (Groningen, Drenthe, Flevoland and Zeeland) and southern Swedish Sydsverige. Only the Polish region of Kujawsko-Pomorskie represented the new Member States in overproduction per capita.

Rape growing

Seeds and oleaginous fruit are cultivated not only for their richness in fatty matters (intended for human consumption), but also for their richness in protein (necessary for animal feed). The following species are taken into account in the seeds and oleaginous fruit: colza and the rapeseed named colza-rape, sunflower, soya, flax, cotton, ricinus, groundnuts, copra, palm nuts and almonds, other seeds such as mustard, poppy, hemp, sesame and other fruit not specified elsewhere. Some of the products under consideration are exotic and are not cultivated in the European Union. Therefore, they arrive uniquely as imports in the Member States.

In the year 2002, almost 7.3 million hectares of oilseeds were harvested in the EU-25 and 8.8 million hectares including areas of Romania and Bulgaria. The biggest areas belong to Germany, France and Romania (46.9 % of the EU-25 + Romania and Bulgaria). Rape was the most important oilseed in the EU-25 (57.5 % of area) and the second position was occupied by sunflower (29.4 % of the area and around 22 % of the production). In Belgium and in the Netherlands, oil flax predominated in oilseed growing. In Portugal, rape and turnip rape were never grown and so sunflower occupied all areas under oilseeds. Sunflower also predominated in Spain, Hungary, Bulgaria and Romania. In Italy, sunflower made up around half of the area under oilseed, and areas under soya were close behind. Other oilseed growing predominated in Slovenia (pumpkins for oil), Cyprus and Greece (cotton seed).

Oilseed production in the EU-25 reached around 17.2 million tonnes (around 19 million tonnes,



Map 2.7

including production of Romania and Bulgaria) and rape and turnip rape production represented around 68 % of this harvest. With detailed focus on rape production it is possible to find regions (in Map 2.7) which produced more than 50 kg of rape per capita. Among them are Austrian Burgenland, five Czech regions (Střední Čechy, Jihozápad, Severovýchod, Jihovýchod, Střední Morava), six German regions (Brandenburg, Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt, Schleswig-Holstein, Thüringen), eight French regions (Champagne-Ardenne, Picardie, Haute-Normandie, Centre, Bourgogne, Lorraine, Franche-Comté, Poitou-Charentes), four Polish regions (Zachodniopomorskie, Opolskie, Kujawsko-Pomorskie, Warminsko-Mazurskie), Západné Slovensko in Slovakia and British East Midlands. These regions are excellent for rape

growing and this is supported by the fact that their production was higher than 100 000 tonnes (only Burgenland, Franche-Comté, Warminsko-Mazurskie, Severovýchod and Střední Morava accounted for lower production). Regions in the Czech Republic, Germany, Denmark, France, Lithuania, Poland, Slovakia and in the United Kingdom represent typical areas for rape production.

Conclusion

Both climatic and geographical conditions exert a great influence on land use. Preferences in animal and crop production differ from region to region in the whole of Europe.

But it is important to point out that quality and intensity of production are not the only factors which determine the evolution in the agricultural sector. Other criteria (rural development, environment, food safety, animal welfare, etc.) will become more and more important and will certainly influence and change the picture of our present agriculture.

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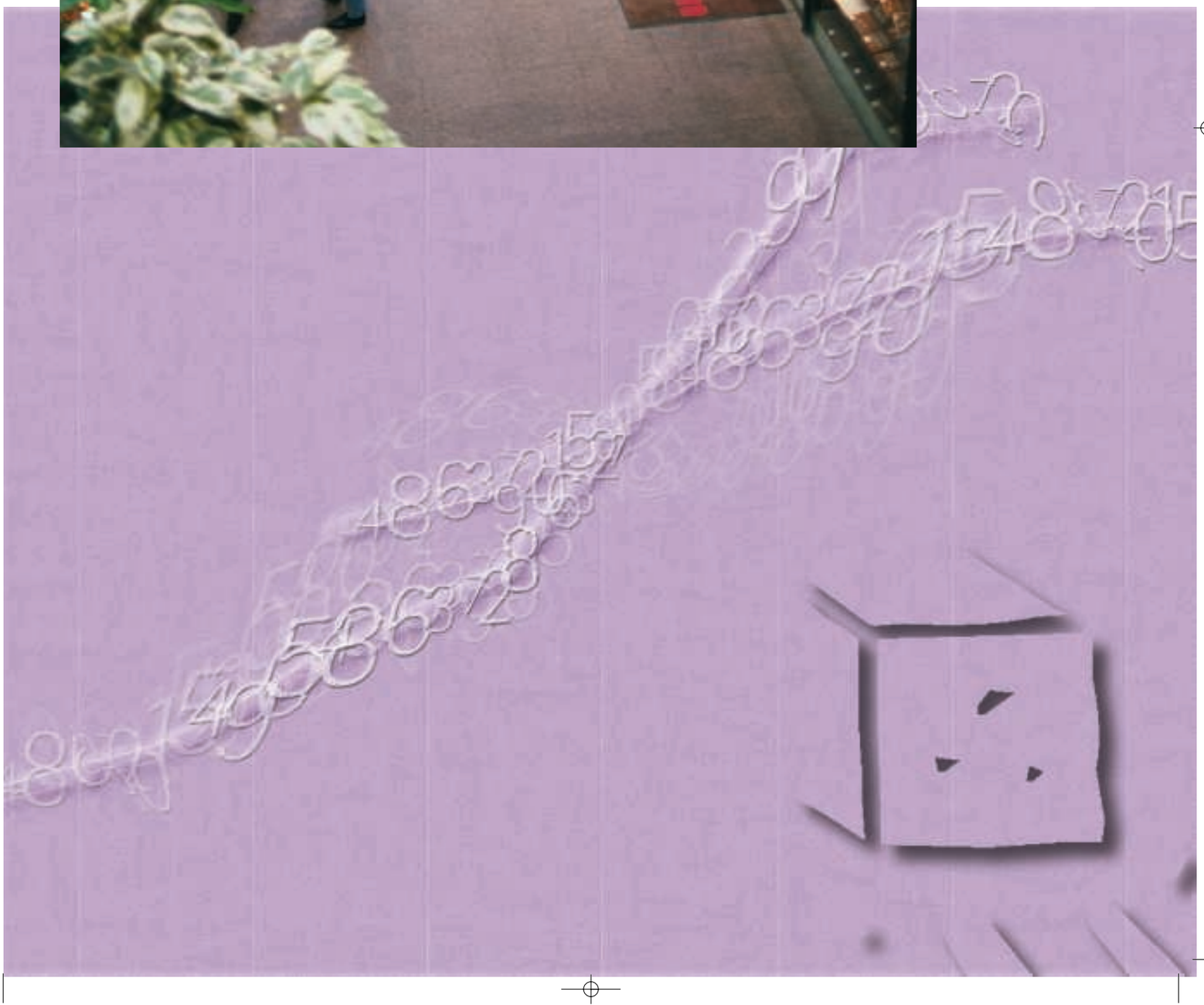
3

REGIONAL GROSS DOMESTIC PRODUCT



What is regional gross domestic product?

The economic development of a region is, as a rule, expressed in terms of its gross domestic product (GDP). It is also an indicator frequently used as a basis for comparisons between regions. But what exactly does it mean? And how can comparability be established for regions of different size and different currencies?

Regions of differing size achieve different regional GDP levels. However, a real comparison can only be made by indicating the regional GDP of the population for the region in question. This is where the distinction drawn between place of work and place of residence becomes significant: gross domestic product measures the economic performance achieved within national or regional boundaries, regardless of whether this was attributable to resident or non-resident employed persons. Reference to GDP per inhabitant is therefore only straightforward if all employed persons engaged in generating this value are also residents of the region in question.

In areas with a high proportion of commuters, regional GDP per inhabitant can be extremely high, particularly in such economic centres as London or Vienna, Hamburg, Prague or Luxembourg, and relatively low in the surrounding regions, even if these are characterised by high household purchasing power or disposable income. Regional GDP per inhabitant should not, therefore, be equated with regional disposable income.

Regional GDP is calculated in the currency of the country in question. In order to make GDP comparable between countries, it is converted into euro using the official average exchange rate for the given calendar year. However, not all differences in price levels between countries are reflected by exchange rates. In order to equate the currencies, GDP is converted using currency conversion rates, known as purchasing power parities (PPPs), to an artificial common currency, called purchasing power standards (PPS). This makes it possible to compare the purchasing power of different national currencies (see box).

Purchasing power parities and international volume comparisons

International differences in GDP values, even after conversion via exchange rates to a common currency, are not due simply to differing volumes of goods and services. The 'level of prices' component is also a major contributing factor. Given that exchange rates are determined by many factors influencing demand and supply in the currency markets (such as international trade, inflation expectations and interest rate differentials), conversion via exchange rates in cross-border comparisons is of limited use. To obtain an exact comparison, it is essential to use special conversion rates (spatial deflators) which remove the effect of price level differences between countries. Purchasing power parities (PPPs) are such currency conversion rates that convert economic data expressed in national currencies to an artificial common currency, called purchasing power standards (PPS). PPPs are therefore used to convert the GDP and other economic aggregates (e.g. consumption expenditure on certain product groups) of various countries into comparable volumes of expenditure, expressed as purchasing power standards.

With the introduction of the euro, prices can now, for the first time, be compared directly between countries in the euro-zone. However, the euro has different purchasing power in the different countries of the euro-zone, depending on the national price level. PPPs must therefore also continue to be used to calculate pure volume aggregates in PPS for Member States within the euro-zone.

In their simplest form, PPPs are a set of price relatives, which show the ratio of the prices in national currency of the same good or service in different countries (e.g. a loaf of bread costs EUR 1.87 in France, EUR 1.68 in Germany, GBP 0.95 in the United Kingdom, etc). A basket of comparable goods and services is used for price increases. These are selected so as to represent the whole range of goods and services, taking account of the consumption structures in the various countries. The simple price ratios at product level are aggregated to PPPs for product groups, then for overall consumption and finally for GDP. In order to have a reference value for the calculation of the PPPs, a country is usually chosen and used as the reference country, and set to 1. For the European Union, the selection of a single country as the reference country is inappropriate, so the PPS of the EU is used as an artificial common unit of reference to express the volume of economic aggregates for the purpose of spatial comparisons in real terms.

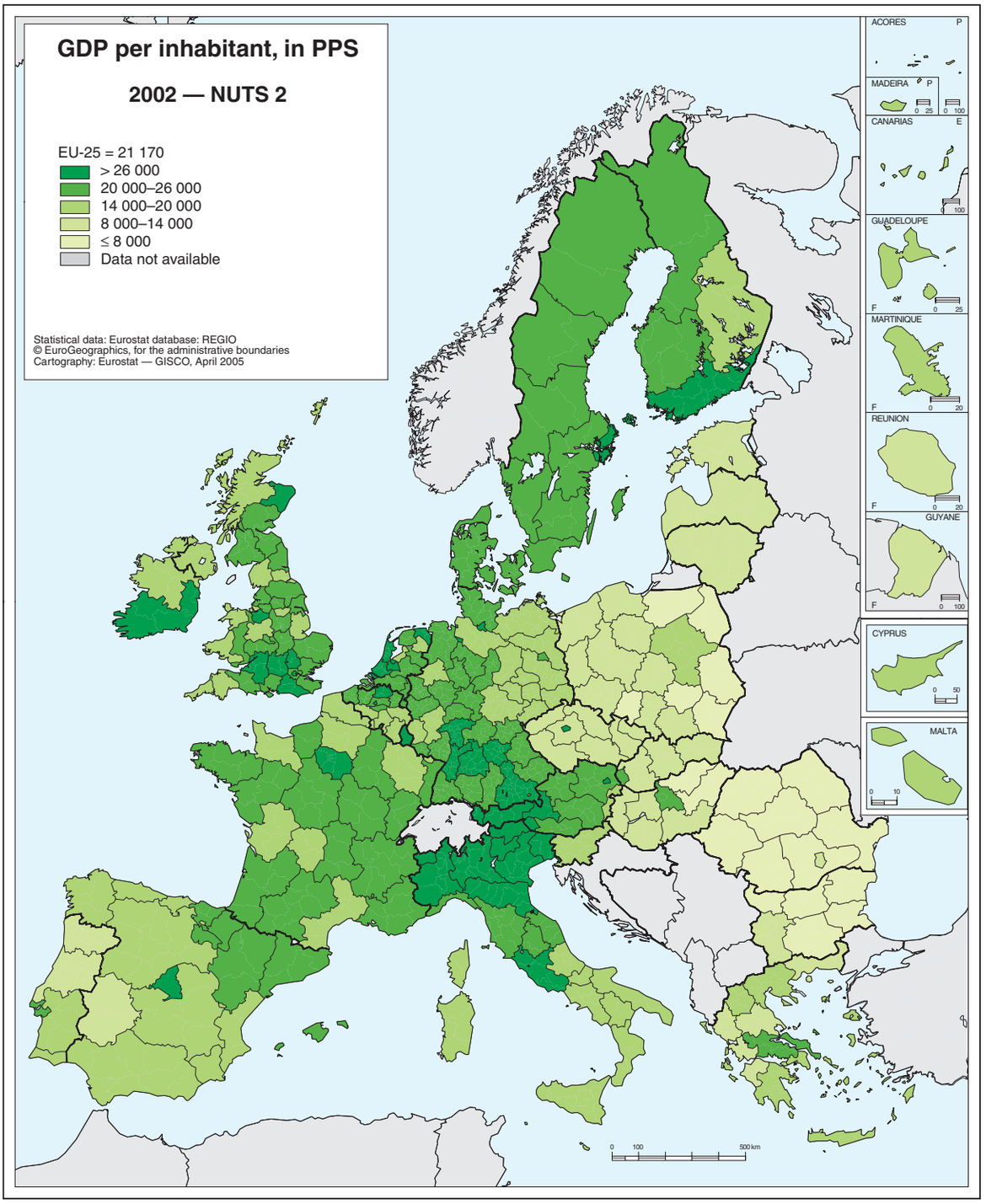
Unfortunately, for reasons of cost, it will not be possible in the foreseeable future to calculate regional currency conversion rates. If such regional PPPs were available, the GDP in PPS for

numerous peripheral or rural regions of the EU would probably be higher than that calculated using the national PPPs.

The regions may be ranked differently when calculating in PPS instead of euro. For example, in 2002, the German region of Dessau was recorded as having a per capita GDP of EUR 15 638, putting it well above Malta with EUR 10 757. However, with PPS 15 499 per capita, Malta ranks above Dessau with its PPS 14 085 per capita.

In terms of distribution, the use of PPS rather than the euro has a levelling effect, as regions with a very high per capita GDP also generally have relatively high price levels. This reduces the range of per capita GDP in NUTS 2 regions in the EU-25 plus Bulgaria and Romania from around EUR 73 000 to around PPS 62 000.

Per capita GDP in PPS is the key variable for determining the eligibility of NUTS 2 regions in the framework of the European Union's structural policy.



Map 3.1

Regional GDP in 2002

Map 3.1 provides an overview of the regional distribution of per capita GDP (in PPS) for the European Union, plus Bulgaria and Romania. It ranges from PPS 4 337 per capita in north-east Romania to PPS 66 761 per capita in the UK Inner London region. Brussels (PPS 49 645) and Luxembourg (PPS 45 026) follow in second and third place, with Hamburg (PPS 39 766) and the French capital region Île-de-France (PPS 37 267) in fourth and fifth place.

Prague (Czech Republic), the region with the highest GDP per inhabitant in the new Member States with PPS 32 357 (153 % of the EU-25 average), has already risen to 14th place (2001: 15th) among the 268 NUTS 2 regions of the countries examined here (EU-25 plus Bulgaria and Romania). It should be noted, however, that Prague is an exception. The next regions of those joining the EU in 2004 follow some way behind: Bratislavský kraj (Slovakia) is in 46th place (2001: 64th) with PPS 25 351 (120 %), Közép-Magyarország (Hungary) is 127th (2001: 147th) with PPS 20 329 (96 %), Cyprus is 163rd (2001: 148th) with PPS 17 558 (82.9 %), Slovenia is 187th (2001: 186th) with PPS 15 941 (75.3 %), Malta is 194th (2001: 190th) with PPS 15 499 (73.2 %) and Mazowieckie (Poland) 204th (2001: 203rd) with PPS 14 718 (69.5 %). All other regions of the new Member States have a per capita GDP in PPS of less than two-thirds of the EU-25 average.

Of the 268 regions examined here, the per capita GDP (in PPS) in 2002 was below 75 % of the EU-25 average in 78 of them. This figure is down significantly on 2001 when the corresponding group comprised 85 regions. In Spain and Greece in particular, a number of regions crossed the 75 % of per capita GDP barrier in 2002. At the other end of the spectrum, 37 regions had a per capita GDP of more than 125 % of the EU-25 average in 2002, down from 38 in 2001. The year 2002 did therefore see further progress in economic convergence among the regions of the 27 countries examined here.

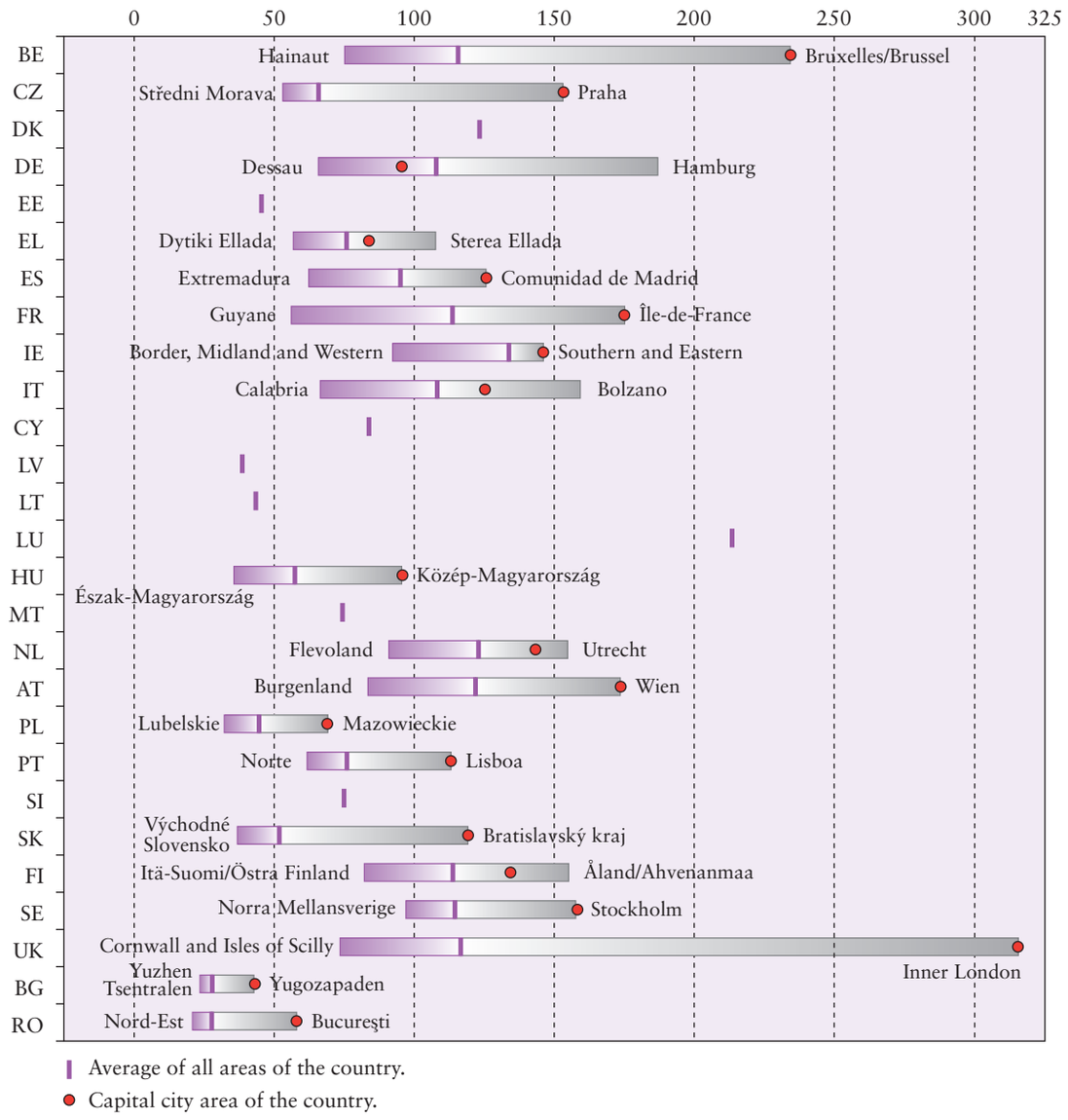
Major regional differences within countries too

There are also substantial differences within the countries, as Map 3.1 shows. As in 2001, the highest per capita GDP was more than twice the lowest in 12 of the 19 countries examined here incorporating NUTS 2 regions. The largest regional differences are in the United Kingdom, where there is a factor of 4.3 between the two extreme values (Inner London: 315 % of the EU-25 average; Cornwall and the Isles of Scilly: 73 %), and in Belgium, with a factor of 3.1 (Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest: 235 %; Prov. Hainault: 75 %). As in 2001, half of the 10 countries with the largest regional differences are from the older Member States, plus four from the new Member States and Romania. Comparatively marked regional disparities in per capita GDP therefore emerge in both old and new Member States, although these did widen significantly in comparison to 2001 in the particularly dynamic new Member States of Slovakia, Hungary and the Czech Republic, whereas the situation was more stable in the five EU-15 Member States in this group.

Moderate regional disparities in per capita GDP (i.e. factors between the highest and the lowest value of less than 2) are, however, almost exclusively found in the older Member States. This is particularly true of Ireland (Southern and Eastern: 148 %; Border, Midlands and Western: 92 %) and Sweden (Stockholm: 158 %; Norra Mellansverige: 98 %). Bulgaria (Yugozapaden: 42 %; Yuzhen Tsentralen: 23 %) is the only country in this group that is not one of the EU-15 Member States.

In all the new Member States and candidate countries, as well as a number of the EU-15 Member States, a substantial share of economic activity is concentrated in the capital regions. In 14 of the 19 countries included here with NUTS 2 regions, the capital regions are also the regions with the highest per capita GDP. For example, Map 3.1 clearly shows the prominent position of the regions of Brussels, Prague, Madrid, Paris, Lisbon as well as Budapest, Bratislava, London, Sofia and Bucharest. There is, moreover, a particular economic dynamism in the capital regions of the new Member States, as can be seen by the fact that the

Graph 3.1 — GDP per inhabitant (in PPS) 2002, NUTS 2 level, in % of EU-25 average (EU-25=100)



population and GDP of these areas are growing faster than the national average. By contrast, there is no longer any evidence of such a clear trend in the EU-15 Member States.

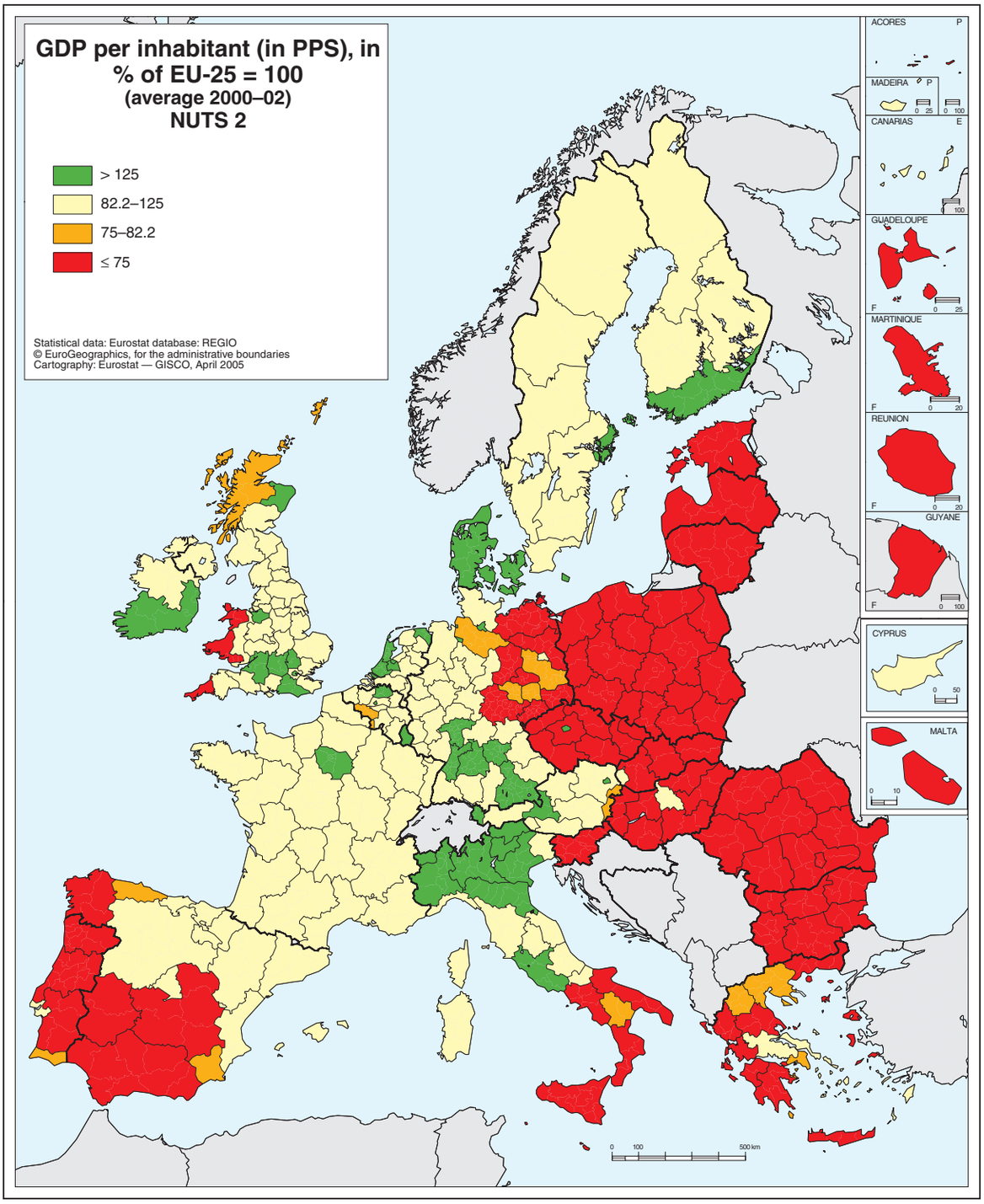
Three-year average for GDP from 2000–02

Map 3.2 gives an overview of the average level of per capita GDP (in PPS) for the years 2000 to 2002. Three-year averages are of particular importance because they are used in deciding which regions are to receive EU funding under the Structural Funds during the 2007–13 programming period. The so-called 'less-developed regions', whose three-year average for per capita GDP is below 75 % of the EU-25 level, are clearly concentrated in the new Member States and on the southern periphery of the EU.

According to the data available in April 2005, 84 of the 268 regions examined here lay below the decisive threshold of 75 % of the EU-25 average which is used to determine eligibility. In addition to the regions in the new Member States, Bulgaria and Romania which, with the exception of

Prague in the Czech Republic, Bratislavský kraj (Slovakia), Közép-Magyarország (Hungary) and Cyprus, all fall below the 75 % threshold, these regions are mainly found in eastern Germany, Greece, southern Italy, southern Spain, Portugal and, to a lesser extent, in the west of the United Kingdom.

There is a second group of regions which is of particular importance in the context of EU structural policy, because their per capita GDP is less than 75 % of the EU-15 average, but over 75 % of the EU-25 average. These regions are called 'statistical effect regions' in regional policy discussions and are therefore shown as a separate category in



Map 3.2

Map 3.2 (75-82.2 % of the EU-25 average). There are 16 of these in total, most of which are in Spain, Greece and Germany.

Map 3.2 shows not just the economically weaker regions but also the particularly prosperous parts of the EU whose three-year average per capita GDP (in PPS) is over 125 % of the EU-25 average. These cover 39 NUTS 2 regions distributed across a whole range of Member States. Contrary to a widely held belief, these particularly prosperous regions are by no means all to be found at the heart of the EU, as can be seen from examples such as Etelä-Suomi (Finland), north-eastern Scotland (United Kingdom) or Southern and Eastern (Ireland). It is, however, true that this group contains many capital cities, this being the case in particular for London, Dublin, Brussels, Paris, Stockholm, Helsinki, Prague and Rome.

Dynamic development in peripheral regions

Map 3.3 shows how much per capita GDP changed between 1999 and 2002 by comparison with the EU-25 average (expressed in percentage points of the EU-25 average). Economically dynamic regions, whose per capita GDP increased by more than 1 percentage point when compared with the average, are shown in orange and red. Less dynamic regions (those with a relative fall of more than 1 percentage point in per capita GDP as against the EU-25 average) are shown in yellow. Figures range from + 24.5 percentage points for Inner London in the United Kingdom to – 11.8 percentage points for Hannover in Germany.

The map shows that economic dynamism is well above average in the peripheral areas of the EU, in both the EU-15 countries and in the new Member States and candidate countries. Amongst the EU-15 Member States, strong growth is recorded especially in Greece, Spain, southern Portugal, Ireland, the United Kingdom and Finland. On the other hand, there seems to be confirmation of the worrying trend already revealed by previous data: persistent low growth in many key regions of the EU founding Member States, such as northern and southern Italy. There are currently only a few Dutch, Belgian and French regions, plus Luxembourg, unaffected by this trend.

Of the 10 most dynamic NUTS 2 regions, there are two each in Greece and the United Kingdom, and one each in the Czech Republic, Ireland, the Netherlands, Hungary, Slovakia and Romania. The fastest growing regions are therefore scattered relatively broadly across the 27 countries examined here. It should, however, be pointed out that six of these are capital regions (only two of which are in the EU-15 Member States). The trend in recent years has therefore led to a further concentration of economic development in capital cities. The trend in the Bucharest region (Romania) was particularly dramatic, with per capita GDP increasing by 17 percentage points against the EU-25 average between 1999 and 2002.

Above-average growth has also been recorded in many other regions of the new Member States and candidate countries, although it is well short of that seen in the capital cities. This is the case, for example, in Centru and Nord-Vest in Romania (+ 4.9 and + 4.3 percentage points), Észag-Alföld in Hungary (+ 4.1), Stredné Slovensko in Slovakia (+ 3.8) and Severozapaden in Bulgaria (+ 3.7). With the exception of the island States of Malta (– 4.4) and Cyprus (– 1.6) which were already relatively wealthy, the new Member States with national NUTS 2 or 3 regions also achieved above-average growth. This ranges from + 5.5 percentage points in Estonia or + 4.7 in Lithuania and Latvia down to + 1.4 in Slovenia. In the EU-15 Member States, particularly strong economic growth is recorded not just by Inner London, but also by Groningen in the Netherlands (+ 13.8 percentage points), Southern and Eastern in Ireland (+ 13.5), Voreio Aigaio in Greece (+ 13.0) and Surrey, East and West Sussex in the United Kingdom (+ 11.0).

A rather different picture emerges, however, when we look at the 30 regions across all 27 countries combined where the relative growth rates are strongest, as 24 of these are in the EU-15 Member States and just six in the new Member States and candidate countries. The main reason for this is ongoing dynamic growth in the United Kingdom and Greece, with the United Kingdom accounting for 12 and Greece for seven of these 30 regions.

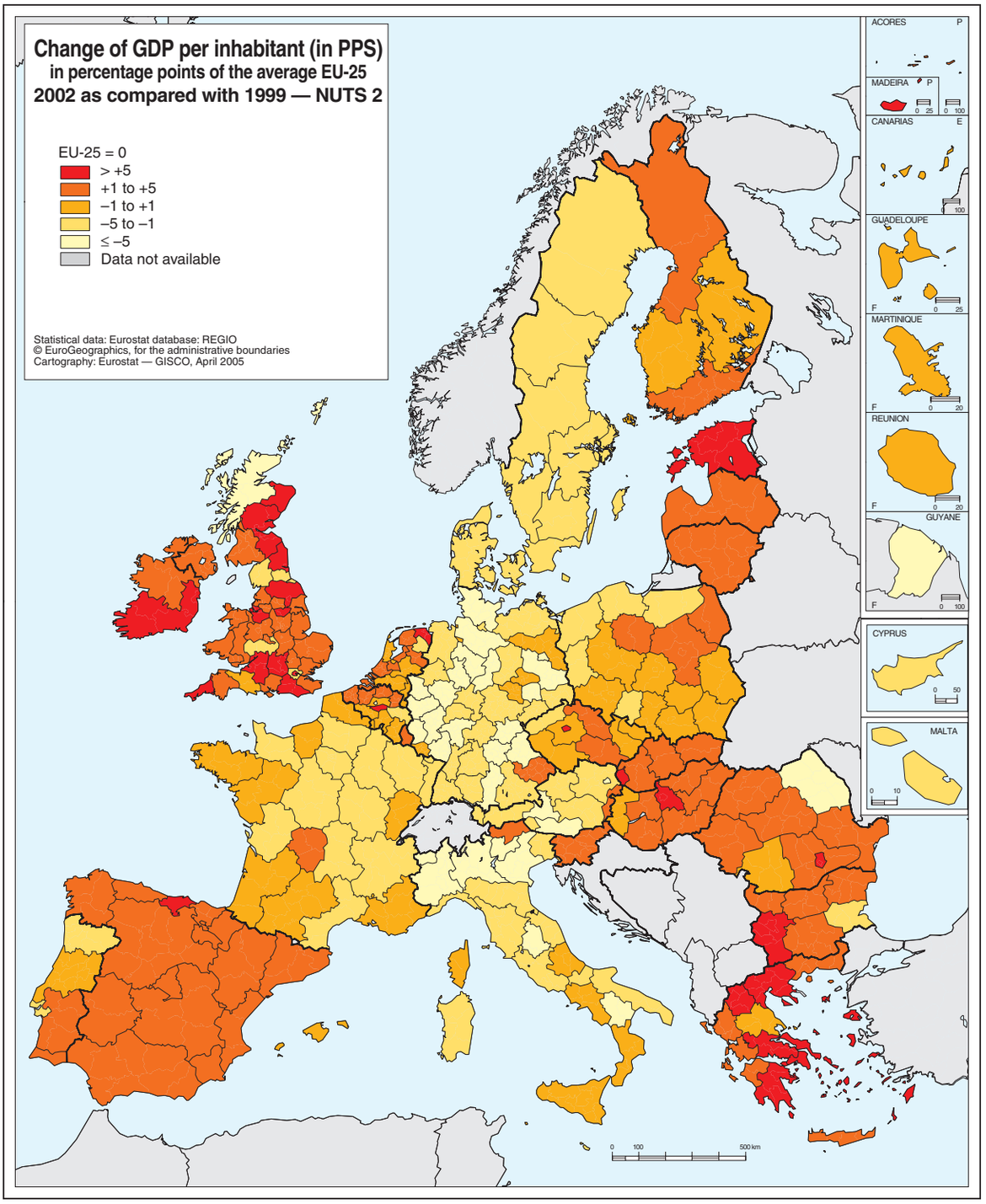
Whilst it must then be acknowledged that regions in the new Member States and candidate countries are relatively poorly represented amongst the 30 most dynamic regions, the bottom end of the

ranking presents a more welcome picture: not one of the regions in the new Member States and candidate countries is to be found among the 30 regions with the lowest growth rates.

Eight of the 10 regions at the foot of this ranking are in Germany, along with one each in Austria and Italy. The bottom 30 regions include 18 in Germany and six in Italy, providing a clear indicator of the relatively poor growth rates in these two founding members of the EU.

Summary

All in all, it can be seen that the catching-up process is still under way in most of the new



Map 3.3

Member States and candidate countries: of the 114 regions that have seen clearly above-average growth rates (> + 1 percentage point above the EU-25 average), 31 are to be found in these countries. On the other hand, only nine of the 103 regions with below-average growth rates (< – 1 percentage point) were from these countries. Taking all the new Member States together, between 1999 and 2002 they rose by just under 2 percentage points to 51.8 % of the EU-25 average.

An analysis of the individual countries shows that the dynamics of economic development between the regions in one country can diverge just as widely as between regions in different countries: between 1999 and 2002, per capita GDP (in PPS) in the most dynamic region of the United Kingdom (excluding London) increased by comparison to the EU-25 average by 17.8 more percentage points than in the weakest. For Romania, the corresponding figure was as high as 22.1 and for the Czech Republic 15.8 percentage points. At the opposite end of the scale lie Sweden with an interregional range of 2.6, Poland with 3.3 and Finland with 5.8 percentage points. The strong regional discrepancies in the new Member States and candidate countries are primarily caused by the particularly dynamic growth of their capital cities. On the other hand, there is also considerable divergence in the distribution of growth rates in some of the larger — but also the smaller — EU-15 Member States, but in most cases the capital regions exerted no significant influence on this trend.

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HOUSEHOLD ACCOUNTS

4

Introduction: Measuring wealth

One of the major aims of regional statistics is undoubtedly to measure regions' wealth. This is particularly interesting as a basis for policy measures to provide support for less well-off regions.

The indicator most frequently used to measure regions' wealth is regional gross domestic product (GDP). GDP is usually expressed in purchasing power standards (PPS) and per capita to make the data comparable between regions.

However, regional per capita GDP has some undesirable features as an indicator of wealth, one of which is that a 'place-of-work' figure (the GDP produced in the region) is divided by a 'place-of-residence' figure (the population living in the region). This inconsistency is of relevance wherever there are commuter flows — i.e. more or fewer people working in a region than living in it. The most obvious example is the 'Inner London' region of the United Kingdom, which has by far the highest per capita GDP. Yet this by no means translates into a correspondingly high income level for the inhabitants of the same region, as thousands of commuters travel to London every day to work there but live in the neighbouring regions. Hamburg, Vienna, Luxembourg and Prague are other examples of this phenomenon.

Apart from the commuter flows, other factors can also cause the regional distribution of actual wealth not to correspond to GDP distribution. These include, for example, income from rent, interest or dividends received by the residents of a certain region, but paid by residents in other regions. It is therefore useful to compare the regional GDP with the regional distribution of household income.

Private household income

In market economies with State redistribution mechanisms, a distinction is made between two types of private-household income distribution.

The primary distribution of income indicates the income of private households generated directly from market transactions, i.e. the purchase and sale of the factors of production and goods. These include, in particular, the compensation of employees. Private households can also receive property income, e.g. in the form of interest or rent. Finally, there is also income in the form of an operating surplus or self-employment income. Any interest or rent payable by the households is recorded as a negative item. The balance of all these transactions is termed the primary income of private households.

The primary income is the point of departure for the secondary distribution of income, which denotes the State redistribution mechanism. All social benefits and transfers other than in kind received by the households are now added to primary income. On the negative side, households must use their income to pay taxes on income and wealth, pay their social contributions and effect transfers. The sum remaining after these transactions have been carried out, i.e. the balance, is called the disposable income of private households.

The measurement unit for regional comparisons

When analysing household income, we first need to decide which unit of measurement to use for the data to ensure that comparisons are meaningful.

For the purposes of making comparisons between regions, regional GDP is generally expressed in purchasing power standards (PPS) so that volume comparisons can be made. The same process should therefore be applied to the private household income parameters, so that these can then be compared with regional GDP and with each other.

However, there is a problem with this. PPS are designed to apply to GDP as a whole. The calculations use the expenditure approach and PPS are subdivided only on the expenditure side.

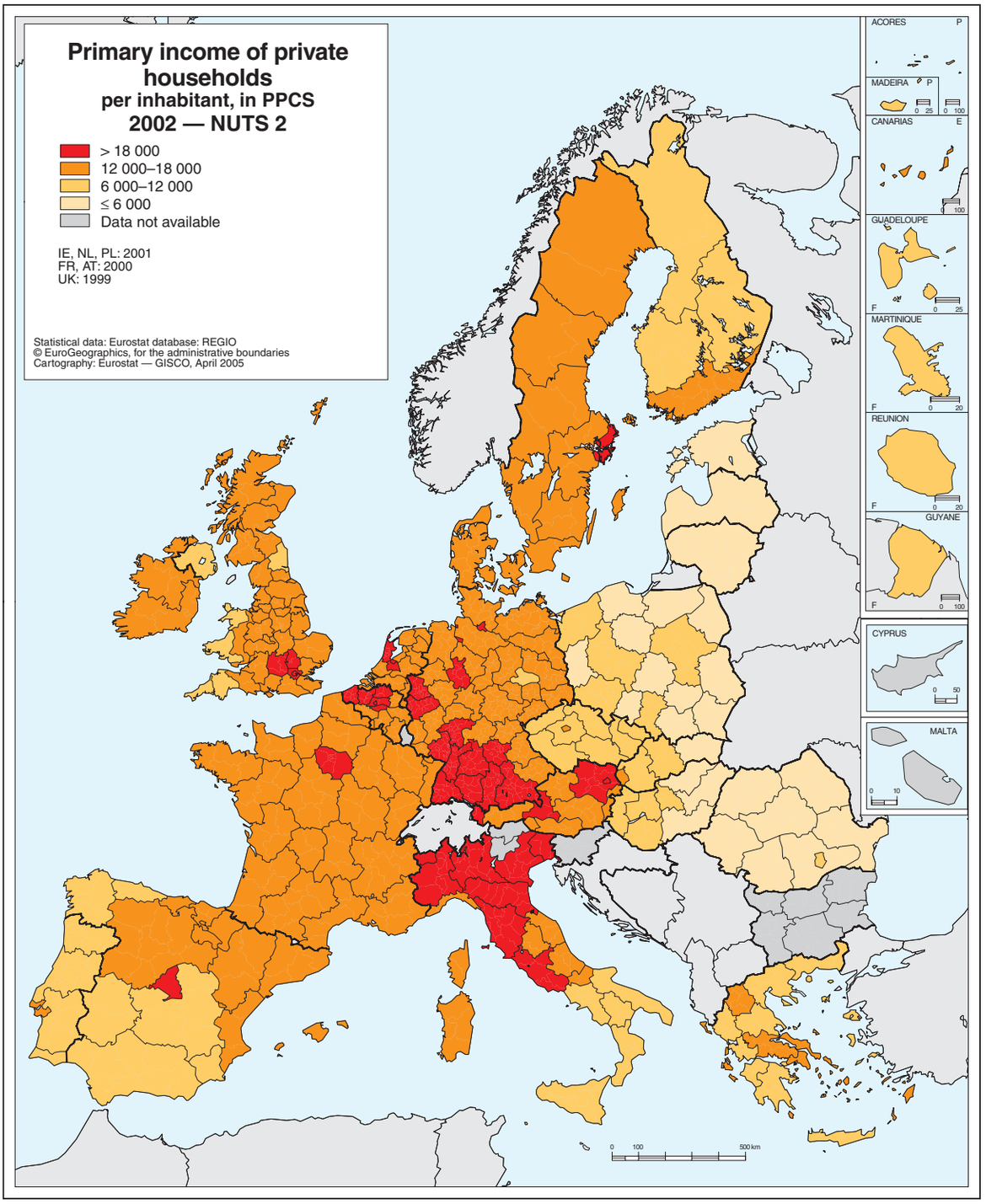
In regional accounts, on the other hand, the expenditure approach cannot be used, as this would require data on regional import and export flows. These data are not available at regional level, so regional accounts are only calculated from the output side. This means that there is no exact correspondence between the income parameters and the PPS. PPS only exist for private consumption.

Eurostat assumes that these conceptual differences are of little importance and converts the income parameters of private households by means of the consumer components of PPS into PPCS (purchasing power consumption standards).

Results for 2002

It is only in recent years that Eurostat has had data for these income categories of private households. The data are collected in the regional accounts for NUTS 2 level. Derogations still apply to several Member States, allowing their data to be submitted to Eurostat later than the 24 months after the end of the reference year stipulated in the regulation; other Member States have not always respected the deadline laid down in the regulation.

There are still no data available for the following regions: Provincia Autonoma Bolzano and Provincia Autonoma Trento in Italy, Cyprus, Luxembourg, Malta, Slovenia and Bulgaria. Values for the EU-25 in this field of the regional accounts consequently remain unavailable. This chapter therefore relates to the other 21 Member States and Romania.

