2006 EDITION

Regions: Statistical yearbook 2006

Data 2000-2004

EUROPEAN COMMISSION

eurostat

THEME
General and regional statistics

Immediate access to harmonised statistical data

http://ec.europa.eu/eurostat

Eurostat on the Internet

Our website is updated daily. Visit it today and get:

- direct and free access to all Eurostat PDF publications;
- direct and free access to our databases, presenting the latest and most complete statistical information available on the European Union, the EU Member States, the euro zone, the European Economic Area and other European partner countries;
- alert me — customisable e-mail alerts that inform you immediately when new data or publications on your preferred topics become available;
- specialised access to short-term economic data;
- complete information on all Eurostat products and services.

European Statistical Data Support

Eurostat has set up with the members of the 'European statistical system' a network of support centres which will exist in nearly all Member States as well as in some EFTA countries. Their mission is to provide help and guidance to Internet users of European statistical data.
Contact details for this support network can be found on our Internet site.

Media Support Eurostat

Journalists can contact the media support service:

Tel. (352) 4301-33408
Fax (352) 4301-35349
E-mail: eurostat-mediasupport@ec.europa.eu

Europe Direct is a service to help you find answers to your questions about the European Union

Freephone number (*):

00 800 6 7 8 9 10 11

(*) Certain mobile telephone operators do not allow access to 00-800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet.
It can be accessed through the Europa server (http://europa.eu).

Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2006

ISBN 92-79-01799-3
ISSN 1681-9306

Printed in Belgium

PRINTED ON WHITE CHLORINE-FREE PAPER

EUROSTAT

L-2920 Luxembourg — Tel. (352) 43 01-1 — http://ec.europa.eu/eurostat

Eurostat is the Statistical Office of the European Communities. Its task is to gather and analyse figures from the different European statistical offices in order to provide comparable and harmonised data for the European Union to use in the definition, implementation and analysis of Community policies. Its statistical products and services are also of great value to Europe's business community, professional organisations, academics, librarians, NGOs, the media and citizens.

To ensure that the vast quantity of accessible data is made widely available and to help each user make proper use of the information, Eurostat has set up a publications and services programme.

This programme makes a clear distinction between general and specialist users and particular collections have been developed for these different groups. The collections *Press releases*, *Statistics in focus*, *Panorama of the European Union*, *Pocketbooks* and *Catalogues* are aimed at general users. They give immediate key information through analyses, tables, graphs and maps.

The collections *Detailed tables* and *Methods and nomenclatures* suit the needs of the specialist who is prepared to spend more time analysing and using very detailed information and tables.

As part of the new dissemination policy, Eurostat has developed its website. All Eurostat publications are downloadable free of charge in PDF format from the website. Furthermore, Eurostat's databases are freely available there, as are tables with the most frequently used and demanded short- and long-term indicators.

Eurostat has set up with the members of the 'European statistical system' a network of support centres which will exist in nearly all Member States as well as in some EFTA countries. Their mission is to provide help and guidance to Internet users of European statistical data. Contact details for this support network can be found on our Internet site.

Eurostat

ACKNOWLEDGEMENTS

The editing of each chapter of this publication would not have been possible without the participation of the following subject experts within the various Eurostat units:

- Population: Gregor Kyi (unit F1 Demographic and migration statistics)
- Regional gross domestic product: Andreas Krüger (unit C2 National accounts – production)
- Household accounts: Andreas Krüger (unit C2 National accounts – production)
- Regional labour market: Michal Mlady (unit D2 Regional indicators and geographical information)
- Labour productivity: Berthold Feldmann (unit D2 Regional indicators and geographical information)
- Urban statistics: Teodóra Brandmüller (unit D2 Regional indicators and geographical information)
- Science, technology and innovation: Bernard Felix, Simona Frank, August Götzfried and Håkan Wilén (unit F4 Education, science and culture statistics)
- Structural business statistics: Ulf Johansson (unit G1 Structural business statistics)
- Health: Sabine Gagel (unit F5 Health and food safety statistics)
- Transport: Caroline Heylen and Carla Sciullo (unit G5 Transport statistics)
- Agriculture: György Benoist and Michael Goll (E1 Agriculture statistics – methodology)

The process of creating this publication was coordinated by Åsa Önnerfors of unit D2 at Eurostat (Regional indicators and geographical information); Baudouin Quennery in unit D2 produced all the statistical maps, Michael Feith in unit B6 (Dissemination) helped us in the dissemination process.

We are also very grateful to:

Directorate General for Translation of the European Commission

The Office for Official Publications of the European Communities

CONTENTS

Introduction



eurostat

Statistical data at the regional level

The Structural Funds for the period 2007 to 2013 were decided in December 2005. This decision was based on the objective regional statistics compiled by Eurostat, thus highlighting the importance of our effort to produce a wide range of comparable regional information.

This yearbook shows many aspects of this regional data and suggests in the various chapters some of the analyses which can be made with them. But we also invite you the reader to yourself continue the analyses of the regional data supplied in each of the different themes presented here. We also hope that this publication will make you keen to further investigate Eurostat's statistical databases (available free of charge on the internet).

In keeping with the traditions of the Regional yearbook, we try to renew the publication a little each year, but also to keep its structure basically unchanged. In this way, many subjects reappear from year to year, but the theme or focus of the subject is always slightly different. This year we again have one theme that is totally new for the Regional Yearbook, namely "labour productivity", which combines statistics on GDP with labour market statistics in a very interesting way. This kind of cross-cutting of different statistical domains could of course also be conducted with other statistical themes, but we will for the moment leave that to a future edition of the yearbook.

Some highlights

We will not present here the content of all chapters of this Regional Yearbook. Here, however, are some hints to whet your appetite to read it carefully:

- The population chapter this year focuses on old and young dependency ratios in the coming decades, highlighting the drastic changes of society we will have to cope with.
- The chapter on regional GDP centres its attention on growth rates between 1999 and 2003, giving interesting insights into regional differences.
- The Urban Audit chapter concentrates on the competitiveness of cities, analysing various facets of benchmarking cities that compete against each other.
- The chapter on the Structural Business Survey focuses on specialised regions in different industrial and service activities. This highlights the heterogeneity of European regions in terms of the production process and skills.

Regional classification

All regional analysis in this yearbook is based on NUTS 2003. In the meantime, the ten new Member States have also been formally integrated 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.

Coverage

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 in 2007 or 2008: 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, 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 expert authors in text commentaries. In keeping with the traditions of the yearbook, an effort has been made to focus on aspects not recently covered.

In order to assist the understanding of the maps, the data series used for the maps in the yearbook are provided as Excel files on the CD-ROM.

In the maps, the statistics are presented at NUTS level 2. 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 level 2 and level 3 regions and the appropriate maps, may be consulted on the RAMON server.[1]

More regional information needed?

The public REGIO database on the Eurostat website 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 REGIO of a number of indicators at NUTS level 3 (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 REGIO database, please consult the Eurostat publication 'European regional and urban statistics — Reference Guide 2003', a copy of which is available in PDF format on the accompanying CD-ROM.

In addition, the reader is also invited to consult the web version of the "Portraits of the Regions", which give regional profiles of all individual regions across Europe.[2] These regional topical profiles describe the geography and history of the region, before going on to assess its strengths and weaknesses in terms of demographic, economic and cultural issues. Among the aspects examined are the labour market, education, infrastructure and resources.

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.[3]

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 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 was the 15th of May 2006.

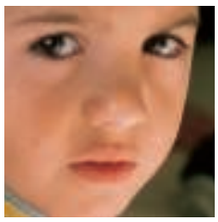
[1] See http://europa.eu.int/comm/eurostat/ramon/index.cfm?TargetUrl=DSP_PUB_WELC

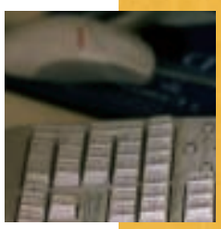
[2] See http://forum.europa.eu.int/irc/dsis/regportraits/info/data/en/index.htm

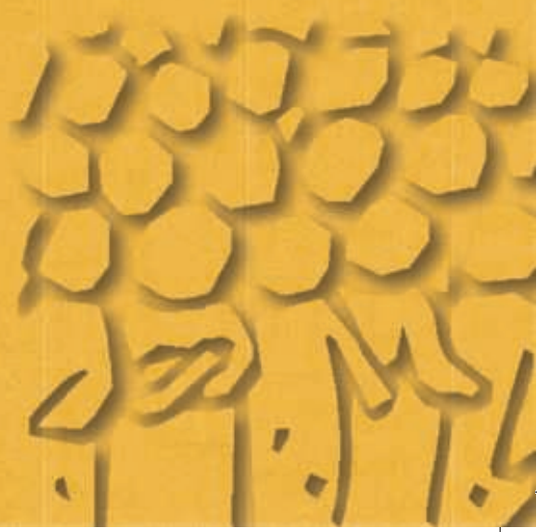
[3] See http://forum.europa.eu.int/Public/irc/dsis/regstat/information

Population

1.







eurostat

Introduction

Demographic trends have a strong impact on the societies of the European Union. Consistently low fertility levels, combined with an extended longevity and the fact that the baby boomers are reaching retirement age, result in a demographic ageing of the EU population. The share of the older generation is increasing while the share of those of working age is decreasing. If current trends prevail until 2050, a person of working age then might have to provide for up to twice as many retired people as is usual today.

The demographic development is not the same in all regions of the European Union. Although the ageing of their societies is a problem that all EU Member States have to face, it might have a stronger impact in some regions than in others. The regional pattern of major demographic phenomena, as it is visible today, is the focus of this chapter.

Some demographic developments might become considerably more important in the coming 50 years. To demonstrate the effects that current trends might have if continued in the future, Eurostat calculates population projections (see "Methodological notes"). The 'Regions: Statistical yearbook 2006' presents projections of age dependency ratios in the EU-25 that give an idea of how much the current picture has to be seen in the context of time.

In its green paper "Confronting demographic change: a new solidarity between the generations"[1] the European Commission concludes that in order to face up to demographic change, Europe should pursue three essential priorities:

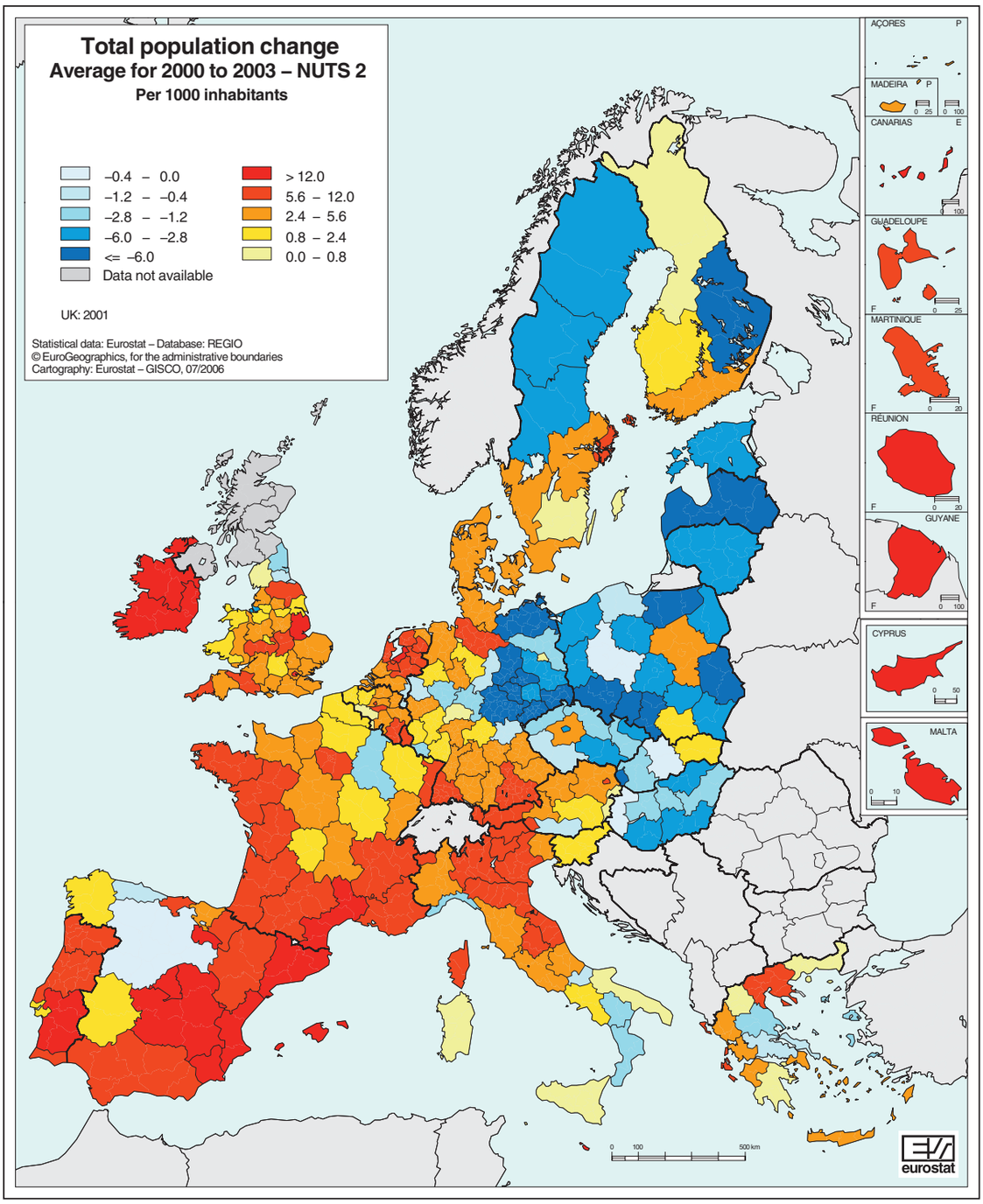
- Return to demographic growth.
- Ensure a balance between the generations, in the sharing of time throughout life, in the distribution of the benefits of growth, and in that of funding needs stemming from pensions and health-related expenditure.
- Find new bridges between the stages of life, particularly between economic activity and inactivity. Young people still find it difficult to get into employment. An increasing number of "young retirees" want to participate in social and economic life. Study time is getting longer and young working people want to spend time with their children.

A changing population...

During the last four decades, the population of the 25 countries of today's European Union has grown from over 376 million persons (1960) to about 459 million persons (2005). However, strength and composition of the population growth has varied significantly over the years. Until the end of the 1980s, the 'natural increase' (live births minus deaths) was by far the major component of population growth. However, there has been a sustained decline of the 'natural increase' since the early 1960s. On the other hand, international migration has gained importance to become the major force of population growth from the beginning of the 1990s onwards.

Maps 1.1, 1.2 and 1.3 show the total population change and its components since the start of the new century. For the sake of comparability, the

[1] COM 2005, 94 final.

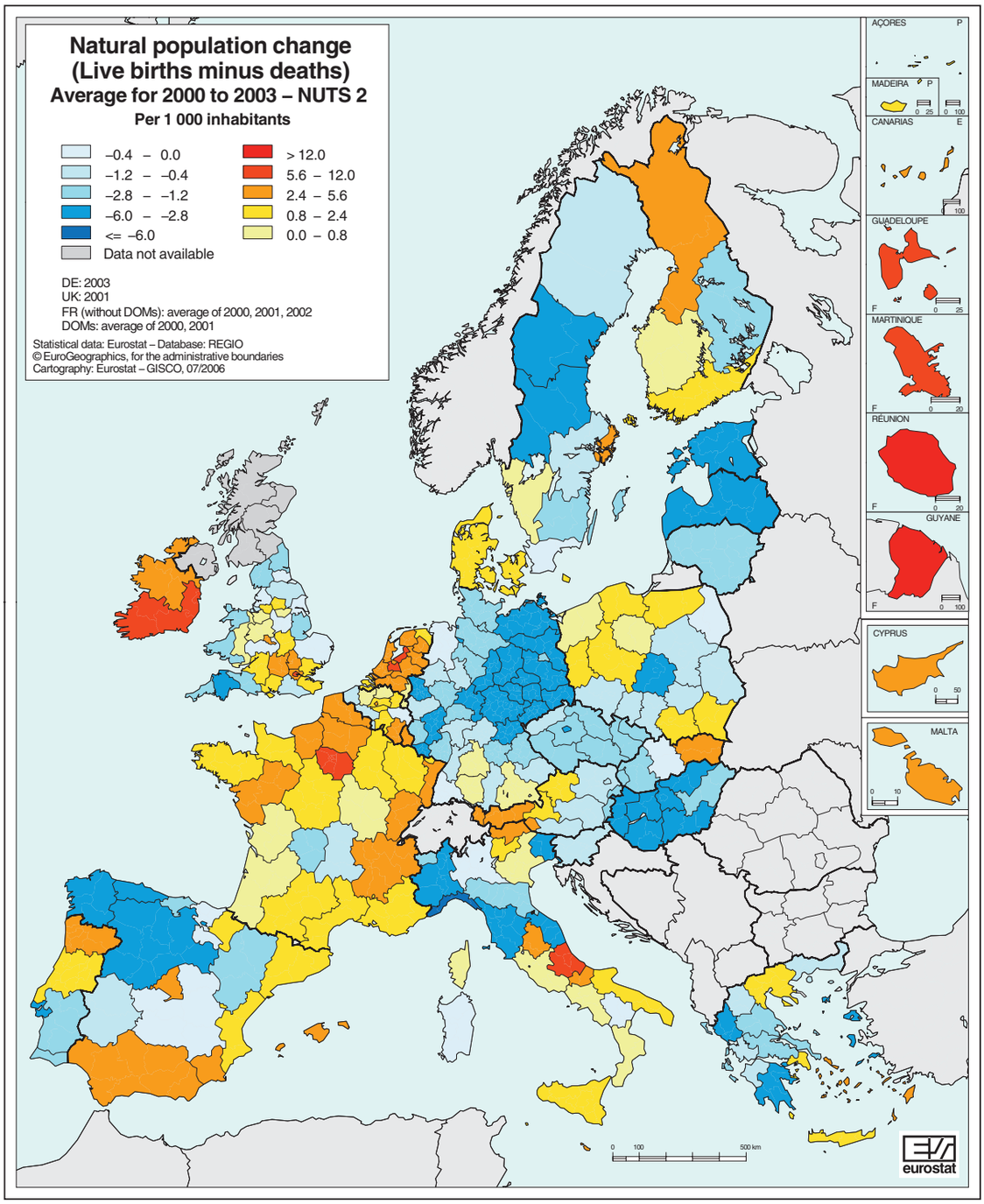


Map 1.1

population change is presented in relative terms, i.e. it is related to the size of the total population. The maps show the four year average for the resulting 'crude rates of population change' (for the years 2000, 2001, 2002 and 2003).

In the North-east of the European Union, the population is decreasing. Map 1.1 is marked by a clear divide between the regions there and in the rest of the EU. Most affected by a decreasing population are eastern Germany, Poland, the Czech Republic, Slovakia and Hungary, and to the north the three Baltic States, and parts of Sweden and Finland.

The total population change has two components: the so-called 'natural increase', which is defined as the difference between the numbers of live births and deaths, and net migration which ideally represents the difference between inward and outward migration (see "Methodological notes").

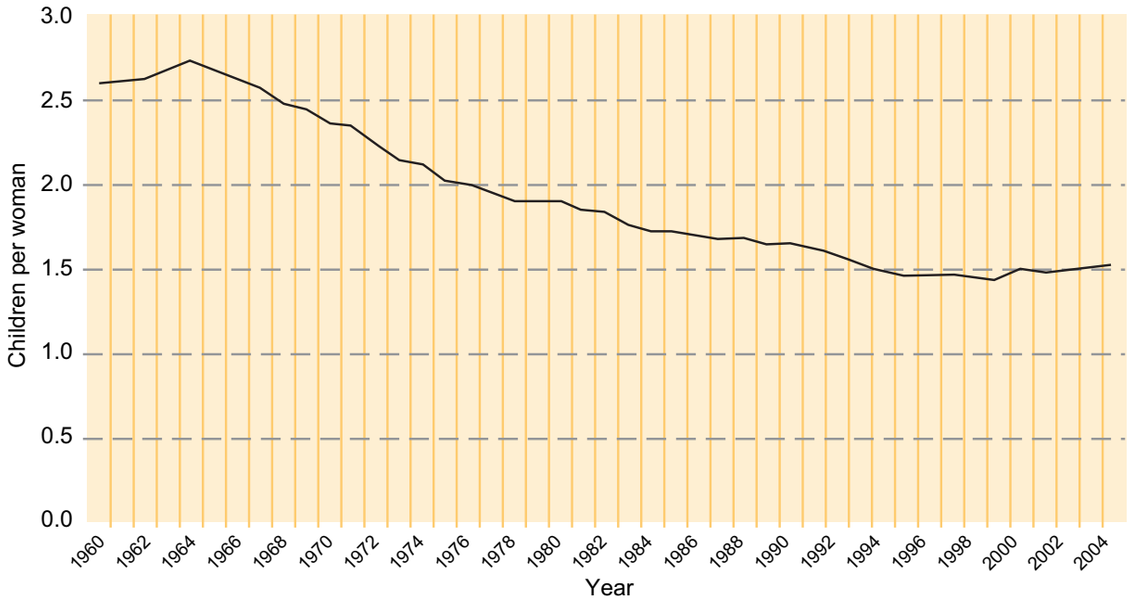


Map 1.2

Map 1.2 shows that in many regions of the EU more persons have died than have been born since the start of the new century. The resulting negative 'natural population change' is widespread and the pattern is less pronounced as for the total population change. Ireland, France, the three Benelux countries and Denmark have mainly a 'natural increase' of the population. The 'natural population change' is predominantly negative in Germany, the Czech Republic, Slovakia, Hungary, Slovenia and adjacent regions, as well as the Baltic States, Sweden in the north and Greece in the south. The other Member States have a situation that is, overall, more balanced.

A major reason for the slowdown of the 'natural increase' of the population is the fact that, on average and over time, the inhabitants of the EU have fewer children. In the 25 countries that today form the European Union, the total

Graph 1.1: Total fertility rate in the EU-25, 1960 - 2004



fertility rate has declined from a level of above 2.5 in the early 1960s to a level of about 1.5 in 1995 where it has remained since (graph 1.1; for the definition of the Total fertility rate in the "Methodological notes"). For comparison: In the more developed parts of the world today, a total fertility rate of around 2.1 children per women is considered to be the replacement level, i.e. the level at which a population would remain stable in the long run if there was no inward or outward migration.

Concerning net migration, four cross-border regions where more persons have left than arrived can be identified on map 1.3:

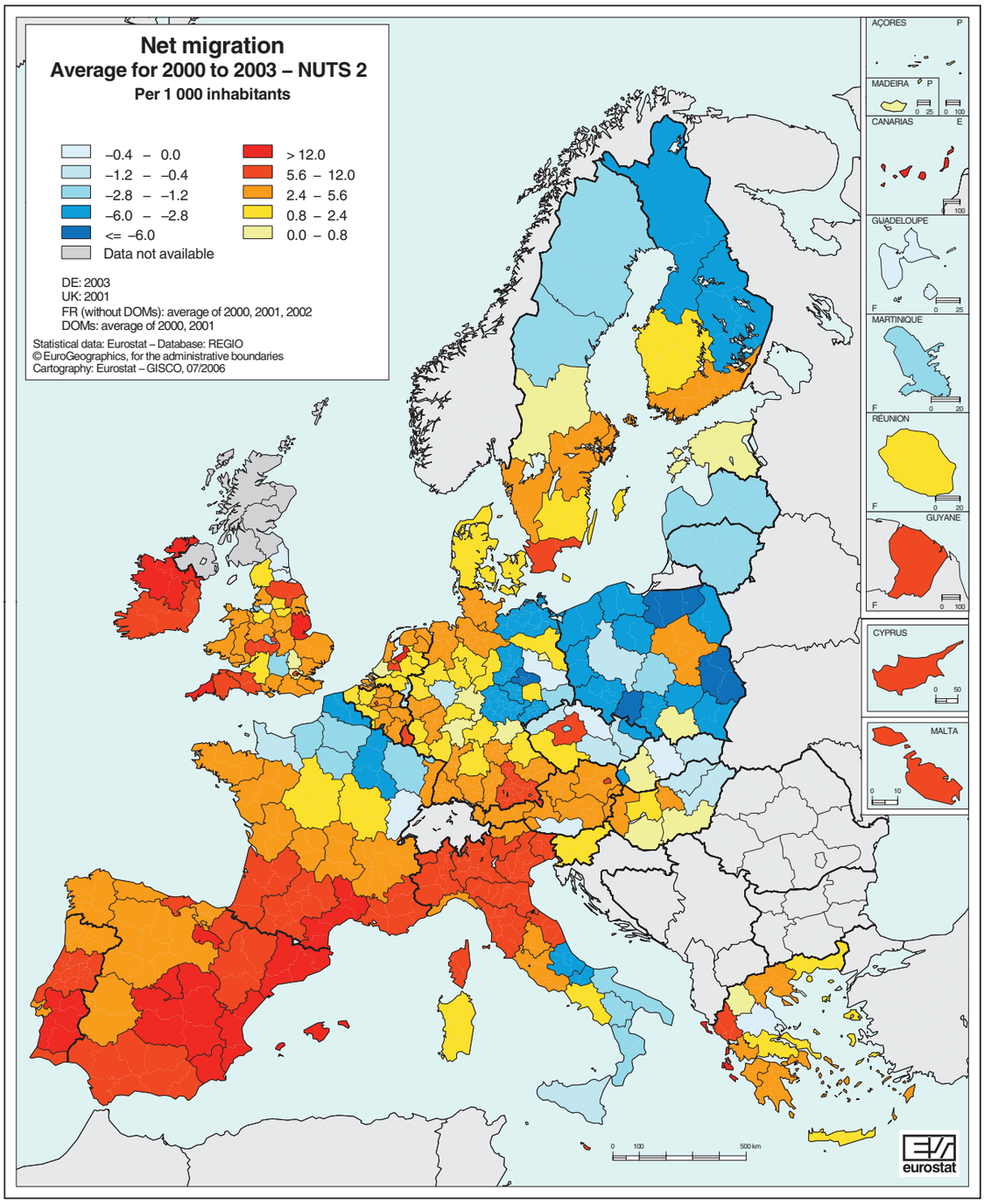
- The northern most regions of Sweden and Finland;
- A north-eastern group, comprising most of eastern Germany, Poland, Lithuania and Latvia as well as parts of the Czech Republic, Slovakia and Hungary;
- Regions in the north of France;
- Regions in the south of Italy.

In some regions a negative 'natural change' has been compensated by a positive net migration. This is most conspicuous in western Germany, eastern Austria, the north of Italy, and Slovenia, as well as the south of Sweden and regions in Spain, Greece and the United Kingdom. The opposite is much rarer: in only a few regions (namely in the north of Poland), a positive 'natural change' has been compensated by a negative net migration.

Regions without compensation are often exposed to a profound development, upwards or — in some regions — downwards. In Ireland, the Benelux countries, many regions in France and some in Spain a 'natural increase' has been accompanied by positive net migration. However, in East Germany, Lithuania and Latvia, as well as some regions in Poland, the Czech Republic, Slovakia and Hungary both components of population change where negative. In some regions this has led to a sustained population loss.

An example: in the five Länder in eastern Germany[2] there were over half a million persons fewer on 1st January 2005 than on 1st January 2000, reflecting a total population loss of 3.7 % of the population there. However, this movement is not homogeneous for all ages: The very young population (aged up to 14 years) decreased by almost a quarter (- 24.1 %) while the population at retirement age increased by 18.2 %.

[2] Berlin not included. Contrary to the rest of the analysis, this example refers to data up to 1 January 2005 which were the last available on the NUTS 1 level when this publication went to press. The horizon thus comprises five years.

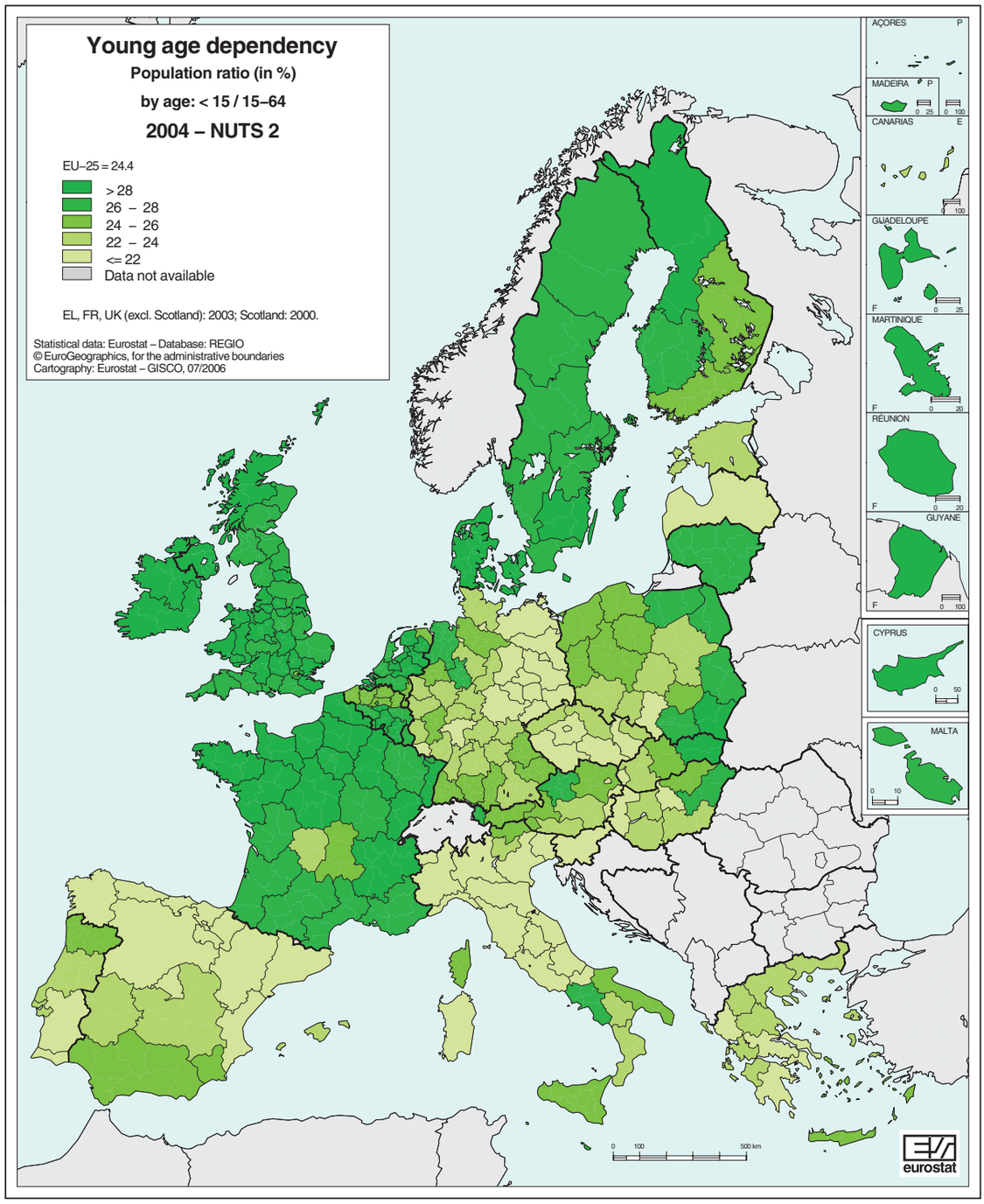


Map 1.3

… and a shifting age structure

Age dependency ratios are important demographic indicators that relate the young and old age population to the population of working age. The 'old age' roughly approximates to the age of retirement. Today, different demographic reports present dependency ratios based on different definitions for the age groups. In this publication the following age groups are being used:

- "Young age dependency ratio": the population aged up to 14 years related to the population aged between 15 and 64 years.
- "Old age dependency ratio": the population aged 65 years or older related to the population aged between 15 and 64 years.

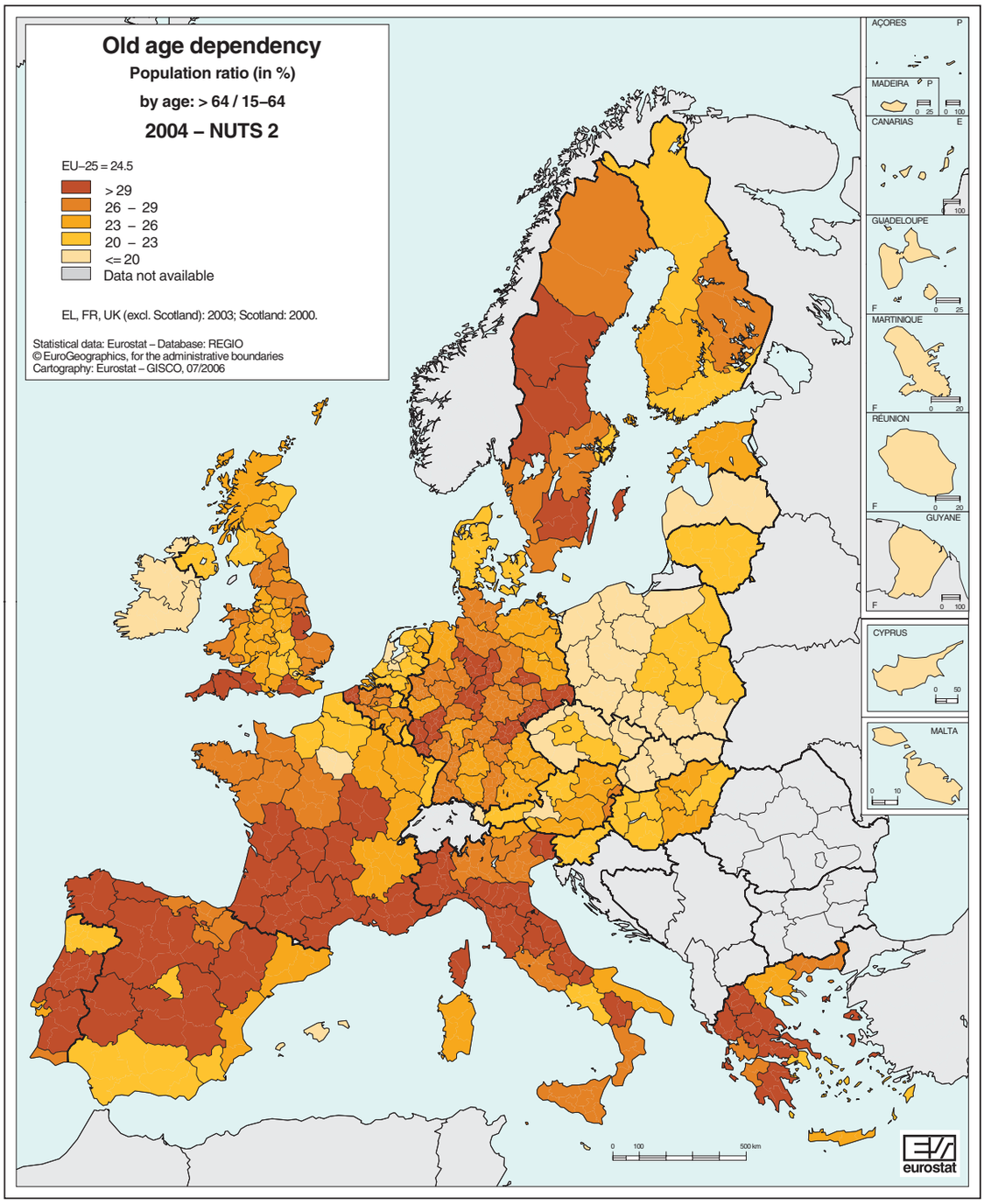


Map 1.4

The maps 1.4 and 1.5 show the population structure in the year 2004. The young age dependency ratio is influenced by recent fertility levels. Countries with higher fertility tend to have a higher young age dependency (i.e. more young people per 100 of working age) when compared to countries with low fertility levels. This is conspicuous for Ireland, France, the United Kingdom, the Benelux countries, Denmark, Sweden and Finland. The young age dependency is below average in regions in Italy, Greece, Spain, Germany, the Czech Republic and Latvia. The regional pattern for the old age dependency is less clear cut.

What will the future bring?

Eurostat's population projections allow a fair anticipation of how the demographic situation will

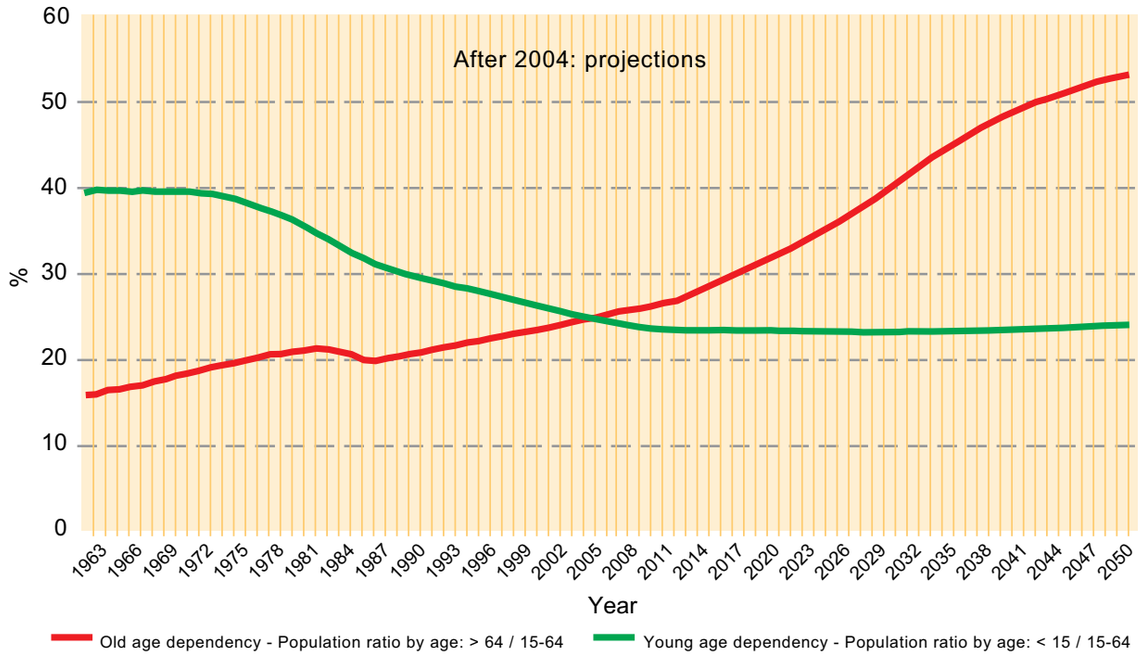


Map 1.5

develop if current trends continue. A particularly dynamic indicator will probably be the old age dependency ratio. It is a reasonable projection that, on average for the EU-25 and if current trends prevail, the old age dependency ratio will approximately double during the next 50 years (graph 1.2). This means that in the year 2050 a person of working age might have to provide for up to twice as many retired people as is usual today. The regional differences visible already today might lead to a more dramatic development in some regions than in others.

The example of the five Länder in eastern Germany demonstrates that in some regions the demographic ageing of the population is already developing quite fast. In this region, the young age dependency ratio has fallen from 19.4 % (2000) to 15.4 % (2005), whereas the old age dependency ratio has risen from 23.5 % (2000) to 29.2 % (2005).

Graph 1.2: Old and young age dependency



Methodological notes

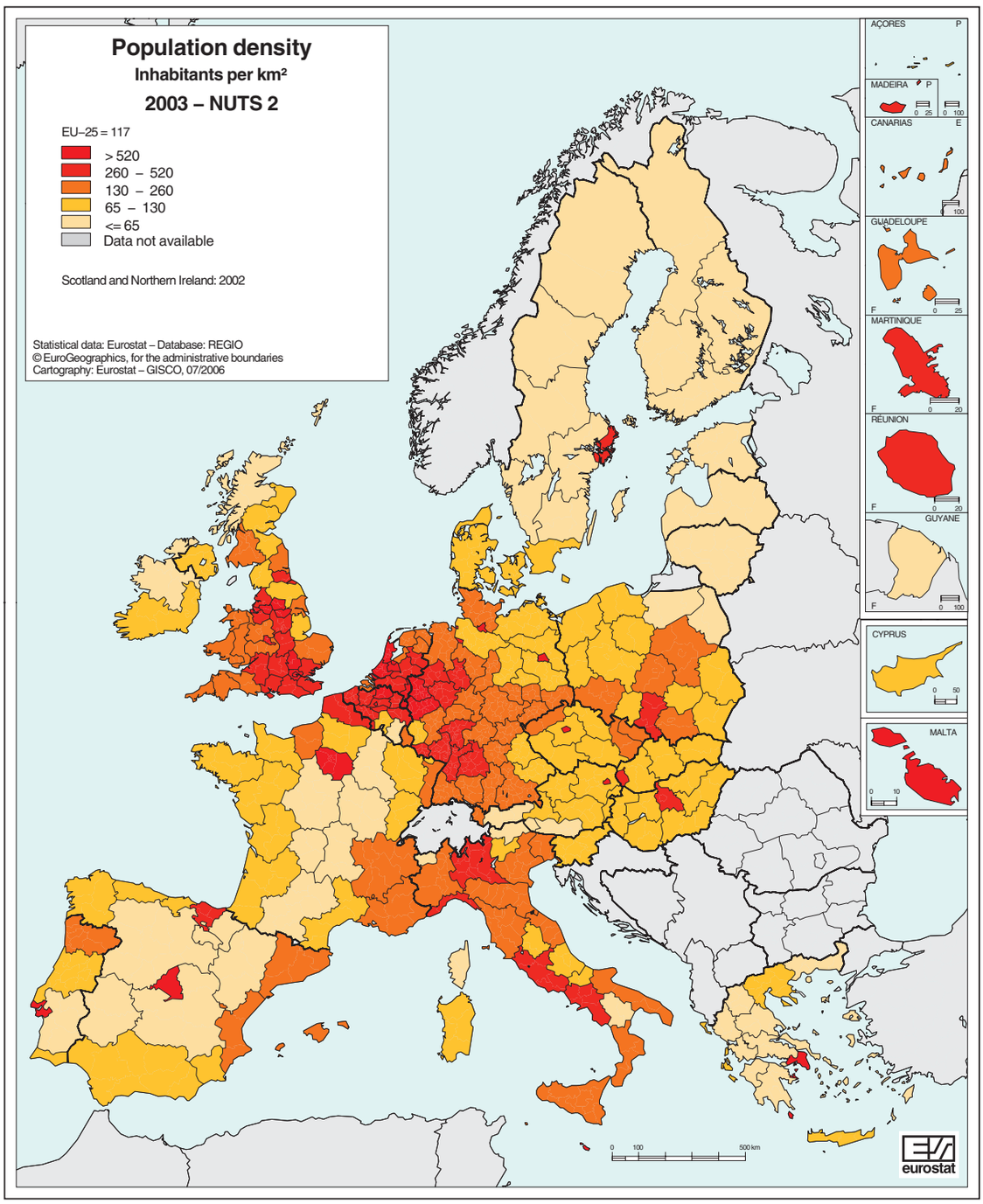
Sources: Eurostat - Demographic Statistics. For more information please consult the Eurostat website at http://www.europa.eu.int/comm/eurostat/

The **Total fertility rate** is defined as the average number of children that would be born to a woman during her lifetime if she were to pass through her childbearing years conforming to the age specific fertility rates that have been measured in a given year. In the more developed parts of the world today, a total fertility rate of around 2.1 children per women is considered to be the replacement level, i.e. the level at which a population would remain stable in the long run if there was no inward or outward migration.

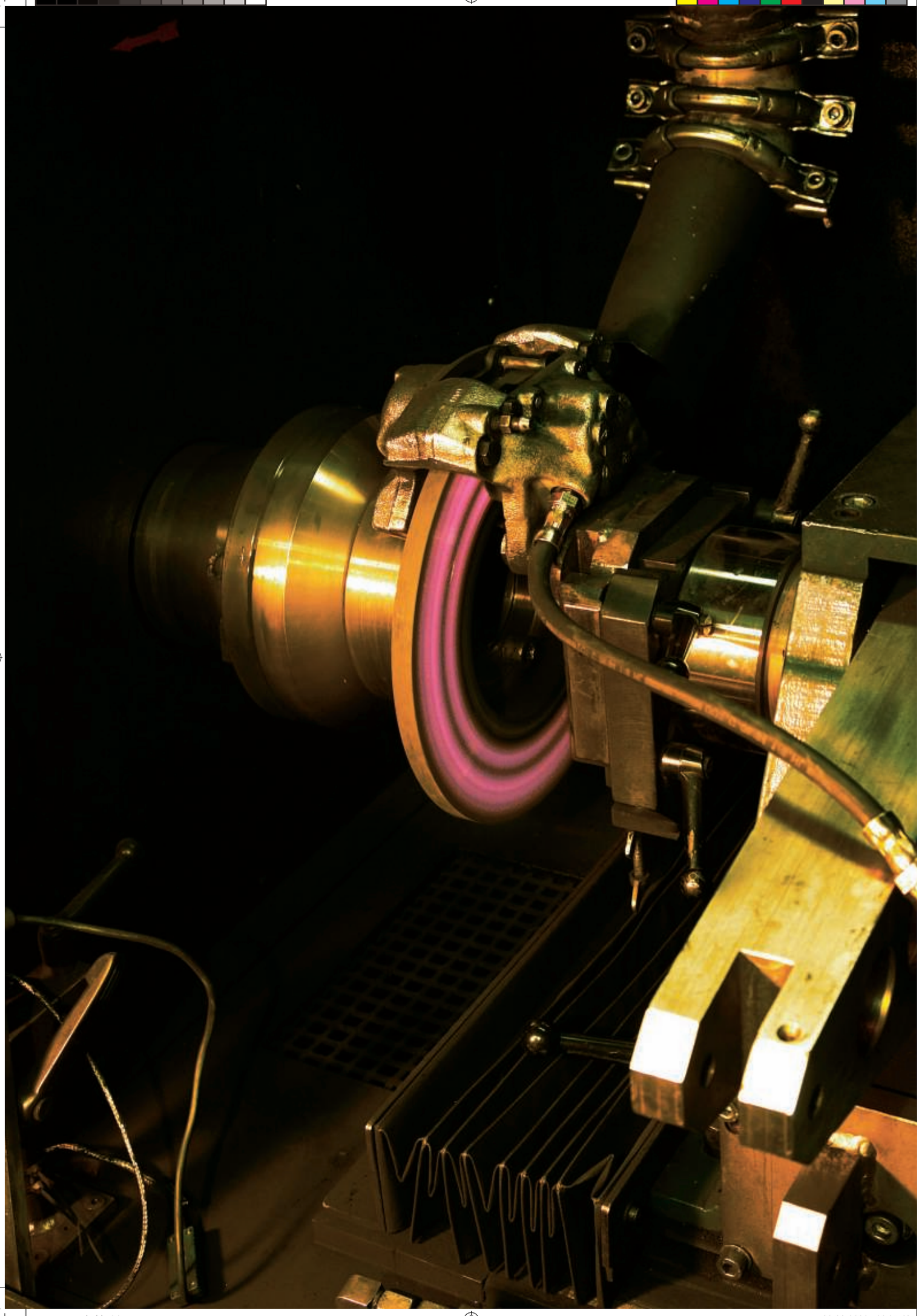
The **Eurostat population projections** presented here correspond to the baseline variant of the Trend scenario. The Eurostat set of population projections is just one among several scenarios of population evolution based on assumptions of fertility, mortality and migration. The current Trend scenario does not take into account any future measures that could influence demographic trends. It comprises different variants: the 'baseline' variant as well as 'high population', 'low population', 'zero-migration', 'high fertility', 'younger age profile' and 'older age profile' variants, all available on the Eurostat website. It should be noted that the assumptions adopted by Eurostat may differ from those adopted by National Statistical Institutes. Therefore, results can be different from those published by Member States.

Migration can be extremely difficult to measure. A variety of different data sources and definitions are used in the Member States, meaning that direct comparisons between national statistics can be difficult or misleading. The net migration figures here are not directly calculated from immigration and emigration flow figures. As many EU Member States do not have complete and comparable figures for immigration and emigration flows, net migration is estimated here as the difference between the total population change and the 'natural increase' over the year. In effect, net migration equals all changes in total population that cannot be attributed to births and deaths.

The **population density** is the ratio of the mid-year population of a territory on a given date to the size of the territory.



Map 1.6



Regional gross domestic product

2.



eurostat

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). This 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 between regions of different sizes and with different currencies?

Regions of different sizes achieve different levels of GDP. However, a real comparison can only be made by comparing the regional GDP with the population of the region in question. This is where the distinction between place of work and place of residence becomes significant: GDP 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 GDP 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 economic centres such as London or Vienna, Hamburg, Prague or Luxembourg, and relatively low in the surrounding regions, even if primary household income in these regions is very high. Regional GDP per inhabitant should therefore not be equated with regional primary 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 euros using the official average exchange rate for the given calendar year. However, exchange rates do not reflect all the differences in price levels between countries. In order to equate the currencies, GDP is converted using currency conversion rates, known as Purchasing Power Parities (PPPs), into an artificial common currency, called the Purchasing Power Standard (PPS). This makes it possible to compare the purchasing power of the different national currencies (see box).

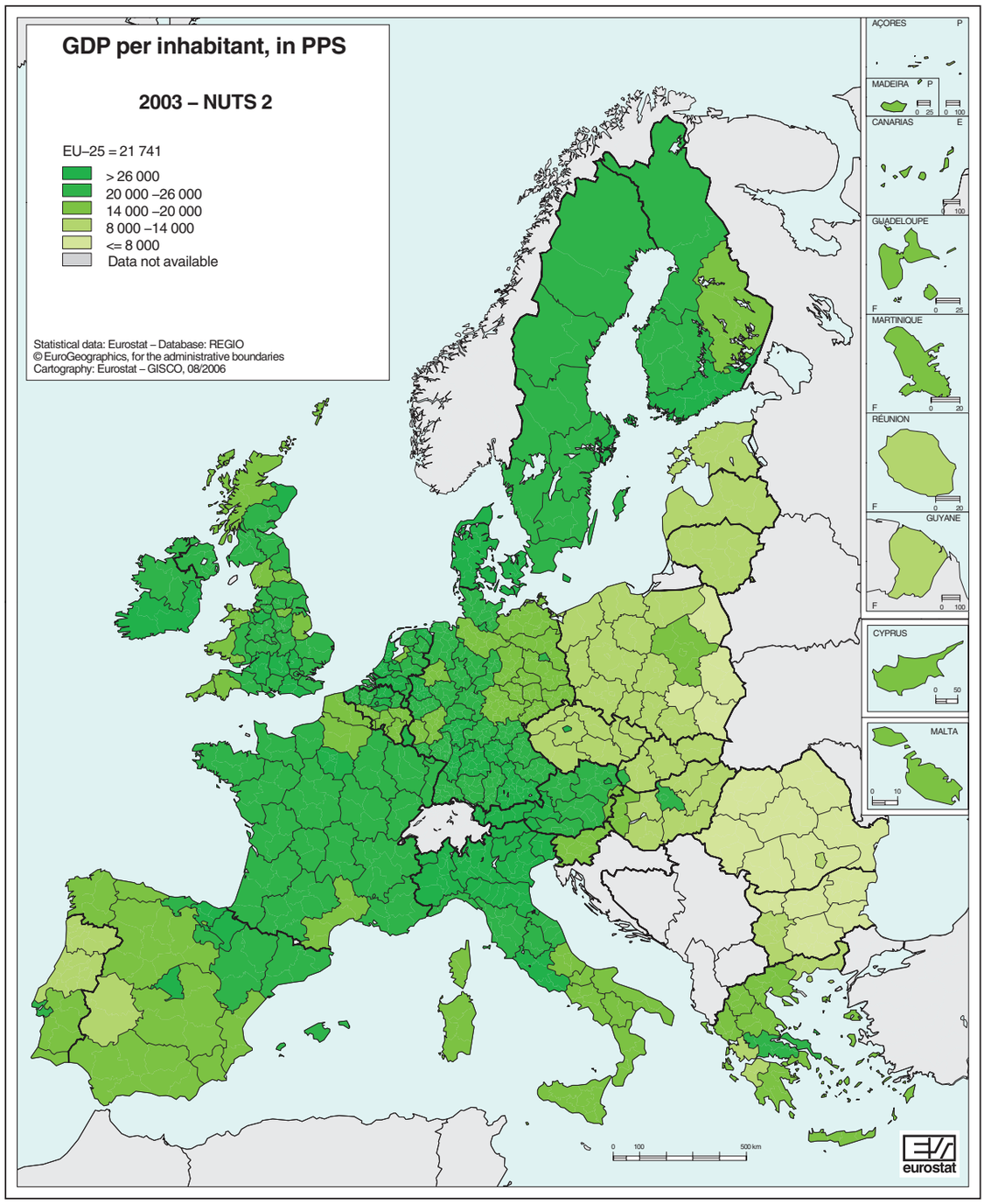
Regional GDP in 2003

Map 2.1 gives an overview of the regional distribution of per capita GDP (in PPS) for the European Union, plus Bulgaria and Romania. It ranges from PPS 4 721 per capita in north-east Romania to PPS 60 342 per capita in the UK capital region of Inner London. Brussels (PPS 51 658) and Luxembourg (PPS 50 844) follow in second and third places, with Hamburg (PPS 40 011) and the French capital region Île-de-France (PPS 37 687) in fourth and fifth places.

