

Regions: Statistical yearbook 2004



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Luxembourg: Office for Official Publications of the European Communities, 2004

ISBN 92-894-7148-4
ISSN 1681-9306

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Foreword

As with all other services of the European Commission, Eurostat has been undergoing a momentous year in 2004. As 10 countries take their place as full members of the European Union, their national statistical offices complete a long apprenticeship within the European statistical system. The smoothness of that transition is a tribute not only to the professionalism of their officials, often in the face of severe resource and personnel constraints, but also to the important contribution made by the various Phare preparatory programmes in statistics. In particular these have had a very clear impact in the increasingly important field of regional statistics. Phare funding made it possible to prepare regional portraits of most accession countries between 1998 and 2001 and to expand the data holdings of the REGIO database in 1999 and 2000 to include regional data about them. Along with many other Eurostat units, the regional team has also been assisted by a number of Phare trainees in recent years — each combining enthusiasm to learn about the EU with the statistical traditions of their country of origin. On returning to their home countries, these trainees have continued to promote regional statistics, aided by their knowledge of Eurostat procedures and requirements.

A further milestone is reached by the 2004 regional yearbook: for the first time, it contains data collected in accordance with a regional nomenclature laid down in EU legislation. Adoption of the NUTS regulation in July 2003 was an important contribution to placing regional statistics on a more stable footing and reflects the wider recognition this branch of statistics now enjoys. The regional yearbook's traditionally broad readership will doubtless be expanded by the 2004 enlargement as citizens all over the EU seek to learn more about the diversity of Europe.

Joaquin Almunia

European Commissioner for Economic
and Monetary Affairs, responsible for Eurostat



CONTENTS

■ INTRODUCTION	9
New shape for Europe — new NUTS nomenclature	11
A detailed look at the new nomenclature	11
Enlargement.	11
Content and structure	11
Specialist input	12
NUTS 2003 — regions list	12
More regional information needed?	12
Regional interest group on the web	13
Closure date for the yearbook data	13
■ POPULATION	15
Introduction.	17
Ageing population.	17
Causes of the ageing population.	20
Consequences of an ageing population	22
Expectations for the future	23
Literature	24
■ AGRICULTURE	25
Introduction.	27
Animal-rearing in Europe's regions	27
Pigs	27
Sheep	27
Cattle	30
Location of milk production	31
Milk production.	31
■ REGIONAL GROSS DOMESTIC PRODUCT	35
What is regional gross domestic product?	37
Regional GDP in 2001	39
Major regional differences within the countries	40
Peripheral regions and new Member States catching up.	40
■ HOUSEHOLD ACCOUNTS	43
Introduction: Measuring wealth.	45
Private household income	45
Results for 2001.	46
Extended concept of income	50
Regional income of all sectors.	52
Conclusion	52
■ REGIONAL LABOUR MARKET	53
Introduction.	55
Employment rate of age group 15–64	55
Change in employment	55
Agriculture	57

Services	59
Unemployment rate	60
Change in unemployment	60
Female unemployment	61
Youth unemployment	64
Long-term unemployment.	66
■ STRUCTURAL BUSINESS STATISTICS	67
Introduction.	69
Industry predominates in the new Member States.	71
High wages around capital cities, particularly in industry.	73
Employment in industry unevenly distributed across the regions	76
Capital-intensive industries in the regions.	79
Conclusion	79
■ HEALTH	81
Introduction.	83
Mortality in the EU regions	83
Many factors influence regional mortality.	83
Remarkably few cerebrovascular deaths in France	84
Colon-cancer rates reflect similarities in eating habits.	87
High UK female mortality from influenza and pneumonia	87
Prostate cancer — clear north–south divide	88
Breast cancers: sharp geographical distinction.	90
Fatal accidents — men in traffic, women in falls	91
Fewer traffic deaths in urban areas	91
Falls — regional diversity in Belgium and Germany.	92
Healthcare resources in EU regions	94
Changes in the number of doctors	94
Changes in the number of hospital beds	95
Comments on methodology.	96
Socio-health regions.	97
Mortality indicators.	97
Resource indicators	97
■ TOURISM	99
Introduction.	101
Methodological notes	101
Capacity (infrastructure) statistics.	101
Occupancy data.	103
Conclusion	105
■ URBAN STATISTICS	109
Background	111
Content and spatial coverage	111
Some interesting results	112
Dissemination of results.	120
Next steps.	120

■ NUTS 1 STATISTICS	123
NUTS 1 — potential unrealised	125
NUTS 1 in the Member States.	125
Administrative NUTS 1 regions — historical and cultural entities.	125
Non-administrative — primarily geographical divisions.	127
What does the NUTS 1 level offer?	127
Contrasting NUTS 1 with NUTS 2	129
Constraints and expansion	131
■ EUROPEAN UNION: NUTS 2 REGIONS	133
■ ACCESSION COUNTRIES: NUTS 2 REGIONS	135



I N T R O D U C T I O N



New shape for Europe – new NUTS nomenclature

2004 is a momentous year for Europe. It has seen the largest enlargement in the history of the European Union — bringing the Union 10 new Member States and nine new official languages.