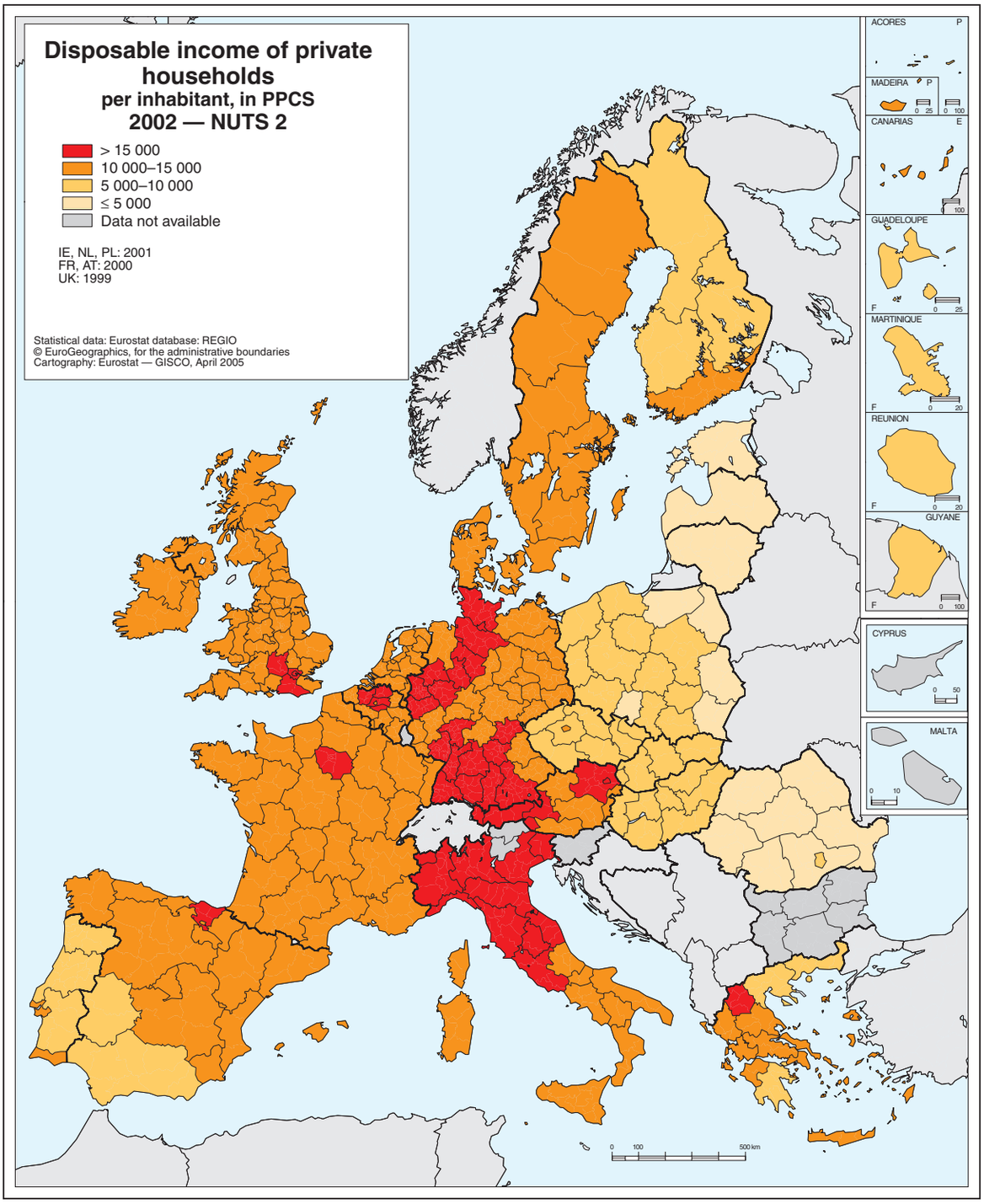


Map 4.1

Primary income and disposable income

Map 4.1 gives an overview of primary income in the NUTS 2 regions of the 22 countries examined here. Centres of wealth in southern England, Paris, northern Italy, Vienna, Madrid, Flanders, the western Netherlands, Stockholm and Nordrhein-Westfalen, Baden-Württemberg and Bayern are clearly evident. There is also a clear north-south divide in Italy and a west-east divide in Germany, while the regional distribution is relatively homogeneous in France.

In the new Member States, however, household primary income lies considerably below the EU average. The regions with clearly above-average levels of wealth are mainly capital regions,



Map 4.2

particularly Prague, Bratislava, Közép-Magyarország (Hungary), Mazowieckie (Poland) and Bucureşti (Romania). Furthermore, the eastern peripheral regions of the new Member States are clearly even further behind the respective national level.

The regional values range from PPCS 2 693 per capita in north-east Romania to PPCS 24 082 in the Belgian region of Vlaams-Brabant.

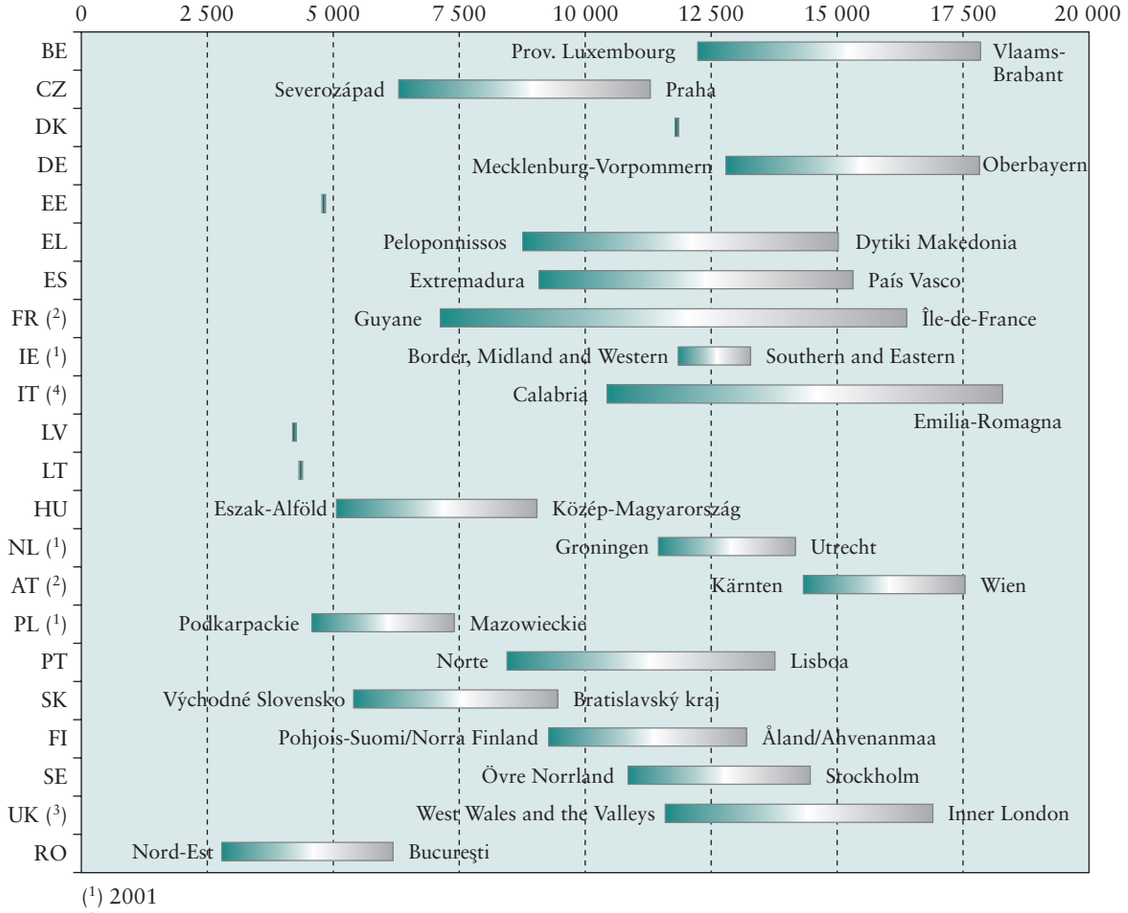
A comparison of primary income with disposable income (Map 4.2) shows the levelling influence of State intervention. It visibly increases the relative income level in several Greek regions, southern Italy, central and northern Spain, the west and north of the United Kingdom and in parts of eastern Germany. State activity moves several regions in northern and western Germany up to the same class as the south-west of the country.

Similar effects can be observed in the new Member States, particularly in Hungary, Slovakia and central and western Poland. However, State intervention does not suffice to bring the disposable income in the eastern Polish provinces up to a level that would be comparable with that of the rest of the country.

In spite of State redistribution, most capital regions maintain their prominent position with the highest disposable income for the country in question, both in the EU-15 and in the new Member States and Romania.

The regional values range from PPCS 2 826 per capita in the north-east of Romania to PPCS 18 332 in the Italian region of Emilia-Romagna. State activity lessens the difference between the highest and the lowest value significantly from a factor of 8.9 to about 6.5.

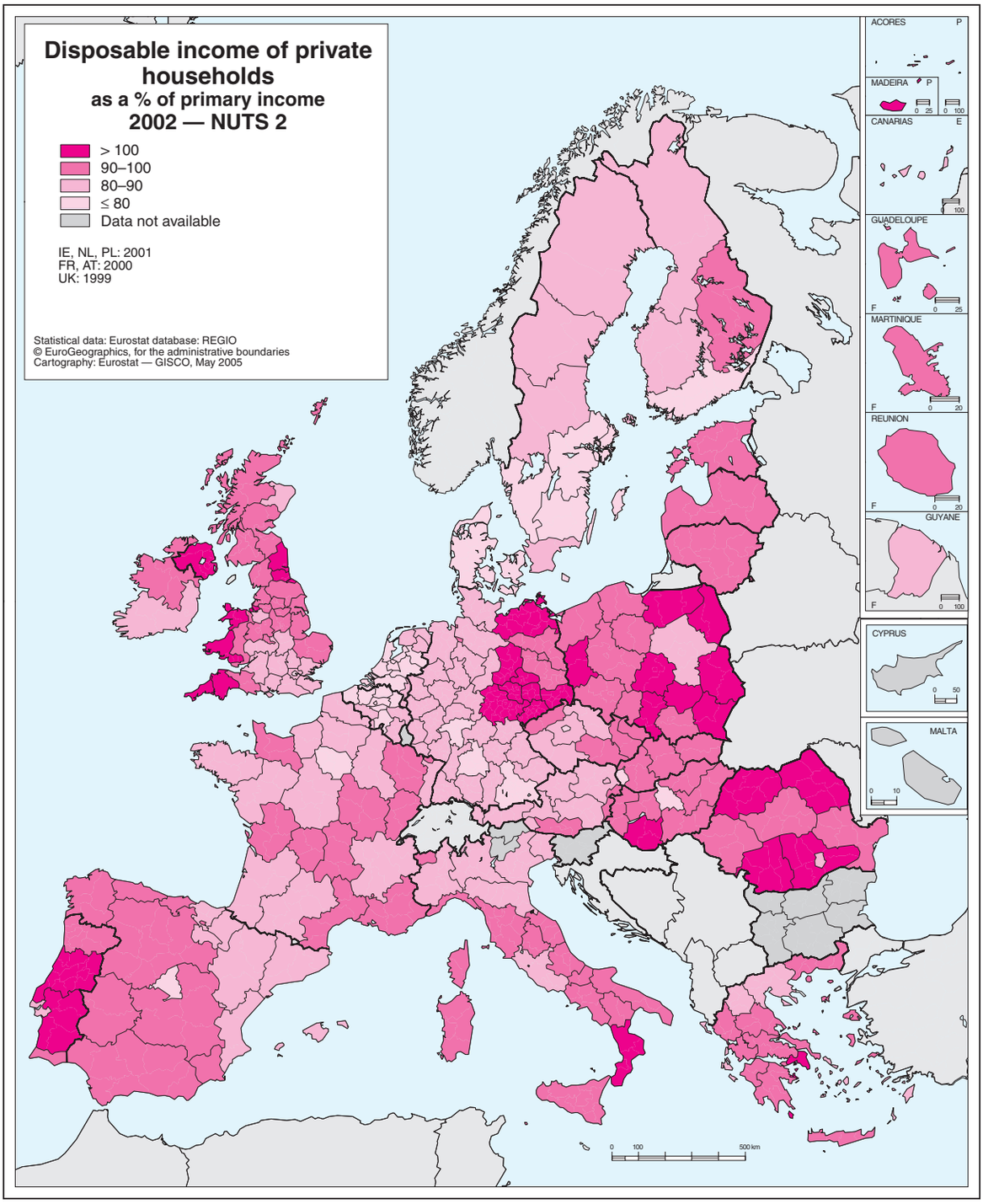
Graph 4.1 — Disposable income of private households per inhabitant (in PPCS) 2002, NUTS 2



(1) 2001
(2) 2000
(3) 1999
(4) without Bolzano and Trento

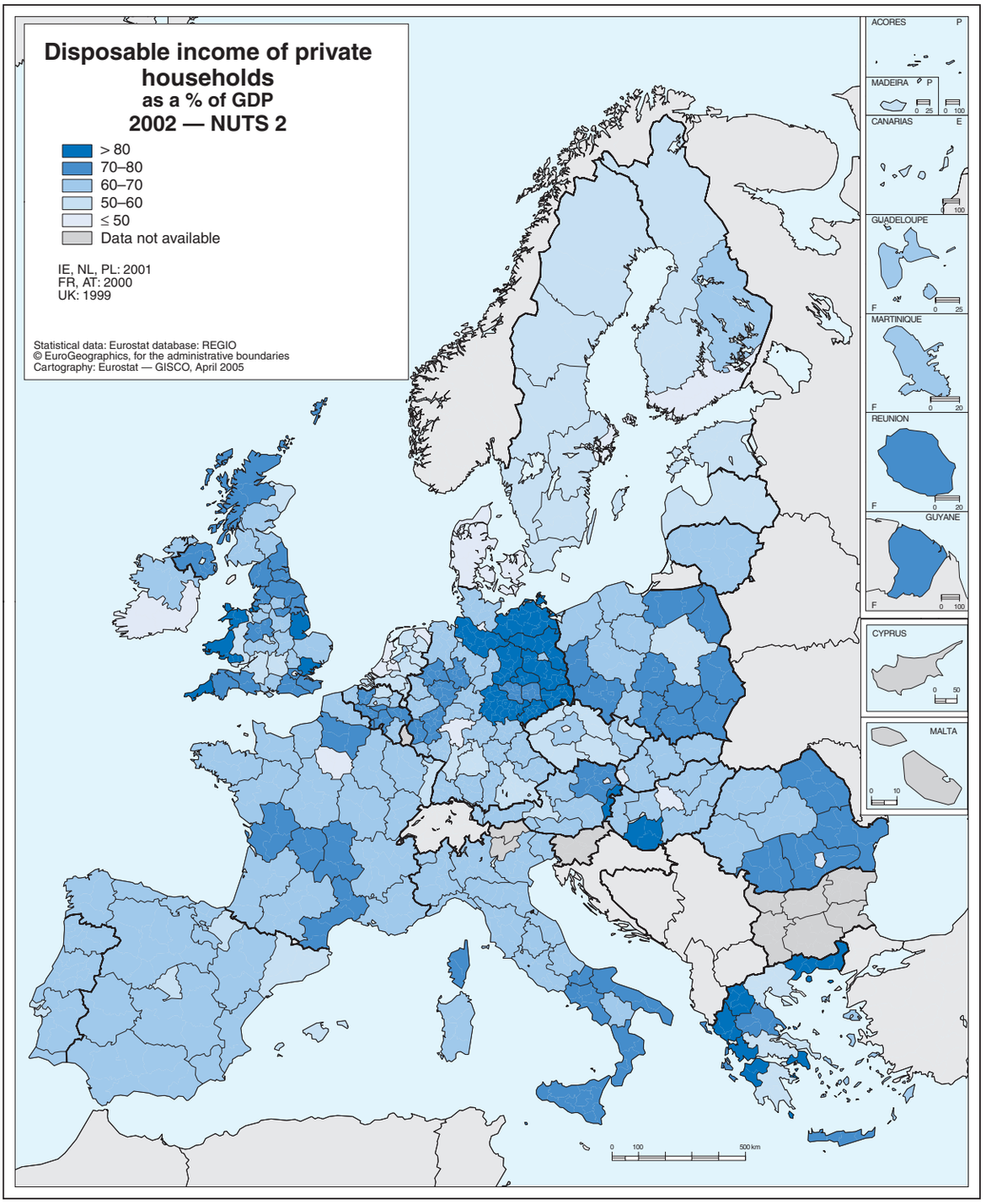
Figure 4.1 shows the range of disposable income per capita and the names of the regions with the highest and the lowest value for each country.

Map 4.3 presents the relationship between disposable and primary income. This quotient provides an idea of the effects of State activity and of other transfer payments. First of all, substantial differences between the regions of the EU-15 are evident: the disposable income in the capital cities and other prosperous regions is almost without exception below 80 % of primary income. Correspondingly high percentages can be observed in the less economically developed areas, above all on the southern periphery of the EU, in the west of the United Kingdom and in eastern Germany. Low percentages are obvious above all in the capital regions of the new Member States and Romania; the regional redistribution pattern there is thus similar to that in the EU-15.



Map 4.3

In both the new Member States and the old EU-15, there are a number of regions in which disposable income exceeds primary income. For example, this is the case in eight of the 16 Polish provinces and in four of the eight Romanian regions, and also in eight eastern German, seven British and three Portuguese regions. In Greece, Italy and Hungary, several regions have values of over 100 %. When interpreting these results, however, consideration should be given to the fact that not only monetary social benefits from the State but also other transfer payments (e.g. transfers from people temporarily working elsewhere, which could play an important role in Poland, Portugal and Romania, for instance) may cause disposable income to exceed primary income. Map 4.3 clearly shows that this is frequently the case in the less prosperous regions of the countries in question.



Map 4.4

Income and GDP

Calculating disposable income as a proportion of GDP gives an idea of the proportion of GDP produced in a region that is actually received as income by the population living there.

First of all, the proportion of disposable income in countries with a traditionally high level of State activity can be seen to be relatively low. It is obvious here that the State collects a large amount of the GDP in order to distribute it later in the form of monetary transfers or benefits in kind.

In almost all countries, it can be noted that the economically prosperous regions must cede some of the GDP that they have generated for the benefit of less developed regions, both in the EU-15 and in the new Member States and Romania. Map 4.4 shows this phenomenon in, for example, southern Italy, the north-east of Greece, eastern Germany, the west and north of the United Kingdom and also in eastern and southern Poland.

In most capital regions, disposable income as a proportion of GDP is particularly low. However, care must be taken when interpreting these results in more narrowly defined capital regions such as Inner London, Prague or Bucureşti, as cross-regional commuters undermine the accuracy of this quotient, even though the results for more broadly defined capital regions such as Madrid, Paris, Etelä-Suomi (Finland) or Mazowieckie (Poland) point in the same direction. For large sections of the EU and Romania, Map 4.4 is virtually a mirror image of Map 3.1 (gross domestic product per capita) and thus emphasises the considerable influence of the State on the actual regional distribution of income.

Income and direct taxation

The State intervenes in income distribution not only through monetary social transfers but first and foremost by taxing income and assets. There are characteristic differences between the countries studied here in terms of both the amount and the regional distribution of these taxes. While in Denmark they represent around 45 % and in Finland and Sweden around 25 % of primary income, they amount to between 10 and 20 % in most of the other EU-15 Member States. In general, the proportion of direct taxation in the new Member States and Romania is considerably lower than in the EU-15, the lowest levels being about 5 % in Romania and almost 7 % in Slovakia.

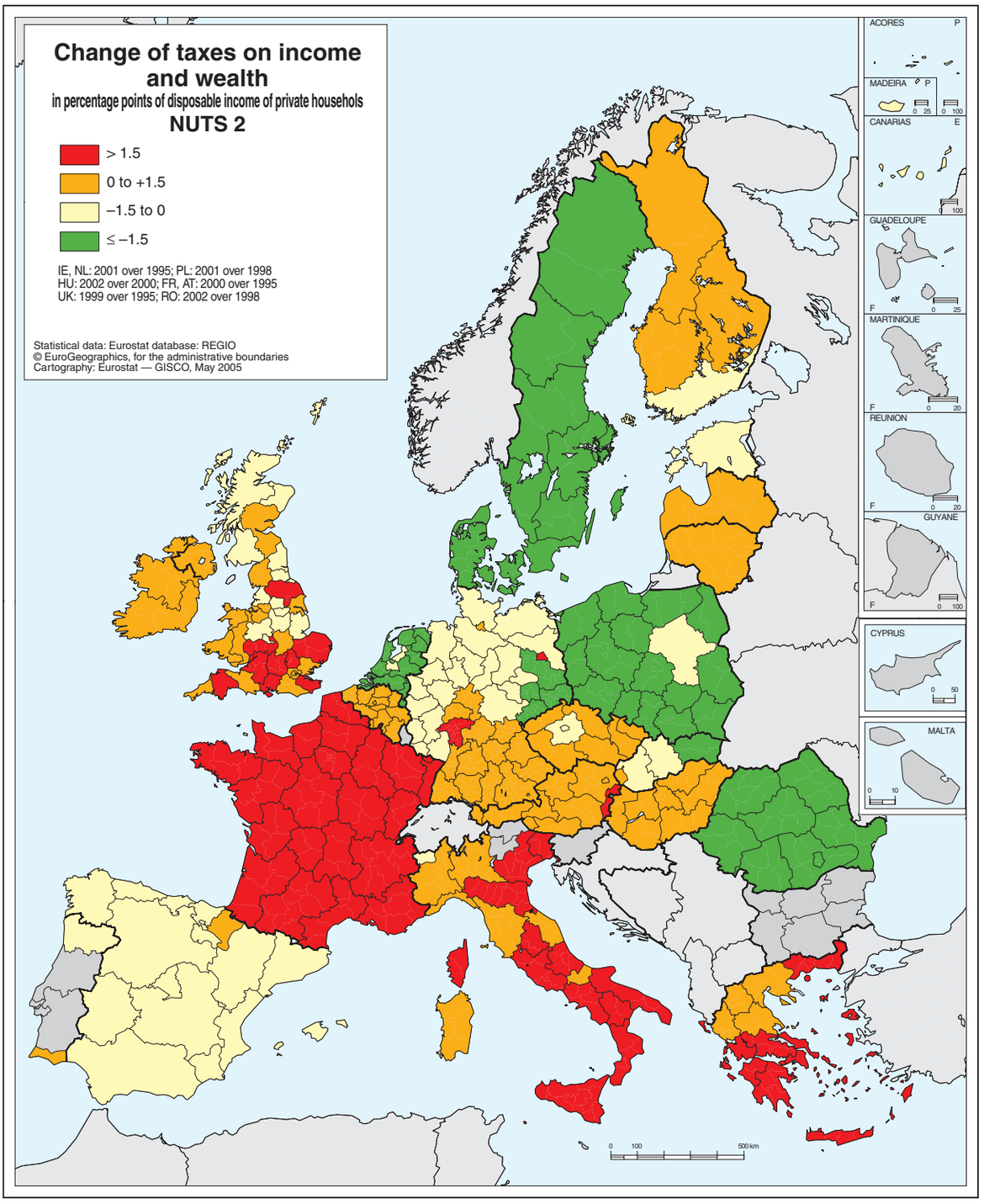
While a comparison of levels of direct taxation is not very meaningful due to the typical differences in the Member States' fiscal structures, much more interesting results can be obtained by observing the development of the rate of direct taxation. Map 4.5 shows the trend in direct taxation rates over a longer time period (according to data availability between 1995 and 2002). Regions in which the tax burden increased are marked in red and orange, and those in which the tax rate fell in yellow and green.

The direct tax burden on private households has obviously developed in very different ways in some of the regions of the countries examined. In spite of the sometimes still limited data availability, it can be concluded that more regions saw an increase in the tax burden (137) than a decrease (111). This conclusion is confirmed when the study is narrowed down to the regions that underwent more dramatic changes. In a total of 54 regions, an increase of over 1.5 percentage points can be observed, whereas only 46 regions experienced a decrease of more than – 1.5 percentage points.

Moreover, some countries present an entirely uniform image, while in others the trend varies from region to region. For instance, the direct tax burden on private households clearly increased in Belgium, Greece, France, Ireland, Italy, Hungary and Austria. In contrast, it decreased in Denmark, Spain, the Netherlands, Romania, and especially in Sweden and Poland. In a third group, particularly in Germany, Italy, Portugal, Finland and the United Kingdom, an increasing tax burden in economically strong regions and a decreasing tax burden in economically weak regions can be observed. This demonstrates that the generally progressive income tax rates in these countries led to a regional redistribution from the more prosperous to the weaker regions.

Summary

The regional distribution of household income broadly resembles the distribution of regional



Map 4.5

GDP, but differs from it in a number of NUTS 2 regions. This is mainly the result of State activity in the form of monetary social transfers and the levying of direct taxes, which levels out the disparities between regions. In some cases, other transfer payments and types of income received by private households from outside their region can also play an important role.

Taken together, State intervention and other exceptional items of income bring the range of available income between the most prosperous and the economically weakest regions to a factor of about 6.5:1, whereas the two extreme values for regional per capita GDP differ by a factor of up to 15:1. Information on the income of private households as an addition to that on GDP can therefore

provide an important input into a realistic assessment of the economic wealth of the regions. Therefore, once a complete record is available, the income statistics for private households should be taken into account in the decision-making process for regional policy, alongside statistics on GDP.

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REGIONAL LABOUR MARKET

5

Introduction

Regional labour market statistics play a key role in the measurement of the economic and social performance of European regions. Therefore, we once again devote a chapter of this yearbook to this crucial aspect of regional statistics. Eurostat provides regional labour market information, down to NUTS 3 level, on the economically active population, employment and unemployment, as well as regional socio-demographic labour force characteristics. All the data can be found on the Eurostat website.

As you will see, there is no uniform pattern concerning regional employment and unemployment, in spite of the similarities that exist between certain regions of different countries. The rich data set available at Eurostat allows further detailed analysis of this interesting field.

Data sources

Down to NUTS 2 level, the source of the data provided by Eurostat is the EU labour force survey (LFS) with harmonised definitions and methods for all EU and candidate countries. The LFS is widely recognised as a primary tool for studying the labour market and provides comparable results. The LFS also represents the main data source for this chapter.

In the case of two German regions (Brandenburg-Nordost and Brandenburg-Südwest), micro-census data were used, as the LFS data for them were unavailable. Hereafter, regions mentioned in this chapter refer to NUTS 2 level regions in the EU-25 or the corresponding level 2 regions in the candidate countries. Even though the new Member States did not join the EU until 1 May 2004, their regions are referred to as EU regions in this chapter describing the regional EU labour market in 2003. Bulgaria and Romania are referred to here as candidate countries in 2003.

There is a break in the time series in 2003 for France, Ireland and Luxembourg due to the different reference period used for the 2002 and 2003 data — first-quarter data (France) and second-quarter data (Ireland and Luxembourg) are used for 2002, and annual average data for 2003 (for all three countries). Similarly, the data on Romania for 2002 and 2003 are not comparable as the new weightings from the last census were applied for the 2003 data and the 2002 data have not yet been recalculated. France, Ireland, Luxembourg and Romania have therefore not been taken into consideration when referring to development between 2002 and 2003.

Definitions

Population covers persons aged 15 and over, living in private households (population living in collective households are not included). This comprises all persons living in the households surveyed during the reference week. This definition also includes persons absent from the households for short periods (but having retained a link with the private household) owing to studies, holidays, illness, business trips, etc. Persons on compulsory military service are not included.

Employed persons are all persons aged 15 and over who during the reference week worked at least one hour for pay or profit or were temporarily absent from such work. Employed persons comprise employees, self-employed and family workers.

Employment rates of the age group 15–64 refer to employed persons aged 15–64 as a percentage of the population of the same age group.

Self-employed persons are persons who work in their own business, farm or professional practice for the purpose of earning a profit.

Unemployed persons comprise persons aged 15–74 who were (all three conditions must be fulfilled simultaneously):

1. without work during the reference week;
2. available for work at the time (i.e. were available for paid employment or self-employment before the end of the two weeks following the reference week);
3. actively seeking work (i.e. had taken specific steps in the four-week period ending with the reference week to seek paid employment or self-employment) or who found a job to start within a period of, at most, three months.

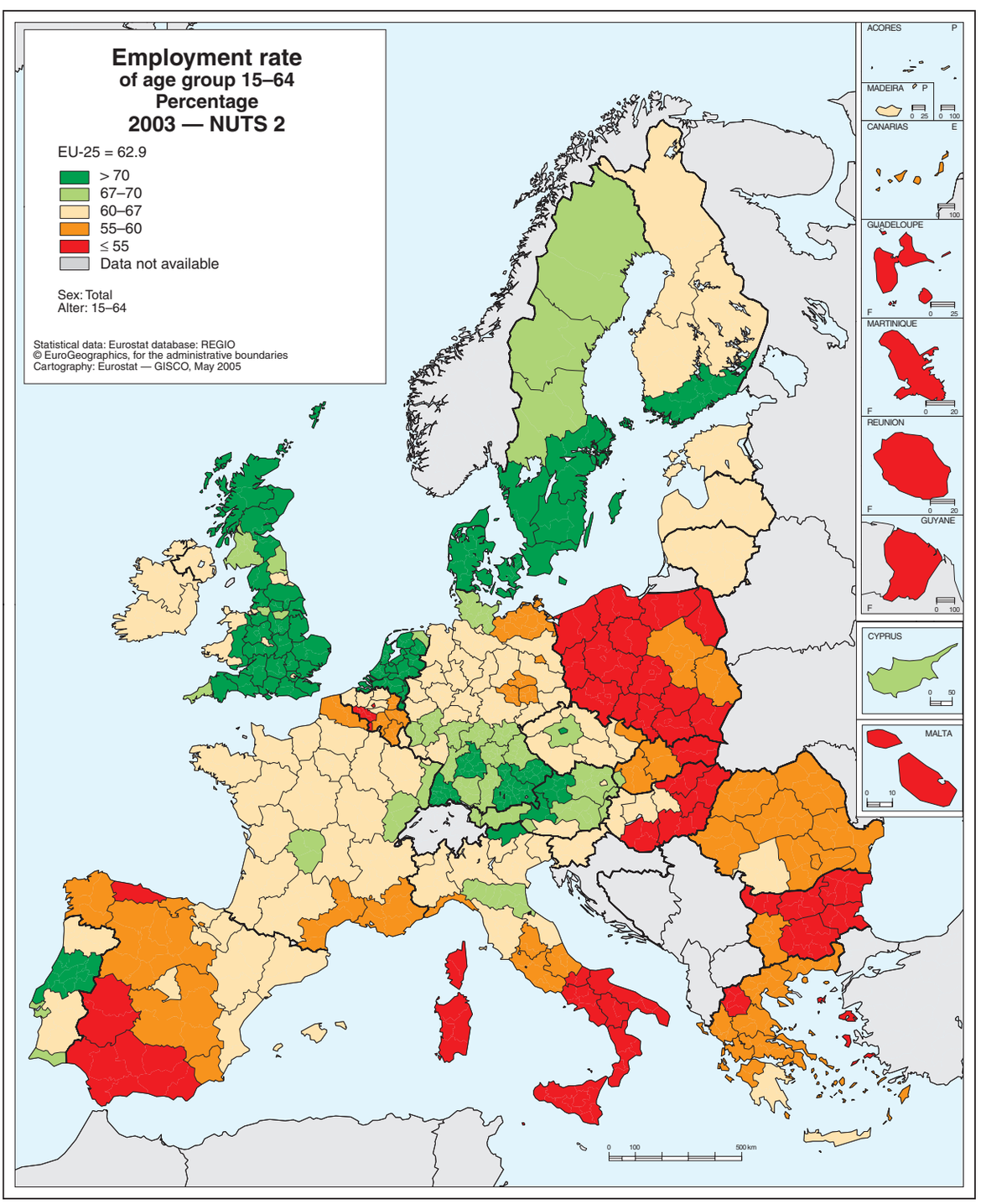
Unemployment rate represents unemployed persons as a percentage of the economically active population (i.e. employed plus unemployed).

More detailed information can be found in the metadata files on the Eurostat website.

Employment

The employment rate of the 15–64 age group represents one of the key indicators of the Lisbon strategy (Lisbon Summit, spring 2000). Targets for 2010 were set for a total employment rate of 70 % for the 15–64 age group and 60 % for women in the same age group. The Stockholm European Council added in March 2001 intermediate objectives for 2005: 67 % for total employment and 57 % for female employment.

Of the countries that comprise the EU today, only eight had an employment rate above 67 % for the 15–64 age group in 2003. They were Denmark, the Netherlands, Sweden, the United Kingdom, Austria, Portugal, Finland and Cyprus. In the case of the first four, the figure was above 70 %. Regional information provides a more



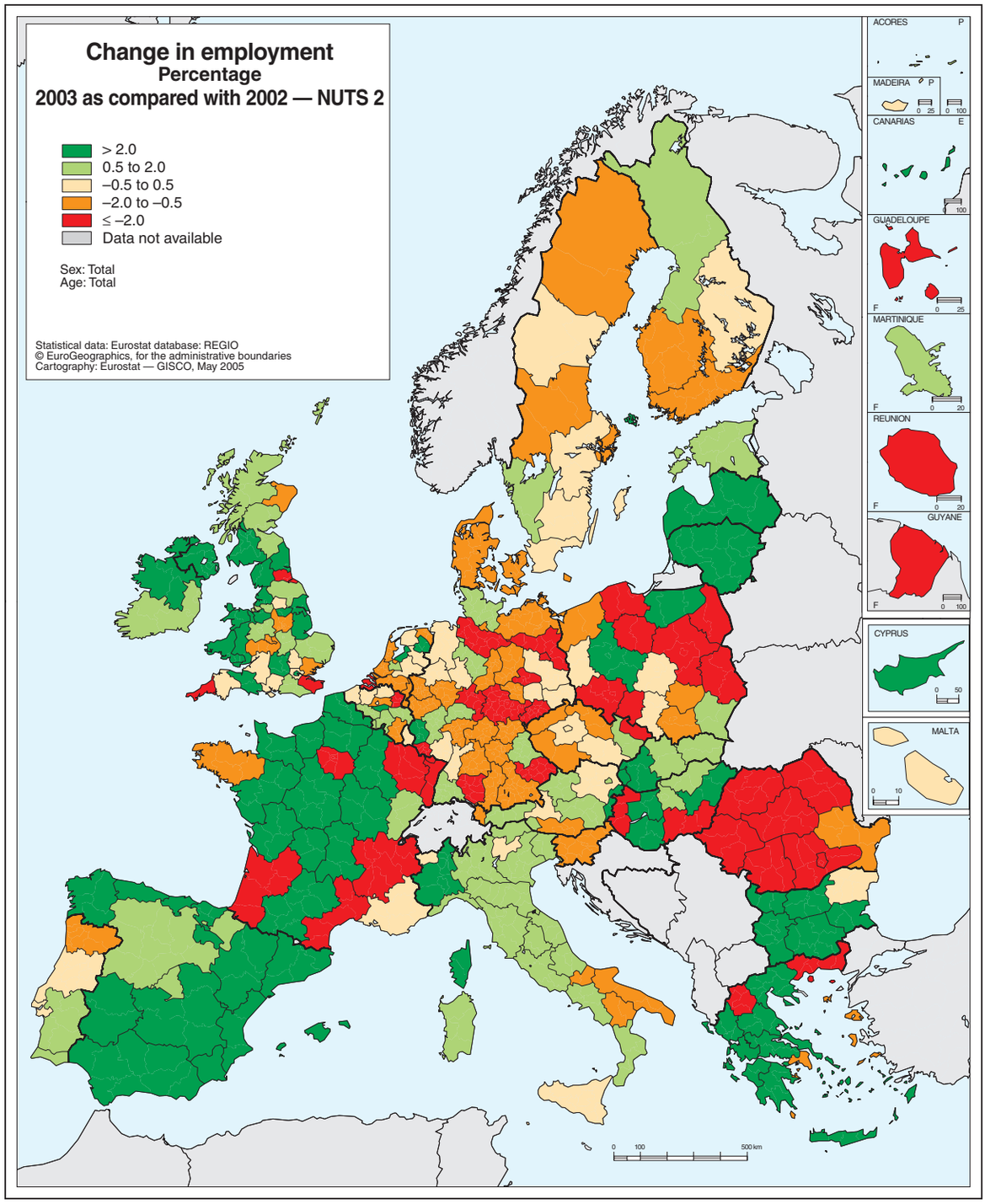
Map 5.1

detailed picture of the labour market situation in different countries.

In only six EU-25 countries did the majority of regions exceed 67 % employment in 2003: Austria (seven out of the nine regions above 67 %), the Netherlands (all regions above 70 % apart from Groningen in the north-east: 69.0 %), Sweden (three regions above 67 % and the remaining five above 70 %), the United Kingdom (five regions between 67 and 70 %, 26 above 70 % and only six regions below 67 %). This was also the case for Denmark (75 %) and Cyprus (69 %), each of which comprises a single NUTS 2 region.

In 88 regions (out of the 254 regions studied) with employment rate above 67 %:

- The highest growth in total employment (persons aged 15 and over) was observed in the



Map 5.2

northern Dutch region of Flevoland (5.6 % or 9 900 employed persons), the two UK regions of Cumbria (5.7 % or 12 300 employed persons) and East Wales (7.7 % or 38 900 employed persons) and Cyprus (3.7 % or 11 800 employed persons) (Map 5.2).

- On the other hand, the strongest decline in total employment was recorded in the south-eastern UK region of Kent (4.9 % or 37 500 employed persons) and the south-western Dutch region of Zeeland (3.4 % or 6 200 employed persons).
- Commuters (employed persons working and living in different regions) as a percentage of all those in employment exceeded 10 % in 37 regions (20 regions in the United Kingdom, seven in the Netherlands, two in Austria, four in Germany and one each in France and the Czech Republic), while the figure was below 10 % in 42 regions.
- The average figure for self-employed persons as a percentage of all those in employment was 12 %.
- The vast majority of employed persons worked in services: over 70 % in most regions.

Employment rates below 60 % (for 77 EU-25 regions) were observed in six of 11 Belgian regions, 11 of 19 Spanish regions, 11 of 13 Greek regions, 11 of 21 Italian regions, eight of 26 French regions, all Polish regions, one Czech region (Moravskoslezsko), three of four Slovak regions, four of seven Hungarian regions and in Malta. Characteristics of these regions are as follows.

- Economic activity rate below 67 %, except for regions in Germany, Slovakia, the Czech Republic and most regions in Greece.
- Services as a share of total employment varied significantly from country to country: from 42.6 % in the south-eastern Polish region of Podkarpackie to 91.2 % in the Spanish extra-continental region of Ciudad Autónoma de Melilla.
- Commuters as a percentage of all those in employment exceeded 5 % in only a few cases, but the figure for Belgium was 25 %.
- Most regions showed a downward trend (up to 3 %) in the number of self-employed persons as a percentage of all those in employment.
- In spite of a low employment rate there was a markedly upward trend in total employment between 2002 and 2003 in three Greek regions: Ionia Nisia in the west (17.2 % or 10 900 employed persons), Sterea Ellada in the central mainland (14.0 % or 24 800 employed persons) and Notio Aigaio in the south-east (11.3 % or 11 400 employed persons). The highest decreases in total employment occurred in two Polish regions: Opolskie (6.7 % or 23 000 employed persons) in the south and Podlaskie (4.6 % or 20 400 employed persons) in the north-east.

In the candidate countries studied, the employment rate of the 15–64 age group in Bulgaria varied from 46.4 % in Severozapaden (north-west) to 57.6 % in Yugozapaden (south-west), while in Romania it was between 55.0 % for Centru and 61.8 % for Sud-Vest.

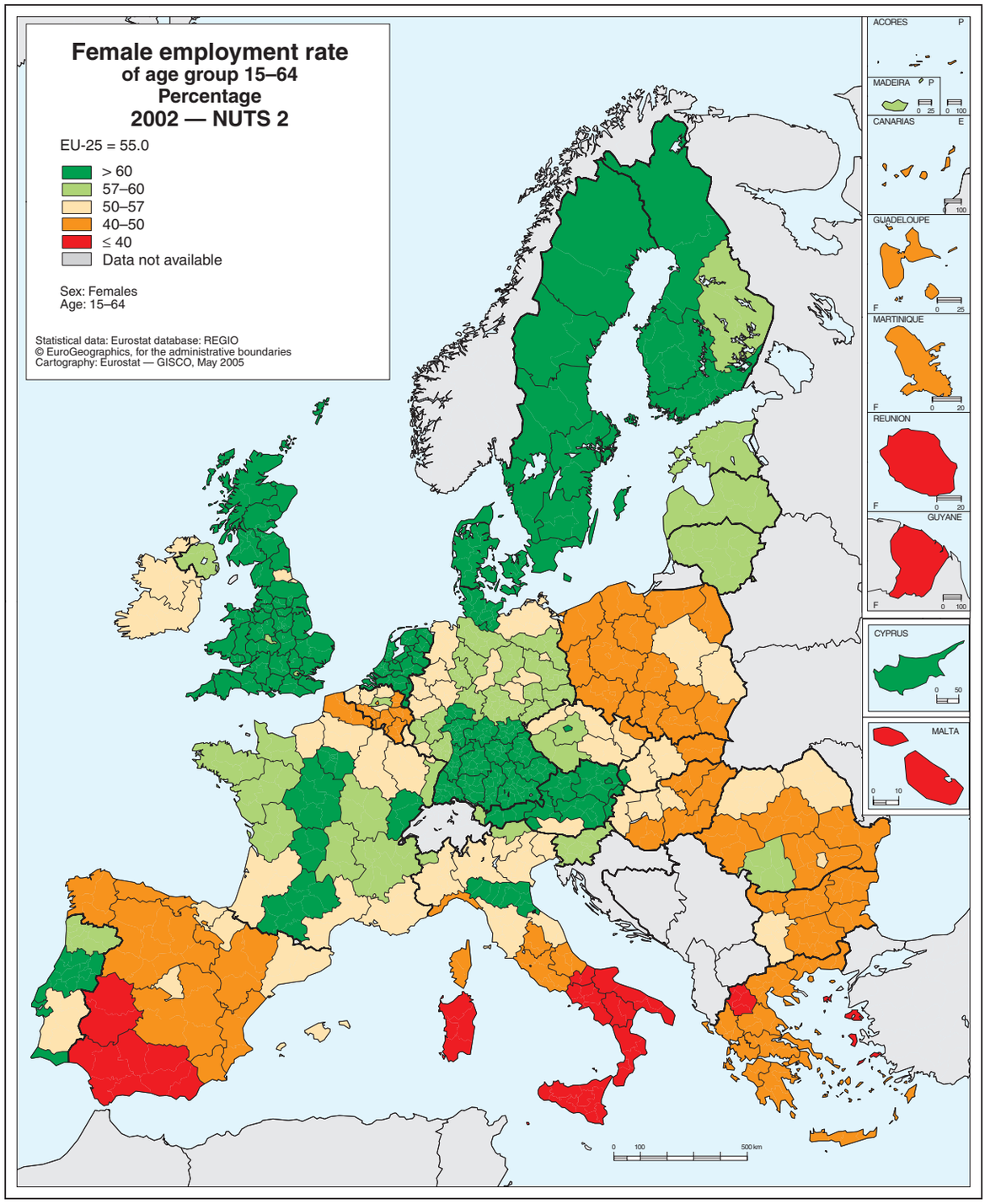
In Bulgaria, every region showed an upward trend in the employment rate, most notably Yugoiztochen in the south-east (3.1 percentage points in conjunction with a 6.0 % increase in total employment — 15 500 employed persons), the south-central region of Yuzhen tsentralen (2.8 percentage points with a 5.2 % increase in total employment — 34 600 employed persons including 6 400 self-employed) and Severozapaden in the north-west (2.7 percentage points and 11.2 % — 14 200 employed persons). However, the economic activity rate, which varied from 55.7 % in the north-western region of Severozapaden to 65.0 % in the south-western region of Yugozapaden, decreased in all but one Bulgarian region, with the biggest decline occurring in Severozapaden (4.4 percentage points). The figure for commuters as a percentage of all those in employment was below 3 % in Bulgaria in 2003.

In Romania, the economic activity rate ranged from 59.4 % in Centru to 66.2 % in Sud-Vest in 2003. All of the country's regions, except for the capital region of Bucureşti, are distinctive, with very high employment in agriculture: from 25.4 % in Centru to 51.5 % in Nord-Est.

Female employment

As can be seen in Map 5.3, the best results in 2003 with regard to the Lisbon strategy for female employment (57 % in 2005 and 60 % in 2010) occurred in the Netherlands (65.8 %, with every region above 60 %), the United Kingdom (65.3 %, with only one region below 57 %, four

between 57 and 60 % and 33 above 60 %), Sweden (71.5 %, with regional figures ranging between 67.1 and 76.1 %), Portugal (61.4 %, with three regions above 60 %, although the extra-continental region of Região Autónoma dos Açores was an exception at 46.1 %), Austria (61.7 %, with every region above 57 % apart from Kärnten (56.6 %) in the south and five regions above 60 %), Finland (65.7 %, with four out of five regions exceeding 60 %). The figures were also good in the majority of German and French continental regions, as well as in Cyprus (60.2 %), Denmark (70.5 %), Latvia (57.9 %), Lithuania (58.4 %), Estonia (59.0 %) and Slovenia (57.6 %), each of which comprises a single NUTS 2 region. On the other hand, Italy (with five regions below 30 %), Greece, Spain, Poland, Hungary and Belgium had the most regions where female employment rates were below 50 % in 2003.



Map 5.3

The female employment rate exceeded 57 % in 131 regions in the EU-25. In most of these regions the economic activity rate for women aged 15–64 was above 65 %, and even above 70 % in Sweden, the United Kingdom, Denmark and Finland. With regard to the educational level of the female population aged 25–64, in all of these regions where the female employment rate was high — apart from the Finnish region of Åland and five regions in Portugal — the percentage of women with an intermediate level of education was more than 40 % of all women in employment. The biggest growth in female employment in these regions was observed in the western UK regions of East Wales (13.1 % or 32 200 employed females) and West Wales and the Valleys (5.4 % or 19 500 employed females) and the northern Dutch region of Flevoland (8.6 % or 7 100 employed females), while the biggest decrease occurred in the central German region of Kassel (5.8 % or 13 300 employed females).

In regions where the female employment rate was below 50 % (72 regions out of 254 studied), the economic activity rate for women in 2003 was remarkably low in Italy and Spain (below 50 % in most regions) and was just over 60 % in only five regions (the north-eastern Czech region of Moravskoslezsko, the north-eastern Greek region of Anatoliki Makedonia, Thraki, the western Greek region of Ionia Nisia, the southern Polish region of Małopolskie and the eastern Slovak region of Východné Slovensko). The percentage of women aged 25–64 with an intermediate level of education, in relation to the total female population, was below 40 % in most regions, with the lowest figures occurring in Spain, Greece and Malta and one region in both Portugal (extra-continental region of Açores) and France (Corse in the south-east). In Spain, the figure was below 20 % in every region apart from Cantabria in the north (21.2 %) and the two extra-continental regions of Ciudad Autónoma de Ceuta (21.5 %) and Ciudad Autónoma de Melilla (32.1 %). In Poland, the figure varied from 62.7 to 73.1 %, in Hungary from 58.4 to 60.2 %, and in the eastern Slovak region of Východné Slovensko it stood at 76.8 %.