Prague (Czech Republic), the region with the highest GDP per inhabitant in the new Member States with PPS 30 052 (138% of the EU-25 average), has already risen to nineteenth place (2002: 20th) 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 among the regions of the new Member States. The next regions of those which joined the EU in 2004 and of the candidate countries follow some

way behind: Bratislavský kraj (Slovakia) is only in 53rd place (2002: also 53rd) with PPS 25 190 (116%), Közép-Magyarország (Hungary) is 130th (2002: also 130th) with PPS 20 627 (95%), Cyprus is 180th (2002: 170th) with PPS 17 377 (80%), Slovenia is 190th (2002: 191st) with PPS 16 527 (76%), Mazowieckie (Poland) is 203rd (2002: 204th) with PPS 15 833 (73%) and Malta is 204th (2002: 194th) with PPS 15 797 (73%). All other regions in the new Member States and candidate countries have a per capita GDP in PPS of less than two-thirds of the EU-25 average.

In 74 of the 268 regions examined here, the per capita GDP (in PPS) in 2003 was less than 75% of the EU-25 average. As can be seen from Map 2.2, most of these regions are in the southern and western periphery of the EU, as well as in eastern Germany, the new Member States and the candi-



Map 2.1

date countries. This group has been considerably reduced in size since 2002, when it comprised 80 regions. In Spain and Greece in particular, two regions in each country crossed the 75% of per capita GDP barrier.

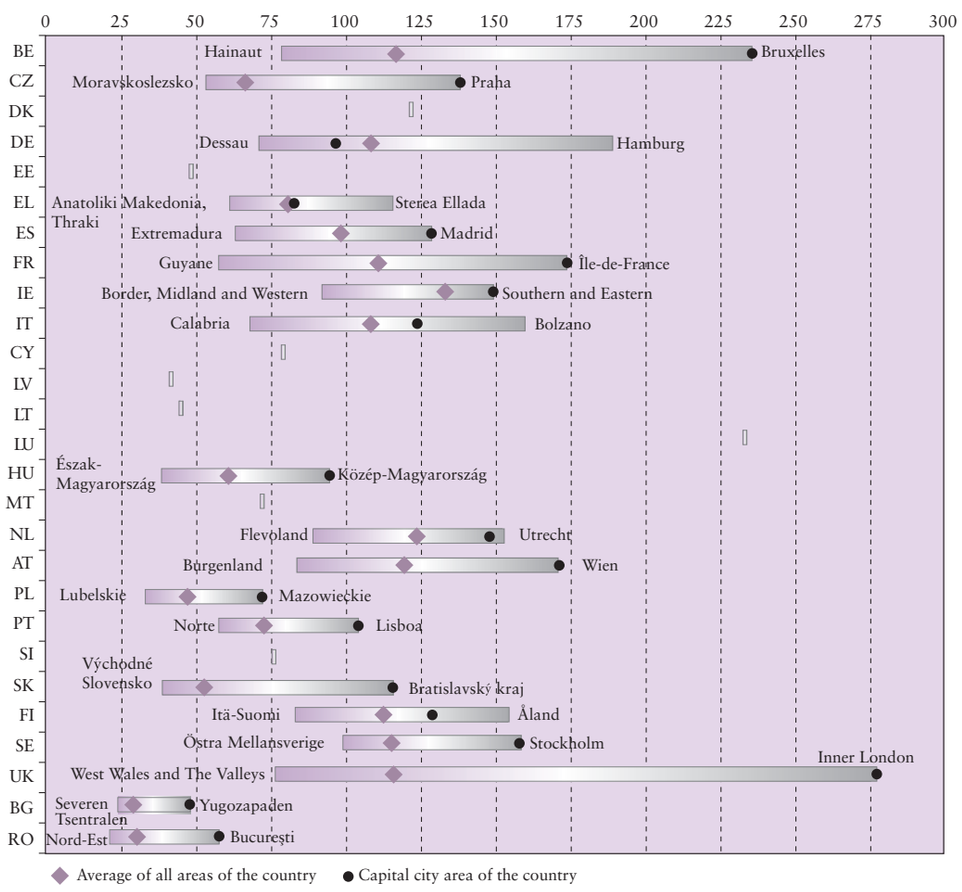
At the upper end of the spectrum, 36 regions had a per capita GDP of more than 125% of the EU-25 average in 2003, down from 41 in 2002. Most of these particularly affluent regions are in southern Germany, in the south of the UK, in northern Italy and in Belgium, Luxembourg, the Netherlands, Ireland and Scandinavia. Madrid, Prague and Paris also fall into this category.

The central part of the distribution curve, which includes the regions with a per capita GDP of between 75% and 125% of the EU-25 average, thus increased from 147 regions in 2002 to 158 regions in 2003. Economic convergence between the regions of the 27 countries examined here therefore clearly improved in 2003: the range of per capita GDP values between Inner London and north-east Romania fell from 13.9:1 in 2002 to 12.8:1 in 2003. The least affluent regions also benefited from this development, with the number of regions with GDP values below 40% of the EU average falling from 23 in 2002 to 21 in 2003.

Major regional differences even within the countries themselves

There are also substantial regional differences even within the countries themselves, as Graph 2.1 shows. In 2003, the highest per capita GDP value was more than double the lowest value in 12 of the 19 countries examined here, which

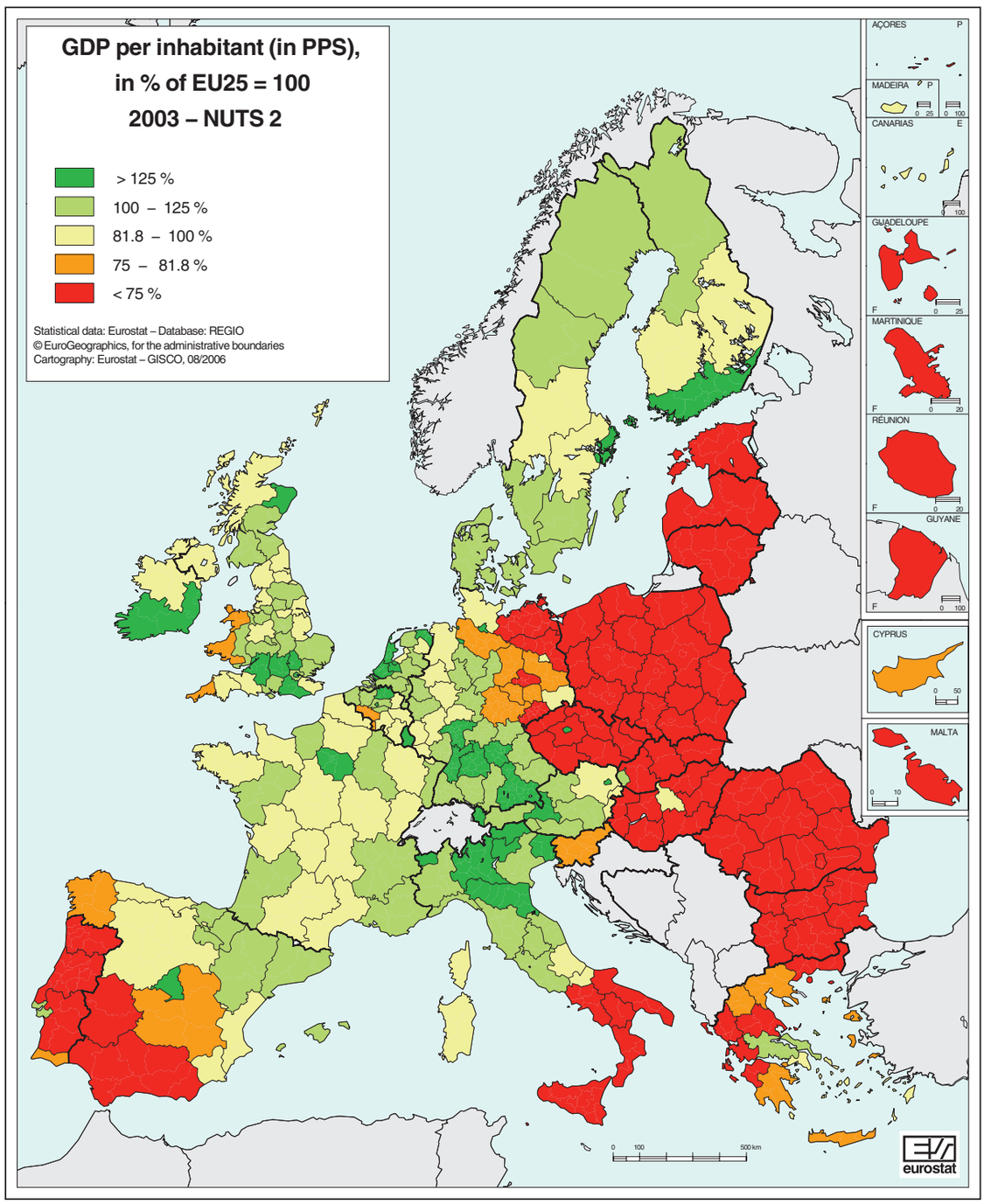
Graph 2.1: GDP per inhabitant (in PPS) 2003, NUTS 2, in percent of EU-25 average (EU-25=100)



include several NUTS 2 regions (2002: also 12). This group includes 5 of the 6 new Member States/candidate countries but only 7 of the 13 EU-15 Member States.

The largest regional differences are in the United Kingdom and Belgium, where there is a factor of 3.7 and 3.1 respectively between the two extreme values. The lowest values are in Ireland and Sweden, with a corresponding factor of 1.6 in each case. Moderate regional disparities in per capita GDP (i.e. factors of less than 2 between the highest and the lowest value) are found only in the EU-15 Member States and Bulgaria.

Comparatively large regional disparities in per capita GDP are therefore still evident not only in the EU-15 countries but also in the new Member States and candidate countries. However, there was a slight narrowing of the range of values



Map 2.2

in both groups of countries between 2002 and 2003. Regional convergence can therefore be seen not only vis-à-vis the EU average but also within most countries.

In all the new Member States and candidate countries, and in a number of the EU-15 Member States, a substantial share of economic activity is concentrated in the capital regions. In 13 of the 19 countries included here in which there are several NUTS 2 regions, the capital regions are also the regions with the highest per capita GDP. For example, Maps 2.1 and 2.2 clearly show the prominent position of the regions of Brussels, Prague, Madrid, Paris, Lisbon as well as Budapest, Bratislava, London, Sofia and Bucharest.

Catching-up process in the new Member States is not successful everywhere

Map 2.3 shows the extent to which per capita GDP changed between 1999 and 2003 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 one percentage point compared to the EU average, are shown in green. Less dynamic regions (those with a fall of more than one percentage point in per capita GDP compared to the EU-25 average) are shown in orange and red. The values range from +18.1 percentage points for Groningen (Netherlands) to -11.7 percentage points for Trento in Italy.

The map shows that economic dynamism is well above average in the peripheral areas of the EU, not only in the EU-15 countries but also in the new Member States and accession countries. Among the EU-15 Member States, strong growth can be seen in Greece, Spain, Ireland and the United Kingdom, in particular. On the other hand, a trend revealed by earlier data has continued, with persistent low growth in a few key regions of the EU founding Member States, and in Portugal. Italy, where not a single region achieved the average growth of the EU-25 between 1999 and 2003, and Portugal, where only Madeira was able to make progress vis-à-vis the EU-25, were hit particularly hard by this unwelcome development. Most of the regions in Germany and France also fell short of the EU average.

Of the new Member States and the accession countries, where the capital regions are very dynamic, the Baltic countries, Hungary and Slovenia, in particular, have experienced above-average growth. Recent developments in Bulgaria and Romania are also encouraging, with only one region in each country falling below the EU-25 average. However, the increases in GDP values in Poland since 1999 have been only slightly above the EU-25 average, which is disappointing in view of the low level of GDP overall.

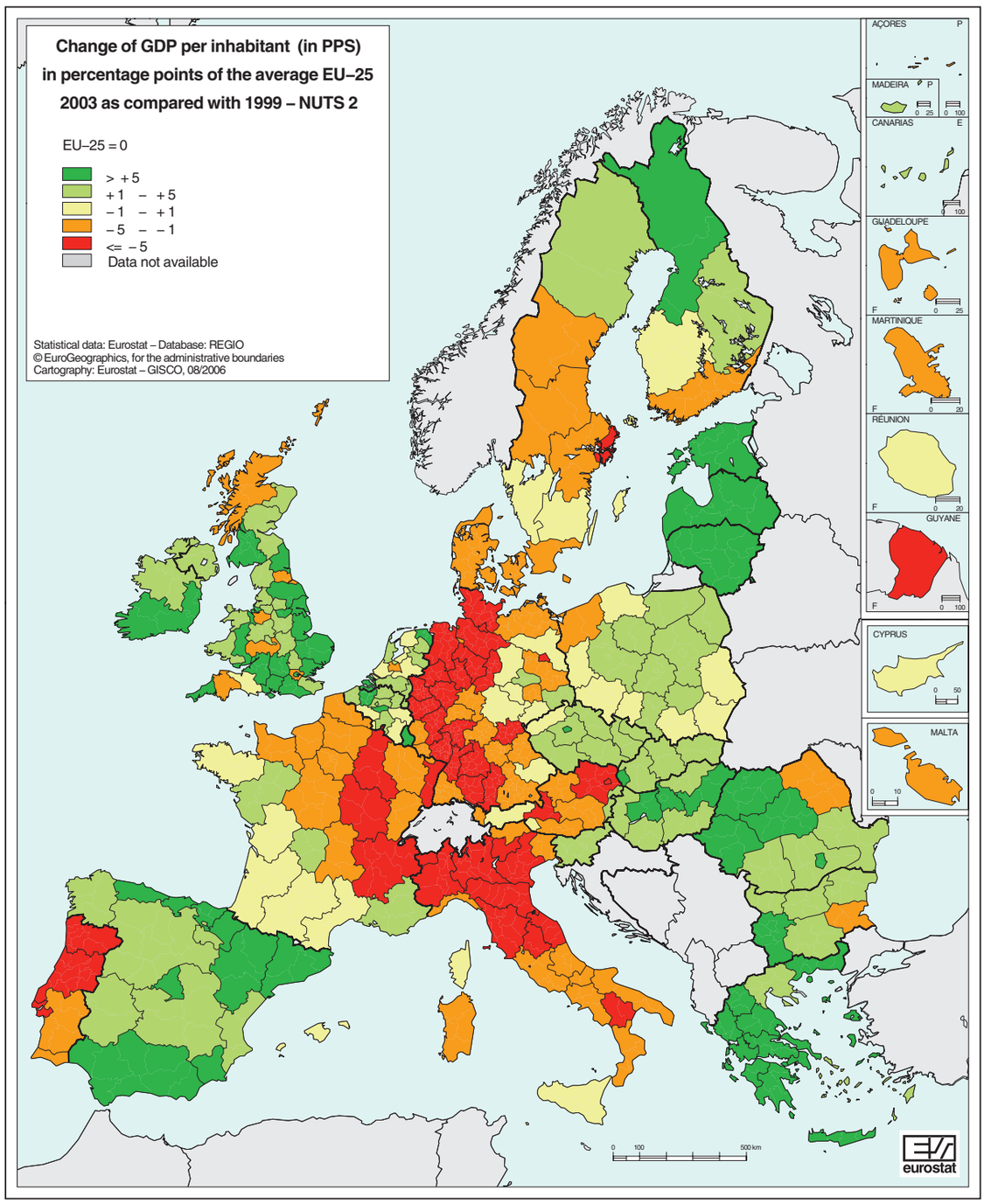
On closer analysis, it is immediately apparent that 12 regions increased by at least 10 percentage points compared to the EU average, while only eight fell by at least 10 percentage points. Of the regions which are particularly dynamic, three are in Greece, two in the United Kingdom and four in the new Member States/accession countries. The fastest growing regions are therefore scattered relatively widely across the countries examined here. However, eight of these 12 regions are capital regions, which continue to have an above-average rate of growth not only in the EU-15 countries but also in the new Member States and accession countries.

The EU-15 countries which have particularly poor growth are concentrated at the lower end of the distribution curve. Of the eight regions which fell by more than 10 percentage points in comparison with the EU average, four are in Italy, three in Germany and one in Portugal.

A more diverse picture emerges by including regions which either gained or lost at least five percentage points against the EU average between 1999 and 2003.

It can be seen from the upper end of the distribution curve that the 56 most successful regions include 11 out of 13 regions in Greece. These are joined by 16 out of 37 regions in the UK and nine out of 19 regions in Spain. This means that 36 of the 56 most successful regions are located in these three countries. In total, 43 regions from this group are in the EU-15 countries.

This shows that 13 regions in the new Member States and accession countries have gained at least 5 percentage points compared to the EU average. The capital regions in Romania and Hungary (both + 16.2 percentage points), Slova-



Map 2.3

kia (+ 13.9) and the Czech Republic (+ 10.9) were particularly successful. The non-capital region with the strongest growth among the regions in the new Member States and accession countries was Nord-Est in Romania, the per capita GDP (in PPS) of which increased by 6.7 percentage points between 1999 and 2003 from 22.4% to 29.1% of the EU-25 average.

A clear concentration of regions is also apparent at the lower end of the distribution curve: of the 42 regions which fell by at least 5 percentage points, 20 are in Germany, ten in Italy, five in France and three in Portugal. A large number of German and Italian regions in this group have an above-average level of GDP, thus making the disappointing trend of recent years less unsatisfactory than in Portugal. The Portuguese regions of Norte (-8.2 percentage points) and Centro (-6.4), which had a GDP of less than 70% of the EU-25 average at the end of the 1990s, have fallen

further behind to a worrying degree. This makes the region of Norte the least prosperous region in the EU-15; in 2003, its GDP was 57.4% of the EU average, i.e. the same as that of the Romanian capital, Bucharest.

The new Member States and accession countries are catching up with the EU-25 average at a rate of 0.8 percentage points every year, which at first glance appears to be encouraging. On closer inspection, however, it is clear that not all countries and regions were able to benefit from this: in particular, Poland, Cyprus and Malta, and, to some extent, the Czech Republic and Bulgaria. 24 of the 55 regions in the new Member States and accession countries gained fewer than three percentage points, which was below the average; of those 24 regions, 12 are in Poland, six in the Czech Republic and three in Bulgaria. Eight regions fell even further behind: four in Poland, one in Bulgaria and one in Romania. The strongest downturns were seen in Malta, with a drop of – 4.1 percentage points.

Different trends even within the countries themselves

Graph 2.2 illustrates the economic development of individual countries between 1999 and 2003. It shows that the dynamics of economic development between the regions in one country can diverge almost as widely as between regions in different countries. The greatest differences in dynamics can be seen in the Netherlands and Romania, where the per capita GDP in each of the most economically dynamic regions increased by around 20 percentage points more than in the least economically developed regions. The corresponding figures for the United Kingdom and Portugal were 17 and 15 percentage points respectively. At the opposite end of the scale lie Sweden and Belgium, with a regional range of 8 percentage points, and Poland, with a corresponding value of 3.6 percentage points.

The pronounced regional differences within the new Member States and accession countries can be attributed largely to the dynamic growth of the capital regions. However, there is no reason to believe, on the basis of the data available, that major differences in the distribution of growth rates are typical of the new Member States or accession countries.

Graph 2.2 also shows that the least economically dynamic regions in only a small number of countries attained levels of growth at least equal to the EU-25 average. This was achieved by only five of the 19 countries with several NUTS 2 regions examined here: the Czech Republic, Greece, Ireland, Hungary and Slovakia.

Summary

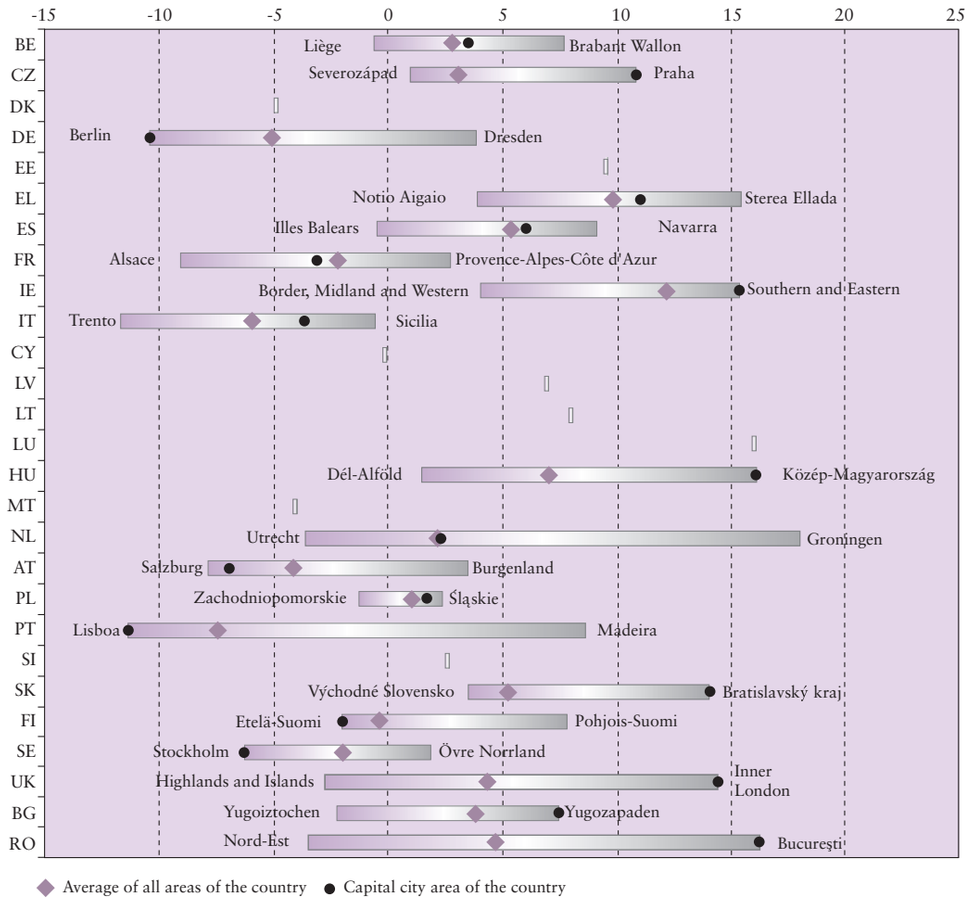
In 2003, the highest and lowest values of per capita GDP (in PPS) for the 268 regions examined here differed in 27 countries by a factor of 12.8 : 1, which is still very high but slightly lower than the previous year. The number of regions with per capita GDP (in PPS) below 75% of the EU-25 average also fell from 80 to 74. Economic convergence between the regions therefore improved in 2003.

Economic development in the EU-15 countries was characterised by dynamic growth in Greece, the UK and Spain. This contrasted with disappointing economic development in most of the Italian, German and Portuguese regions. In the new Member States and accession countries, economic development in the Baltic countries and in Hungary, Romania and Bulgaria was particularly encouraging, while growth in most of the Polish regions remained disappointing.

Between 1999 and 2003, per capita GDP increased by more than five percentage points compared to the EU average in 56 regions. One or two regions in most countries fell behind, and in some cases far behind, in comparison with the EU average. The dynamics of growth in the capital regions of most countries was clearly above-average. At the lower end of the scale were 42 regions which fell by at least five percentage points; most of them were in Germany, Italy and Portugal. As a result of the unsatisfactory economic development in Portugal, the regions of Norte and Centro, where GDP was already below 70% of the EU-25 average, fell again by around 8 and 6 percentage points respectively.

The new Member States and accession countries continued to catch up with the EU-25 average at a rate of around 0.8 percentage points every year.

Graph 2.2: Change of GDP per inhabitant (in PPS) in percentage points of the average EU-25, 2003 as compared with 1999 - NUTS 2



However, not all the regions of the new Member States are able to benefit from this to the same extent. This is particularly true of Poland, Cyprus and Malta. All the new Member States taken together rose by 3.2 percentage points to 52.9% of the EU-25 average between 1999 and 2003. The corresponding values for Bulgaria and Romania were 3.7 and 4.7 percentage points respectively. One region in each of these two accession countries was unable to share in this generally favourable economic development: Yugoiztochen in Bulgaria and Nord-Est in Romania. With per capita GDP standing at just under 22% of the EU-25 average, this region is the least affluent in the 27 countries examined here.

Purchasing power parities and international volume comparisons

International differences in GDP values, even after conversion via exchange rates to a common currency, cannot be attributed solely 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 a more accurate 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 currency conversion rates of this kind which convert economic data expressed in national currencies into 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 in 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.

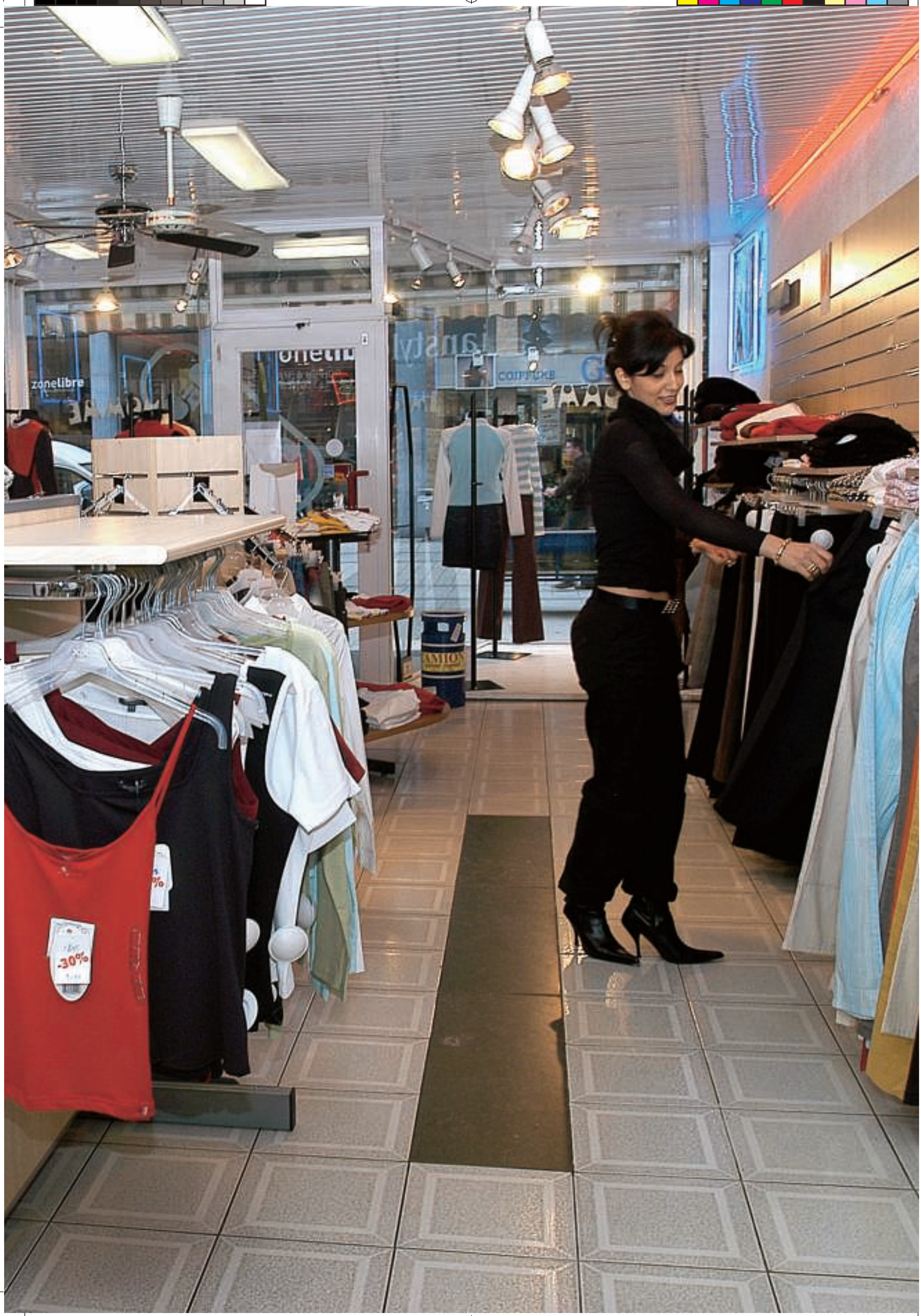
In their simplest form, PPPs are a set of price relatives, which show the ratio of the prices in national currency of the same good or service in different countries (e.g. a loaf of bread costs €1.87 in France, €1.68 in Germany, £0.95 in the UK, etc.). A basket of comparable goods and services is used for price surveys. 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 euros. For example, in 2003 the German region of Dessau was reported as having a per capita GDP of €17 145, putting it well ahead of Malta with €10 773. However, with PPS 15 797 per capita, Malta ranks above Dessau with its PPS 15 413 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 EU-25 plus Bulgaria and Romania from around €62 300 to around PPS 55 600.

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


zonelibre
-30%

Household accounts

3.

eurostat

Introduction: Measuring wealth

One of the primary aims of regional statistics is to measure regions' wealth. This is of particular relevance as a basis for policy measures which aim 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, per capita regional GDP has a number of drawbacks 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 UK, 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 of 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 reflects 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 income on assets, 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 monetary social benefits and transfers received by the households are now added to primary income. On the other hand, 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.

Results for 2003

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 level 2. Until recently, derogations still applied 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 or not at all; other Member States have not always kept to the deadline laid down in the Regulation.

There are still no data available for the following regions at NUTS 2 regional level: the French Overseas Departments, the Autonomous Province of Bolzano and the Autonomous Province of Trento in Italy, Cyprus, Luxembourg, Malta, Slovenia and Bulgaria. Values for EU-25 in this part of the regional accounts consequently remain unavailable. This chapter therefore relates to the other 21 Member States and Romania.

Primary income and disposable income

Map 3.1 gives an overview of primary income in the NUTS 2 regions of the 22 countries examined here. Centres of wealth in southern England, Paris and Alsace, northern Italy, Vienna, Madrid, the País Vasco and Comunidad Foral de Navarra in Spain, Flanders, the western Netherlands, Stockholm and Nordrhein-Westfalen, Hessen, Baden-Württemberg and Bayern in Germany 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. A south-north divide is evident in the UK, although to a lesser extent than in Italy and Germany.

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

The regional values range from 2 495 PPCS per capita in Nord-Est in Romania to 27 818 PPCS in the UK region of Inner London. The ten regions with the highest per capita income include five regions in the UK alone, two each in Belgium and Germany and one in France.

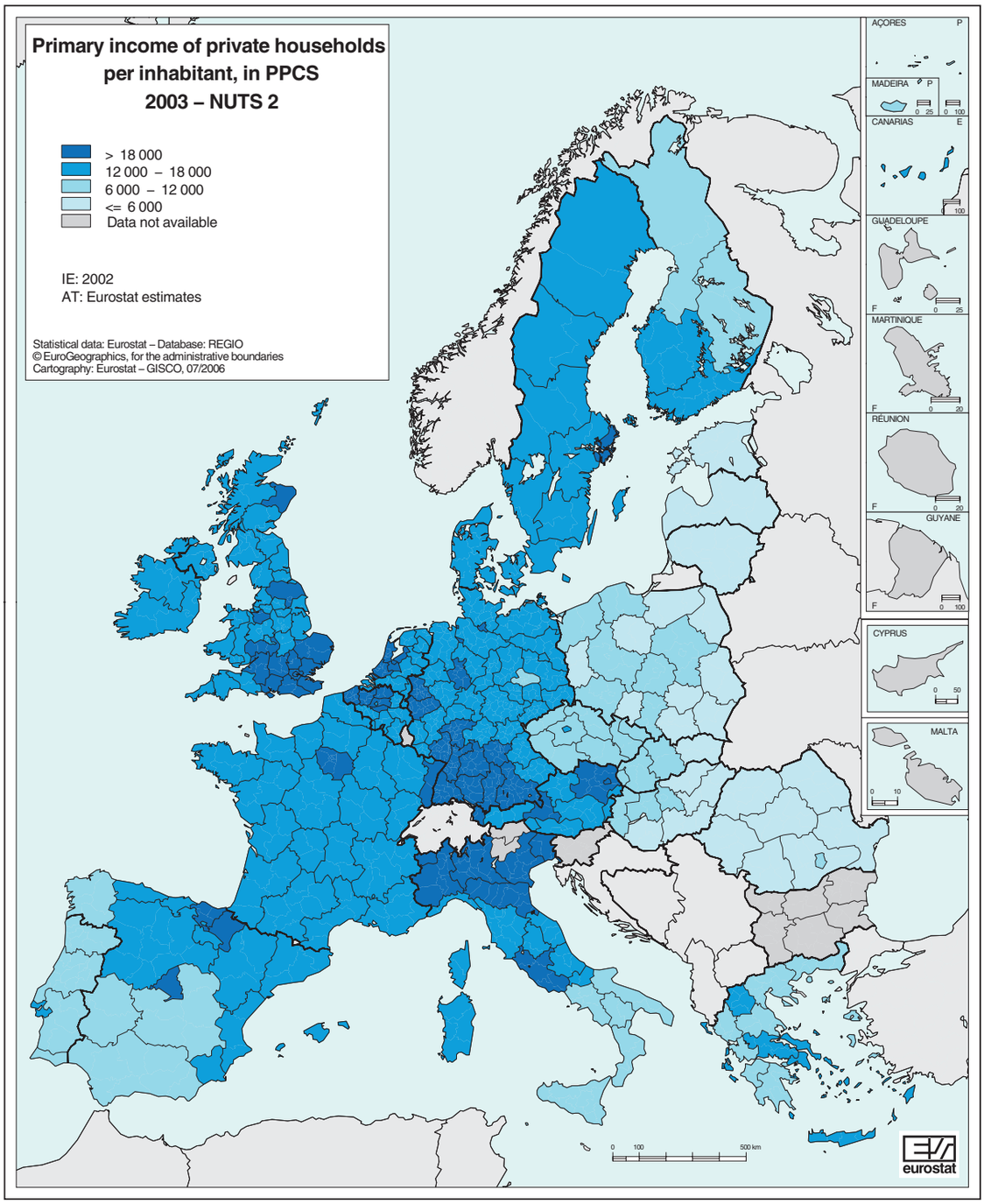
A comparison of primary income with disposable income (map 3.2) shows the levelling influence of State intervention. It visibly increases the relative income level in southern Italy, central and southern Spain, Galicia, the west and north of the UK and in parts of eastern Germany and central Greece. State activity moves several regions in northern and western Germany up to the same class as the affluent south-west of the country.

Similar effects can be observed in the new Member States, particularly in Hungary, Slovakia and most of the Polish regions. However, the levelling out of private income levels in the new Member States has generally been less pronounced than in EU-15.

In spite of State redistribution, most capital regions maintain their prominent position with the highest disposable income for the country in question.

The regional values range from 2 547 PPCS per capita in Nord-Est in Romania to 21 659 PPCS in the UK region of Inner London. Of the ten regions with the highest per capita disposable income, six are in the UK, two in Italy, one in France and one in Austria. The two Italian regions of Emilia-Romagna and Lombardia have moved into the group of the first ten regions, while the two German regions of Stuttgart and Oberbayern have moved out — a reflection of the fact that the levelling effect of State intervention on private income is much less pronounced in Italy than in Germany. At 11 214 PPCS per capita, Prague continues to be the region with the highest disposable income in the new Member States.

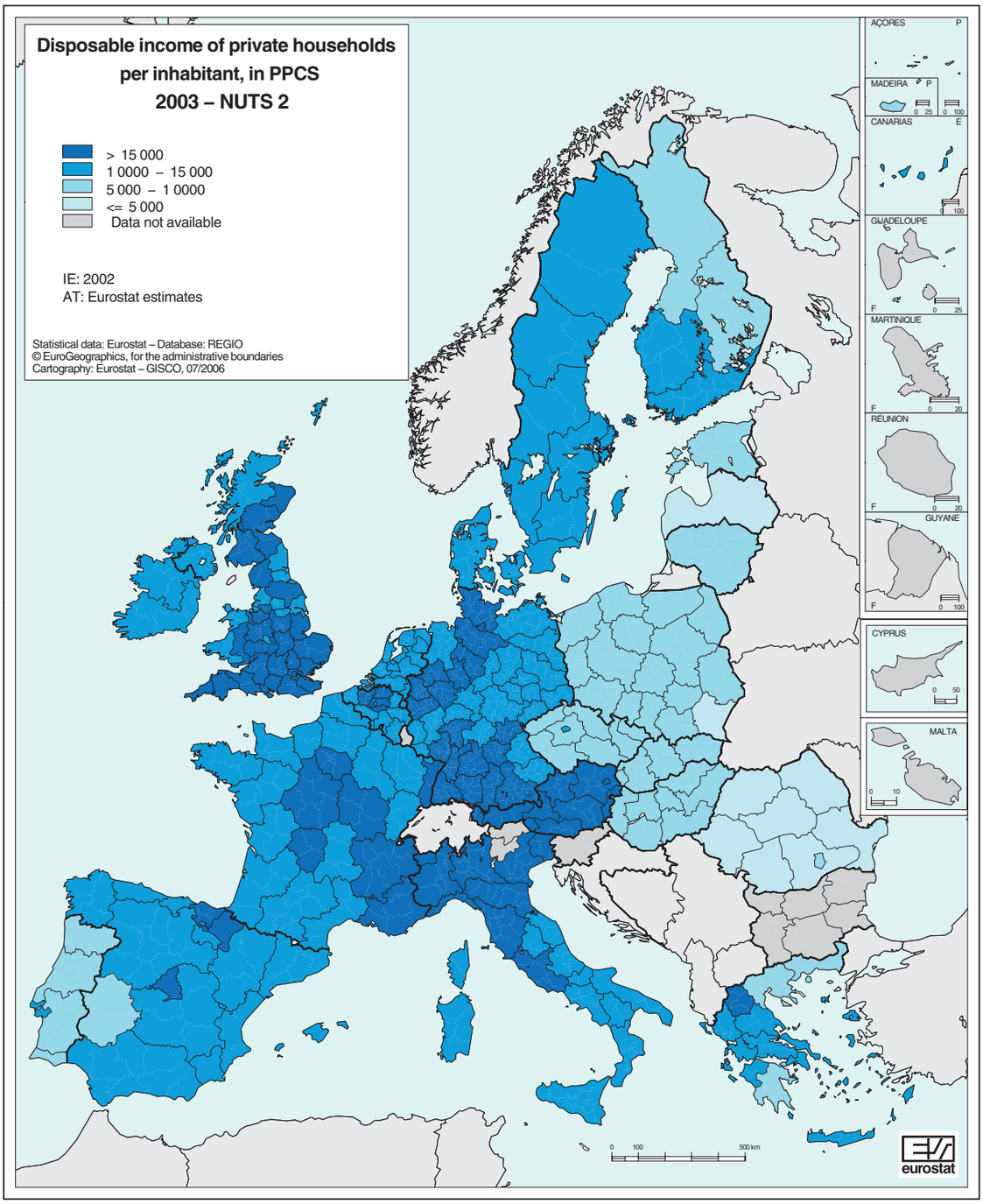
State activity reduces the difference between the highest and the lowest regional value of the 22 countries dealt with here significantly from a factor of around 11.2 to 8.5. Although this factor is naturally much lower within each country, it varies considerably from one country to another. Graph 3.1 gives an overview of the range of disposable income per capita between the regions with the highest and the lowest value for each country. The highest regional disparity in wealth can be found in Romania, with a factor of 2.05. This means that income in the Bucharest region is more than double that in Nord-Est.



Map 3.1

Italy is the only EU-15 Member State among the five countries with the highest income disparities, which include Hungary, the Czech Republic and Slovakia; in all four countries, the highest regional values exceed the lowest by approximately 75%. Poland has the lowest income disparity of the new Member States (64%), which is close to that of Spain, Greece and Portugal. With values of between 53% and 41%, the regional disparities in the UK, France, Germany, Belgium and Finland are relatively similar. The smallest regional income disparities are to be found in Ireland, Austria, the Netherlands and Sweden, where the maximum values exceed the minimum values by between 11% and 32%.

Graph 3.1 also shows that the capital cities of 11 of the 18 countries with several NUTS 2 regions also have the highest income values. This group includes all the larger new Member States and Romania. The economic dominance of the

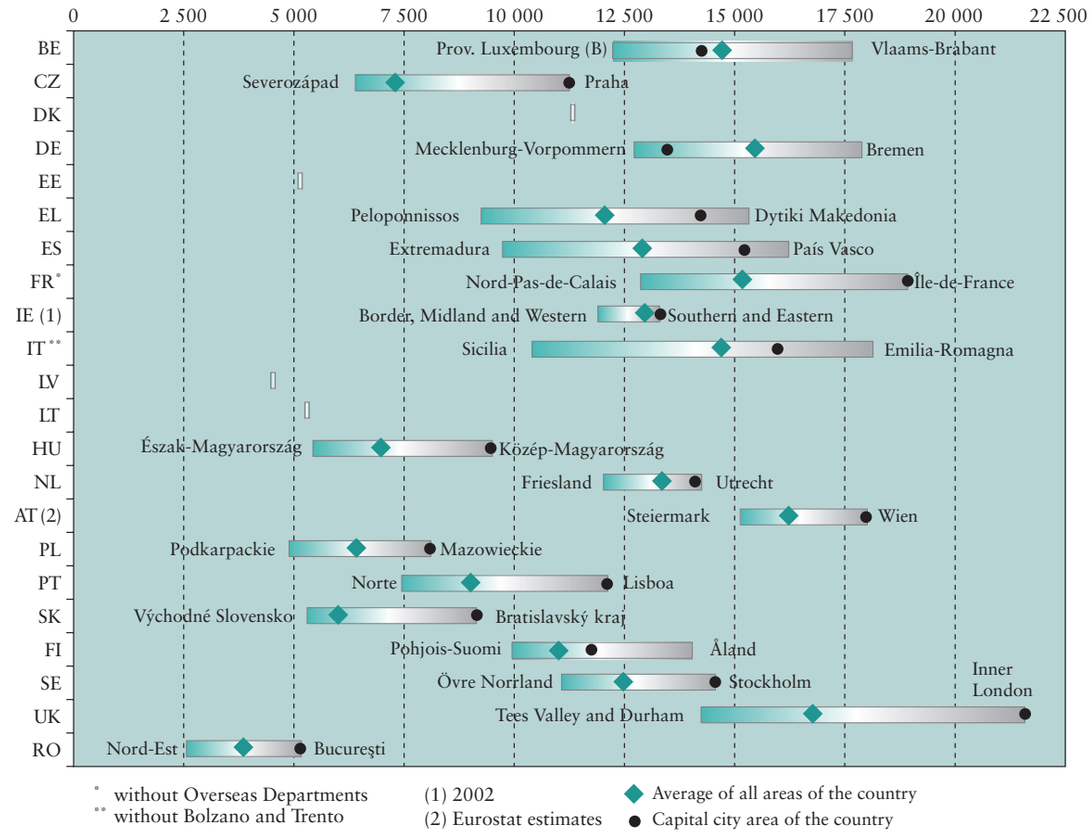


Map 3.2

capital regions is also evident when their income values are compared with the national averages. In three countries (Romania, the Czech Republic and Slovakia), the capital cities exceed the national values by more than 50%. In only two countries (Belgium and Germany) are the values lower than the national averages.

Map 3.3 illustrates the relationship between disposable and primary income. This quotient gives an idea of the effects of State activity and of other transfer payments. Substantial differences between the regions of the Member States are evident. Disposable income in the capital cities and other prosperous regions of EU-15 is almost without exception below 80% of primary income. Correspondingly higher percentages can be observed in the less affluent areas, in particular on the southern periphery of the EU, in the west of the UK and in eastern Germany.

Graph 3.1: Disposable income of private households per inhabitant (in PPCS) 2003, NUTS 2



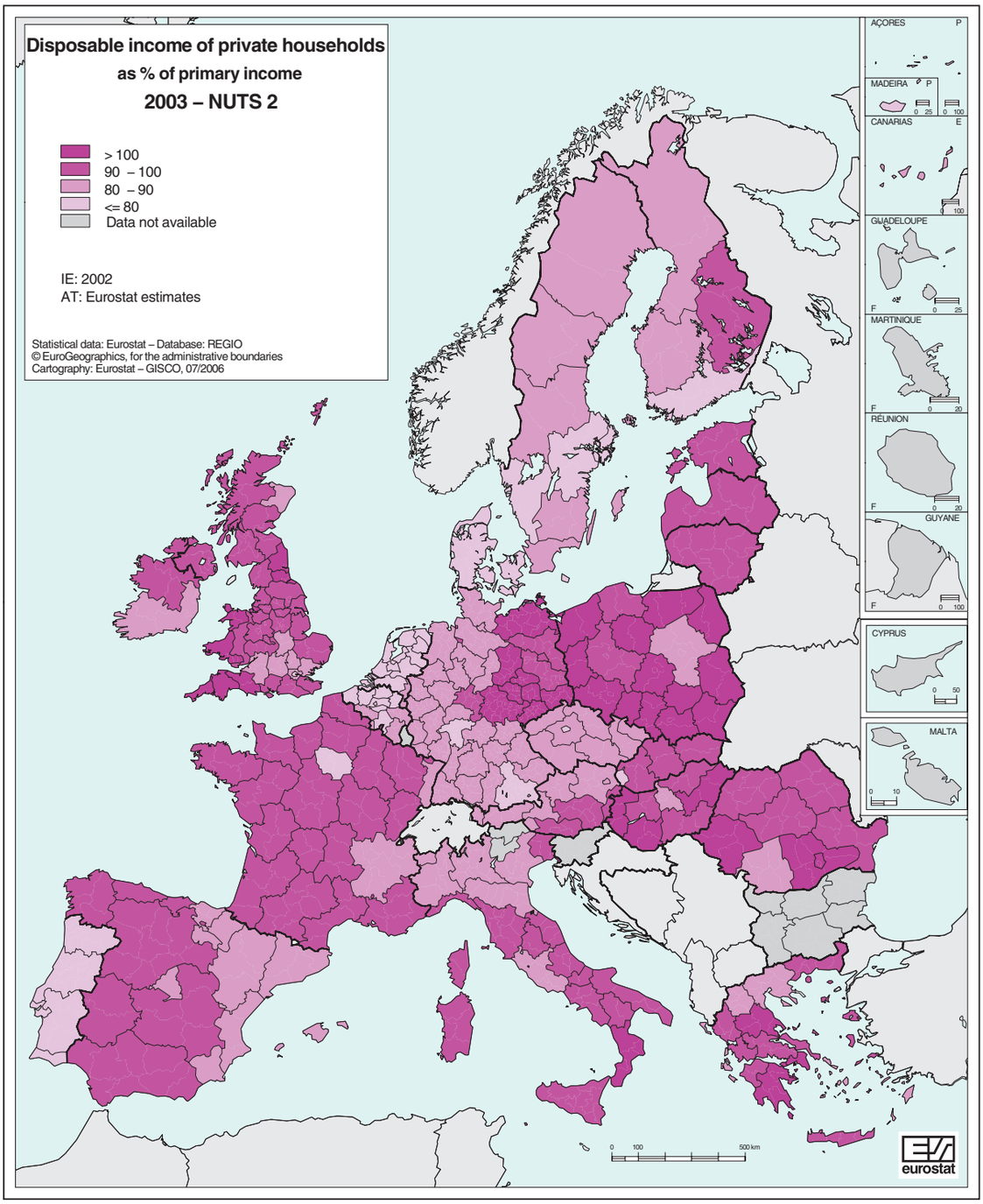
Differences in the regional redistribution of wealth are somewhat less significant in the new Member States than in EU-15. This is particularly true of the Czech Republic, where disposable income lies within a relatively narrow range between 78% and 90% of primary income.

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 13 of the 16 Polish provinces, in three of the eight Romanian regions, in three of the seven Hungarian regions, but also in eight eastern German, seven British and three Greek regions. In Portugal and Italy, one region has a value of over 100 per cent. When interpreting these results, however, it should be borne in mind that not only monetary social benefits from the State may cause disposable income to exceed primary income. Other transfer payments (e.g. transfers from people temporarily working in other regions) can play an important role in some cases, as in Poland, Portugal and Romania, for instance. Map 3.3 clearly shows that this is frequently the case in the less prosperous regions of the countries in question.

Income and social benefits

The State intervenes in income distribution not only by taxing income and assets but also through monetary social transfers. There are characteristic differences between the countries studied here in terms of both the amount and the regional distribution of these social benefits. While in Denmark they represent around 44% and in Sweden around 38% of disposable income, they amount to between 25% and 35% in most of the other EU-15 Member States. In the new Member States, proportions of between 25% (Hungary) and 15% (Romania) are typical.

At regional level, social benefits account for between 48% (Dessau, Germany) and 13% (Bratislavský kraj, Slovakia) of disposable income. There

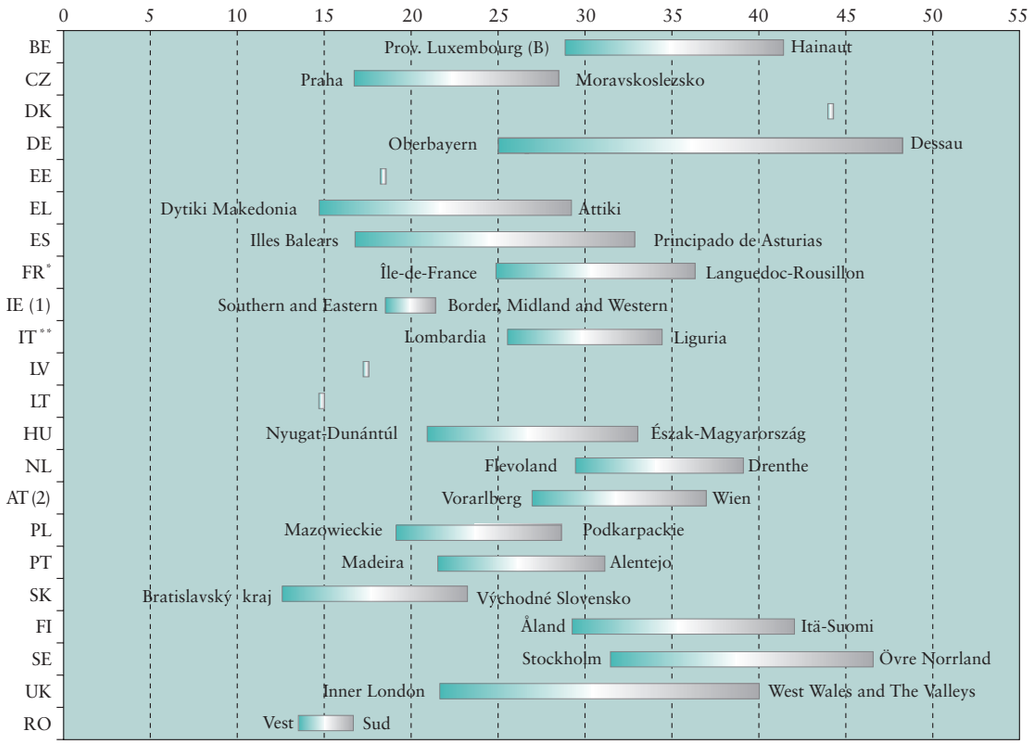


Map 3.3

is a clear concentration of high values in regions which have structural problems, including low incomes and high unemployment in particular. Eastern Germany and northern Sweden have the highest values (45-48%) and Romania, Slovakia and Lithuania the lowest (13-16%). It is therefore clear that the redistribution of wealth through State intervention is still subject to relatively narrow limits in most of the new Member States. Only in a few regions in the Czech Republic and Hungary do social benefits reach the level usual in EU-15 (with values of approximately 30%).

While a plausible regional structure is apparent in the level of State social benefits in most countries, the development of these benefits in the medium term is less consistent. Map 3.4 provides a four-year comparison (2003 compared to 1999) of how social benefits have developed as a proportion of disposable income. Regions in which this proportion has increased by more than one percentage

Graph 3.2: Social benefits in percent of disposable income of private households, 2003, NUTS 2



* without Overseas Departments
** without Bolzano and Trento
(1) 2002
(2) Eurostat estimates

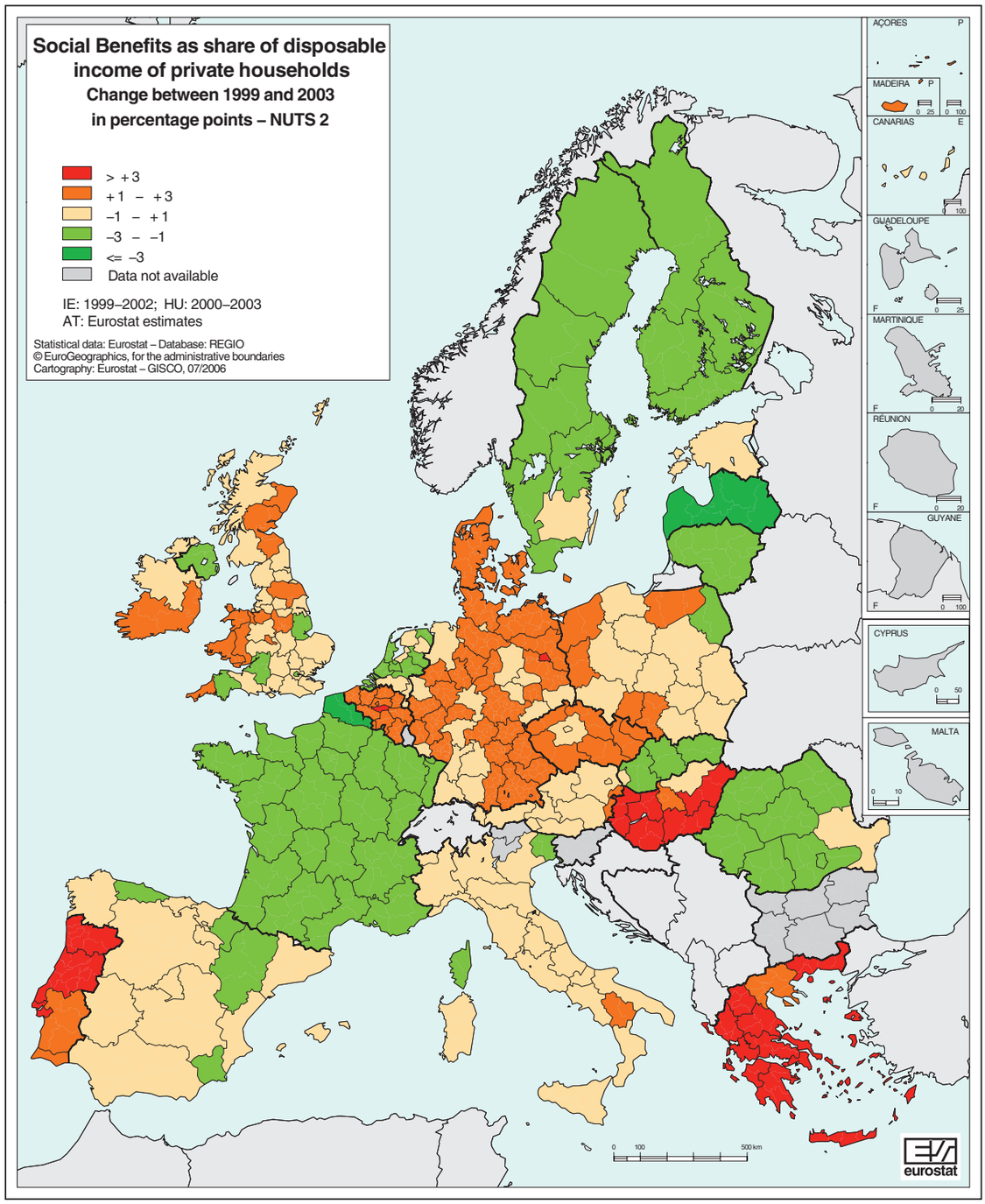
point are shown in orange and red and those in which it has fallen by at least one percentage point are shown in green. It is clear that social benefits which increase as a proportion of disposable income are found not only in regions with economic problems but also in places in which development has been comparatively successful. Moreover, in countries with a high level of income (e.g. Germany, Italy and the UK), the proportion of social benefits can both rise and fall.