In fact, the regional statistical yearbook has long foreshadowed this expansion of the Union and has for some years already contained data for these countries (and indeed also for Bulgaria and Romania although they are not scheduled for membership until around 2007).

What does make this 2004 edition of the yearbook innovative, however, is the use of the NUTS 2003 nomenclature, adopted in July 2003, as the basis of the data collection. Accordingly, all maps in this edition are based on NUTS 2003, whereas last year's edition still used NUTS 99. Over the past year, the future structure and nature of regional statistics at European level have been shaped by the adoption of the NUTS regulation and by the steady march towards enlargement in 2004.

A detailed look at the new nomenclature

The European Parliament's adoption of the regulation finally provided the NUTS nomenclature with a legal base. Perhaps more importantly, given the importance to data users of a stable regional breakdown, it sets out a well-defined procedure for managing modifications to the nomenclature in individual countries. The text of the regulation is available on the enclosed CD-ROM. Full details of the NUTS 2003 breakdown may be found on Eurostat's RAMON server ⁽¹⁾.

Whereas (until the regulation was signed) regional statistics in Europe had been collected in ac-

cordance with the 1999 version of the nomenclature (known as 'NUTS 99'), NUTS 2003 is now the only valid and acceptable regional breakdown for supplying data to Eurostat. All Eurostat databases were adapted in November 2003 to contain only the NUTS 2003 codes. Although NUTS 2003 strongly resembles NUTS 99 (only 10 of the more than 200 NUTS 2 regions were modified) the five countries affected by the changes have had some difficulty in calculating data for the new breakdown, thus causing occasional grey zones in some maps. The maturing of the new nomenclature should see the elimination of this problem well before the 2005 yearbook and readers are invited to consult Eurostat's databases to observe the improvements in coverage since the maps were compiled.

Enlargement

The long lead times associated with data collection campaigns mean that although there has been continued improvement in coverage for the new Member States, a small minority of maps and tables do not fully cover them. As noted for example in the 'Science and technology' chapter, the necessary action is under way to remedy this situation and considerable improvements are expected by the time this yearbook is published. Once again, no distinction is made in the yearbook between those countries that became Member States in 2004 and those due to join around 2007: wherever data are available for Bulgaria and Romania, these of course also feature in the maps and commentaries. In the case of Turkey, the situation is rather different. Although a regional breakdown has been agreed between Turkey and Eurostat, there continues to be too little regional data to justify including Turkey in the yearbook analyses.

Content and structure

In broad terms, the 2004 structure follows that of 2003 — but with certain significant differences. Last year's exploratory coverage of household accounts earned a permanent place for this chapter and it has been grouped alongside the closely-related GDP chapter. In turn, a new exploratory

⁽¹⁾ From the Eurostat home page (www.europa.eu.int/comm/eurostat) just select your preferred language, click on 'Metadata', then on 'Classifications' and finally on 'RAMON'.

chapter is included, this time examining the potential of the NUTS 1 level of the nomenclature. Also, the recruitment to the regional team in 2003 of a labour-market specialist has made it possible to integrate coverage by merging the previously separate 'Labour force survey' and 'Unemployment' chapters. Sadly, progress on the collection of regional environmental data has not, as hoped, permitted the restoration of the environment chapter this year. Even more regrettable is that resource cuts in the relevant thematic unit have made it impossible to process regional transport data. Accordingly, the transport chapter has had to be dropped from this year's edition.

In each chapter, regional distributions are again highlighted by colour maps and graphs, which are then evaluated by experts in text commentaries. In keeping with the traditions of the yearbook, an effort has again been made to focus on aspects not recently covered. The population chapter, for example, is devoted to the 'greying' of Europe's population, a theme of considerable social, political and economic importance but a phenomenon that is far from uniformly apparent across Europe's regions.

A major break with past practice is the removal from the CD-ROM of the data tables previously specially compiled for the yearbook. With Eurostat's databases due to be available online, free of charge, from 1 October 2004, there was no justification for such a drain on resources by providing a limited selection of data when users will have the entire wealth of tables available in the REGIO database. To enable readers to make the fullest possible use of this opportunity, the CD-ROM again contains the latest edition of the reference guide to the database.