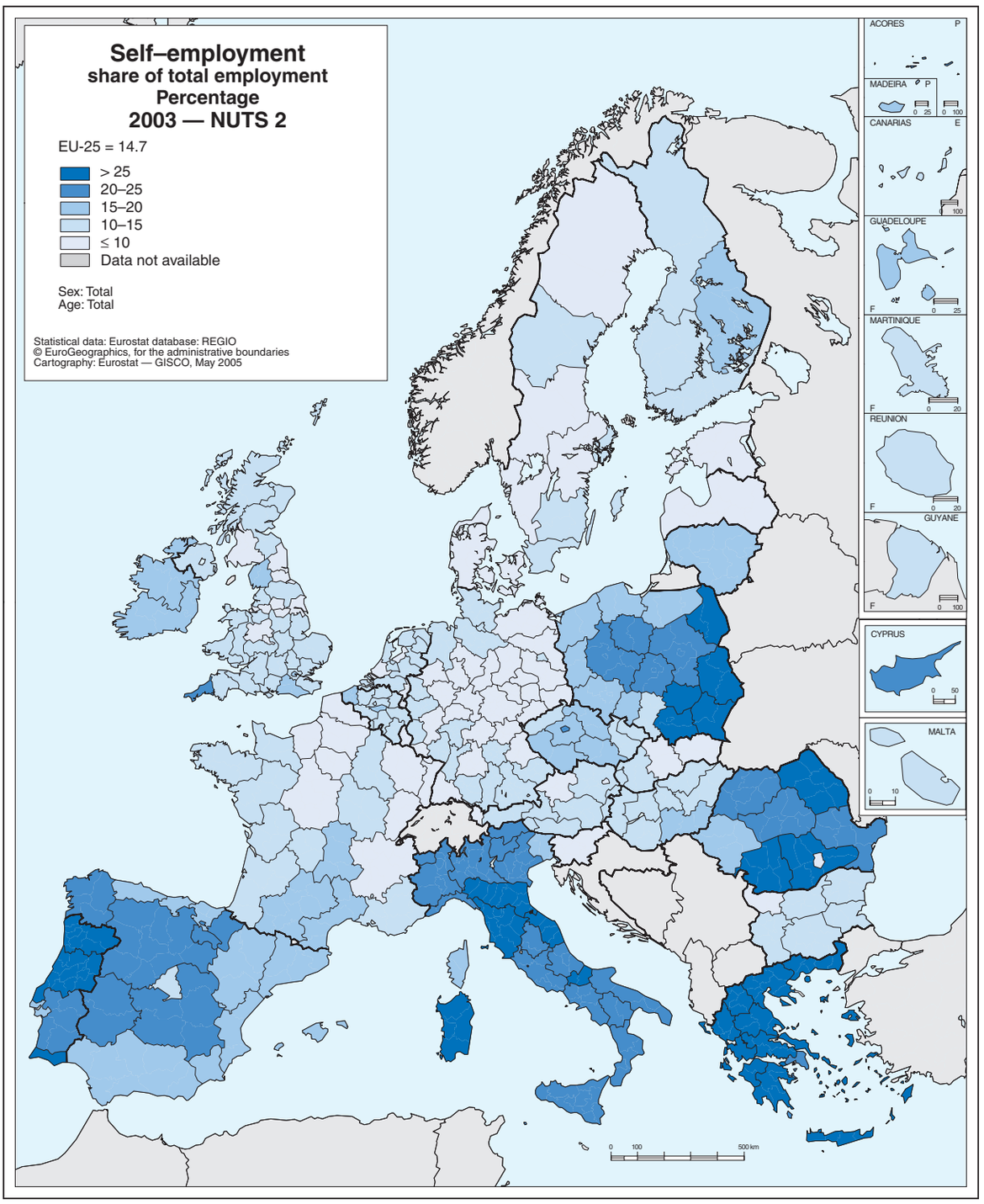
Among the regions with a low female employment rate, the strongest upward trends in female employment among persons aged 15–64 were recorded in three Greek regions: Ionia Nisia in the west (26.8 % or 6 000 employed), the central region of Sterea Ellada (17.4 % or 10 000 employed) and Notio Aigaio in the south-east (14.2 % or 5 000 employed). On the other hand, the biggest declines in female employment occurred in the northern Greek region of Dytiki Makedonia (6.9 % or 2 300 employed) and in three Polish regions: Dolnośląskie (4.8 % or 20 200 employed females) and Opolskie (5.9 % or 8 800 employed females), both in the south-west, and Podlaskie in the north-east (6.4 % or 12 700 employed females).

With regard to the female employment rate in the candidate countries, the figures in Bulgaria varied from 43.0 % in Severoiztochen in the north-east) to 54.8 % in Yugozapaden in the south-west), and in Romania they ranged from 48.4 % in the Sud-Vest region to 57.0 % in Centru. Only three regions in the two countries had an economic activity rate above 57 %: Yugozapaden in south-west Bulgaria (61.3 %), and Sud-Vest (60.6 %) and Nord-Est (59.7 %) in Romania. In Bulgaria, over 20 % of the female population had higher education, with the largest figure occurring in Yugozapaden in the south-west (34.5 %), while in Romania the rate was below 10 % except in the capital region of Bucureşti (21.7 %).

Self-employment

Last year, Eurostat introduced a more detailed breakdown of employment by economic status to provide regional information about self-employment making it possible to measure economic dynamics in regions. When considering the high proportion of self-employed persons among all those in employment, which can be viewed as a good indicator for the creation of new jobs, the less dynamic performance of self-employment in agriculture due to low productivity must also be considered.

In 2003, the percentage of self-employed among all those in employment in the EU-25 was 14.7 %. The figure was above 20 % in Greece, Italy, Cyprus, Poland and Portugal. In these countries, the proportion of self-employed persons working in agriculture varied: 32 % in Greece, 10 % in Italy, 14 % in Cyprus, 55 % in Poland and 39 % in Portugal. There was a noticeable decline in self-employment in agriculture in Poland (154 000 self-employed persons, representing 1.1 % of all those in employment) and in Hungary (23 500 self-employed, or 0.6 % of all those in employment). The figure for self-employment as a percentage of total employment was below



Map 5.4

10 % in Denmark, Estonia, Latvia, Luxembourg, Slovenia and Slovakia.

A high proportion of self-employment (more than 20 %) could be found in 20 out of 23 Italian regions, all 13 Greek regions, six Spanish regions, five out of seven Portuguese regions and one region in the Czech Republic (the capital region of Praha), the United Kingdom (Cornwall and Isles of Scilly) and the southern Irish region of Border, Midland and Western (Map 5.4). Among these regions, the biggest increases in total employment (above 5 %) occurred in five Greek regions: the central region of Sterea Ellada, Notio Aigaio in the south-east, Kriti in the south, Thessalia in the north and Ionia Nisia in the west, which produced the highest figure of 17.2 %. The biggest reductions were recorded in the north-western Greek region of Anatoliki Makedonia, Thraki (3.6 %) and in two Polish regions: Lubelskie in the east

(3.2 %) and Podlaskie in the north-east (4.6 %). Among the regions where the proportion of self-employed was high, there were significant numbers of people employed in agriculture in almost every Greek region, with the figures ranging from 17.7 % in Voreio Aigaio in the east to 37.3 % in Peloponnisos in the south. Exceptions were the eastern region of Notio Aigaio (8.9 %) and the southern region of Attiki (1.0 %). The figures were also significant in two Polish regions — Lubelskie in the east (37.5 %) and Kujawsko-Pomorskie in the north (17.9 %) — and in the Centro region of Portugal.

In Bulgaria, the proportion of self-employed persons varied between 9.2 % in Severozapaden in the north-west and 14.9 % in the south-central region of Yuzhen tsentralen. In Romania, where 84 % of self-employed persons worked in agriculture, the figures exceeded 20 % in every region apart from the capital region of Bucureşti (5.6 %). A significant upward trend in self-employment was observed in Bulgaria in the south-west region of Yugozapaden, which includes the capital, Sofia. The increase was 24 400 persons, or 30.6 %.

Unemployment

The unemployment rate for the 25 countries that now comprise the EU stood at 9.1 % in 2003, compared with 8.9 % in 2002. In 19 countries, the figure was below 10 %, and the highest unemployment rates were recorded in Slovakia (17.6 %) and Poland (19.6 %). At regional level across the continent, the unemployment rate varied between 2.0 % in the north-eastern Italian region of Provincia Autonoma Bolzano/Bozen and 26.0 % in the south-western Polish region of Dolnośląskie.

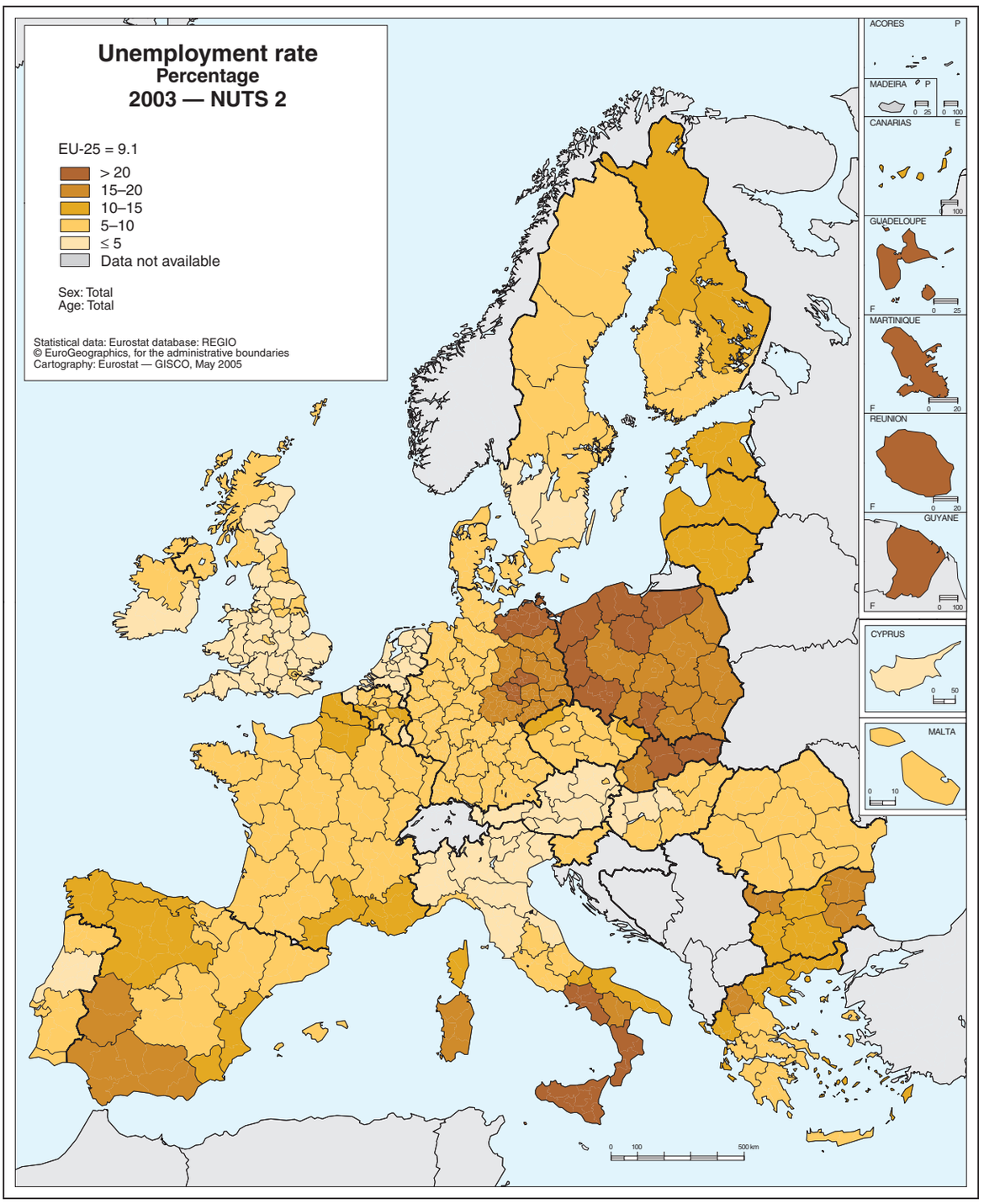
Of the 254 regions studied, 69 had an unemployment rate of below 5 % (Map 5.5). Among these regions:

- The biggest rise in unemployment rates (Map 5.6) occurred in Vorarlberg in western Austria (1.5 percentage points). There was an increase of around 1 percentage point in five Dutch regions (the central region of Utrecht, Noord-Holland, Noord-Brabant in the south, Friesland in the north and Zuid-Holland), the UK region of north-eastern Scotland and single-region Luxembourg.
- In almost every region in Italy and the Netherlands the percentage of those with an intermediate level of education among the economically active population was below 50 %. Around or above 25 % of the economically active population had a high level of education in every region in the United Kingdom, the western Belgian region of West-Vlaanderen, the Czech capital region of Praha, the Åland region (29.2 %) of Finland, Közép-Magyarország including Budapest (25.7 %) in north-central Hungary, the Southern and Eastern region (30.8 %) of Ireland and the single NUTS 2 region of Cyprus (32.3 %). In Italy, the figure varied from 9.1 to 13.7 %.
- The proportion of commuters (persons living and working in different regions) among all those in employment varied significantly, with the figure exceeding 10 % in 18 regions in the United Kingdom, two regions in Austria, six regions in the Netherlands and in the western Belgian region of West-Vlaanderen. Figures of below 5 % were recorded in 10 regions in Italy, five in Austria, three in Portugal and two in Hungary, as well as one region each in Finland (Åland in the south-west), Ireland (Southern and Eastern), the Czech Republic (Praha) and Luxembourg, which comprises a single NUTS 2 region.

In 2003, the unemployment rate was above 20 % in 19 regions of the EU-25. The biggest increases, of around 1 percentage point, occurred in the UK regions of North Yorkshire, West Wales and the Valleys, East Wales, Cheshire and eastern Scotland. In the regions where unemployment was high, the proportion of persons with a high level of education among the economically active population varied from 13.5 to 16.5 % in Poland. The figure in two Slovak regions stood at around 10 %, while in Germany it exceeded 23 %. The proportion of commuters among all those in employment was below 5 % in three southern Italian regions and below 8 % in Slovakia, whereas in Germany it varied from 4.7 to 19.9 %.

Of all the countries studied, Bulgaria — which had the second highest unemployment rate in 2002 (18.2 %) — recorded the greatest improvement in 2003, albeit with an increase in economic inactivity. The rate fell by 4.5 percentage points to 13.7 %, representing a fall in unemployment of 160 000 people and an increase in employment of 93 800 people. The unemployment rate in Romania stood at 7.0 % in 2003.

The situation in the two candidate countries also varied significantly at regional level. Whereas the

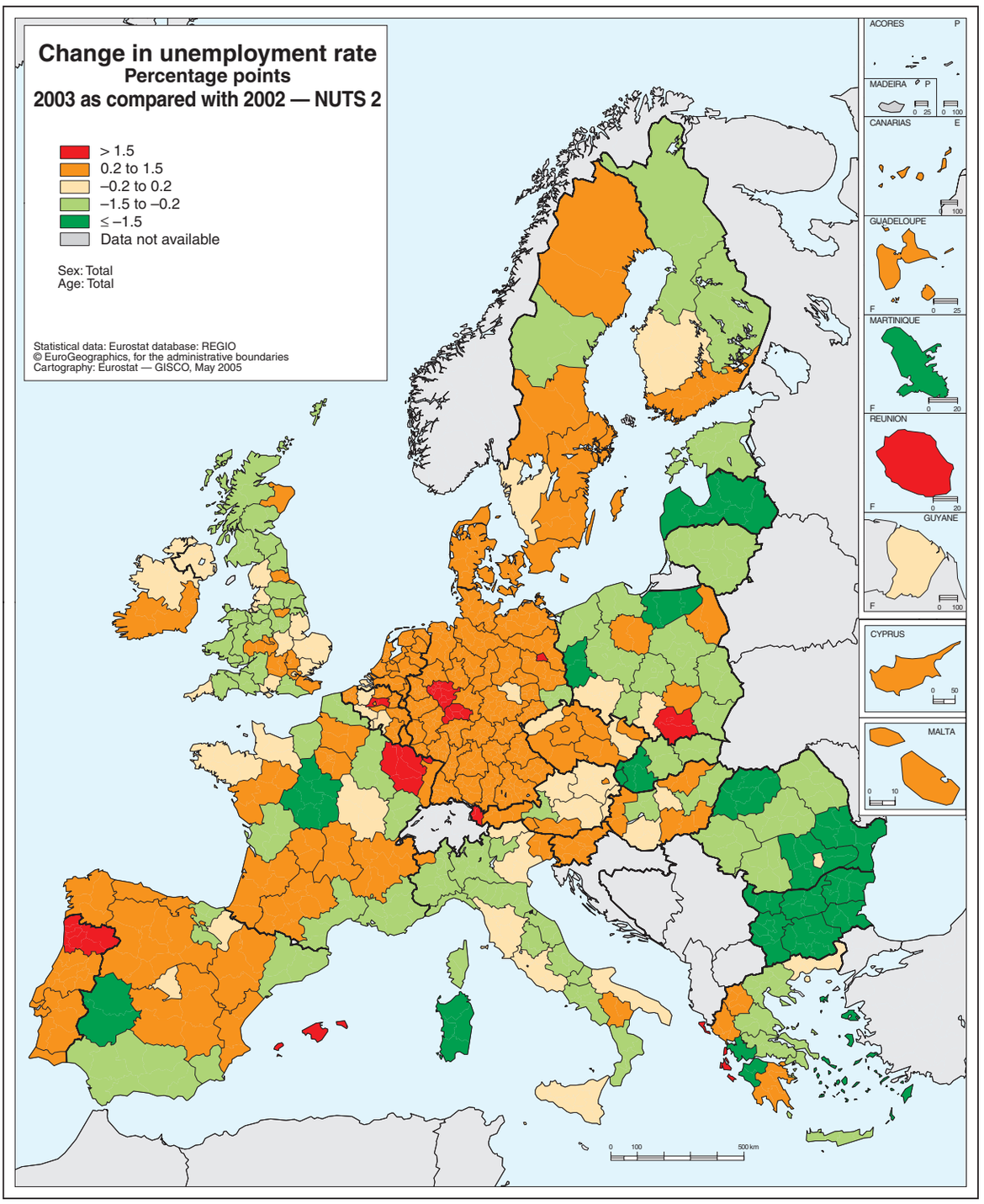


Map 5.5

unemployment rate in every Romanian region was below 10 % (ranging from 5.9 % in the region of Vest to 8.6 % in the capital region of Bucureşti), in Bulgaria it varied between 11.1 % in the south-central region of Yuzhen tsentralen and 19.4 % in the north-eastern region of Severoiztochen.

In spite of higher unemployment, every region in Bulgaria showed a positive trend (not taking into account the increase in economic inactivity), especially in the north-western region of Severozapaden, the central southern region of Yuzhen tsentralen and the south-east region of Yugoiztochen.

Every region in Romania, apart from the capital region of Bucureşti, showed very high rates of employment in agriculture, with figures ranging from 25.4 % in the Centru region to 51.5 % in Nord-Est.



Map 5.6

Conclusion

This chapter, describing total employment, female employment, self-employment and unemployment in 2003, as well as changes between 2002 and 2003, is intended to show the main characteristics such as economic activity rates, levels of education, breakdown of total employment and commuting, which are all factors determining the labour market situation in a particular region. The maps and text presented here clearly indicate that in spite of similarities among countries there is no uniform pattern concerning the characteristics in question for regions with similar levels of employment and unemployment.

eurostat

TRANSPORT

6

Introduction

Transport needs face a steadily raising demand and it is among the main objectives of the Community to build a truly functioning internal market and to provide arteries to bring together people and goods. The European Union with 25 members offers a strongly diversified scenario when looking, among other factors, at infrastructure capacities, access to main transport links, industrialisation rates, and disposable income. In this context, planning and managing transport development policies, which could simultaneously satisfy transport needs, environmental concern and de-congestion of the main urban areas, is a challenging task. The main guidelines to achieve these ambitious objectives have been outlined in the White paper published in 2001. Three key issues were underlined: the integration of the 10 new Member States, the full incorporation of environmental considerations into Community transport policies, focusing on the shifting from road transport to other modes of transport such as rail, sea and inland waterways, and the central place that should be given to the users.

The regional dimension is where the general principles come into action. A substantial part of community funds, taking up to one third of EU budget, has been devoted to developing regional cohesion and reducing regional unbalance. Two specific programmes support the implementation of transport policies: the European Regional Development Fund (ERDF) and the Cohesion Funds. The latter concentrates on completing the missing links in the priority corridors, promoting rail and combined transport, developing multi-modal platforms and improving traffic management.

In this context of strong focus on regional transport policies, Eurostat aims at providing support to decision-makers, collecting a broad set of data, building indicators, in order to allow implementing sound actions and vigilant monitoring. Currently this collection comprises a set of transport indicators at NUTS 2 level on road and railway infrastructures, inland waterways, vehicle stocks and road accidents, together with transport flows through ports, airports and on the roads.

Methodological note

Eurostat collects, compiles and disseminates varying regional transport indicators. Data on road and railway infrastructures, inland waterways, vehicle stocks and road accidents are currently collected in Member States and candidate countries on a voluntary basis via annual questionnaires, while data on maritime and air transport of passengers and goods are directly derived from the relative data collections established by legal acts. In addition, journeys made by vehicles were derived from a specific study on road transport data.

Regional transport indicators are freely disseminated on Eurostat's database NewCronos under the 'transport' theme and mirrored in the 'general and regional statistics' one.

Data are organised in 19 tables. All indicators, apart from journeys by vehicles, are divided in tables including only Member States or only candidate countries data. Indicators for journeys by vehicles currently cover only regions for the old Member States, prior to the 2004 enlargement.

With effect from reference year 1999 for old Member States and 2003 for new Member States, regional data for air and maritime transport of freight and passengers are derived from the ongoing data collections, foreseen by the existing legislation. Consequently, there has been a series break with data prior to those reference years, as the methodology changed. Data according to this new methodology are disseminated in specific tables, different from the ones reporting data collected in the past using the regional questionnaires.

All tables present annual data with the time series going back to reference year 1978 for transport infrastructures, air and maritime transport, while for road safety data the series start from 1988.

All data in this chapter are presented at NUTS 2 level. For Denmark, Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta and Slovenia, NUTS 2 level corresponds to the national level.

Due to the nature of transport, a spatial reference is built into most legal acts dealing with the collection of transport flow statistics, which, as mentioned above, allow to directly derive indicators on maritime and air transport. Moreover, other regional transport indicators on transport flows can be found in the specific domains of the transport theme: 'road transport', 'railways transport' and 'inland waterways transport'. Further information on transport flows between airports and

ports can be obtained also in the 'maritime transport' and 'air transport' domains.

In order to show the potential of data collected on transport statistics as an analysis tool for regional patterns, this year's contribution focuses exclusively on data on regional transport flows derived from the ongoing maritime, air and road data collections based on legal acts. Data described in the following maps have been extracted and aggregated directly from the modes' databases and cannot be found directly from Eurostat's database New-Cronos. The objective is to provide an added value to the data already available to the reader on Eurostat's database NewCronos.

Maritime transport

Data on maritime transport are currently collected according to the Council Directive 95/64/EC. Data come from national surveys on sea ports. The directive foresees to collect a broad range of detailed data for ports handling more than one million tonnes and/or more than 200 000 passengers per year, while for minor ports only annual aggregated figures are gathered. Consequently, data presented in the following maps may differ from national totals, as figures for minor ports are not included. Nevertheless, in order to properly represent the regional distribution of the total volume of transport, the contribution of minor ports can be considered negligible.

The allocation of ports to the NUTS regions is made on the basis of the geographical coordinates. Data are provided to Eurostat at port level and then aggregated at NUTS 2 level. In this process the double counting, which was included in the data previously collected via the regional questionnaires, is eliminated. The double counting concerns couples of ports that are located within the same NUTS region and have traffic among them, in this case the concerned flow is considered only once in the total of the region.

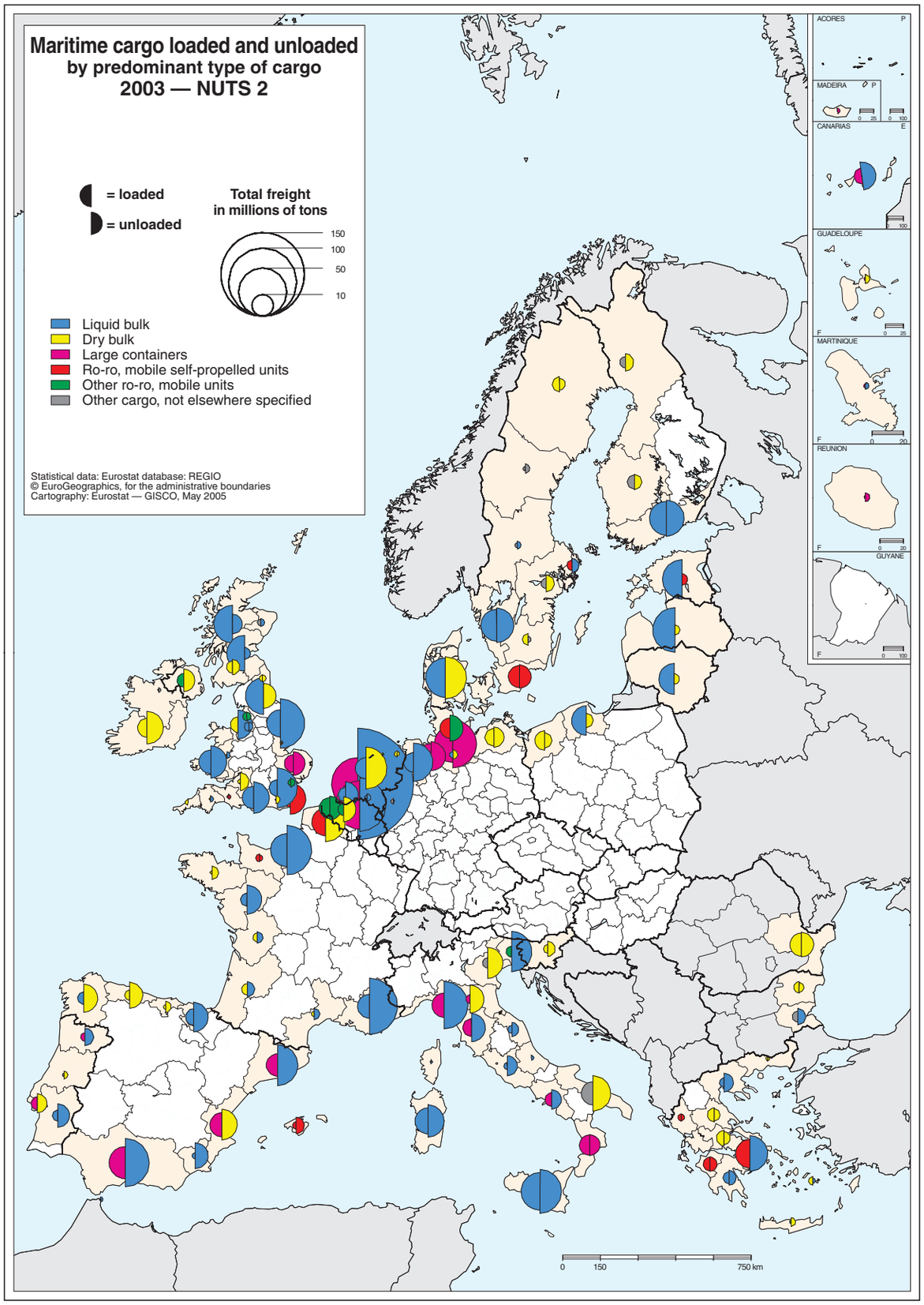
The current set of disseminated regional indicators for maritime transport comprises embarked and disembarked passengers and total freight loaded and unloaded, both at NUTS 2 level.

In the following, data on maritime freight transport and vessels (ships) are considered. Figures for Member States and available candidates countries are derived from the data collected according to the directive, hence comparable methodologies have been applied. Maps consider data at NUTS 2 level.

Map 6.1 presents data for total freight loaded and unloaded in each region, together with the information on predominant types of cargo in each direction. This map includes data only for coastal areas with major freight ports. Map 6.2 shows the total number of vessels entering each region, the total amount of gross tonnage corresponding to those vessels and the predominant type of vessel. The latter has been calculated on the basis of the maximum number of vessels. Due to the symmetry in the number of vessels entering and leaving a region, only one direction has been considered.

The region of Zuid-Holland, where the port of Rotterdam is located, maintains its absolute leading role as the most important region for maritime transport, mostly due to the considerable amount of goods unloaded. The volume of goods moved in this region is almost three times the amount of the Antwerp region which is the next most important region, followed by the regions of Hamburg, Provence-Alpe-Côte d'Azur and Haute-Normandie. It is evident from Map 6.1, that there is a substantial concentration of maritime transport, in the area covering the first two mentioned regions, which is not duplicated in any other part of Europe. This contributes to making this area a crucial spot for the whole European transport system.

Most of European regions unload more than what they load, showing the European Union's reliance on importations. Nevertheless, this trend is overturned in some regions, notably: the northern Swedish region of Övre Norrland, Highland and Islands, East Scotland and Northumberland in the United Kingdom, Estonia, Latvia, Lithuania and Pomorskie in Poland. The different pattern observed in these regions may be considered as a supporting argument to the presence of natural resources that are transferred via sea to the final user regions, as in the UK's regions where there are important volumes of North Sea oil. Quite a balance between volume of goods loaded and unloaded is reached in the regions of Västsverige in Sweden, Etelä-Suomi in Finland and Sicilia in Italy. In fact, the latter is characterised by the presence of several refining plants producing and redistributing oil products by transforming the crude oil imported from non-European countries, mostly in the Middle East.


Maritime cargo loaded and unloaded
by predominant type of cargo
2003 — NUTS 2
= loaded
= unloaded
Total freight
in millions of tons
150
100
50
10
Liquid bulk
Dry bulk
Large containers
Ro-ro, mobile self-propelled units
Other ro-ro, mobile units
Other cargo, not elsewhere specified
Statistical data: Eurostat database: REGIO
© EuroGeographics, for the administrative boundaries
Cartography: Eurostat — GISCO, May 2005
ACORES
MADEIRA
CANARIAS
GUADELOUPE
MARTINIQUE
REUNION
GUYANE
0 150 750 km

Map 6.1

The predominance of liquid bulk as a type of cargo all over Europe is striking. Liquid bulk includes, among different products, crude oil, oil products and natural gases. It makes up around 40 % of the total volume of goods transported in Europe. Again, the Zuid-Holland region is where a substantial amount of liquid bulk is unloaded, contributing, with 54 %, to the total goods unloaded in the region. Following behind, according to the quantity of unloaded liquid bulk, are the regions of Provence-Alpe-Côte d'Azur, Antwerp, Haute-Normandie, East Riding and North Lincolnshire, Andalucía and Liguria.

'Dry bulk cargo' predominates in both Irish regions, Denmark, the south-east region of Romania, Pomorskie in Poland, Puglia, where there is a substantial amount of steel products unloaded, and Nord-Pas-de-Calais.

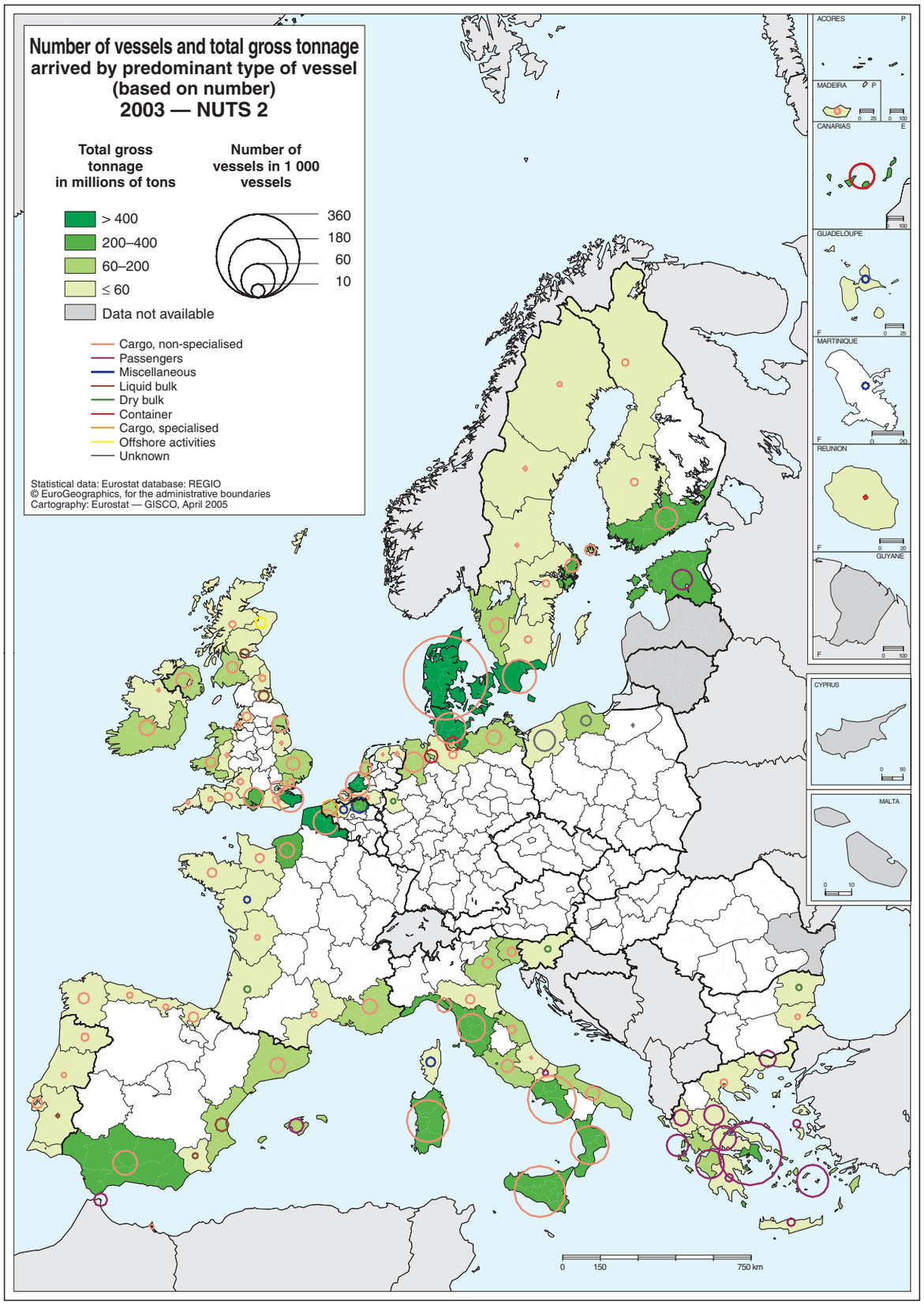
'Ro-ro cargo', which means goods moved on self-propelled units, i.e. lorries, that can roll-on and roll-off the ships, is prevalent in island regions or regions connected to islands. A typical example is shown by the regions of Nord-Pas-de-Calais and Kent on the opposite sides of the English Channel. There, the ferry ships couple up with the tunnel under the channel to produce a virtual bridge for the road transport between the United Kingdom and continental Europe. Ro-ro cargo is predominant in the Greek regions of Attiki, with the port of Piraeus the connecting point for the Cycladic Islands, and Dytiki Ellada, where the port of Patras is facing the islands in the Ionic Sea. These regions concentrate the main traffic arriving from central Europe via the Adriatic Italian ports and the transport of supply provisions to the smaller islands, where tourism is the main economical activity. Ro-ro type of cargo prevails, also, in the south Swedish region of Sydsverige, both for unloaded and loaded goods. Note that this type of cargo is strongly linked to the issue of moving goods from the roads to the sea, using the developing 'motorways of the sea', that properly integrated in the European road network, should provide costly and timely competitive alternatives to road transport.

An interesting scenario is offered by the geographical distribution of the regions characterised by 'Containers' as a predominant type of cargo. To some extent, it is possible to recognise the main gateways of Europe, which means the entry points for vessels coming from outside Europe, unloading containers that hence will be redistributed all over the Union, again by sea or by other modes of transport. These are in the north, the regions of Hamburg, Zuid-Holland, Antwerp, Bremen and East Anglia; in the south-west the Spanish regions of Andalucía, with the port of Algeciras, Cataluña where the port of Barcelona is located and the Comunidad Valenciana; finally, in the south-east, the Italian regions of Calabria with the port of Gioia Tauro and Liguria, hosting the port of Genova. Specifically, the regions of Hamburg, Bremen and Calabria have containers prevailing both for loaded and unloaded freight, because of their large hub ports, where almost all goods unloaded in containers are also redistributed by sea transport.

Denmark outstrips any other European region in terms of the number of arriving vessels, with figures one third higher than the next most important region: the Greek region of Attiki, followed by Sicilia, Campania, Sardegna, Calabria and Sydsverige. These regions have in common a high density of ferry connections transporting both goods and passengers. Specifically, Greek and Italian regions host the major nodes of the network linking the islands to the continental part of the country; besides, they are major attractions for both national and international tourism.

A large number of vessels does not always imply proportionally high values for total gross tonnage, as this latter depends on the type of vessel. Ferry ships contributing highly to very frequent arrivals do not have very large tonnage. Denmark is still the region with the highest value for gross tonnage. Nevertheless, the British region of Kent, which is the next most important region for the gross tonnage with 65 % of the Danish figure, contributes to this with only 10 % of the Danish number of vessels. A similar argument holds for the region of Nord-Pas-de-Calais, Zuid-Holland, Schleswig-Holstein in northern Germany, Haute-Normandie and Estonia.

When looking at Maps 6.1 and 6.2 together, it is not straightforward to mirror the type of predominant cargo with the type of predominant vessel, as the type of vessel 'cargo non-specialised' has an overwhelming weight in terms of numbers. This is in fact a very comprehensive category, whose vessels are used to handle varying types of cargo. Yet, some interesting findings can be outlined. All but one Greek region have 'passenger ships' as a predominant type of vessel, confirming the strong network supporting passengers transport in the very popular Greek archipelago. In the regions of Hamburg and Bremen, 'container ship'


Number of vessels and total gross tonnage arrived by predominant type of vessel (based on number)
2003 — NUTS 2
Total gross tonnage in millions of tons
> 400
200–400
60–200
≤ 60
Data not available
Number of vessels in 1 000 vessels
360
180
60
10
Cargo, non-specialised
Passengers
Miscellaneous
Liquid bulk
Dry bulk
Container
Cargo, specialised
Offshore activities
Unknown
Statistical data: Eurostat database: REGIO
© EuroGeographics, for the administrative boundaries
Cartography: Eurostat — GISCO, April 2005
ACORES
MADEIRA
CANARIAS
GUADELOUPE
MARTINIQUE
REUNION
GUYANE
CYPRUS
MALTA
0 150 750 km

Map 6.2

prevails as a predominant type of vessel, in line with the principal type of cargo. Liquid bulk ships are the most common in the British regions of eastern Scotland and Tees Valley and Durham, while dry bulk vessels characterise ships calling at ports in Slovenia, Aquitaine and Düsseldorf.

Air transport

Data on air transport are currently collected according to Regulation (EC) No 437/2003 of the European Parliament and the Council on statistical returns in respect of the carriage of passengers, freight and mail by air. Data come from national surveys on airports. The regulation foresees to collect monthly detailed data for airports handling more than 150 000 passengers per year, for airports with less than 150 000 but more than 15 000 passengers only aggregated annual data are requested, while for minor airports there is no data provision obligation. Consequently, data presented in the following maps may differ from national totals, as figures for minor airports and for airports reporting only aggregated data are not included. Nevertheless, even without data for minor airports the regional distribution can be considered representative.

The allocation of airports to the NUTS regions is made on the basis of the geographical coordinates. Data are provided to Eurostat at airport level and then aggregated at NUTS 2 level. In this process, the double counting effect of passengers travelling to/from airports in the same region, if any, has been eliminated; except for Lithuania, Bulgaria, Cyprus, Slovenia and Poland (only aggregated data without information on the partners' airports were provided).

The current disseminated set of regional indicators for air transport comprises embarked and disembarked passengers and total freight and mail loaded and unloaded, both at NUTS 2 level.

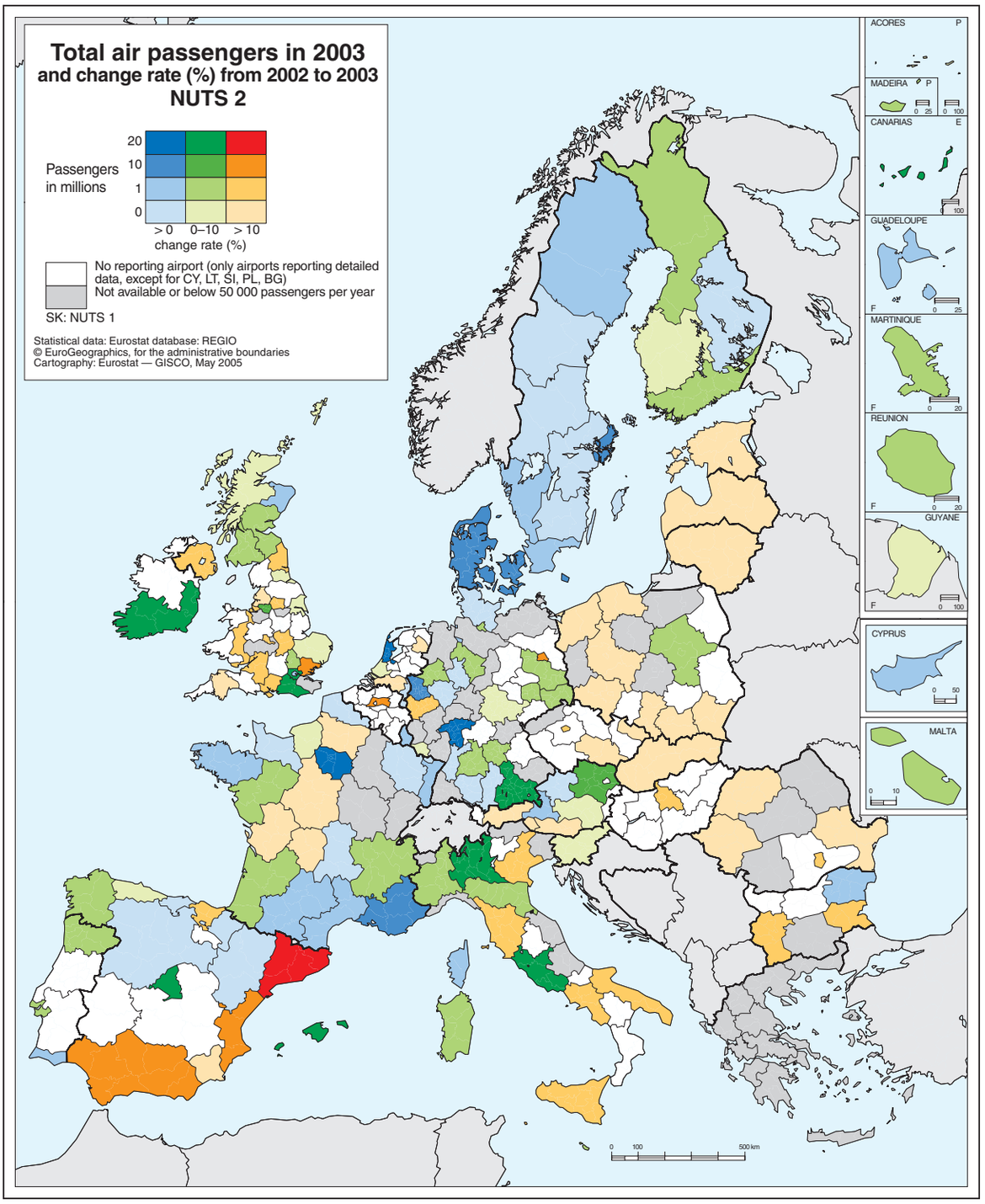
In this chapter, data on air transport passengers are considered. Figures for Member States and available candidate countries are derived from data collected according to the regulation.

Map 6.3 presents data for total passengers embarked and disembarked in 2003 in each region, together with the change rate from 2002 to 2003. This map includes data only for airports providing detailed data over some thresholds and where the total passengers in the region are above 50 000 per year. Note that data are not available if one of the two years has not been provided, as the change rate cannot be calculated. To properly read the map, observe that: blue shades indicate decreases, green shades signify positive increases up to 10 %, and finally red shades show increases over 10 %; besides, the more intense the colour the higher the number of total passengers. Map 6.4 shows the number of inhabitants divided by the number of airports reporting detailed data in each region.

The more important regions in terms of air passenger transport are Île-de-France, Outer London, Darmstadt, where the Frankfurt airport is located, Zuid-Holland, with the Amsterdam airport, and Cataluña with three airports close to Barcelona. It is worth noting how the regions containing the national capitals are not always associated with the largest number of passengers. It is quite common that financial and business centres are able to attract more passengers than administrative cities. In addition to the abovementioned regions of Darmstadt and Cataluña, this still holds true for Milano in Lombardia, where the intense economical activities generate a large business traffic amounting to figures even higher than the one observed in Lazio where Rome is located.

A remarkable feature, visible in Map 6.3, is that regions of all new Member States except Cyprus, observed increases from 2002 to 2003. Even if absolute total figures are still constantly lower than in the regions of old Member States, increases of more than 10 % are very frequent. This shows the desire of these countries, already before the accession time, to build stronger links with the EU-15, both in terms of economical relationships and as tourist attractions.