However, a number of developments are particularly noticeable. There has been a significant increase in the proportion of social benefits in all the Greek, Irish and Hungarian regions and in most of the Czech and Belgian regions; the effects of an active social policy based on growing economic wealth are thus being felt in these countries. A clear increase in social benefits is also apparent in Portugal, Germany and some of Poland's peripheral regions; this is not the result of greater leeway for wealth redistribution, however, but stems from the need to offset the repercussions of generally unsatisfactory development by increasing social benefits. In Germany, this seems to have had an undesirable effect in that social benefits which continue to rise are flowing into regions which already have a high level of income (Bayern and Hessen, in particular).

State social benefits which are declining in relative terms are mainly apparent in a few regions in which economic development is favourable; these include, in particular, the Baltic countries, most of the Slovakian regions and a few regions in the UK and Spain. In contrast, the decrease in social benefits in France and Romania is surprising. It is clear that, in these cases, tight limits have been imposed on a more active social policy because of the budget situation.

Not all the new Member States are catching up

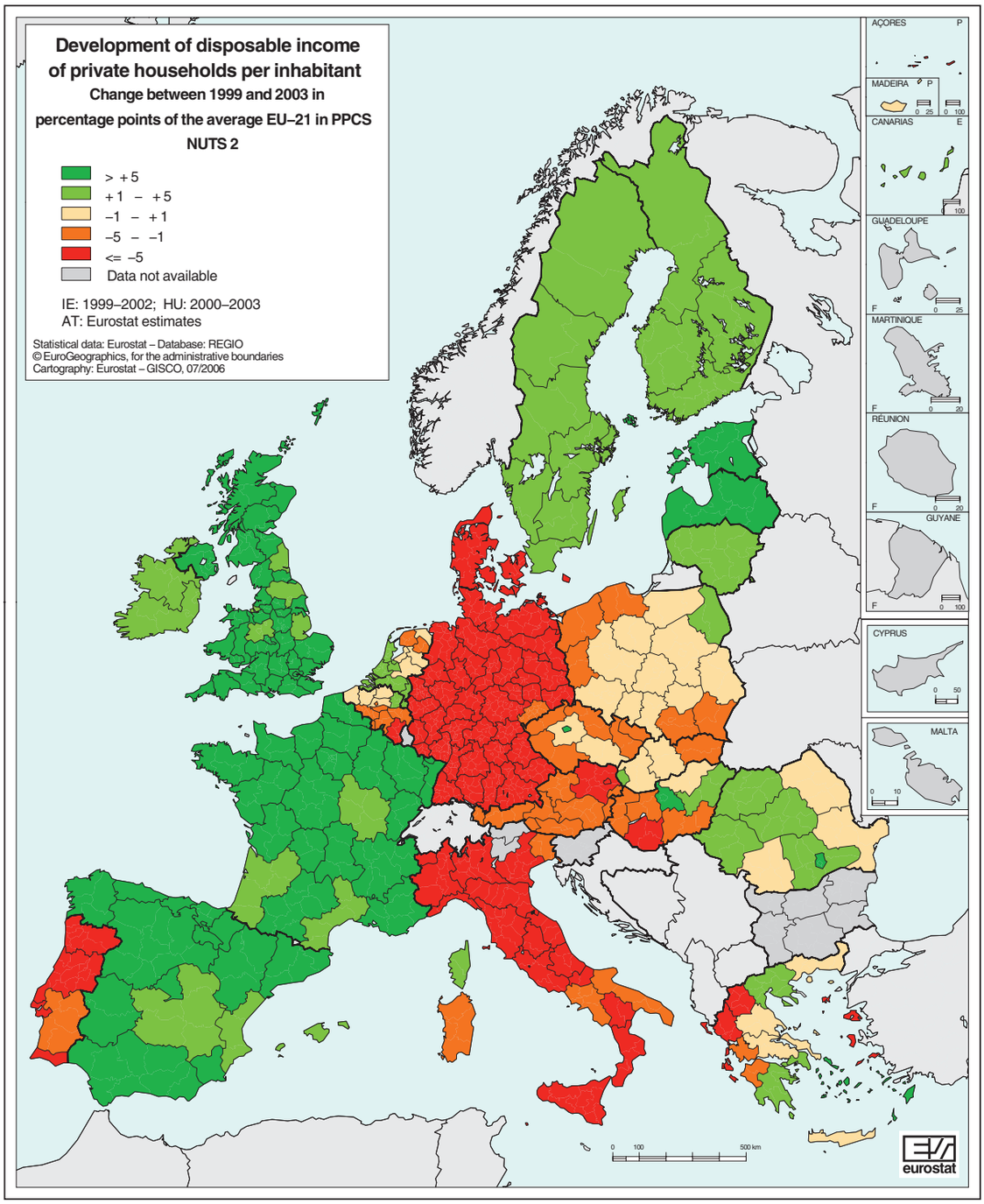
Map 3.5 provides a four-year comparison of the changes in per capita disposable income (in PPCS) between 1999 and 2003 compared to the average



Map 3.4

for the 21 Member States. A special EU-21 average had to be used as data were not yet available for Cyprus, Luxembourg, Malta or Slovenia. This EU-21 average can, however, be used as an approximation for an EU-25 average, as the total population of these four Member States accounts for less than one per cent of the total population of the EU-25.

Regions in which per capita disposable income increased by more than one percentage point compared to the average between 1999 and 2003 are shown in green and those in which it fell by at least one percentage point are shown in orange and red. The range of change varies between +15 percentage points in Bedfordshire and Hertfordshire (UK) to -14 percentage points in Dél-Dunántúl in Hungary. The map shows that, in EU-15 and in the new Member States, trends in private income in relative terms have been very uneven.



Map 3.5

In the EU-15 countries, the unsatisfactory trends in Germany, Italy and Portugal, where even regions with average levels of income have lost between 5 and 10 percentage points compared to the EU average, are particularly apparent. The losses in Denmark (-7.5), Vienna (-8) and Niederösterreich (-5) are less severe, as these regions have very high income levels.

As far as the new Member States are concerned, although the Baltic countries are catching up fast, with increases of between 5 und 7.5 percentage points, trends in other regions have not been as positive. The Czech Republic, Hungary, Poland and Slovakia have fallen slightly behind compared to the EU average. Income in 12 of Poland's 16 provinces fell short of the EU average by up to three percentage points; only four were able to improve their relative position and only one of them (Podlaskie) by more than one percentage point. It is possible that this region

has benefited from the dynamic growth in neighbouring Lithuania.

The figures for Romania, on the other hand, are quite encouraging. With an increase of +8.6 percentage points, the Bucharest region has achieved the greatest relative improvement of all regions outside EU-15, with even the east of the country keeping up with average income development in the EU. A structural problem nevertheless remains in that the wealth gap between the capital and the poorer parts of the country has widened further.

On the whole, the changes between 1999 and 2003 resulted in a slight flattening of the upper edge of the regional income distribution band: while 38 regions still recorded disposable income of 125% of the average in 1999, only 31 did so in 2003. However, the same cannot be said of the lower end of the distribution band, where the number of regions with an income of less than 50% of the average rose from 31 to 34. The dynamic growth of the highest income regions, particularly in the UK, means that the range between the two extreme values (Inner London and Nord-Est in Romania) has increased slightly from a factor of 8.3 to a factor of 8.5.

Summary

The regional distribution of disposable household income differs from the distribution of regional GDP 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 considerably. 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 items of income bring the range of disposable income between the most prosperous and the economically weakest regions to a factor of about 8.5, whereas the two extreme values of primary income per capita differ by a factor of up to 11.2. The flattening out of regional income distribution desired by most countries is therefore being achieved.

The income level of private households in the new Member States continues to be far below that in EU-15; in only a small number of capital regions are income values more than two thirds of the EU average.

An analysis over a four-year period from 1999 to 2003 shows those incomes in the regions of the new Member States, apart from the Baltic countries, are catching up only slowly with those in EU-15. Most of the Polish regions, as well as a few Czech, Hungarian and Slovakian regions, have actually fallen behind compared to the EU average. Romania, on the other hand, clearly seems to be catching up — a development which, happily, extends beyond the Bucharest capital region.

Thanks to the dynamic growth in the UK, the range between the highest and the lowest income values increased slightly between 1999 and 2003 from a factor of 8.3 to a factor of 8.5.

With regard to the availability of data concerning income, the comprehensiveness of the data and the length of the time series have gradually improved. Once a complete data set is available, the income statistics for private households could be taken into account in the decision-making process for regional policy, alongside statistics on GDP.

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 those 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 exist only 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 consumption components of PPS into PPCS (purchasing power consumption standards).

Regional labour market

4.



eurostat

Introduction

One of the main economic targets of employment policy at EU level is to take the employment rate for the 15-64 age group to 67% by 2005 and 70% by 2010 and the employment rate for persons aged 55 to 64 to 50% by 2010. These targets were set by the Lisbon European Council (in March 2000) and by the Stockholm European Council (in March 2001).

This chapter aims to explore the regional aspects of these key labour market indicators and to present different factors linked with employment and unemployment (economic activity rate, employment by economic activity, educational level, part-time employment, long-term unemployment, etc.). The analysis starts with indicators at national level and then goes deeper into regions to show in greater detail the labour market situation in each country and in neighbouring regions across national boundaries. It uses a rich set of regional labour market data provided by Eurostat containing annual data (with some exceptions) from 1999 onwards and covering four categories - regional economically active population, employment, unemployment and socio-demographic labour force statistics - plus one category with second-quarter data up to 2001 (regional labour market data based on pre-2003 methodology).

Methodology

The source for regional labour market information down to NUTS level 2 is the EU Labour Force Survey (LFS). This is a quarterly household sample survey conducted in the Member States of the European Union, plus Bulgaria and Romania.

The LFS target population is made up of all members of private households aged 15 or over. The survey follows the definitions and recommendations of the International Labour Organisation (ILO). To achieve further harmonisation, the Member States also adhere to common principles of questionnaire construction.

The reference year is the calendar year except for Ireland, the United Kingdom (December 2002 to November 2003 for the 2003 data, and December 2003 to November 2004 for the 2004 data in both cases) and Cyprus (April 2004 to March 2005 for the 2004 data).

All regional results presented here concern NUTS level 2 regions (or the corresponding level 2 regions in the candidate countries).

Since the first quarter of 2004, the samples for the Austrian, Italian and Maltese Labour Force Surveys have been spread over every week in the quarter. At the same time the sampling and weighting procedures in Greece were revised in order to improve coverage. The 2003 data for Cyprus refer to the second quarter, while the 2004 data are the annual averages. Consequently, the 2004 and 2003 data are not fully comparable in the case of these countries.

Agriculture covers sections A and B, Industry sections C to F and Services sections G to P of NACE Rev.1.

For further information about regional labour market statistics see the meta-data (M) on the Eurostat web-site http://europa.eu.int/comm/eurostat under Data/General and regional statistics/Regions/Regional Labour Market.

Employment – the 15-64 age group

In 2004 the employment rate at EU level stood at 63.1% compared with 62.8% in 2003. At national level, the highest employment rate was recorded by Denmark (75.7%), followed by Sweden (72.1%), the UK (71.6%), Austria, Portugal, Finland and Cyprus (all over 67%). In Ireland the figure was 66.3% and in Slovenia 65.3%. At the other end, the lowest employment rates were recorded in Malta (54.1%) and Poland (51.7%).

Regions with high employment rates

Regions with an employment rate of over 67% *(Map 4.1)* can be found in Belgium (central region of Vlaams-Brabant), the Netherlands (all 12 regions), Austria (six of the eight regions), Germany (10 southern regions), the Czech Republic (capital region of Praha and central region of Střední Čechy), Slovakia (the capital region of Bratislava), Sweden (all eight regions), Finland (two southern regions – Åland and Etelä-Suomi), Italy (three northern regions - Valle d'Aosta/Vallée d'Aoste, Provincia Autonoma Bolzano/Bozen and Emilia-Romagna), Spain (two – Cataluña and Illes Balears in the east), Portugal (three – Algarve in the south, Centro and the capital region of Lisboa) and the UK (31 out of all 37 regions).

The strongest upward trends in total employment between 2003 and 2004 were in regions in Austria (Vorarlberg in the west: +9 100 employed), Spain (Cataluña in the east: +102 600 employed with +118 300 in services; Illes Balears in the east: +18 600 employed), the UK (Cumbria in the north-west: +15 400 employed; West Yorkshire in the centre: +24 500 employed with +10 000 in industry and +12 400 in services; West Midlands: +27 400 employed with +41 800 in services and -13 300 in industry; Outer London: +36 300 employed; Kent in the south-east: +36 200 employed with +34 700 in services; Cornwall and Isles of Scilly in the south-west: +17 000 employed; Eastern Scotland: +29 400 employed with +12 000 in industry and +19 000 in services) and in Denmark, which is a single NUTS 2 region (+30 800 employed and +28 300 in services).

On the other hand, a downward trend was observed in Freiburg in south-west Germany (-10 000 employed with -12 700 in services).

Economic activity rates for persons aged 15 to 64 in these regions ranged between 69.2% and 81.0%, the highest being in Sweden (the capital region of Stockholm: 81.0%), the UK (the Bedfordshire and Hertfordshire region in the south-east: 80.9% and the Berkshire, Buckinghamshire and Oxfordshire region in the south: 80.2%) and in Denmark (80.1%).

The proportion of highly educated persons in the total economically active population differed significantly between regions with employment rates above 67% – in the Netherlands, Germany, Slovakia, France, Spain, Cyprus, Finland, Sweden and the UK it was 18% to 38%, in Italy and Austria 11% to 19%, in the Czech Republic and Portugal 11% to 28% and in the Belgian region of Vlaams-Brabant 43%.

In all these regions the share of part-time employment in total employment was over 10%, except for regions in Spain, Portugal, Cyprus, the Czech Republic and Slovakia.

Regions with employment rates immediately below the highest level

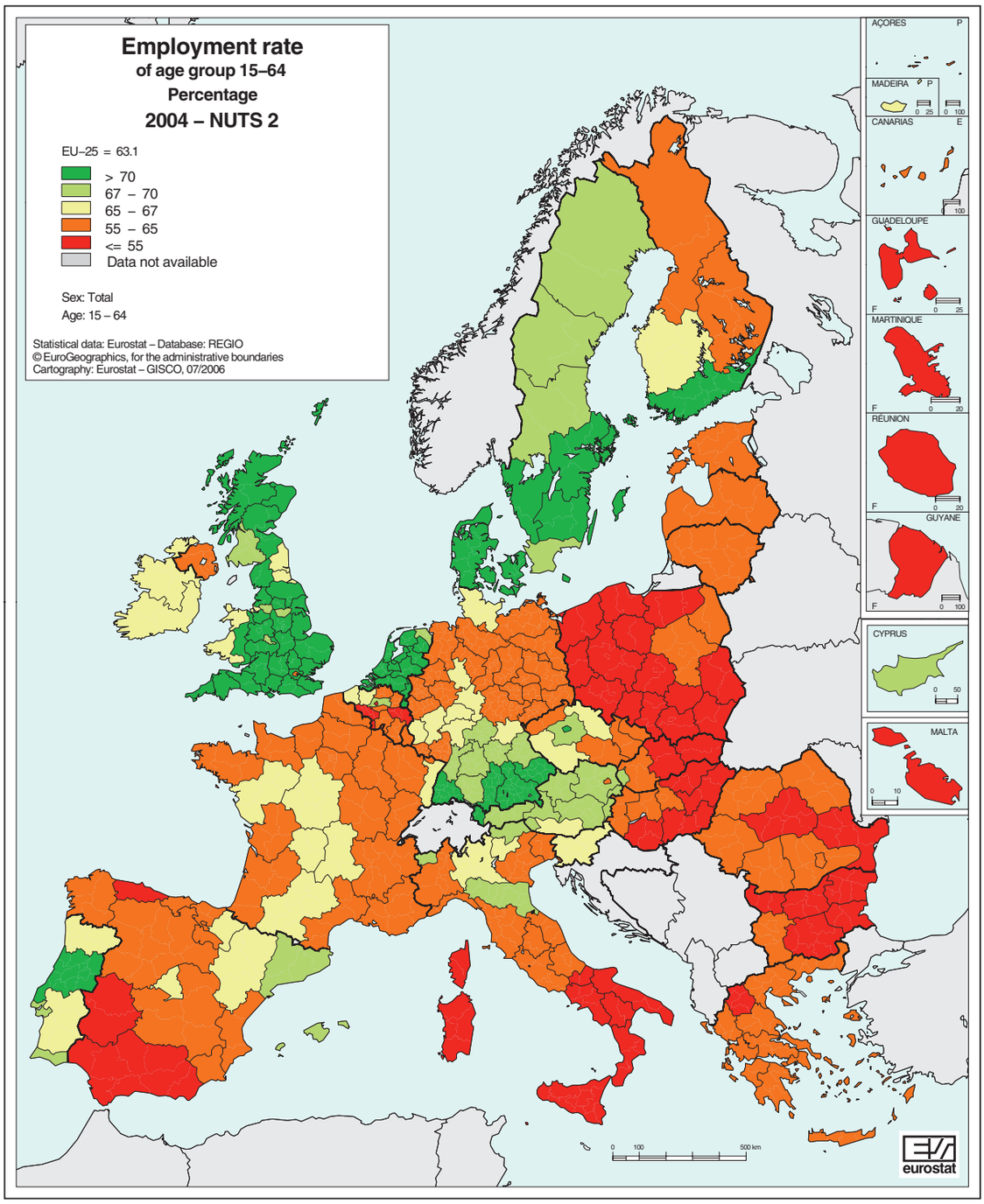
Employment rates of 65% to 67%, very close to the target of 67% to be reached by 2005, were recorded in regions in Ireland (both two regions), Belgium (Oost-Vlaanderen and West-Vlaanderen, both in the north-west), Spain (Comunidad Foral de Navarra and Aragón, both in the north, and the capital region of Comunidad de Madrid), Portugal (Norte, Alentejo in the south and Região Autónoma da Madeira), Finland (Länsi-Suomi in the west), Italy (Lombardia and Provincia Autonoma Trento, both in the north), Austria (Kärnten in the south) and the Czech Republic (Jihozápad in the south-west and Severozápad in the north-west). This was also the case with Slovenia, which is a single NUTS 2 region.

Out of these regions, the biggest improvements in total employment were in two Spanish regions (Aragón: +24 600 employed, with +15 800 in services and +5 400 in agriculture; and the capital region of Comunidad de Madrid: +132 300 employed, with +40 500 in industry and +87 400 in services), two French regions (Midi-Pyrénées in the south-west: +71 200 employed, with +19 000

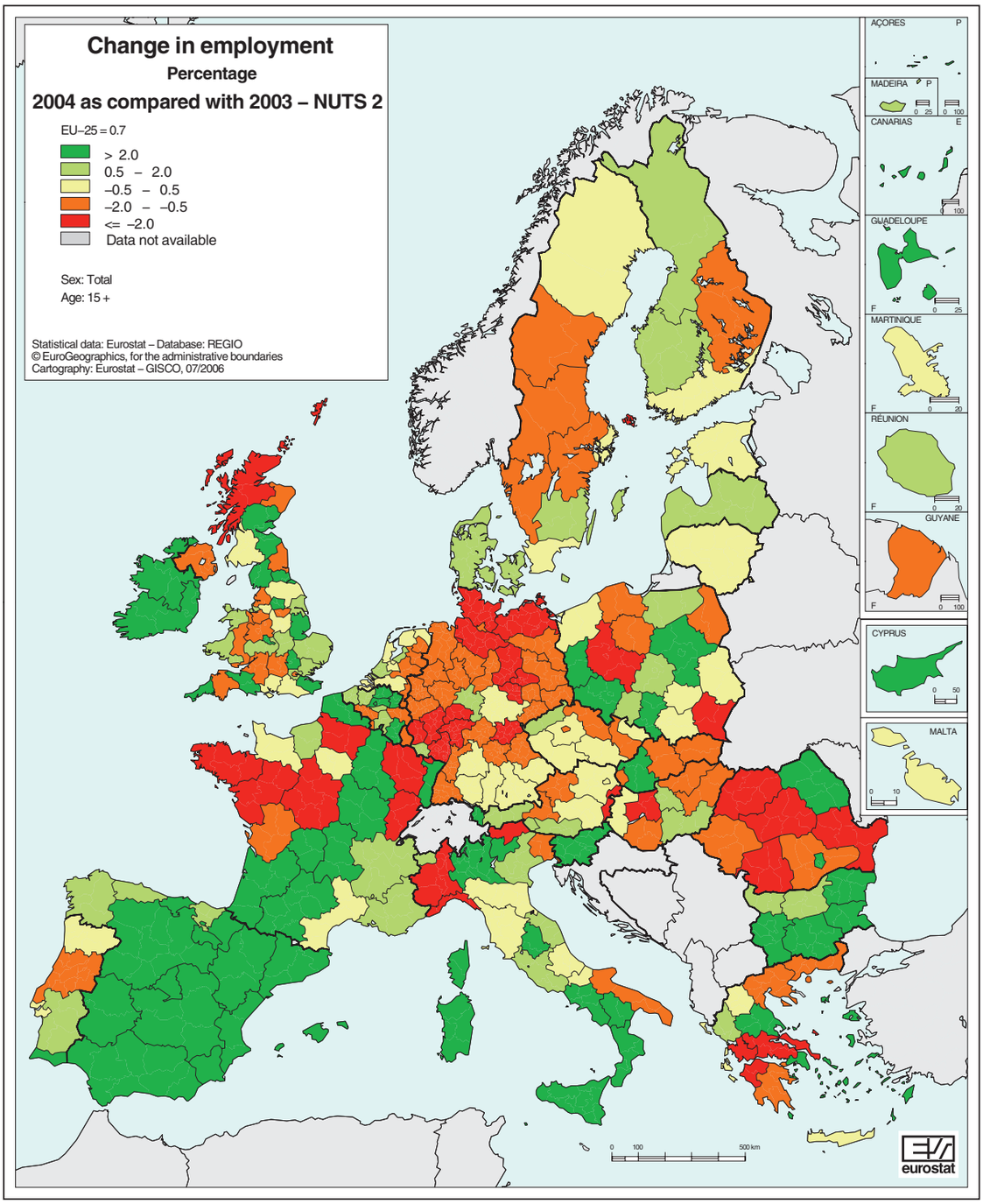
in industry and +59 400 in services; and Auvergne in the centre: +29 800 employed), both two Irish regions (Border, Midland and Western: +24 500 employed; Southern and Eastern: +29 800 employed) and one region in the UK (Tees Valley and Durham in the north-east: +34 800 employed, with +31 600 in services).

Slovenia also recorded significant growth in total employment (+46 200 employed, with +17 100 in agriculture, +6 200 in industry and +20 000 in services).

By contrast, the biggest decrease in total employment was recorded by the western French region



Map 4.1



Map 4.2

of Pays de la Loire (-94 800 employed, of which -24 700 in agriculture, -35 300 in industry and -32 600 in services).

Regions with low employment rates

Low employment rates were generally observed in the southern and eastern parts of EU-25. Rates below 55% were recorded in 42 regions – five in Spain (Principado de Asturias in the north, Extremadura in the west, Andalucía in the south, Ciudad Autónoma de Ceuta and Ciudad Autónoma de Melilla, both in northern Africa), seven in southern Italy, one in Greece (Dytiki Makedonia in the north), four in Hungary (Dél-Dunántúl and Dél-Alföld, both in the south, and Észak-Magyarország and Észak-Alföld, both in the north-east), two in Slovakia (Stredné Slovensko in the centre and Východné Slovensko in the east), 14 out of the 16 regions in Poland and five in France (Corse plus four overseas regions). The

same employment rate was also recorded in the single NUTS 2 region of Malta and three Belgian regions (capital region of Brussels, Hainaut in the west and Liège in the east).

In spite of the low employment rate, a marked upward trend in total employment was recorded in 2004 in one region in Belgium (capital region of Brussels: +9 700 employed and +10 100 in services) and Spain (Andalucía in the south: +135 800 employed, +38 600 in industry and +98 700 in services) and in four regions in Poland (Łódzkie in the centre: +20 100 employed and -5 800 in agriculture, +18 700 in industry and +7 200 in services; Śląskie in the south: +91 800 employed and +16 900 in agriculture, +15 600 in industry and +59 000 in services; Lubuskie in the west: +21 000 employed and +12 400 in industry; Dolnośląskie in the south-west: +55 100 employed, +9 100 in industry and +46 500 in services).

On the other hand, total employment fell in one region in Hungary (Észak-Alföld in the north-east: -10 500 employed with -7 600 in industry) and two regions in Poland (Podkarpackie in the south-east: -32 800 employed with -21 200 in agriculture and -10 500 in industry and Wielkopolskie in the centre: -48 100 employed with -15 200 in agriculture and -41 100 in services, but +7 900 in industry).

Economic activitye rates of persons aged 15 to 64 in these regions varied noticeably between countries: in Belgium 60%-63.7%, in Italy 53.7%-59.7% (in Sardegna 59.7%), in France 57.1%-61.4% (59.3% in Corse), in Spain 60%-63.9%, in Poland 59.7%-66.4%, in Slovakia 68.3%-69.2% and in Hungary 54.3%-57.2%. In the northern Greek region of Dytiki Makedonia the rate was 64.2% and in Malta, which is a single NUTS 2 region, 58.3%.

The proportion of highly educated persons in the total economically active population in these regions was between 30% and 46% in Belgium, between 22% and 33% in Spain and between 11% and 18% in Italy, Hungary, Slovakia and Poland. In the French region of Corse it stood at 19%, in the Greek region of Dytiki Makedonia at 18% and in Malta at 15%.

In regions with a low employment rate the proportion of part-time employment in total employment varied – in Belgium 19%-22%, in France, Italy and Poland 7%-20%, in Spain, Malta and the Greek region of Dytiki Makedonia 5%-9%, in Hungary 5%-6% and in Slovakia 1%-3%.

Employment in Bulgaria and Romania

In Bulgaria the national employment rate for the 15-64 age group stood at 54.2%, varying from one region to another between 47.5% and 59.7%. All regions in Bulgaria recorded an upward trend in total employment, the strongest being in Yugozapaden in the south-west (+39 100 employed, +22 100 in industry and +25 500 in services), Severoiztochen in the north-east (+16 700 employed, +4 400 in agriculture, +5 100 in industry and +7 000 in services), and in Yuzhen tsentralen in the centre/south (+16 300 employed, +9 500 in industry and +8 400 in services).

The employment rate in Romania stood at 57.7% with regional rates ranging from 53.7% to 62.3%. Between 2003 and 2004 total employment grew in two regions of Romania: Nord-Est (+53 900 employed, with -24 100 in agriculture, +15 600 in industry and +62 400 in services) and the capital region of Bucureşti (+54 000 employed, with -14 900 in industry and +67 900 in services). At the same time, Romania recorded a strong decrease in employment in agriculture: -88 900 employed in Centru, -73 000 in Nord-Vest, -53 500 in Vest, -64 900 in Sud-Est and -67 800 in Sud.

Regional economic activity rates for the 15-64 age group ranged from 55.8% to 65.9% in Bulgaria, while in Romania the figures varied between 59.5% and 66.8%.

Employment – the 55-64 age group

The primary reason why EU policy has been focusing on employment of older people (the 55-64 age group) is the ageing of the European population (low birth rates and increasing life expectancy) and the consequent need to reduce the pressure on social protection systems by increasing labour market participation. Another reason why it is important to study employment of this age group is that older people stand a lower chance of retaining or finding a job, especially in regions with high unemployment.

In 2004 the employment rate of persons aged 55 to 64 in EU-25 rose to 40.9% from 40.1% in 2003. At national level, rates above 50% were observed

in Sweden (69.1%), Denmark (60.3%), Finland (50.9%), Estonia (52.4%), the UK (56.2%) and Portugal (50.3%) and of almost 50% in Ireland, Latvia, Lithuania and Cyprus. At the other end of the scale, around 30% was recorded in Belgium, Austria, Luxembourg, Italy, Malta, Hungary, Poland, Slovenia and Slovakia.

Between 2003 and 2004 both the population and employment in the 55-64 age group changed significantly in EU-25 as a whole (+933 300 persons and +755 500 employed) and in the following Member States: Belgium (+23 900 persons, +27 900 employed), the Netherlands (+64 500 persons, +45 900 employed), France (+288 200 persons, +136 900 employed), Spain (+122 900 persons, +75 500 employed), Germany (population down by 229 900, but employment up by 116 000), Poland (+112 800 persons, +5 000 employed), Slovakia (+35 100 persons, +19 600 employed), the Czech Republic (+50 000 persons, +26 200 employed), Slovenia (+5 500 persons, +13 600 employed), the UK (+161 300 persons, +145 300 employed), Ireland (+13 500 persons, +8 600 employed) and Finland (+27 100 persons, +22 200 employed). The only decrease observed in employment of persons aged 55 to 64 was in Portugal (-11 000 employed).

At regional level, in spite of the high employment rate amongst persons aged 55 to 64 (above 50%) in 2004, the employment rate for the 15-64 age group did not exceed 67% in the UK's Inner London region (62.9%), in the Greek region of Kriti (64.0%) or in Estonia (63.0%), which is a single NUTS 2 region. Similarly, there are regions with a low level of employment (below 35%) amongst persons aged 55 to 64 but with a high rate (above 67%) amongst persons aged 15 to 64 – six Austrian regions (Burgenland, Niederösterreich, Steiermark, Oberösterreich, Salzburg and Tirol), the central Belgian region of Vlaams-Brabant and two northern Italian regions (Valle d'Aosta/Vallée d'Aoste and Emilia-Romagna).

Economic activity rates of persons aged 55 to 64 in regions with an employment rate above 50% for this age group varied between 53.3% and 77.4%, whereas in regions with a rate below 35% they were between 20.6% and 47.5%.

High employment rates for persons aged 55 to 64

An employment rate above 50% for persons aged 55 to 64 was observed in all regions in Sweden, in 30 of the 37 regions in the UK, in two regions in Portugal (Algarve in the south and Centro) and one each in the Czech Republic (the capital region of Praha), Germany (Tübingen in the south), in Greece (Kriti) and in Finland (Etelä-Suomi in the south). Denmark and Estonia, each of which is a single NUTS 2 region, also had a figure above 50%.

In these regions employment of persons aged 55 to 64 grew markedly in Germany (Tübingen: +27 500 employed), Finland (Etelä-Suomi: +11 700 employed), Sweden (Västsverige in the south-west: +6 700 employed), the UK (East Riding and North Lincolnshire in the east: +7 300 employed; West Yorkshire in the centre: +12 800 employed; Outer London: +22 300 employed, Surrey, East and West Sussex in the south: +16 900 employed, Kent in the south-east: +21 700 employed, Dorset and Somerset in the south: +11 900 employed) and in Denmark (+6 800 employed). On the contrary, employment went down in the Portuguese region of Centro (-5 300 employed) and in the Berkshire, Buckinghamshire and Oxfordshire region in the south of the UK (-18 000 employed).

Low employment rates for persons aged 55 to 64

An employment rate of below 35% amongst persons aged 55 to 64 was recorded in most regions of Belgium, Austria, Slovakia, Hungary and Italy, in every region in Poland, 12 regions in France, 8 regions in Germany, two in Spain (Andalucía in the south and Principado de Asturias in the north-west) and one each in the Czech Republic (Moravskoslezsko in the north-east) and Greece (Dytiki Makedonia in the north). Luxembourg, Malta and Slovenia, each of which is a single NUTS 2 region, also had outstandingly low levels of employment amongst persons aged 55 to 64.

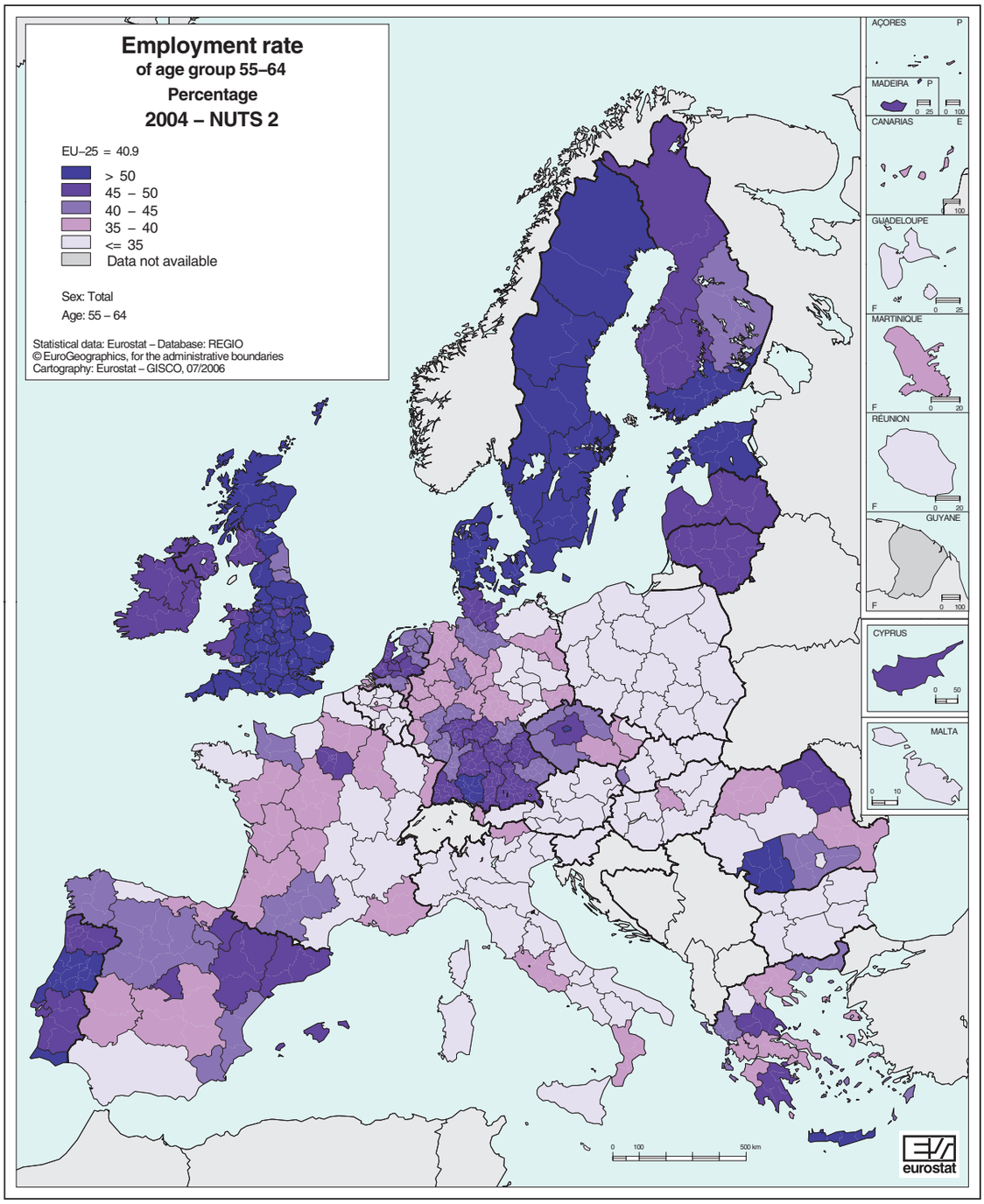
An upward trend in employment amongst persons aged 55 to 64 was recorded in regions of Belgium (Antwerpen: +6 300 employed and West-Vlaanderen in the north-west: +6 500 employed), the Czech Republic (Moravskoslezsko: +5 500 employed), France (Rhône-Alpes in the south-east: +19 300 employed; Languedoc-Roussillon in the south: +10 000 employed), Poland (Mazowieckie in the centre: +13 200 employed; Dolnośląskie in the south-west: +5 700 employed), Slovakia (Západné Slovensko in the west: +6 500 employed and Východné Slovensko in the east: +5 500 employed) and in Spain (Andalucía: +16 600

employed). The same was also the case in Slovenia, which is a single NUTS 2 region (+13 600 employed).

On the other hand, a downward trend was observed in Austria (Wien: -6 000 employed and Steiermark in the south-east: -6 500 employed), France (Haute-Normandie in the north: -8 700 employed and Bourgogne in the centre: -5 300 employed) and, finally, Poland (central region of Łódzkie: -7 600 employed; Podkarpackie in the south-east: -5 800 employed; central region of Wielkopolskie: -11 100 employed).

Employment rates for persons aged 55 to 64 in Bulgaria and Romania

In Bulgaria, where an employment rate of 32.5% was reported in 2004, both the population and employment figures for the 55-64 age group rose



Map 4.3

(+8 400 persons, +25 900 employed) compared with 2003. Romania, with a higher proportion of persons aged 55 to 64 (36.9%), recorded a population trend in the opposite direction (-26 100 persons) and stable employment (+700 persons) for the 55-64 age group in 2004.

At regional level, the highest absolute growth in employment of persons aged 55 to 64 was reported in the south-western Bulgarian region of Yugozapaden (+9 500 employed) and in the Romanian region of Nord-Est (+22 200 employed). Economic activity rates of persons aged 55 to 64 in Bulgaria varied between 32.7% and 40.4%, while in Romania the variation was significantly wider: from 25.9% to 53.4%.

Unemployment

In 2004 the unemployment rate at EU level remained unchanged on 9.2%. A significant upward trend in unemployment between 2003 and 2004, after the new Member States joined the EU on 1 May 2004, saw Lithuania move from 12.4% to 11.4% and Poland from 19.6% to 19.0%, while a downward trend took the Czech Republic from 7.8% to 8.3% and Slovakia from 17.6% to 18.2%.

Lithuania *(Map 4.4)*, which is a single NUTS 2 region, showed a remarkable drop in total unemployment, with female employment down from 58.4% to 57.8% (-8 400). Both figures refer to the 15-64 age group.

Out of the seven Polish regions showing the greatest improvement *(Map 4.5)*, employment grew markedly in two central regions: Łódzkie (+18 700 employed in industry) and Mazowieckie (+85 300 employed in services). The positive changes in Poland were clearly reflected in a downward trend in long-term unemployment, in particular in five regions: Podkarpackie in the south-east, Podlaskie and Warmińsko-Mazurskie in the north-east, Zachodniopomorskie in the north-west and Mazowieckie. Declining unemployment and, paradoxically, also employment (-21 200 in agriculture and -10 500 in industry) in Podkarpackie lowered the rate of economic activity in the 15-64 age group to 62.1% (from 64.0% in 2003).

Employment also rose in two Czech regions with notable growth in unemployment, (Severozápad in the north-west and Jihovýchod in the south-east). In the capital region of Praha, where both unemployment and total employment fell (-6 700 persons in industry, but +1 200 in services), the economically active rate decreased from 74.2% to 73.1% in the 15-64 age group.

Slovakia, with rising unemployment in three regions, recorded a remarkable improvement in the western region of Západné Slovensko (-5 600 long-term unemployed, +19 300 employed in industry and +11 800 in services).

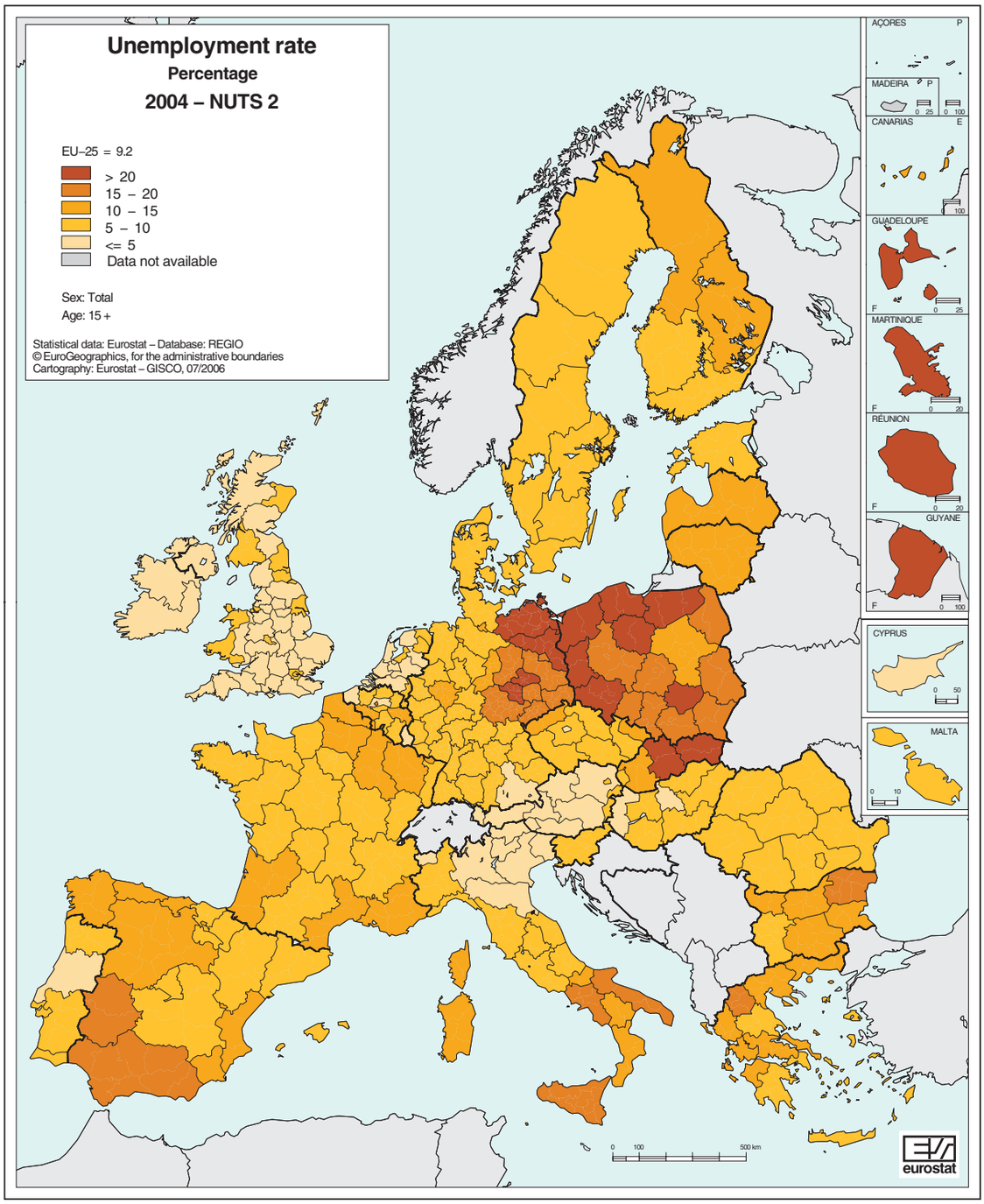
In the "old" Member States, the sharpest fall in unemployment was in Spain (from 11.5% to 11.0%), while, by contrast, increases were reported in Luxembourg (from 3.7% to 4.8%), the Netherlands (from 3.7% to 4.6%) and Sweden (from 5.7% to 6.5%).

In the three countries which opened up their labour markets to workers from the new Member States as from the first day of accession (Ireland, Sweden and the UK), between 2003 and 2004 improvements in unemployment were recorded in Ireland (from 4.7% to 4.5% and -1 400 persons) and the UK (from 5.0% to 4.7%, -75 800 persons) but not in Sweden (from 5.7% to 6.5%, +39 800 persons).

At regional level in the "old" Member States *(Map 4.4)*, unemployment fell in most regions of Spain, while the opposite trend was seen in all regions of Sweden and The Netherlands and most regions of Germany. The most marked regional changes were in Germany, Spain, The Netherlands, Portugal, Sweden and Luxembourg (a single NUTS 2 region), which were linked with:

- lower employment in industry in the western region of Düsseldorf and higher employment in services in the eastern region of Thüringen;
- higher employment in services and industry in Spain, in the capital region of Madrid and in the southern region of Andalucía;
- declining employment in industry, but higher employment in services in the capital region of Lisboa;
- lower employment in services in two southern regions of Sweden (Östra Mellansverige and Västsverige).

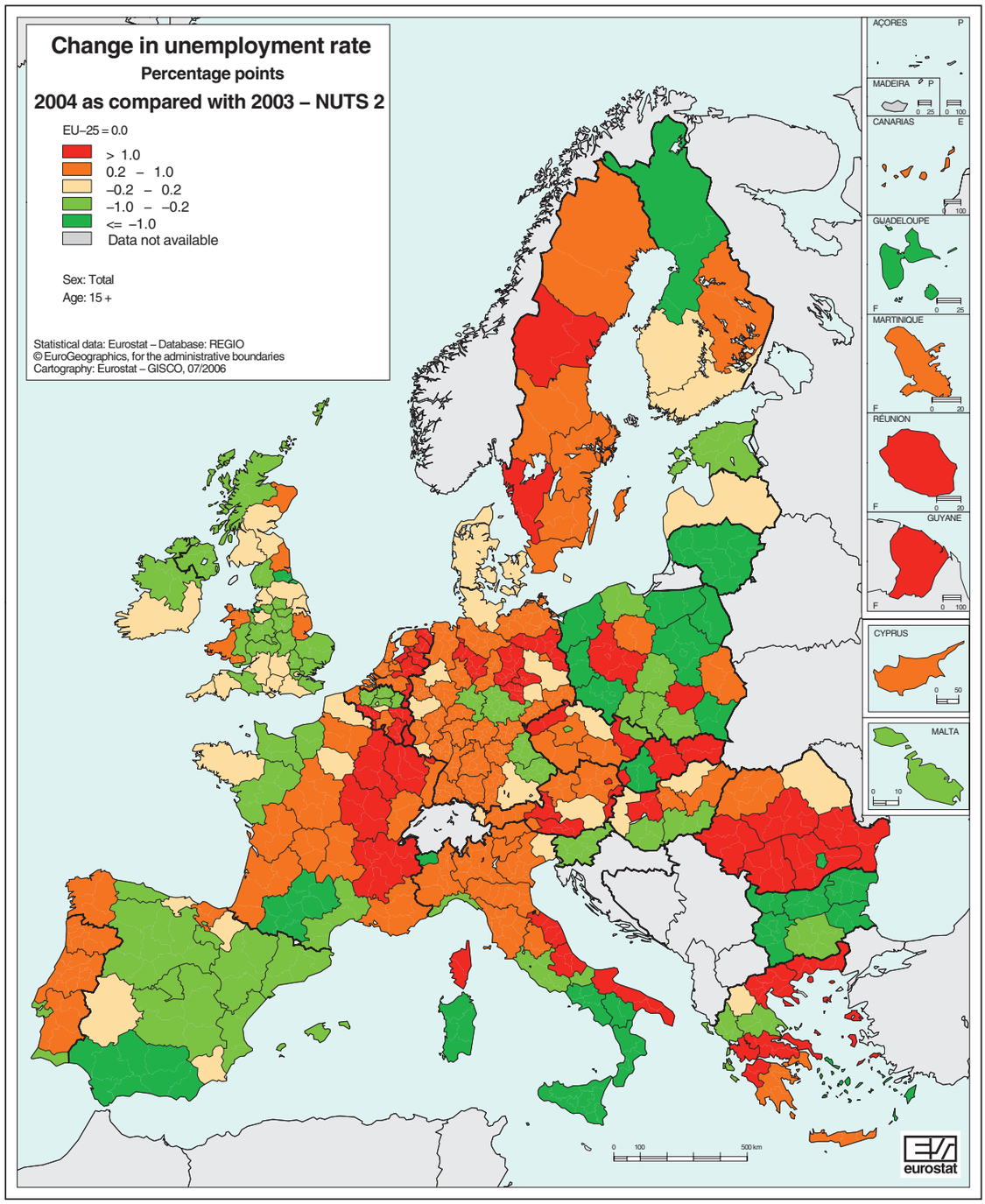
Out of all the countries studied, as in 2003 Bulgaria recorded the strongest improvement in unemployment in 2004, with a decrease of 1.7



Map 4.4

percentage points to 12.0%. Regional unemployment rates there varied from 9.4% (Yugozapaden in the south-west) to 17.6% (Severoiztochen in the north-east). The opposite trend was observed in Romania (from 7.0% in 2003 to 8.1% in 2004), with regional figures of between 6.2% (Nord-Est) and 9.9% (Sud-Est).

Every region in Bulgaria recorded a downward unemployment trend, the highest being in Yugoiztochen in the south-east, Yugozapaden (-16 200 unemployed and +39 100 employed) and in the central/northern region of Severen tsentralen. This upward trend was linked with a fall in long-term unemployment in every region, in particular in Severozapaden in the north-west, Yugozapaden (with marked changes in employment in all sectors), Severoiztochen and Yugoiztochen.



Map 4.5

In Romania, all regions except Nord-Est and the capital region of Bucureşti recorded upward unemployment trends. Employment in agriculture (32% of total employment at national level) and self-employment decreased noticeably in all but one region (Bucureşti), in particular in Centru, Vest and Nord-Vest. On the other hand, an upward employment trend was observed in Nord-Est (+62 400 employed in services), the capital region of Bucureşti (+67 900 employed in services), in Sud-Est (+28 500 employed in industry) and in Vest (+49 300 employed in industry). Long-term-unemployment decreased in the capital region of Bucureşti, while growth was recorded in Sud and Centru.

Conclusion

This chapter aims to illustrate the regional dimension of a positive employment trend for persons aged 55-64 in most EU countries and Bulgaria, as well as the regional dimension of trends in employment for the age group 15-64 and unemployment in EU-25, Bulgaria and Romania. It identifies and describes some of the main factors connected with developments on the regional and national labour markets, such as economic activity rate, employment by economic activity, educational level, part-time employment, long-term unemployment and population.

Definitions

Population means persons aged 15 or over, living in private households (persons living in collective households, i.e. residential homes, boarding houses, hospitals, religious institutions, workers' hostels, etc., 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 owing to studies, holidays, illness, business trips, etc. (but having retained a link with the private household). Persons on compulsory military service are not included.

Employed persons means all persons aged 15 or over (16 or over in ES and UK and 15 to 74 in DK, EE, HU, LV, SE and FI) who, during the reference week, worked at least one hour for pay or profit, or were temporarily absent from such work. Family workers are included.

Unemployed persons means persons aged 15 to 74 (16 to 74 in ES and UK) who were: 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 (all three conditions must be fulfilled simultaneously).

Employment rate means employed persons as a percentage of the population. The employment rate can be broken down further by age and sex, e.g. the **employment rate of the 15-64 age group.**

Economically active population (also called **labour force** or **active population**) means employed and unemployed persons.

Unemployment rate means unemployed persons as a percentage of the economically active population.

The unemployment rate can be broken down further by age and sex. The **youth unemployment rate** covers persons aged 15 to 24.

Economic activity rate means employed and unemployed persons (i.e. economically active population) as a percentage of the population.

Long-term unemployment rate means long-term unemployed (12 months or longer) as a percentage of the sum of unemployed for less than one year and long-term unemployed.

Labour productivity

5.



eurostat

Introduction

When regional economic development is analysed, the gross domestic product (GDP) per capita is commonly taken as the central consideration. A further reason why such emphasis is placed on GDP per capita statistics is that they represent a key indicator for the Structural Funds, whereby regions eligible for support are selected. The frequent use of GDP per capita in regional analyses is nevertheless quite surprising, given the long-standing criticism of this indicator: the numerator refers to the goods and services produced in the region concerned, while the denominator refers to the resident population, which is not necessarily involved in the region's production process. Thus, in regions with heavy commuter flows, there is a correlation of apples and pears.