Specialist input

Once again the commentaries within each of the thematic chapters reflect the specialist knowledge of Eurostat's thematic units⁽²⁾. By exploiting their experience of data at the national level, the authors are in a position to place the regional variation noted in an appropriate context. The regional statistics team gratefully acknowledges the contribution made by the following authors, each of whom has had to find the necessary time within an already overcrowded schedule:

Chapter	Author(s)
1. Population	E. Beekink
2. Agriculture	F. Weiler, L. Harley
3. Regional gross domestic product	A. Krueger
4. Household accounts	B. Feldmann
5. Regional labour market	M. Mlady
6. SBS	P. Feuvrier, F. Faes-Cannito
7. Health	D. Dupré
8. Tourism	H.-W. Schmidt
9. Urban statistics	B. Feldmann
10. NUTS 1 statistics	N. Finn

NUTS 2003 – regions list

In the maps in this yearbook, the statistics are presented at NUTS 2 level⁽²⁾. A map giving the code numbers of the regions may 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 enlarged 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 3 regions and the appropriate maps, may be consulted on the RAMON server by following the link in footnote 1.

More regional information needed?

The REGIO database contains more extensive time series (which may go back as far as 1970) and more detailed statistics than those given in this yearbook (for example, population by single years of age — deaths by single years of age — births by age of the mother — detailed results of the Community labour-force survey — economic accounts aggregates for 17 branches — detailed breakdown of agricultural production — data on

⁽²⁾ In the case of the NUTS 1 chapter, a list of NUTS 1 regions is also available on the CD-ROM.

the structure of agricultural holdings, etc.). Moreover, there is coverage in REGIO of a number of indicators at NUTS 3 level (such as area, population, births and deaths, gross domestic product, unemployment rates). This is important because there are now 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 statistics — Reference guide 2004*, a copy of which is available in PDF on the accompanying CD-ROM.

Regional interest group on the web

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

To access it, simply click on the URL:

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

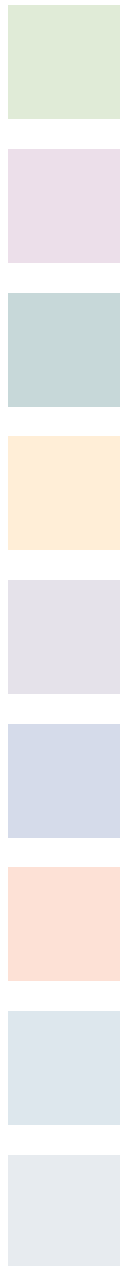
Among other resources, you will find:

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

Closure date for the yearbook data

The cut-off date for this issue is 31 May 2004.





Introduction

Since the 1980s, all countries in the EU have been experiencing an ageing population; a decreasing number of young people and, at the same time, an increasing number of the elderly. The result is an unbalanced population structure. Not all EU Member States experience these demographic developments to the same degree. Countries with a relatively high proportion of people aged 65 and over (more than 17 %) at 1 January 2002 were Germany, Spain and Sweden. The Slovak Republic, Cyprus and Ireland were at the same time the countries within the European Union with the lowest proportion of elderly (below 12 %). Within the NUTS 2 regions of the European Union the differences are even more pronounced.

What does an ‘ageing population’ mean exactly? What does it look like? In the following section, the population structure at national and regional level (NUTS 2) will be described. In the next section the causes of these developments will be discussed, followed by a short section about the consequences for society of this demographic phenomenon. What kind of impact do these demographic developments have on public expenditures? As an example, there will be a focus on public spending on pensions. In the last section, we will look into the future and analyse briefly whether there are demographic solutions to stop the process of ageing.

Ageing population

An ageing population, as argued in the introduction, shows an unbalanced population structure; the number of elderly people in society is relatively high compared to the size of the younger generations. As a demographic process, we observe that the number of elderly people increases, while at the same time the number of youngsters decreases. The results of these developments are clearly visible in the (estimated) population pyramid for the EU-25 on 1 January 2002 (Graph 1.1).

The population pyramid of a stable population, a population where demographic behaviour compensates for the natural ageing of a population, looks like a real pyramid, with a wide base (youngest ages), slowly decreasing to a small top (oldest ages). The shape of the pyramid of the EU-

25 differs clearly from this picture. We observe a small base followed by a considerable number of persons born in the 1950s and 1960s, the so-called babyboom. The top of the pyramid shows relatively large numbers of people aged between 65 and 80 years old (light-grey shading in this and the following pyramids) and people in the 80+ age group: the ‘oldest old’ (white in this and the following pyramids). Remarkable in the pyramid is the size of the group of people who are 90 and older.

The shape of this population pyramid hides existing differences between the population structures in the various regions in the EU, as Graphs 1.2–1.5 show. These examples of population structures show besides some similarities, such as the number of people born during the babyboom, obvious differences in the proportion of elderly and younger generations.

Graph 1.2, showing the structure of the population in the Southern and Eastern region of Ireland, approaches most closely the shape of an ‘optimal’ pyramid as described earlier. This is one of the few regions in the EU with a relatively high birth rate.