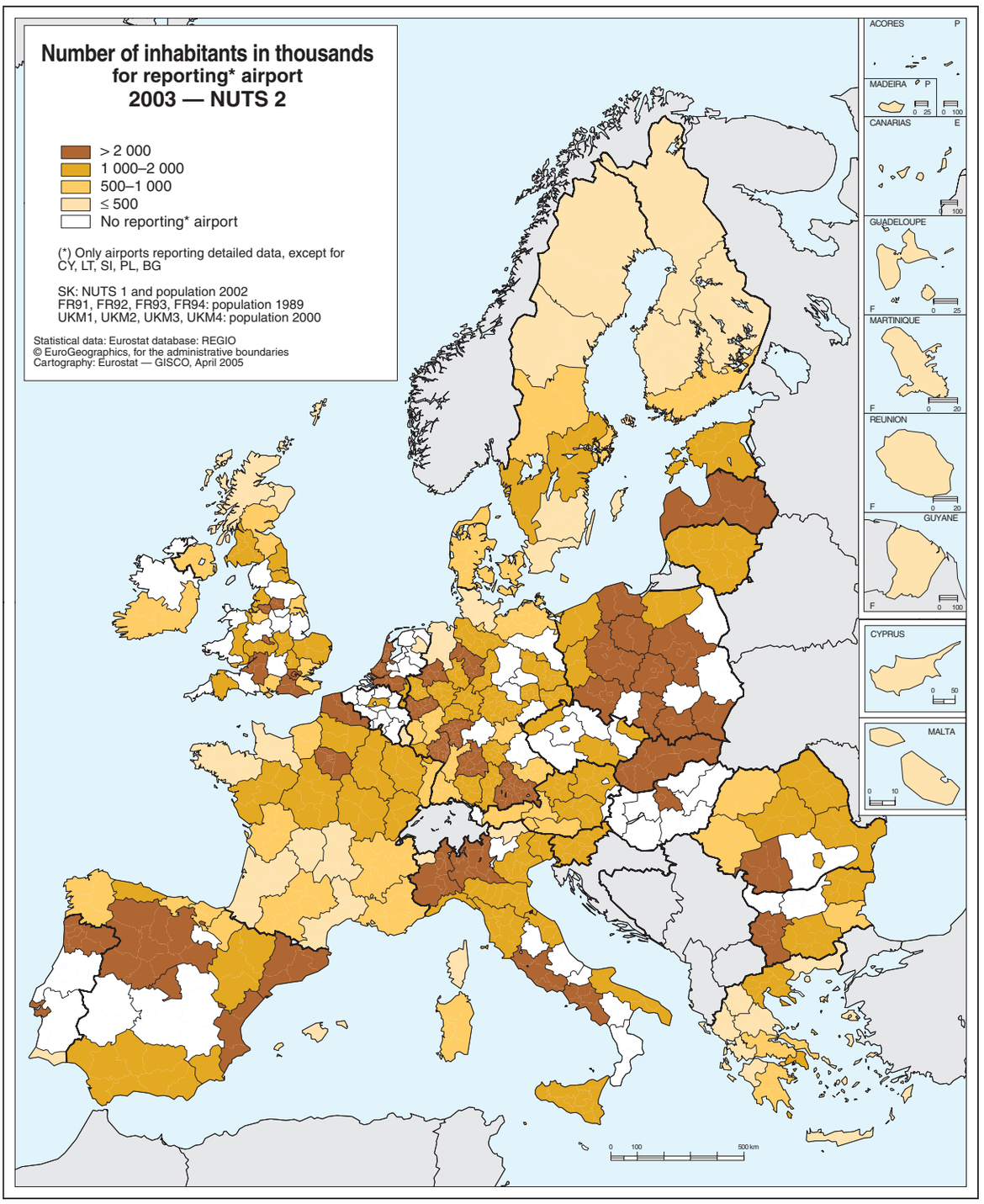
Following the patterns of the largest increases from 2002 and 2003, it is interesting to examine the substantial role played by low-cost carriers. Besides being active in contributing to the growth of new Member States traffic, they have influenced the more consolidated market of old Member States. Several regions in the United Kingdom, Spain and Italy benefited from the operations of these carriers. The Spanish regions of Cataluña, País Vasco, and Andalucía all saw an increase of more than 10 %. The airport of Girona in Cataluña, linked to the tourist traffic of Costa Brava, almost tripled the number of passengers from 2002 to 2003. The British region of Hampshire and Isle of Wight, where the airport of



Map 6.3

Southampton is located, registered a 54 % growth. Similar situations are found in Veneto (IT) and in the German region of Köln. Low-cost carriers are contributing to opening new markets and revitalising small regional airports. Sometimes, this has resulted in a shifting of passengers from larger airports to smaller ones. A larger network of airports not only increases people's accessibility to travelling but also boosts local economies.

Map 6.4 shows the number of thousand inhabitants divided by the number of airports reporting detailed data in the region. It can be considered as a rough and approximate indicator of potential passengers per airport. Naturally it is only an approximation because, first the potentiality is considered only within the borders of the region, while the catchment area for an airport will be very likely broader or smaller than the region's borders, secondly because all reporting airports



Map 6.4

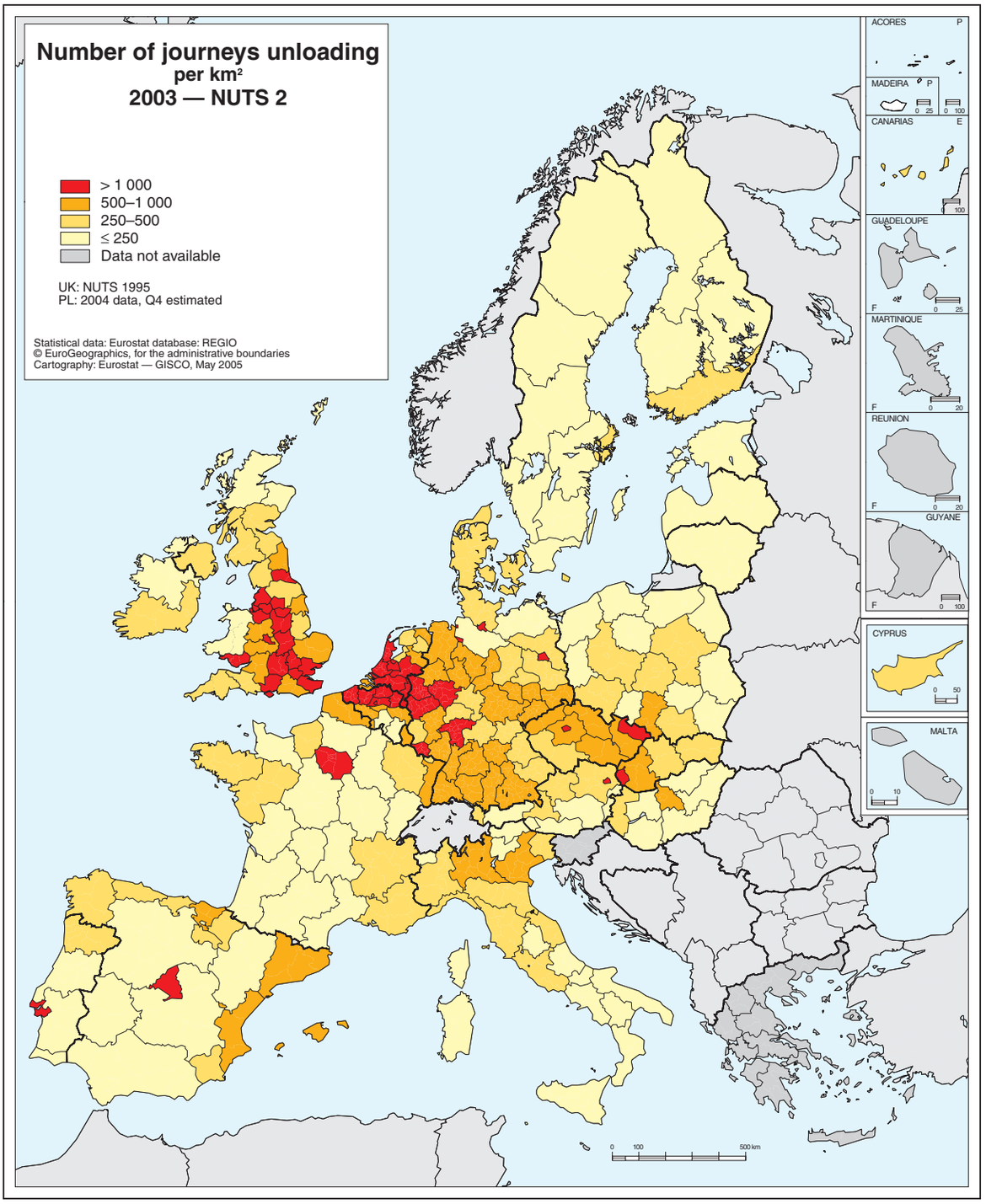
are given the same importance. Nevertheless, it is still possible to outline an interesting finding, which is the potential offered by new Member States. It seems as if the present infrastructures and network are not adequate to support the increasing demand and that, bearing in mind the large increases shown in Map 6.3, low-cost carriers are profiting from the opportunities offered by developing markets.

Road freight transport

Road freight transport data are collected in the frame of Council Regulation (EC) No 1172/98 on statistical returns in respect of the carriage of goods by road, which replaced the previous directives. The present regulation provides for the

transmission of a larger set of variables to Eurostat, in the form of individual data records on vehicles, journeys and goods transport operations. These data are collected via sample surveys of goods vehicles in Member States. Starting with reference year 1999, micro-data are transmitted on a quarterly basis, five months after the end of the reference period. Each reporting country collects data on the activities of road motor vehicles, registered in its country, inside and outside its national territory, thus, there is no double counting at European level. Data on transport performed by non-European hauliers in Member States' territory are not collected. The regulation allows the exclusion from the survey of vehicles with a load capacity smaller than 3.5 tonnes.

One major added value brought by the Council regulation is the description of the regional origin and destination of intra-EU road transport.



Map 6.5

Presently, national transport is reported at NUTS 3 level. For international transport, the regulation foresees a transitional period where origins and destinations can be declared with country codes. The final objective is to have international transport also reported at NUTS 3 level.

Four tables with regional road transport data are disseminated in Eurostat's database NewCronos, in the road domain under the transport theme. Annual figures for national and total transport tonnes, tonne-kilometres and journeys by region of loading and region of unloading are shown.

Map 6.5 shows the number of journeys by region of unloading divided by the dimension of the region in km^2. Data for all reporting countries have been aggregated by region of unloading. Data are presented at NUTS 2 level, which can be considered as the best one in order to guarantee spatial detail and maximum retaining of information for international transport. Because international transport is not completely coded at NUTS 3 level, the total in each region may be slightly underestimated; nevertheless, the regional distribution is properly represented. Intra-regional journeys are included.

When looking at the map, readers should bear in mind that: numbers of journeys have been divided by the size of the region, hence the same importance is given to each part of the region which may not always be the case, regions which are mostly transit regions may have very low figures as only unloading journeys are considered, and finally no information is given on where the journey originated.

Map 6.5 shows the busiest areas in terms of entering journeys unloading in a region. It confirms the importance of the regions in the influence area of the main ports in northern Europe, in the Netherlands, Belgium and Germany. It outlines two main axes of major activities across Europe: from north-east Italy, via Germany up to the Netherlands and hence over to the United Kingdom, and an almost parallel one from the Slovak Republic, via the Czech Republic to northern Germany.

Partly because of their very small sizes, regions containing capital towns emerged as being very busy in terms of entering journeys, but on the other hand it has to be considered that urban areas with a highly concentrated population are more demanding in terms of supplies.

Regions where there is a strong concentration of industrial activities are 'attracting' many journeys: the region of Moravskolezsko in the Czech Republic and Slaskie in Poland, where major steel industries are located, Cataluña with its mechanics plants, and Veneto which is the beating heart of north-east Italian furniture and textiles production. The concentration in UK regions of unloading journeys is conspicuous. The regions on the 'spine' of the country linking the main connections in the south to continental Europe and on the centre-west to Ireland are shown as very dynamic in so far as road transport is concerned.

Road transport has a major focus in the regional transport policies. Bottlenecks create tremendous problems in overcrowded areas and alternative solutions to the predominance of road transport are hot topics. Map 6.5, partially due to absence of information on countries crossed in transit, outlines a strong unbalance between central Europe and more peripheral regions, and hence gives a first input on areas where actions have to be implemented.

Conclusion

Data shown on the previous five maps represent only a part of a broader set of regional transport statistics available in Eurostat's database NewCronos. The patterns outlined here can be deepened with indicators on infrastructures, vehicles stock and traffic safety. As mentioned, transport policies are at the very heart of the process of reducing regional inequality and improving regional cohesion. In the enlarged Europe, economical and infrastructural disparities are more evident than before. One of Eurostat's long-term objectives is to expand the current regional transport indicators in order to provide a better understanding of the impact of transport policies on economic growth, transport needs and the environment.

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7

SCIENCE, TECHNOLOGY AND INNOVATION

Introduction

Statistics on science, technology and innovation are related to the Lisbon European Council conclusions of March 2000. These conclusions say that 'the EU should 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.'

These conclusions were complemented at the Barcelona European Summit in 2002, where the European Council remarked that a significant boosting of the overall spending on R & D and innovation in the EU would be necessary in order to close the gap between the EU and its major competitors. The objective agreed by EU governments at Barcelona was to increase R & D spending to 3 % of GDP by 2010, with two-thirds of this expenditure to come from the private sector.

In its contribution to the 2005 European Spring Council, the Commission identified 'knowledge and innovation for growth' as one of the three major domains of the future Lisbon Action Programme, a key domain for the future of Europe. Science, technology and innovation are at the core of these efforts the EU is invited to accomplish on this subject.

Economic growth is increasingly related to the capacity of an economy to change and to innovate. Considerable efforts should therefore be put into creating an environment that encourages research, development and innovation thus facilitating the transition to a knowledge economy. Such a policy needs statistical information on science, technology and innovation, a wide area of statistics that covers data on research and development, patents, high-tech manufacturing and knowledge-intensive services sectors, human resources in science and technology and on innovation.

The following chapter illustrates the dynamism of regions in providing regional indicators on research and development, human resources in science and technology, high-tech patent applications and employment in high-tech manufacturing and in knowledge-intensive services sectors. Also the main flagship indicator 'R& D intensity' as determined by the Barcelona European Summit of 2002 is shown at regional level.

Methodological note

The data shown in this chapter in maps or tables is extracted from the theme 'Science and technology' and the sub-domains research and development, high-tech industry and knowledge-based services, European and US patenting systems and human resources in science and technology.

Statistics on research and development are collected by Eurostat on the basis of the Commission Regulation (EC) No 753/2004 which determines the data set, breakdowns, frequency and transmission delays for those statistics. The methodology for R & D statistics is moreover laid down in the so-called Frascati Manual (in its version from 2002) which is applied on a worldwide level.

The data on **Employment in high-tech and medium high-tech manufacturing and in knowledge-intensive high-tech and market services** are compiled annually on the basis of the micro-data collected within the European labour force survey. The high-technology or knowledge-intensive economic sectors are — in general — defined in terms of the R & D intensity, calculated as the ratio of the R & D expenditure of the respective sector to its value added.

The data on **High-tech patent applications to the EPO** are compiled on the basis of micro-data received from the European Patent Office. The patent data reported include the patent applications filed at the European Patent Office (EPO) during the reference year, classified according to the inventor's region of residence and to the international patents classification of applications. High-technology patents are compiled in accordance with the aggregations of certain groups of the international patent classifications which are related to high technology.

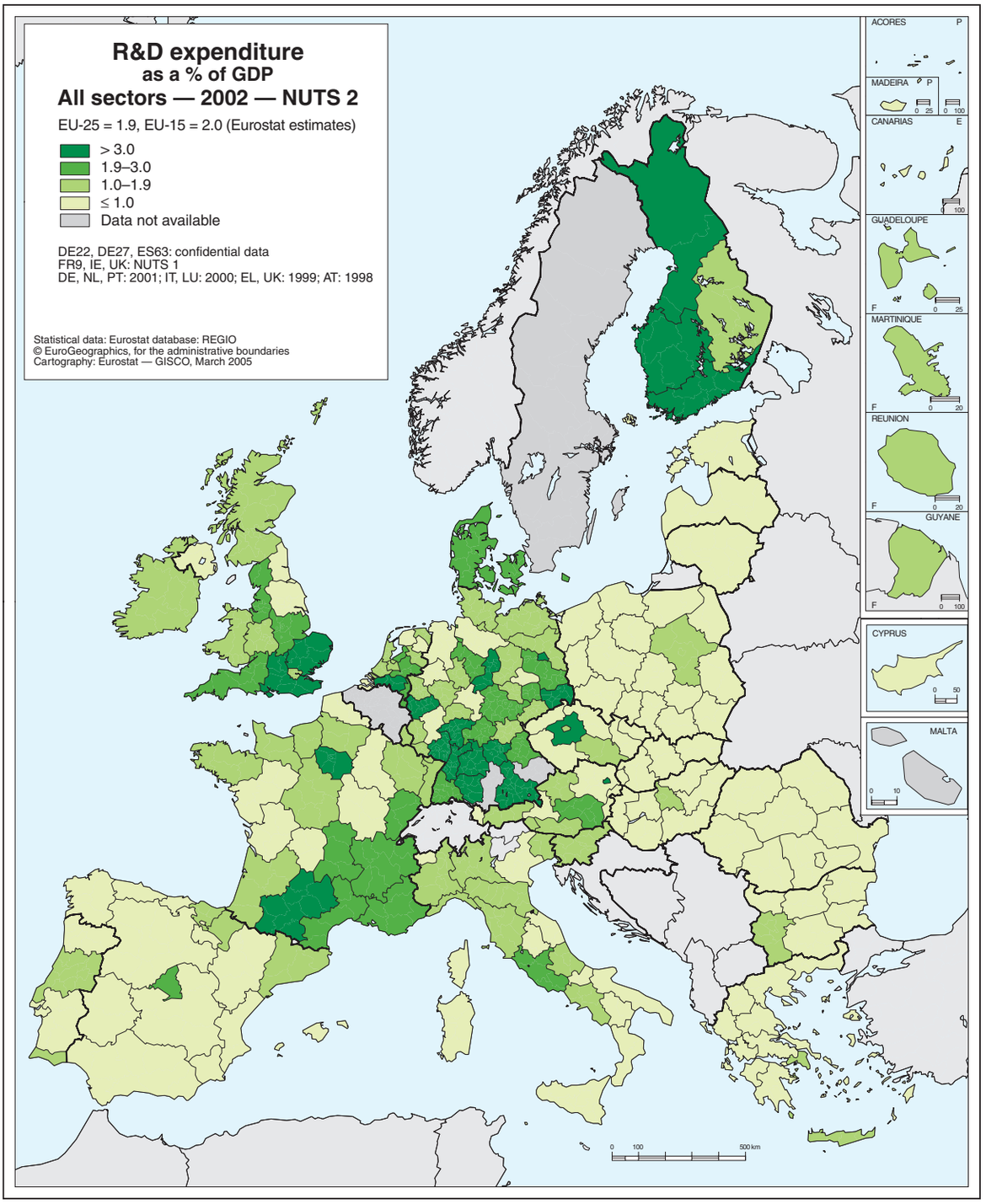
Finally **Statistics on human resources in science and technology** (HRST) also are compiled annually on the basis of micro-data extracted from the European labour force survey. The methodological base for these statistics is laid down in the Canberra manual where all the HRST concepts are laid down.

For more information on methodology, consult also the Eurostat webpage under: http://europa.eu.int/comm/eurostat/newcronos/reference/display.do?screen=welcomeref&open=/&product=EU_science_technology_innovation&depth=2&language=en

Research and development

Map 7.1 presents the situation of R & D expenditure as a percentage of GDP (R & D intensity) in the European regions in 2002. Several clusters with high R & D intensity can be identified, mainly in Finland, the United Kingdom, Germany and in southern and eastern France.

One of the EU's 2010 goals set up by the Lisbon Summit is to achieve an R & D intensity of 3 % (= ratio of R & D expenditure to GDP). The data shown on this map identify European regions which have already achieved the target ratio of



Map 7.1

Table 7.1 — Total R & D expenditure in million EUR in the top 3 regions of each country, 2002

Regions by country	Mio EUR	%
EU-25	186 035 s	
EU-15	182 488 s	
Belgium	5 814 p	100
Czech Republic	959	100
Praha	331	34
Střední Cechy	247	26
Jihovýchod	116	12
Denmark	4 634	100
Germany — 2001	52 002	100
Oberbayern — 2001	6 989	13
Stuttgart — 2001	6 146	12
Darmstadt — 2001	3 973	8
Estonia	56	100
Greece — 1999	795 e	100
Attiki — 1999	419 p	53
Kentriki Makedonia — 1999	126 p	16
Kriti — 1999	64 p	8
Spain	7 194	100
Comunidad de Madrid	2 278	32
Cataluña	1 628	23
Andalucia	586	8
France	34 527	100
Île-de-France	14 671	42
Rhône-Alpes	3 985	12
Midi-Pyrénées	2 133	6
Ireland	1 414	100
Italy — 2000	12 460	100
Lombardia — 2000	2 793	22
Lazio — 2000	2 309	19
Piemonte — 2000	1 662	13
Cyprus	34	100
Latvia	42	100
Lithuania	100	100
Luxembourg — 2000	364	100
Hungary	706	100
Közép-Magyarország	460	65
Dél-Alföld	49	7
Észak-Alföld	46	6
Netherlands — 2001	8 090	100
Noord-Brabant — 2001	2 011	25
Zuid-Holland — 2001	1 572	19
Noord-Holland — 2001	1 327	16
Austria — 1998	3 377	100
Wien — 1998	1 639	49
Steiermark — 1998	596	18
Oberösterreich — 1998	392	12
Poland	1 188	100
Mazowieckie	517	44
Malopolskie	129	11
Slaskie	89	7
Portugal — 2001	1 038 e	100
Lisboa — 2001	395 e	38
Centro (PT) — 2001	338 e	33
Norte — 2001	213 e	20
Slovenia	360	100
Slovakia	148	100
Bratislavský kraj	62	42
Západné Slovensko	45	31
Stredné Slovensko	23	16
Finland	4 830	100
Etelä-Suomi/Södra Finland	2 997	62
Länsi-Suomi/Västra Finland	1 006	21
Pohjois-Suomi/Norra Finland	608	13
Sweden — 2001	10 459	100
United Kingdom — 1999	25 300	100
South-East — 1999	6 021	24
Eastern — 1999	4 595	18
North-West (including Merseyside) — 1999	2 708	11
Bulgaria	81	100
Yugozapaden	65	80
Severoiztochen	6	7
Yuzhen tsentralen	5	6
Romania	184	100
Bucureşti	97	53
Sud	29	16
Nord-Vest	12	7

Malta: no available data
United Kingdom: NUTS 1
s: Eurostat estimate
p: provisional data
e: estimated data

3 %. The German regions form strong centres for European R & D, 11 of them have already achieved this ratio, among them Braunschweig with the highest overall R & D intensity with 7.1 %.

The remaining regions that exceeded the 3 % level were from Finland (three regions out of four), from the United Kingdom and France (two regions), from the Netherlands, Austria and the Czech Republic (one region for each of those countries). The Czech Republic is the only new Member State which showed one region above the 3 % threshold (Střední Čechy).

The EU-25's average R & D intensity reached 1.9 % in 2002. Additional to the abovementioned 21 regions exceeding the 3 % threshold, there were another 23 regions exceeding the EU average of 1.9 %, but not yet reaching the Lisbon goal of 3 %. Most of the regions came again from Germany (eight), four from France, three from the Netherlands and the United Kingdom and one from Austria, Italy, Spain and Denmark (the latter region is also the whole country at NUTS 2 level). A number of countries show a high level of R & D intensity in the capital regions, such as Lazio in Italy and Comunidad de Madrid in Spain.

All other European regions stayed below the EU average. The lowest R & D intensities are identified in many of the Greek, Spanish and Portuguese regions as well in the regions of the new Member States. Bulgaria shows the same pattern as some of the EU Member States and the region around the capital city scores with the highest R & D intensity (1.0 % in Yugozapaden).

Table 7.1 delineates the regional R & D activity within a country by showing the top three regions for every country in millions of euro and as percentage of national R & D expenditure.

For all sectors, very high levels of R & D concentration were observed in Greece, Hungary, Portugal, Slovakia and Bulgaria, where the top three regions accounted for more than 77 % of the national R & D expenditure. This pattern is even more extreme in Bulgaria with 80 % of the R & D expenditure observed in the capital region Yugozapaden. The R & D expenditure was also rather concentrated in one single region in Greece, Hungary, Finland and Romania with more than a 50 % share in each of those countries.

The breakdown of the R & D expenditure by sectors of performance shows different patterns depending on the institutional sectors concerned. In the government sector (GOV) the R & D expenditure is often predominant in one region. This is often different in the higher education sector (HES) where the institutions causing R & D expenditure are often less concentrated in certain regions.

Human resources in science and technology

Human resources in science and technology (HRST) comprise all people with either tertiary education or all people employed in professions where such an education is normally required. For the age group 25–64 years the average percentage of the economically active population that were classified as HRST in 2003 reached 39.8 % for the EU-25 and 41.2 % for the EU-15.

Map 7.2 shows a clear pattern among countries that the region where the capital city is located also has the highest concentration of HRST. This is true for regions such as Praha (55.7 %) in the Czech Republic, Attiki (40.5 %) in Greece, Île-de-France (56.8 %), Southern and Eastern Ireland (44.0 %), Közép-Magyarország (45.4 %) in Hungary, Wien (44.4 %) in Austria, Lisboa (30.5 %) in Portugal, Bratislavský (53.0 %) in Slovakia, Etelä-Suomi (55.0 %) in Finland, Stockholm (62.1 %) in Sweden, Yugozapaden (47.3 %) in Bulgaria and Bucureşti (46.3 %) in Romania.

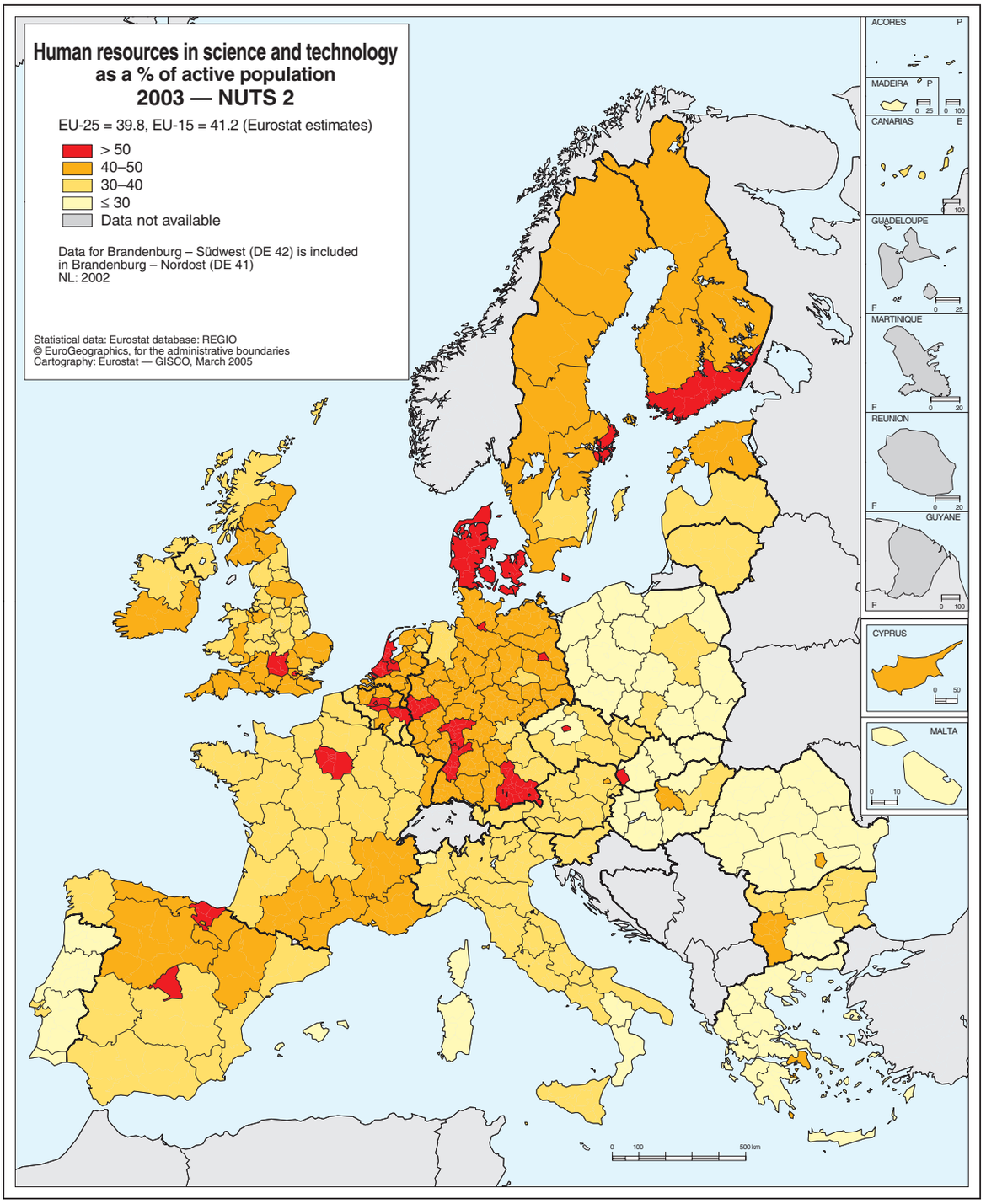
For a few countries, regions outside the capital city have a nearly equal or, in some cases, even higher concentration of HRST. In Belgium, three regions are concerned: Prov. Brabant Wallon (72.7 %), Vlaams Brabant (54.7 %) and Prov. Liège (51.2 %) where more than half of the active population are classified as HRST, in addition to the Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest (57.2 %) that contains Brussels.

This is also the case for five regions in Germany outside Berlin (56.0 %): Oberbayern (53.0 %), Darmstadt (52.4 %), Hamburg (51.7 %), Köln (50.4 %) and Karlsruhe (50.3 %), as well as for two regions in the Netherlands outside Noord-Holland (56.8 %): Utrecht (60.9 %) and Zuid-Holland (51.3 %), one region in Spain outside

Comunidad de Madrid (50.9 %): Pais Vasco (53.7 %), and one region in the United Kingdom outside Inner London (61.0 %): Berkshire, Bucks and Oxfordshire (51.0 %).

For Poland, one region, Slaskie (31.3 %), outside Mazowieckie (35.7 %) that contains Warsaw has a higher concentration of HRST than 30 %. For Italy, the five regions with the highest values are Lazio (38.9 %) containing Rome, Liguria (37.6 %), Umbria (35.0 %), Lombardia (33.8 %), Friuli-Venezia Giulia (33.7 %).

For some countries, the NUTS 2 level is equal to the national level with the following shares of human resources in science and technology: Denmark (51.0 %), Estonia (45.9 %), Cyprus (43.8 %), Latvia (34.8 %), Lithuania (35.4 %), Luxembourg (39.1 %), Malta (29.3 %) and Slovenia (37.6 %).

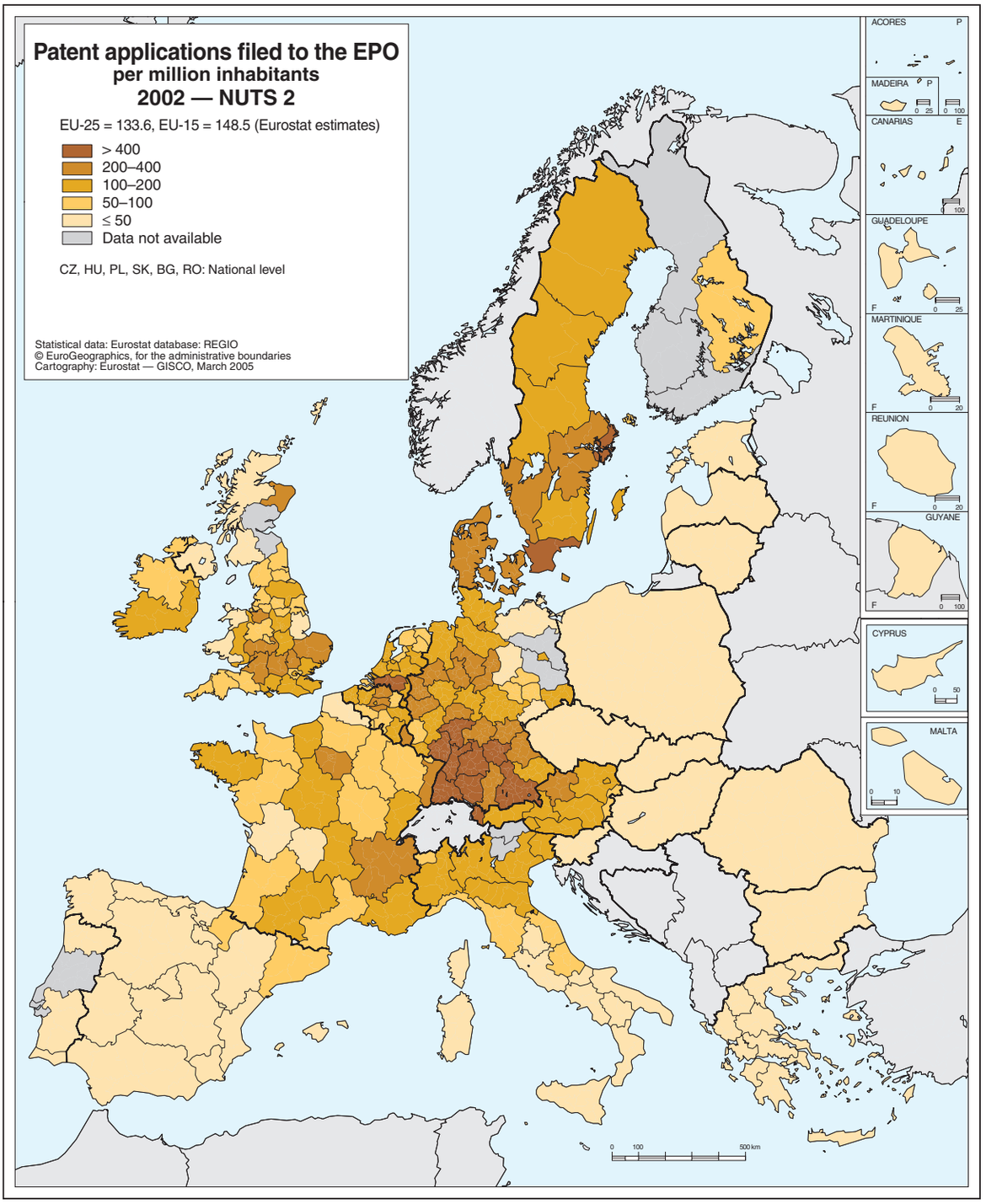


Map 7.2

Patents

Patents reflect part of countries' or regions' inventive activity. Patents also show the country's or region's capacity to exploit knowledge and translate it into potential economic gains. Therefore, patent statistics and indicators are widely acknowledged as output indicators linked to R & D and innovation and used to assess the inventive performance of the country or regions.

Map 7.3 shows patent applications per million inhabitants from different regions filed at the EPO during 2003, including both direct applications and applications filed under the Patents Cooperation Treaty (PCT) that designate the EPO. The regional distribution of patent applications is as-



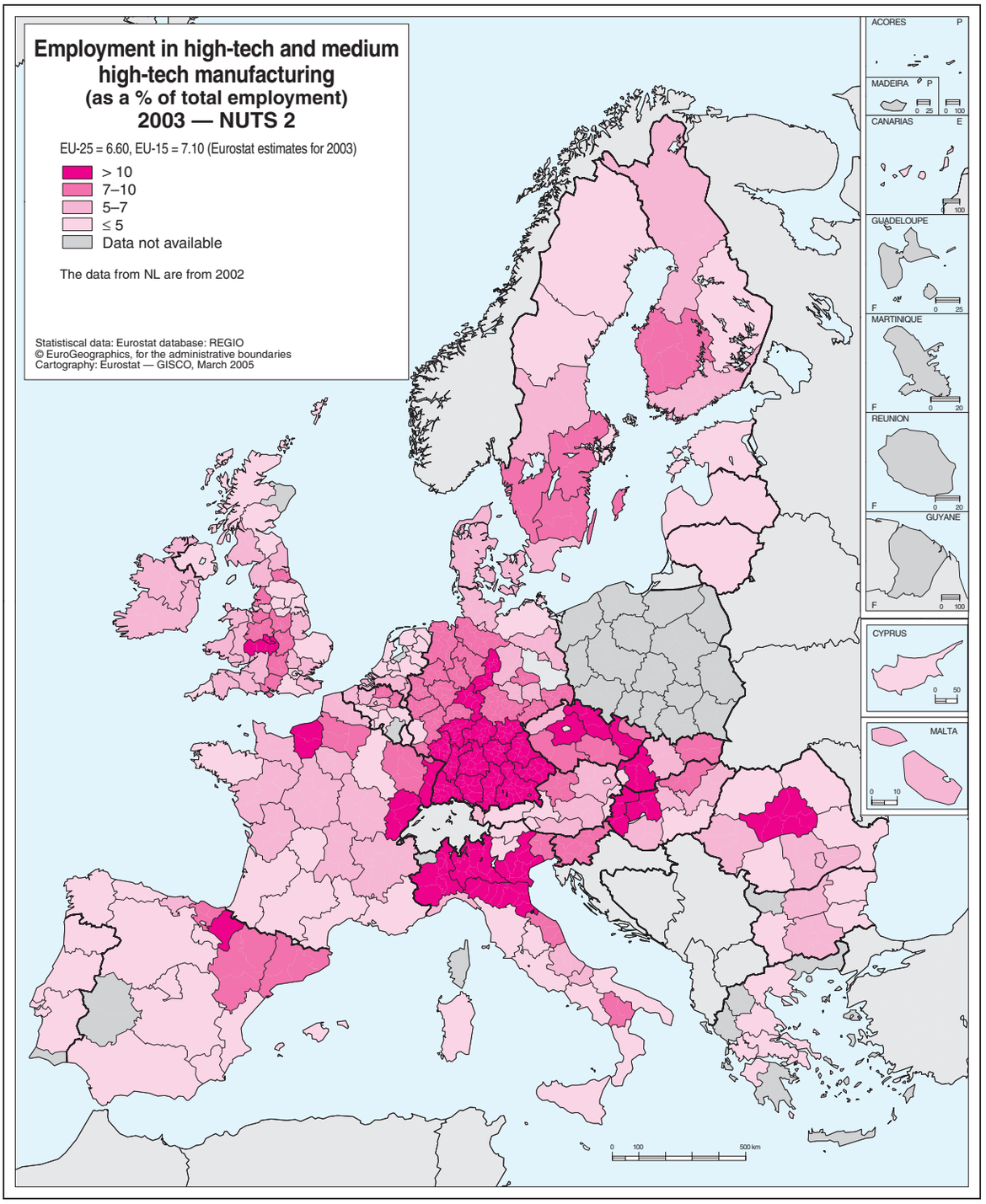
Map 7.3

signed according to the inventor's place of residence. If one application has more than one inventor, the application is divided equally among all of them and subsequently among their regions, thus avoiding double counting.

The average number of patent applications per million inhabitants for 2002 is estimated at 133.6 for the EU-25 and 148.5 for the EU-15. These estimates are built on provisional data from EPO.

For the time being, patent statistics are only available for the EU-15 at NUTS 2 level, although for six of the 10 new Member States, Estonia, Latvia, Lithuania, Slovenia, Malta and Cyprus the national level corresponds to the NUTS 2 level.

The most outstanding cluster of high productive patenting regions is found in south-western Germany. This cluster also reaches into the neighbouring regions of eastern France, Austria and to

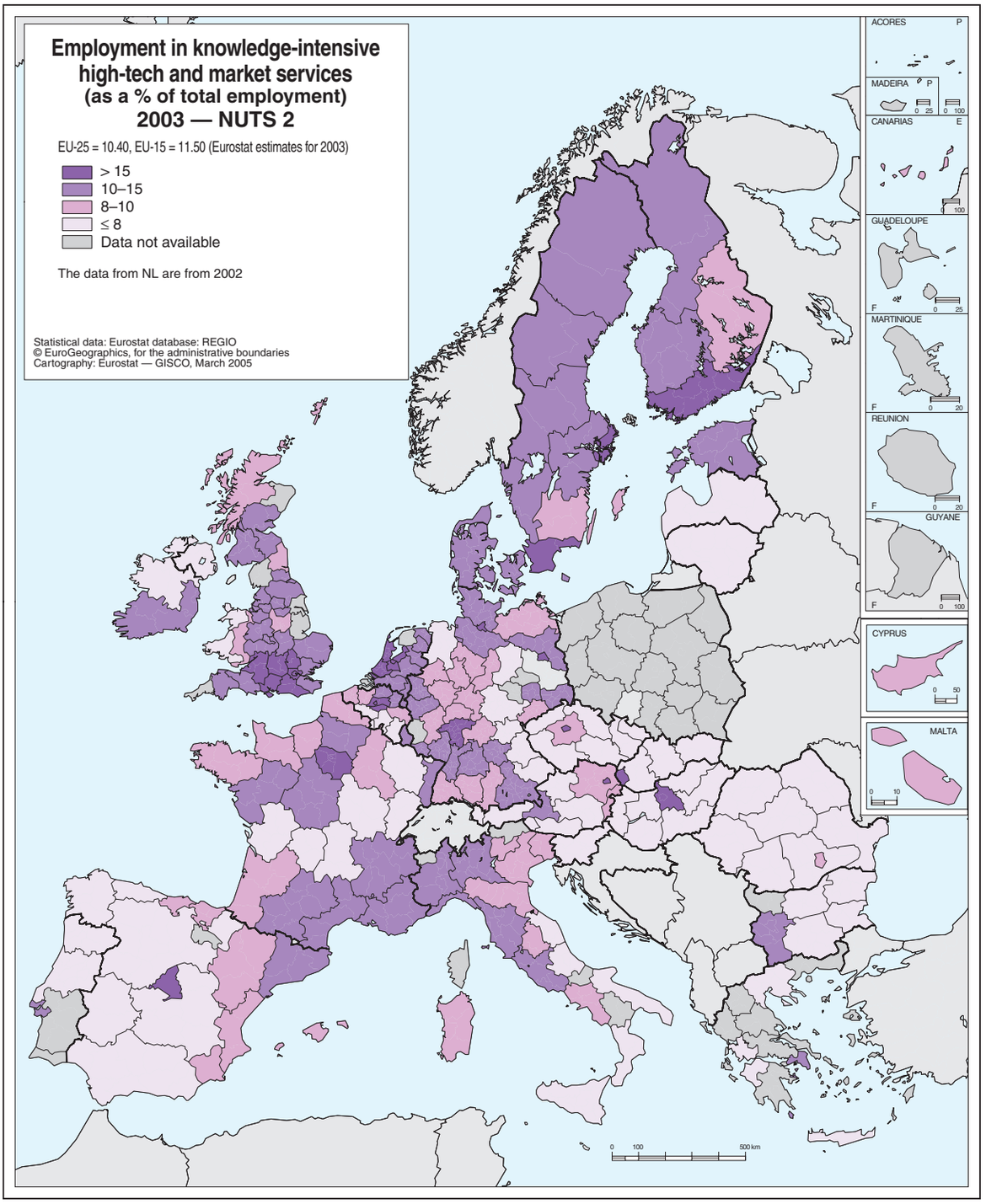


Map 7.4

some extent into northern Italy. Another smaller cluster can be found around the region of Noord-Brabant in the Netherlands that has the highest patenting figure of all regions, 1 084 patents per million inhabitants. This cluster reaches from Belgium in the west, Luxemburg in the south into a stripe of more eastern regions.

In the United Kingdom, a band of regions with comparable high patenting activity goes from the region of East Anglia in the east to reach the Bristol Channel in the west. A relatively high figure is also found in north-eastern Scotland but the quite low population figures for this region makes it less important in absolute patent output.

Also in the Scandinavian Member States there is a stripe of highly active regions in patenting, beginning with Denmark in the south-west going through southern Sweden up to the Stockholm



Map 7.5

region. Southern European regions and the new Member States in general show rather low ratios of patent applications per million inhabitants at this stage.

Employment in high-tech manufacturing and knowledge-intensive services

In 2003, the employment in high-tech and medium high-tech manufacturing sectors shows an average rate of 6.6 % of total employment in the EU-25 or 7.1 % in the EU-15 respectively. Many of the regions with the highest shares of employment are located in Germany, Italy, France, Hungary or the Czech Republic.

These regions concentrate their economic activities on aerospace, pharmaceuticals, computers, officer machinery, electrical machinery and electronics, motor vehicles, chemicals or other related activities. Amongst new Member States, it is particularly the Czech Republic and Hungary which show high shares of employment related to high-tech and medium high-tech industries, also based on the industrial base already existing there before accession.

Under average shares of this high value added, creating employment is often found outside national economic clusters, characterised by a lower level of industrialisation as such or by a different structure of economic activities, sometimes more oriented towards services. Examples are certain southern regions of Spain, Italy or also certain regions in Scandinavian countries.

The employment in knowledge-intensive high-tech and market services shows much less concentration across the EU. These services cover post and telecommunication, computer and related services, R & D, water and air transport and a certain selection of business services, with an average share in the total employment for the EU-25 of 10.4 % and for the EU-15 of 11.5 %.