Inner London, Luxembourg and Hamburg are prime examples. The net number of people commuting to these regions every day increases production to a level which could not be attained by the resident workforce alone. This leads to GDP per capita being overestimated in these regions and being underestimated in the regions where the commuters live.

Furthermore, the 'GDP per capita' indicator is influenced by the respective population structures (e.g. proportion of children and adolescents, proportion of pensioners, proportion of economically inactive people).

The following text therefore takes an alternative look at GDP in terms of the number of people employed in a region, i.e. analysing regional labour productivity. This eliminates the problem of the distortions caused by commuter flows. The output of a region in the form of all goods and services correlates with the labour input.

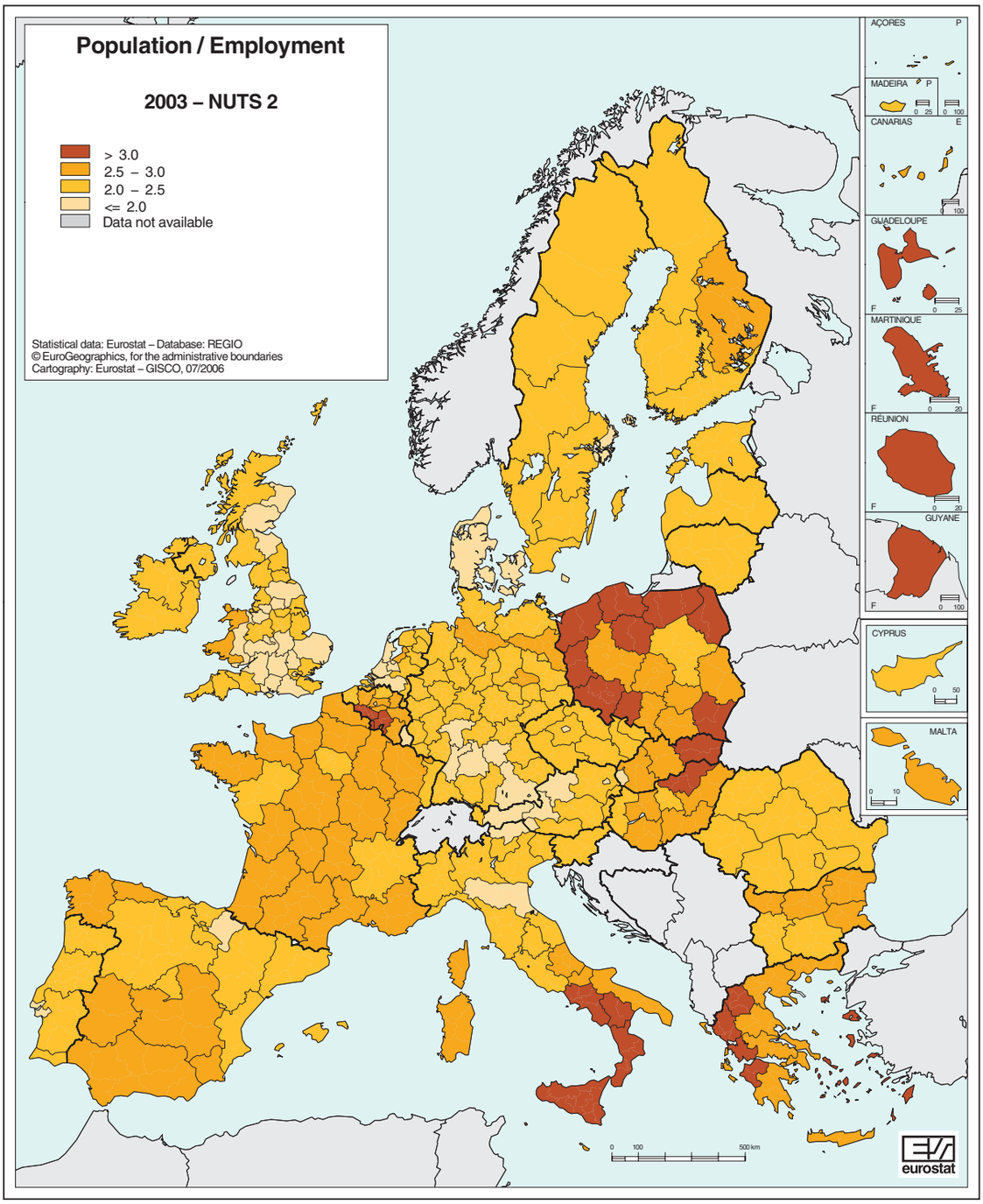
The first map shows how different the results are when labour productivity is compared with GDP per capita. If the two indicators are compared by dividing them (GDP/employment/GDP/population), the GDP is cancelled out and a population/employment indicator remains. This is shown in the first map 5.1.

In many regions of Poland, in Észak-Magyarország (Hungary), in Vychodne Slovensko (Slovakia), in the western regions of Greece, in the French overseas departments and in the south of Italy, an employed person has to support more than three people. In many regions of southern Germany, western Austria, the Netherlands, Denmark and throughout the United Kingdom, the population/employment indicator ranges from 1.5 to 1.9, meaning that a significantly greater proportion of the population is involved in the labour process.

This map is not to be analysed in greater depth, since it is designed mainly to illustrate the differences between GDP per capita and labour productivity.

Marked differences in regional labour productivity

Map 5.2. shows sharply contrasting regional labour productivity in Europe. While more than

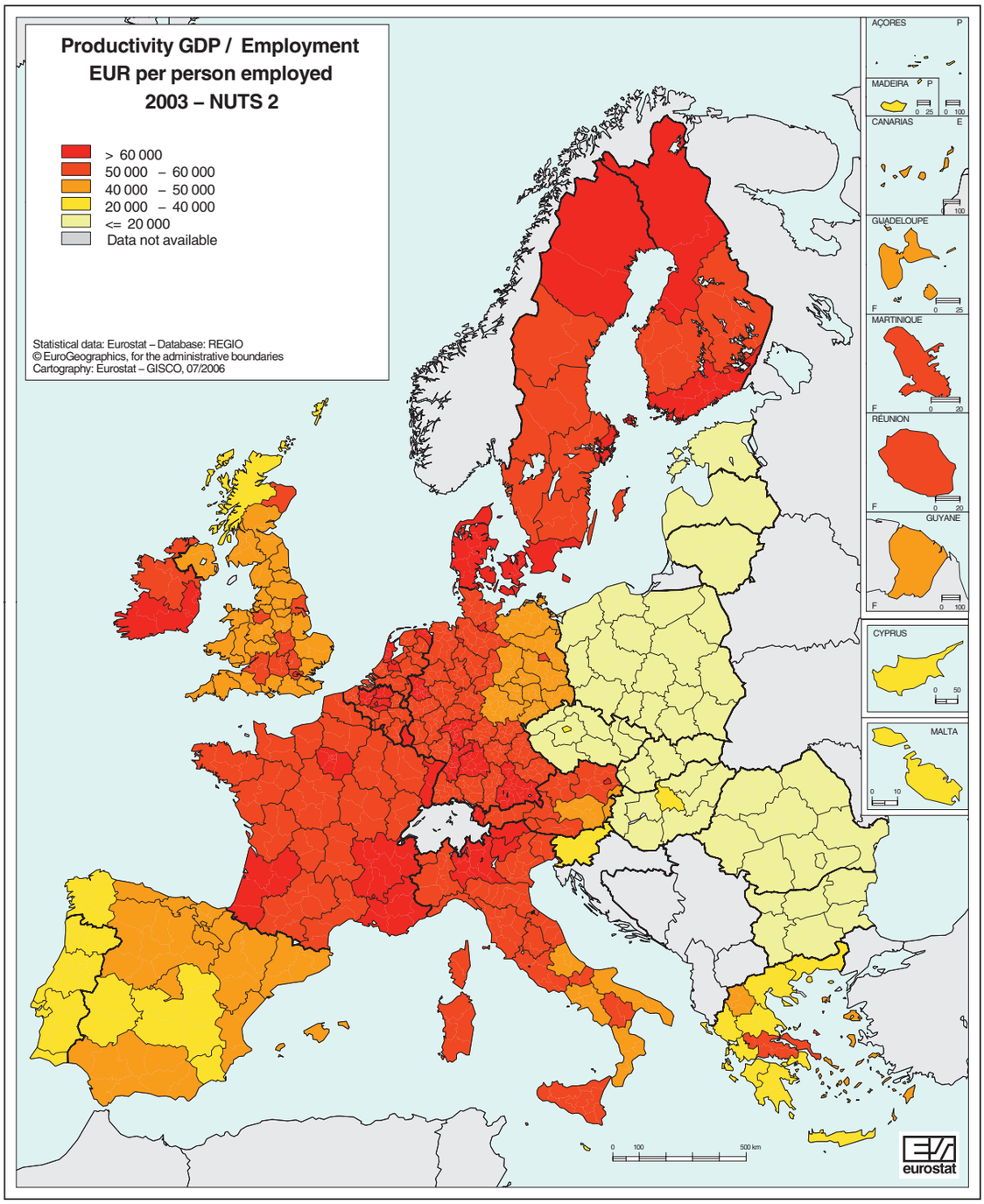


Map 5.1

80 000 euro per person employed was generated in Southern and Eastern in Ireland, in the Grand Duchy of Luxembourg, in the Île-de-France (Paris) and in Brussels in 2003, the corresponding figure in Latvia, all regions of Bulgaria and all regions of Romania except for Bucharest was less than 10 000 euro.

Labour productivity is also very high in other regions of the old Member States (over 60 000 euro per person employed), primarily in the larger urban zones of Stockholm, Inner London, Hamburg, Stuttgart, Düsseldorf, Darmstadt, Vienna and Antwerp, as well as in regions including Denmark, Etalä-Suomi in Finland, Sydsverige (Sweden), Bozen (Italy), Vlaams-Brabant (Belgium), Oberbayern (Germany) and in France in Provence-Alpes-Côte d'Azur, Alsace and Rhône-Alpes.

Regions of eastern Germany, northern Spain, southern Italy, northern England and Scotland



Map 5.2

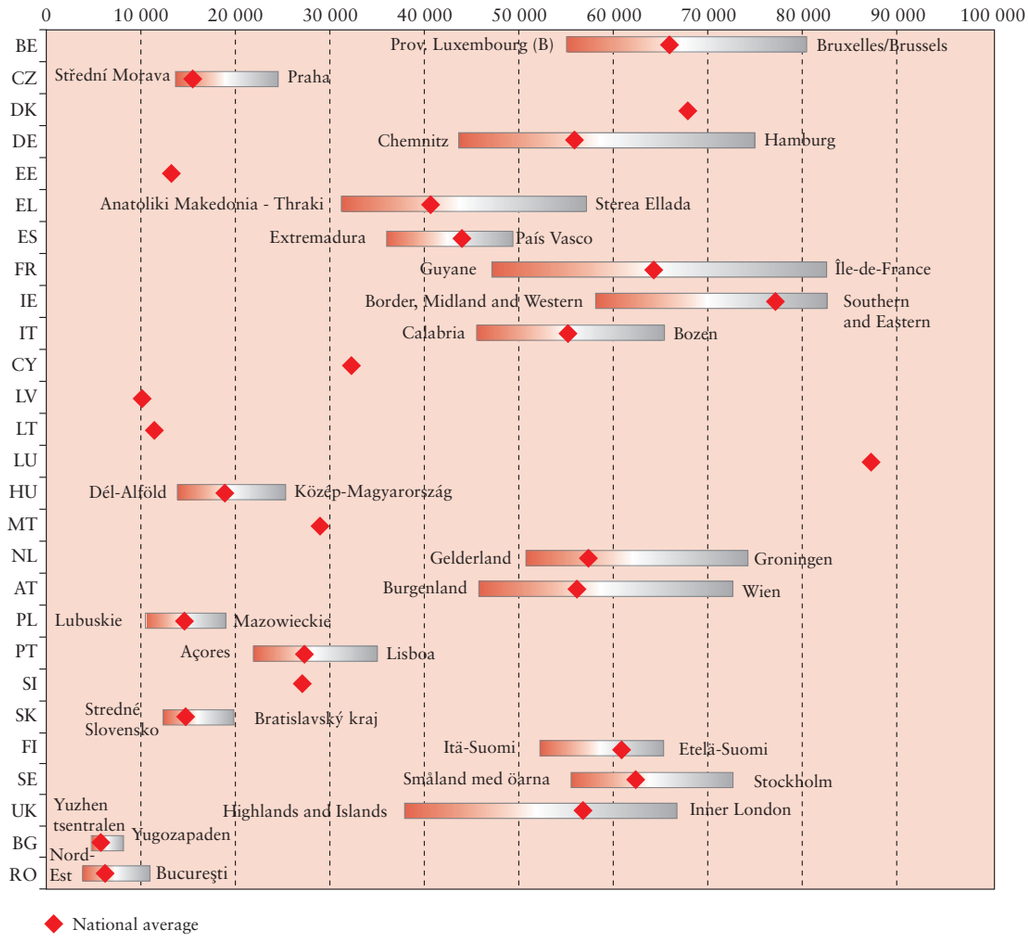
are in the middle range of labour productivity achieved.

In contrast, labour productivity in all regions of the new Member States, with the exception of Slovenia, Közép-Magyarország in Hungary and Prague in the Czech Republic, is below 20 000 euro a year per person employed.

Graph 5.1 shows, for all the countries of Europe under consideration, the respective regional minima and maxima for labour productivity as well as the country average.

There may also be vast differences in labour productivity within individual countries, as is the case in Germany (a difference of 32 897 euro per person employed), in Austria (27 439 euro per person employed) and in the United Kingdom (28 420 euro per person employed). In France there is a difference of 36 226 euro between Paris and Guyane, an overseas department.

Graph 5.1: Maxima and minima of labour productivity, EUR per person employed, 2003 - NUTS 2



Productivity growth rates: the new Member States are catching up

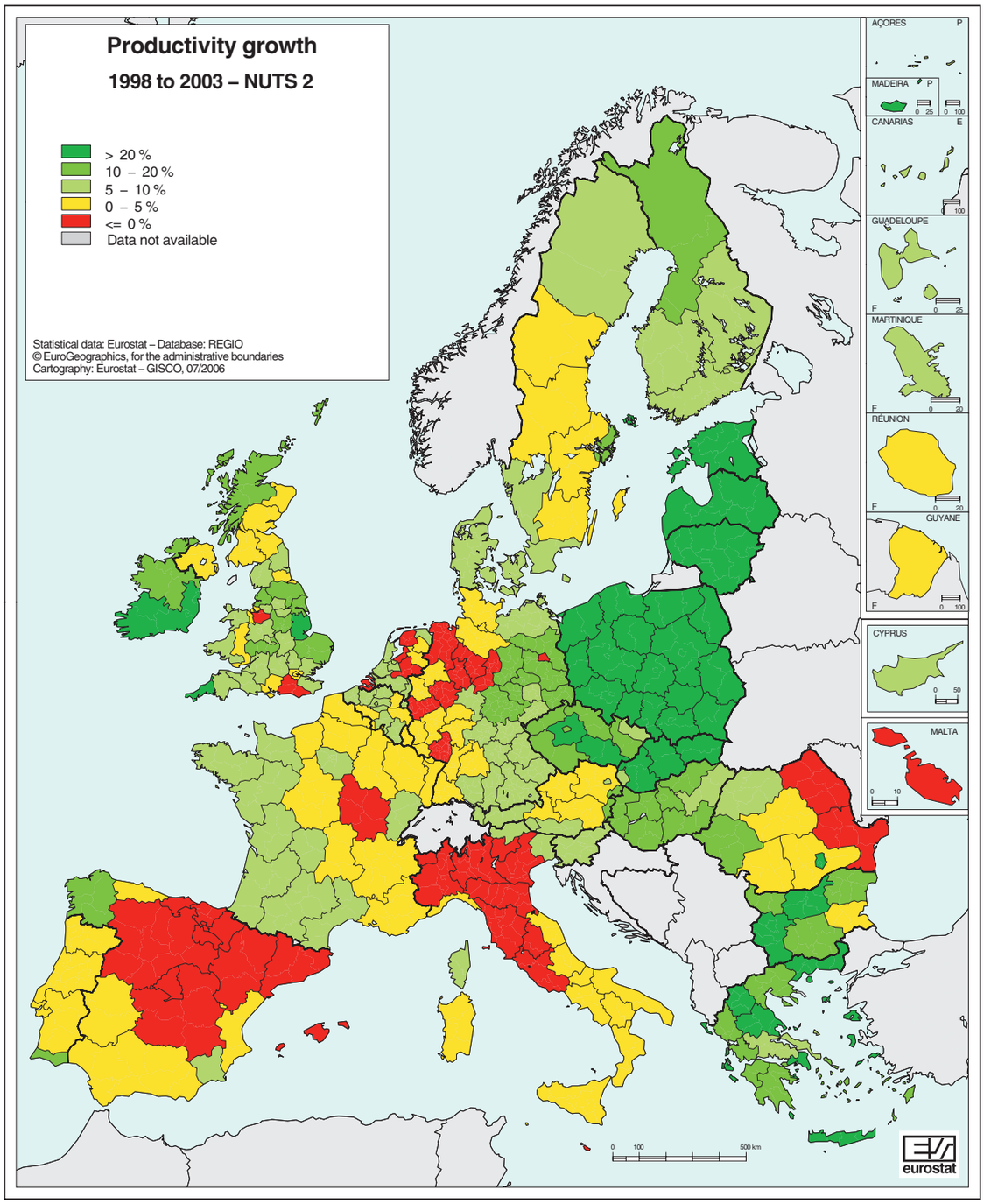
Let us now look at the rates of change in regional labour productivity from 1998 to 2003. In order to eliminate the influence of differing inflation rates, the GDP values in this section have first been deflated so that the GDP is considered at constant prices.

Map 5.3 shows, above all, how strongly labour productivity has risen in the regions of the new Member States, coming very close to the level attained by the old Member States. Growth rates and the level of labour productivity for 1998 correlate at -0.60, which is admittedly not a particularly strong correlation, but clearly differs from zero, i.e. the lower productivity was in 1998, the stronger was the subsequent growth.

Particularly high labour productivity growth rates have been recorded in the three Baltic states, in all regions of Poland, in regions of Slovakia, in Střední Čechy and Jihovýchod in the Czech Republic as well as in the seven Greek regions of Voreio Aigaio, Kriti, Dytiki Makedonia, Ionia Nisia, Attiki, Tessalia and Anatoliki Makedonia – Thraki, and in Southern and Eastern in Ireland.

The highest growth rate of all is to be seen in Świętokrzyskie in southern Poland, with a rise of 55%, thus increasing labour productivity by more than half in the five years from 1998 to 2003.

Above-average labour productivity growth rates of more than 10% over the five-year period in



Map 5.3

question have been recorded in some regions of eastern Germany, in most regions of England, in all regions of the Czech Republic, Finland and Hungary, in Denmark and in the regions of western France.

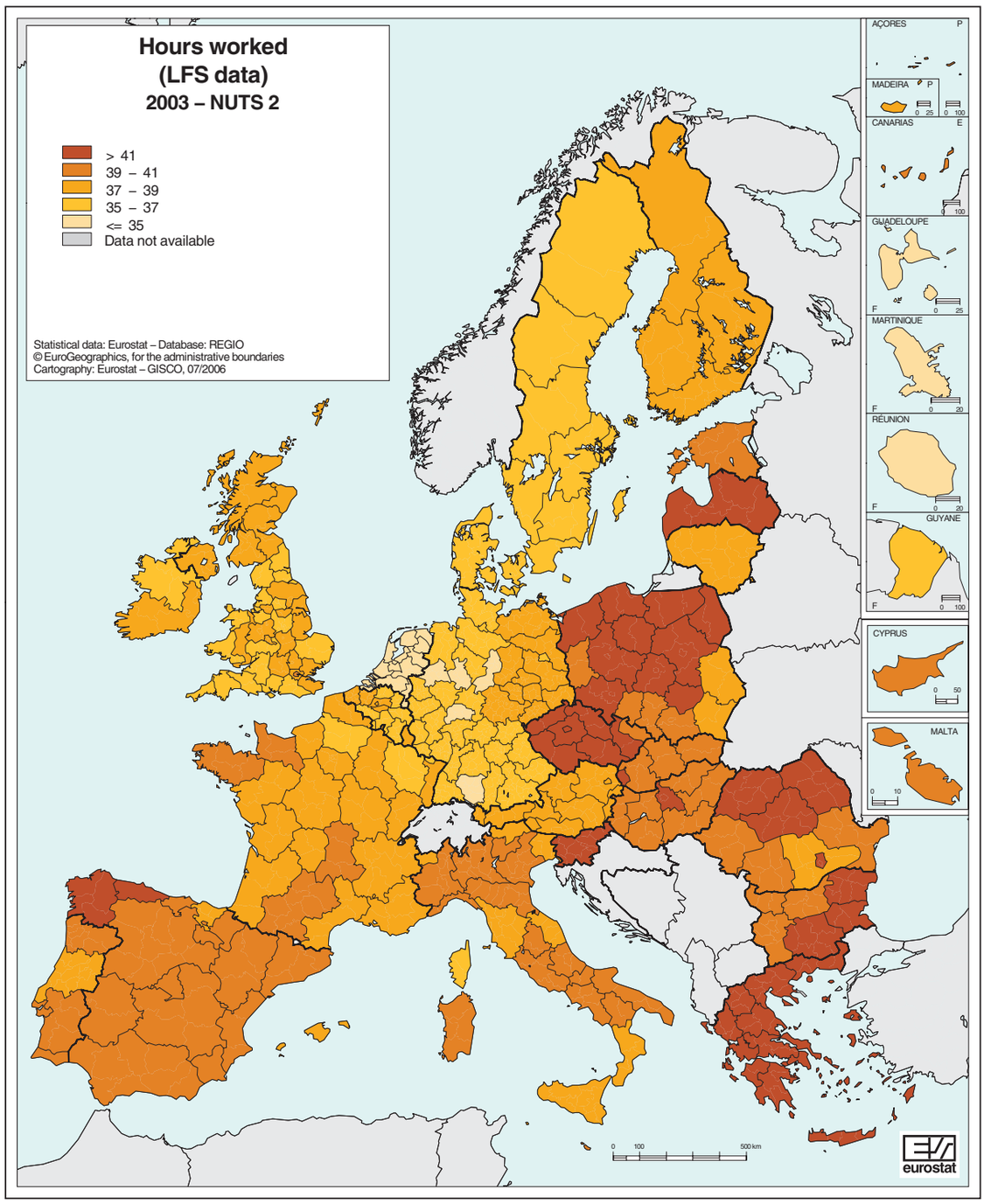
There was, however, a surprising drop in labour productivity between 1998 and 2003 in the regions of northern and central Spain, northern Italy, north-western Germany and eastern Romania, in most regions of the Netherlands, in Bourgogne in France and in Malta. It will be interesting to observe the economic development of those regions in the coming years.

In the Member States, the sharpest drop in labour productivity occurred in the Spanish region of La Rioja, at -10%. Although GDP increased by 40% from 1998 to 2003, in constant prices by +17%, employment in the same period rose by 30%, which caused the overall sharp fall in labour productivity.

If labour productivity growth rates are viewed in terms of hours worked rather than number of persons employed (see next chapter), the negative growth rates turn out to be lower, generally by two percentage points. It is clear that, in some cases, full-time jobs have been replaced by several part-time ones, so that more people are employed (this lowers labour productivity GDP/persons employed) while the working time put in stays the same.

Labour productivity in terms of hours worked

One possible criticism of the previous considerations of labour productivity in Europe's regions might be that the calculations per person employed

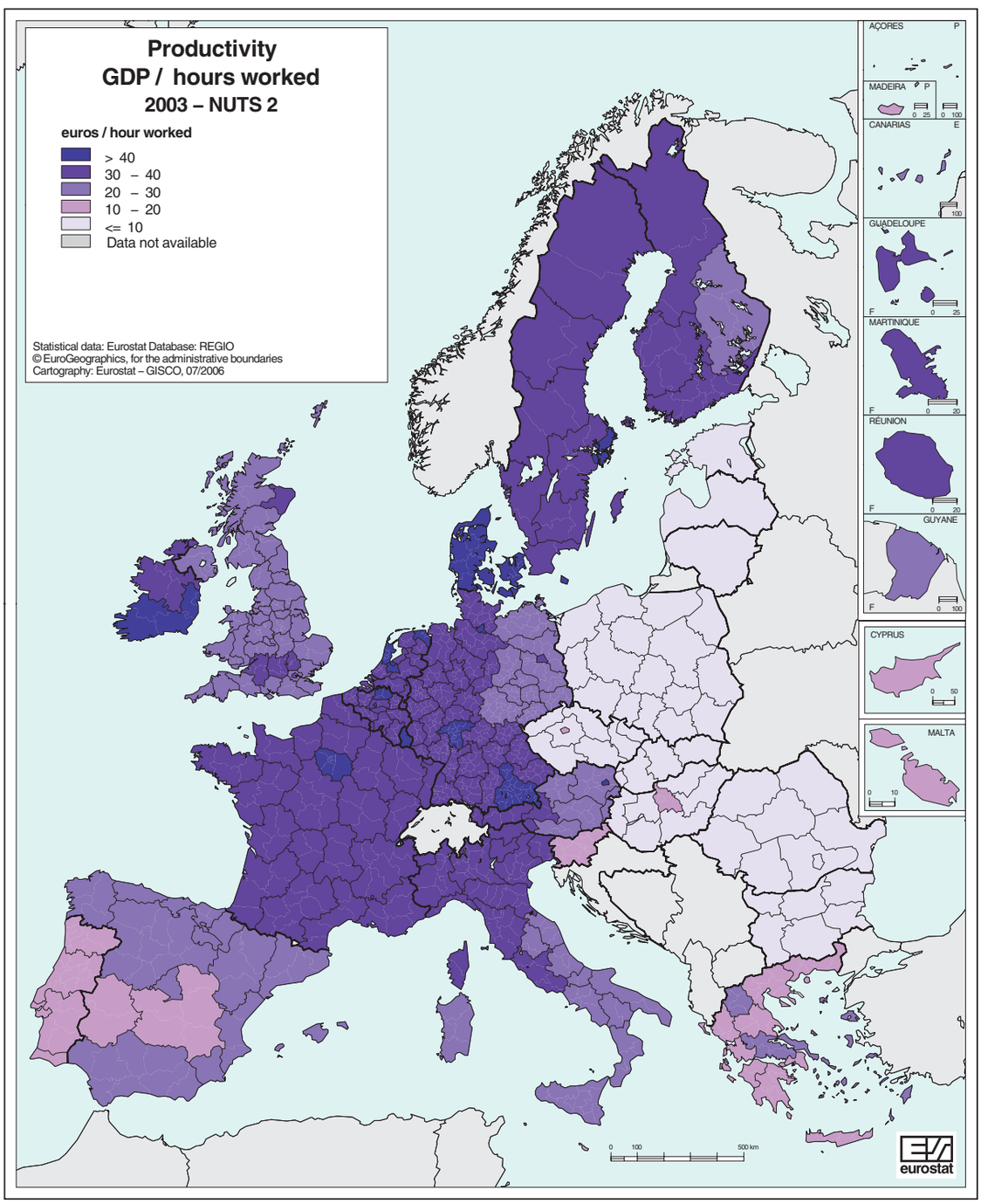


Map 5.4

do not take into account the differing lengths of working time and the extent of part-time employment. If, in a region of the Netherlands, an average of 30 hours a week is worked, because there are a lot of part-time jobs, and 45 hours a week are worked in a region of Greece, with labour productivity per person employed being the same in the two countries, then the productivity in the Dutch region will in fact be considerably higher because the labour input is lower.

The next map 5.4 shows where in Europe the working week is longer and where it is shorter. Owing to a higher proportion of part-time work, fewer than 35 hours a week are worked in all regions of the Netherlands as well as in Bremen, Münster and Detmold in Germany.

On the other hand, more than 40 hours a week are worked in all regions of Greece, in eastern Rumania, in northern Bulgaria, in all regions of



Map 5.5

Table 5.1: Labour productivity based on hours worked

The ten highest			The ten lowest		
Region	Country	euro per hour	Region	Country	euro per hour
Groningen	NL	52.6	Nord-Vest	RO	2.8
Luxembourg	LU	49.6	Yugoiztochen	BG	2.7
Southern and Eastern	IE	48.1	Severozapaden	BG	2.7
Île-de-France	FR	48.0	Sud-Est	RO	2.6
Hamburg	DE	45.4	Severoiztochen	BG	2.6
Bruxelles/Brussel	BE	44.5	Severen tsentralen	BG	2.6
Stockholm	SE	42.3	Sud	RO	2.5
Oberbayern	DE	42.1	Yuzhen tsentralen	BG	2.5
Utrecht	NL	41.6	Sud-Vest	RO	2.3
Darmstadt	DE	41.5	Nord-Est	RO	1.9

the Czech Republic, in Slovenia, in the regions of central and northern Poland, in Latvia and also in the two Spanish regions of Principado de Asturias and Galicia. It is by no means the case that working hours are the same within individual countries. For example, the working week in eastern Germany is longer than in western Germany, and is longer in Scotland than in England.

The length of the working week correlates with labour productivity at -0.58, that is to say in regions with low productivity the working hours tend to be longer. If labour productivity is now calculated on the basis of hours of work performed, the productivity divide between Europe's regions is magnified.

In addition to the length of the working week, there are variations in the length of annual holidays. In this connection, although there are only national statistics available, the number of working weeks a year has been determined on the basis of the number of days' holiday in individual countries. The new labour productivity is thus derived from GDP/(persons employed x weekly working time x annual working weeks).

Map 5.5 shows the results of these calculations. Since labour productivity on the basis of the number of persons employed correlates with productivity on the basis of hours worked at 0.99, there will predictably be no dramatic changes in comparison with map 5.2.

Productivity is highest in Groningen, at 52.6 euro per hour. The lowest labour productivity is to be found in Nord-Est in Romania, at 1.9 euro per hour, constituting just 4% of top-performing Groningen's figure. Table 5.1 shows the ten best and worst performing regions in Europe as regards labour productivity.

Conclusion

Although there are still vast differences in labour productivity between Europe's regions, productivity in the countries where it is low is growing at a markedly stronger rate than in the regions where it is high.

Calculations of labour productivity based on hours worked are possible and certainly more accurate than calculations using the number of persons employed. They do not, however, paint a significantly different picture from the more straightforward calculations of GDP per person employed.

This text is intended to highlight the interesting indicators, other than GDP per capita, that can be extracted from Eurostat's regional statistics and the economic analyses that are thereby made possible. It is to be hoped that this will encourage readers to use Eurostat's database themselves and carry out their own calculations and analyses.

Methodological notes

GDP values in euro, and not in purchasing power parities, were used for calculating regional labour productivity for 2003, since this analysis is concerned not with per capita wealth (measured in terms of purchasing power) but with productivity, i.e. the performance of the individual regions in Europe. Competing goods and services must be sold on the market in euro (or other national currencies), not in purchasing power parities.

The extra-regional value added, which in our publications is spread equally over the regional GDP values, has been recalculated so that the GDP figures contain only the value added that has actually arisen in the region. For the calculations at constant prices (rate of change in labour productivity 1998 to 2003) only national deflators are available, resulting in the same deflator being used for all the regions of a country.

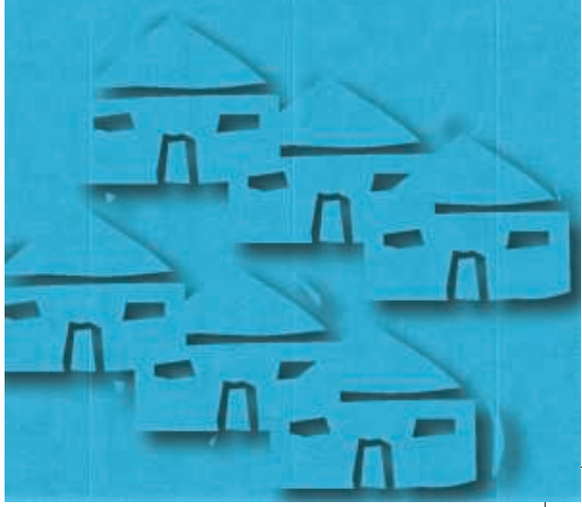
As far as numbers of persons employed are concerned, i.e. the denominator of labour productivity, the data have been taken from the regional accounts, although only figures from the labour force survey were available for Bulgaria. Some conversions had to be made for the Netherlands, Latvia and Austria, in order to ensure comparability of the results with other countries. In a few rare cases (Ireland, Malta, United Kingdom) the data for 2003 had to be estimated from the previous year's figures.

Labour productivity expressed in terms of hours worked in a week (last map) is based on data on weekly working time from the labour force survey. The correction for annual working time, i.e. taking the length of annual holidays into account, is derived from wage and salary structure statistics. Those figures are, however, only available at national level, and the same annual working time has accordingly been used for all regions of a country.

Urban statistics

6.





eurostat

What is the Urban Audit?

The Urban Audit pilot project was commenced in 1998 to test the feasibility of collecting comparable indicators of the quality of life in European cities. The positive results led the Commission to launch a large scale "Urban Audit" covering Member States and candidate countries. This was done by the Directorate-General for Regional Policy in association with Eurostat and the National Statistical Institutes in 2003. It covered 189 cities in the EU-15, with a further 69 from the new Member States, Bulgaria and Romania joining the project in 2004. This publication is based on the data set gathered in these audits, i.e. covering 258 cities from the EU-27. Subsequently, in 2005, 26 cities from Turkey joined the project but this data has yet to be fully integrated into the analysis. However, the complete data set is available in Eurostat's statistical databases and is structured around three major dimensions: spatial units, indicators and time.

Spatial units

The Urban Audit aims to cover a balanced sample, so the selection of cities was a compromise between several criteria. In general, the cities selected should reflect a geographical cross-section of each country and cover approximately 20% of the national population. All cities except one have a population of over 50 000.

The Audit collected data at three spatial levels. The most important is the *core city* level, i.e. the city as defined by its administrative/political boundaries - this ensures that data is directly relevant to policy makers. To counterbalance the "artificial" nature of the delimitation of the core city, for most participating cities a level known as the *larger urban zone* was defined. The larger urban zone includes a city and its "hinterland", acknowledging the fact that economic activity, labour flows, etc. evidently cross the administrative boundaries of a city. Graph 6.4 illustrates the same indicator for the larger urban zone and for the core city. To provide information on internal disparities within core cities, a third spatial level, the *sub-city district*, was introduced. Sub-city districts were defined in such a way that, as far as possible, the population limits set for them (minimum 5 000 and maximum 40 000 inhabitants) should be respected and that the data should be available. For the EU-27, almost 6 000 sub-city districts were defined. Graph 6.5 was drawn using data at sub-city-district level. To allow comparative analysis, national-level data has also been compiled. Map 6.1, for instance, is partly based on national-level figures. Unless otherwise indicated, the data published here - in particular all data used to produce the maps in this chapter - refers to the core city.

Indicators

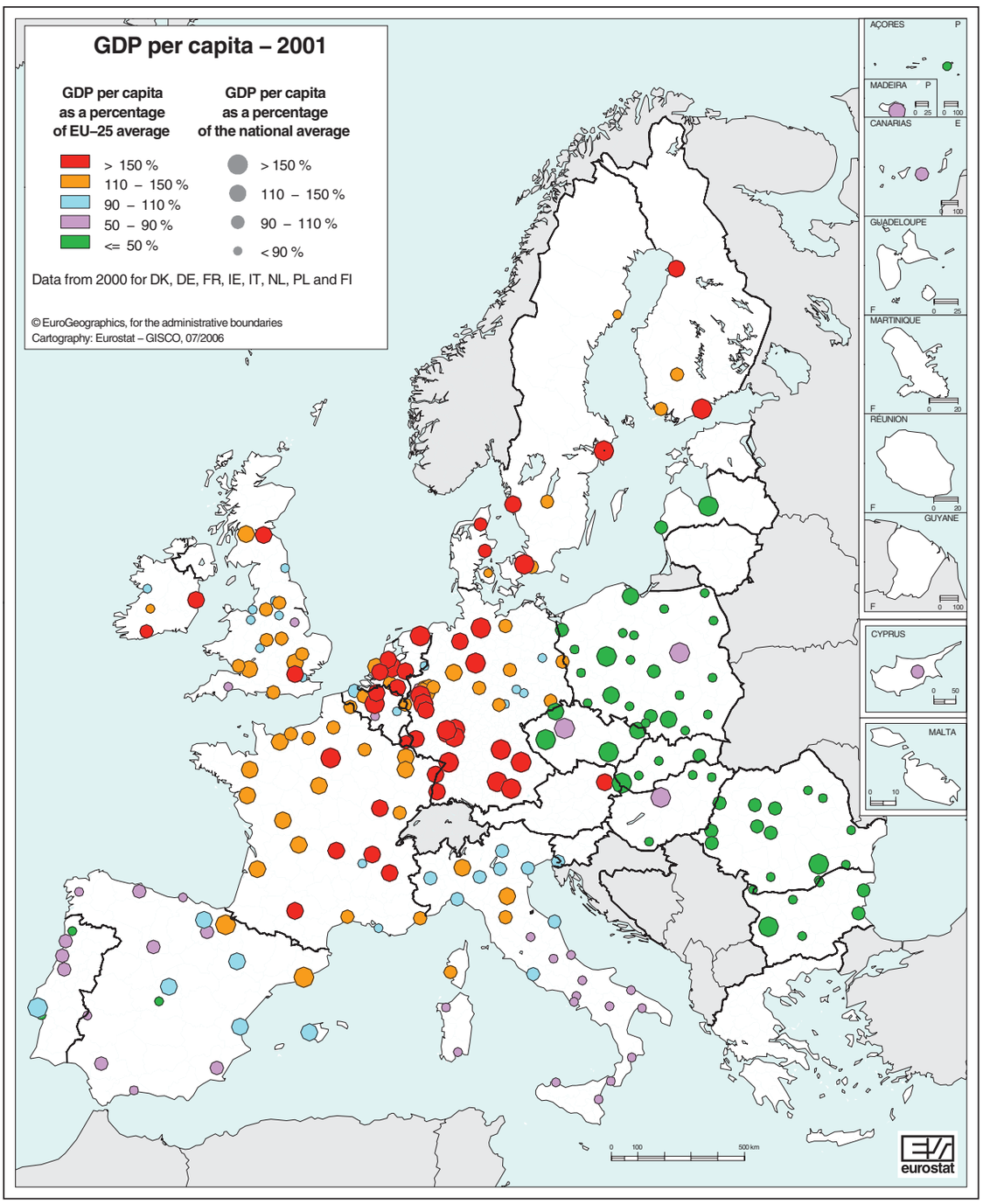
270 derived indicators were calculated from the 336 variables defined for this exercise, covering most aspects of urban life, i.e. demography, housing, health, crime, labour market, economic activity, income disparity, local administration, civic involvement, educational qualifications, the environment, climate, travel patterns, information society, cultural infrastructure and tourism. Response rates for the variables vary extensively. For those such as demography, where data can be retrieved from the census, the response rate is

over 90%, while in fields like information society it is below 50%.

The perception of quality of life held by the residents of a given city is important information that complements the statistical data gathered. Telephone opinion polls were carried out covering a representative sample of inhabitants in 31 selected cities from the EU-15 in 2004. Graph 6.2 presents some of the results of this perception survey.

Time

Three reference periods have been defined so far for the Urban Audit: 1989 to 1993, 1994 to 1998 and 1999 to 2003. Within each period a reference year was set: 1991, 1996 and 2001. Where possible, cities were asked to provide data for these years. For the years 1991 and 1996, data was collected only for a reduced number of 80 variables.



Map 6.1

Urban competitiveness

Cities are well positioned to benefit from the current economic changes and become more significant economic actors. Consequently, the concept of competitiveness can be extended and analysed at city level as well. Several of the 270 Urban Audit indicators could be related to urban competitiveness. The ones described below were chosen, on the one hand, to show important inputs for urban competitiveness (labour supply, human capital, business structure, etc.), outputs (gross domestic product), and outcomes (income, etc) and, on the other hand, 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 of and stimulate interest in urban statistics and to encourage readers to consult the information in Eurostat's statistical databases for themselves.

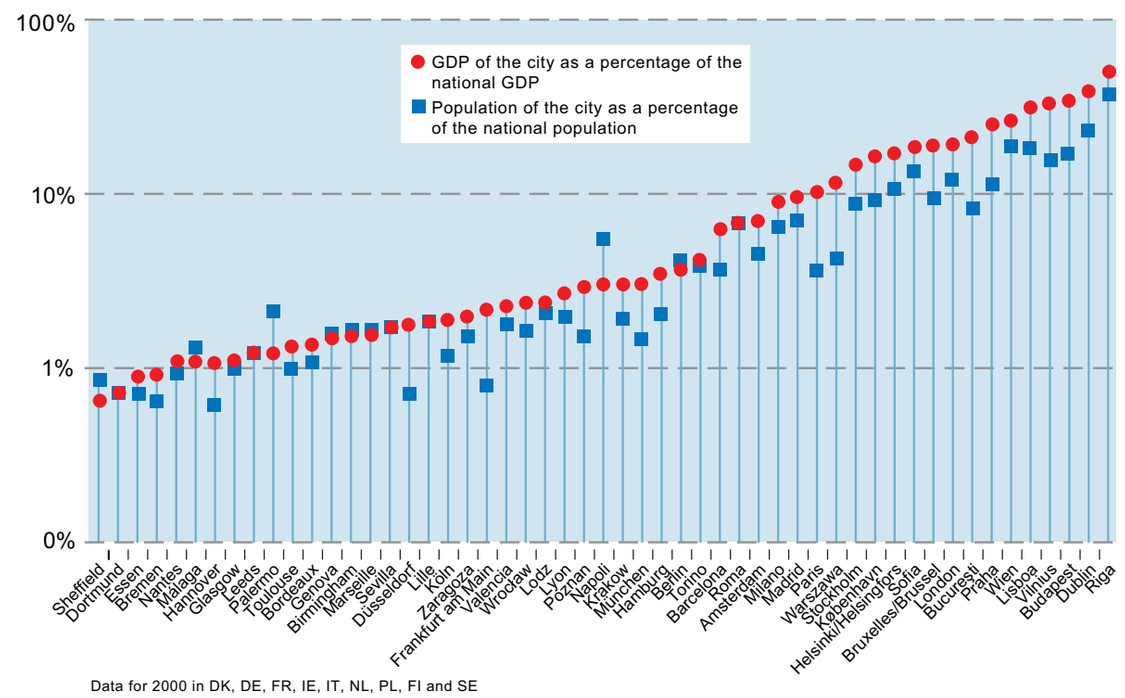
Outputs

Measures of economic success are indispensable for measuring competitiveness. Gross domestic product (GDP) is a measure of economic activity and per capita GDP is a broad indicator of economic living standards. It is defined as the value of all goods and services produced, less the value of any goods or services used in their creation.

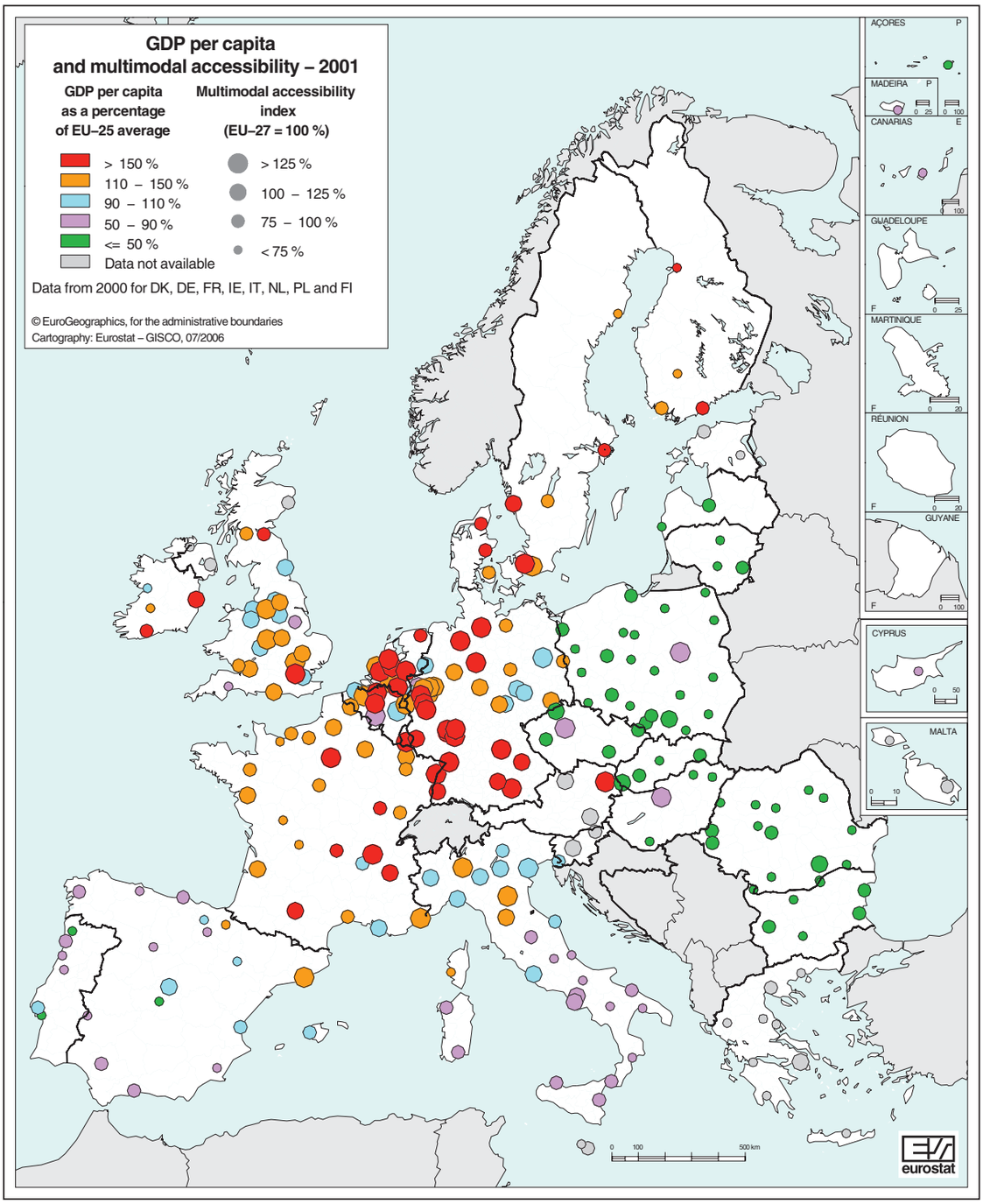
Each country calculates GDP in its own currency, so to compare countries these estimates are converted into euros using the official exchange rate. In Map 6.1 the colour of the circles shows GDP per capita expressed in relation to the EU-25 average, which is set to equal 100%. There are substantial differences between the cities. Generally speaking, we find high levels of GDP per capita in north-western Europe. Proximity to these countries seems to be a factor in Spain and Italy, where GDP per capita is higher in their northern cities. It is significantly lower in the cities of the new Member States. To some extent this reflects the differences in price levels. Note that the GDP figures displayed in the maps and graphs in this chapter have not been converted to reflect purchasing power standards. The sizes of the circles in Map 6.1 illustrate GDP per capita as a percentage of the national average. In both old and new Member States as well as in Bulgaria and Romania, capitals have GDP per capita substantially above the national average.

Graph 6.1 shows the concentration of GDP in selected cities. Comparing cities' share of GDP

Graph 6.1: GDP and population share of cities — 2001



Data for 2000 in DK, DE, FR, IE, IT, NL, PL, FI and SE



Map 6.2

with population share of cities reveals that almost all cities account for a greater proportion of national GDP than national population. Frankfurt am Main, for example, concentrates 0.8% of Germany's population but more than 2% of its GDP. This is true not only in relative but also in absolute terms. For instance, more than 50% of Latvia's GDP (and 32% of its population) is concentrated in Riga. These results seem to confirm the phenomenon evident in several countries whereby, as the knowledge economy develops and activity shifts from manufacturing to services, capitals and other major cities have become the driving force of the national economy.

Multimodal accessibility is another key component of competitiveness. Map 6.2 illustrates the relationship between this variable and GDP per capita. The data source for multimodal accessibility is the European Spatial Planning Observation Network (ESPON). Cities with accessibil-

ity well above average are located mainly in a "pentagon" stretching from Liverpool (UK) and London (UK), through Paris (FR), the Benelux regions and along the Rhine in Germany to Northern Italy. However, some agglomerations in more remote areas such as København (DK), Athina (EL), Budapest (HU), Warszawa (PL), and Praha (CZ) could also be classified as highly accessible, mainly due to their good access to international air transport. Most cities in southern Europe, northern Europe and the new Member States have below average accessibility. Poor accessibility could lead to low economic performance. Small circles – low accessibility – tend to be green or purple, indicating below-average levels of GDP per capita, while large circles have a tendency to be red or orange, signalling above-average GDP per capita.

Inputs

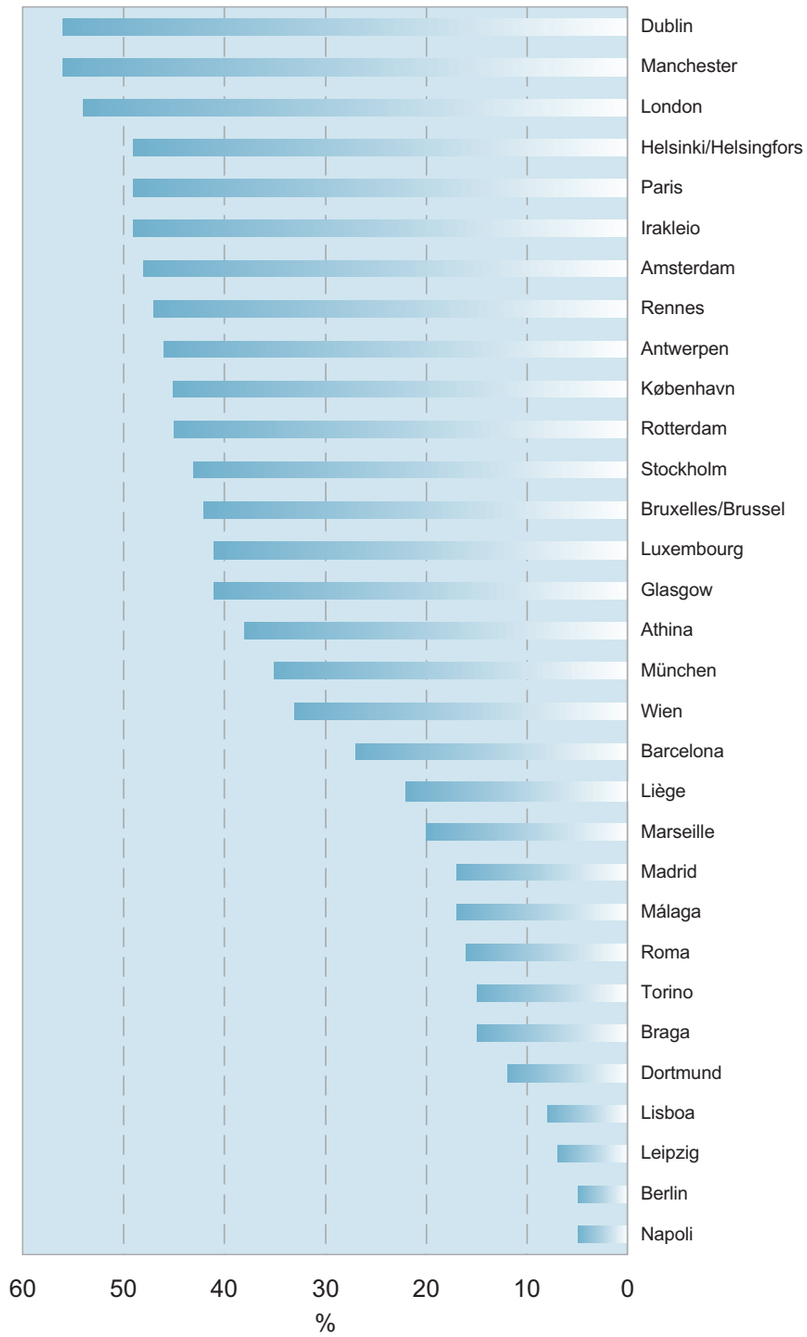
Labour market competitiveness has several aspects and could be measured through a number of indicators, such as activity rate, employment rate, the qualifications of the workforce, skills etc. Map 6.3 shows the economic activity level in Urban Audit cities. The activity rate is the proportion of working age population that is economically active – the economically active population comprises both employed and unemployed persons. Low activity rates can be the consequence of demographic trends but policies on early retirement can also have a significant affect. Cities in Greece, Ireland, Hungary, Poland and Romania and southern Italy are characterised as having a low activity rate.

Another important indicator related to the labour force is the perception of employment opportunities. The perception survey results reflect general pessimism in the labour market in this respect. Respondents were asked whether they agree or disagree with the statement that in their city it is easy to find a good job. 60% of the respondents did not consider it easy to find a job. As graph 6.2 shows, however, there is considerable variation between cities. The graph illustrates the synthetic index for employment opportunities. This was calculated in two steps: first, the difference between the number of those who agree and disagree 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 agreement in the city. Values below 50 – which appear for 28 cities in Graph 6.2 – suggest that most respondents disagreed. In Dublin (IE), Manchester (UK) and London (UK) a narrow majority considered it easy to find a good job. At the other extreme we find Napoli (IT) and the German cities of Leipzig and Berlin. Looking at – Graph 6.3 - the unemployment rates of the NUTS 3 regions in which these cities are located, we can conclude that their pessimistic outlook is supported by the quantitative data. In all three of these regions the unemployment rate was over 15%. On the other hand, in some cases – for instance Bruxelles/Brussel (BE) - the results seem contradictory.