An over average share of persons are employed in those services in many regions in southern France, northern Italy or northern Spain. Also Belgium, the Netherlands, the southern regions of the United Kingdom, Denmark or a number of Scandinavian regions are characterised by a stronger presence of those services activities.

Compared to the regional distribution shown for the high-tech and medium high-tech manufacturing industries, the knowledge-intensive high-tech and market services often show a different regional pattern. This means that industrial clusters in certain manufacturing industries sometimes do not coincide with the regional distribution of the knowledge-intensive services which they use. This pattern can be found in Germany, France, the Netherlands or the United Kingdom.

Conclusion

Statistics on science, technology and innovation offer already a considerable choice of regional data across the various domains shown. A larger challenge in the years to come will be to produce also regional data on innovation. A first broader attempt in this direction is made with the fourth Community innovation survey (based on the Commission Regulation (EC) No 1450/2004) for which a number of countries will compile regional results.

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STRUCTURAL BUSINESS STATISTICS

8

Introduction

What effects are the European Union's commercial and regional policies having on the industrial structure of the regions? How is employment in industry changing in the regions? What are the wage and investment rates in any particular region or sector of activity? A detailed analysis of the structure of the European economy by sector can only be made at regional level. Regional structural business statistics (SBS) can provide the data for this kind of analysis. Regional SBS are collected under Council Regulation (EC) No 58/97 concerning structural business statistics. Regional business statistics are compiled using information available from businesses themselves. The data cover all the EU Member States, including the 10 countries that joined on 1 May 2004, and Bulgaria and Romania.

Data are collected on the number of local units, wages and salaries, the number of persons employed and investments in tangible assets. The latter variable is collected on an optional basis, which results in more limited data availability than for the other variables. Data are collected at NUTS 2 level, no further detailed breakdowns are available. Activity is broken down at the level of divisions in the NACE classification.

Maps 8.1 to 8.7 are based on the structural business statistics available in the NewCronos database under the theme 'Industry, trade and services — horizontal view, structural business statistics — regional statistics'. This includes three tables: regional data (according to NUTS 2003), regional data (according to NUTS 1995) and multiannual regional statistics. The revision of the NUTS classification made it necessary to split the annual regional statistics into two tables. The same data can alternatively be found under the theme 'General and regional statistics — regions — structural business statistics'.

Maps 8.1, 8.2 and 8.3 give a general overview of the economies in the regions at NUTS 2 level by comparing the relative importance of employment in services and trade with employment in industry and construction, by giving an overview of the average wages per person employed in the total business economy and comparing the investment rate in industry. In a second part, the specialisations of the different regions will be investigated: firstly, by examining the share of high and medium-high technology in total manufacturing (Map 8.4) and high-technology services in total services (Map 8.5). Secondly, an indicator measuring the degree of specialisation of regions in divisions of manufacturing (Map 8.6) and services (Map 8.7) is presented in order to give an indication of where the most specialised regions in the European Union and the candidate countries are located.

Methodological note

Regional structural business statistics are collected on the basis of Council Regulation (EC) No 58/97 concerning structural business statistics. As the SBS regulation came into force starting with the reference year 1995, data are mostly available from that reference year onwards. However, 1995–98 was a transition period in the implementation of the regulation, during which the national statistical institutes adapted to a system complying with the regulation. Availability is therefore better from 1999 onwards (this is the first year after the end of the transitional period). Quality also improved with time: e.g. for the reference year 1999, Belgian data for the first time covered the local units of all businesses rather than only those of businesses with more than 20 employees. Similarly, from reference year 2000 onwards, German data have covered all local units, whereas for previous years only the local units of businesses with more than 20 employees were considered in the regional statistics. For some old Member States, data are already available from reference year 1985 onwards. As the new Member States joined the European Union only recently, the time series for their regions are shorter, although they do cover several years before their accession.

As SBS data are collected under a regulation, and as definitions of the characteristics are included in a Commission Regulation ((EC) No 2700/98), the content of the statistics should be sufficiently harmonised and comparable between countries and regions. The population covered by the SBS regulation is the whole of the market economy, except for agriculture and fishing. The population more or less covers the secondary and tertiary market sector, corresponding to NACE Rev.1.1 Sections C to K. Regional data for Section J are for the time being only collected on a voluntary basis. As data are not available for a sufficient number of countries, Section J is not taken into account in this publication.

The regional data collected under the SBS regulation are the number of local units, number of persons employed, wages and salaries and investments in tangibles. 'Number of persons employed' refers to the persons (paid or unpaid) working in a local unit and those working outside the unit while remaining part of it and being paid by it. Wages and salaries means all sums in cash and benefits in kind paid to persons who are counted as employees, including home workers, in return for their labour during the accounting year, irrespective of whether they are paid by the hour, by output or at piece rates, or whether they are paid regularly or not. With regard to investment in tangibles, account is taken of investments made during the reference period in all kinds of tangible goods, i.e. all those purchased from third parties or produced for own account (i.e. capitalised production of tangible capital goods), that have a useful life of more than one year.

Data are collected by the national statistical institutes from the businesses or local units and are aggregated by region and by NACE activity division. Eurostat processes the data — mainly by checking the plausibility of the developments over previous reference years — and aggregates them to subsection and section level of the NACE activity classification. SBS data are also collected at national level. As these data concern the statistical unit 'enterprise', whereas the regional statistics cover the statistical unit 'local unit', differences can be noted when aggregating regional data to national level for a certain activity and comparing the results with the national statistics. In fact, 'enterprises' and local units are classified in certain activities according to their principal activity. As an 'enterprise' can consist of several local units, it is possible for the principal activity of the local unit to differ from that of the 'enterprise' to which it belongs. Hence, it is possible to note apparent inconsistencies between national and regional structural business statistics. It should, however, be noted that in some countries the activity code assigned is based on the principal activity of the 'enterprise' in question.

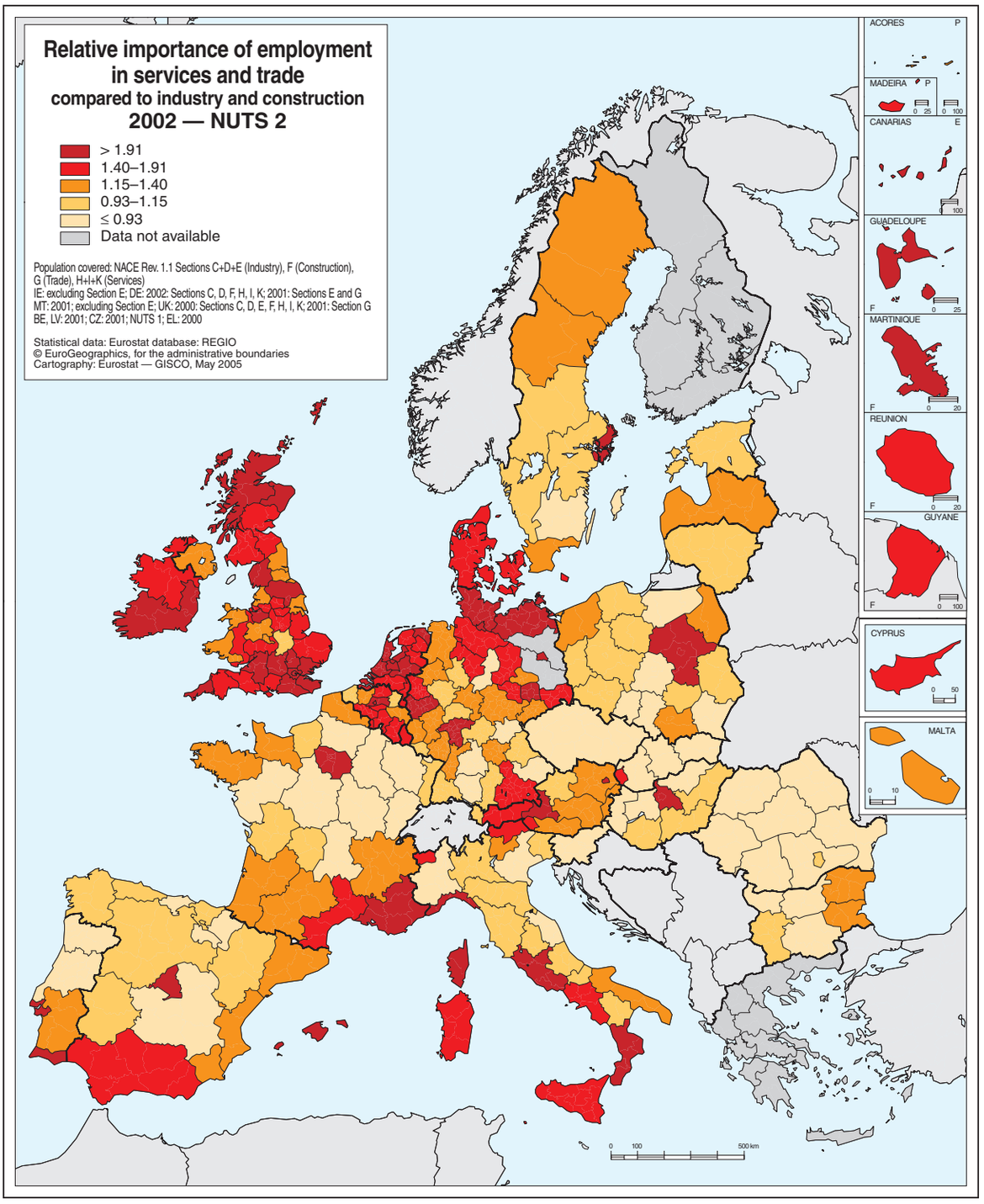
Services concentrated around capitals

Inner London is the region of the European Union in which the services and trade sector is relatively the most important employer. As financial services and non-market services are not taken into account in this analysis, the services sector will in reality still be more important in this region. In general, the regions that are most active in services and trade are situated around the capitals of the countries, where trade and business services play an important role. This is the case in all the old and new Member States and the candidate countries, except for Germany, Bulgaria and Portugal. In Germany and Bulgaria, the most services-oriented regions are situated around harbours, which seems logical as in these regions not only are water transport services important, but there is also considerable trade activity. In Portugal, the Algarve region, a well-developed tourist area, is the country's most active region in services. Map 8.1 also shows that, in general, a relatively important services sector can be observed in the tourist areas of the Mediterranean. Differences in the level of importance of the services and trade sector as employers as compared with industry and construction can still be seen between old and new Member States. It is clear from the statistics that in the old Member States services are relatively more important than in the new Member States.

Differences in regional wage levels smallest in the Netherlands

In Map 8.2, the wages and salaries per employee are shown. From the map it is clear that the average level of wages and salaries is still higher in the old Member States than in the new Member States and the candidate countries. This difference is amplified because wages and salaries are calculated in euro at an average annual nominal exchange rate, not taking into account purchasing power parities. If purchasing power parities were taken into account, the gap between the old Member States, on the one hand, and the new Member States and the candidate countries, on the other, would certainly shrink.

When looking at the figures in more detail, it can be noted that, in general, average wages and salaries are highest in the regions around the

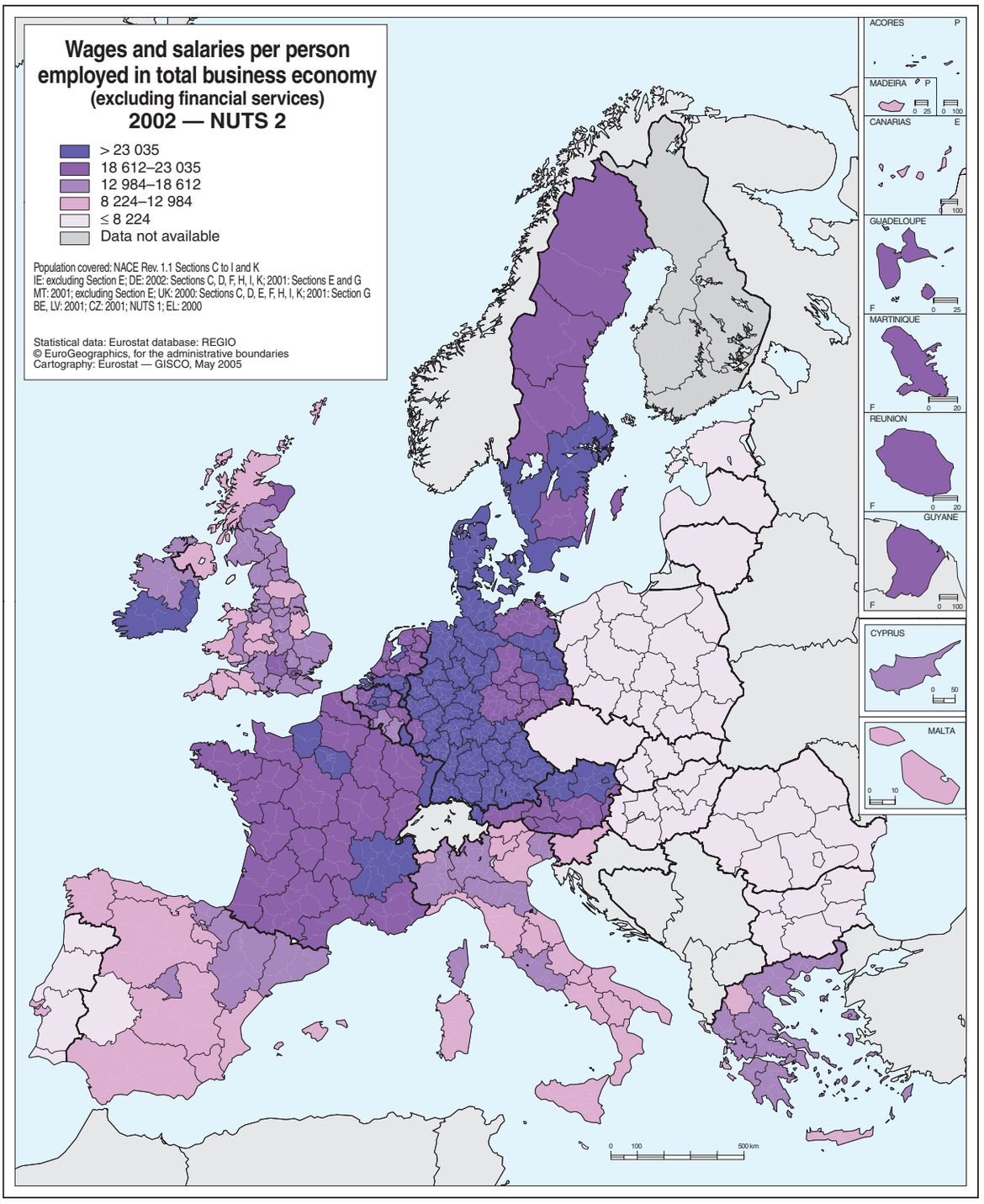


Map 8.1

capital of the country. When comparing the average wage level between the regions of a given country, the data for the Netherlands indicate that the differences are smallest in that country. In Sweden, the differences between regions are also fairly small. The largest difference between the regions with the highest and lowest level of wages is in the United Kingdom. The data for Spain also indicate that wage levels can vary considerably between regions in that country too.

Capital-intensive regions in the EU

Map 8.3 shows the rate of investment in industry, i.e. the physical investments in relation to employment. It illustrates the increase in capital associated with each person employed in industry in the regions. Since this rate is likely to fluctuate

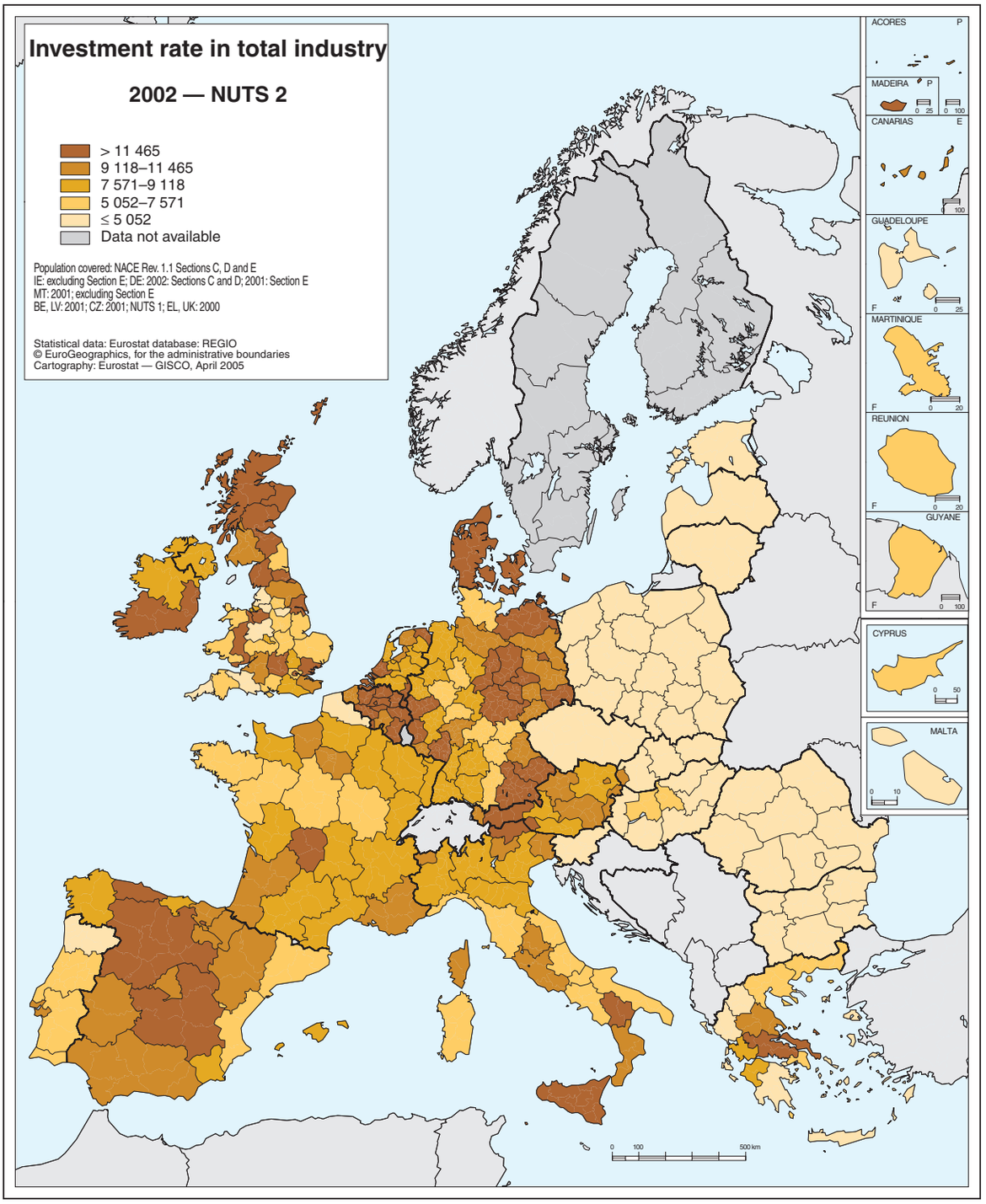


Map 8.2

markedly from one year to the next, the capital-intensity of a given region cannot necessarily be inferred from the fact that investment may have been high in 2002. Investment flows would have to be looked at over several years to enable capital stock figures to be calculated. The figures should therefore be seen as an illustration of the availability of regional structural business statistics.

The relatively low rate of investment per capita throughout the regions of the new Member States is yet again accentuated by the fact that the exchange rates used do not take into account the purchasing power parity. In other words, it is likely that the cost of investment in the 10 new Member States is lower, so if it were assessed in real terms the figure would be closer to that in the other Member States. A comparison of the data is

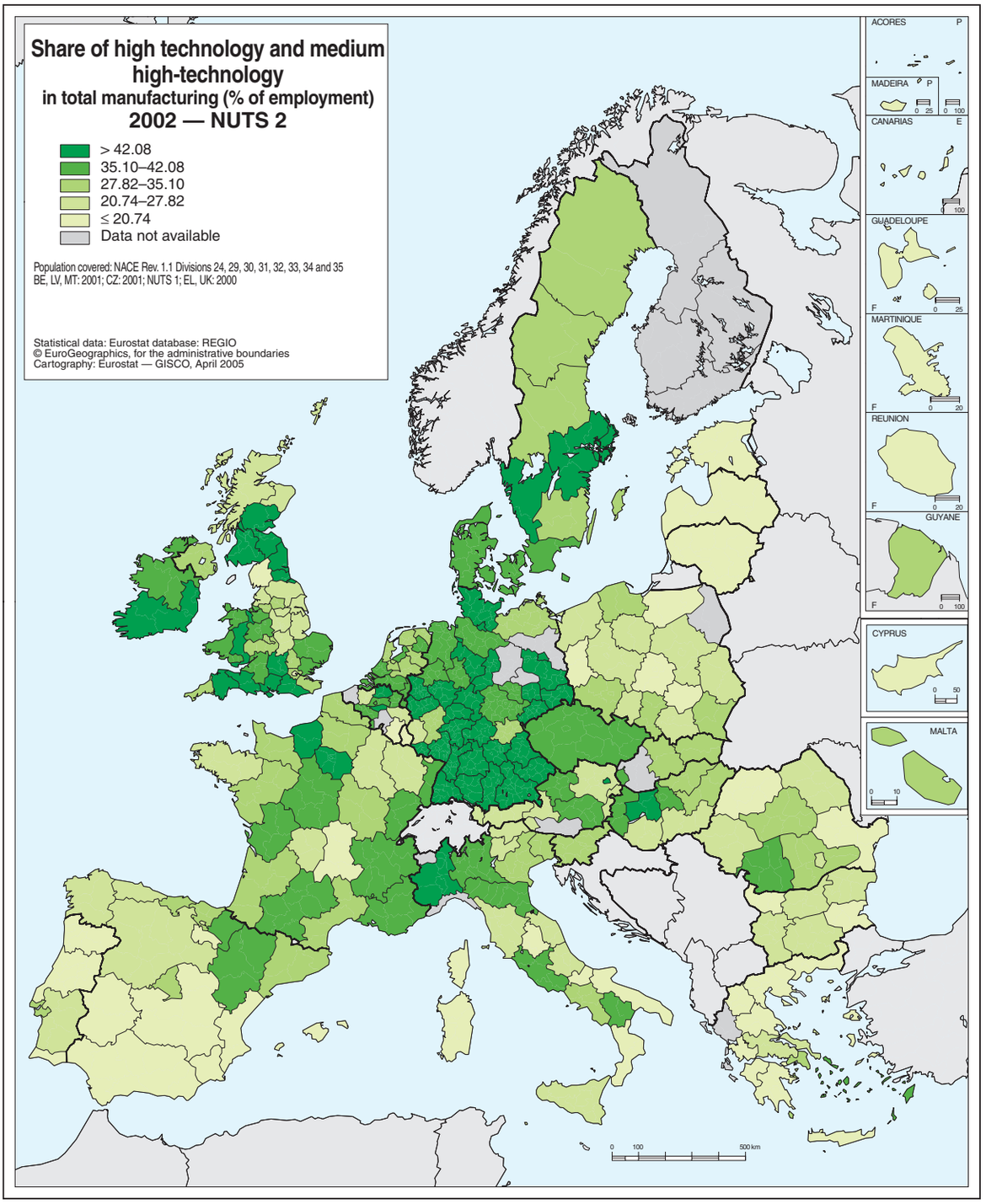
quite difficult given that the reference year covered is not the same for all countries and investments depend on business trends. Bearing in mind these limitations, the data indicate that the highest investment rates among the regions for which data are available were registered in north-eastern Scotland (UK, especially influenced by a high investment rate in the electricity, gas and water-supply industry), Cumbria (UK, manufacture of coke, refined petroleum products and nuclear fuel), Province de Luxembourg (BE, manufacture of pulp, paper and paperboard), East Riding and Northern Lincolnshire (UK, manufacture of other transport equipment).



Map 8.3

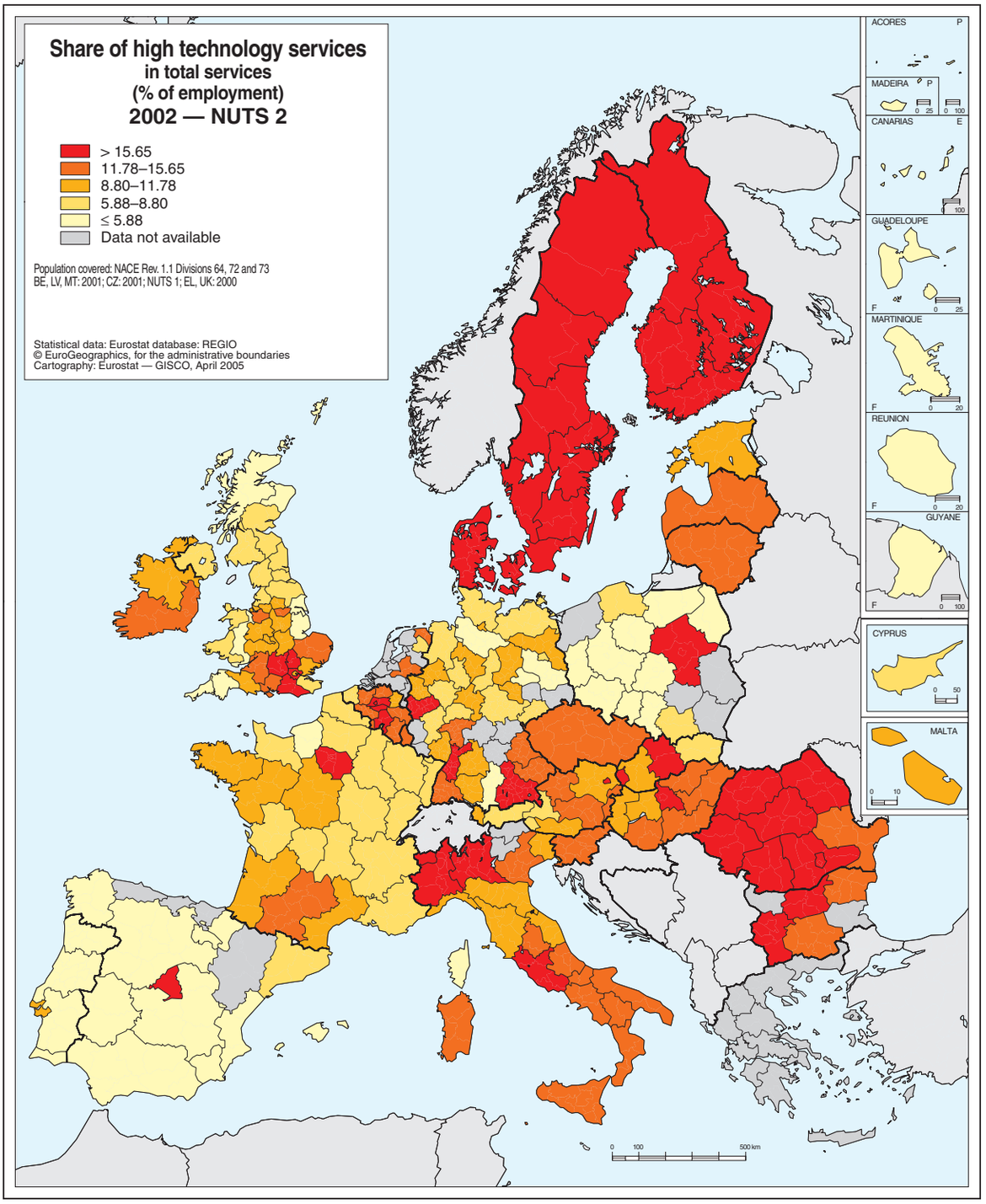
Most technology-intensive industries in Germany

Map 8.4 shows the share of the high- and medium-high technology in total manufacturing. High-technology sectors are 'Manufacture of pharmaceuticals, medicinal chemicals and botanical products' (NACE Rev.1.1 24.4), 'Manufacture of office machinery and computers' (NACE Rev.1.1 30), 'Manufacture of radio, television and communication equipment and apparatus' (NACE Rev.1.1 32), 'Manufacture of medical, precision and optical instruments, watches and clocks' (NACE Rev.1.1 33), 'Manufacture of aircraft and spacecraft' (NACE Rev.1.1 35.3). Medium-high-technology industries are: 'Manufacture



Map 8.4

of chemicals and chemical products' excluding 'Manufacture of pharmaceuticals, medicinal chemicals and botanical products' (NACE Rev.1.1 24 excluding 24.4), 'Manufacture of machinery and equipment' (NACE Rev.1.1 29), 'Manufacture of electrical machinery and apparatus n.e.c.' (NACE Rev.1.1 31), 'Manufacture of motor-vehicles, trailer and semi-trailers' (NACE Rev.1.1 34), 'Manufacture of railway and tramway locomotives and rolling stock' (NACE Rev.1.1 35.2), 'Manufacture of motorcycles and bicycles' (NACE Rev.1.1 35.4) and 'Manufacture of other transport equipment' (NACE Rev.1.1 35.5). As the regional SBS data are collected only at the level of NACE divisions, the figures for building and repairing ships and boats' (NACE Rev1.1 35.1) — which is considered to be a medium-low-technology industry — are also included. The figures calculated for this publication should, however, be a relatively good approximation of

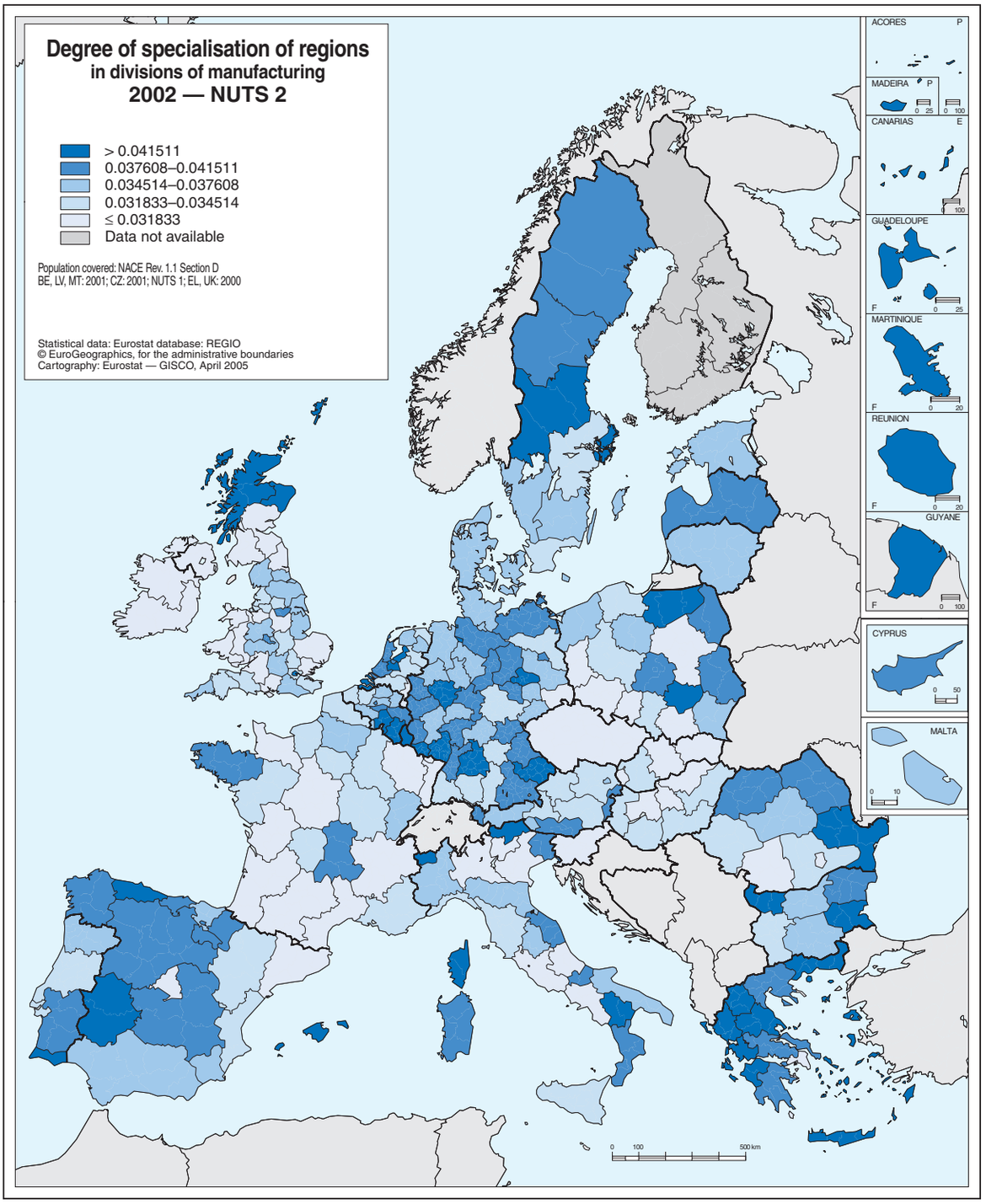


Map 8.5

the importance of the high- and medium-high-technology manufacturing activities. The share of these activities in total manufacturing (Section D of NACE Rev.1.1) has been calculated.

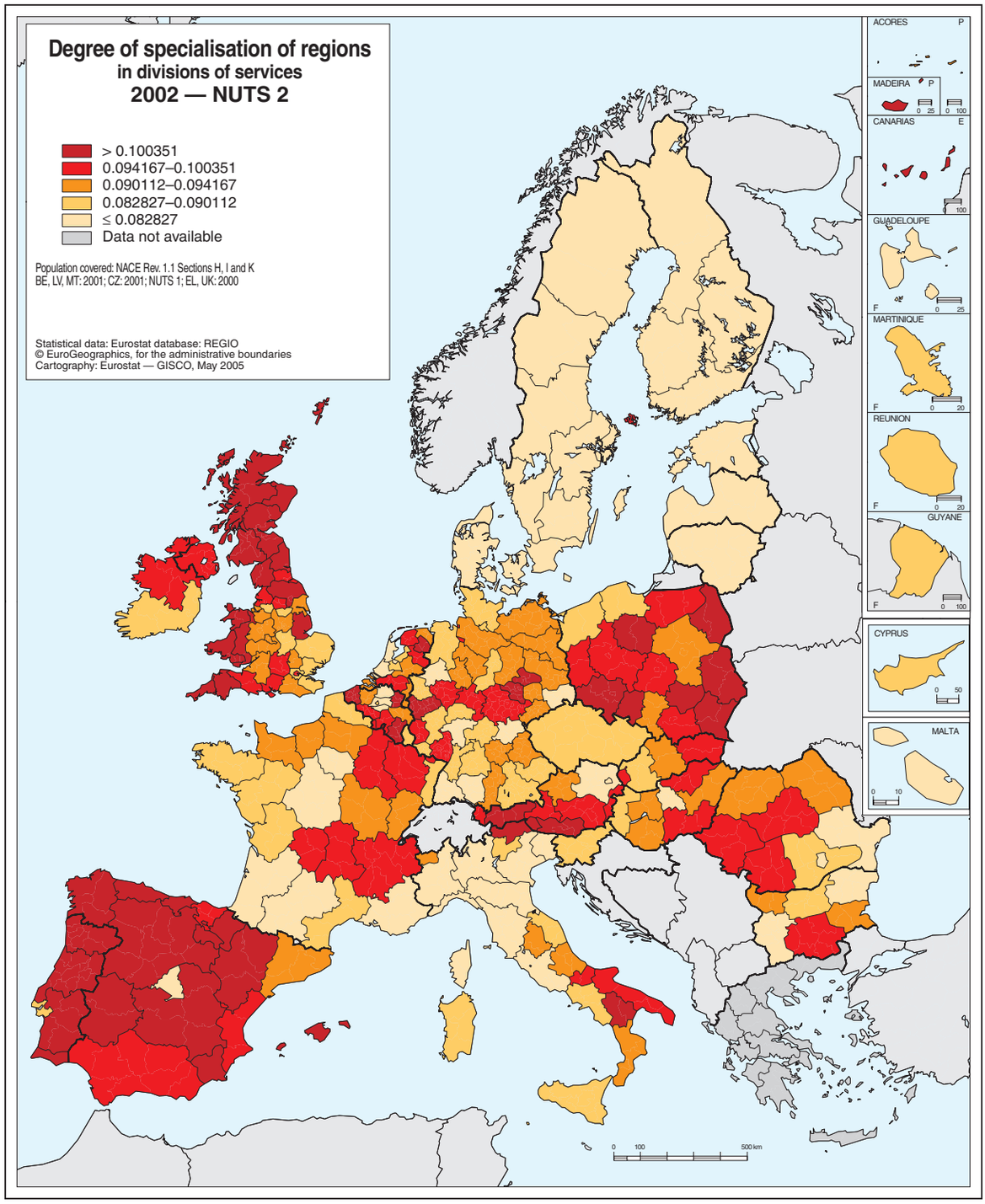
It can be concluded from a detailed evaluation of the figures that the most technology-intensive industry can be found in Germany. The 10 regions with the largest share of high- and medium-high-technology industries are in Germany: Oberbayern, Stuttgart, Braunschweig, Rheinhessen-Pfalz, Darmstadt, Karslruhe, Mittelfranken, Unterfranken, Hamburg and Bremen.

Table 8.5 shows the share of high-technology services in total services. The following are considered to be high-technology services: 'Post and telecommunications' (NACE Rev.1.1 64), 'Computer and related activities' (NACE Rev.1.1 72) and 'Research and development' (NACE Rev.1.1 73).



Map 8.6

Total services are calculated as the sum of Sections H, I and K of NACE Rev.1.1. In the European Union, the regions with the largest share of high-technology services in total services are Stredné Slovensko (SK), Münster (DE), Mazowieckie (PL), Berkshire, Bucks and Oxfordshire (UK), Île-de-France (FR), Stockholm (SE), Comunidad de Madrid (ES), Etelä-Suomi (FI), Sydsverige (SE) and Mellersta Norrland (SE). In Romania, a number of regions also register large shares of high-technology services.



Map 8.7

Most specialised regions in EU

The regional SBS also allow the calculation of indicators on the specialisation of regions. The indicator shown in Maps 8.6 and 8.7 measures the degree of variability of each region within the manufacturing and services sector respectively. This is done by calculating the average deviation of the share of each division of activity in total employment in manufacturing or services. The greater the deviation, the more specialised the region is. Map 8.6 shows that regions with higher degrees of specialisation can be found in almost all Member States of the European Union. However, of the 10 most specialised regions in manufacturing, six are in Greece: Ionia Nisia, Voreio Aigaio, Notia Aigaio, Dytiki Makedonia, Ipeiros and Kriti. Two are in Spain: Ciudad Autónomo de Ceuta and Ciudad Autónomo de Melilla. The last two are in Portugal (Região Autónomo dos Açores and Algarve). In these regions, the four most important industries represent over 50 % of employment in manufacturing. It should be noted, however, that in these regions the manufacturing sector is relatively small. Some of these regions are rural areas in which agriculture is still important and in which the 'Manufacture of food products and beverages' is relatively important. A more general conclusion can be drawn from the data: most rural areas of the European Union are (logically) dependent on a limited number of manufacturing branches. High degrees of specialisation in certain branches of manufacturing can also be found in regions where the services sector is relatively important.

Map 8.7 shows how specialisation in divisions of the services sector is spread over the European Union, Romania and Bulgaria, The most specialised regions in certain divisions of services are Centro (PT), Cornwall and Isles of Scilly (UK), Extremadura (ES), Alentejo (PT), Castilla-La Mancha (ES), Åland (FI), La Rioja (ES), Highlands and Islands (UK), Castilla y Léon (ES) and Provincia Autonoma Bolzano-Bozen (IT). The four Spanish regions are most specialised in other business activities, but hotels and restaurants are also contributing considerably to employment. The two regions of the United Kingdom and the Italian and Portuguese regions are specialised in the hotels and restaurants division of the services sector. In the Finnish region of Åland, the water-transport branch is the most important employer in services.

Conclusion

The regional structural business statistics offer users who are interested in regional sectoral data a detailed, harmonised overview of economic activity by sector in the regions. Those looking for greater detail can use the full database, of which the seven maps presented in this publication only give a summary.

In particular, they can compare per capita wages costs from one region of Europe to another and their development, or observe the relative specialisation of the various regions in different sectors of the economy. As time series are available, changes in the specialisation pattern in the different regions can be studied. On the basis of regional SBS, the regions in which a country's flagship industry is concentrated can be identified.

Regional structural business statistics can also be used in combination with other statistics. For example, on the basis of regional GDP, data regions can be identified where economic growth is lagging. Regional SBS can then serve to find explanations for this trend; it could be linked to a particular activity in which the region specialises.

eurostat

9

HEALTH

Introduction

Socio-health regions are defined in very different ways from one regional, provincial or local government to another or from one Member State to another. As regional governments have become more important in Europe, the role of the regions as units for the political and administrative management of health issues has also developed. For example, in Spain, where regional governments have acquired a great deal of autonomy, one practical effect is that they manage the entire health budget. The situation is very similar in Belgium. Since 1996, France's healthcare reform, introduced to put healthcare planning on a regional footing, has allowed hospitals to be responsible for allocating the budget. Healthcare management is also being drastically reorganised in the United Kingdom, with NHS trusts having varying levels of responsibility. In other Member States such as the Netherlands and Sweden, the municipalities are responsible for healthcare.

Hence the difficulty with statistics on health and on medical/health/hospital services at regional level stems from the fact that local-government boundaries, and thus the regional breakdown which is of interest to health authorities in the Member States, do not always coincide with the NUTS and problems may therefore arise with cross-referencing to compare regional statistics.

Currently, two different types of health information are available at regional level, mostly for NUTS 2 level. Firstly there are data on **mortality** by underlying cause, where the illnesses or diseases in question are defined according to an international classification and where data are collected using comparable methods. This chapter highlights two of the main causes of mortality in Europe — diseases of the circulatory system and cancer — and its regional distribution. It also looks in detail at lung cancer for men and at neoplasm of the ovary for women. The second type of data available at regional level concerns **healthcare resources**, and this is used here to examine in particular the regional distribution of hospital discharges and hospital beds.

Methodological note

Causes of death (COD) **statistics** are based on information derived from the medical death certificate. COD statistics record the **underlying cause of death**, i.e. 'the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury'. This definition has been adopted by the World Health Assembly.

In addition to absolute numbers, crude death rates and standardised death rates are provided for COD, at national and regional levels. Regional level data are provided in the form of three year averages. The **crude death rate** describes mortality in relation to the total population. Expressed per 100 000 inhabitants, it is calculated as the number of deaths recorded in the population for a given period divided by the population in the same period and then multiplied by 100 000. **Crude death rates** are calculated for five-year age groups. At this level of detail, comparisons between countries and regions are meaningful. The crude death rate for the total population (all ages), however, is a weighted average of the age-specific mortality rates. The weighting factor is the age distribution of the population whose mortality is being observed. Thus, the population structure strongly influences this indicator for broad age classes. In a relatively 'old' population, there will be more deaths than in a 'young' one because mortality is higher in higher age groups. For comparisons, the age effect can be taken into account by using a standard population. The **standardised death rate** (SDR) is a weighted average of age-specific mortality rates. The weighting factor is the age distribution of a standard reference population. The standard reference population used is the 'standard European population' as defined by the World Health Organisation (WHO). Standardised death rates are calculated for the age group 0–64 ('premature death') and for the total of ages. Causes of death are classified by the 65 causes of the **'European shortlist'** of causes of death. This shortlist is based on the International Statistical Classification of Diseases and Related Health Problems (ICD), a classification developed and maintained by the WHO.

Eurostat collects regional-level statistics on **healthcare staff** (numbers of doctors and of other professions; these are not shown in this publication but are available in the NewCronos database) and numbers of **hospital beds**. Regional data on **hospital discharges** have recently become available, though not yet for all countries. In addition to absolute numbers, density rates are provided for healthcare statistics. **Density rates** are

used to describe the availability of these resources or the frequency of services rendered, expressed per 100 000 inhabitants. They are calculated by dividing the absolute number of healthcare resources available or services rendered in a given period by the respective population in the same period and then multiplied by 100 000.

Data on **hospital beds** should refer to available hospital beds (occupied or unoccupied) which are immediately available for use if required by a patient on admission. Bed-counts include only beds used for full in-patient accommodation. The concept of number of beds should correspond as closely as possible to the resources actually available for the specific type of in-patient care for which they are intended. This means fully-staffed and equipped beds excluding provisional beds and beds for accompanying persons. However, the data reported to Eurostat on the number of beds usually refer to an annual average of beds in use during the year of reporting or according to concepts of registration or budgetary or planned approval. There are still some concerns with regards to the comparability of the data, and the data should therefore be treated with caution due to the different concepts of 'hospital' and 'hospital bed' in the EU countries. The figures for 'total in-patient care beds' refer to all beds (except cots for healthy infants) in general, university and specialised hospitals, mental hospitals, institutions for the psychologically impaired, nursing homes and others. Beds in hospitals available for nursing day care, medical children's homes, nurseries for very small children under medical supervision and institutions for persons with sensorial handicaps are not necessarily included.

A **discharge** from a hospital or another healthcare facility occurs at any time when a patient leaves because of medically authorised discharge, transfer, departure against medical advice, or death. The number of discharges is the most commonly used measure of the utilisation of hospital services, in preference to admissions. This is because it is at the time of discharge that information is gathered for hospital abstracts for in-patient care.

Mortality in EU regions

Mortality patterns differ significantly according to age and sex, and also vary considerably between regions. Many factors determine mortality patterns — intrinsic factors such as age and sex, extrinsic factors such as biological or social collective factors, living or working conditions, and individual factors such as lifestyle, smoking, alcohol consumption, driving behaviour, and sexual behaviour.

As a general rule, mortality is higher among men than women in all age groups. Although there are signs that the mortality gap is narrowing in some Member States, the difference nevertheless warrants looking at women and men separately.

Looking at the overall mortality in the EU-25 in 2001, diseases of the circulatory system account for 42 % of all deaths and are thus the major cause (46 % for women and 38 % for men). These pathologies affect the population at advanced ages — over 80 % of deaths due to cardiovascular diseases occur among people aged 70 years and older. Malignant neoplasms, i.e. cancer, follow as the second most frequent cause, accounting for 25 % of all deaths in the EU-25 (or 22 % for women and 29 % for men). Malignant neoplasms mostly affect elderly people, as almost 60 % of all deaths due to cancer involve persons aged 70 years and older, but a quarter of all such deaths occur at ages 45 to 64.

The following two maps look at these major causes in comparing the differences in mortality between women and men according to region.

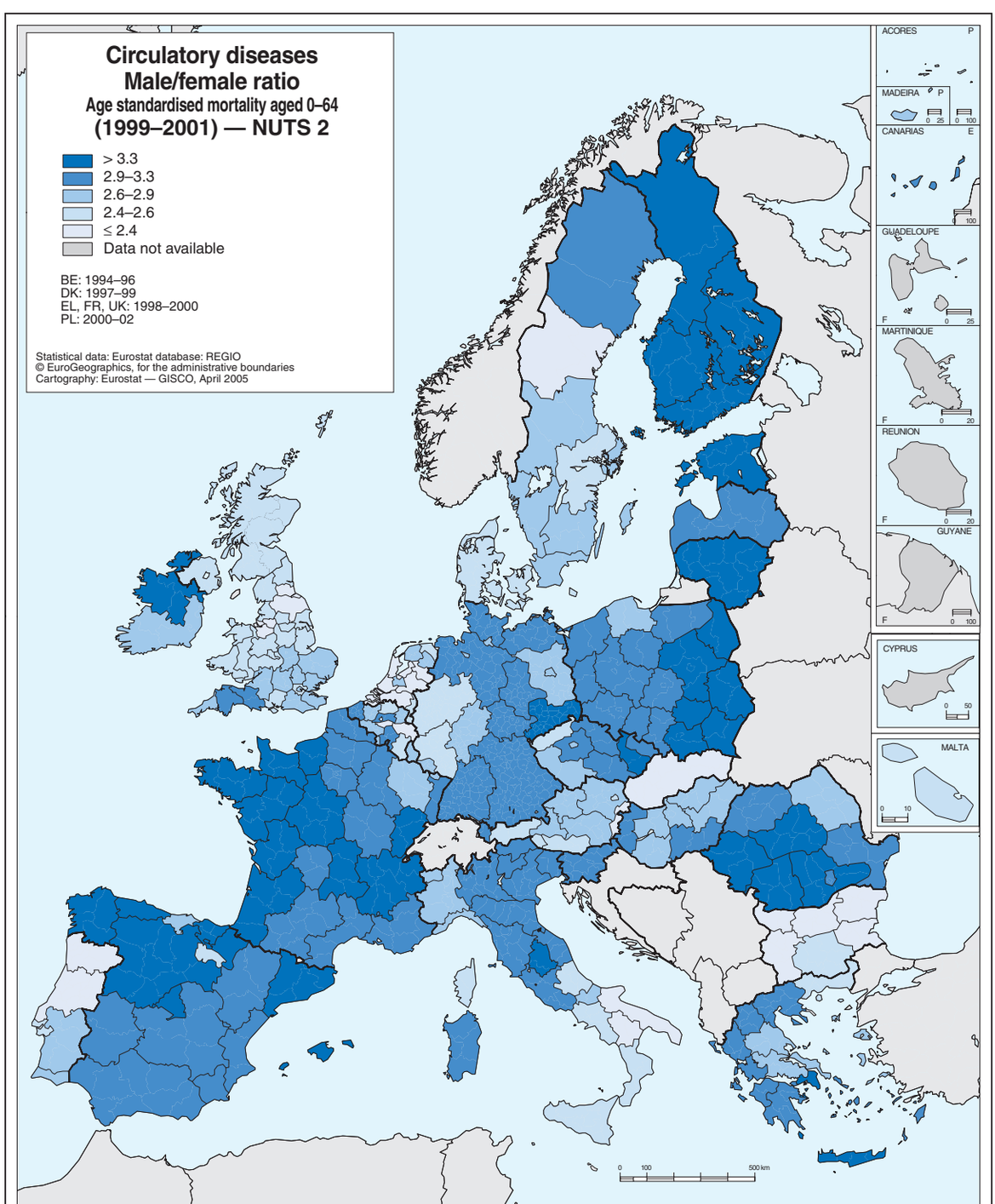
Diseases of the circulatory system

Male/female mortality ratios compare the differences in mortality between women and men. They are calculated by dividing the age-standardised death rate (SDR) for men in a given region and for a specific cause by the corresponding SDR for women (for SDR see also above in 'methodological note'). A value higher than 1 indicates excess male mortality, while a value lower than 1 means excess female mortality.

Looking at the SDRs for all ages, the male/female mortality ratios for diseases of the circulatory system show a male excess mortality in all regions but the variation within the EU-25 is relatively small, ranging from 1.1 in the Greek region Peloponnisos to 1.8 in Basse-Normandie (France).

However, looking at premature mortality due to diseases of the circulatory system, i.e. SDRs for the ages 0 to 64, then considerably higher male excess mortality can be found throughout Europe. The regions with the lowest male excess mortality before the age of 65 already report values of around 2.0, and values higher than 4.0 are reached in four European regions: Comunidad Foral de Navarra (Spain), Åland and Pohjois-Suomi (Finland), and Centru (Romania).

The regions with the highest male/female ratios are found in France and Spain, in Finland and the Baltic countries, and also in Poland and Romania. On the other hand, in a number of countries almost all regions show quite moderate male excess mortality; this is the case in the Netherlands, the United Kingdom and Sweden, and also in Bulgaria. In a third group of countries, to which Austria, Belgium and the Czech Republic belong, regions with both relatively high and very low male excess mortality can be found.

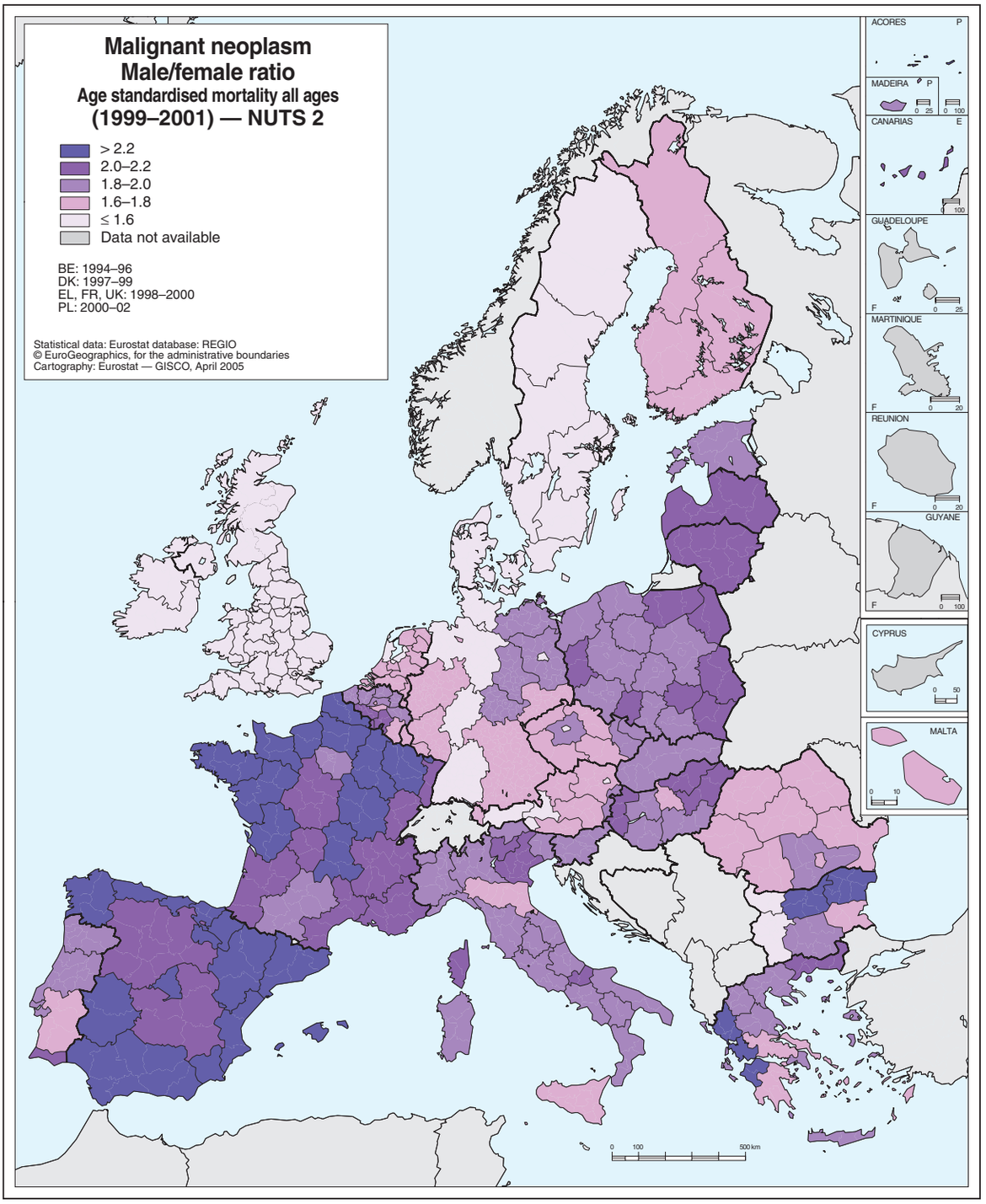


Map 9.1

Cancer

As already mentioned above, cancer is the second most frequent cause of death in the EU, and malignant neoplasms are more frequent for men than for women. Male excess mortality can be observed in all regions throughout Europe, ranging from 1.3 in Denmark, in several regions in Sweden and the United Kingdom, and in Severozapaden (Bulgaria) to the maximum value of 2.7 which is reached in Cantabria (Spain).

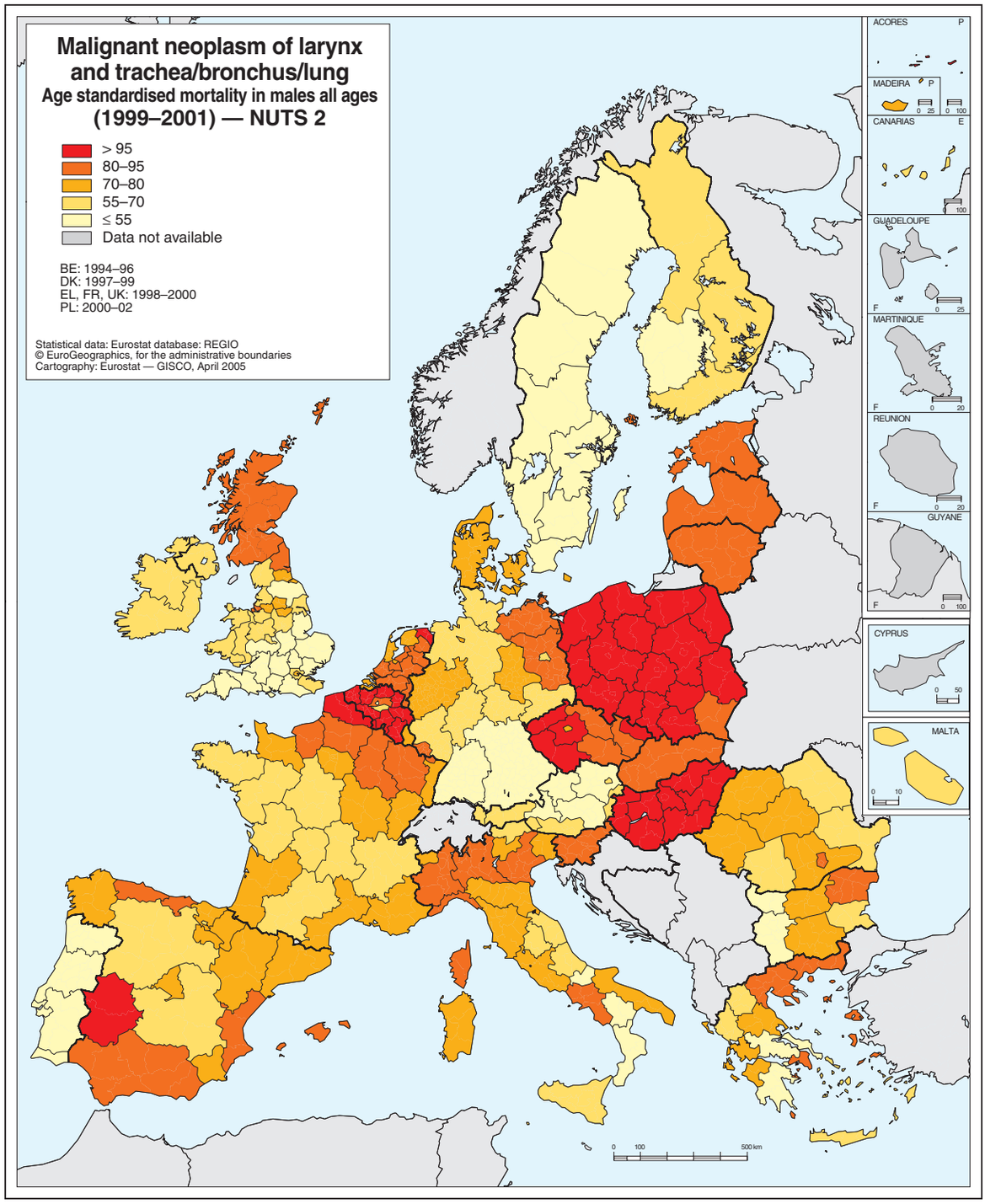
The regions with lowest male excess mortality are concentrated in the north — Sweden and Denmark — as well as throughout Ireland and the United Kingdom, while high male excess mortality for cancer can be found in the west and in the east of the European Union. A male excess mortality over 2.2 is reported by more than half of the



Map 9.2

Spanish and French regions. Similarly high male/female ratios are also seen in Portugal (Região Autónoma dos Açores: 2.4), in Greece (Dytiki Ellada: 2.4; Ipeiros: 2.3) and in Bulgaria (Severen tsentralen and Severoiztochen: 2.2).

The Netherlands together with the western regions of Germany and parts of Austria form a coherent area in the middle of Europe with moderate male/female ratios. Noteworthy is a pattern that can be found in Germany, in the Czech Republic, in Hungary and in Romania where the capital regions (Berlin, Prague, Kozep-Magyarorszag which includes Budapest, and Bucharest) show remarkably lower excess male mortality for cancer than do the surrounding regions.



Map 9.3

Men and lung cancer

Respiratory cancers, i.e. malignant neoplasm of larynx and trachea/bronchus/lung are commonly known as 'smokers' cancers', being mainly caused by smoking. Exposure to carcinogenic dusts and substances such as asbestos is another cause of respiratory cancers.

For women, only about 11 % of all cancer-related deaths are due to malignant neoplasm of larynx and trachea/bronchus/lung in the EU-25. However, for men, respiratory cancers are by far the most frequent cancer-related cause of death, accounting for almost 30 % of all male deaths in the EU which occur due to cancer. Almost a third of the men who died due to respiratory cancers in 2001 were aged 45 to 64.

In the EU, the age-standardised death rate for men for respiratory cancers is 74 (per 100 000 standard population). At national level, SDRs vary between 32 in Sweden and 128 in Hungary. At regional level, male SDRs due to malignant neoplasm of larynx and trachea/bronchus/lung range from values below 30 in a number of Swedish regions up to values above 150 in Hungary (Eszak-Alfold: 155) and Poland (Zachodniopomorskie: 182).

Regions with a particularly low male mortality due to respiratory cancers can be found in the Nordic countries, in the southern regions of the United Kingdom, in Austria and in the south of Germany, and also in a few regions in Portugal, Italy and Greece. High mortality due to malignant neoplasm of larynx and trachea/bronchus/lung is concentrated in the east European regions, in an area covering the north of France, Belgium and the Netherlands, the northern part of the United Kingdom and some parts of Spain, Italy and Greece.

Women and ovary cancer

Malignant neoplasms related to the reproductive system accounted for about 28 % of all female deaths due to cancer in the EU-25 in 2001. Amongst the cancers of the reproductive system, breast cancer is the most frequent (17 % of all cancer-related deaths of women), followed by malignant neoplasms of the ovary (just over 5 % of all cancer-related deaths).

The reasons for malignant neoplasms of the ovary are still unknown. However, it is assumed that genetic disposition influences the likelihood of this type of cancer. Ovulation also seems to be a factor: research has indicated that cancer of the ovary is more frequently found in women who had never been pregnant or had never taken medical treatment to suppress ovulation.

The female standardised death rate for neoplasm of the ovary is 8.5 (per 100 000 standard population). The highest values are observed in Denmark (13.7) and Lithuania (12.7), while Portugal (5.3) and Greece (5.5) report the lowest SDRs.

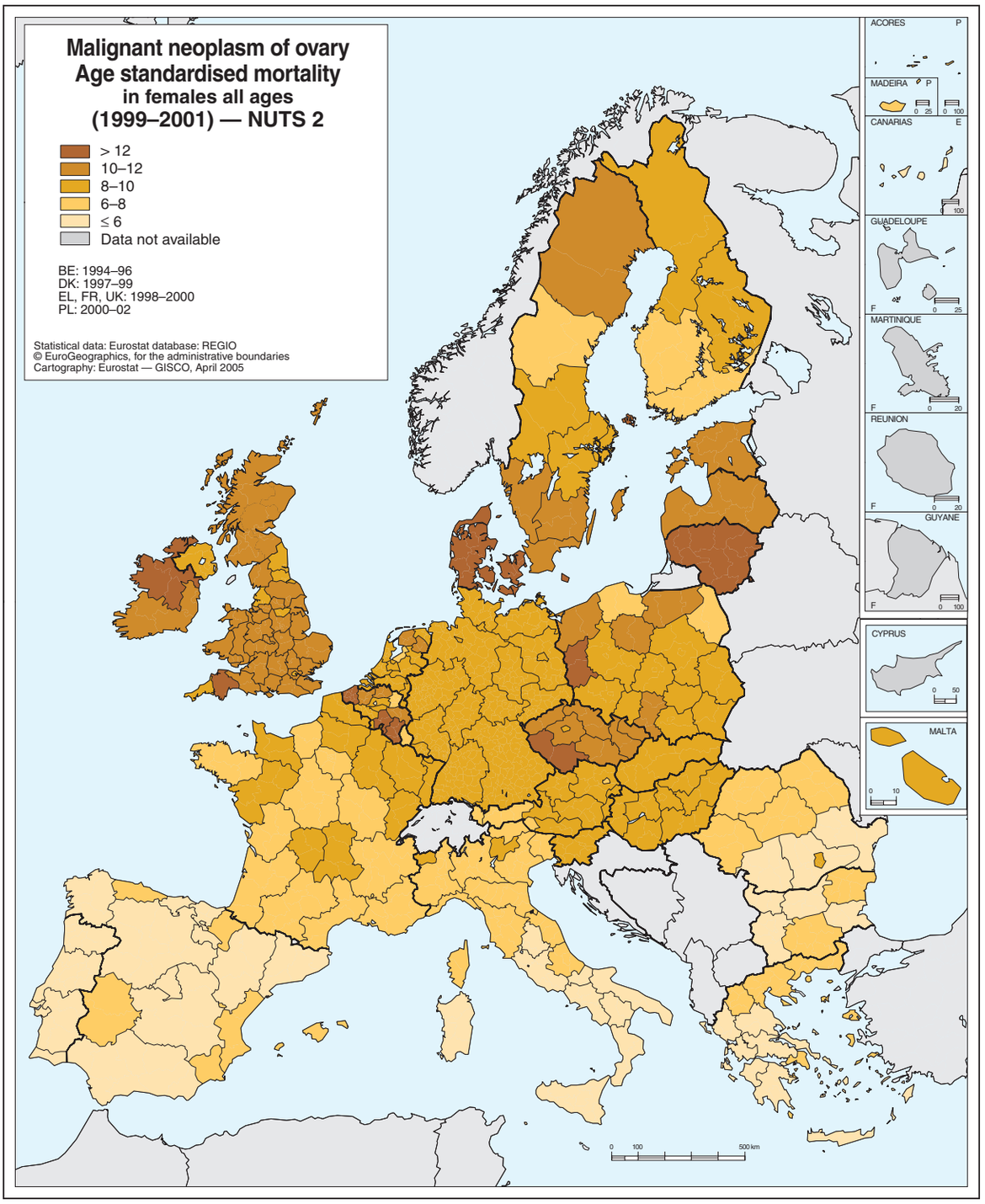
The regional pattern of deaths due to this cancer shows a clear north-south divide. Almost all regions with low female mortality due to neoplasm of the ovary can be found in the south — in Portugal and Spain, in Italy and Greece, and in Romania and Bulgaria. Almost all regions in these countries report SDRs below 8, and more than half of the regions in these countries show SDRs below 6 (per 100 000 standard population). In the middle of Europe, a belt of regions with SDRs between 8 and 10 stretches from the north-east of France to Poland. Exceptions are found in the Netherlands and Belgium — here regions with higher and lower mortality can both be found — and the Czech Republic where all regions except the capital region Prague report SDRs higher than 10.

Pockets of comparatively high mortality due to cancer of the ovary are found in Ireland (Border, Midland and Western: 12.6), the United Kingdom (Devon: 12.1), Belgium (Prov. West-Vlaanderen: 12.3; Prov. Liège: 12.0; Prov. Luxembourg (B): 14.3; and Prov. Namur: 12.8), Finland (Åland: 18.8) the Czech Republic (Jihozapad: 12.5; Stredni Morava: 12.0) and Poland (Lubuskie: 15.3).

Healthcare resources in EU regions

Hospital discharges

Hospitalisation statistics give a broad picture of the healthcare treatment of the population, and also of general health. Some 16 239 persons per 100 000 population were discharged from



Map 9.4

hospitals in the EU-25 in 2002. However, even between countries, there is a wide range for this indicator, from just above 6 400 in Malta to over 30 000 in Austria. These differences may partly reflect the differences in the organisation of healthcare services.

Regional data for hospital discharges became available only relatively recently, and not all countries are yet in the position to provide hospital discharges data at sub-national level. Yet, the range at regional level is even broader, from just about 6 000 persons discharged in Sterea Ellada to almost 36 000 in Vienna. Within countries, it is often capital regions or relatively small regions including a big city which have high discharge rates: Vienna (35 568) in Austria, Bremen (26 825), the Saarland (23 532) and Hamburg (21 220) in

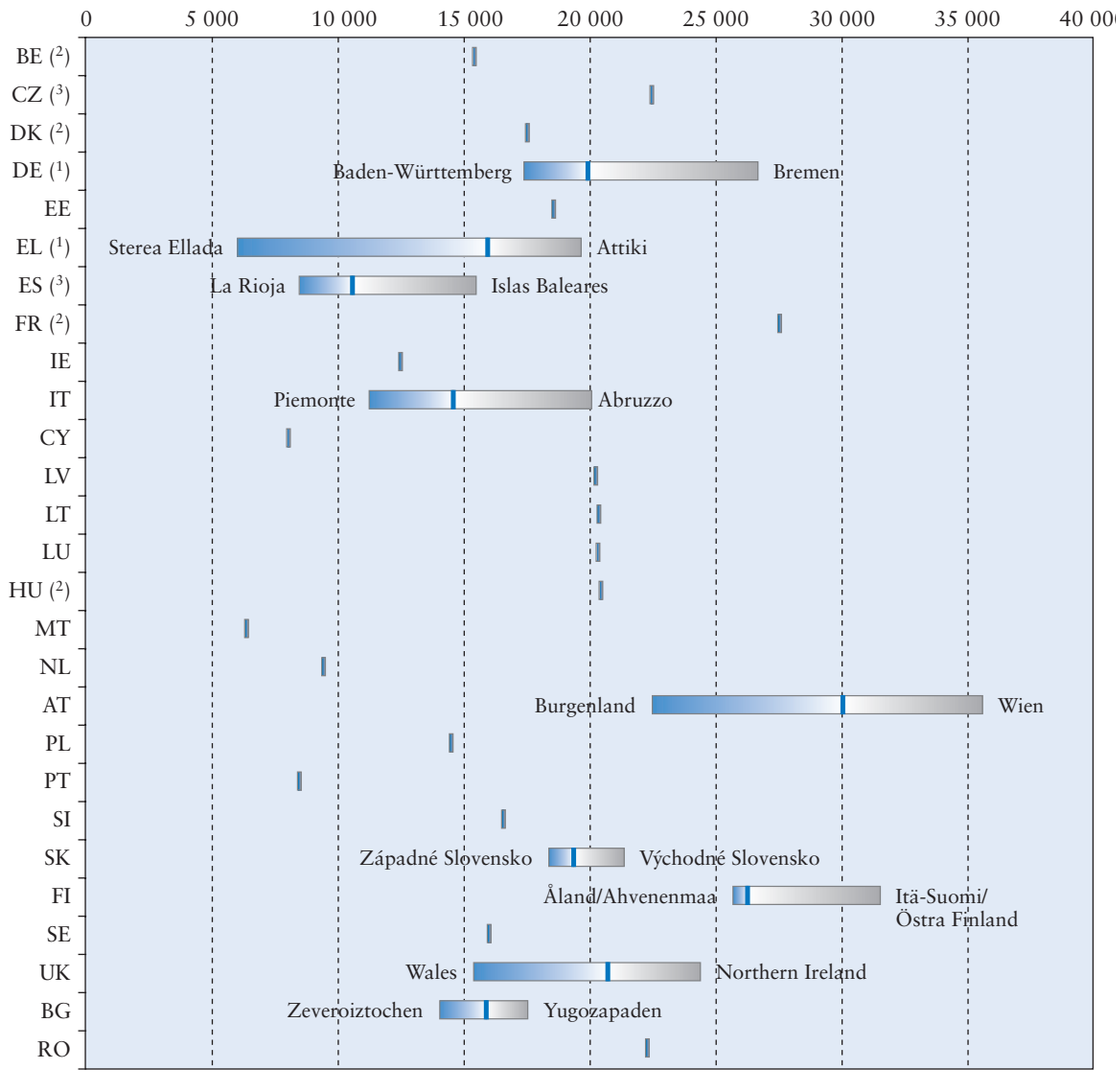
Germany, Athens (19 799) in Greece. However, this is not very surprising since hospitals tend to be concentrated in cities and agglomerations. While the hospitals are located in the cities, their catchment area is much wider, and people living in the neighbouring regions may also use the healthcare facilities offered in the cities.

Hospital beds

For many years, the number of hospital beds has decreased continuously in the EU. For the EU-25, it decreased by about 20 % between 1990 and 2002. The reduction in the average length of stay in hospitals and the growing financial constraints which led to the rationalisation of healthcare services could be mentioned as reasons for this decrease. An increasing demand for healthcare of elderly people, most often suffering from chronic disability or illness which can be met by a transfer of hospitals beds into beds in nursing and residential care facilities might also provide an explanation for the reduction of hospital beds.

Sweden, Spain, Portugal and the United Kingdom, with under 400 beds per 100 000 inhabitants, have the lowest number of hospital beds per 100 000 population in the EU-25. The highest figures are reported for the Czech Republic (1 107) and Ireland (994). Accordingly, the regions with a

Graph 9.1 — Hospital discharges — Rate per 100 000 inhabitants, 2002 — NUTS 2



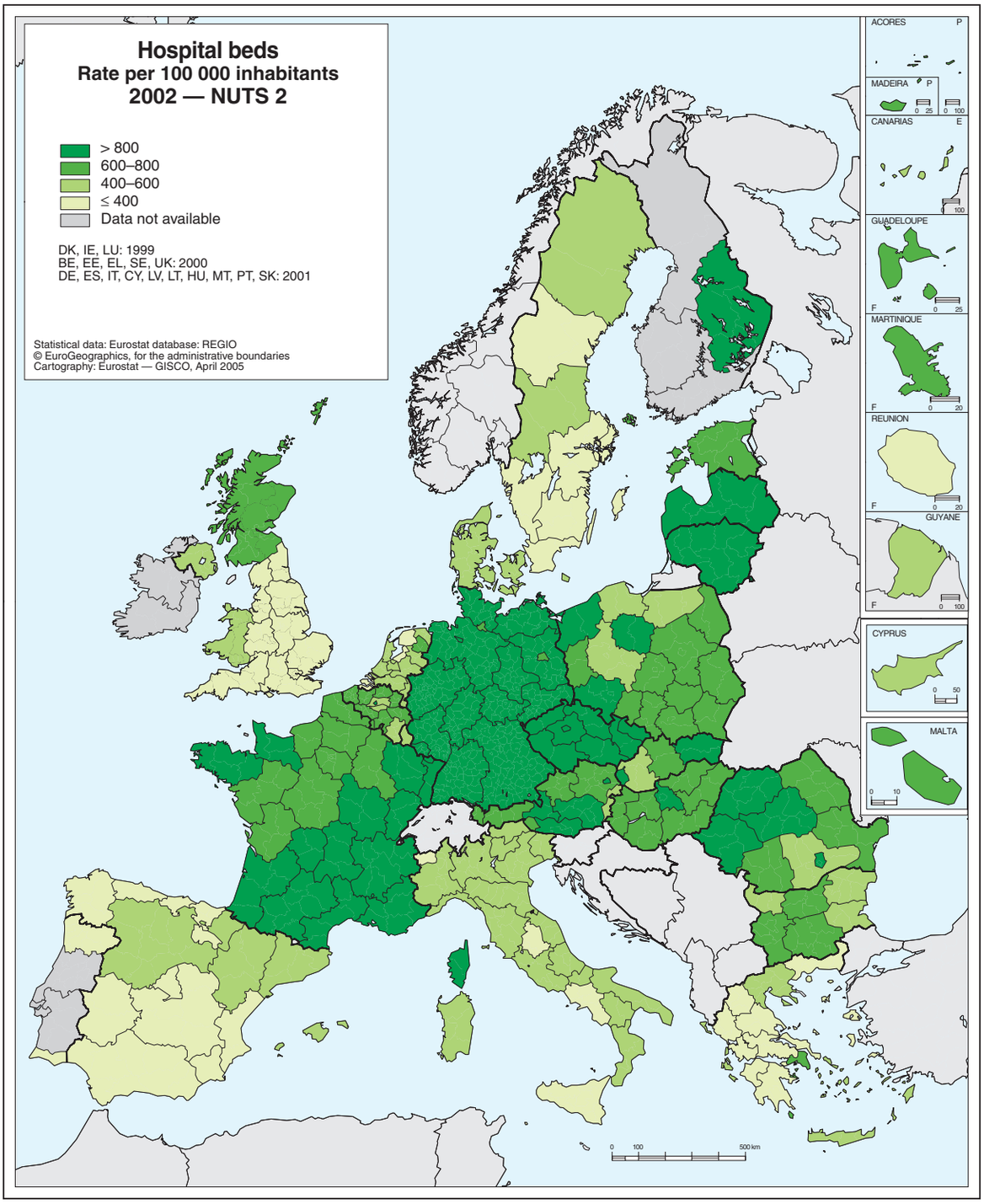
(1) 1999 data.

(2) 2000 data.

(3) 2001 data.

low density of hospital beds are found in the south (mainly in Spain and Greece, but also in Italy and Portugal), and also in the United Kingdom, the Netherlands and Sweden. At the same time, a belt of regions with more than 600 hospital beds per 100 000 inhabitants stretches from France via Germany, Poland, the Czech Republic, Austria, Slovakia and Hungary up to Romania and parts of Bulgaria.

The density of hospital beds also varies substantially within countries. In Finland, Hungary and Bulgaria, the region with the highest density of hospital beds exceeds the region with the lowest density only by a factor less than 1.5. In contrast, in France and Portugal, the density of hospital beds in the region with the highest value is about three times higher than in the region with the lowest value. In France, the Limousin reports 1 132



Map 9.5

hospital beds per 100 000 inhabitants compared to 372 on the Réunion island, and in Portugal 714 hospital beds per 100 000 inhabitants are reported for Madeira compared to 235 in the Algarve region. In the Netherlands, with 635 hospital beds per 100 000 inhabitants in Drenthe compared to only 164 in Flevoland, the density is almost four times higher in Drenthe than in Flevoland. The biggest difference between the density of hospital beds in the region with the highest value compared to the region with the lowest value can be seen in Greece, where 666 hospital beds per 100 000 inhabitants are reported for Athens compared to no more than 155 in Sterea Ellada, i.e. the density in Athens is 4.3 times higher than in Sterea Ellada. Among the possible reasons which could explain these regional disparities are: (1) the effect of cities or agglomerations and their wider catchment area, i.e. the hospital services provided by cities are also used by residents of the neighbouring regions; (2) in regions which attract many tourists or persons in retirement there may be better facilities for healthcare; (3) in some regions which have experienced a considerable population decrease in recent decades (rural areas), hospital capacities may have been maintained because of the distance to healthcare facilities in other regions.

Conclusion

The currently available regional indicators for health already provide a good insight into similarities and particularities that exist throughout Europe. However, while analysing the data it has to be kept in mind that the observed differences are also influenced by the organisation of healthcare systems and by socio-cultural factors. Examples for the latter are the reporting of particular causes of death such as suicide or alcohol-related deaths and their link to culturally determined consumption patterns. Healthcare resources are influenced by the organisation of the systems at national and regional levels, and in the medium term figures on healthcare capacities should be complemented by information on their effectiveness.

The main focus of Eurostat's work in the area of health statistics lies on the further improvement of the quality and comparability of the data, and on the further extension of the regional coverage.

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URBAN STATISTICS

10

What is the Urban Audit?

Six years ago, the Commission conducted a tentative data collection of comparable indicators in European cities. The purpose of this so-called 'Urban Audit' was to test the feasibility of collecting comparable measurements of the quality of life in European cities. Over the entire EU (EU-15 at the time), around 480 variables were collected for the 58 largest cities — although London and Paris were omitted since they were considered too difficult to cope with in a test phase.

After the completion of the Urban Audit, the Commission decided that there was a clear need to continue and improve this approach of collecting comparable information on urban developments. The results of the pilot phase were evaluated thoroughly, involving statistical experts from city organisations and Eurostat experts for a number of specific fields. This evaluation led to several conclusions concerning the list of variables collected, the list of participating cities, and the spatial dimension.

The new data collection for Urban Audit took place between 2003 (for EU-15 cities) and 2004/05 (for the new Member States). The characteristics were as follows:

Variables

Some 336 variables were defined for this exercise, covering most aspects of urban life, e.g. demography, housing, health, crime, the labour market, income disparity, local administration, educational qualifications, the environment, climate, travel patterns, information society and cultural infrastructure. The reference year was 2001.

The Member States were asked to send all data that were already available in the national statistical system and data for all variables that, while not currently available, could nevertheless be estimated with reasonable accuracy. This approach left a third group of variables — those that were neither available nor possible to estimate. After thorough reflection, it was decided that a fresh survey for these data would be too costly. The final response rates for the various variables were therefore quite heterogeneous.

From the 336 variables, about 270 derived indicators were calculated by Eurostat.

Choice of cities

In the Urban Audit pilot phase, it was decided to exclude London and Paris. These two cities were, however, part of the Urban Audit 2003/05 data collection.

In addition, there was a specific focus on medium-sized cities (50 000 to 250 000 inhabitants), which were not well covered in the pilot phase, even though a large proportion of the EU population lives in such medium-sized cities. Detailed information on the various aspects of the quality of life in these cities was considered to be valuable for the development of European urban policy.

All in all, 237 cities of the European Union (EU-25) and 21 cities from Bulgaria and Romania took part in the Urban Audit 2003/05 project. Around 21 % of the 457 million EU inhabitants live in the participating cities.

Spatial units

As in the pilot phase, there were three levels of spatial unit for which observations were collected. The first of these is the 'central' or 'core city', i.e. the administrative unit, for which a rich data set is generally available. Secondly, the larger urban zone (LUZ) was used in order to capture information that covers the 'hinterland' of the city. Finally, intra-urban discrepancies were taken into account by gathering data for sub-city districts.

Time line data

Last year, Eurostat launched the collection of 'historic' data, i.e. the collection of data for 1991 and 1996. Only a reduced number of 80 variables was required. This data collection allows the calculation of growth rates, which make it possible to analyse evolution over time.

Perception survey

In January 2004, a parallel perception survey was conducted in 31 cities of the old Member States. In randomised telephone interviews, citizens were asked about their perception of various aspects of the quality of life within 'their' city.

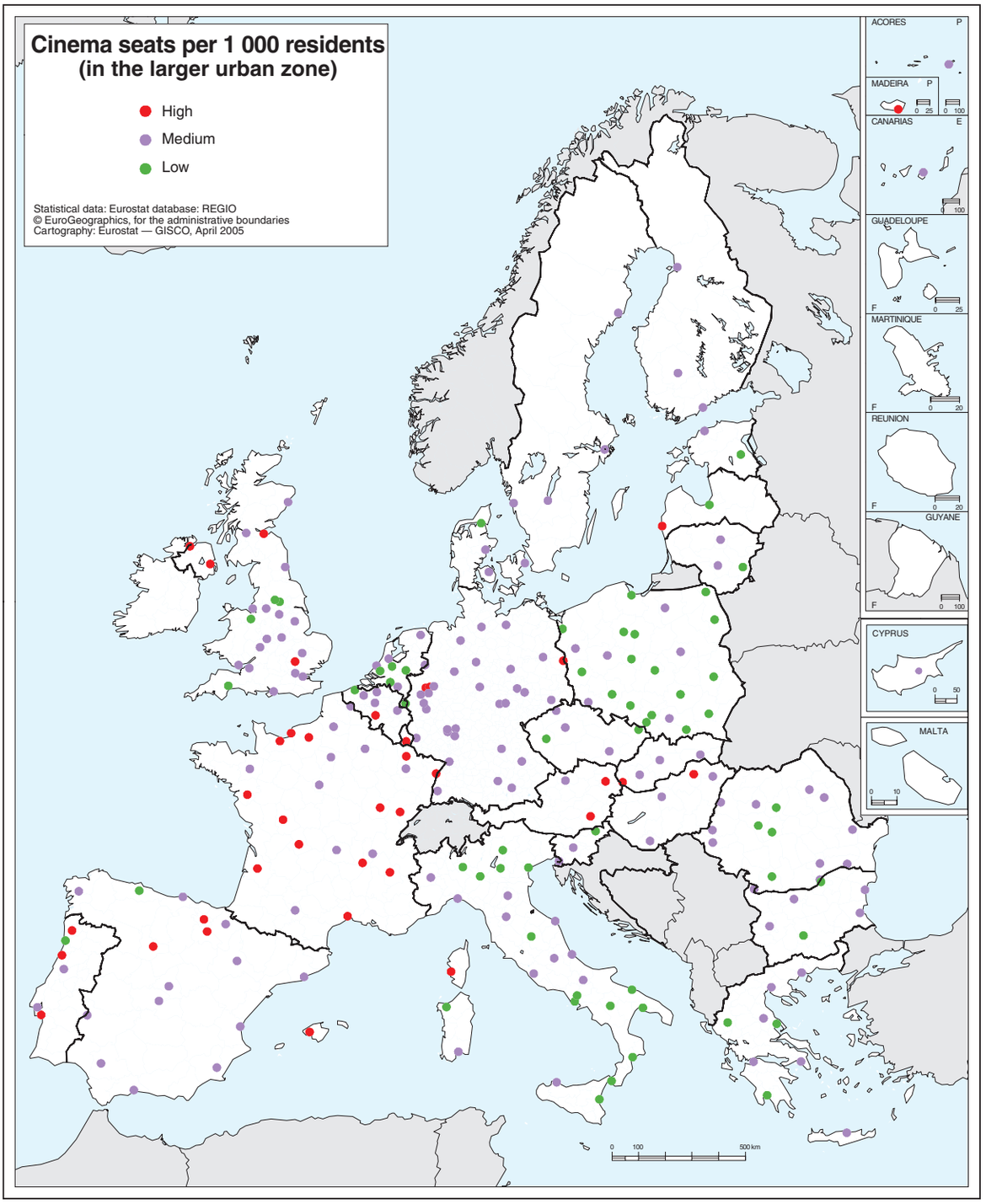
Dissemination of results

The Urban Audit data set including all variables, indicators and methodological information is available in NewCronos, the publicly accessible database of Eurostat. The calculated indicators are also published on the Urban Audit website

(www.urbanaudit.org). This site allows the data to be examined in different ways. Along with other features, the tools on the site help to compare and rank cities according to a particular indicator or to obtain an overall profile of the city. The results of the Urban Audit data were also published last year in a book entitled: 'Urban Audit 2004: key indicators on living conditions in European cities'.

Urban liveability

Urban Europe seems to be enormously heterogeneous if we look at economic structures, social compositions, cultural traditions or environmental characteristics. Despite their diversity, however, cities and towns across Europe face several



Map 10.1

common challenges such as social cohesion, economic prosperity, sustainable development, etc.

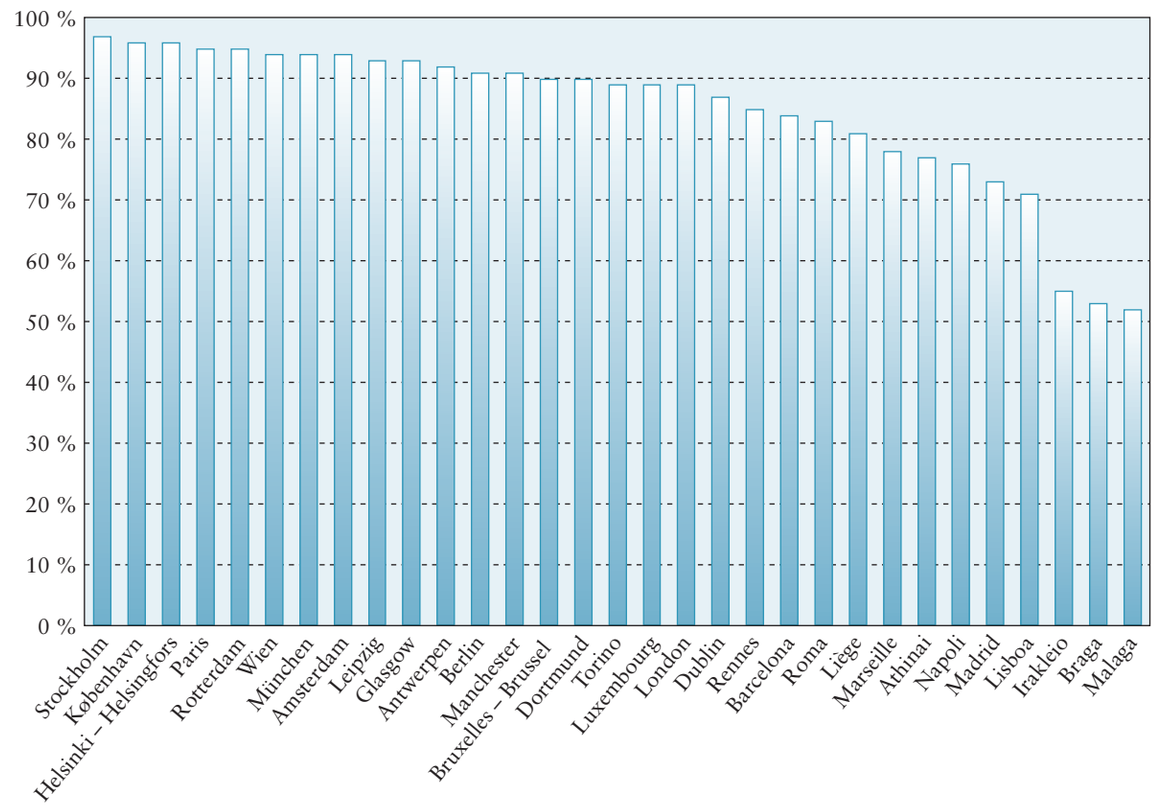
The theme of urban liveability was chosen from these challenges to demonstrate the various aspects of the Urban Audit data set, such as the range of spatial units applied or the different data sources used. The following sections are primarily intended to raise awareness and trigger interest for urban statistics and to encourage readers to consult the information available in the New-Cronos database themselves.

Culture

Cultural development is crucial for the vitality of cities. One of the characteristics describing the cultural aspect of urban liveability is the number of cinema seats in a city. Let us look first at the absolute numbers — according to the terminology of the Urban Audit database, absolute values are defined as variables. Among the Urban Audit cities, London (UK) has the highest number of cinema seats — more than 100 000 — followed by Paris (FR), Berlin (DE) and Rome (IT). However, these data taken alone could be misleading, since London (UK) has the highest number of inhabitants as well, followed by Berlin (DE), Madrid (ES), Rome (IT) and Paris (FR). In order to create comparable measurements, indicators were derived from the variables. In the case presented, the number of cinema seats per 1 000 residents is calculated. Based on the assumption that cinemas attract audiences beyond the borders of the core city where they are situated, the population of the larger urban zone was taken into account for calculating the indicator. Map 10.1 shows the results: the average number of cinema seats per 1 000 residents tends to be higher in French, Spanish, Portuguese and Austrian cities, whereas the figure is rather low in Italy and Poland. Map 10.1 also illustrates the distribution of the cities taking part in Urban Audit, since 94 % of them are displayed. (Cities where no data were available are not marked on the map.)