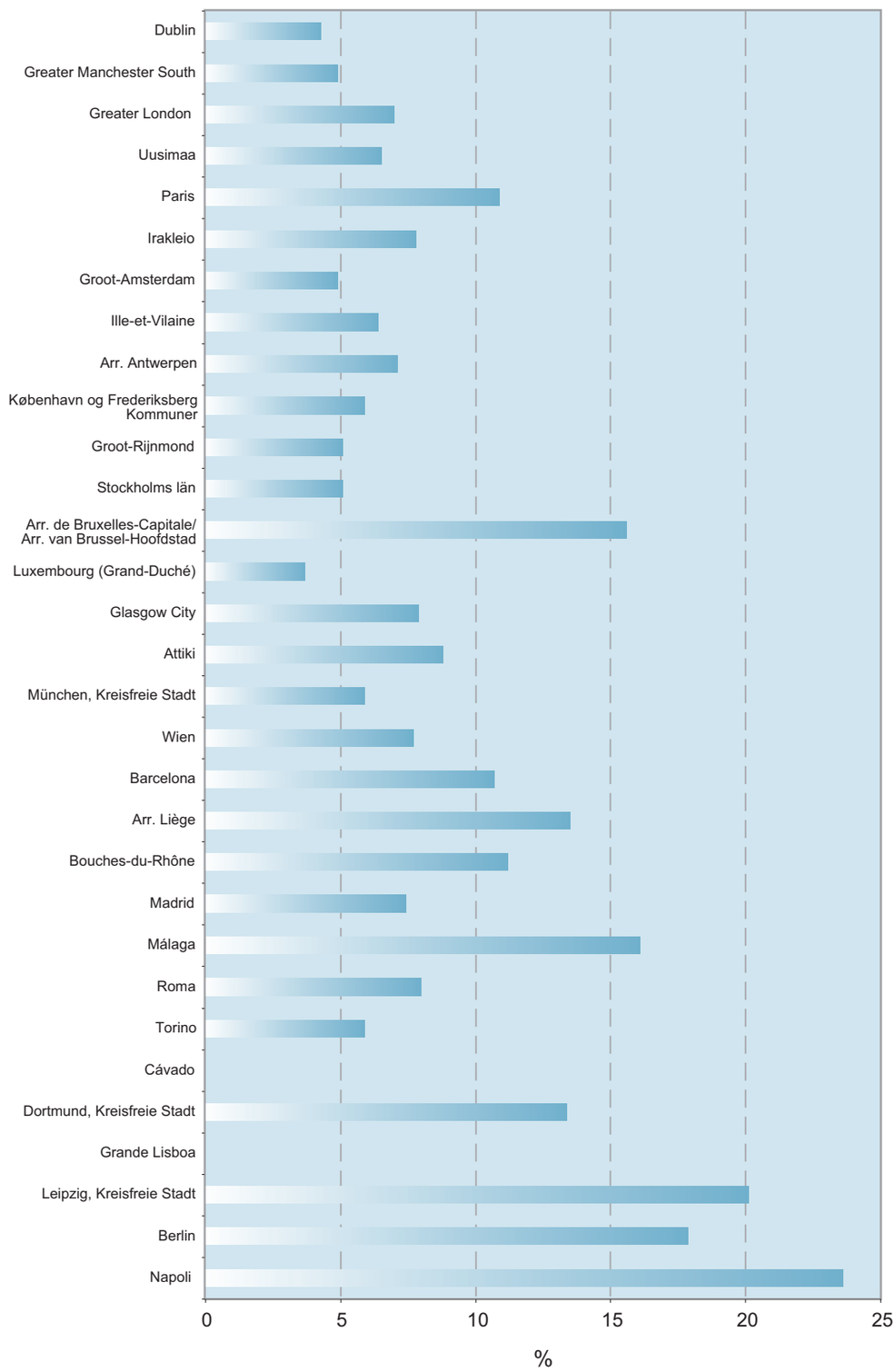
The activity rate gives an overall picture of the labour market, showing the proportion of people who supply or want to supply their labour, to produce goods and services. Map 6.4 shows another feature of the labour market: the share of employment in services and trade. Employment in services has a significant influence on overall employment rates and the share of services could also be used as a proxy for measuring economic development. An above-average share of employment in services and trade is characteristic for capitals in all Member States. Likewise, in cities in the Mediterranean tourist areas, services and trade have a significant share of employment.

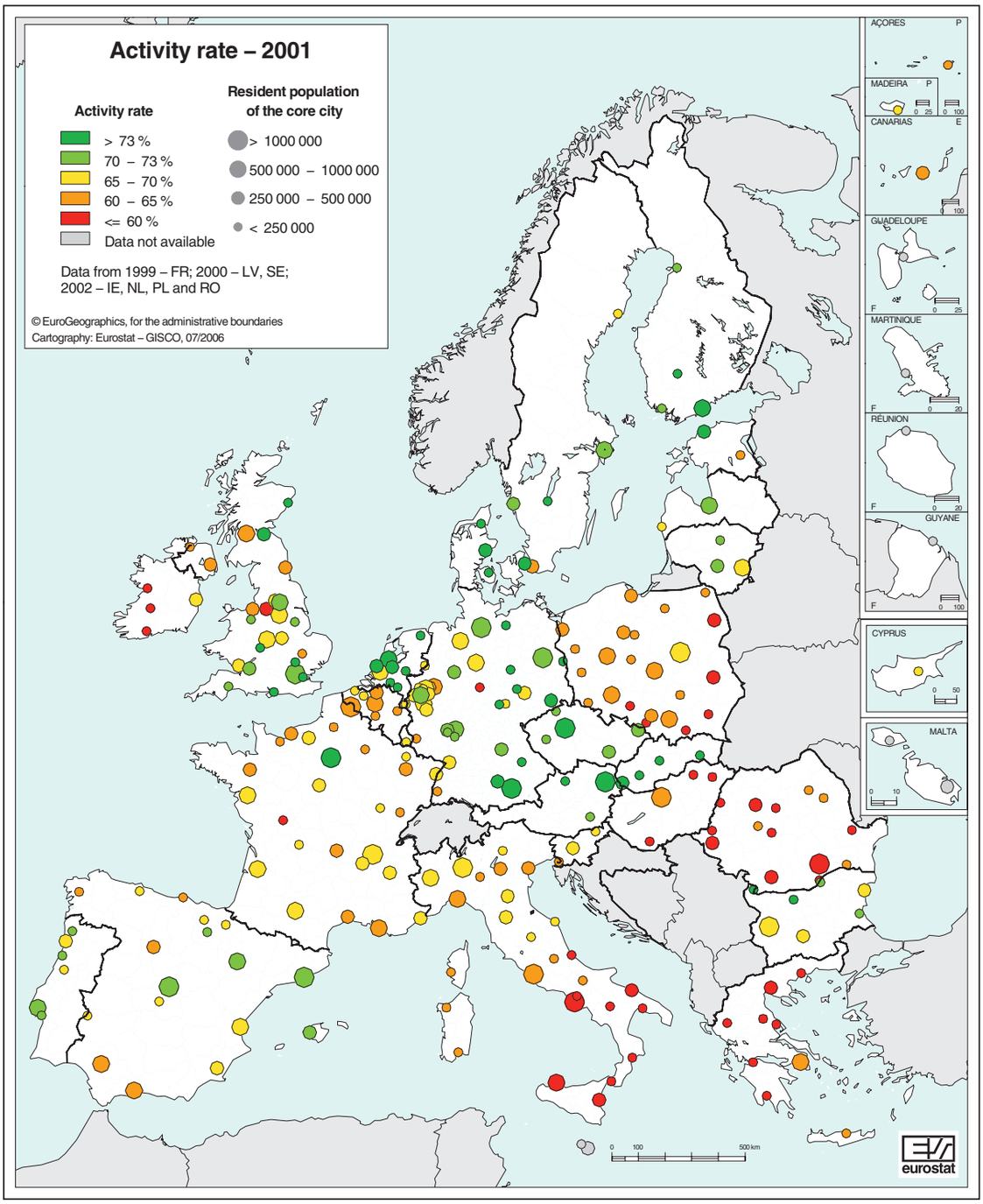
In developed economies innovation is one of the most important contributors to enhancing productivity and competitiveness. Innovation depends to a large extent on human capital; therefore, the presence of a highly-educated labour force is essential. Graph 6.4 depicts, for selected cities and across various spatial levels, the proportion of the population that has tertiary education. It can be interpreted as an approximate indicator of the advanced skill-sets available on the labour market. As expected, cities attract a high proportion of people with university and college diplomas. A remarkable feature, visible on graph 6.4, is the magnitude of this phenomenon. The two large cities London (UK) and Paris (FR), for example, are characterized by figures twice as high as the national average in this respect. The largest difference was recorded in Slovakia where there is a factor of 3.2 between the proportion of population with tertiary education in Bratislava (SK) and the national average. Values for the larger urban zone tend to be in between the national and core city value.

Graph 6.2: Perception of employment opportunities in cities — synthetic index — 2004



Graph 6.3: Unemployment rate in NUTS 3 regions — 2003

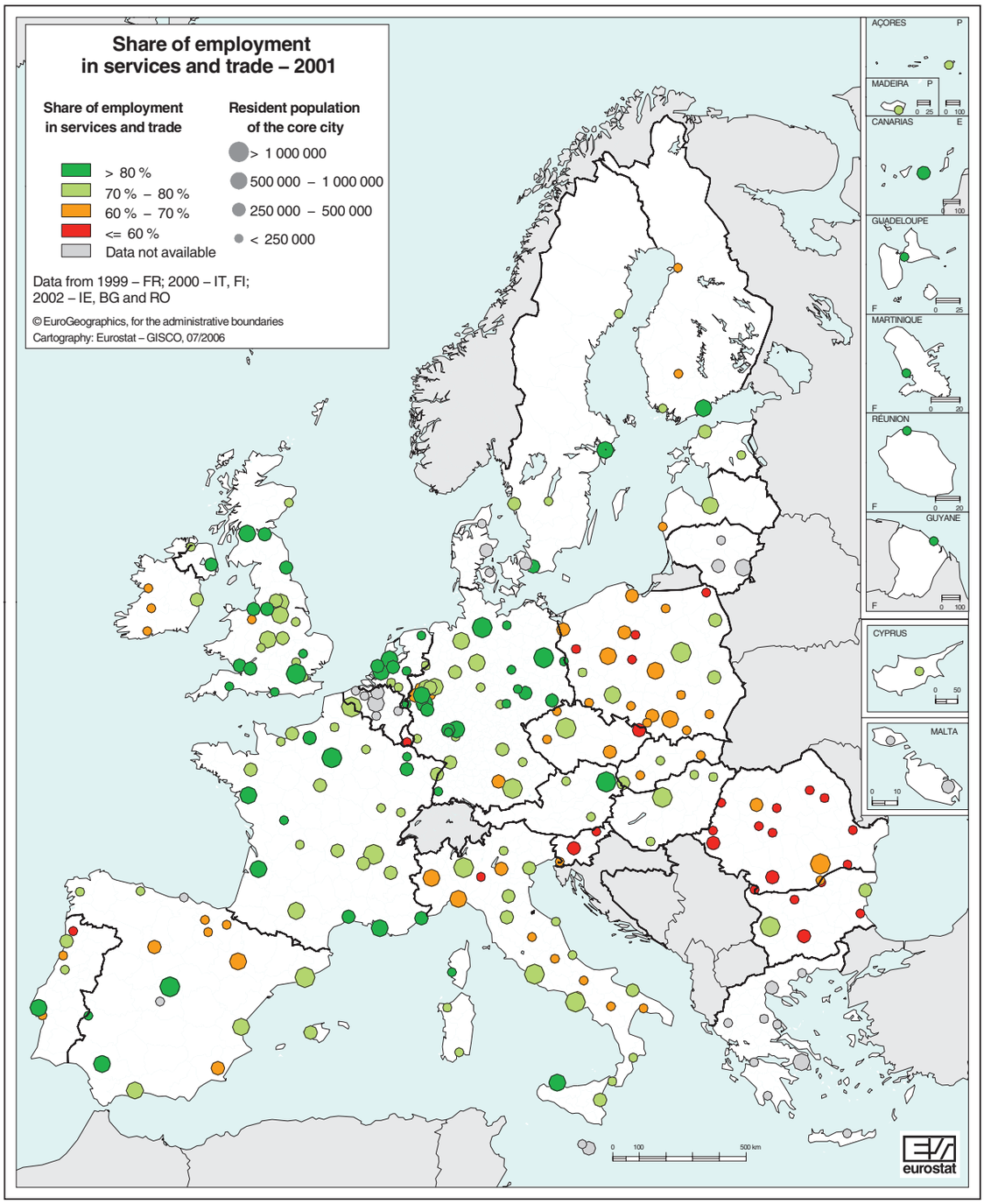




Map 6.3

Outcomes

So far we have analysed various aspects on the production side. However, consumption is also a defining factor in urban competitiveness. Graph 6.5 provides a comparison of median disposable household income across sub-city districts and the core city for selected countries. Median disposable household income is an indicator of material living standards or, more precisely, of the level of consumption of goods and services that people could potentially attain. Analysing the spread of indicator values within individual cities makes it possible to portray a detailed picture of disposable household income. The wider the range, the greater the disparities within the city. Cities in Slovakia and



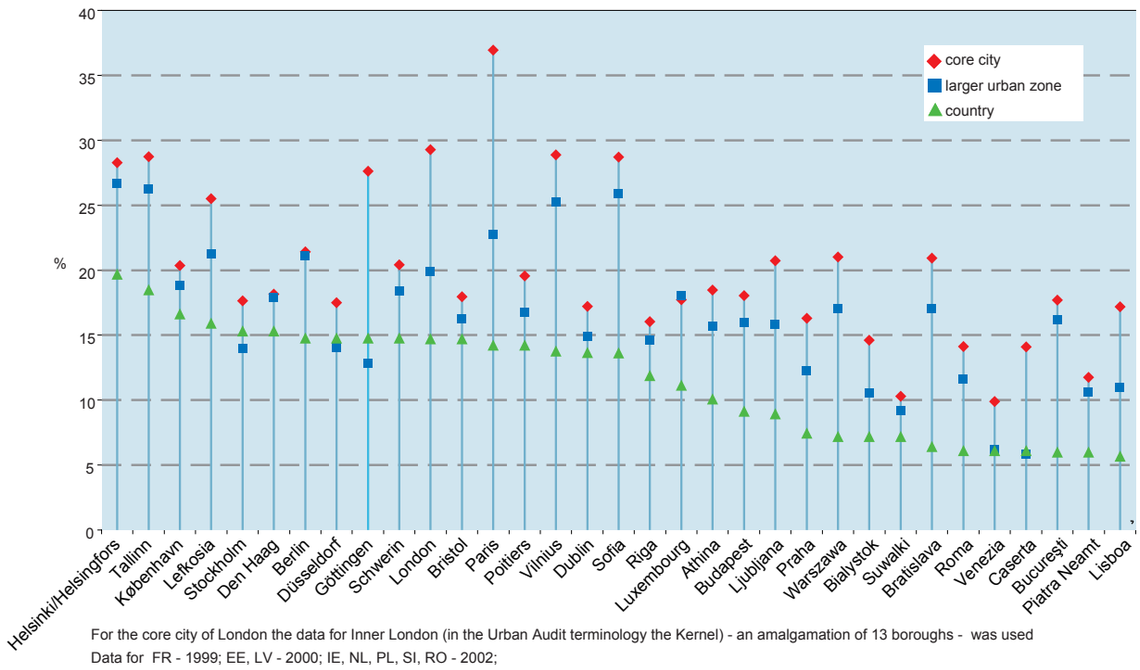
Map 6.4

Belgium seem to have a narrower spread, while in large French and German cities – Paris (FR), Marseille (FR), Köln (DE) and Hamburg (DE) - the values behind the averages vary greatly (averages are indicated by the round marker). Graph 6.5 also confirms that disparities between neighbourhoods within a given city are much larger than disparities between cities within the country.

Outlook

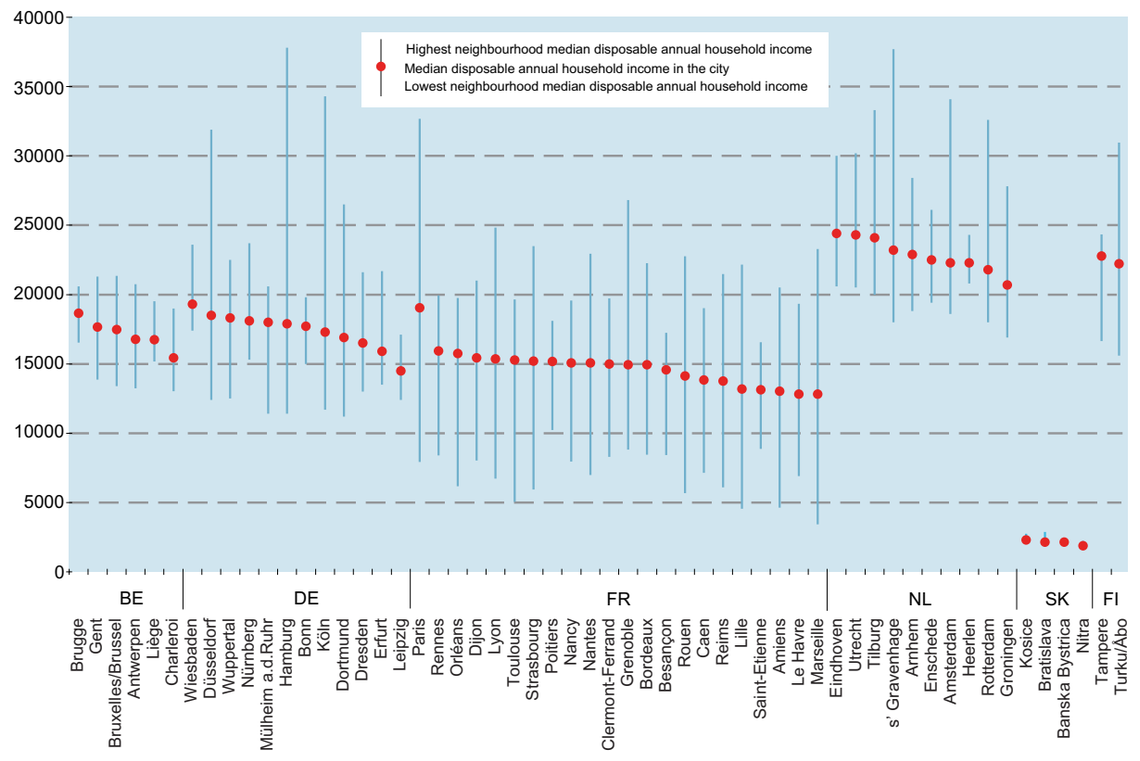
An audit signifies a methodical examination and in the "urban" context the methods are continuously evolving. As a preparatory act for the next round of data collection, Eurostat sought to improve the methodology used in order to enhance

Graph 6.4: Proportion of population with tertiary education — 2001



For the core city of London the data for Inner London (in the Urban Audit terminology the Kernel) - an amalgamation of 13 boroughs - was used
Data for FR - 1999; EE, LV - 2000; IE, NL, PL, SI, RO - 2002;

Graph 6.5: Neighbourhood median disposable income (EUR) - 2000



Data: DE - 2001; SK - 2003

the quality of the data with the involvement of experts from the Member States. Spatial units, lists of variables and indicators and definitions have all been reviewed and modified. With regard to policy relevance and data availability, several variables were dropped and new ones added. The new round of data collection starts in May 2006 and includes additional cities, raising the number of Urban Audit cities to 300. It will also include a new perception survey, this time covering all 25 EU Member States. The first results of the data collection will be available in 2007.

Science, technology and innovation

7.



eurostat

Introduction

The EU's policies on science, technology and innovation form one of the cornerstones of the Lisbon and Barcelona Council conclusions in 2000 and 2002, in which the EU governments agreed to increase R&D spending to 3% of GDP by 2010, with two-thirds of this expenditure to come from the private sector.

These policy areas received even more attention with the mid-term review and adjustment of the Lisbon strategy in 2005. Under the more targeted initiative for growth and jobs, national reform programmes were drawn up to allow better monitoring and achievement of the European targets. The monitoring of these policies requires the development and production of high-quality statistics and indicators on science, technology and innovation.

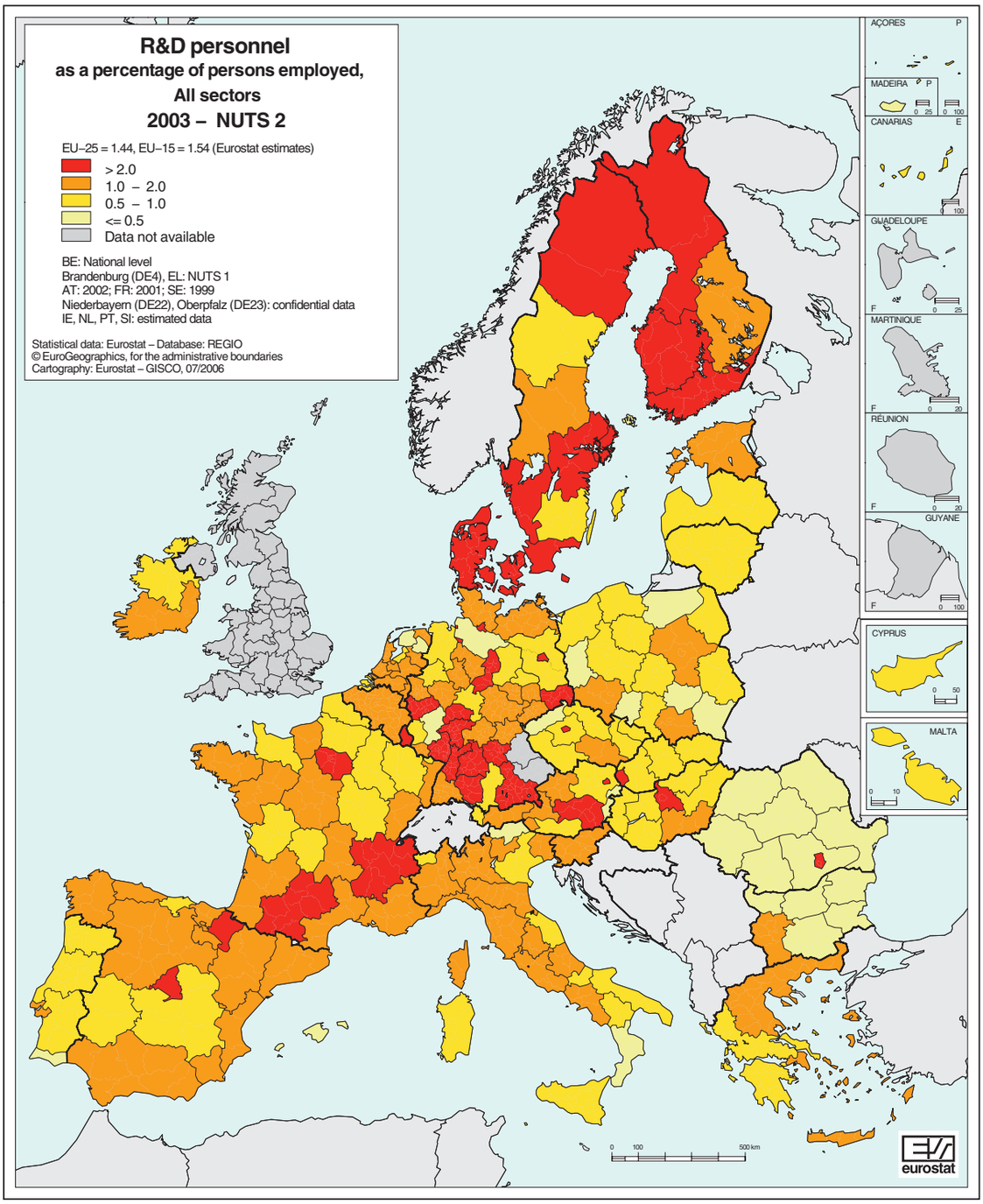
Considerable progress has been made in recent years, but further improvements need to be achieved in R&D statistics (e.g. better measuring of internationalisation, better utilisation of the National Accounts, better data on regions), Community innovation statistics (e.g. more regular surveys with more results, better integration with other surveys, linking of micro-data, knowledge management, better linking to research, more types of innovation, innovation in the public sector, complex indicators), statistics on high-tech industries and knowledge-based services (e.g. revised concepts and production, more data sources to be used), patent statistics (e.g. stabilisation of the raw data source PATSTAT, expansion of production to include more data and indicators, the value of patents, intellectual property rights) and statistics on human resources in science and technology (e.g. regular production of statistics on the careers of doctorate holders, better measuring of "brain flows", better exploitation of the Community Labour Force Survey (CLFS), micro-data linking).

Further work will be carried out to improve the statistical methods and nomenclatures used (e.g. European surveys of enterprise groups performing R&D), to exploit a European infrastructure of registers of enterprise groups, to develop more sophisticated statistical concepts and definitions, e.g. on the creation and diffusion of knowledge, and to investigate additional areas where data could be produced (e.g. on biotechnology, nanotechnology).

The following chapter illustrates the trends in the regions, providing regional indicators on research and development, human resources in science and technology, high-tech patent applications and employment in high-tech manufacturing and knowledge-intensive service sectors. These indicators are a selection of the regional indicators available on the Eurostat webpage under "Science and Technology" (see the link under the following "Methodological notes").

Research and development

Map 7.1 shows the regional pattern of R&D personnel distribution across Europe. Data on R&D personnel are expressed as percentages of total employment. Looking at the regional disparities, the ratio for the top region Wien (4.14%) is about three times higher then the EU-25 average. Among the top regions with more than 2% of all persons working in R&D, almost 40% are in Germany. A high "R&D density" is also ob-



Map 7.1

served in the majority of regions in the Nordic countries. Five of the eight regions in Sweden (Stockholm, Övre Norrland, Östra Mellansverige, Västsverige and Sydsverige), three of the five regions in Finland (Pohjois-Suomi, Etelä-Suomi and Länsi-Suomi) and Denmark as a whole are found among the top regions.

R&D personnel is clustered in the major industrial and technological regions and in the capital regions across the EU-25. Apart from in northern Europe, the concentration of regions with the highest share of R&D personnel in total employment is observed in the southern part of Germany as well as in the regions situated between Madrid and Paris: Île de France (FR), Comunidad de Madrid (ES), Midi-Pyrénées (FR), Comunidad Foral de Navarra (ES) and Rhône-Alpes (FR).

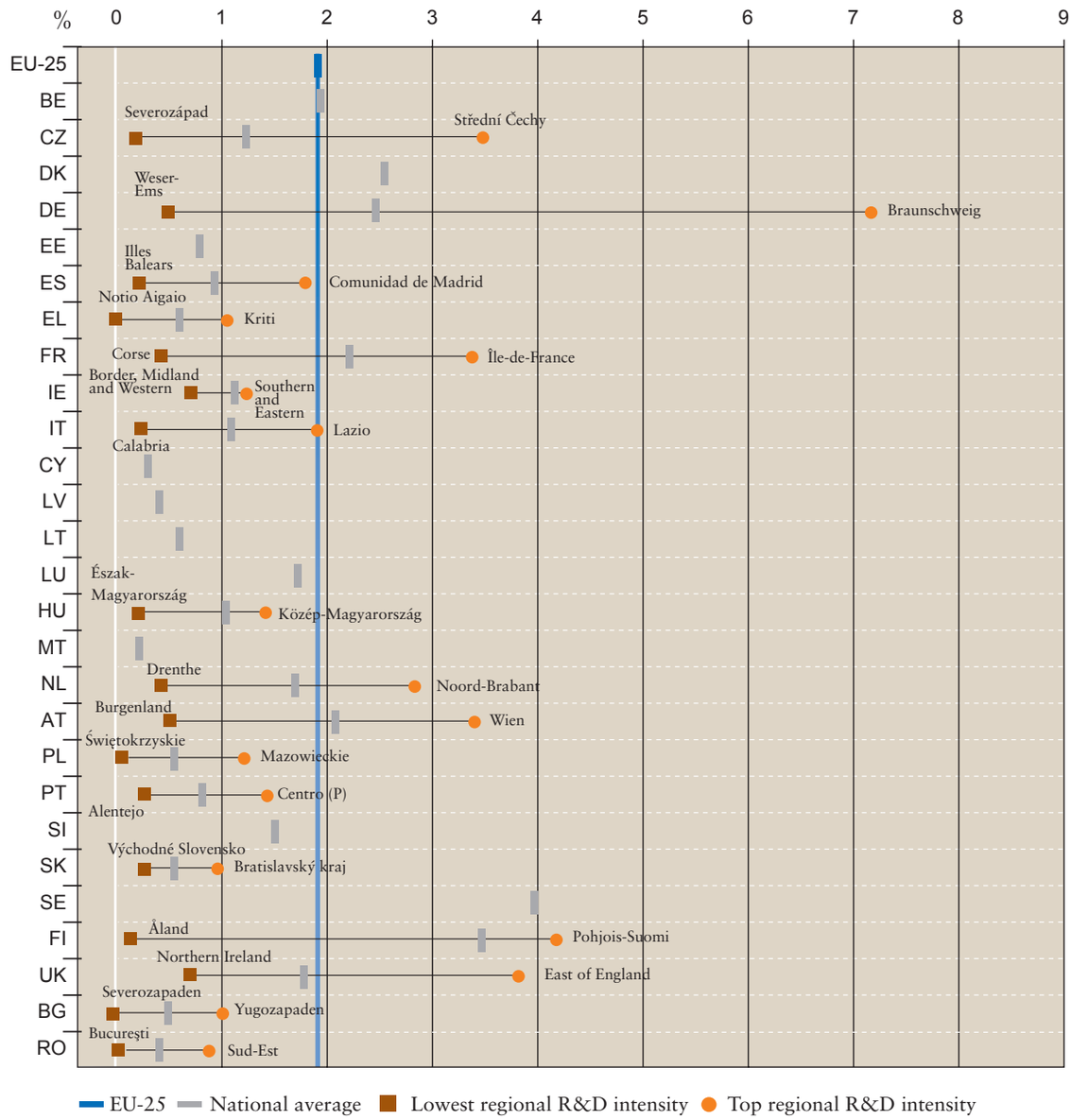
Some of the well-performing regions in terms of the share of R&D personnel are also capital regions of the new Member States, with two in the

top 10: Praha with 3.69% (CZ) and Bratislavský kraj with 3.30% (SK), followed by the Hungarian region of Közép-Magyarország (2.28%). The same pattern is repeated for the capital region of Romania — Bucuresti (2.06%).

Regions in Bulgaria (Severozapaden) and Romania (Sud-Est) head the list of the regions with the lowest share of R&D personnel in total employment, with 0.06% and 0.17%, respectively. They are followed by the Czech Severozapad (0.22%), Poland's Świętokrzyskie (0.27%) and Åland in Finland (0.30%). The ratios for Cyprus, Estonia, Lithuania, Latvia, Malta, and Slovenia, which all correspond to NUTS-2 regions, do not exceed the EU-25 average (1.44%).

Looking at national differences, the spread between regions with the lowest and highest proportions of R&D personnel is particularly large in Austria (3.75 percentage points between Wien and Burgenland), Germany (3.75

Figure 7.1: Regional disparities in terms of Total R&D expenditure as a percentage of GDP at NUTS 2 level, 2002



Note
Exceptions to the reference year: LU, SE: 2003; DE, FR, PT: 2001; IT: 2000; EL and UK: 1999
NUTS 1: UK
Countries which comprises a single NUTS 2 region: DK, EE, CY, LV, LT, LU, MT and SI

percentage points between Braunschweig and Lüneburg), Finland (3.49 percentage points between Pohjois-Suomi and Åland), the Czech Republic (3.47 percentage points between Praha and Severozapad) and Sweden (3.19 percentage points between Stockholm and Småland med öarna).

Ireland is the country with the smallest national difference between regions in terms of the share of R&D personnel in total employment (0.63 percentage points), followed by Greece (1.06 percentage points), Portugal (1.21 percentage points) and Bulgaria (1.39 percentage points).

Regions with high shares of R&D personnel in total employment are also regions with a high R&D intensity (R&D expenditure as a percentage of GDP).

There are large differences in R&D intensity between regions across the EU countries, as shown in Figure 7.1. The region of Braunschweig in Germany is the unchallenged leader with R&D expenditure at 7.11% of regional GDP. The R&D intensity of the top region in five other countries exceeds 3.0% of GDP, the European target set at the Lisbon and Barcelona Councils in 2000 and 2002. These regions are: Pohjois-Suomi (FI) — 4.18%, East of England (UK) — 3.89%, Střední Čechy (CZ) — 3.49% and Île-de-France (FR) and Wien (AT) — 3.36% each. Fifteen national top regions or countries at NUTS 2 level had an R&D intensity lower than 1.93% (EU average). Six Member States (Malta, Cyprus, Latvia, Slovakia, Lithuania and Estonia) as well as the acceding country Romania even had an R&D intensity below 1%. In five countries (Bulgaria, Greece, Poland, Romania and Finland), the lowest regional R&D expenditure did not exceed 0.2% of GDP.

There are also large disparities between regions within countries, the largest being in Germany (6.61 percentage points between Braunschweig and Weser-Ems), Finland (4.03 percentage points between Pohjois-Suomi and Åland), the Czech Republic (3.24 percentage points between Střední Čechy and Severozapad) and the United Kingdom (3.04 percentage points between East of England and Northern Ireland). Ireland has the lowest national disparity between regions (0.33 percentage points).

Human resources in science and technology

In recent years, there has been growing recognition of the importance of human capital as an engine of growth, and it is now increasingly important to quantify these resources in order to see to what degree individual countries, and individual regions in particular, are able to turn their human potential into R&D and innovation activities.

Table 7.2 shows the top 30 regions ranked by the number of professionals or technicians as a share of the total labour force. In 2004, 51.4 million people between 25 and 64 years of age were employed in one of these two occupational categories. Of these, 11.5 million, or 22%, were in the 30 regions with the highest concentration of human resources employed in science and technology.

The highest concentration of "knowledge workers" is found in the Swedish region of Stockholm, where more than 50.3% of all employees between 25 and 64 work as professionals and technicians. The second and third highest shares are found in the Czech region Praha and the Dutch region Utrecht, with 48.8% and 46.9%, respectively, of their labour force between 25 and 64 employed as professionals and technicians. In 18 of the top 30 regions with the highest concentration of "knowledge workers", the annual average growth rate (AAGR) in the total number of professionals and technicians between 25 and 64 was above the EU average of 1.95% between 1999 and 2004. The Italian region Liguria, with an AAGR of 8.4%, had the fastest growing population of "knowledge workers" of the 30 regions. One region, Bratislavský kraj in Slovakia, saw a relative decline in the number of people employed as professionals and technicians: -0.6% per year for the period 1999-2004.

The second part of table 7.2 shows, under "HRST core", the number of professionals and technicians who have successfully completed tertiary education. This is the case for over 75% of the professionals and technicians in the Belgian region Prov. Brabant Wallon and for 71.5% in the UK region Inner London. The Italian region

Table 7.2: The top 30 regions ranked according to the proportion of the labour force that are employed in Science and Technology occupations

Region	Human Resources in Science and Technology by virtue of Occupation - HRSTO					
	Total HRSTO			of which has successfully completed an education at the third level - HRST core		
	In absolute figures	Annual average growth rate 1999-2004	As a proportion of the labour force	In absolute figures	Annual average growth rate 1999-2004	As a proportion of HRSTO
SE-Stockholm	450 378	3.33%	50.33%	260 393	1.47%	57.82%
CZ-Praha	276 805	2.38%	48.83%	133 182	3.63%	48.11%
NL-Utrecht	240 214	3.52%	46.90%	146 185	6.25%	60.86%
NL-Noord-Holland	487 272	3.16%	42.35%	299 392	7.72%	61.44%
DE-Oberbayern	768 908	1.93%	40.61%	408 990	2.28%	53.19%
SK-Bratislavský kraj	115 516	-0.63%	40.48%	54 773	-1.36%	47.42%
NL-Zuid-Holland	572 778	0.14%	39.33%	314 174	0.50%	54.85%
NL-Groningen	89 680	3.08%	39.26%	48 702	2.95%	54.31%
DE-Darmstadt	643 958	1.69%	39.12%	343 666	2.63%	53.37%
SE-Västsverige	312 781	3.77%	38.84%	183 373	1.36%	58.63%
FI-Åland	4 656	2.81%	38.78%	2 927	n.a.	65.07%
DE-Hamburg	296 093	1.02%	38.63%	149 928	4.08%	50.64%
DE-Berlin	589 409	0.90%	38.47%	368 683	0.96%	62.55%
BE-Prov. Brabant Wallon	55 293	4.37%	38.14%	41 999	6.61%	75.96%
DE-Köln	663 893	1.48%	37.99%	341 492	2.11%	51.44%
SE-Östra Mellansverige	250 158	2.05%	37.78%	142 744	-0.48%	57.06%
LU-Luxembourg (Grand-Duché)	68 392	3.53%	37.62%	40 512	6.31%	59.23%
UK-Inner London	444 133	1.67%	37.50%	317 471	1.15%	71.48%
DK-Denmark	919 683	2.19%	37.27%	626 591	3.64%	68.13%
FR-Île-de-France	1 784 514	1.33%	37.12%	1 134 342	1.36%	63.57%
IT-Liguria	218 387	8.46%	37.00%	88 456	10.84%	40.50%
SE-Sydsverige	209 015	2.75%	36.85%	123 879	0.24%	59.27%
NL-Gelderland	303 331	1.09%	36.73%	167 149	3.28%	55.10%
FI-Etelä-Suomi	431 190	0.78%	36.70%	297 677	2.51%	69.04%
NL-Flevoland	53 641	3.43%	36.16%	27 384	8.55%	51.05%
DE-Hannover	323 118	2.25%	35.72%	152 907	2.82%	47.32%
NL-Zeeland	53 221	7.15%	35.72%	23 011	10.17%	43.24%
NL-Noord-Brabant	371 996	2.18%	35.57%	207 476	4.70%	55.77%
DE-Rheinhessen-Pfalz	292 594	1.70%	35.53%	156 520	4.19%	53.49%
AT-Wien	243 331	2.41%	35.50%	124 787	6.77%	51.28%
EU-25	51 371 102	1.95%	27.72%	29 526 743	2.82%	57.48%

Exceptions from the reference period: NL 1999/2003

Liguria has the lowest share of tertiary-educated professionals and technicians of the 30 regions: only 40.5% of professionals and technicians aged between 25 and 64 have completed tertiary education.

In 22 of the 30 EU regions with the highest concentration of professionals and technicians in the labour force aged between 25 and 64, the annual average growth rate is higher for tertiary-educated staff than for professionals and technicians as a whole. In these regions, those employed as professionals and technicians therefore seem to be getting better and better educated. This is especially true for the Dutch region Flevoland where the AAGR for tertiary-educated staff was 8.5% between 1999 and 2004, well above the AAGR for the total number of professionals and technicians over the same period (3.4%). However, this is not the case for any of the Swedish regions in the table. Over the same period, all the four Swedish regions, Östra Mellansverige, Sydsverige, Västsverige and Stockholm, had an AAGR for tertiary-educated "knowledge workers" below that for the total population of professionals and technicians.

Patents

The increasing use of patents to protect inventions has enhanced their economic importance and interest for policy makers, while underlining the need for better monitoring of the field. The increasing number of patent applications also offers an opportunity for statisticians to develop appropriate tools, including databases, statistical methods and indicators. Patent statistics have therefore made accelerated progress recently. They are increasingly used by decision makers in R&D and innovation policy or in patent offices in order to monitor developments in their fields. New databases and new indicators are appearing, enriching the set of information that can be provided, also at regional level.

Patent data and indicators are used for studying the inventive characteristics of firms, regions and countries, the circulation of technologies, the patenting behaviour of businesses, the operations of patent offices, etc.

The recently developed EPO (European Patent Office) raw database for worldwide patent statistics PATSTAT offers a unique tool for analysts and producers of patent data and indicators and will become the reference database for Eurostat for producing statistics and indicators.

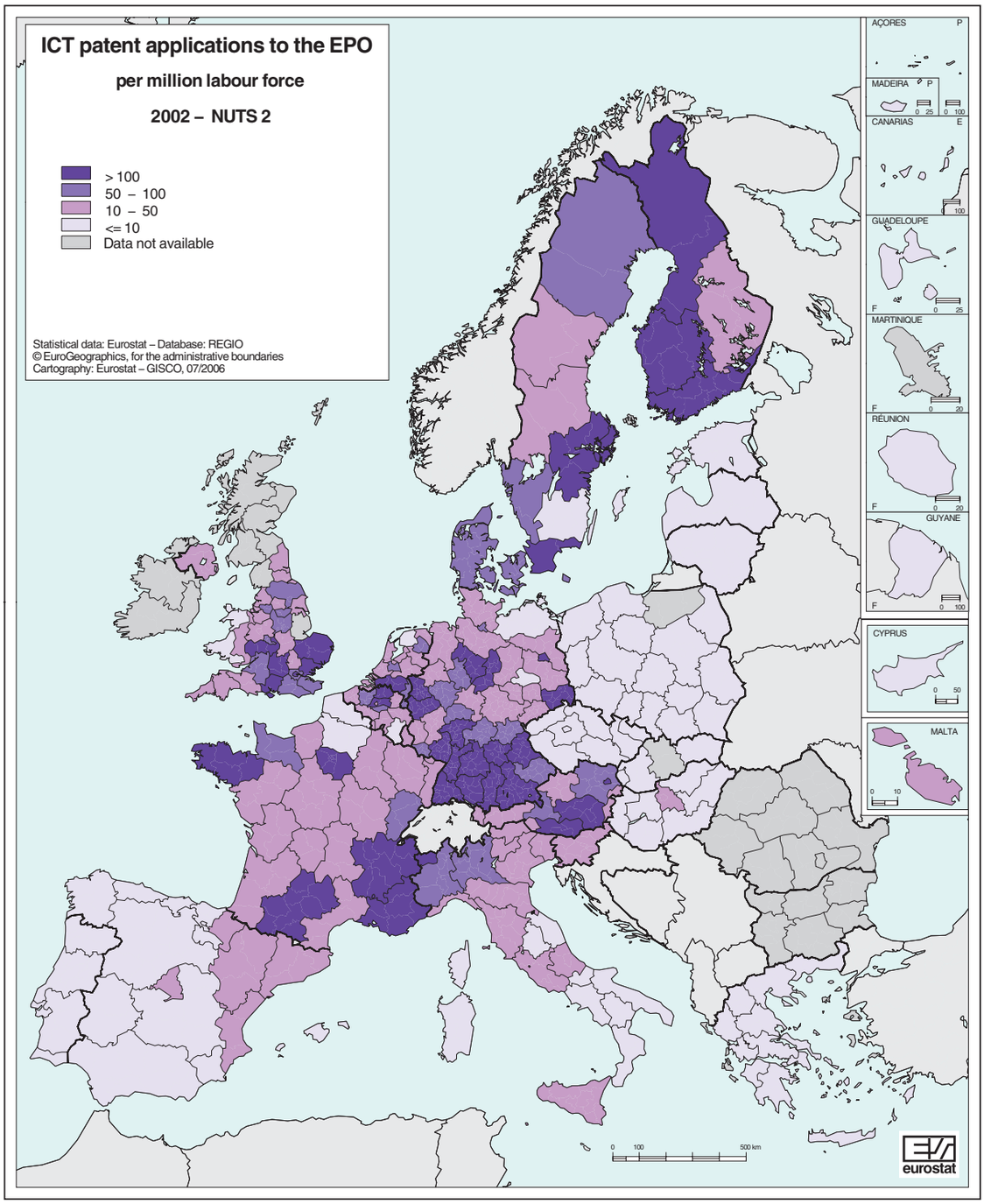
Patent data at regional level are presented at NUTS 2 level. Denmark, Estonia, Cyprus, Latvia, Lithuania, Luxembourg and Slovenia are classified at NUTS 2 level, which explains their inclusion among the regions. The regional distribution of patent applications to the EPO is based on the inventor's place 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.

Map 7.2 portrays the regional distribution of ICT (Information and Communication Technologies) patent applications to the EPO per million labour force in 2002. ICTs can be split into four sub-groups: Telecommunications, Consumer electronics, Computers and office machinery, and other ICTs.

Of the European regions, 41 have more than 100 ICT patent applications per million labour force, among which 16 are situated in Germany, 6 in the United Kingdom and 5 in France. Germany also has two regions in the top 3. Comparing the fifteen leading regions, Noord-Brabant (NL) leads with 1 122 applications, more than twice the number in the second region (Oberbayern, 537). From the third region onwards (Mittelfranken), the figures fall steadily from 392 to 222 for the region ranked as 15th (Hampshire and Isle of Wight — UK).

The breakdown per sub-group (Telecommunications, Consumer electronics, Computers and office machinery and other ICTs) appears to be very different across regions. Whereas for the EU-25 as a whole, Consumer electronics plays the smallest role in ICT patenting with 11%, it is the biggest sub-group in Noord-Brabant with 39%. Computers and office machinery are of similar importance in both the EU-25 and in Noord-Brabant. In this leading region, however, Telecommunications and other ICTs account for only 15% each, compared to 30% and 31%, respectively, in the EU-25.

For the second ranked region (Oberbayern), Telecommunications is the most important ICT subgroup, with 39%. With a share of 6%, Consumer electronics plays only a minor patenting role in this region.

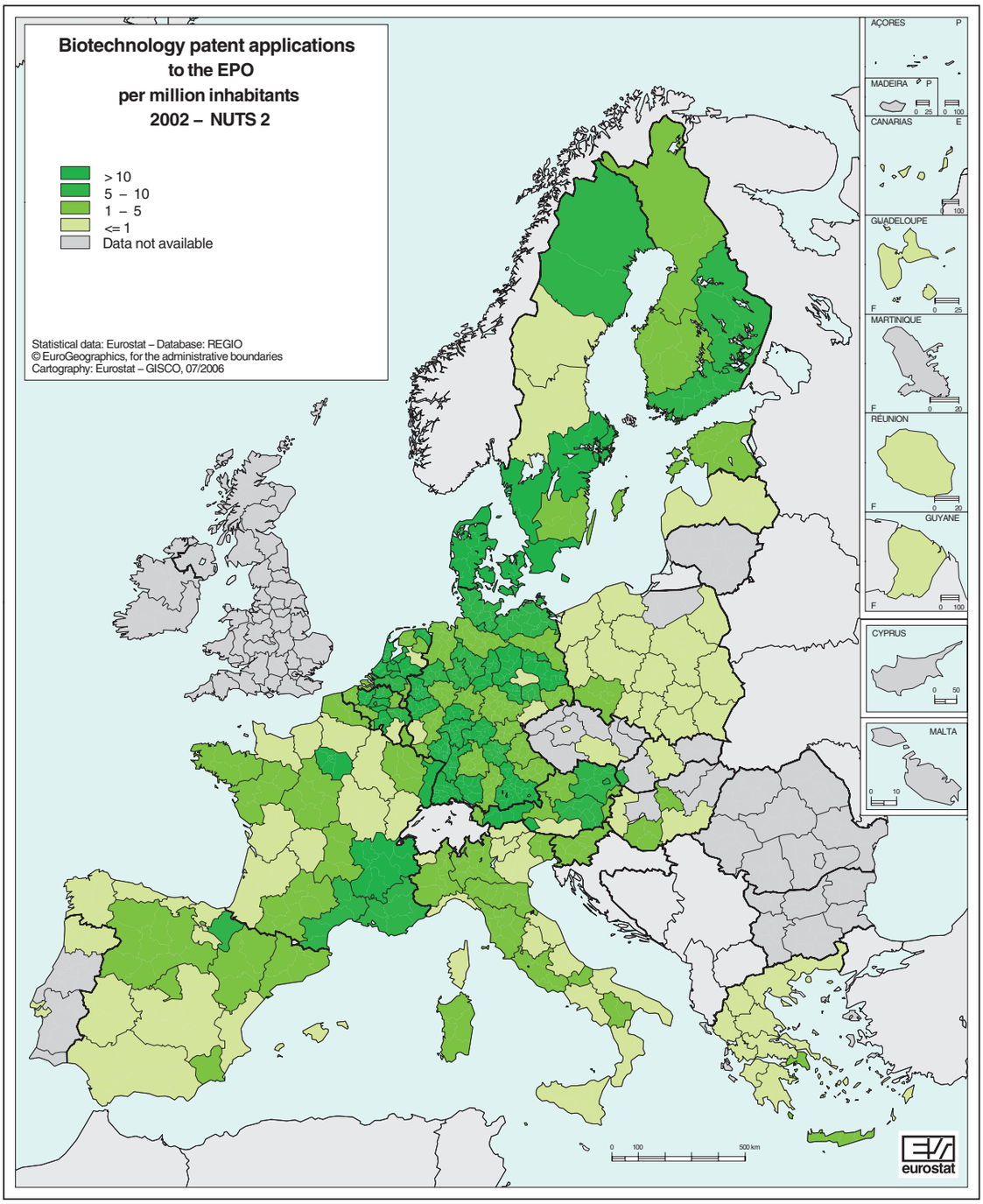


Map 7.2

Low ratios for ICT patent applications per million labour force are found mainly in southern European regions and in the new Member States. Within the EU-25 as a whole, a total of 85 regions have 10 applications or less per million labour force.

The OECD defines biotechnology as: "The application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services". The choice of IPC subclasses used to calculate the aggregates for this sector is based on this definition.

Map 7.3 shows the number of biotechnology patent applications to the EPO per million inhabitants in the European regions in 2002. Among the 36 regions with more than 10 applications, 16 are German, well ahead of the Netherlands (6), which is closely followed by Belgium and Sweden



Map 7.3

with 4 regions. Germany also has 3 regions in the top 4 (Oberbayern, Karlsruhe and Berlin), however quite far behind the leading region, Prov. Brabant Wallon (Belgium). At the bottom of the list, 75 regions have less than one application per million inhabitants.

However, the map shows the relatively small spread of the ratios between regions and countries. The differences in ranking are not very extreme in the top patenting regions, thus indicating that there is not a high concentration of biotechnology patenting in the EU-25. The leading regions of each Member State do not even account for 30% of all EU-25 patent applications in biotechnology. This confirms that regional concentration is much lower for biotechnology patenting than, for example, for high-tech patenting.

High-tech industries and knowledge-intensive services

The statistics on high-tech industries and knowledge-intensive services include data on employment in high-technology and medium-high technology manufacturing sectors, knowledge-intensive service sectors, high-technology service sectors and other sub-sectors. The indicators presented in this publication are extracted and constructed using data from the European Union Labour Force Survey — EU LFS.

The classification of high- and medium-high technology manufacturing sectors is based on the Eurostat/OECD classification — itself based on the ratio of R&D expenditure to GDP, or R&D intensity.

Map 7.4 shows the European regions as regards employment in high- and medium-high tech manufacturing in 2004, in relative terms (as a % of total employment). The data presented are for economic activities in the following areas: Aerospace, Computers and office machinery, Electronics-Communication, Pharmaceuticals, Scientific instruments (for high technology), Motor vehicles, Electrical machinery, Chemicals, Other transport equipment, and Non-electrical machinery (for medium-high technology).

While the average for the EU-25 was stable in 2004 at 6.9%, some 92 European regions still had less than 5% of employment in high- and medium-high technology manufacturing activities.

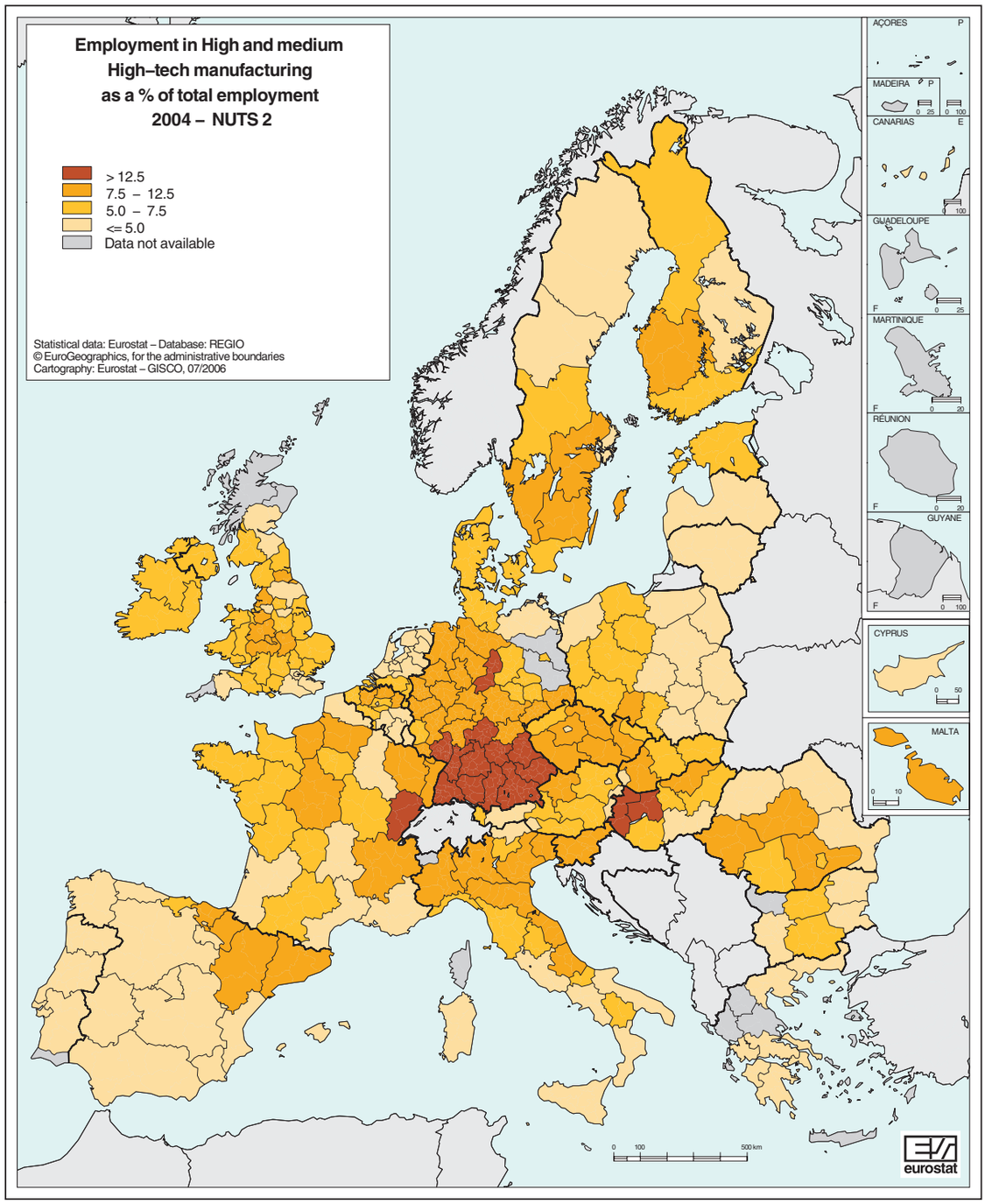
At the other end of the list, the map shows clearly that German regions, particularly in the south of Germany, are the leaders in high- and medium-high tech manufacturing, with 12 regions ranked in the 15 leading regions, all with a share of over 12.5% of total employment. This top 15 also includes 2 regions from Hungary, at 12th and 15th (Közép-Dunántúl and Nyugat-Dunántúl with 14.4 and 12.9%, respectively) and one from France in fifth place (Franche-Comté — 16.0%).