The existence of cinemas or more complex cultural infrastructures merely provides the possibility of improving the attractiveness and competitiveness

Graph 10.1 — Perception of quality and quantity of cultural facilities



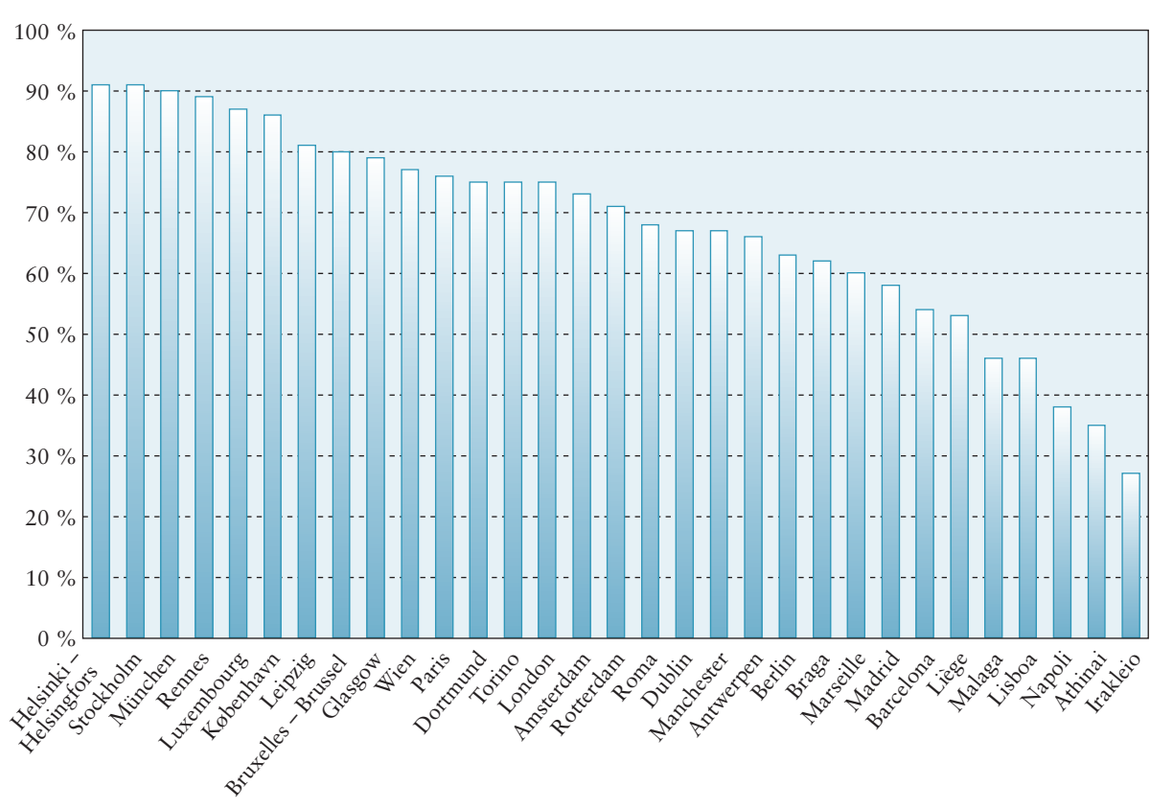
of cities. Perception indicators based on the perception survey results help to reflect the personal impressions of citizens. Graph 10.1 shows the satisfaction index concerning cultural facilities such as concert halls, theatres, museums and libraries. The index was calculated in two steps: first, a simplified index was obtained by combining the 'rather' or 'very satisfied' on the one hand and the 'rather unsatisfied' or 'not at all satisfied' on the other, and the difference between satisfaction and dissatisfaction was divided by the number of respondents. Secondly, the index was standardised at a value between 0 and 100 by multiplying the resulting figure by 50 and then adding 50. The higher the index value, the greater the level of satisfaction in the city. Values below 50 — which do not appear on Graph 10.1 — would suggest that most respondents were dissatisfied. It is noteworthy that, with the exception of Paris (FR), the five top-ranking cities were 'Capitals of Culture' in the past 10 years: Copenhagen (DK) held the title in 1996, Stockholm (SE) in 1998, Helsinki (FI) in 2000 and Rotterdam (NL) in 2001.

Environment

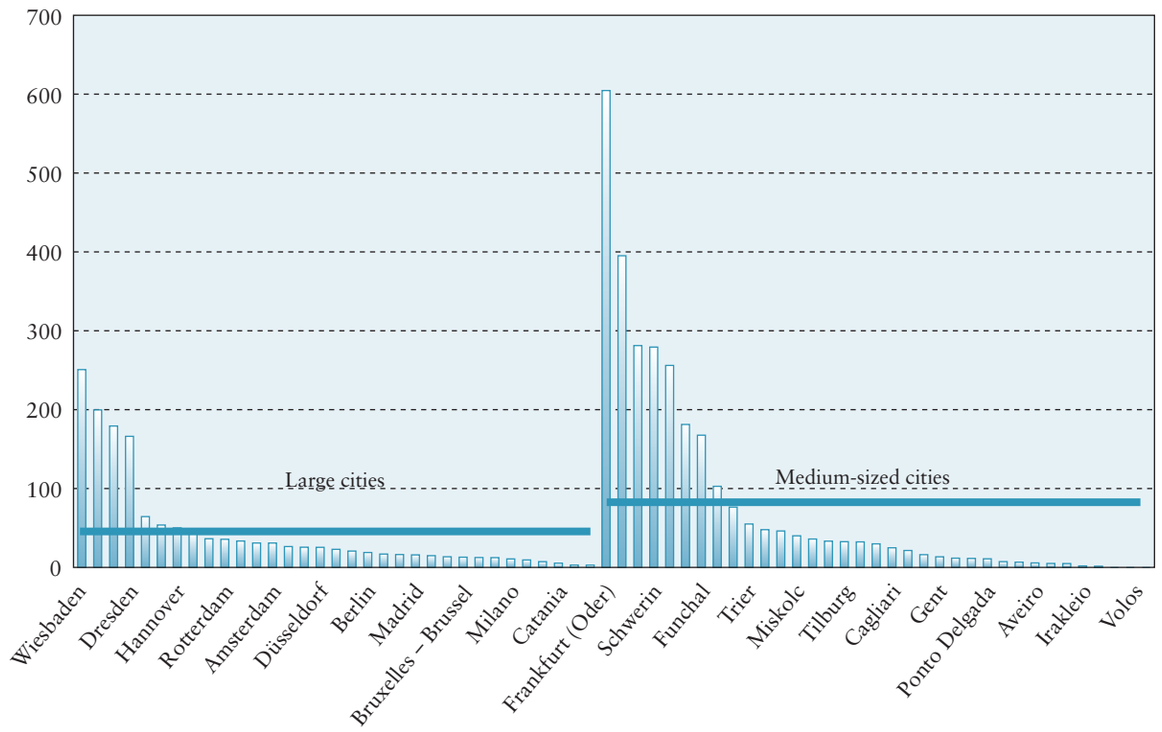
The characteristics of the urban environment are another defining factor of urban liveability. Besides the indicators measured at national and regional levels, urban-sensitive variables were also identified and collected for the environment during the Urban Audit. The variable of green space provision is one of these. Let us first look at the satisfaction index displayed in Graph 10.2, which shows considerable differences between the cities examined. Whilst the citizens of Helsinki (FI), Stockholm (SE), Munich (DE) and Rennes (FR) seem to be very satisfied, the majority of the respondents from Napoli (IT), Athens (GR) and Irakleio (GR) are dissatisfied. Obviously, the geographic location and climate of the city have a major influence on the green space provision.

The highest level of green space provision per capita can be found in Frankfurt (Oder) (DE) and Darmstadt (DE). At the bottom end of the scale —

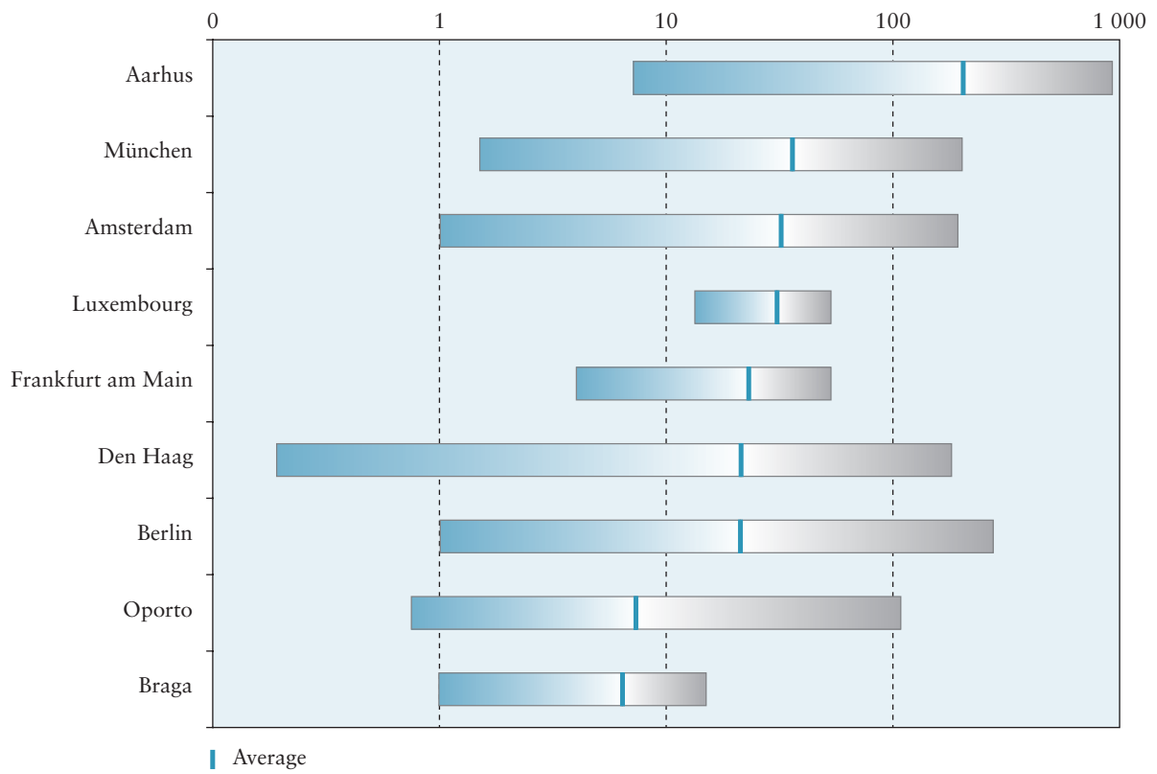
Graph 10.2 — Perception of green space provision



Graph 10.3 — Green space to which public has access per capita



Graph 10.4 — Green space to which public has access per capita — sub-city districts and cities

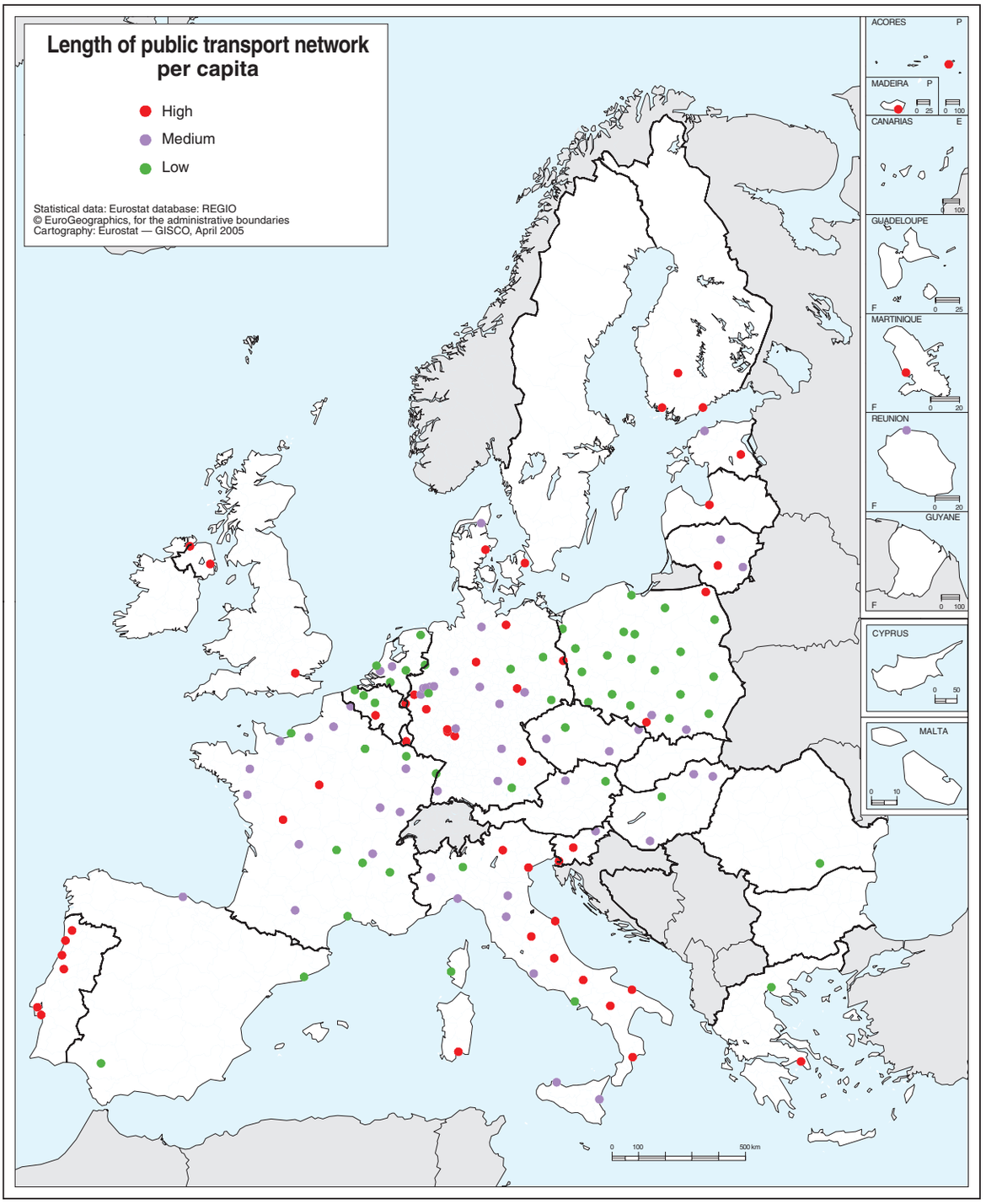


similarly to the ranking established on the basis of the satisfaction index for the green space provision — are the cities of Greece. The reasons behind the low values are evidently the same as those mentioned earlier.

It is also interesting to analyse the differences between large cities (over 250 000 inhabitants) and medium-sized cities (50 000 to 250 000 inhabitants), as is possible with the Urban Audit results.

As expected, the average green space to which the public has access per capita in medium-sized cities is significantly higher than the average for large cities. Graph 10.3 also shows the distinctive values for each city that were taken into account when calculating the averages indicated by the horizontal lines.

Given the fact that data were also collected in Urban Audit for sub-city districts — albeit for a



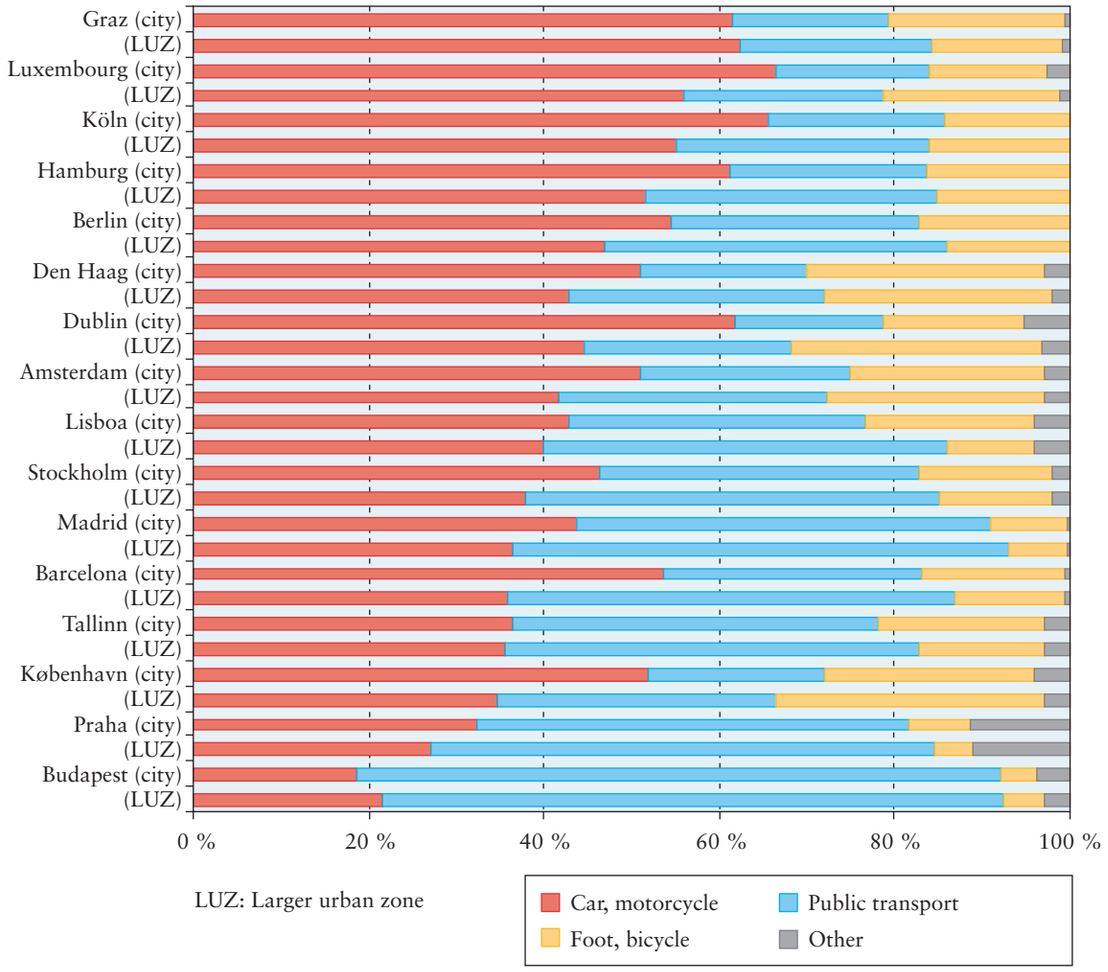
Map 10.2

very limited number of variables — the spread of the indicator value can also be examined within individual cities. Such an analysis makes it possible to portray a detailed picture of green space provision in the cities of Europe. Graph 10.4 illustrates a range of sub-city districts, from the lowest to the highest levels of publicly accessible green space per capita for selected cities. The wider the range, the greater the disparities within the city. As we can see on the chart, the values behind the averages can vary considerably (averages are indicated by the vertical line). Apparently, medium-sized cities — like Luxembourg (LU) or Braga (PT) — are characterised by a narrower spread. However, there are also exceptions such as the large city of Frankfurt am Main (DE), which has a rather narrow spread. It would be beyond the scope of this publication to show this chart for all cities. Readers are invited once more to download these data from NewCronos if they wish to conduct a comprehensive study.

Transport modes

Urban areas are the locus of multiple forms of undesirable traffic impacts. Traffic congestions and over-reliance on cars can reduce city efficiency and personal well-being and increase pollution. Therefore, it is worthwhile to examine the availability of public transport in cities as another feature of urban liveability. Map 10.2 displays a city classification using the length of the public transport network per capita as an indicator value. Copenhagen (DK) has the longest public transport network per capita, followed by other Scandinavian and Baltic cities. An extensive public transport network is also available in Portugal, Luxembourg, Northern Ireland and in most cities of Italy and Slovenia. Polish cities, on the other hand, could be generally characterised by low values for this indicator.

Graph 10.5 — Transport modes of the journeys to work — city and the larger urban zone



LUZ: Larger urban zone

In order to evaluate the usage of public transport, the modes of transport for journeys to work were analysed. Budapest (HU), Miskolc (HU), Ostrava (CZ) and Brno (CZ) have the highest proportion of working population using rail, metro, bus or tram for daily commuting. Cycling as the normal means of commuting was most characteristic of Dutch, Danish and Swedish cities. In Groningen (NL), Enschede (NL) and Umeå (SE), more than 30 % of residents cycle to work. Walking is typical to Spanish and Portuguese cities: more than 25 % of workers go to work on foot in Logroño (ES), Oviedo (ES), Vitoria/Gasteiz (ES) and Braga (PT). Driving a car to work is most common in the United Kingdom. Almost 90 % of jobholders travel by car in Wrexham (UK), Stevenage (UK), Worcester (UK) and Gravesham (UK) for instance.

Graph 10.5 compares the transport modes for journeys to work in the core city and in the larger urban zone (LUZ) for selected cities. As we can see from the chart, the proportion of journeys to work by car is consistently higher in the larger urban zone (LUZ) than in the core cities. The largest difference between the two proportions was registered in Dublin (IE), Barcelona (ES) and Copenhagen (DK). However, not all urban developments fit this pattern: in the case of Graz (AT) and Budapest (HU), the number of car drivers is slightly higher in the core city. As expected, the proportion of workers commuting by public transport is lower in the larger urban zone (with the exception of Budapest): the difference ranges from 4 % in Graz to 22 % in Barcelona.

Outlook

Last year, Eurostat decided to make the Urban Audit data collection part of its core business. So far, the project has been fully financed by the Directorate-General for Regional Policy of the European Commission. In future, it will be co-financed by Eurostat and the Directorate-General for Regional Policy. The next data collection round is planned for 2006. It will also include a new perception survey, this time covering all 25 EU Member States. The first results of this data collection will be available in 2007. Preparations are ongoing.

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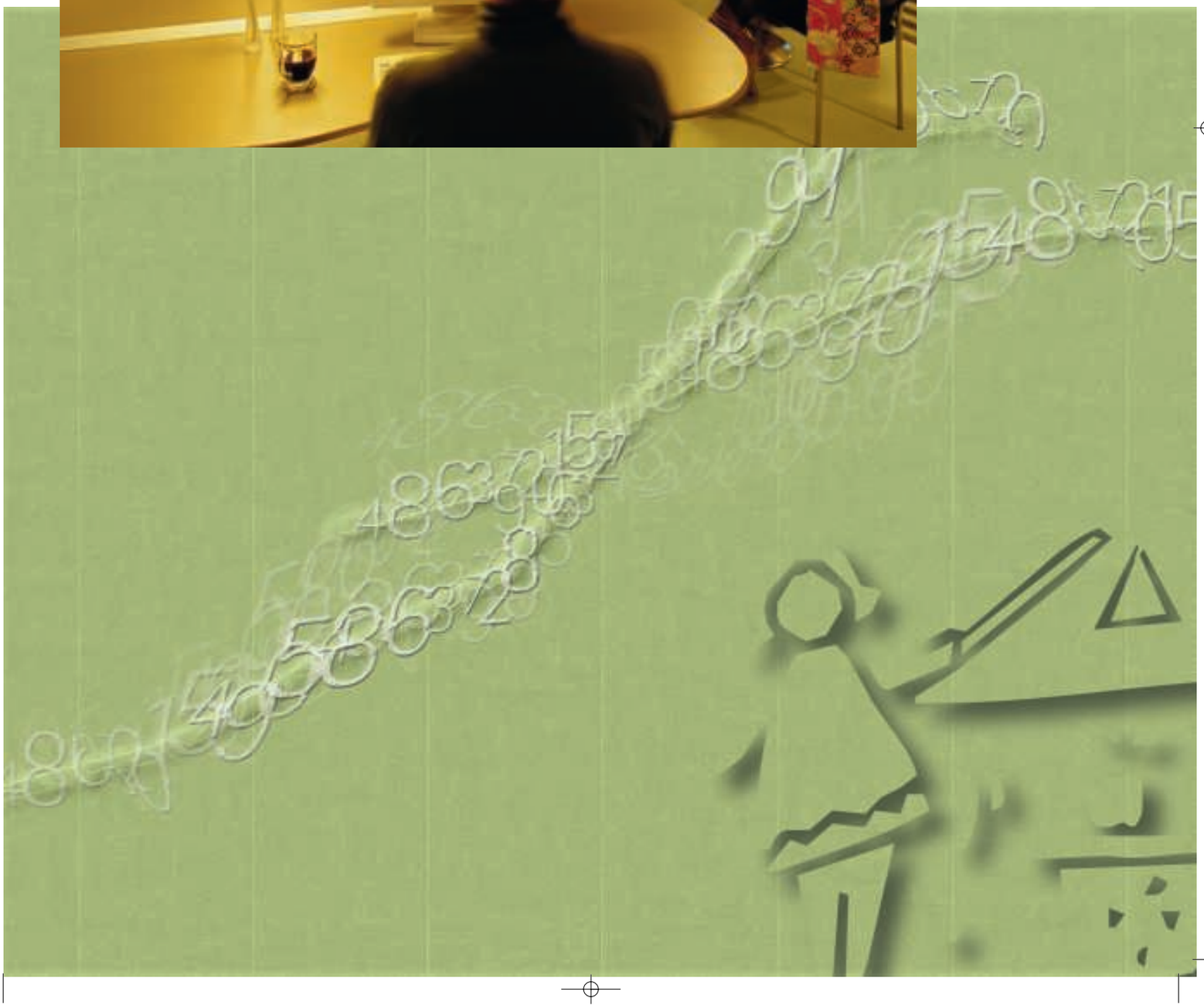
11

EDUCATION



Introduction

Education, vocational training and lifelong learning play a vital role in the economic and social strategy of Europe. The Lisbon objectives can be attained only with efficient use of resources, quality improvements in the education and training systems and the implementation of a coherent lifelong learning strategy at national level. To secure education and lifelong learning opportunities in all its regions and to all its inhabitants, wherever they live, is one cornerstone in the national strategies towards achieving this goal. Eurostat's regional statistics on education enrolment, education attainment and lifelong learning participation makes it possible to measure regional inequalities and monitor regions lagging behind or already reaching the objectives.

Eurostat has been collecting, processing and publishing data on education and lifelong learning participation, broken down by region, since 1991. Comparable data on education enrolment are, however, available mainly since 1998 (when the international education classification was revised) while data on education attainment and lifelong learning participation are available since 1999.

The NewCronos databank now contains information on education on

— total number of enrolments by education level and sex,
— total number of enrolments, all education levels, by age and sex,
— indicators on enrolments related to numbers in the population.

Data are available for the old Member States since 1998 and for the 10 new Member States and Romania since 2000 or 2001 and for Bulgaria since 2002.

The NewCronos database contains information on education attainment of the population and on lifelong learning participation since 1999. Data are available for all Member States and for Romania, Bulgaria and Norway.

Methodological note

In the following, cartographic representation is at NUTS 2 level, except for Germany and the United Kingdom, in the education enrolment indicators, where data on enrolments in education are available at NUTS 1 level only. In the Netherlands and in Greece and Portugal, data on enrolments by age are not available at regional level. The indicator participation rate of 17 year olds in education includes for these countries only the national figure. No regional enrolment data are available at all for Greece. National data are shown also in the indicators on general and pre-vocational ISCED 3 enrolments and on tertiary education enrolment.

As the structure of education systems varies widely between countries, a framework to collect and report data on educational programmes with a similar level of education content is a prerequisite for intercomparability. The international classification of education, ISCED, is the basis for data collection on education. ISCED-97, which is the current ISCED, distinguishes between seven education levels, from ISCED 0, pre-primary education, to ISCED 6, second stage of tertiary education leading to an advanced research qualification. The full description of ISCED-97 is available on the Unesco Institute of Statistics website, address: http://www.uis.unesco.org/ev.php?ID=3813_201&ID2=DO_TOPIC

The statistics on enrolments in education include enrolments in all regular education programmes and in all adult education with subject content similar to regular education programmes or leading to similar qualifications as corresponding regular programmes. All special education is included. Apprenticeship programmes are included but not entirely work-based education and training for which no formal education authority has the oversight.

Statistics on education attainment of the population and on participation in lifelong learning are based on the Community labour force survey (LFS), which is a quarterly sample survey. The indicators refer to the LFS spring survey 2002 (education attainment) and 2003 (participation in lifelong learning). The education attainment is reported according to ISCED-97. Participation in lifelong learning includes all kinds of participation in education and training during the four weeks prior to the survey.

Participation of 17 year olds in education

At the age of 17, most young people in the European Union are in education, mostly in the upper

secondary level. On average in the EU, 86 % of the age group is in education.

The age at which education starts varies between countries as does the ending age of secondary education. At the age of 17, it is possible to have finished secondary education in some countries while in other countries, at 17 years of age, one may have just started the upper secondary level. Compulsory education, as well as the age when compulsory education ends, also varies between countries. In most countries, compulsory education ends at the age of 15 or 16, which is typically the end of lower secondary education. In Belgium and Germany, ending age for compulsory education is 18, in the Netherlands it is 17. At the age of 17, it is possible to have completed ISCED level 3C programmes in several countries such as the Czech Republic, Estonia, Spain, Hungary, the Netherlands, Austria, Slovakia, the United Kingdom and Bulgaria. ISCED 3C programmes are those which do not provide access to any tertiary education and which are often of shorter duration than three years. In Hungary and Austria, ISCED 3A and 3B programmes of three years duration, giving access to tertiary education, may be completed at the age of 17.

Even if compulsory education ends before upper secondary completion, students continue education after compulsory school age in most countries. To obtain at least upper secondary attainment is necessary for the labour market and social life. In 2003, the Council of Ministers set benchmarks for the improvement of education and training systems in Europe up to 2010. One of the benchmarks is that by 2010, at least 85 % of 22 year olds in the European Union should have completed upper secondary education. To follow the participation rates, also at regional level, it is important in order to detect if regions are at risk of lagging behind.

Education is to a great extent embedded in national policy. The regulations on compulsory education and the programmes available described above show this fact. Even so, Map 11.1 shows certain regional variations in the participation rate of 17 year olds in education, even if the national patterns are obvious.

Provincia Autonoma Bolzano-Bozen in northern Italy has the lowest participation of 17 year olds in education at 59.4 %. Also in Malta, Greece and in several Romanian regions, the participation rate is low.

In Bratislavský in Slovakia, in several Belgium regions, especially Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest, in Saarland and Nordrhein-Westfalen in Germany and in Praha in the Czech Republic, the participation rate exceeds 100 %, in Praha it is 154 %. These dark red spots on the map are surrounded by yellow areas. This means that education facilities are gathered in the capital or big cities and that young people living around commute there for their upper secondary education. In the education statistics, the students are counted in the region where they attend school, not in the region where they are resident and are counted in the population statistics.

Students in general upper secondary education

Map 11.2. shows the percentage of students in ISCED level 3, (upper secondary education) enrolled in general or pre-vocational ISCED level 3 programmes. The map shows, in an even more obvious way than in Map 11.1, the differences in the national education systems. The regional variations are small in most countries. Only in Belgium, the Netherlands and in the United Kingdom do the regional differences show three of the five colours of the map. In Belgium, 19.7 % of the students in Limburg are enrolled in general or pre-vocational streams while in Brabant Wallon the figure is 64.4 %. In the Netherlands, 23.6 % of the students in Groningen are in general or pre-vocational programmes, in Flevoland the percentage is 46.2 %. In the United Kingdom, 50.2 % of the students in Northern Ireland are in general-pre-vocational programmes, in the North-East region the percentage is 22.1.

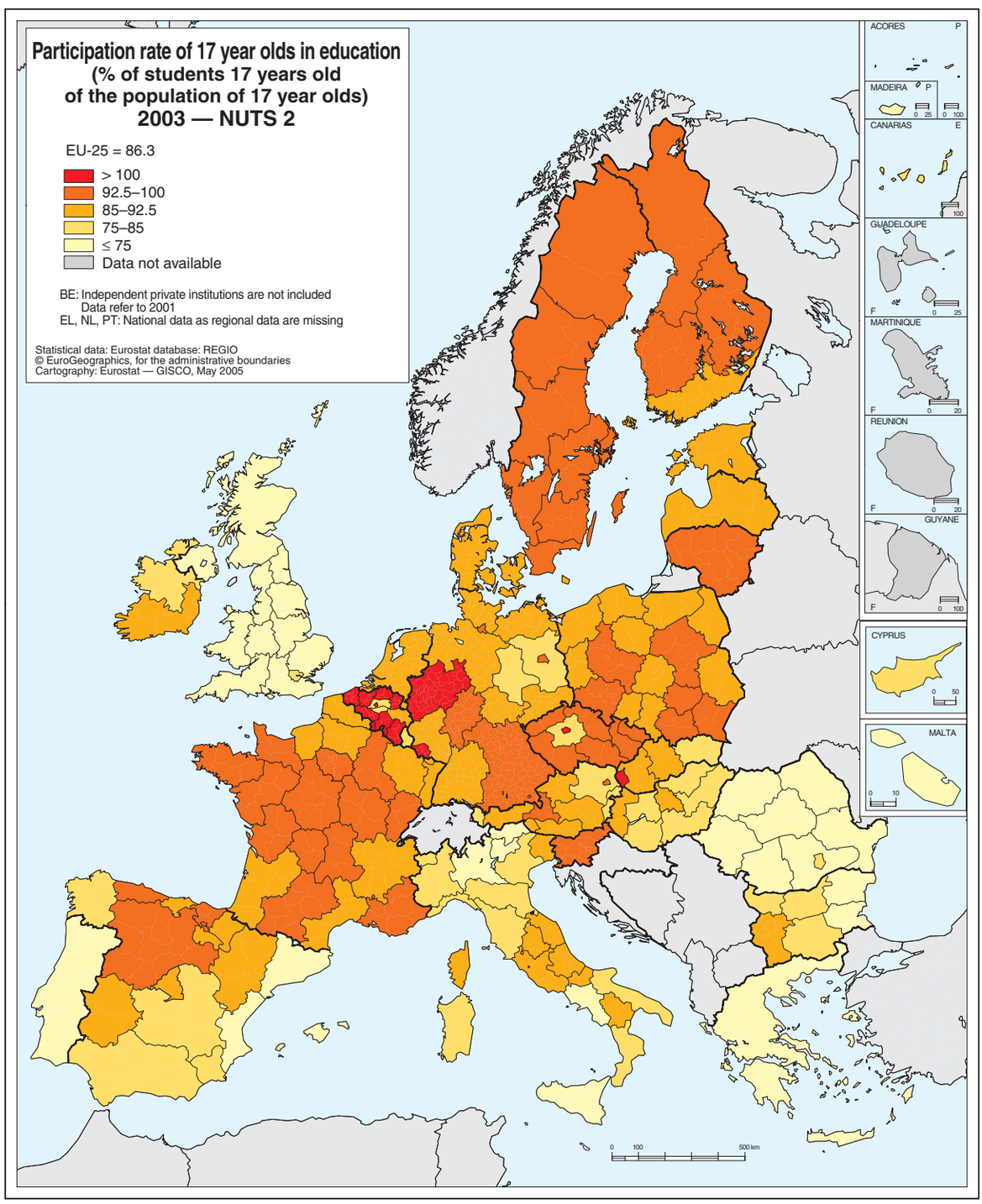
Even in countries where the regional differences are relatively small, the highest percentages of students in general and pre-vocational programmes are most often found in the regions of the capital. This is the case, for example, in Germany (Berlin, 47.5 %), in France (Ile-de-France, 49.9 %), in Spain (Comunidad de Madrid, 69.8 %), in Austria (Wien, 36.6 %) and in Poland (Mazowieckie region, 51.9 %). This is, however, not the case in Portugal, where the highest proportion of general

and pre-vocational enrolments is in Região Autónoma da Madeira (87.5 %).

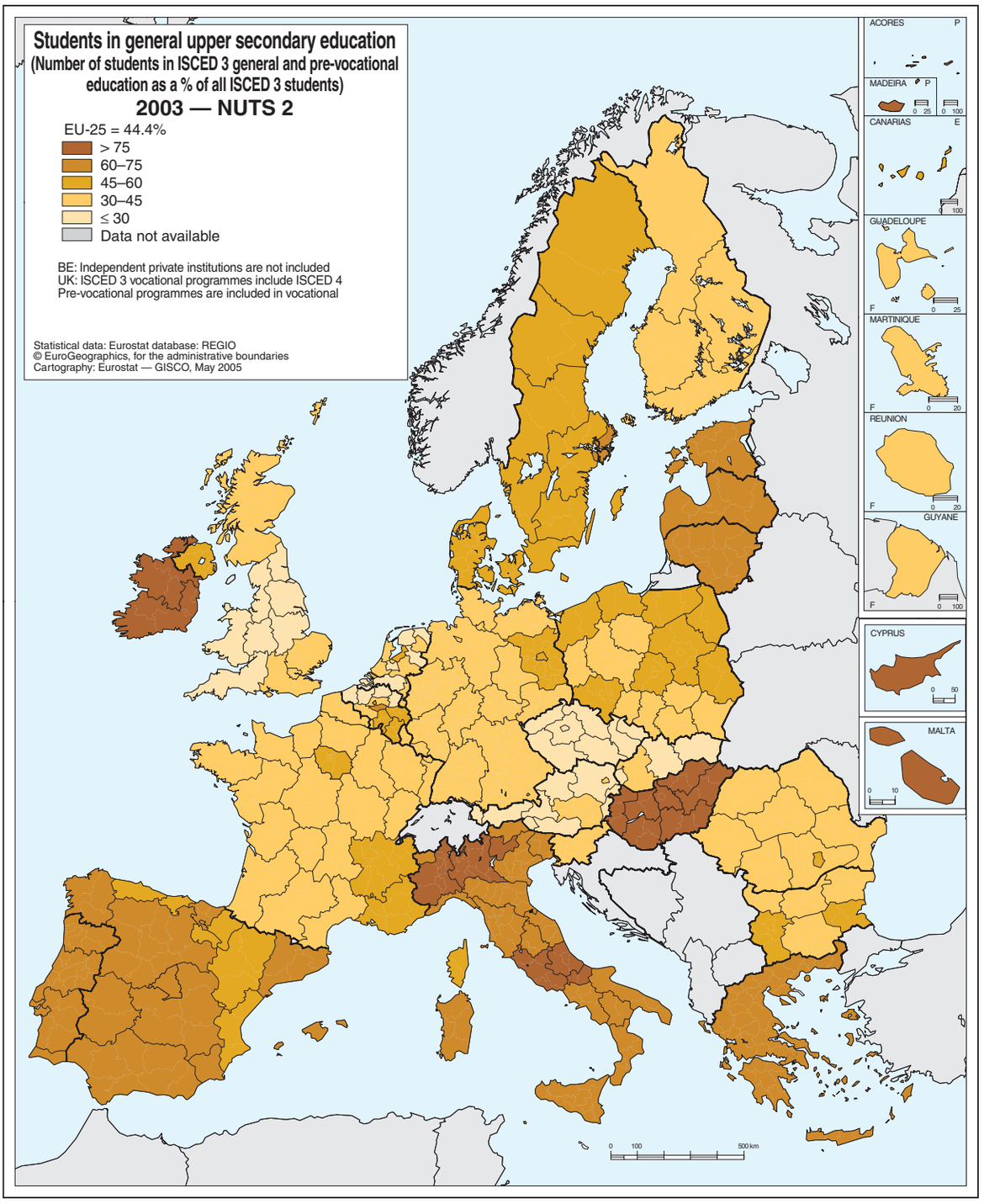
Vocational education is particularly strong in the Czech Republic, Slovakia, Austria, and in some regions of Belgium, the Netherlands and the United Kingdom. In the Czech Republic, 75 % or more of students in all regions are enrolled in vocational education at ISCED level 3.

Tertiary education students

Map 11.3 shows the number of students in tertiary education (ISCED 5-6) as a proportion of all pupils and students in pre-primary, primary,



Map 11.1



Map 11.2

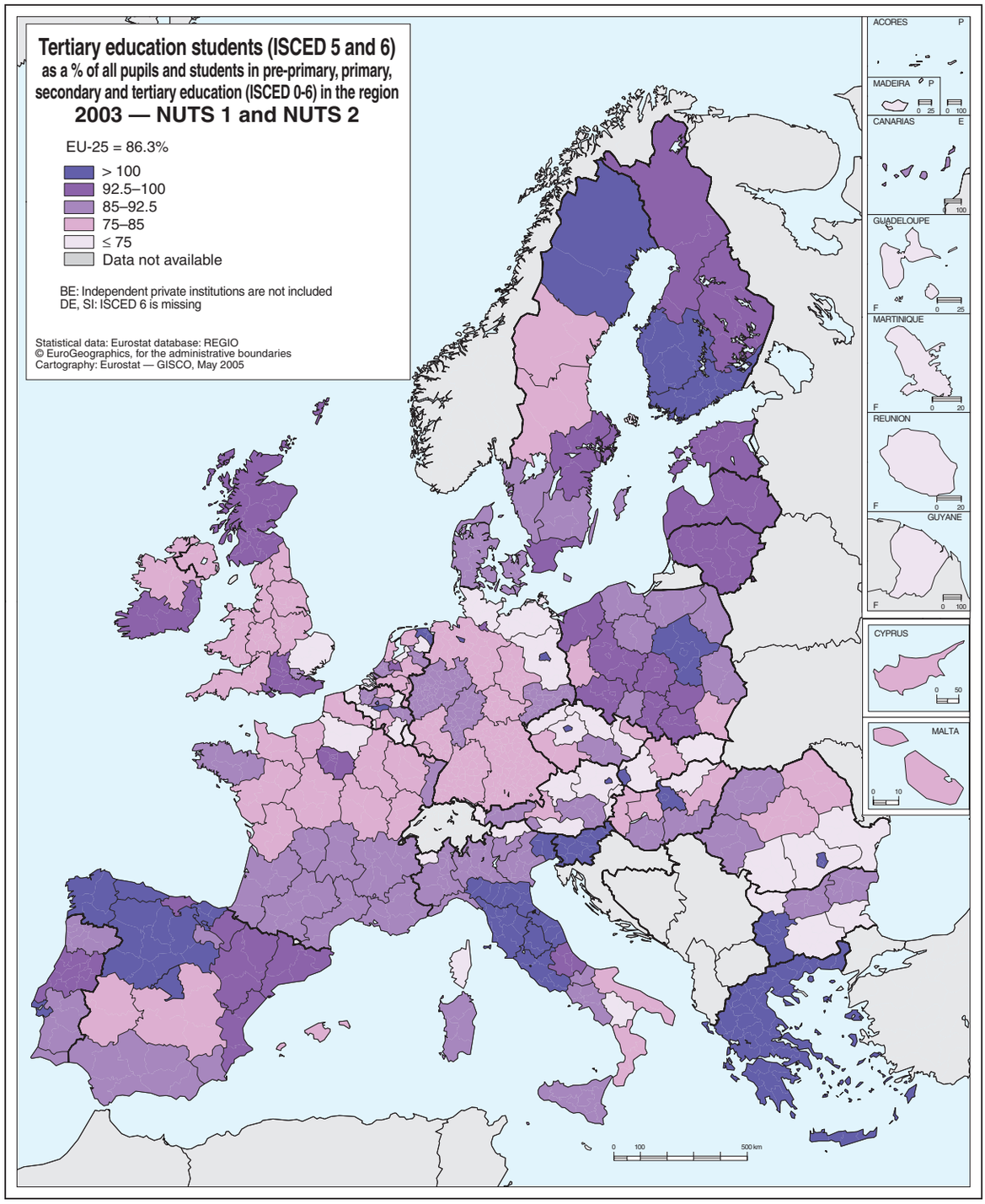
secondary and tertiary education (ISCED 0-6) in the region.

The indicator is based on data on where the students are studying, not on where they come from or live. Regions that have universities and other tertiary education institutes, often the big cities, tend therefore to have high percentages, as pupils and students in lower levels of education most often attend school close to where they live, while students often travel or move for tertiary education purposes. The indicator does not in the first place show uneven higher education participation but rather uneven location of higher education institutions over the regions.

Other factors also have to be taken into account when interpreting this indicator. Of particular

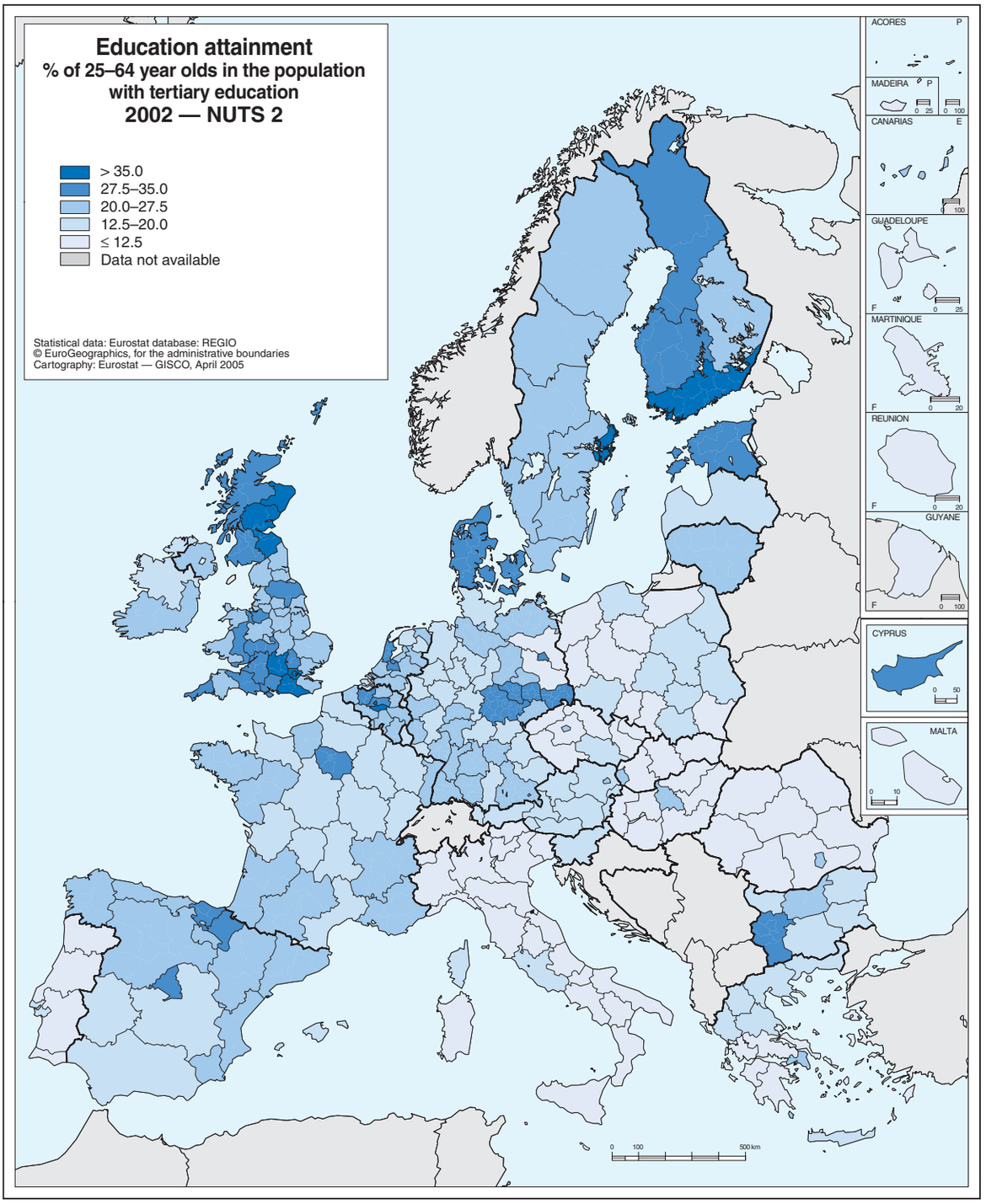
relevance are demographic variations between countries. In some countries, the age-groups corresponding to compulsory education are small relative to the age-groups corresponding to typical ages for tertiary studies. In other countries, the situation is the opposite. Also, the structures of the educational systems, such as the variable duration of compulsory education and of tertiary education, affect the indicator. In spite of these limitations, the indicator gives a rough picture of the proportions of tertiary education in countries and the concentration or spreading of tertiary education institutions over regions.

On average, the percentage of tertiary education students to all pupils and students is 16.2 % in the European Union. The percentage is highest in the regions of Bucureşti (36.5 %), Wien (33.0 %),



Map 11.3

Bratislavský (31.2 %), Praha (31.2 %), Mazowieckie (30.6 %) and Közép-Magyarország (27.4 %), which are capital regions in Bulgaria, Austria, Slovakia, the Czech Republic, Poland and Hungary. These countries also have the regions with the lowest proportions of tertiary students. The lowest percentage is 0.2 % in Severozapaden in Bulgaria. In Střední Čechy in the Czech Republic the percentage is 1.5, in Flevoland in the Netherlands 1.6, in Provincia Autonoma Trento and in Liguria in Italy 1.8 and 2.2 respectively, in Niederösterreich and Vorarlberg in Austria 2.3 in both regions. Also, in Drenthe in the Netherlands, in Reunion in France, in Burgenland in Austria, in Severozápad in the Czech Republic, in the country of Luxembourg as well as in the Prov. Luxembourg of Belgium the percentages are low, below 5 %. Most of these regions have little, if any, tertiary education infrastructure.



Map 11.4

Tertiary education attainment

The proportion of the population aged 25 to 64 years in the regions which have attained the tertiary level of education is shown in Map 11.4. The pattern on this map tends to be similar to the pattern in Map 11.3. In most countries, the highest proportions of tertiary attainments are found in the same regions as the tertiary education students, that is, where the tertiary education institutions are located.

The regional variations are, however, in many countries relatively small. The variation tends to be mostly between countries. The national education systems and the national education policies have an impact not only on enrolments and provision of general and vocational education but also on education attainment, which is a consequence of many years' education policy.

The region with the highest education attainment in Europe is Inner London. In Inner London, every second inhabitant between 25 and 64 years has attained the tertiary level of education, 48.2 %. In Brabant Wallon in Belgium, the percentage is 41.2. In the regions of Berkshire, Bucks and Oxfordshire; Outer London; East and West Sussex; north eastern Scotland and eastern Scotland in the United Kingdom, in Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest in Belgium, in Etelä-Suomi in Finland, in Stockholm in Sweden and in Île-de-France in France the percentages are all 35 % or above.

The lowest proportion of tertiary education attainment in the population is in Região Autónoma da Madeira in Portugal, 5.1 %. Also the regions Região Autónoma dos Açores, Algarve, Norte and Centro in Portugal have percentages below 8 %. The same applies to the regions Nord-Est, Sud and Centru in Romania, Severozápad in the Czech Republic, Valle d'Aosta/Vallée d'Aoste and Provincia Autonoma Bolzano-Bozen in Italy and Sterea Ellada in Greece.

The regions with the lowest tertiary education attainment levels are also the regions with the lowest participation rates in education among 17 year olds. These regions have also low proportions of tertiary students. While upper secondary general education, within the countries, is often more common in regions with high proportions of tertiary students, this is not always the case. Região Autónoma da Madeira, with the lowest percentage of tertiary education attainment, has mainly general education at the upper secondary level.

Lifelong learning participation

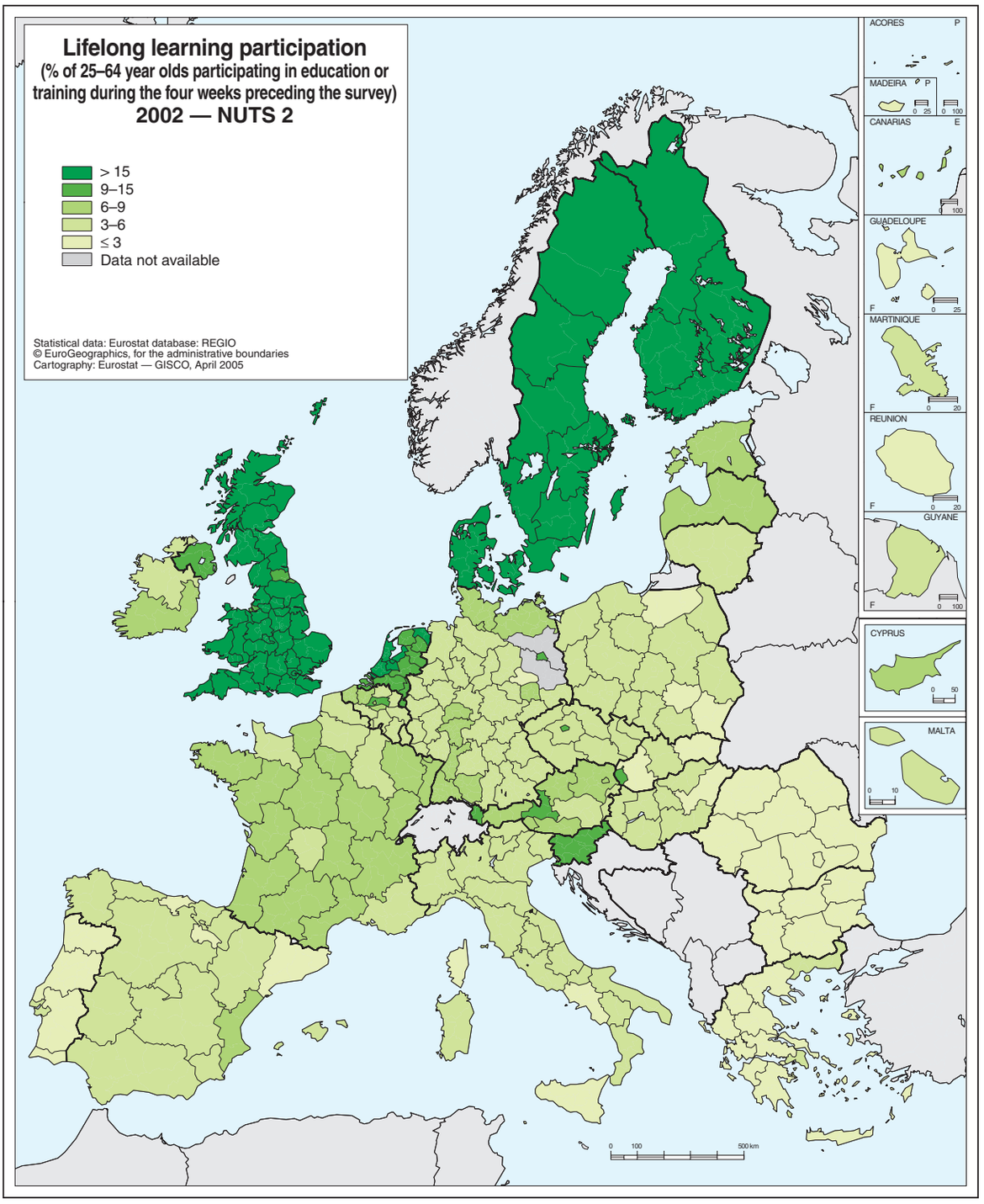
Lifelong learning refers to participation in any kind of education or training; formal, informal or non-formal; at the workplace, in the formal education system or elsewhere during the four weeks preceding the survey. The data are collected through the labour force survey but refer to all education or vocational training whether or not relevant to current or future employment.

The formal education systems are most often regulated at national level and affected by national policies. As Map 11.5 also shows, participation in lifelong learning is to a great extent nationally profiled. In fact, the regional variations are the smallest in this indicator compared to the indicators on education in regions shown previously in this chapter.

Participation in lifelong learning is high in all regions in Finland, Sweden, the United Kingdom and the Netherlands. The highest percentage is in Övre Norrland in Sweden, 33.6 %. In practically all regions in Finland, Sweden, the United Kingdom and the Netherlands, the percentages are above 15 %, in Sweden the lifelong learning percentages are all close to or above 30 %.

The participation rates are low in all regions in Greece, Bulgaria and Romania, lowest in Severozapaden, Severen tsentralen and Yuzhen tsentralen in Bulgaria, in Sud-Vest, Sud and Centru in Romania and in Dytiki Makedonia, Peloponnisos and Voreio Aigaio in Greece, below 1 %.

Within countries, the highest participation rates in lifelong learning are often found in the capital regions. These regions are also most often those having the highest education attainment levels. In the Czech Republic, Praha has the highest percentage of lifelong learning participation, 9.8 %. In Germany, the highest percentage is in Berlin, 9.9 %; in Hungary in the capital region Közép-Magyarország, 6.5 %; and in Poland in the capital region Mazowieckie, 5.9 %.



Map 11.5

This is, however, not at all always the case. The region with the highest participation rate, Övre Norrland, is the most rural part of Sweden. In France, the highest participation in lifelong learning is in Alsace, 8.7 %. In Italy, Sardegna has the highest percentage, 6.1 %, in the Netherlands Utrecht, 17.8 % and in Austria Salzburg, 10.1 %.

Conclusion

The above examples are intended merely to highlight a few of the many possible ways of analysing education and lifelong learning in the regions of the EU and does not constitute a detailed analysis. We hope, however, that they will encourage readers to probe deeper into the NewCronos databank and to make many further interesting discoveries.

eurostat

TOURISM

12

Introduction

Tourism is an important economic activity in the European Union. It encompasses a wide variety of products and destinations and many different stakeholders are involved — both public and private — with very decentralised areas of competence, often at regional and local levels.

Tourism offers an ideal means of contributing to the achievement of a number of major EU objectives, such as economic growth, employment, sustainable development and economic and social cohesion.

Europe, with the greatest diversity and density of tourist attractions, is the most visited tourist region in the world. European Community tourism is largely domestic. Over 80 % of the recorded tourism activity is attributed to its own citizens.

Following EU enlargement on 1 May 2004, the various maps now also show data for the new Member States.

Eurostat has been collecting data on tourism since 1994, covering three aspects: capacity, occupancy and demand. At regional level, only data on capacity and occupancy are collected. Capacity data refer to the accommodation infrastructure for tourists in the region concerned. Occupancy data refer to the number of overnight stays in rented accommodation in a particular region. Demand data differentiate between domestic and outbound tourism: outbound tourism refers to residents of one country travelling to another.

Methodological notes

Although throughout this section, mainly for reasons of map clarity, the regional level adopted for the analyses is that of NUTS 2, Eurostat's New-Cronos databank in fact contains extensive data at NUTS 3 level.

Capacity (infrastructure) statistics

Map 12.1 provides information on the number of bedplaces, taking account of the region's resident population.

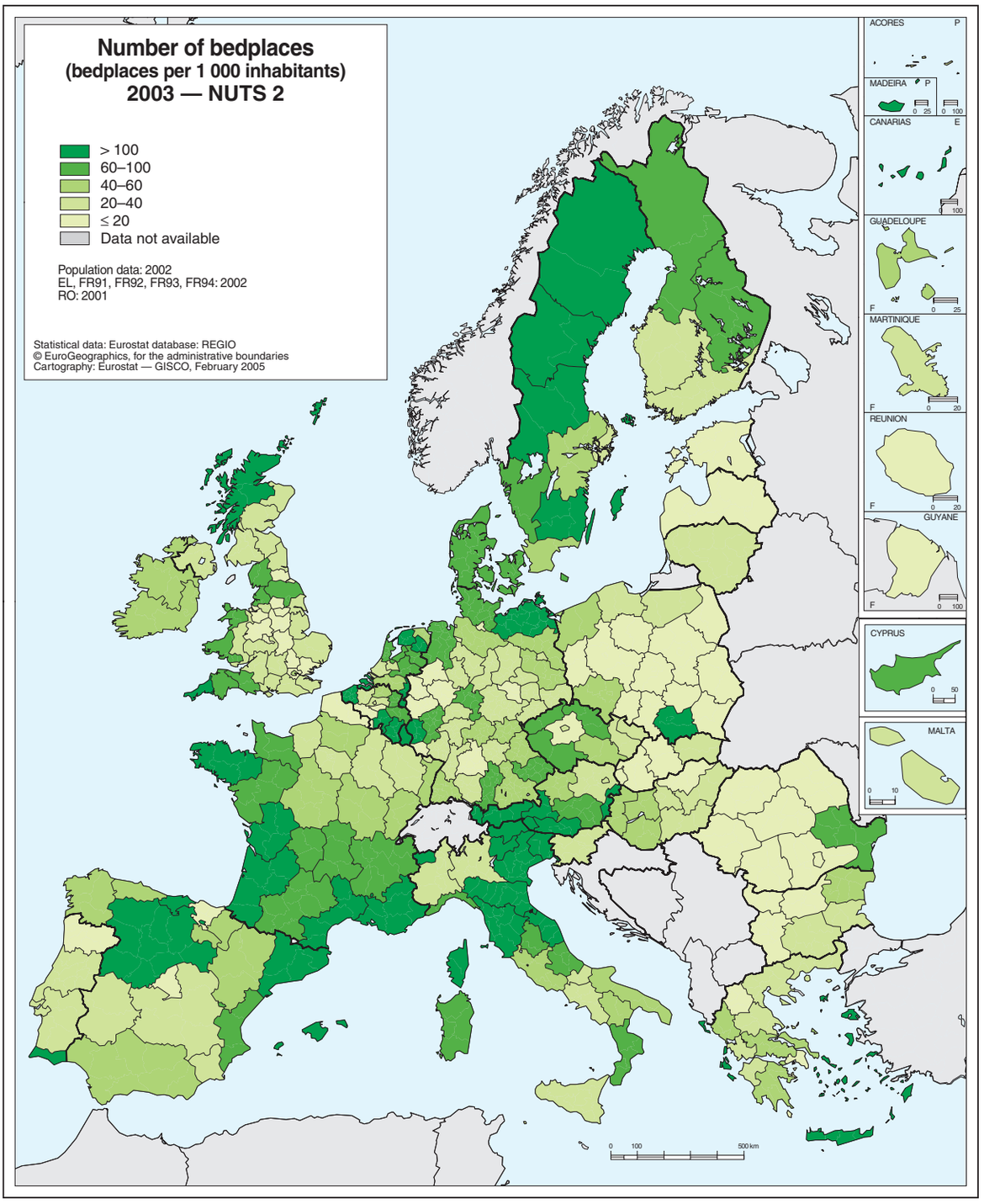
The map highlights regions with a high accommodation density due to the high number of bedplaces available (e.g. Islas Baleares (ES), Bolzano (IT) and Corse (FR)). In contrast, other regions have a high accommodation density due to their small populations (e.g. Åland (FIN), the Highlands (UK) and Övre Norrland (SE)). Several classic destinations for package-holiday flights, such as Islas Baleares in Spain and the Algarve in Portugal, have a very high accommodation capacity per head of resident population. Cyprus, which has a hotel capacity similar to that of the Algarve, can also be counted as one of these traditional EU destinations.

The region of Tyrol in Austria provides a typical example of how tourism can continue all year round.

Many holidaymakers do not, of course, fly to their destination, especially on shorter breaks, which are becoming increasingly popular. A number of regions with an extensive hotel infrastructure lie within comfortable driving range of major concentrations of urban population. Examples include, in the United Kingdom, West Wales and the Valleys, Dorset and Somerset, and the Black Forest region in Germany. Central Sweden is also an attractive destination for short holiday breaks.

Turning specifically to the total number of bedplaces, Map 12.2 gives a clear overview of the number of beds available in hotels and similar establishments as a proportion of the total bedplaces in each region. Apart from hotels and similar establishments, holiday homes, campsites and other facilities such as youth hostels, tourist residences, etc. are also counted as tourist accommodation. It is interesting to note from this map that the concentration of hotel beds in urban areas and around the respective capitals is higher than in other areas. This is most evident in France, where in Paris over 75 % of the total number of bedplaces is accounted for by hotels. This is also the case in Berlin and the Rhine/Main area around Frankfurt in Germany, and in Greater London in the United Kingdom. It can thus be concluded that tourist accommodation density varies widely between regions, even within the same country.

The number of hotel beds as a proportion of the total number of bedplaces is also high in other regions, particularly in Scotland, parts of England and Greece. In these areas, this can be explained by the type of accommodation that prevails in the country or region in question. In rural regions, for example in many parts of Belgium and the

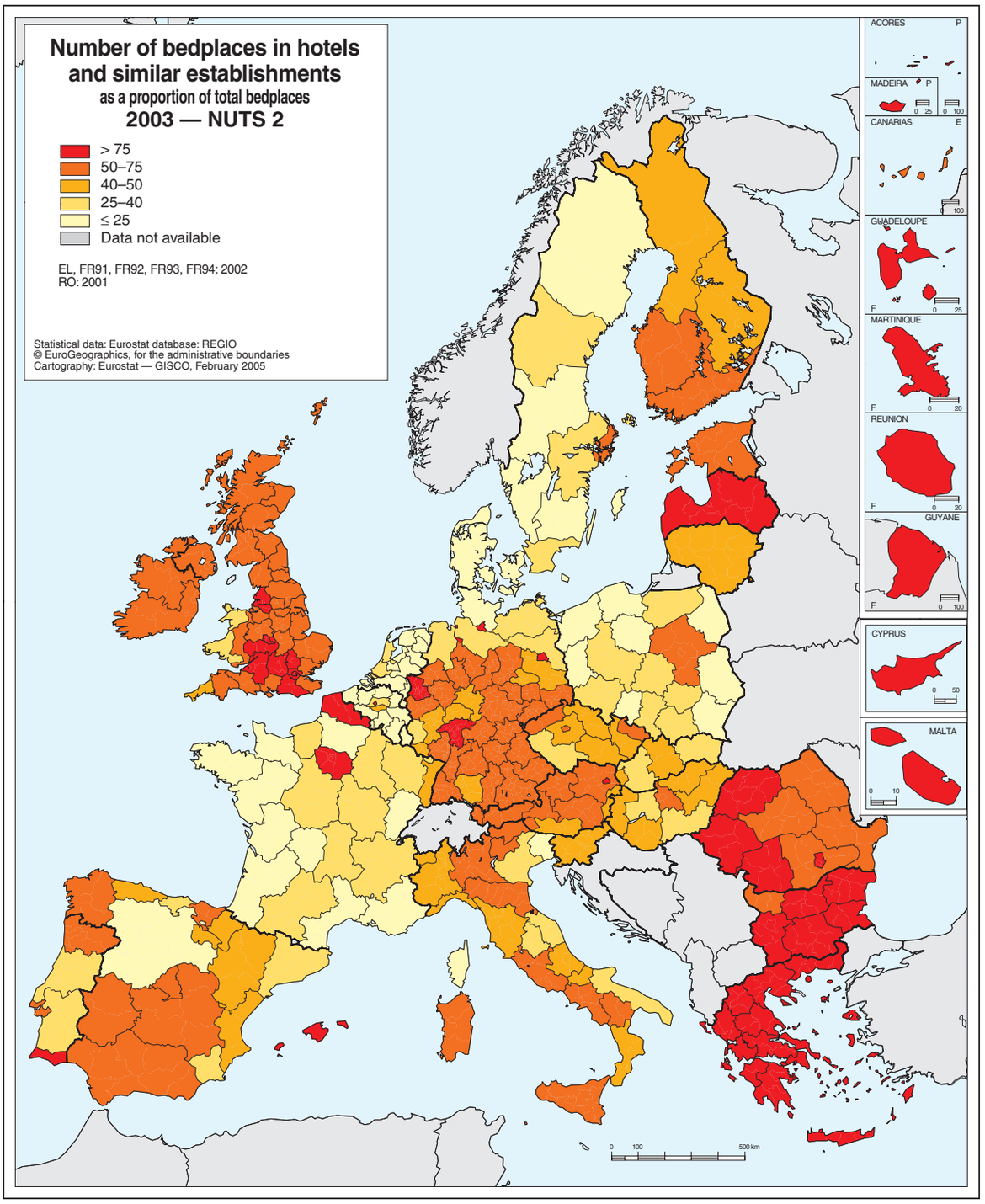


Map 12.1

Netherlands, the west and south-west of France, Denmark, most parts of Sweden and also in Poland (with the exception of the area around Warsaw), the proportion of total bedplaces accounted for by beds in hotels and similar establishments can be less than 25 % and does not exceed 40 %. A third group of regions comprising the Baltic States (Estonia, Lithuania and Latvia) and Finland can be situated between these two extremes: in these countries, the bed capacity in hotels and similar establishments represents 40 to 75 % of total bedplaces.

Occupancy data

While tourist infrastructure figures such as those used for Maps 12.1 and 12.2 provide an



Map 12.2

indication of the accommodation capacity available in a specific region, it is still important to know the extent to which this capacity is actually used. An occupancy measurement is therefore necessary. The NewCronos database contains data on accommodation and the number of overnight stays at NUTS 2 level for the years 1994 to 2004. These figures are broken down further according to residents and non-residents. Non-residents are people living in a country other than that in which the region is situated.

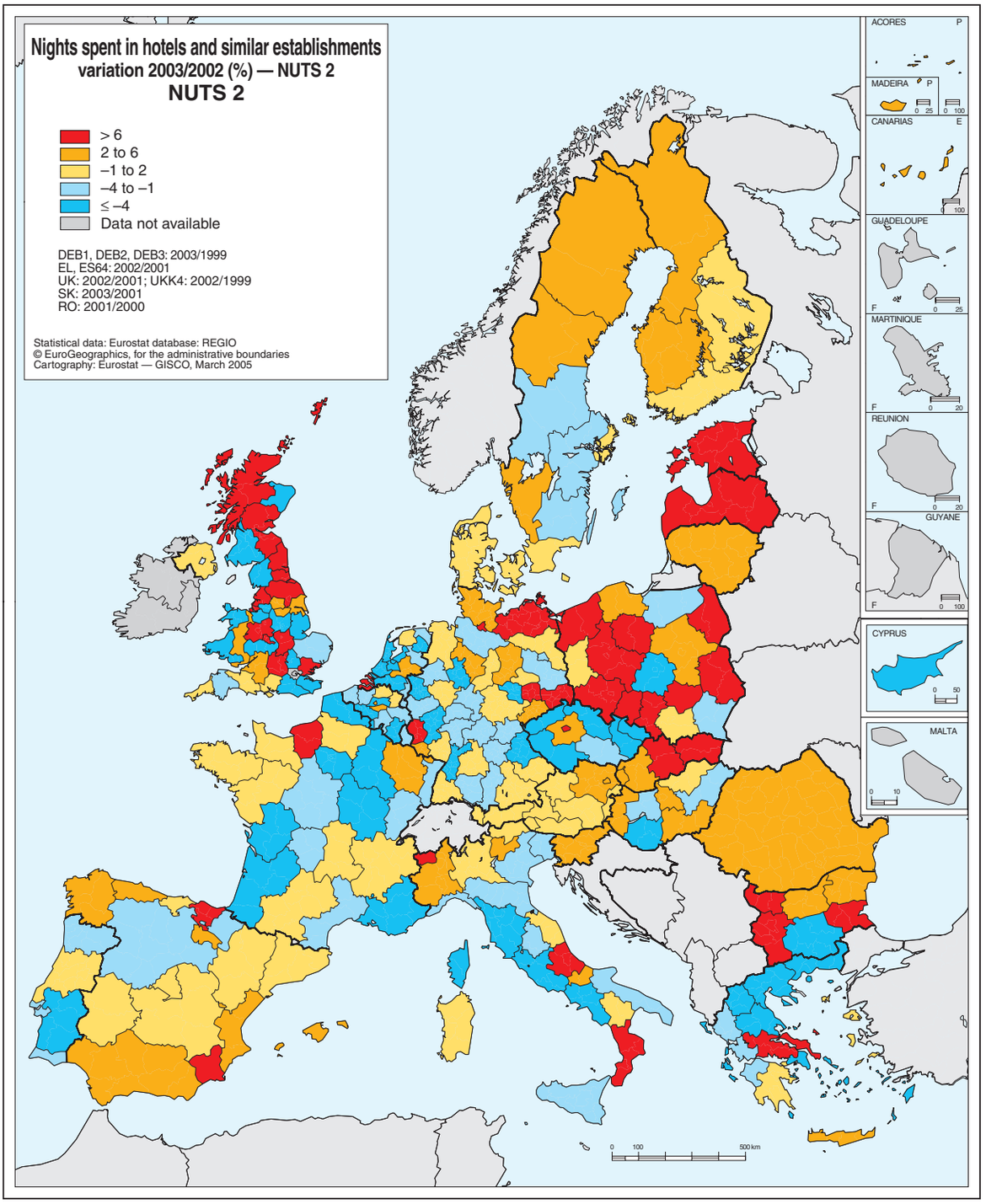
Since the indicator here shows the percentage of total overnight stays, it is possible to ascertain the proportion of foreign tourists and thus the attractiveness of a region for international tourism.

However, the percentage of overnight stays accounted for by foreign tourists also depends, of

course, on the size of a country. This percentage will always be higher in smaller countries than in larger ones.

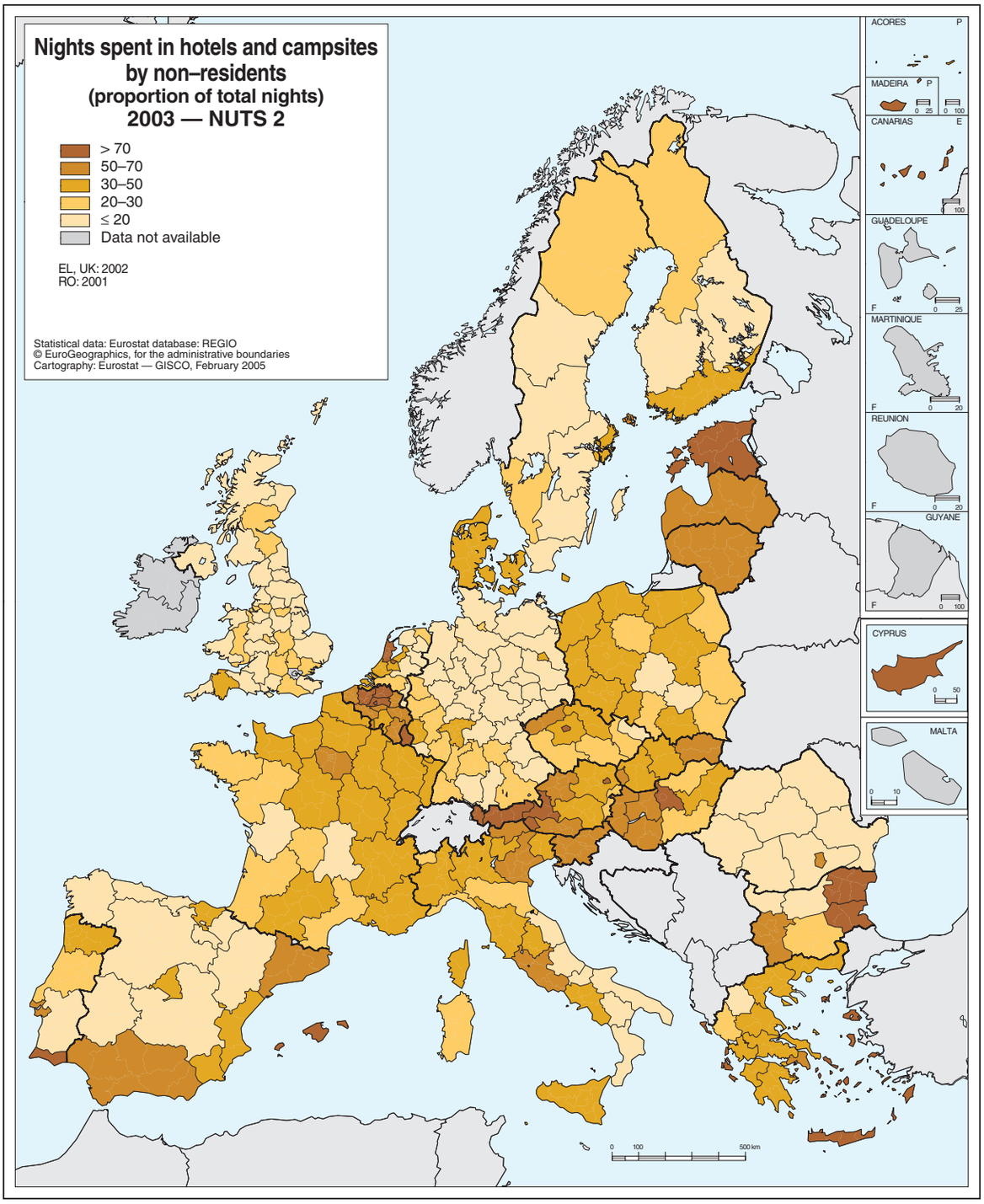
The highest percentage of overnight stays by non-residents can be found in the Austrian *Länder* of Vorarlberg and Tyrol, Estonia, Cyprus, Luxembourg and the Flemish part of Belgium. This shows how heavily some of these countries, such as Austria and Cyprus, depend on foreign visitors. In Germany and Great Britain and also large parts of Spain and Italy (with the exception of the coastal regions), on the other hand, there is less dependence on foreign tourists. Domestic tourism plays a predominant role in these big countries.

A very different picture emerges if one examines the variations in overnight stays in hotels and similar establishments between 2002 and 2003,



Map 12.3

particularly for the new Member States. In Estonia and Latvia, on the Baltic coast of Poland, in Hungary and in Bulgaria, the number of overnight stays rose by up to 6 % — and sometimes even more — in comparison with the previous period. Although these percentage changes are influenced by the reference values used for the comparison (a relatively low reference value gives a very high percentage change), they nevertheless reflect a change in travel behaviour. This may well be due to economic pressure forcing people to choose holiday destinations closer to home. However, political or other reasons for preferring new destinations over traditional holiday countries such as Spain and Italy may also play a role. It is also evident that the enlargement process and with it the attraction of new holiday destinations in the new Member States already had an effect on tourism in 2003. This trend needs to be monitored in future years.



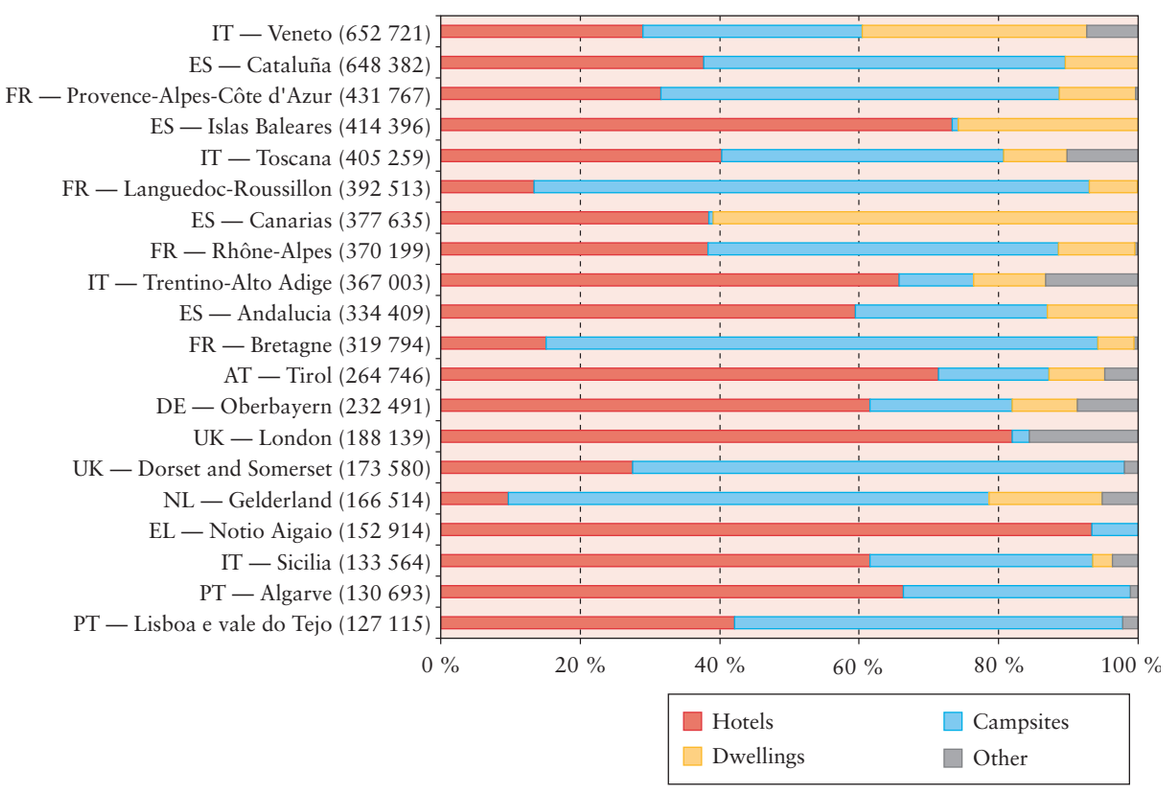
Map 12.4

The list of the 20 most important tourism regions in the EU-25 does not include any regions in the new Member States. Traditionally, south European regions predominate in the list. However, established holiday regions such as Tyrol (Austria), Oberbayern (Germany) and Gelderland (the Netherlands) also feature. As far as accommodation type is concerned, there is no obvious pattern that applies to all 20 regions. The accommodation structure depends on the individual region, although hotels and campsites are the most commonly found types of accommodation.

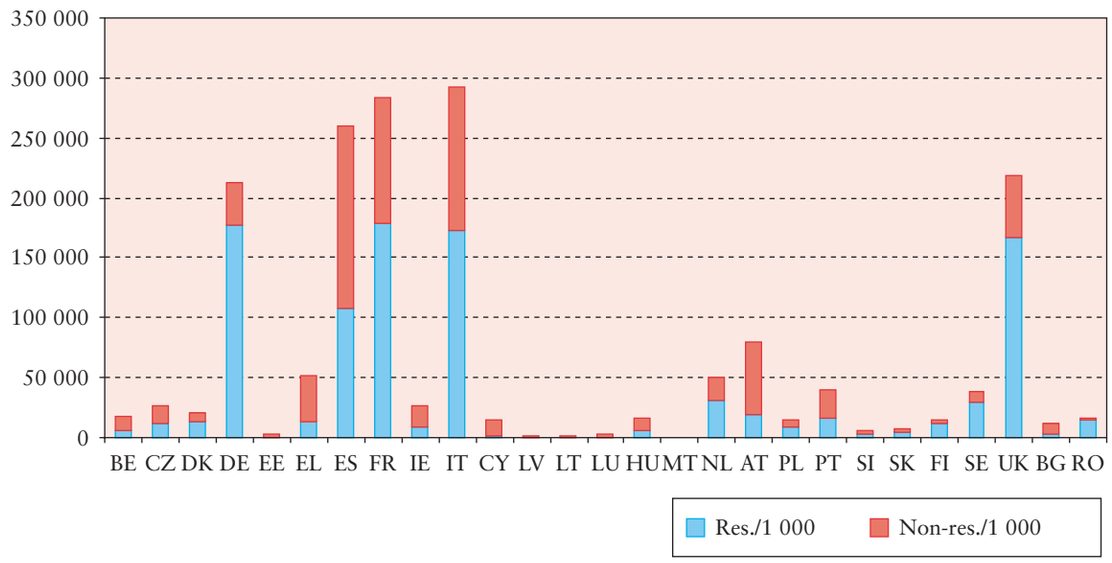
Conclusion

In recent years, European tourism and related industries have undergone major changes. The data collected by the Member States and published by Eurostat show that tourism is gaining in importance for the European regions. The main factor that encourages regions to increase their attractiveness is the trend towards more frequent and shorter holidays. The examples given above will, it is hoped, encourage readers to make even greater use of the regional data on European tourism.

Graph 12.1 — Top 20 EU-25 tourist regions — Distribution of bed places by type of accommodation, 2003 — NUTS 2



Graph 12.2 — Inbound and domestic tourism in 2003 — Nights spent in hotels and campsites by residents and non-residents



EUROPEAN UNION: NUTS 2 regions

BE10	Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest
BE21	Prov. Antwerpen
BE22	Prov. Limburg (BE)
BE23	Prov. Oost-Vlaanderen
BE24	Prov. Vlaams-Brabant
BE25	Prov. West-Vlaanderen
BE31	Prov. Brabant Wallon
BE32	Prov. Hainaut
BE33	Prov. Liège
BE34	Prov. Luxembourg (BE)
BE35	Prov. Namur
CZ01	Praha
CZ02	Střední Čechy
CZ03	Jihozápad
CZ04	Severozápad
CZ05	Severovýchod
CZ06	Jihovýchod
CZ07	Střední Morava
CZ08	Moravskoslezsko
DK00	Danmark
DE11	Stuttgart
DE12	Karlsruhe
DE13	Freiburg
DE14	Tübingen
DE21	Oberbayern
DE22	Niederbayern
DE23	Oberpfalz
DE24	Oberfranken
DE25	Mittelfranken
DE26	Unterfranken
DE27	Schwaben
DE30	Berlin
DE41	Brandenburg — Nordost
DE42	Brandenburg — Südwest
DE50	Bremen
DE60	Hamburg
DE71	Darmstadt
DE72	Gießen
DE73	Kassel
DE80	Mecklenburg-Vorpommern
DE91	Braunschweig
DE92	Hannover
DE93	Lüneburg
DE94	Weser-Ems
DEA1	Düsseldorf
DEA2	Köln
DEA3	Münster
DEA4	Detmold
DEA5	Arnsberg
DEB1	Koblenz
DEB2	Trier
DEB3	Rheinhessen-Pfalz
DEC0	Saarland
DED1	Chemnitz
DED2	Dresden
DED3	Leipzig
DEE1	Dessau
DEE2	Halle
DEE3	Magdeburg
DEF0	Schleswig-Holstein
DEG0	Thüringen
EE00	Eesti
GR11	Anatoliki Makedonia, Thraki
GR12	Kentriki Makedonia
GR13	Dytiki Makedonia
GR14	Thessalia
GR21	Ipeiros
GR22	Ionia Nisia
GR23	Dytiki Ellada
GR24	Sterea Ellada
GR25	Peloponnisos
GR30	Attiki
GR41	Voreio Aigaio
GR42	Notio Aigaio
GR43	Kriti
ES11	Galicia
ES12	Principado de Asturias
ES13	Cantabria
ES21	País Vasco
ES22	Comunidad Foral de Navarra
ES23	La Rioja
ES24	Aragón
ES30	Comunidad de Madrid
ES41	Castilla y León
ES42	Castilla-La Mancha
ES43	Extremadura
ES51	Cataluña
ES52	Comunidad Valenciana
ES53	Illes Balears
ES61	Andalucía
ES62	Región de Murcia
ES63	Ciudad Autónoma de Ceuta
ES64	Ciudad Autónoma de Melilla
ES70	Canarias
FR10	Île-de-France
FR21	Champagne-Ardenne
FR22	Picardie
FR23	Haute-Normandie
FR24	Centre
FR25	Basse-Normandie
FR26	Bourgogne
FR30	Nord - Pas-de-Calais
FR41	Lorraine
FR42	Alsace
FR43	Franche-Comté
FR51	Pays de la Loire
FR52	Bretagne
FR53	Poitou-Charentes
FR61	Aquitaine
FR62	Midi-Pyrénées
FR63	Limousin
FR71	Rhône-Alpes
FR72	Auvergne
FR81	Languedoc-Roussillon
FR82	Provence-Alpes-Côte d'Azur
FR83	Corse
FR91	Guadeloupe
FR92	Martinique
FR93	Guyane
FR94	Réunion
IE01	Border, Midland and Western
IE02	Southern and Eastern
ITC1	Piemonte
ITC2	Valle d'Aosta/Vallée d'Aoste
ITC3	Liguria
ITC4	Lombardia
ITD1	Provincia Autonoma Bolzano/Bozen
ITD2	Provincia Autonoma Trento
ITD3	Veneto
ITD4	Friuli-Venezia Giulia
ITD5	Emilia-Romagna
ITE1	Toscana
ITE2	Umbria
ITE3	Marche
ITE4	Lazio
ITF1	Abruzzo
ITF2	Molise
ITF3	Campania
ITF4	Puglia
ITF5	Basilicata
ITF6	Calabria
ITG1	Sicilia
ITG2	Sardegna
CY00	Kypros/Kıbrıs
LV00	Latvija
LT00	Lietuva
LU00	Luxembourg (Grand-Duché)

HU10 Közép-Magyarország
HU21 Közép-Dunántúl
HU22 Nyugat-Dunántúl
HU23 Dél-Dunántúl
HU31 Észak-Magyarország
HU32 Észak-Alföld
HU33 Dél-Alföld
MT00 Malta
NL11 Groningen
NL12 Friesland
NL13 Drenthe
NL21 Overijssel
NL22 Gelderland
NL23 Flevoland
NL31 Utrecht
NL32 Noord-Holland
NL33 Zuid-Holland
NL34 Zeeland
NL41 Noord-Brabant
NL42 Limburg (NL)
AT11 Burgenland
AT12 Niederösterreich
AT13 Wien
AT21 Kärnten
AT22 Steiermark
AT31 Oberösterreich
AT32 Salzburg
AT33 Tirol
AT34 Vorarlberg
PL11 Łódzkie
PL12 Mazowieckie
PL21 Małopolskie
PL22 Śląskie
PL31 Lubelskie
PL32 Podkarpackie
PL33 Świętokrzyskie
PL34 Podlaskie
PL41 Wielkopolskie
PL42 Zachodniopomorskie
PL43 Lubuskie
PL51 Dolnośląskie
PL52 Opolskie
PL61 Kujawsko-Pomorskie
PL62 Warmińsko-Mazurskie
PL63 Pomorskie
PT11 Norte
PT15 Algarve
PT16 Centro (PT)
PT17 Lisboa
PT18 Alentejo
PT20 Região Autónoma dos Açores
PT30 Região Autónoma da Madeira
SI00 Slovenija
SK01 Bratislavský kraj
SK02 Západné Slovensko
SK03 Stredné Slovensko
SK04 Východné Slovensko
FI13 Itä-Suomi
FI18 Etelä-Suomi
FI19 Länsi-Suomi
FI1A Pohjois-Suomi
FI20 Åland
SE01 Stockholm
SE02 Östra Mellansverige
SE04 Sydsverige
SE06 Norra Mellansverige
SE07 Mellersta Norrland
SE08 Övre Norrland
SE09 Småland med öarna
SE0A Västsverige
UKC1 Tees Valley and Durham
UKC2 Northumberland and Tyne and Wear
UKD1 Cumbria
UKD2 Cheshire
UKD3 Greater Manchester
UKD4 Lancashire
UKD5 Merseyside
UKE1 East Riding and North Lincolnshire
UKE2 North Yorkshire
UKE3 South Yorkshire
UKE4 West Yorkshire
UKF1 Derbyshire and Nottinghamshire
UKF2 Leicestershire, Rutland and Northamptonshire
UKF3 Lincolnshire
UKG1 Herefordshire, Worcestershire and Warwickshire
UKG2 Shropshire and Staffordshire
UKG3 West Midlands
UKH1 East Anglia
UKH2 Bedfordshire and Hertfordshire
UKH3 Essex
UKI1 Inner London
UKI2 Outer London
UKJ1 Berkshire, Buckinghamshire and Oxfordshire
UKJ2 Surrey, East and West Sussex
UKJ3 Hampshire and Isle of Wight
UKJ4 Kent
UKK1 Gloucestershire, Wiltshire and North Somerset
UKK2 Dorset and Somerset
UKK3 Cornwall and Isles of Scilly
UKK4 Devon
UKL1 West Wales and the Valleys
UKL2 East Wales
UKM1 North Eastern Scotland
UKM2 Eastern Scotland
UKM3 South Western Scotland
UKM4 Highlands and Islands
UKN0 Northern Ireland

CANDIDATE COUNTRIES: NUTS 2 regions

BG11 Severozapaden
BG12 Severen tsentralen
BG13 Severoiztochen
BG21 Yugozapaden
BG22 Yuzhen tsentralen
BG23 Yugoiztochen
RO01 Nord-Est
RO02 Sud-Est
RO03 Sud
RO04 Sud-Vest
RO05 Vest
RO06 Nord-Vest
RO07 Centru
RO08 Bucureşti

European Commission

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