Among the German regions, Stuttgart (DE) ranked first, with 22.2% of total employment in high- and medium-high tech manufacturing, with Tübingen and Braunschweig following. Stuttgart was also the second ranked region in absolute terms, with 415 thousand persons employed in these manufacturing sectors. Among the leading regions in relative terms, the two Hungarian regions had the highest proportion of employment in high-tech manufacturing alone, with 5.3% and 4.3% respectively.

Besides the above 12 regions, almost all the regions in Germany have a share of well over 7.5% employment in high- and medium-high tech manufacturing, which is also the case for most regions in the Czech Republic, Hungary, and Malta and the regions in Northern Italy, Northern Spain, Central United Kingdom and Southern Sweden.

Conclusion

Statistics on science, technology and innovation provide a broad and continuously evolving variety of regional data and indicators covering all the areas presented in this chapter. Further work is being carried out to produce more regional data in various fields of activities, for example innovation statistics, for which the regional results of the Fourth Community Innovation Survey (based on Commission Regulation 1450/2004) will be available in 2006, or patent statistics, where the possibility of producing data and indicators at NUTS level 3 is being investigated.



Map 7.4

Methodological notes

The data shown in this chapter in maps or tables are extracted from the "Science and Technology" statistics, subdomains Research and Development, High-Tech Industry and Knowledge-Based Services, Patent Statistics and Human Resources in Science and Technology.

Statistics on Research and Development are collected by Eurostat under Commission Regulation 753/2004, which determines the data set, breakdowns, frequency and transmission deadlines for those statistics. The methodology for R&D statistics is moreover laid down in the "Frascati Manual" (in its 2002 version), which is applied worldwide.

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 data collected from a number of official data sources (Community Labour Force Survey, Structural Business Statistics, etc.). The high-technology or knowledge-intensive aggregates are in general defined in terms of R&D intensity, calculated as the ratio of the R&D expenditure for a given economic activity to this activity's value added.

The data on **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 the international patent classification.

Since 2004, the inter-institutional Patent Statistics Task Force has been developing the world-wide patent statistics raw database (PATSTAT). PATSTAT has to be understood as one single patent statistics raw database, held by the European Patent Office (EPO) and developed in cooperation with the World Intellectual Property Organisation (WIPO), the OECD and Eurostat. PATSTAT should meet all the user needs of the various international organisations that will use this raw database for data production.

Finally, **Statistics on Human Resources in Science and Technology** (HRST) are compiled annually on the basis of micro-data extracted from the European Labour Force Survey. The methodological basis for these statistics is laid down in the Canberra Manual, where all the HRST concepts are listed.

For more information on methodology, consult the Eurostat webpage under: http://epp.eurostat.cec.eu.int/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=EU_science_technology_innovation&depth=2


IKA

Structural business statistics

8.



eurostat

Introduction

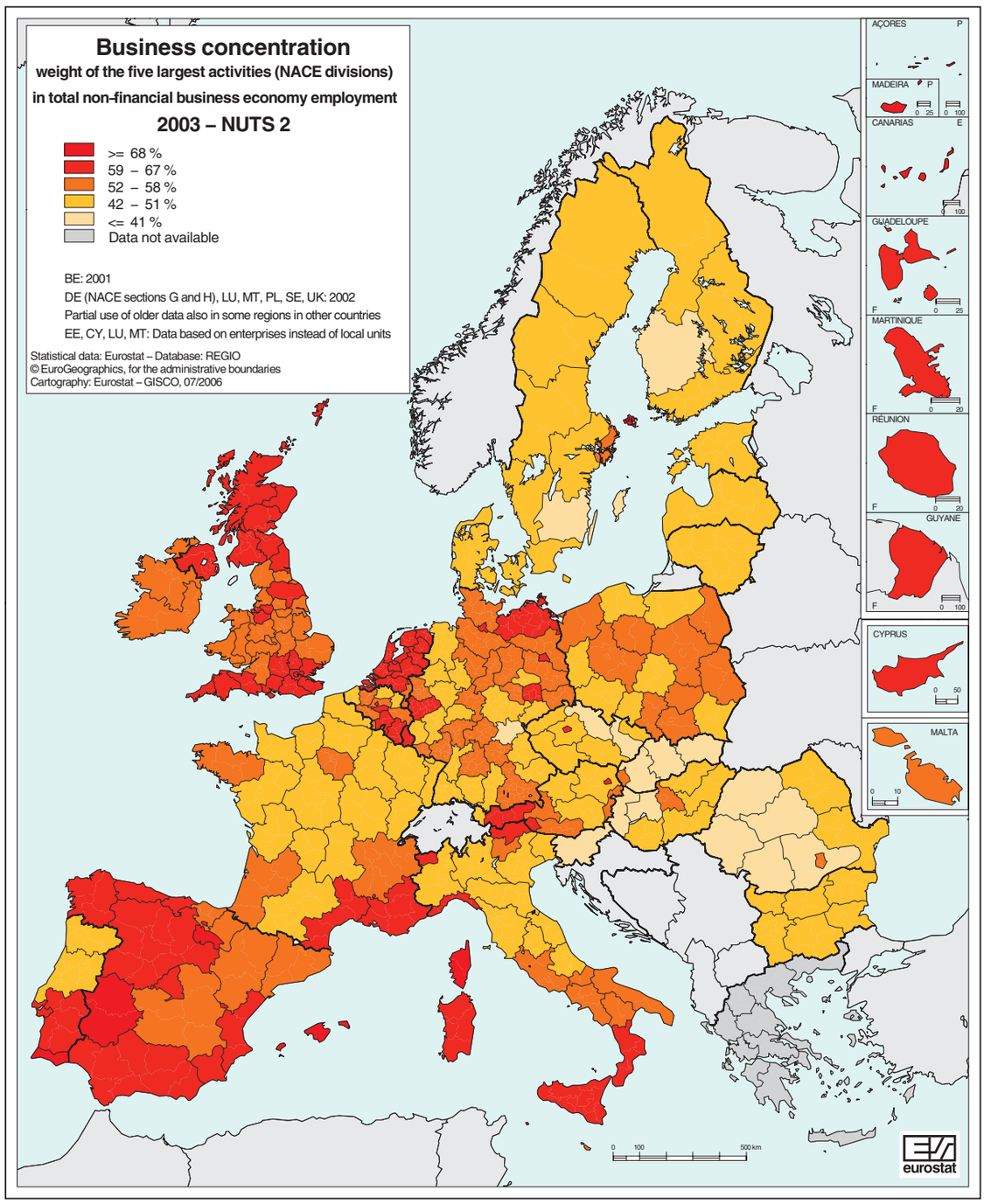
What effects are the European Union's commercial and regional policies having on the business structure of the regions? Which sectors are growing, which are contracting and which regions are likely to be most affected? Where are investments being made, what are the differences in wage levels and what effects will this have on the future location of business activities? A detailed analysis of the structure of the European economy can only be made at regional level. Regional structural business statistics (SBS) can provide the data for this kind of analysis.

The first part of this chapter gives a general overview of the economies in the regions at NUTS 2 level, showing the level of business concentration and diversification (map 8.1), which is the main activity in different regions (map 8.2) and which regions are the most specialised in different activities (table 8.1). The second part focuses on high-technology activities: firstly, by examining the relative importance of these in the different regions (map 8.3), secondly, by looking at differences in average wage levels in these activities across the regions (map 8.4), and finally by showing how much is invested in these activities (map 8.5).

Lowest business diversification in small tourist regions and capital regions

Map 8.1 gives an indication of how concentrated (or conversely how diversified) the regional business economy is, measured as the share of the five main activities (NACE divisions) in the total non-financial business economy workforce (NACE sections C to K, less J). The level of concentration tends to be higher in regions where trade and services dominate the business economy, as industrial activities are more fragmented. The regions with the very highest business concentrations are relatively small regions, often islands, that are important tourist destinations. Business in these regions is generally dominated by retail trade (NACE 52), construction (NACE 45) and hotels and restaurants (NACE 55). The top five percent of regions with the highest concentrations include Illes Balears (76%) and Canarias (75%) in Spain, Algarve (77%) and Região Autónoma da Madeira (70%)

in Portugal, Corse (69%) in France and the islands of Åland (70%) in Finland. The latter is exceptional in that over 40% of the persons employed work in the water transport sector (NACE 61). However, Inner London (72%) is also among the regions with the highest business concentrations. In this case, the concentration is mainly due to the importance of other business activities (NACE 74), which account for over a third of total employment. These include: legal, accounting and management services; architecture and engineering consultancy, labour recruitment and similar activities. The situation is similar in most other countries: the capital region is usually among the regions with the highest business concentrations. Often, it comes top of the list. This is the case in Belgium, the Czech Republic, Hungary, Austria, Slovakia, Sweden and Romania, in addition to the smaller Member States with no separate NUTS 2 region.

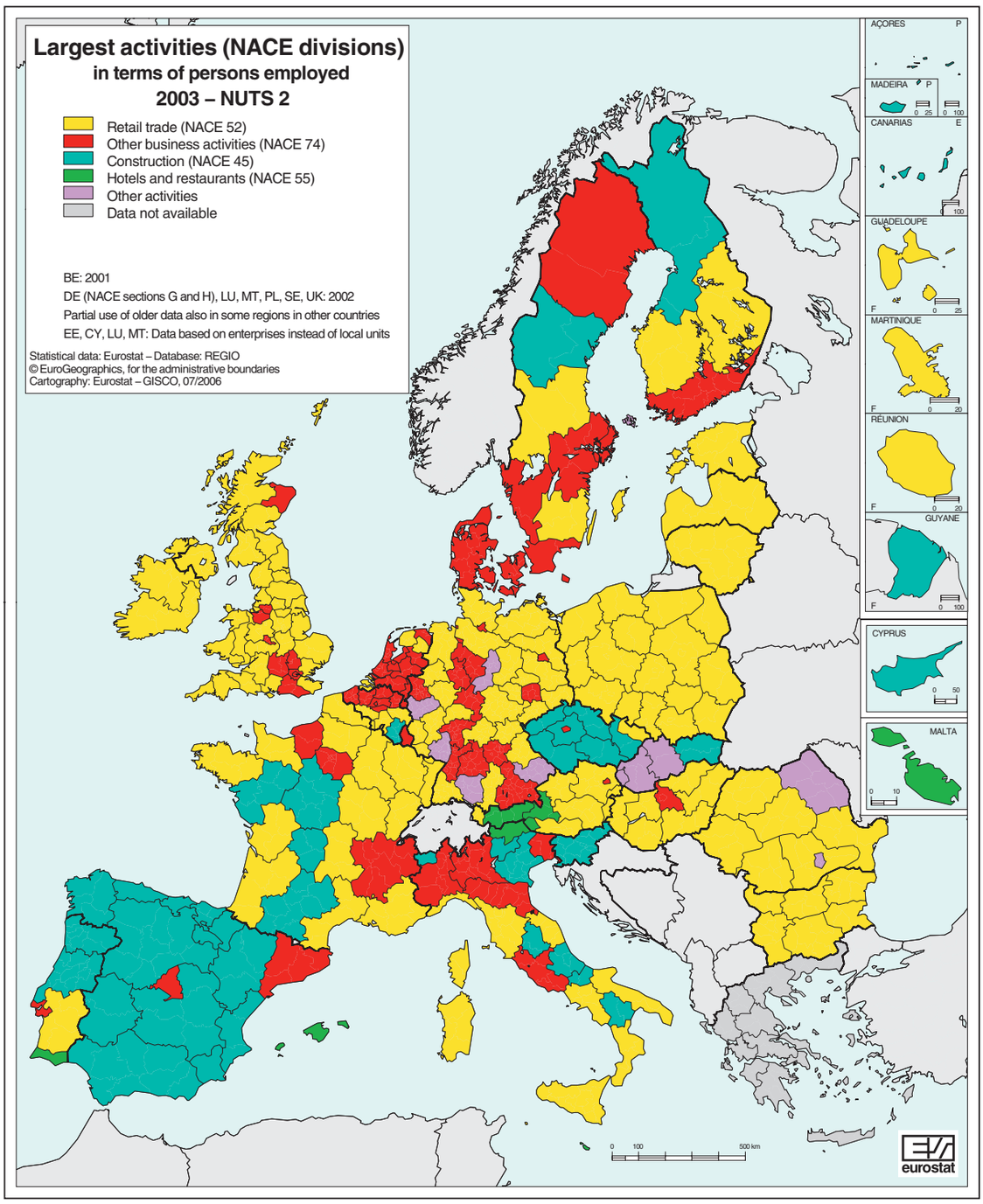


Map 8.1

The main exceptions are Île de France (57%) and Lazio (58%) in Italy, which are just above the respective country average. In contrast, the regions with the lowest business concentration (or highest diversification) are predominantly in the eastern Member States and in Romania, with the lowest shares recorded in Centru in Romania and in Západné Slovensko and Stredné Slovensko in the Slovak Republic (all 38%).

Retail trade the main activity in more than half the regions

As can be seen in Map 8.2, retail trade (NACE 52), other business activities (NACE 74) or construction (NACE 45) is the main activity (out of



Map 8.2

the 45 NACE divisions) in terms of employment in 238 of the 255 regions with data available. Retail trade is the main activity in 134 regions, including all regions of Ireland, Poland and Bulgaria, as well as in Estonia, Latvia and Lithuania. Other business activities (NACE 74) is the main activity in 60 regions, including most of the capital regions, a number of other metropolitan regions (such as Greater Manchester in the UK and Hamburg in Germany), as well as in Denmark and Luxembourg. The exceptions (apart from the capital regions of Ireland, Poland and Bulgaria) are Bratislavský kraj in Slovakia and Bucureşti in Romania, where, respectively, land transport (NACE 60) and wholesale trade (NACE 51) is the main activity. Construction is the main activity in 44 regions, particularly in Spain, the Czech Republic, Portugal, Cyprus and Slovenia. Among the other activities, hotels and restaurants (NACE 55) is the main activity in six smaller regions with an important tourist industry: Illes Balears in Spain, Provincia Autonoma Bolzano/Bozen in Italy, Malta, Salzburg and Tirol in Austria and Algarve in Portugal. Finally, in only six of the 255 regions are most people employed in a manufacturing activity: Tübingen, Niederbayern, Braunschweig and Rheinhessen-Pfalz in Germany, Západné Slovensko in Slovakia and Nord-Est in Romania.

Many regions are highly specialised in a specific activity

The proportion of the total persons employed in a region who work in a certain activity is one indicator of how important this activity is for the regional economy. A comparison of these shares across the regions shows which regions are the most 'specialised' in different activities. Table 8.1 shows the three most 'specialised' regions per activity, measured by the share of the total non-financial business economy workforce. This confirms in many cases well-known regional characteristics. In the chemicals industry (NACE 24) for example, Rheinhessen-Pfalz in Germany is the most specialised region, with 13.9% of all persons employed in the region working in this activity. The second and third most specialised regions in the chemicals industry are both in Belgium: Prov. Brabant Wallon with 7.8%, followed by Prov. Antwerpen with 6.6%. In the pulp and paper industry (NACE 21), Mellersta Norrland in Sweden is the most specialised region (4.9% of the persons employed), followed by Länsi-Suomi in Finland (4.6%) and another Swedish region, Norra Mellansverige (4.5%). Among the more striking results are the very high specialisation in construction (NACE 45) in most of the Spanish regions (the ten most specialised regions are all Spanish), the extreme dependency on water transport (NACE 61) on the islands of Åland, Finland, and the high specialisation in post and telecommunications in Köln, Germany. Among the more surprising results, perhaps, are that, in relative terms, Réunion and Martinique in France are the most specialised regions in motor trades (NACE 50), Latvia in real estate (NACE 70), ahead of Berlin and Inner London, and Guadeloupe in renting (NACE 71), ahead of Hamburg. It should be stressed though, that specialisation ratios in relatively small regions, and for relatively small activities, can be heavily influenced by the location of a few specific workplaces.

High-tech intensive regions relatively evenly distributed across the Member States

Map 8.3 shows how important high-technology activities are in different regions, measured as the proportion of the total persons employed (in the non-financial business economy) that work in these activities. As the regional SBS data are collected only at the level of NACE divisions, both high-tech and medium-high tech manufacturing activities are included: 'Manufacture of chemicals and chemical products' (NACE 24), 'Manufacture of office machinery and computers' (NACE 30), 'Manufacture of radio, television and communication equipment and apparatus' (NACE 32), 'Manufacture of medical, precision and optical instruments, watches and clocks' (NACE 33). High-tech services include 'Post and telecommunications' (NACE 64), 'Computer and related activities' (NACE 72) and 'Research and development' (NACE 73).

A highly qualified population is one important determining factor for the location of high-tech activities. Many of the regions with the highest share of high-tech persons employed (above 14%) are also capital regions or regions with large universities: Prov. Brabant Wallon in Belgium, Île de France, Mazowieckie in Poland, Etelä-Suomi in Finland, Stockholm in Sweden and Berkshire, Buckinghamshire and Oxfordshire in the United Kingdom. These are also regions where you find the highest proportion of people with tertiary educational qualifications. In 2002, for example, Prov. Brabant Wallon in Belgium was the region with the second highest educational attainment in Europe, with over 48% of the population with a tertiary level of education (Regions: Statistical yearbook 2005, Map 11.4). However, the region with by far the highest share of high-tech activities is Köln in Germany. Here, 35% of the persons employed work in high-tech activities, most of which (28%) are in post and telecommunications, as can be seen in Table 8.1. In Köln, 22% of the population have a tertiary education, which is close to the national average. Stredné Slovensko in Slovakia also has one the highest shares of high-tech activities in Europe, although only 10% of the population have a tertiary education, almost three times below that of the capital region. Germany is the country with the most high-tech intensive regions, as also in Rheinhessen-Pfalz, Oberbayern and Darmstadt over 14% of the persons employed work in high-tech activities.

While the regions where high-tech activities are the most important are relatively widely distributed across the Member States, those where high-tech activities are the least important are much more concentrated. Ten of the 17 regions where fewer than two percent of persons employed work in high-tech activities are in Spain, four in Portugal, two in Poland and one in France (Guadeloupe). As can be seen, the share of high-tech activities can vary significantly both within Member States as well as between neighbouring regions. Trier in Germany (3% high-tech) or Świętokrzyskie in Poland (1% high-tech) are for example both in close proximity to regions where the share is among the highest in Europe.

Large differences in average wage costs among the high-tech intensive regions

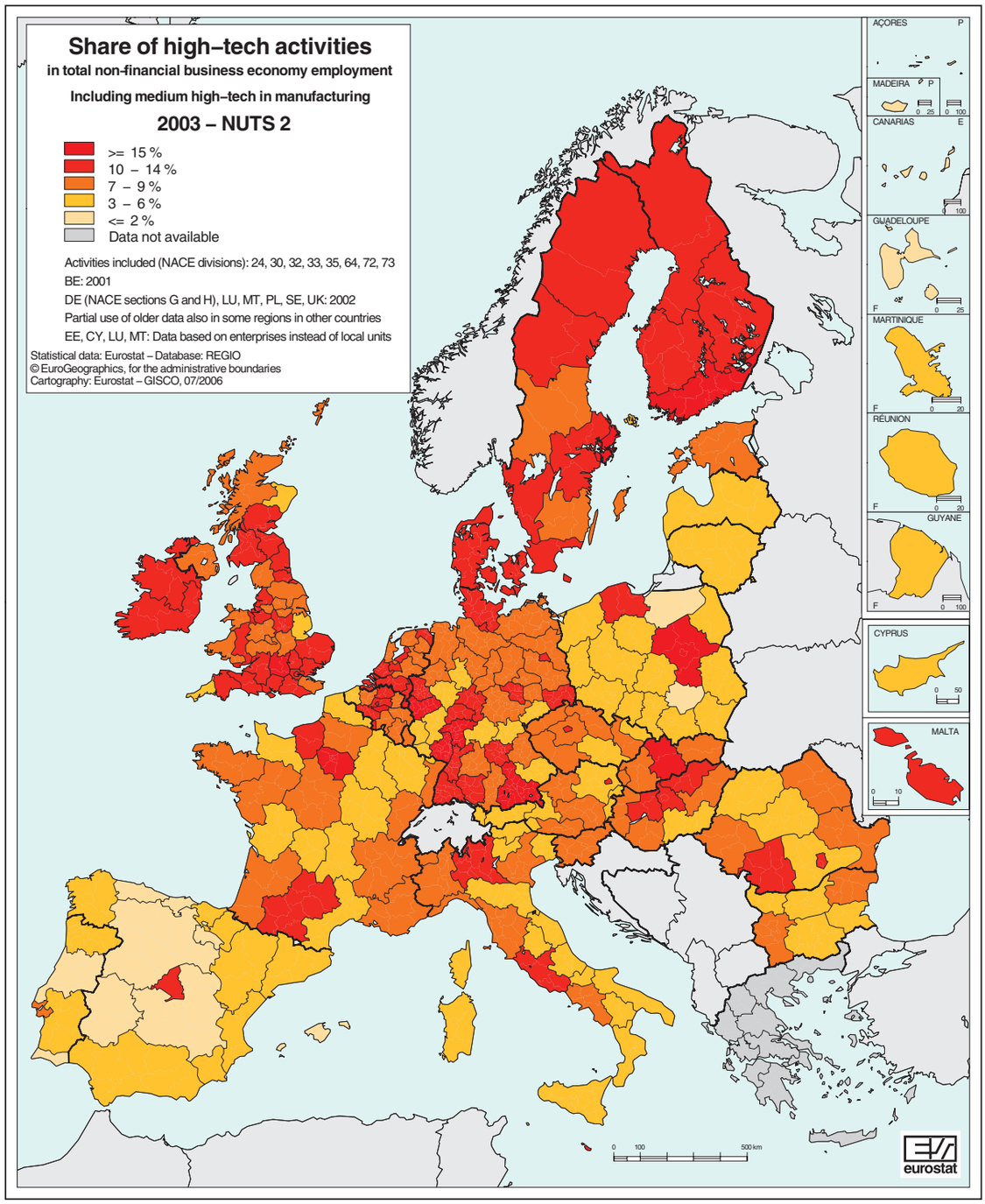
Map 8.4 shows the average annual wages per person employed in high-tech activities. These follow a well-known pattern, with the highest average wages in the north-western and central European states and the lowest in southern and in particular eastern states, along with Romania and Bulgaria. Among the regions which are the most high-tech intensive, average annual wage costs vary from EUR 54000 per person employed in Berkshire, Buckinghamshire and Oxfordshire, to EUR 4000 per person employed in Stredné Slovensko. Within countries, wage levels are generally highest in the capital or other large metropolitan regions. There are also quite large wage gaps within countries. The largest is in Spain, where average annual wages in high-tech activities in the region with the highest wages are 4.6 times higher than in the region where wages are the lowest. It should be noted, though, that the difference would be considerably lower (2.3 times) if the provinces in North Africa were excluded (Ciudad Autónoma de Ceuta and Ciudad Autónoma de Melilla). Spain is followed by the Czech Republic (2.8 times), Poland (2.5 times) and Germany (2.4 times). The lowest wage differentials are to be found in Ireland and the Netherlands, where there is only a 20% difference between the regions with the highest and the lowest average wages. In Finland, Sweden and Romania, the difference is around 30%. It should be noted that due to data unavailability, the average wages here are based on a head count of persons employed (paid and unpaid workers), and not on the number of employees (paid workers) as is normally the case at national level. In addition, no adjustments are made for differences in the frequency of part-time work.

Table 8.1: Most specialised regions in different activities (% of total non-financial business economy employment) 2003 – NUTS 2

ACTIVITY	NACE		RANK 1	%
MINING AND QUARRYING	C (10-14)	PL22	Śląskie	13.7
MANUFACTURING	D (15-37)	SK02	Západné Slovensko	60.1
Food products and beverages	15	FR52	Bretagne	c
Tobacco	16	DEB2	Trier	c
Textiles	17	BE25	Prov. West-Vlaanderen	6.8
Clothing	18	RO01	Nord-Est	12.9
Leather	19	ITE3	Marche	9.2
Wood	20	FI13	Itä-Suomi	6.6
Pulp and paper	21	SE07	Mellersta Norrland	4.9
Publishing and printing	22	UKI1	Inner London	4.7
Coke, refined petroleum products, nuclear fuels	23	UKD1	Cumbria	c
Chemicals	24	DEB3	Rheinhessen-Pfalz	13.9
Rubber and plastics	25	FR72	Auvergne	9.8
Other non-metallic mineral products	26	PT16	Centro (PT)	6.2
Basic metals	27	SK04	Východné Slovensko	c
Fabricated metal products	28	FR43	Franche-Comté	9.3
Machinery and equipment	29	DE14	Tübingen	12.6
Office machinery and computers	30	HU21	Közép-Dunántúl	1.8
Electrical machinery and apparatus	31	SK02	Západné Slovensko	9.4
Radio, TV and communication equipment	32	FI1A	Pohjois-Suomi	6.8
Medical, precision and optical equipment	33	IE01	Border, Midlands and Western	5.2
Motor vehicles, trailers and semi-trailers	34	DE91	Braunschweig	c
Other transport equipment	35	PL63	Pomorskie	6.1
Furniture and other manufacturing	36	PL62	Warminsko-Mazurskie	6.9
Recycling	37	RO02	Sud-Est	0.6
ELECTRICITY, GAS AND WATER SUPPLY	E (40-41)	BG01	Severozapaden	9.4
CONSTRUCTION	F (45)	ES64	Ciudad Autónoma de Melilla (ES)	67.8
DISTRIBUTIVE TRADES	G (50-52)	FR94	Réunion (FR)	35.2
Motor trades	50	FR94	Réunion (FR)	7.2
Wholesale trade	51	NL23	Flevoland	14.8
Retail trade	52	UKK2	Dorset and Somerset	22.6
HOTELS AND RESTAURANTS	H (55)	ES53	Illes Balears	24.7
TRANSPORT AND COMMUNICATIONS	I (60-64)	FI20	Åland	48.5
Land transport	60	SK01	Bratislavský kraj	18.5
Water transport	61	FI20	Åland	42.1
Air transport	62	NL32	Noord-Holland	c
Supporting transport activities, travel agencies	63	DE50	Bremen	10.1
Post and telecommunications	64	DEA2	Köln	28.2
BUSINESS SERVICES	K (70-74)	UKI1	Inner London	46.0
Real estate	70	LV00	Latvia	5.6
Renting	71	FR91	Guadeloupe (FR)	2.0
Computer services	72	SE01	Stockholm	8.2
Research and development	73	UKJ1	Berkshire, Bucks and Oxfordshire	2.8
Other business activities	74	UKI1	Inner London	35.2

	RANK 2	%		RANK 3	%
UKM1	North Eastern Scotland	9.6	RO04	Sud-Vest	8.1
RO07	Centru	53.9	SK04	Východné Slovensko	53.3
HU33	Dél-Alföld	10.4	PL34	Podlaskie	10.2
BG05	Yuzhen tsentralen	1.5	ES23	La Rioja	c
PT11	Norte	6.7	AT34	Vorarlberg	6.6
RO02	Sud-Est	11.6	BG02	Severen tsentralen	10.4
RO05	Vest	6.1	RO06	Nord-Vest	6.0
LV00	Latvia	6.1	PL43	Lubuskie	5.1
FI19	Länsi-Suomi	4.6	SE06	Norra Mellansverige	4.5
UKE4	West Yorkshire	3.2	FI18	Etelä-Suomi	2.8
BG06	Yugoiztochen	c	RO03	Sud	c
BE31	Prov. Brabant Wallon	7.8	BE21	Prov. Antwerpen	6.6
DE24	Oberfranken	6.8	DEB1	Koblenz	5.0
PL33	Swietokrzyskie	5.7	DE24	Oberfranken	5.1
CZ08	Moravskoslezko	7.8	DEC0	Saarland	6.3
DEA5	Arnsberg	9.3	ES21	Pais Vasco	8.6
DE26	Unterfranken	12.5	DE11	Stuttgart	10.8
IE02	Southern and Eastern	1.5	NL42	Limburg (NL)	c
DE23	Oberpfalz	8.7	DE25	Mittelfranken	7.7
HU22	Nyugat-Dunántúl	5.2	DED2	Dresden	c
DE13	Freiburg	4.4	DE73	Kassel	3.2
DE11	Stuttgart	c	DE22	Niederbayern	13.5
RO02	Sud-Est	c	DE60	Hamburg	c
ITD4	Friuli-Venezia Giulia	6.6	DEA4	Detmold	c
DE41	Brandenburg - Nordost	0.5	RO04	Sud-Vest	0.4
SK01	Bratislavský kraj	8.0	RO04	Sud-Vest	6.8
ES63	Ciudad Autónoma de Ceuta (ES)	62.7	ES23	La Rioja	46.1
FR91	Guadeloupe (FR)	34.8	NL23	Flevoland	34.6
FR92	Martinique (FR)	6.6	DE42	Brandenburg - Südwest	6.6
ES62	Región de Murcia	14.4	BE24	Prov. Vlaams Brabant	14.0
PL31	Lubelskie	22.0	UKL1	West Wales and The Valleys	21.9
PT15	Algarve	23.2	ITD1	Provincia Autonoma Bolzano-Bozen	21.2
DEA2	Köln	34.9	SK01	Bratislavský kraj	25.9
PL12	Mazowieckie	11.7	DEB3	Rheinhessen-Pfalz	9.4
BG03	Severoiztochen	c	CY00	Kypros	1.7
UKI2	Outer London	3.3	DEA2	Köln	2.5
DE71	Darmstadt	8.6	DE60	Hamburg	6.2
PL12	Mazowieckie	10.6	FR10	Île-de-France	9.2
DE30	Berlin	35.1	SE01	Stockholm	34.6
DE30	Berlin	5.0	UKI1	Inner London	5.0
DE60	Hamburg	1.7	UKM1	North Eastern Scotland	1.6
UKJ1	Berkshire, Bucks and Oxfordshire	7.6	NL31	Utrecht	7.4
DE21	Oberbayern	2.1	NL23	Flevoland	1.8
DE30	Berlin	26.0	FR10	Île-de-France	24.8

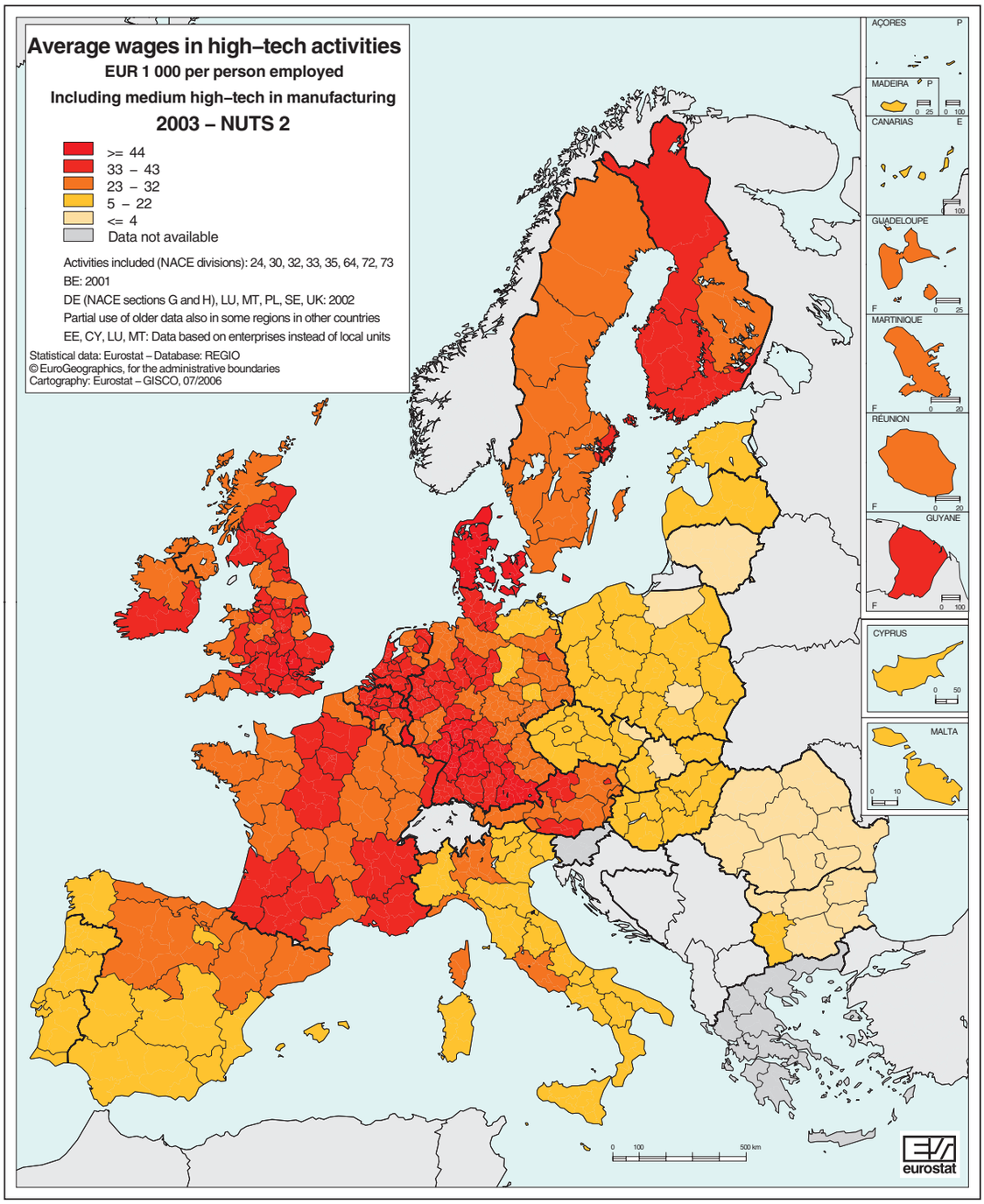
NOTES
BE: 2001
C: Confidential data
DE (NACE sections G and H), LU, MT, PL, SE, UK: 2002
EL: Data not available
Partial use of older data also in some regions in other countries
EE, CY, LU, MT: Data based on enterprises instead of local units



Map 8.3

Highest investment rate in high-tech activities in Brussels

The investment level provides an indication of the growth potential of a sector, or at least of confidence in anticipated growth. However, direct links to growth can be difficult to establish as time series tend to follow a far more ragged path than other indicators, with investment being concentrated over specific years. High investments could also be an effect of low levels of spending in previous years, where the investments mainly aim at replacing worn-out equipment. Map 8.5 shows how much is invested in high-tech manufacturing activities, data for services not being available, in relation to the number of persons employed (the 'investment rate').

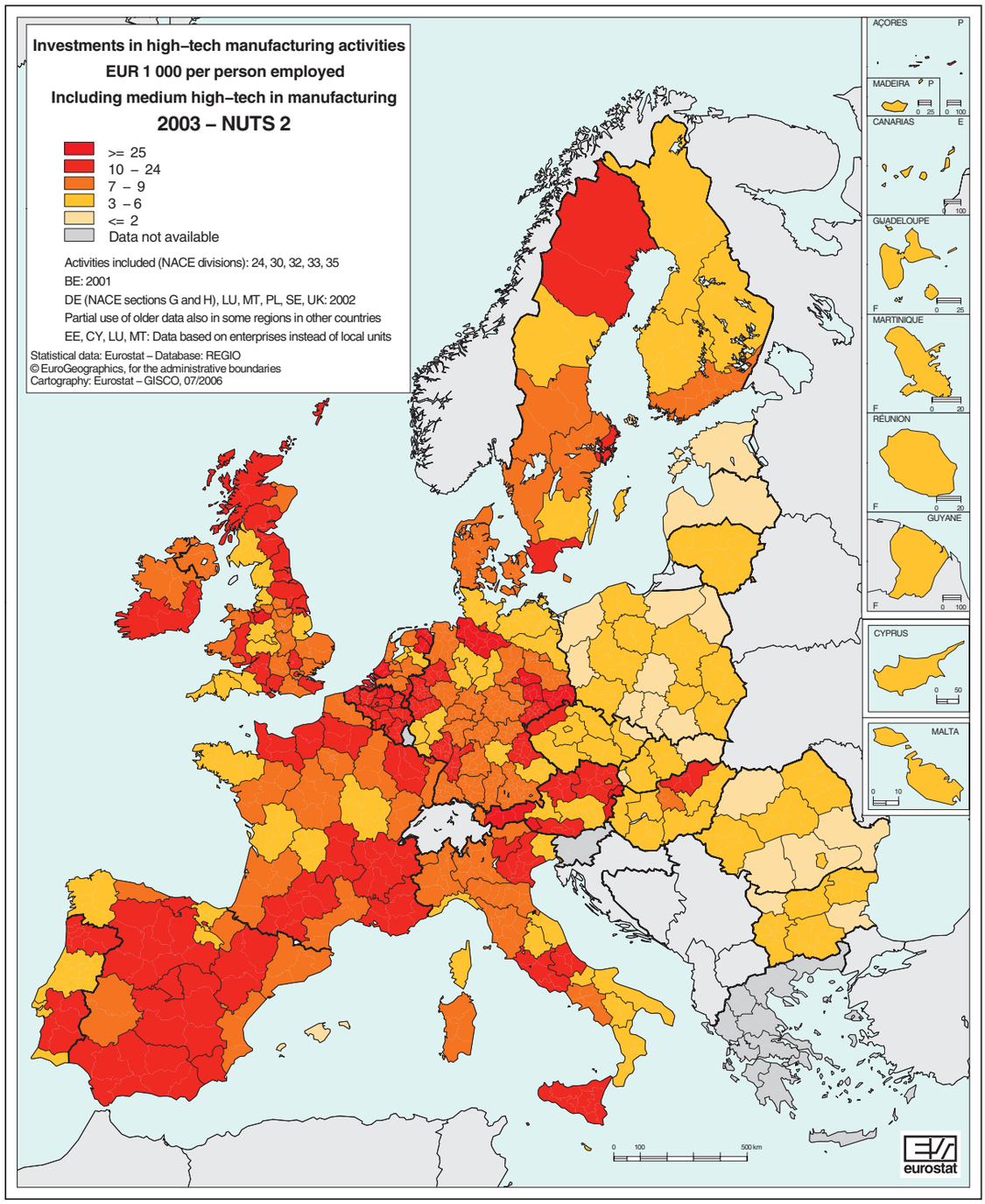


Map 8.4

The highest investment in high-tech manufacturing activities was recorded in Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest in Belgium with EUR 54000 invested per person employed, followed by Zuid-Holland in the Netherlands (EUR 38000), Lüneburg (EUR 35000) and Dresden (EUR 34000) in Germany and Tirol in Austria (EUR 30000).

In Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest, a very small proportion of the persons employed today work in high-tech manufacturing activities. Other regions with a very high investment rate where the high-tech share is currently low or very low include Zuid-Holland in the Netherlands, Burgenland and Tirol in Austria, Border, Midland and Western in Ireland, as well as Freiburg, Tübingen and Oberbayern in Germany.

Regions where a very high share of the persons employed work in high-tech manufacturing ac-



Map 8.5

tivities and a large amount of money is invested per person employed include Prov. Antwerpen in Belgium, Dessau in Germany and Zeeland in the Netherlands. By contrast, Pomorskie in Poland and Pohjois-Suomi in Finland have a very high share of high-tech activities, but a low investment rate.

Conclusion

The regional structural business statistics offer users wanting to know more about the structure and development of the regional business economy a detailed, harmonised data source, describ-

ing for each activity: the number of workplaces, the number of persons employed, the wage costs and the investments made. This chapter has shown how these data can be used to analyse regional business characteristics: the focus, diversity and specialisation of the regional business economies and the nature and characteristics of regional high-tech activities. These are just some examples. As more time series become available, changes in e.g. diversification or specialisation patterns can be studied. Further horizontal studies can also be carried out where regional structural business statistics are used in combination with other statistics (such as regional GDP, population, labour market and education) to increase the understanding of the factors affecting the regional economies and the driving forces behind structural changes.

Methodological notes

Regional structural business statistics (SBS) are collected on the basis of Council Regulation No 58/97 concerning structural business statistics. The data cover all the EU Member States, including the ten countries that joined on 1 May 2004, Bulgaria, Romania and Norway (the latter not presented here). These and other SBS data sets are available on the Eurostat website (http://europa.eu.int/comm/eurostat/) under the theme 'Industry, trade and services' (select 'Data' / 'Industry, trade and services' / 'Horizontal view' / 'Structural Business Statistics'). Selected publications, data and background information are available in the section of the Eurostat website dedicated to European business, located directly under the theme 'Industry, trade and services'. Most data series are continuously updated and revised where necessary. This chapter reflects the data situation as of March 2006.

Structural business statistics are presented by sectors of activity according to the NACE Rev. 1.1 classification, with a breakdown to the two-digit level (NACE divisions). The data presented here are restricted to the non-financial business economy. **Non-financial business economy** includes Sections C (Mining and quarrying), D (Manufacturing), E (Electricity, gas and water supply), F (Construction), G (Wholesale and retail trade), H (Hotels and restaurants), I (Transport, storage and communication) and K (Real estate, renting and business activities). It excludes agricultural, forestry and fishing activities and public administration and other non-market services (which are currently not covered by the SBS), as well as financial services (NACE Section J), which are for the time being only collected on a voluntary basis. These activities together accounted for around 20% of the total EU-25 value-added in 2004, according to national accounts. They could, however, represent a substantially larger share in certain countries or regions.

The observation unit for the regional SBS data is the local unit, which is an enterprise or part of one situated in one geographically identified place. Local units are classified into sectors (by NACE) according to their main activity. At national level, the statistical unit is the enterprise. 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, national and regional structural business statistics are not entirely comparable. It should be noted that in some countries the activity code assigned is based on the principal activity of the enterprise in question.

Regional data are available at the NUTS 2 level for a limited set of variables: the number of local units, wages and salaries, the number of persons employed and investments in tangible goods. The latter variable is collected on an optional basis, except for Industry (NACE sections C to E), which results in more limited data availability than for the other variables. Variables are defined according to Commission Regulation No 2700/98. Below are summary definitions for the variables presented in this publication:

Number of persons employed: The total number of persons who work (paid or unpaid) in the observation unit, as well as persons who work outside the unit who belong to it and are paid by it. It includes working proprietors, unpaid family workers, part-time workers, seasonal workers, etc.

Wages and salaries: The total remuneration, in cash or in kind, payable to all persons on the payroll (including home workers) in return for work done during the accounting year. Wages and salaries include the value of any social contributions, income taxes, etc. payable by the employee, even if they are paid directly by the employer. Wages and salaries do not include social contributions payable by the employer.

Gross investment in tangible goods: All new and existing tangible capital goods, whether bought from third parties or produced for own use, having a useful life of more than one year, including non-produced tangible goods such as land. Also included are all additions, alterations, improvements and renovations which prolong the service life or increase the productive capacity of capital goods.

Health

9.



eurostat

Introduction

Socio-health regions are defined in very different ways from one regional, provincial or local government to another, and 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 one 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 cross-referencing problems may therefore arise when comparing regional statistics.

Currently, two different types of health statistics are available at regional level, mostly for NUTS level 2. 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 focuses on patterns of premature mortality (i.e. on mortality of the population aged between 0 and 64 years) for selected causes. The second type of data available at regional level concerns **health care**; here the regional distribution of hospital discharges and of dentists is examined.

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 EU-25 in 2003, diseases of the circulatory system account for 41% of all deaths and are thus the major cause (45% for women and 37% 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. cancers, follow as the second most frequent cause, accounting for 25% of all deaths in 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. At the same time, for premature deaths, i.e.

deaths under the age of 65, malignant neoplasms account for 36% and so represent the main cause (men under 65: 31%, women under 65: 45%). External causes also have a substantial impact on deaths below 65. For this age group, 15% of deaths are due to external causes (men: 18%, women: 10%) while for all ages it is only 5% (men: 6%, women: 4%).

Ischaemic heart diseases

Ischaemic heart diseases comprise Angina pectoris, acute myocardial infarction and other acute and chronic ischaemic heart diseases. For EU-25, ischaemic heart diseases account for 16% of all deaths and for 11% of deaths under the age of 65. This corresponds to nearly half of all deaths related to all diseases of the circulatory system occurring under 65. Substantial differences can be observed between men and women – only 6% of women die from ischaemic heart diseases before the age of 65 in contrast to 13% of men.

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 below in the methodological notes). Values higher than 1 indicate excess male mortality, while values lower than 1 mean excess female mortality.

Looking at all ages, the male/female mortality ratios for ischaemic heart diseases show a male excess mortality in all regions but the variation within EU-25 is relatively small, ranging from 1.2 in the French Guyane to 3.0 in Comunidad Foral de Navarra (Spain). However, for premature mortality, i.e. SDRs for the ages 0 to 64, considerably higher male excess mortality can be found throughout Europe. Even the regions with the lowest male excess mortality before the age of 65 report values of around 2.5, and values higher than 8.0 are reached in the following five European regions: Castilla y León and Comunidad Foral de Navarra (Spain), Bretagne and Poitou-Charentes (France) and Åland (Finland).

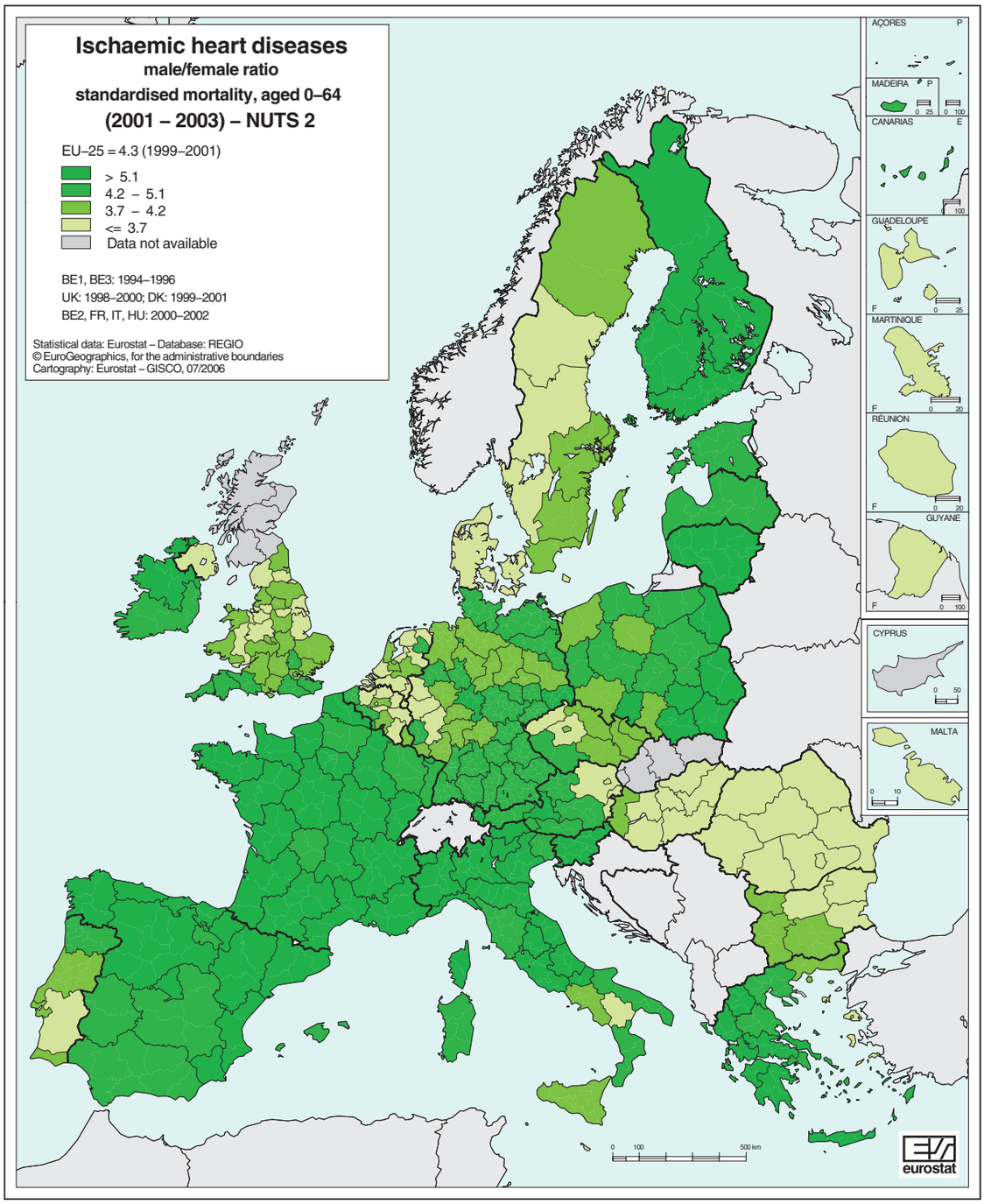
The regional pattern for this indicator is not very evident but some regional particularities can be observed. In the southern European regions as well as throughout France and the southern regions of Germany, a high male excess mortality can be observed, with few exceptions in Portugal (Alentejo, and also Algarve, Centro (P) and Lisboa) and in Italy (Basilicata, Campania and Sicilia). Regions with a low male excess mortality can be found in a diagonal across Europe – from United Kingdom through Belgium and the Netherlands and some of the neighbouring German regions (Düsseldorf, Köln and Koblenz) over to the Czech Republic and Austria. In the east, most Hungarian regions together with all Romanian and several Bulgarian regions present a joint area of relatively low male excess mortality. In the north, it is in Denmark and Sweden where smaller differences can be seen between men and women while Finland and the Baltic countries show a high male excess mortality for ischaemic heart diseases.

Accidents

Before the age of 65, deaths due to external causes play a significant role (see above), and accidents account for almost 60% of deaths from external causes. This figure refers to all types of accidents, i.e. transport accidents, falls and other accidents such as drowning, fire, accidental poisoning – all types of circumstances that may well be preventable. The risk of men below the age of 65 falling victim to a fatal accident is twice as high as for women – in EU-25 in 2003, 10% of deaths among men younger than 65 were due to an accident, compared to only 5% among women in that age-group.

The regional distribution of premature mortality of men expressed in Standardised Death Rates (SDRs, see below – methodological notes) shows a very clear pattern for European risk areas. The highest SDRs for accidents are reported for a more or less coherent area in the east, stretching from Finland and the Baltic countries in the very north via Poland, the Czech Republic and regions in Austria and through Hungary, Romania, and Bulgaria all the way down to Greece. High mortality due to accidents is generally the result of transport accidents – for men in EU-25, just over half of all deaths due to accidents are caused by transport accidents.

In the west, almost all regions in France and Spain show high SDRs, though not at the same level as the regions in the east. The regions with lower mortality in these two countries are Alsace, Lorraine, Nord - Pas-de-Calais and Île-de-France (which comprises Paris) in France and Cantabria, País Vasco, Comunidad de Madrid and Canarias in Spain. The “safer” countries are the United Kingdom, Sweden, Denmark and the Netherlands, where all regions report SDRs below 30.6 (per 100 000 inhabitants). Most regions

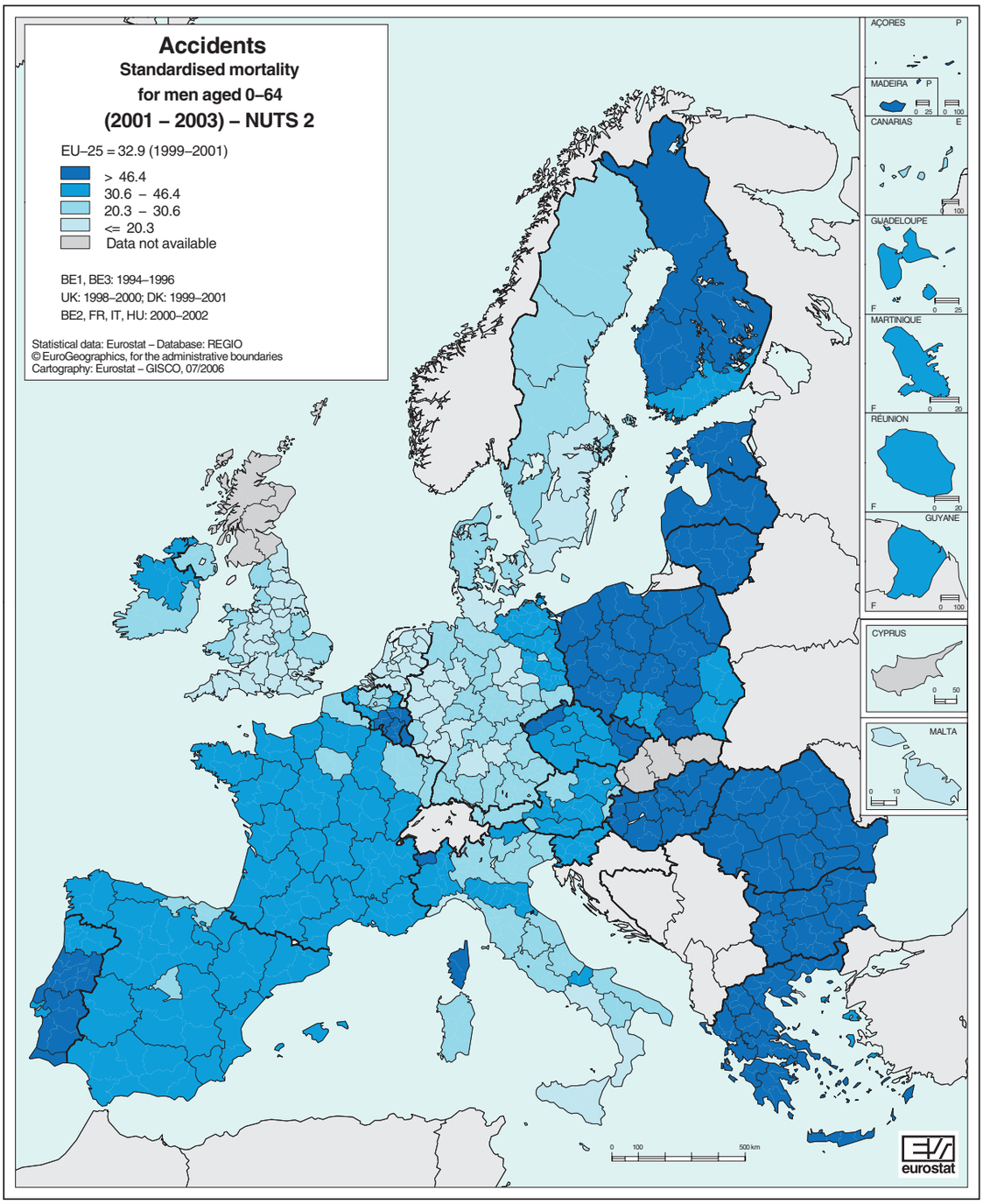


Map 9.1

in Germany and in Italy are also low-risk regions for accident mortality, with a few exceptions (SDRs higher than 35 in Brandenburg – Nordost, Brandenburg – Südwest and Mecklenburg-Vorpommern in Germany and higher than 30 in Piemonte, Valle d'Aosta/Vallée d'Aoste, Provincia Autonoma Bolzano/Bozen, Emilia-Romagna and Molise in Italy).

For women, premature mortality due to accidents is generally far lower, with SDRs ranging between less than 5 per 100 000 inhabitants in Malta and the Netherlands, and more than 30 in Estonia and Latvia. For men in the same age group the lowest rate reported is 14.1 (the Netherlands), and in the Baltic countries the rates are around 135 and above.

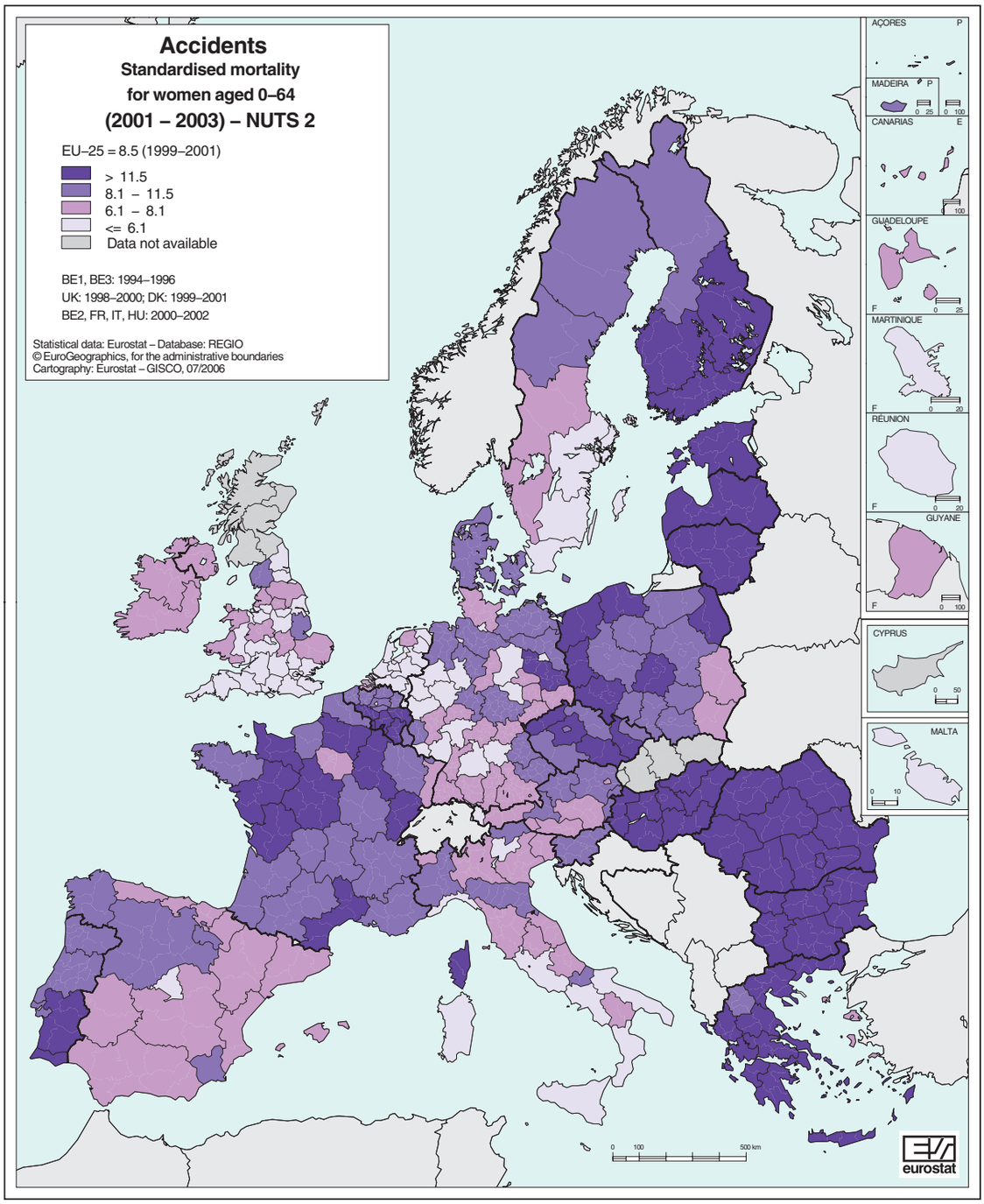
As for men, the standardised mortality for women due to accidents is relatively high in regions in the East of Europe, stretching from Finland to Greece. Low risk areas for women are mainly



Map 9.2

concentrated in the southern part of the United Kingdom, in the Netherlands, Germany and the south of Italy. But Malta, the Comunidad de Madrid, Vorarlberg (Austria), Åland (Finland) as well as 4 regions in the south-east of Sweden also have outstanding low accident related SDRs for women.

Regarding the male/female mortality ratios for accidents, male excess mortality is particularly marked in Poland, Slovenia and Malta with values above 5. At the regional level, the largest divergence of accident-related mortality for women and men is reported for Guadeloupe and Martinique (France), Ciudad Autónoma de Ceuta (Spain), Valle d'Aosta/Vallée d'Aoste and Provincia Autonoma Trento (Italy), Região Autónoma da Madeira (Portugal), Åland (Finland) and Lubelskie (Poland) – in these regions values higher than 6 for male excess mortality are observed.



Map 9.3

Health care resources in EU regions

Hospital discharges

Hospitalisation statistics give a broad picture of the health care treatment of the population, and also of general health. Around 15 640 persons per 100 000 population were discharged from hospitals in EU-25 in 2003. However, even between countries, there is a wide range for this indicator, from less than 7 000 in Cyprus and Malta to over 26 000 in Finland and Austria. These differences may partly reflect the differences in the organisation of health care services.

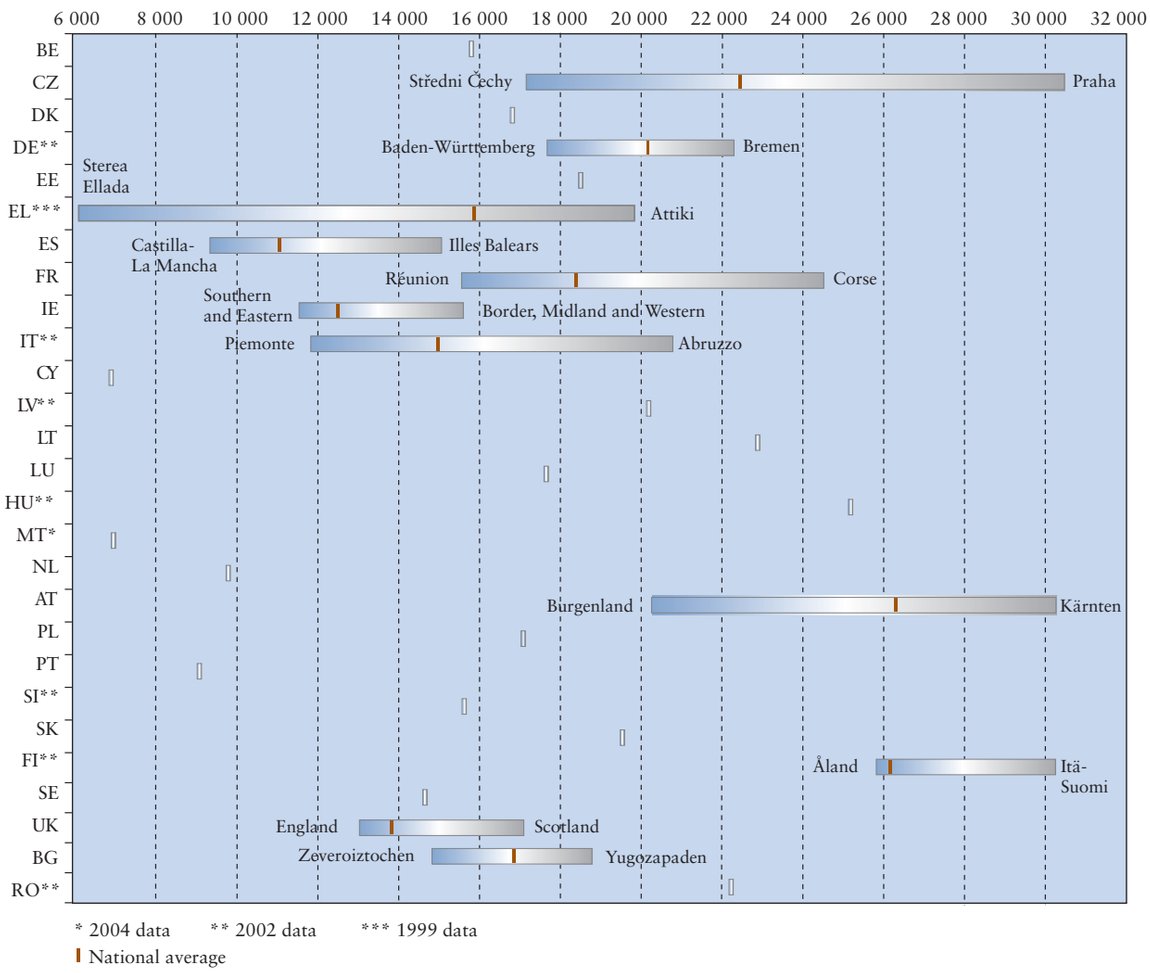
Regional data for hospital discharges of in-patients have only quite recently become available, and not all countries are yet in the position to

provide hospital discharges data at sub-national level. Amongst the countries with sub-national data, the Czech Republic, Greece and Italy show the greatest variation within the country for the number of hospital discharges per 100 000 inhabitants. In the Czech Republic, in the capital region comprising Prague, almost twice (1.8) as many persons are discharged from hospitals as in Střední Čechy, which geographically surrounds the region Praha. In Austria, hospital discharges within the country vary by a factor of 1.5, and between Wien and the surrounding Niederösterreich, it is only by a factor of 1.3. Within countries, it is often capital regions or relatively small regions including a big city which have high discharge rates: Praha (30 676), Bremen (28 284), and the Saarland (24 363) 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 health care facilities offered in the cities. However, relatively high hospital discharge rates can also be observed in some sparsely populated regions such as Mecklenburg-Vorpommern (Germany) and Limousin (France), (22 068 and 19 391 respectively) which may partly be explained by the effects of migration and ageing.

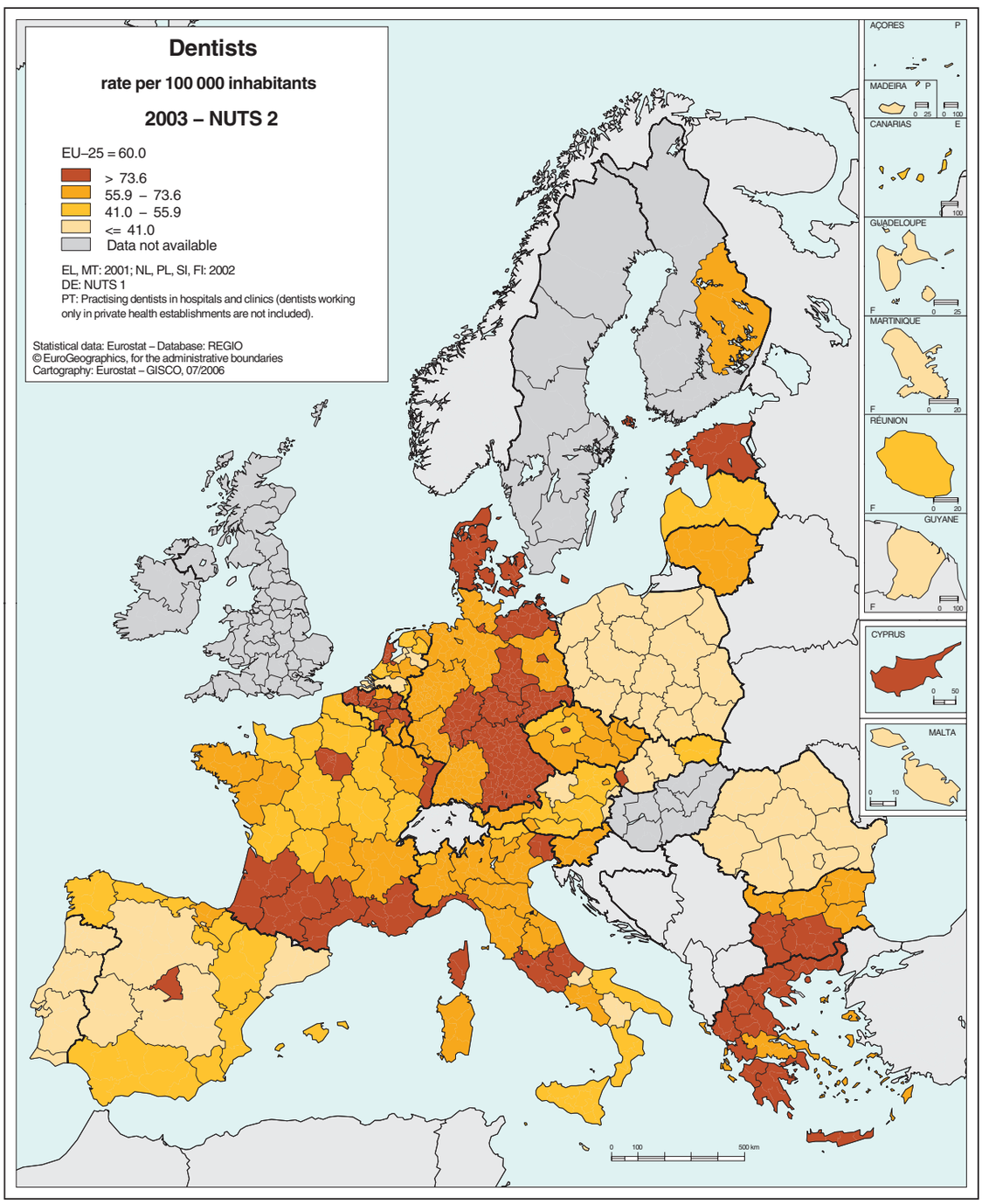
Dentists

For EU-25, the density rate of dentists, i.e. their average number per 100 000 inhabitants, is around 60. At the regional level, considerable variations in this indicator can be observed, and map 9.4 shows a clear picture of where the provision of dental services is concentrated. Across all regions, the density rates range from less than 20

Graph 9.1: Hospital discharges - Rate per 100 000 inhabitants, 2003 - NUTS 2



in a number of Polish, Romanian and Portuguese regions (however, data for the latter refer only to dentists practising in hospitals and clinics and therefore underreport the situation) up to rates higher than 100. Eight regions situated in Belgium, Bulgaria, the Czech Republic, Germany, and Greece report these highest density rates, and not very surprisingly, the capital regions of all five countries are in this group: Brussels, Sofia, Prague, Berlin and Athens. Similarly, in most other countries for which regional data are available it is again the capital region where the highest concentration of dentists within the country can be found.



Map 9.4

Conclusion

The currently available regional indicators for health already provide a first insight into similarities and particularities that exist throughout Europe. However, in analysing the data it has to be kept in mind that the differences observed are also influenced by the organisation of health care systems and by socio-cultural factors. Examples of 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. Health care resources are influenced by the organisation of the systems at national and regional level, and in the medium term figures on health care 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.

Methodological notes

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 for COD are provided at national and regional level. Regional level data are provided in the form of three-year averages. The **crude death rate** describes mortality in relation to the total population. It is expressed per 100 000 inhabitants, being 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 5-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) by sex and age, 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 expressed **per 100 000 inhabitants** and calculated for the age group 0-64 ('premature death') and for the total of ages. Causes of death are classified by the 65 causes on 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 **health care staff** (numbers of doctors, dentist and of other health professions) and on **hospital beds** (the latter are not shown in this publication but available in Eurostat's statistical databases). Regional data on **hospital discharges of in-patients** have recently become available, though not yet for all countries. In addition to absolute numbers, density rates are provided for health care 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 health care 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 **dentists** should refer to those "immediately serving patients", i.e. dentists who have direct contact with patients as consumers of health care services. In the context of comparing health care services across Member States, Eurostat considers that this is the concept which best describes the availability of health care resources. However, Member States use different concepts when they report the number of health care professionals – both for national purposes and for international comparison. Therefore for some countries the data might refer to dentists 'licensed to practice' (i.e. successfully graduated dentists irrespective whether they see patients or not) or they might include dentists who work in their profession but do not see patients (i.e. they work in research, administration etc.).

A **discharge** from a hospital or another health care 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.

Transport

10.

eurostat

Introduction

Like all EU policies, EU transport policy depends on having reliable, up-to-date transport statistics available. Growth in the transport sector is still closely correlated to general economic growth.

Transport links are often considered to be a key factor in regional economic development. This is why a significant portion of the Community's regional budgets has been, and is still, used for investment in transport infrastructure, including the transport component of the Trans-European Networks.

An efficient infrastructure is needed to cope with the challenges of increased mobility and flows of passengers and goods. At the same time, safety, sustainability and environmental impact are topics high up on the EU agenda. The noticeable increase in Short Sea Shipping, for example, is the result of European promotion to change from road to other transport modes.

The transport infrastructure reflects the differences in the regions in terms of size and type of economic activities, population density, degree of urbanisation and industrialisation, and the region's location within the EU.

Regional transport statistics aim to describe regions using a set of transport indicators, and also to quantify the flows of goods and passengers between, within and through regions. Such data help both to analyse the role of transport in relation to a region's economy, and to support new investments in transport infrastructure. They may also contribute to measuring and ultimately reducing congestion effects, as well as the environmental impact of transport.

Road network

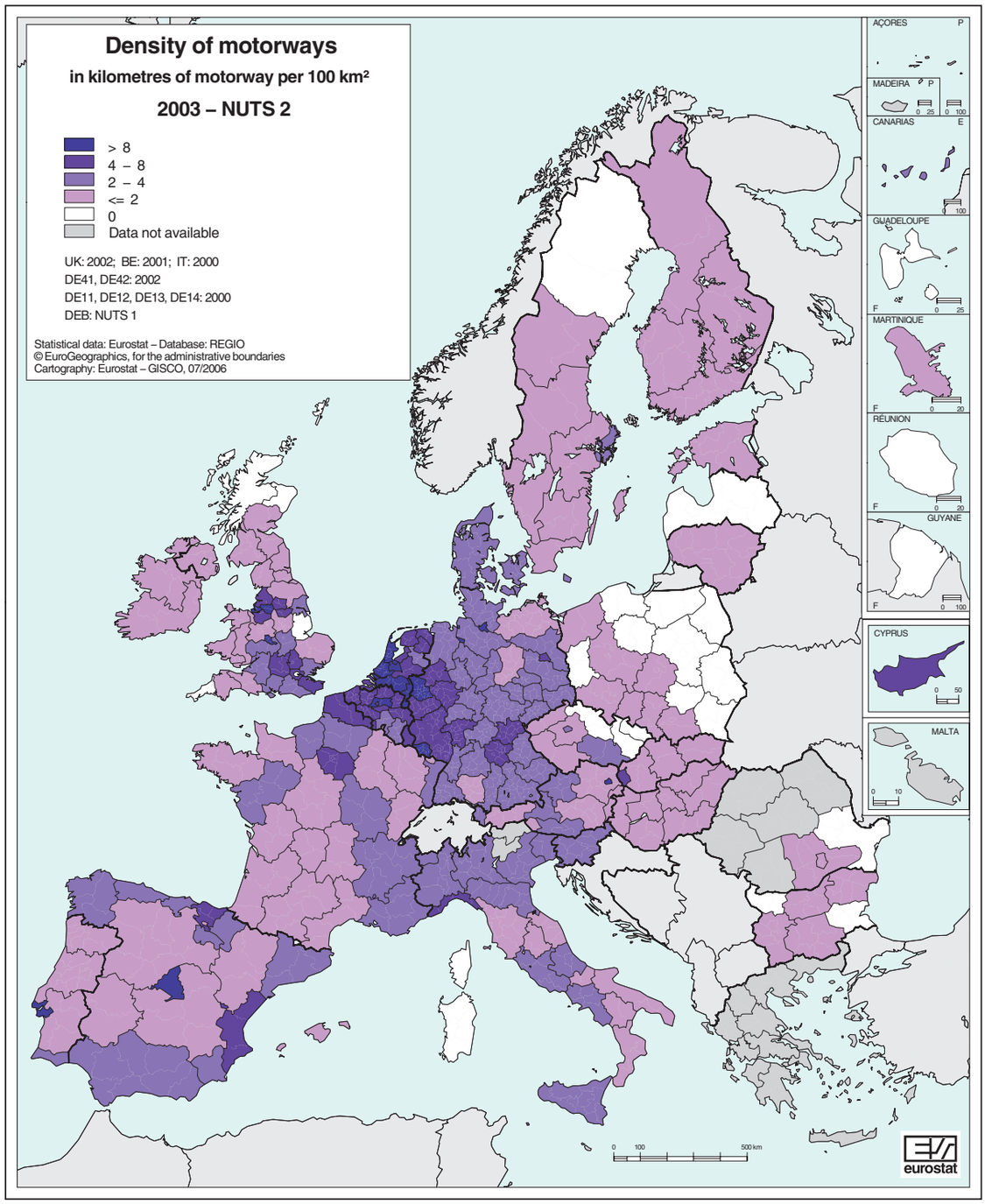
This section focuses on road infrastructure and vehicle stock. Information on these items can be found in Eurostat's reference database at NUTS 2 level. Road infrastructure is grouped into two categories: motorways and roads. Vehicle stock data are broken down into cars, buses, trucks, trailers, tractors and motorcycles.

Overall, the EU has an extensive road network that is continuously expanding as a result of increasing demand for both passenger and goods transport services.

Regions with a highly developed road infrastructure of motorways and major roads have generally a competitive advantage over others, which helps to boost development. Map 10.1 shows the density of the motorway network in the NUTS 2 regions in 2003, expressed as kilometres of motorway per 100 km². Certain white areas on the map, such as the north and west of the United Kingdom have some dual carriageway roads, but these do not qualify as motorways.

A belt of regions with a very dense motorway network is clearly noticeable, going from the south-east of United Kingdom over Nord-Pas-de-Calais in France, the north of Belgium, the south and central regions of the Netherlands until the western regions in Germany. These are regions with high degrees of urbanisation and economic activity.

Regions comprising major conurbations generally have high motorway densities. These are frequently regions with substantial commuter activities. Examples include Wien in Austria, Lisboa (including Lisbon) in Portugal or Comunidad de Madrid in Spain. In the new Member States,



Map 10.1

this feature is recognisable in Praha (Czech Republic) and in Bratislava (Slovakia).

Countries with regions that have major ports present extensive motorway networks to support the logistic chain of which the port is a node. Examples are Liguria in Italy, Antwerpen, West-Vlaanderen and Oost-Vlaanderen in Belgium, Zuid-Holland and Noord-Holland in the Netherlands, Kent in United Kingdom, and Barcelona in Spain.

Similarly, regions which host important industrial areas have a very dense network of motorways: Greater Manchester (including Manchester), Merseyside (including Liverpool) and West Midlands in the United Kingdom.

The regions in the periphery of the European Union generally display low motorway densities, such as Cornwall (United Kingdom), Bretagne (France) and Puglia (Italy).

Generally, regions in the new Member States have a low motorway density. They perform on the same level as those regions in the old Member States with a low degree of urbanisation and economic activity, such as the central regions in France, Ireland, Portugal and a number of regions in Spain. It will be interesting to see how these regions evolve in the coming years. In Slovenia, Bratislavský kraj (Slovakia), Śląskie (Poland) or Észak-Magyarország (Hungary), for example, motorway density has already increased considerably between 1999 and 2003.

Vehicle stock

Map 10.2 shows private car ownership by NUTS 2 region and its evolution between 1998 and 2003. Private car ownership is a mobility indicator, expressed in terms of numbers of cars per 10 inhabitants.

The map illustrates the continuously growing trend which ties in closely in many cases with the level of a region's economic development.

The increase in private car ownership is in many cases related to the economic development of a region. Good examples are Greece, a number of regions in south and central Spain, Ireland, Poland, Hungary, Latvia and Lithuania and, among the Candidate countries, Bulgaria. While in all these regions, car ownership is still low (fewer than 4 cars per 10 inhabitants), the increase is very high (more than 15%, with all Greek regions showing values above 40%), in line with economic growth.

Regions which have a high degree of economic activity and display high GDP show both a high rate of private car ownership and a large increase in the latter. Many regions in Germany, Belgium, the Netherlands and in the centre/south of the United Kingdom display this trend. Noticeable is the very high increase in many regions of France and Germany (more than 15%) compared with most of the regions in Belgium and the Netherlands that are showing a modest increase. Within Germany, an important discrepancy can be noted: the increase in car ownership is considerably lower in Sachsen and Thüringen, compared with the other regions, which reflects the present economic situation.

In general, larger city core regions have an extensive local public transport network and the number of cars in these regions tends to be relatively low. The age and social structure of the urban population may also have an impact. Concentration of students, immigrants and other low-income groups are perhaps also reasons for a relatively low car ownership. Examples are Berlin (Germany), Praha (Czech Republic) or London (United Kingdom).

At the same time, car density is in many cases relatively high in regions around large cities, reflecting the amount of commuter traffic and dependency on cars to get to work in these cities. This is the case in Haute-Normandie in France and Utrecht in the Netherlands. These regions are also characterised by an increase above 15%. Alternatively, a lower car ownership around this core may indicate extensive commuter use of public transport, such as in Outer London (United Kingdom).

Only in a few regions did the car density decrease between 1998 and 2003. This was the case for all the regions of Sweden except Stockholm, the Highlands and Islands region in the north of the United Kingdom, Champagne-Ardenne in France and Estonia. Also noteworthy are Denmark and the region Île-de-France (including Paris), that show both a low private car ownership density and only a small increase in this rate.

Safety

Map 10.3 focuses on road traffic deaths and shows two indicators: the death rate due to road accidents and its change between 1998 and 2003.

The death rate, expressed as the number of deaths per million inhabitants, is used to remove the variation in absolute numbers due to the greater population of some regions. This death rate does not take into account other relevant factors such as the number of vehicles or the distance travelled.

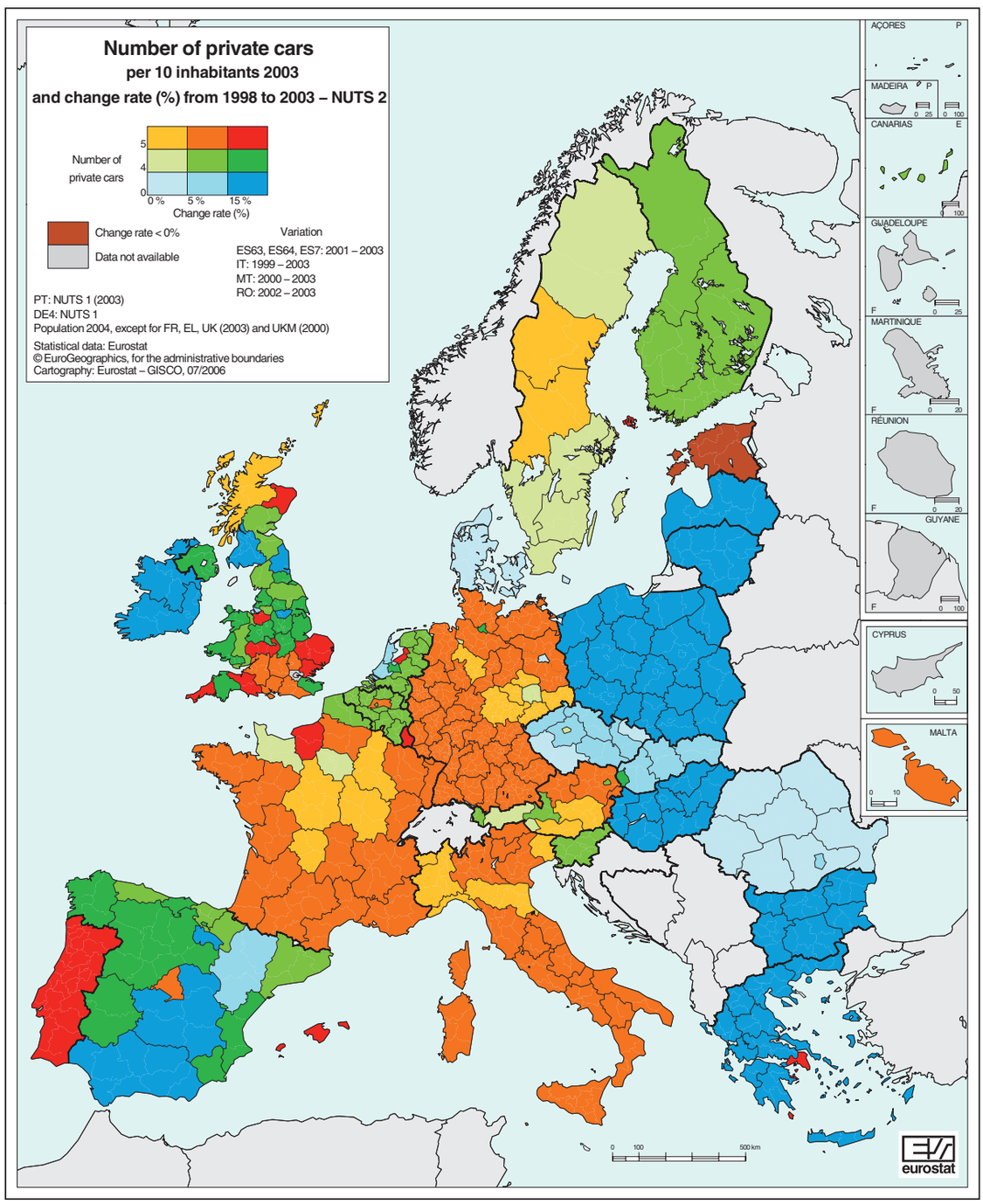
The standard definition of a road accident death includes deaths within a 30-day period after the accident. When comparing results across countries, the reader should be aware that some countries use a shorter period, so that the comparable death rate in these countries might be higher than indicated.

Death rates range from fewer than 30 deaths per million inhabitants in Hamburg and Wien, up to 318 deaths per million inhabitants in the Portuguese region of Algarve, while the evolution between 1998 and 2003 goes from a more-than-40% decrease in Bratislavský kraj (Slovak

Republic) to a more-than-40% increase in Mellersta Norrland (Sweden). Indeed, the map shows a mixed pattern of high and low death rates and evolution rates, indicating that road safety is a regional matter, influenced by regional prevention policies and appropriate infrastructure.

What is remarkable, for example, is the low and continuously decreasing death rate in the densely populated regions of the Netherlands (Zeeland, Noord-Holland, Zuid-Holland, and Utrecht) or Nord-Pas-de-Calais (France), while a number of neighbouring regions in Belgium, such as Vlaams-Brabant, Oost-Vlaanderen, Liège or Hainaut with comparable population and traffic densities show significantly higher and increasing death rates.

Regions comprising major conurbations such as Berlin, London, Wien, Île-de-France (Paris),

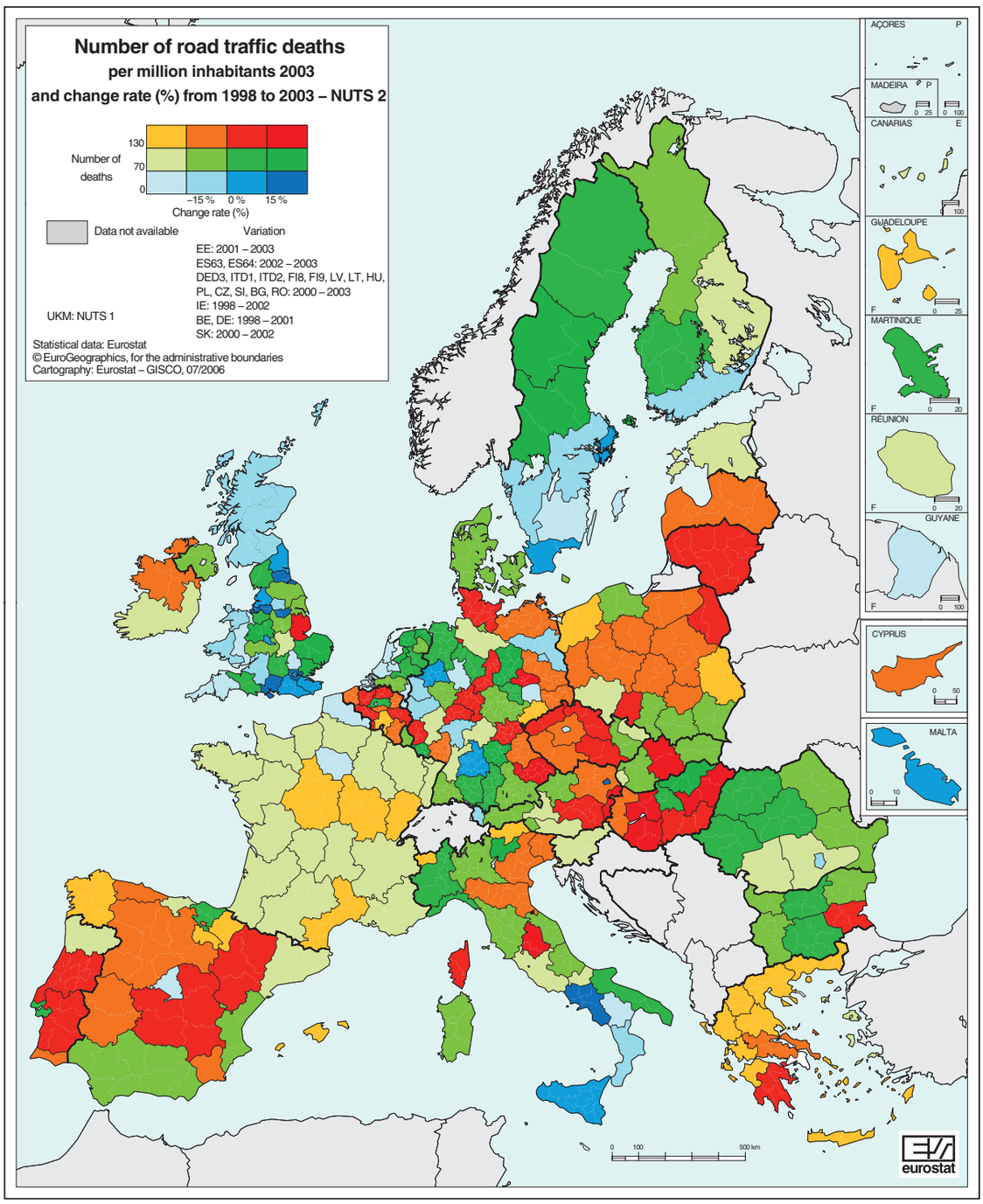


Map 10.2

Brussels or Bucaresti tend to have fewer traffic deaths, perhaps reflecting higher use of public transport and lower average speeds. Île-de-France and Berlin are regions with low numbers of deaths in car accidents both less than 70 per million inhabitants and a decrease of, respectively, more than 15% and 10%. Also Brussels shows a small decrease in the death rate, whereas Wien displays an increase of more than 15% and London of more than 10%

While Île-de-France and Nord-Pas-de-Calais have a low death rate, other regions in France hold significantly higher values. However, a homogenous pattern of major decreases can be observed in all of France's regions, except Corse. In the latter region, the number of traffic deaths is high and still growing.

In a number of regions, the increase in the death rate can probably be related to the drastic growth



Map 10.3

in private car ownership and improper traffic infrastructure. Good examples are Athens, Lithuania or Stredné Slovensko (Slovak Republic). However, this trend is not absolute: the number of traffic deaths has declined in Poland and the rural areas in Greece, although also in these areas private car ownership has increased considerably.

Maritime transport

Data on maritime transport are currently collected according to Council Directive 95/64/EC. Data come from national surveys on sea ports. The directive provides for the collection of 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. In order to properly represent the regional distribution of the total volume of transport, the very limited contribution of minor ports was considered to be nil.

The allocation of ports to the NUTS regions is made on the basis of 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 port pairs that are located within the same NUTS region and have traffic among them, and the flow concerned is considered only once in the total of the region.

The current set of disseminated regional indicators for maritime transport comprises passengers embarked and disembarked and total freight loaded and unloaded, both at NUTS 2 level. The focus of this chapter is Short Sea Shipping (SSS).

SSS deals with the transport of goods between ports in the EU and Norway, on the one hand, and ports situated in geographical Europe, the Mediterranean and Black Sea coasts, on the other. This means ports in EU countries (Belgium, Denmark, Germany, Estonia, Greece, Spain, France, Ireland, Italy, Cyprus, Latvia, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovenia, Finland, Sweden and the United Kingdom), EEA countries (Iceland and Norway), Baltic Russia, Mediterranean countries (Albania, Algeria, Bosnia-Herzegovina, Croatia, Egypt, Israel, Lebanon, Libya, Montenegro, Morocco, Syria, Tunisia and Turkey) and Black Sea countries (Bulgaria, Georgia, Moldova, Romania, Russia, Turkey and Ukraine).

SSS is one of the main pillars foreseen in the White Paper for transport (*European transport policy for 2010: time to decide)*, as a possible, flexible option to absorb the constantly increasing transport demand that would be unbearable for today's transport system. In this connection, the creation of *Motorways of the sea* aims to develop an integrated transport system between different transport modes and offer a valuable alternative to road-only transport.

Map 10.4 classifies the regions according to the total amount of Short Sea Shipping by predominant sea (indicated by the colour of the circle) for 2004 data on NUTS 2 level.

Immediately obvious from the map is the fact that SSS transport is mostly performed between ports within the same sea. Ports within the Mediterranean Sea ship mainly to other ports in the Mediterranean. The same is true for the North Sea, the Baltic and the Black Sea.

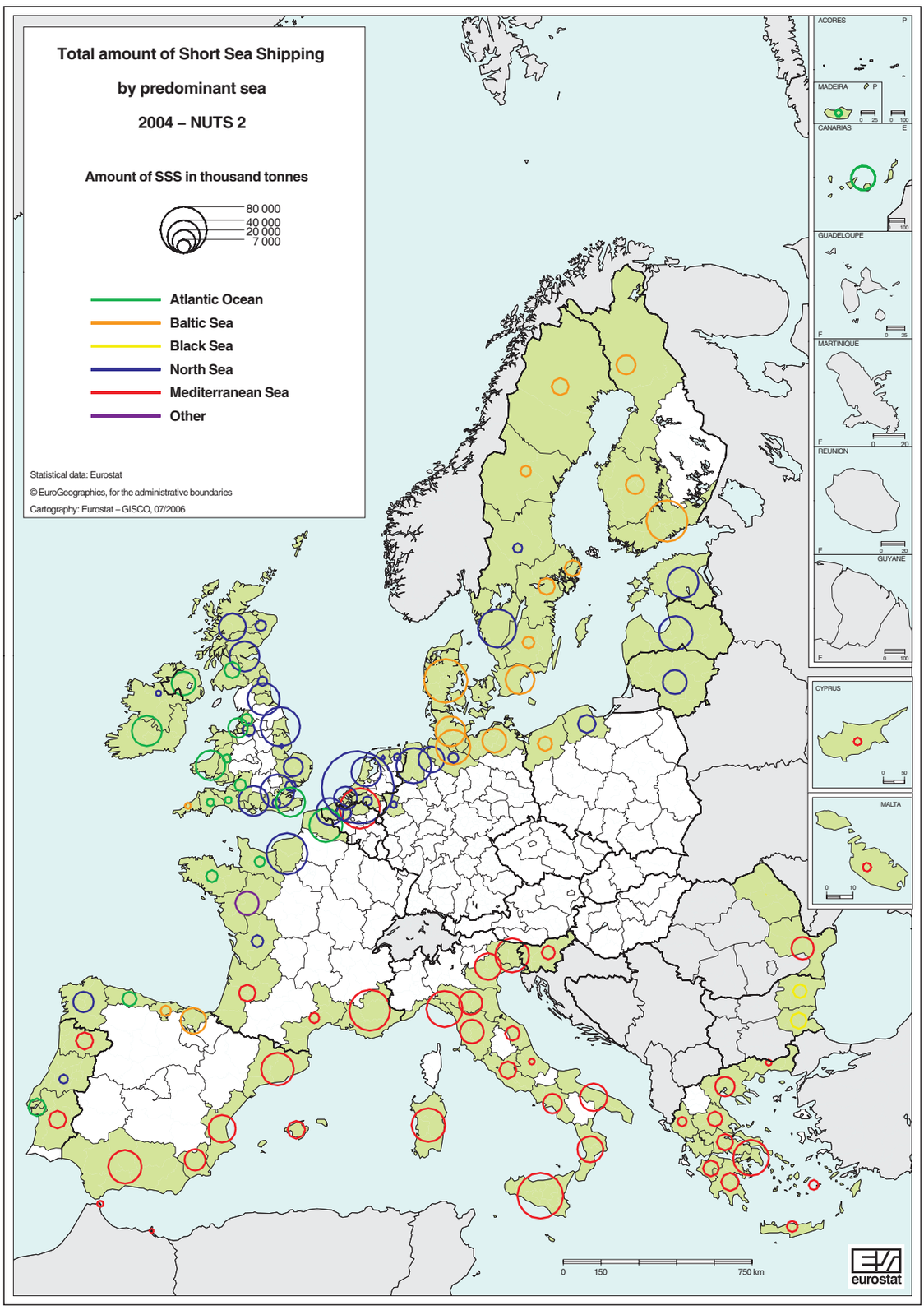
A most important SSS area stretches from the south-east of the UK to northern France, Belgium and the Netherlands. Predominant destinations are the same regions in the North Sea.

The region of Zuid-Holland, where the port of Rotterdam is located, accounts for the largest share of cargo handled in SSS. It has maintained its leading position over the last five years as the most important region for maritime transport. In 2004 Zuid-Holland handled 194 million tonnes of cargo in SSS. It is followed by the region of Sicilia in Italy and by Denmark.

A considerable share of the cargo handled by Mediterranean ports is loaded or unloaded in Italian ports. In 2004, the Italian region of Friuli-Venezia Giulia handled more goods loaded or unloaded in the Black Sea ports than any other EU region.

Aviation passengers

Data on air transport are currently collected according to Regulation (EC) No 437/2003 of the European Parliament and the Council on the re-



Map 10.4

turn of statistics concerning the carriage of passengers, freight and mail by air, from national surveys on airports. The regulation provides for the collection of detailed monthly data for airports handling more than 150 000 passengers per year, and for airports with fewer than 150 000 but more than 15 000 passengers. Only aggregated annual data are requested, while for minor airports there is no obligation to provide data. 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.

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

In this section, data on air transport passengers are considered. Figures for all Member States and contributing Candidate Countries are taken into consideration. Total passengers are broken down by international and national flights and are related to the population of the region where the airports are located.

Map 10.5 shows two indicators: the amount of aviation passengers embarked and disembarked in each region, illustrated by the shaded regions, and the share of international and national traffic within each region, indicated by the pie-charts. The aviation passengers' figures are expressed as number of passengers per inhabitant, in order to remove the variation in absolute numbers due to the greater population of some regions.

The top-ranking airport-region in terms of passengers per inhabitant are the Highlands and Islands in the United Kingdom (29.3 passengers per inhabitant), Illes Balears in Spain (28.4), Notio Aigaio in Greece (18.5) with the island of Rhodos and Noord-Holland in the Netherlands (16.4), where the Schiphol airport is located, in Amsterdam.

It is worth noting that financial and business centres are able to attract more passengers than administrative cities. This is illustrated by the region of Darmstadt, and also holds true for Milano in Lombardia and Barcelona (Cataluña) where the intense economic activities generate a larger business traffic than in the respective capital regions Lazio (Rome) and Comunidad de Madrid.

In general, international traffic exceeds national traffic, which is particularly true for airports in capital and business regions. However, a number of airport regions – at the periphery of large countries – are mainly targeted at domestic traffic. Air travel to these remote regions most often happens through a hub in one of the larger international airports. Notable examples are South Western Scotland, Sicilia or País Vasco.

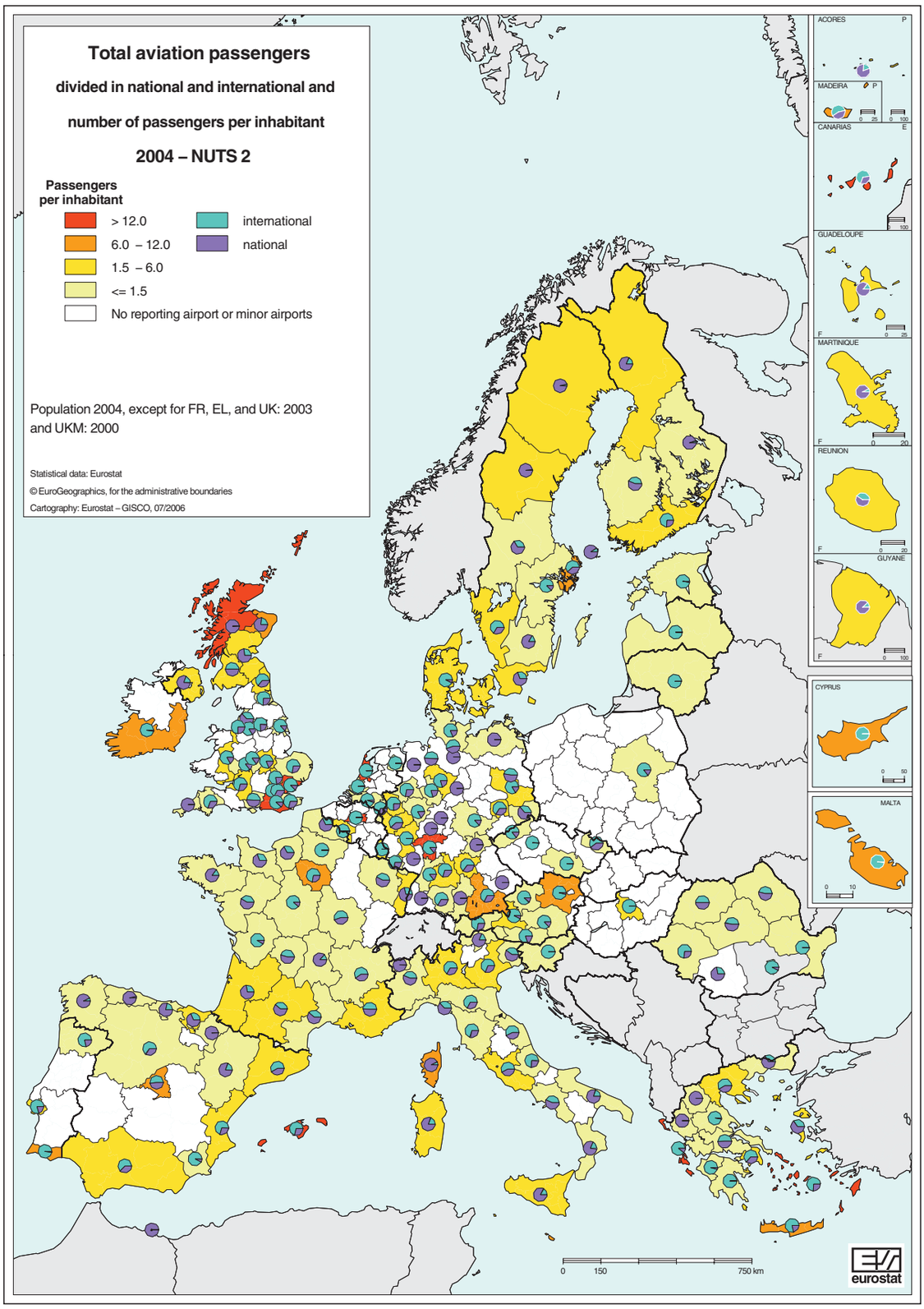
Obviously, regions for which tourism is the main economic activity display a large amount of international aviation passenger traffic. This figure becomes even more remarkable when compared with the population in these regions. Examples are the Illes Balears (27 million passengers, 28.4 per inhabitant), Canarias (28 million passengers or 15.2 per inhabitant).

Conclusion

Transport is closely related to the economic activity, population density and location of a region. The regional transport indicators illustrate this wide spatial variation in transport patterns.

Regional transport statistics show trends which could also be discovered from economic indicators, and this illustrates the close link between these two domains. Map 2 shows, for example, how private car ownership is positively correlated with the regional gross domestic product (GDP) and that the highest growth can be noticed in countries with an expanding economy. However, one aim of EU transport policy is decoupling the negative effects of transport from economic growth.

Regional and EU policies influence transport infrastructure and activities. The heterogeneous pattern of road safety statistics indicate that road safety is indeed a regional matter, influenced by regional prevention policies.



Map 10.5

Centrally located regions, conurbations and regions that serve as hubs have a better transport infrastructure and high transport density. However, these regions might be affected more seriously by environmental problems due to transport than regions on the fringe of the EU.

The regional variation seen in transport indicators in the Candidate Countries is similar to that seen across the EU, except that the volume of traffic is not concentrated to the same extent on regions with highly developed economies. The disparity between regions in old and new EU Member States, however, remains evident.

Methodological notes

Eurostat collects, compiles and disseminates a wide range of regional transport indicators. Data on road and railways infrastructures, inland waterways, vehicle stocks and road accidents are currently collected in the Member States and Candidate Countries, voluntarily 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, information on journeys made by vehicles were derived from a specific study on road transport data.

Regional transport indicators are freely disseminated on Eurostat's reference database under the 'Transport' theme and mirrored in 'General and regional statistics'.

Data are organised into 19 tables. All indicators, apart from journeys by vehicles, are divided into tables, including a division between Member States and Candidate Countries. Indicators for journeys by vehicles currently cover only regions for the 'old' Member States, prior to the 2004 enlargement.

Regional data for air and maritime transport, in this chapter, are derived from the ongoing data collections, foreseen by the existing legislation, from 1999 for the 'old' Member States and from 2003 for the new members. Consequently, there has been a series break with data prior to those reference years, since the methodology changed. Data based on this new methodology are disseminated in specific tables, which are different from reported data collected in the past using the regional questionnaires.

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

Due to the nature of transport, a spatial reference is built into most legal acts dealing with the collection of transport flow statistics, which makes it possible to directly derive indicators on maritime and air transport. Moreover, other regional transport indicators on transport flows can be found within the transport theme: 'Road transport', 'Railway transport' and 'Inland waterway transport'. More information on transport flows between airports and ports can also be obtained under 'Maritime transport' and 'Air transport'.

In order to show the potential of data collected on transport statistics as an analytical tool for regional patterns, this year's contribution also includes data on regional transport flows derived from the ongoing maritime and air 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 in Eurostat's dissemination reference database. The goal is to provide added value to the data already available on Eurostat's reference database Road infrastructure and vehicle stock.

Agriculture

11.



eurostat

Introduction

With Common Agricultural Policy focusing increasingly on rural development and the environmental aspects of farming, agricultural statistics – in a wider sense – are gaining in importance in the context of European regional statistics. Besides the 'traditional' fields of agriculture (land use, crops, livestock, etc.), more and more 'overall' information is collected – mainly through farm structure surveys (FSS). The agricultural chapter of this year's regional yearbook focuses on the structure of the agricultural holdings throughout the European Union, using the information derived from the FSS to explore certain environmental and rural development aspects.

Eurostat has been collecting, processing and publishing data on agriculture with a breakdown by region for more than 20 years. These data are available in Eurostat statistical databases (EUROFARM, REGIO).

Methodological notes

The purpose of the maps is to facilitate the comparison between the regions in the European context rather than providing a detailed description of each region.

The majority of the data in this chapter were collected in the Farm Structure Survey (FSS) 2003 (Poland and Romania 2002). The FSS collects information on a set of characteristics in relation with the agricultural holding, the statistical unit of that survey (a holding being defined as a technical-economic unit under single management engaged in agricultural production). The information collected allows comparison at the regional level. In most of the Member States, the FSS 2003 was carried out as a sample survey.

The cartographic representation is usually done at NUTS-2 level, which offers sufficient detail for analytical purposes and generally good data availability. However, for the purpose of statistical observation, the FSS in some cases uses regional units different from the NUTS regions: certain regions – for example Brussels and the Flemish part of Belgium (BE1 and BE2), or Bremen, Berlin and Hamburg (DE5, DE3 and DE6) – are merged. Concerning France, the overseas departments of France were covered for the first time in the framework of FSS 2003.

In the Community typology, each holding is classified by its economic size and its type of farming. The **type of farming** is determined on the basis of the relative importance of the individual activities carried out by a given farm. For instance, a farm where horticultural activity accounts for more than 2/3 of the economic size, is classified as *specialist horticulture*. Depending on the level of aggregation, farms are grouped into eight to 70 types. A holding where none of the agricultural activities is much more significant than the others is considered a mixed holding.

For each activity ("enterprise") on a holding, or farm, (e.g. wheat, dairy cow or vineyard), a standard gross margin (SGM) is estimated, based on the area (or the number of heads) and a

Livestock category	LU per head	Livestock category	LU per head
Bovine animals:		Pigs:	
under 1 year old	0.400	piglets	0.027
1 but less than 2 years old	0.700	breeding sows	0.500
male, 2 years old and over	1.000	other pigs	0.300
heifers, 2 years old and over	0.800	Poultry:	
dairy cows	1.000	broilers	0.007
other cows	0.800	laying hens	0.014
Sheep and goats	0.100	other poultry	0.030
Equidae	0.800	Rabbits, breeding females	0.020

regional coefficient. The sum of all margins, for all activities of a given farm, is referred to as the economic size of that farm. The **economic size** of the holding is expressed in european Size Units (ESU), 1 ESU being equal to 1200 euro of SGM. The SGMs used for the purpose of the FSS 2003 refer to the average of the years 1999, 2000 and 2001 (SGMs "2000").

The **utilised agricultural area** (UAA) is the total of arable land, permanent pasture and meadows, land used for permanent crops and kitchen gardens of the agricultural holdings. The UAA excludes unutilised agricultural land, woodland and land occupied by buildings, farmyards, tracks, ponds, etc.

For certain purposes, one needs to aggregate various categories of livestock, e.g. piglets, breeding sows and other pigs. The coefficients used to this end, are the so-called **livestock units** (LU). The LU is related to the feed requirements of the individual animal categories. The following LU coefficients are used in the framework of the FSS:

Taking into account the considerable importance of part-time work in agriculture and opportunities for part-time work in other sectors of the economy, information on employment in agriculture is given also in **Annual Work Units** (**AWU**). 1 AWU corresponds to the work performed by a person undertaking agricultural work on the holding over a 12 month period on a fulltime basis. The yearly working time of such a worker is 1800 hours (225 working days of 8 hours per day), unless national provisions governing contracts of employment are specified.

For Poland, data on the labour force characteristics are available only for the sole holdings (i.e. holdings of natural persons).

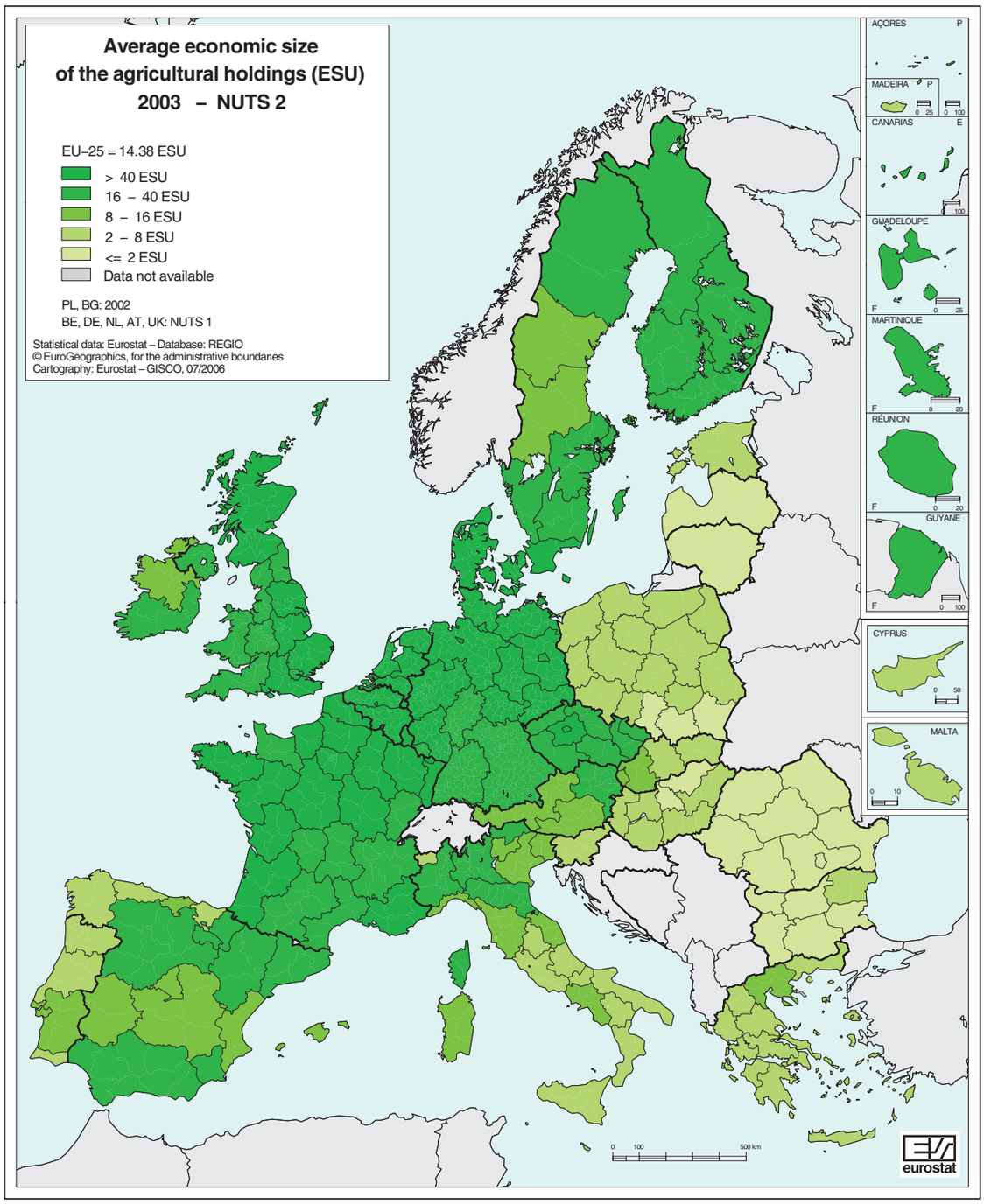
Structure of the agricultural holdings

Map 11.1 illustrates the **average economic size of the holdings** expressed in European Size Units (ESU) throughout the regions of Europe, which is a measure of the concentration of agricultural production. However, the map has to be interpreted with care: the number of farms in the individual regions varies between a few hundred (Praha in the Czech Republic; Berlin, Bremen, Hamburg, respectively Saarland in Germany) to almost 900 000 units (Sud and Nord-Est in Romania), and the actual size of the holdings can be quite different within a given region. Even if their number might be relatively small, holdings of a very large size can have a considerable impact on the average size of a given region. This means that a relatively high average size can mask the fact that the majority of holdings are in reality relatively small.

Due to the limitation of the number of size classes presented in the map, it was not possible to highlight regions with a very high or low average size. In fact, there are six regions in the portrayed countries where the average holding size is bigger than 100 ESU, namely Brandenburg, Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt, and Thüringen – all in Germany –, and West-Nederland (the Netherlands). The smallest average size – less than 1 ESU – was calculated for Yugozapaden in Bulgaria and the Nord-Est region in Romania.

Map 11.2 shows the most frequent **type of farming** in each region. This type was determined as the one to which at least 45% of the region's holdings belonged.

île-de-France (France); Friuli-Venezia Giulia (Italy); Anatoliki Makedonia, Thraki (Greece) and Etelä-Suomi, Åland (Finland) are the regions with the highest percentages (over 60%) of holdings specialised in arable land cropping. The southern regions can be characterised as specialised in permanent crops (vineyards, fruit orchards, and citrus or olives plantations). In Comunidad Valenciana (Spain), Peloponnisos and Attiki (Greece), four out of five holdings belong to this type of farming. Regions where farms keeping grazing livestock (cattle, sheep and goats) are the most characteristic type (over 80%) can be found in Ireland (Border, Midlands and Western, Southern and Eastern), and in the United Kingdom (Northern Ireland and Wales). But Cantabria (Spain) and Limousin (France) also belong to this group.

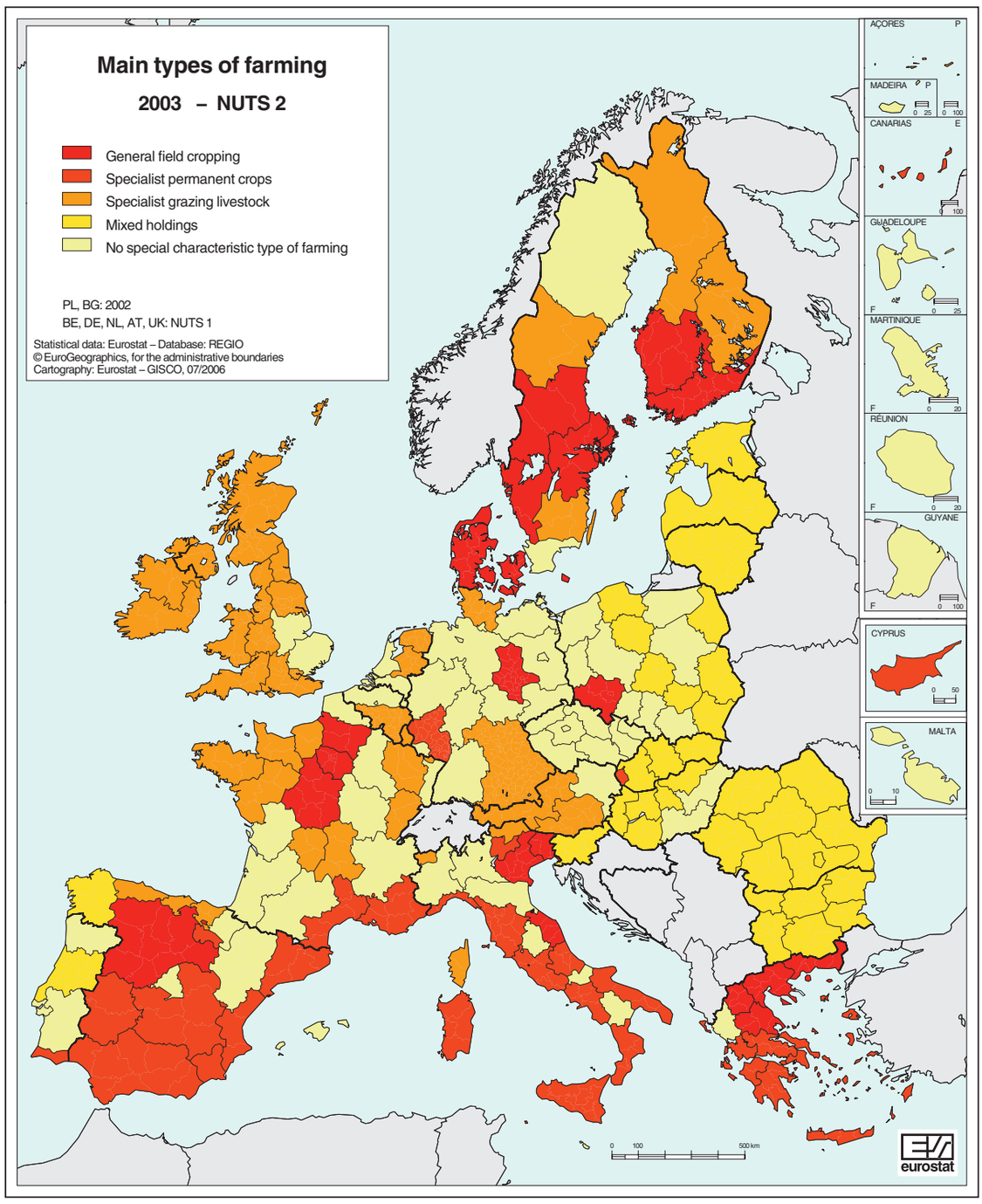


Map 11.1

Besides the types of farming indicated in the map, horticulture is a farm type characteristic of the neighbourhood of bigger cities: in Germany Bremen, Bremen and Hamburg (50%), partly Praha (Czech Republic), and West-Nederland (30%).

Regions with 20% or more of the farms specialised in keeping granivores (pigs and poultry), are Dél-Alföld, Nyugat-Dunántúl, Észak-Alföld in Hungary, as well as București, Vest and Sud in Romania.

The next map (11.3) shows the regional **average labour input** per holding. The highest average labour input (more than twice the EU-25 average) was generally used, in 2003, in regions of a high average economic size (over 100 ESU) or where the majority of the holdings was specialised in labour-intensive agricultural production

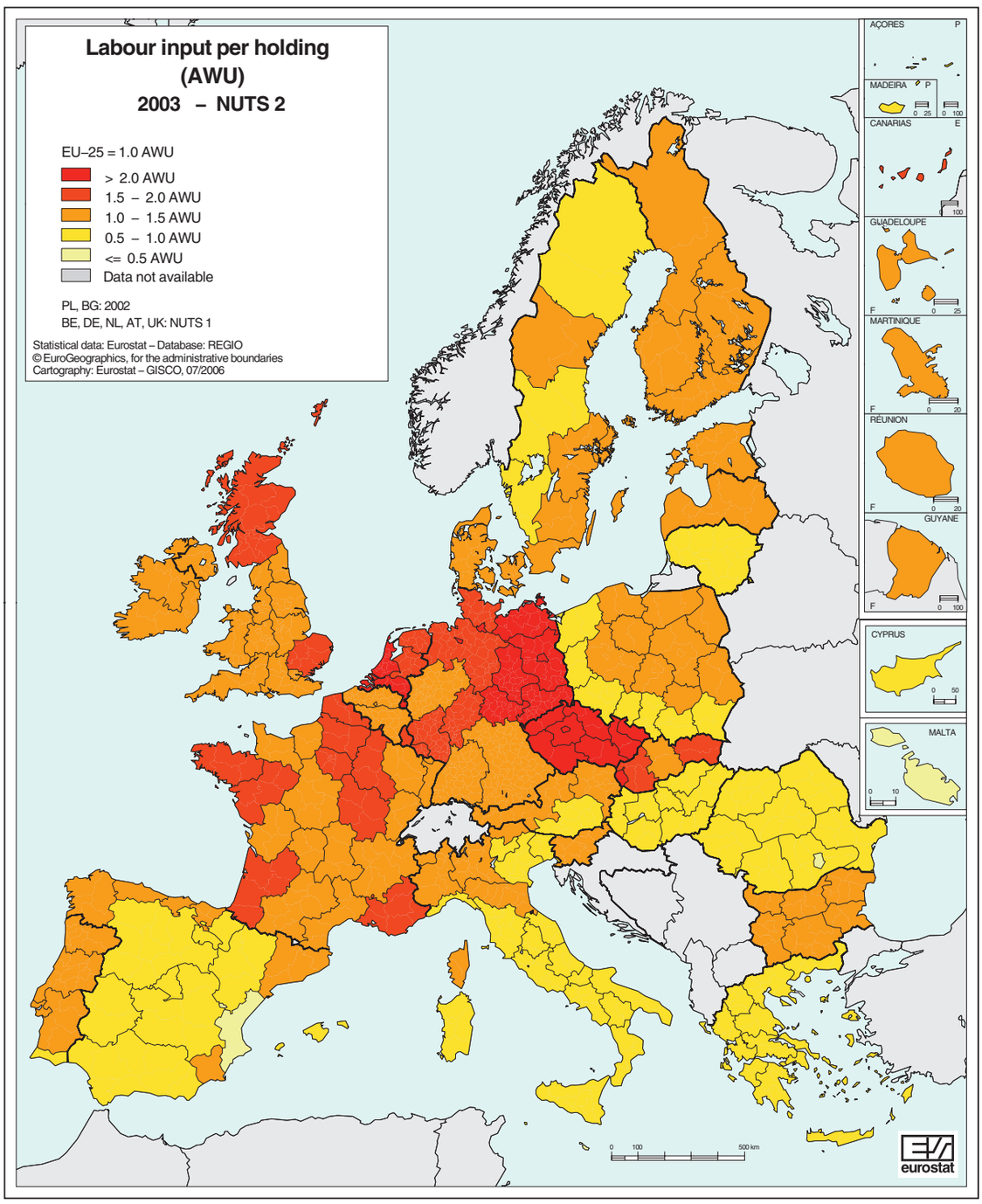


Map 11.2

(e.g. horticulture). The average labour input was lowest (less than 0.5 AWU) in Malta and in the Comunidad Valenciana (Spain).

One of four sole holders is a woman – the EU-25 average being a modest 27%. The regional distribution of this proportion is shown in Map 11.4. With the exception of Galicia (Spain), where 52% of the sole holders are women; the holdings in the regions of the EU (and also of Bulgaria and Romania) are in their majority managed by men. The proportion of women managers is particularly high (40% or over) in the Baltic States. In Germany, the share of female holders is higher in the eastern *Länder*, where at the same time the average size of the holdings is bigger.

Map 11.5 demonstrates the regional disparities in **livestock density**, which is the number of live-



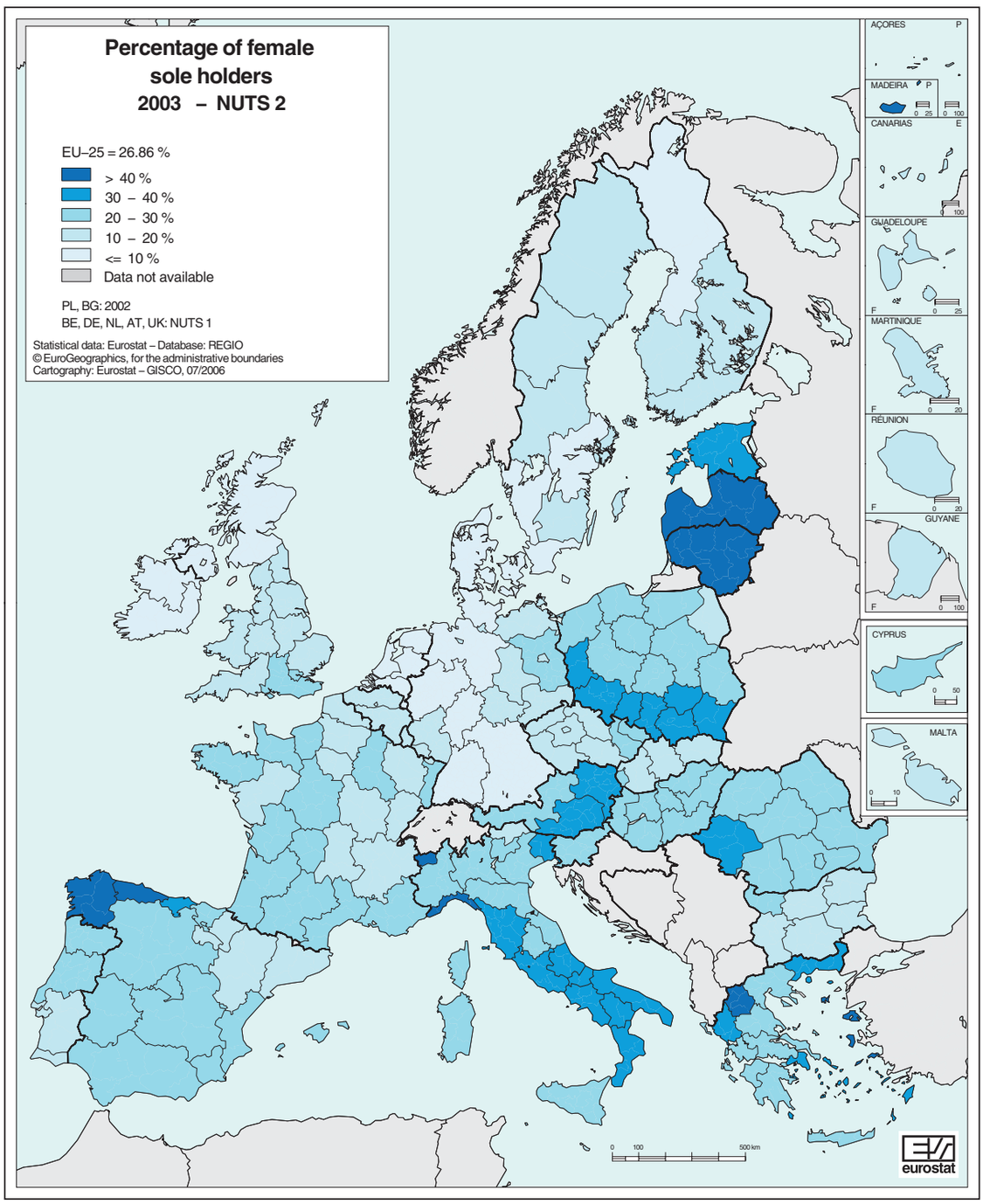
Map 11.3

stock units (LU) (see *methodological notes*) per hectare of utilised agricultural area (UAA).

The livestock density is over 4 LU/UAA in Zuid-Nederland (the Netherlands), Malta and in northern Belgium (Brussels Hoofdstedelijk Gewest and Vlaamst Gewest). On the other side of the scale (around 0.1 LU/UAA), there are Île de France (France) and Puglia (Italy).

Environmental aspects

Irrigation is an important means of production in many regions, especially in southern Europe. Map 11.6 shows the distribution of the irrigable

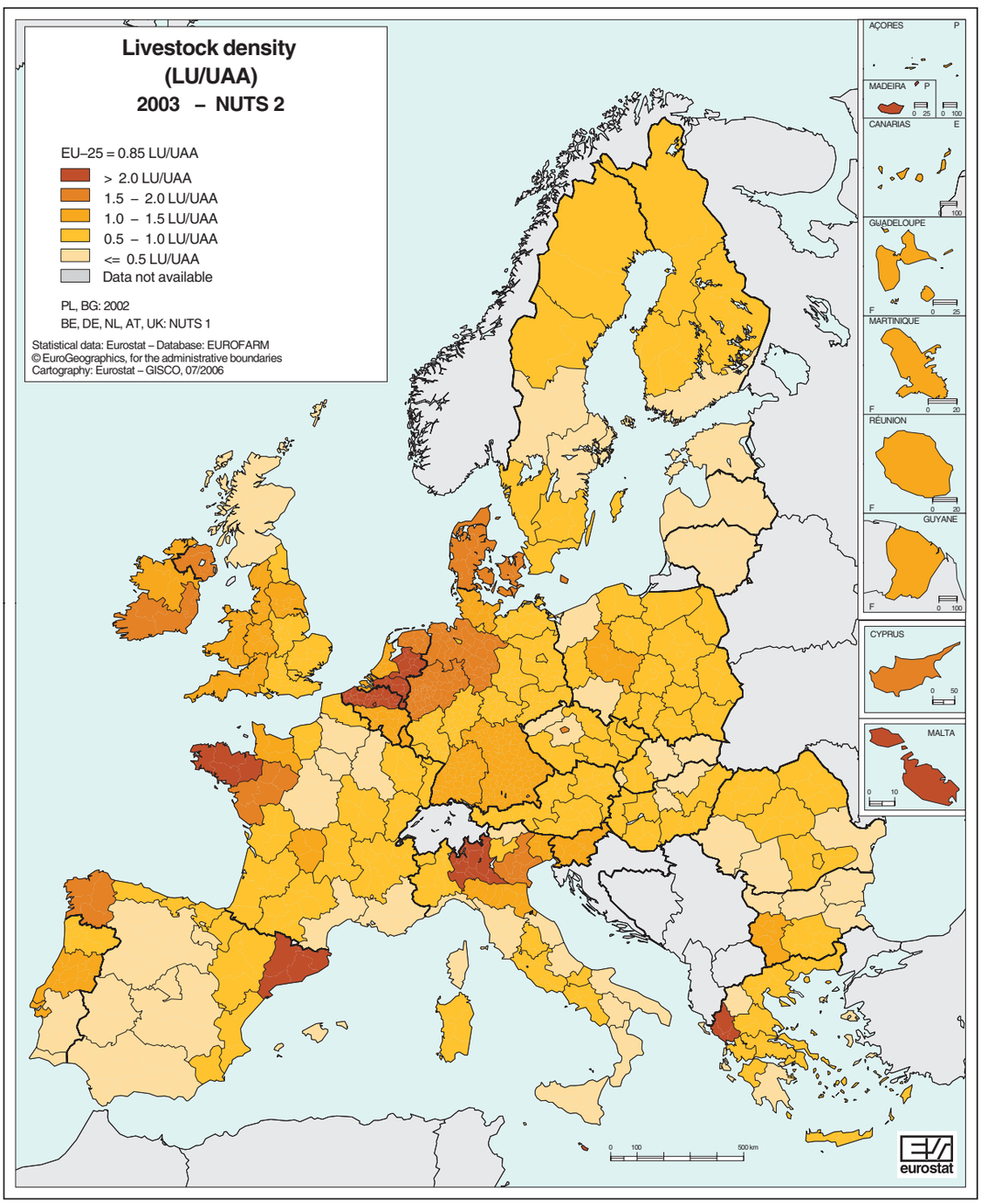


Map 11.4

agricultural area. The irrigable area refers essentially to arable land and permanent crops; however the kitchen gardens of the agricultural holdings as well as areas under cover, such as glasshouses are not included. Whether the irrigable area was actually irrigated depends on the crop cultivated as well as the specific weather conditions (temperature and precipitation).

Madeira (Região Autónoma da Madeira) is the region with the highest percentage of irrigable agricultural area (92%), followed by Lombardia (Italy, 71%) and Thessalia (Greece, 65%).

The share of total agricultural area of holdings having agricultural area under organic farming is shown in Map 11.7. All the area of these holdings is not necessarily dedicated to organic farming so that, in prac-



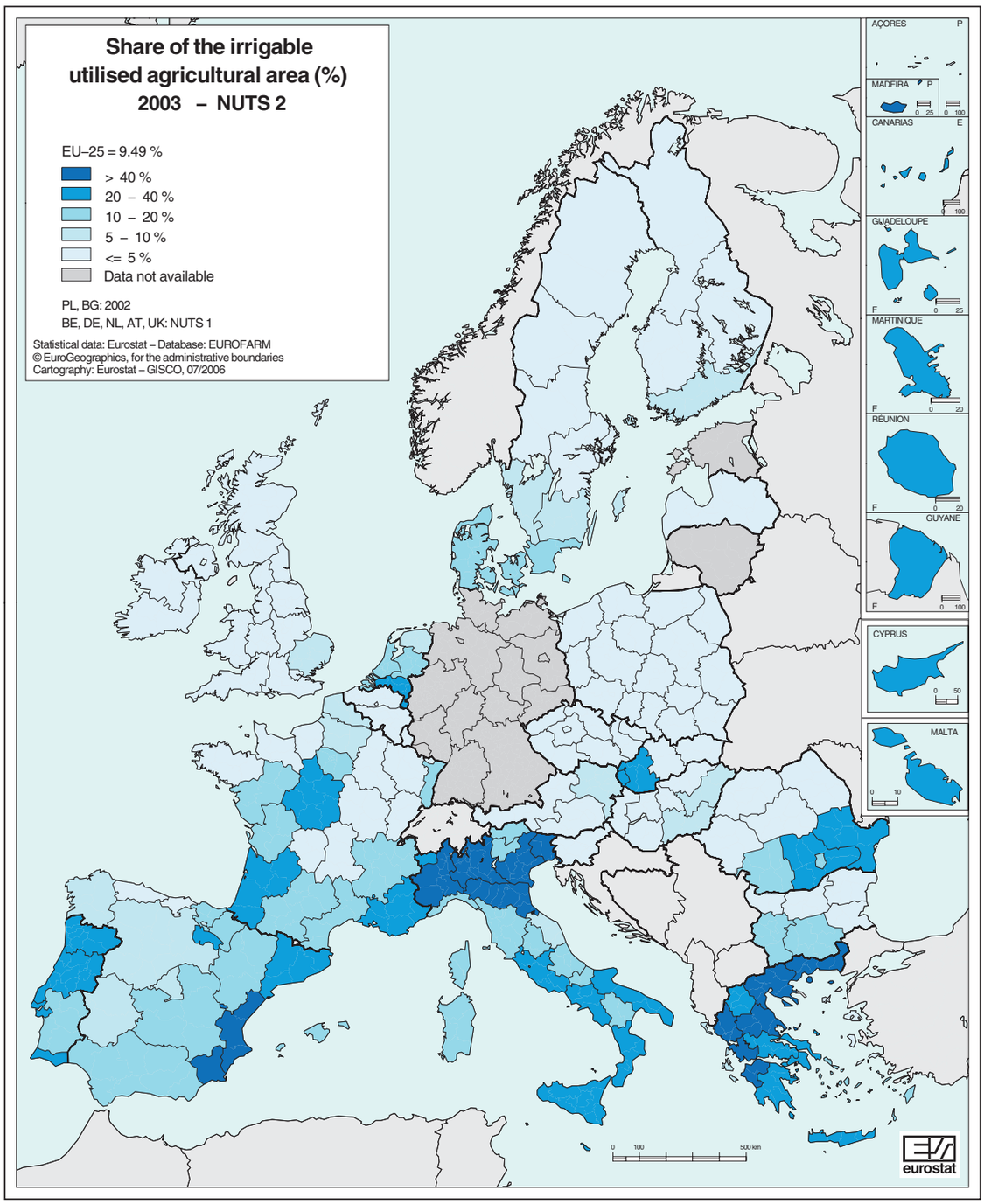
Map 11.5

tice, the land area dedicated solely to organic farming will be less than indicated by these percentages.

The share of the area of organic holdings is highest in the majority of the Swedish regions, where more than 20% of the holdings are farming area according to organic conditions, followed by Westösterreich (Austria), Sydsverige (Sweden) and Mecklenburg-Vorpommern (Germany) where the share of such holdings is still between 10% and 15%.

Rural development statistics

Rural development is the second pillar of the reformed Common Agricultural Policy. The targets for Rural Development Policy have been laid down in Council Regulation (EC) No1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD).

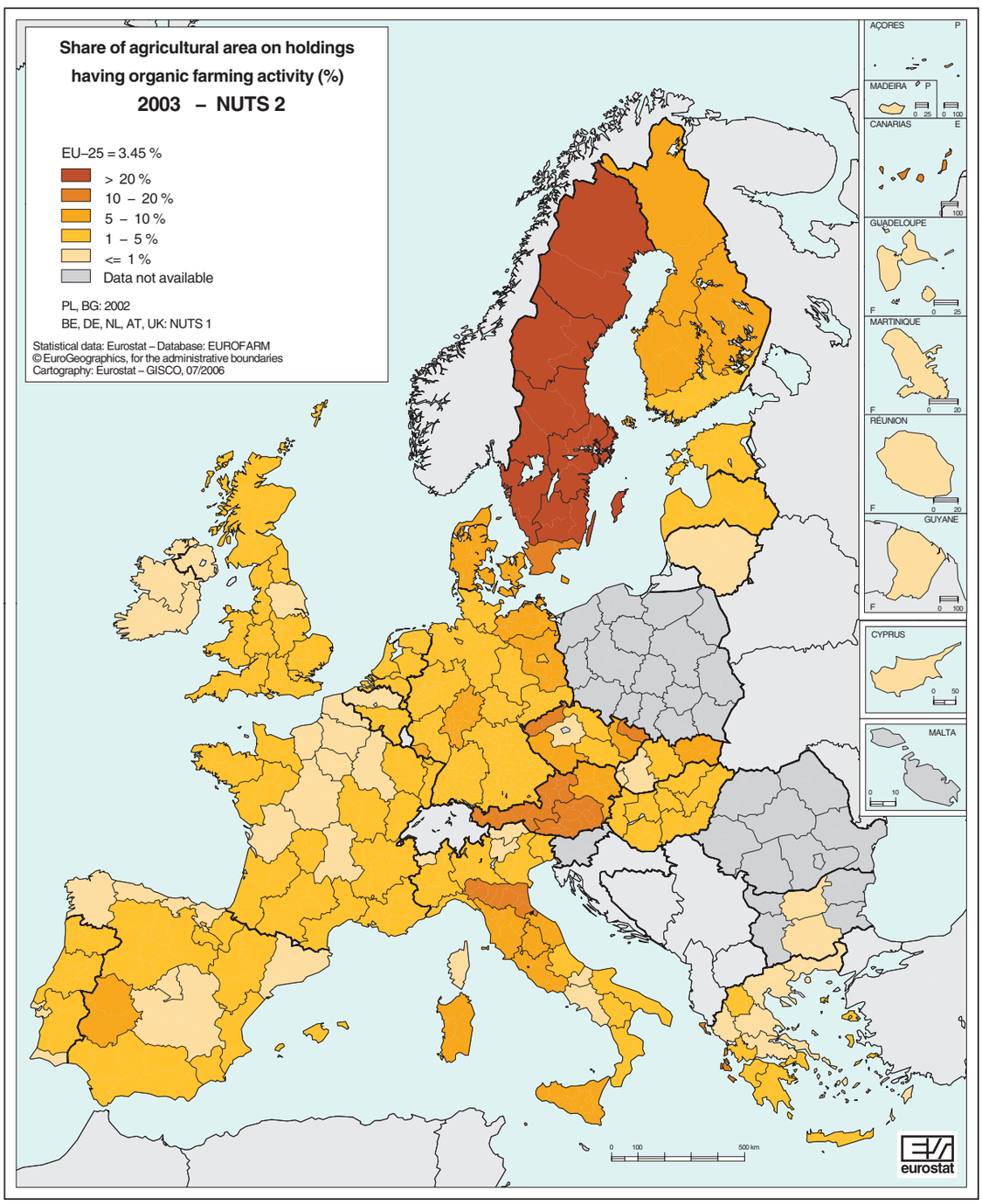


Map 11.6

The specific policy objectives, as they have been set by the proposed new regulation on rural development, are the following:

- Axis 1: Increase the competitiveness of the agricultural sector through support for restructuring;
- Axis 2: Enhance the environment and countryside through support for land management;
- Axis 3: Enhance the quality of life in rural areas and promote diversification of economic activities through measures targeting the farm sector and other rural actors.

The existing agricultural statistics (in particular economic accounts for agriculture and farm structure survey results) can be used as such to monitor and evaluate the axis 1 measures. To monitor and evaluate axis 2 and even more axis 3 measures, traditional statistics are only



Map 11.7

relevant if they differentiate between rural and non-rural areas. One of the crucial points is then the delimitation of rural areas from non-rural ones.

Two different concepts delimitating rural from non-rural areas are being used: the so-called OECD concept, on one hand, and Eurostat's degree of urbanisation concept, on the other. Both concepts are illustrated in the following.

The OECD concept

The OECD concept distinguishes local administrative units (LAU 1 or 2) and regions (NUTS 3). A local area unit is a rural community if it has a population density below 150 inhabitants per km^2. The regions (NUTS 3) are distinguished by their degree of rurality, i.e. by their share of population living in rural local area units.

Three types of regions are used:

- predominantly rural regions: >50% of the population living in rural communities,
- significantly rural regions: 15–50% of the population living in rural communities, and
- predominantly urban regions: <15% of the population living in rural communities.

Map 11.8 and table 11.1 show the areas of the 3 types of regions in each EU Member State and some of the Candidate Countries.

More than 50 % of the land area of EU-25 is considered rural. However, there is a big variation between Member States as regards the share of predominantly rural areas, with a percentage of 3% in the Netherlands and of 99% in Ireland representing the lower and the upper end of the scale. Applying the OECD concept, Slovenia, Sweden, Finland, Cyprus, Lithuania and Luxembourg do not show any predominantly urban areas.

The Member States with the highest percentage of predominantly urban areas are Malta, the Netherlands and Belgium.

The Eurostat "degree of urbanisation" concept

The Eurostat "degree of urbanisation" concept is used in various EU surveys (in particular the labour force survey and the survey on income and living conditions). This concept distinguishes 3 types of zones which are defined as follows:

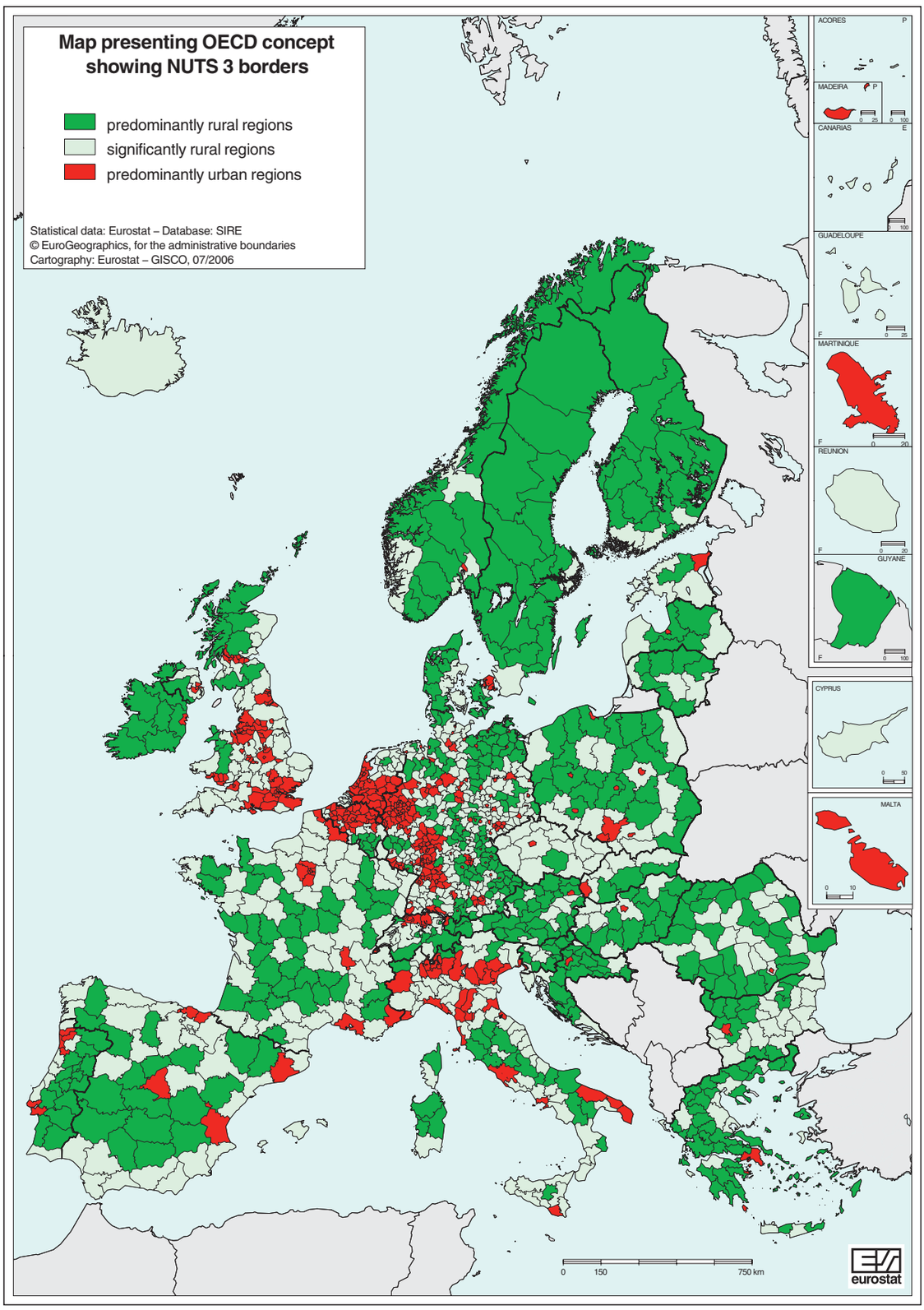
- *densely populated area*: contiguous set of local areas with each of these local areas having a density >500 inhabitants per km^2 and a population of at least 50000 inhabitants for the whole set.
- *intermediate area*: contiguous set of local areas not belonging to a densely populated area with each of these local areas having a density >100 inhabitants per km^2 and either a population of at least 50000 inhabitants for the whole set or located adjacent to a densely populated area.
- *thinly populated area*: contiguous set of local areas neither belonging to a densely populated area nor to an intermediate area.

A set of local areas totalling less than 100 km^2 and not reaching the required density but entirely enclosed within a densely-populated or intermediate area, is to be considered to form part of that area. If it is enclosed within a densely populated area and an intermediate area it is considered to form part of the intermediate area.

In most of the Member States, a "local area" corresponds to the communes or municipalities.

Map 11.9 and table 11.2 present the areas of the 3 types of zones in each EU Member State.

Thinly populated areas cover almost 84% of the total EU-25 territory. In the Baltic States, Finland, Sweden and Ireland more than 97% of the territory belongs to this type of area. In contrast, in the Netherlands, Malta and Belgium only a small percentage of the territory is thinly populated (13%, 21% and 30%, respectively).

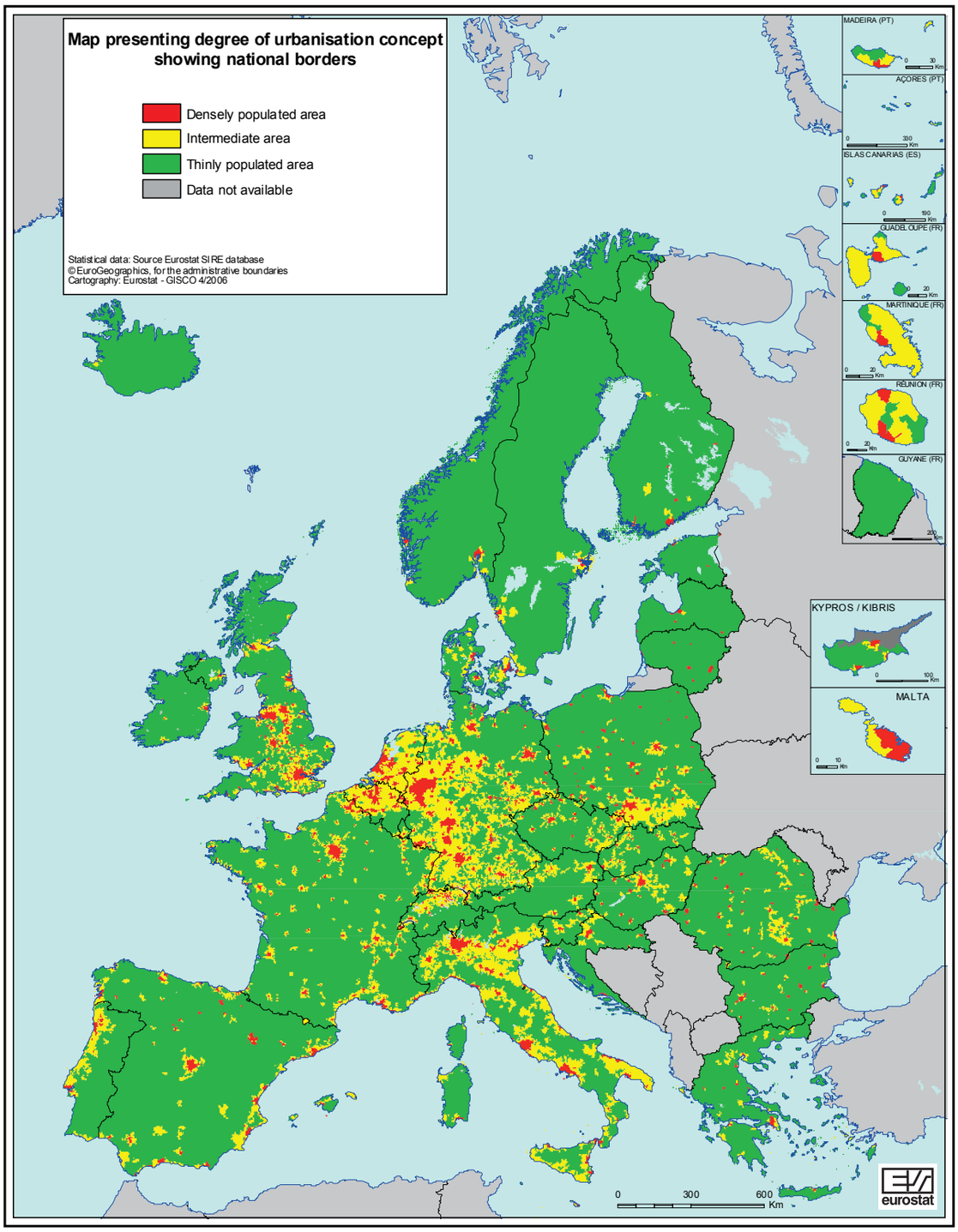


Map 11.8

Table 11.1: Rural and urban areas, OECD concept, 2003 data

	Total area	Predominantly rural	Significantly rural	Predominantly urban	Predominantly rural	Significantly rural	Predominantly urban
	km²	km²	km²	km²	in %	in %	in %
EU-25	3 968 335.72	2 191 638.76	1 434 549.05	342 147.91	55.23	36.15	8.62
AT	83 871.20	65 798.80	16 932.30	1 140.10	78.45	20.19	1.36
BE	30 518.10	6 623.60	7 155.90	16 738.60	21.70	23.45	54.85
CY	5 695.00	0.00	5 695.00	0.00	0.00	100.00	0.00
CZ	77 268.60	6 809.90	69 973.60	485.10	8.81	90.56	0.63
DE	357 028.80	128 130.50	154 590.50	74 307.80	35.89	43.30	20.81
DK	43 098.30	29 191.10	11 934.50	1 972.70	67.73	27.69	4.58
EE	43 432.00	9 067.00	31 001.00	33 64.00	20.88	71.38	7.75
ES	505 997.00	239 787.00	235 416.00	307 94.00	47.39	46.53	6.09
FI	304 472.60	282 376.90	22 095.70	0.00	92.74	7.26	0.00
FR	632 974.22	306 288.66	298 816.65	278 68.91	48.39	47.21	4.40
GR	131 625.60	97 220.80	30 596.60	3 808.20	73.86	23.25	2.89
HU	93 028.00	60 131.00	32 372.00	525.00	64.64	34.80	0.56
IE	68 394.10	67 476.60	0.00	917.50	98.66	0.00	1.34
IT	301 336.70	82 541.10	150 760.60	68 035.00	27.39	50.03	22.58
LT	62 678.00	40 748.00	21 930.00	0.00	65.01	34.99	0.00
LU	2 586.00	0.00	2 586.00	0.00	0.00	100.00	0.00
LV	62 290.00	35 011.00	14 111.00	13 168.00	56.21	22.65	21.14
MT	315.60	0.00	0.00	315.60	0.00	0.00	100.00
NL	33 783.70	1 111.70	11 842.60	20 829.40	3.29	35.05	61.66
PL	312 685.00	189 689.00	113 957.00	9 039.00	60.66	36.44	2.89
PT	91 947.00	64 113.20	19 972.60	7 861.20	69.73	21.72	8.55
SE	410 314.20	396 758.20	13 556.00	0.00	96.70	3.30	0.00
SI	20 141.00	14 170.00	5 971.00	0.00	70.35	29.65	0.00
SK	49 034.00	15 799.00	31 183.00	2 052.00	32.22	63.59	4.18
UK	243 821.00	52 795.70	132 099.50	58 925.80	21.65	54.18	24.17
BG[1]	111 002.00	40 579.00	69 074.00	1 349.00	36.56	62.23	1.22
RO	238 391.00	146 735.00	91 418.00	238.00	61.55	38.35	0.10

[1] 2001 data



Map 11.9

Table 11.2: The Eurostat "degree of urbanisation" concept, 2001 data

	Total area	Thinly populated	Intermediate	Densely populated	Thinly populated	Intermediate	Densely populated
	km²	km²	km²	km²	in %	in %	in %
EU-25	3 971 514.82	3 334 832.66	503 840.76	132 841.40	83.97	12.69	3.34
AT	82 456.31	71 439.67	9 579.50	1 437.14	86.64	11.62	1.74
BE	30 528.59	9 286.46	16 139.19	5 102.94	30.42	52.87	16.72
CY	5 789.70	5 017.70	513.00	259.00	86.67	8.86	4.47
CZ	78 926.00	65 834.11	10 441.05	2 650.84	83.41	13.23	3.36
DE	356 856.39	193 327.20	131 577.83	31 951.36	54.18	36.87	8.95
DK	43 098.09	33 751.63	7 710.89	1 635.57	78.31	17.89	3.79
EE	43 445.11	43 008.93	105.20	330.98	99.00	0.24	0.76
ES	505 435.05	459 962.75	34 192.06	11 280.24	91.00	6.76	2.23
FI	304 527.21	299 304.70	3 882.55	1 339.96	98.29	1.27	0.44
FR	633 013.84	568 896.47	50 898.23	13 219.14	89.87	8.04	2.09
GR	132 117.54	123 650.45	6 755.50	1 711.59	93.59	5.11	1.30
HU	93 091.58	79 583.53	10 880.72	2 627.33	85.49	11.69	2.82
IE	70 208.95	68 694.43	971.17	543.35	97.84	1.38	0.77
IT	300 385.24	185 942.50	96 416.91	18 025.83	61.90	32.10	6.00
LT	64 744.24	63 929.03	0.00	815.21	98.74	0.00	1.26
LU	2 586.36	1 622.72	806.99	156.65	62.74	31.20	6.06
LV	64 537.00	63 749.00	188.00	600.00	98.78	0.29	0.93
MT	314.43	67.29	93.11	154.02	21.40	29.61	48.98
NL	33 783.20	4 222.90	22 434.30	7 126.00	12.50	66.41	21.09
PL	312 736.16	269 327.20	34 317.99	9 090.97	86.12	10.97	2.91
PT	92 231.96	76 001.21	13 948.02	2 282.73	82.40	15.12	2.47
SE	410 984.43	401 281.31	8 241.47	1 461.65	97.64	2.01	0.36
SI	20 273.00	16 279.76	3 570.79	422.45	80.30	17.61	2.08
SK	49 076.44	41 866.70	6 242.30	967.44	85.31	12.72	1.97
UK	240 368.00	188 785.00	33 934.00	17 649.00	78.54	14.12	7.34
BG	110 902.00	106 230.00	2 414.00	2 258.00	95.79	2.18	2.04
RO	237 835.00	216 872.00	16 332.00	4 631.00	91.19	6.87	1.95

The highest share of densely populated areas can also be found in Malta (49%), the Netherlands (21%) and Belgium (17%).

Conclusion

The above examples are intended merely to highlight a few of the many possible ways of analysing agriculture and rurality for recent years in the regions of the EU. They are no substitute for detailed analysis.

As agriculture and the related common policy – including the more and more important rural development policy – are now changing rapidly, comparison in time is also essential. Generally agricultural statistics, including the farm structure surveys, are making this possible. We hope that the information highlighted will encourage readers to probe deeper into the Eurostat statistical databases to make many further interesting discoveries in time and geography.

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: Statistical regions at level 2

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

Regions: Statistical yearbook 2006

Luxembourg: Office for Official Publications of the European Communities

2006 — 165 pp. — 21 x 29.7 cm

Theme: General and regional statistics
Collection: Panorama of the European Union

ISBN 92-79-01799-3
ISSN 1681-9306

Price (excluding VAT) in Luxembourg: EUR 30

How to consult the information on the CD-ROM

1. On successful installation (*) of the CD-ROM, a window will appear with the title of the yearbook and the language versions that are available. Click on your chosen language.
2. The following screen lists all the information contained on the CD-ROM. Choose the type of information desired and click on it.
3. Follow the instructions on each of the following screens.

(*) If the program does not start automatically, carry out the following steps:

- Open 'Windows Explorer'.
- Double click on the symbol for the CD-ROM drive.
- Double click on the file "Index.htm".

SALES AND SUBSCRIPTIONS

Publications for sale produced by the Office for Official Publications of the European Communities are available from our sales agents throughout the world.

You can find the list of sales agents on the Publications Office website (http://publications.europa.eu) or you can apply for it by fax (352) 29 29-42758.

Contact the sales agent of your choice and place your order.