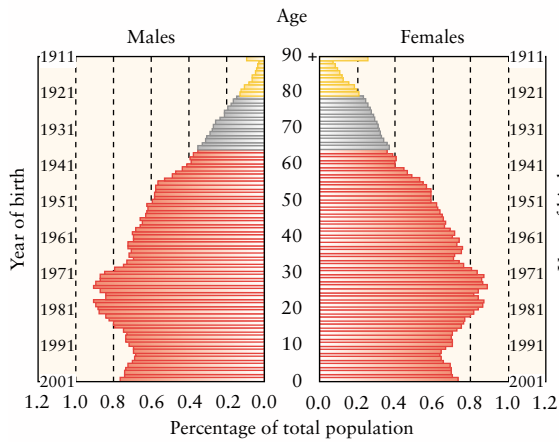
The two following pyramids (Graphs 1.3 and 1.4) respectively Flevoland in the Netherlands and Východné Slovensko in Slovakia show a relatively young population, but also an increasing group of people in the 65+ age group. Flevoland in the Netherlands is a young region, built on land reclaimed from the sea in the last century, with a correspondingly young population: 61 % of the population are aged under 40 and live in the new residential districts, where most housing is designed for (young) families. Although the number of old people has increased in recent years, their share in this region is still the lowest in the Netherlands at only 9 %. Also the region of Východné Slovensko is one of the youngest regions in Slovakia. There are fewer people aged 65 and over than anywhere else in the country.

Graph 1.5 shows the population structure of Principado de Asturias in Spain on 1 January 2002. The proportion of people aged 65 and over is higher than the national average and is indicative of the ageing of the population. This pyramid contrasts with the population structure of the Irish region mentioned above; a very narrow base and a relatively wide group of people aged 65 and over. The notches in the pyramid around the age of 65 are caused by the Spanish Civil War in the late 1930s.

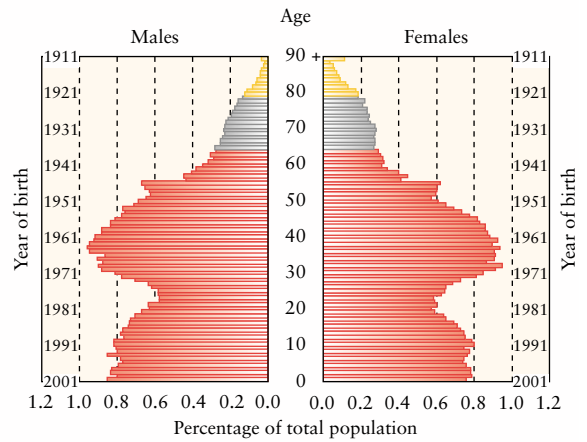
Graph 1.1 — Age pyramid on 1 January 2002 for the Member States (estimated)



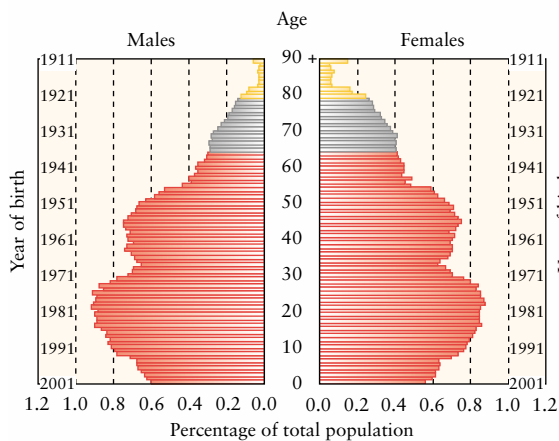
Graph 1.2 — Age pyramid on 1 January 2002 for Southern and Eastern region (IE)



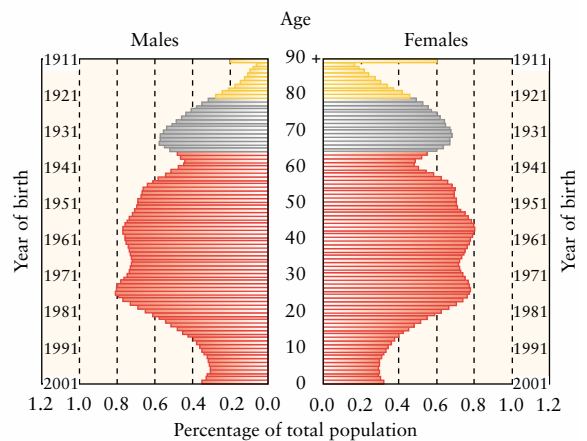
Graph 1.3 — Age pyramid on 1 January 2002 for Flevoland (NL)



Graph 1.4 — Age pyramid on 1 January 2002 for Východné Slovensko (SK)



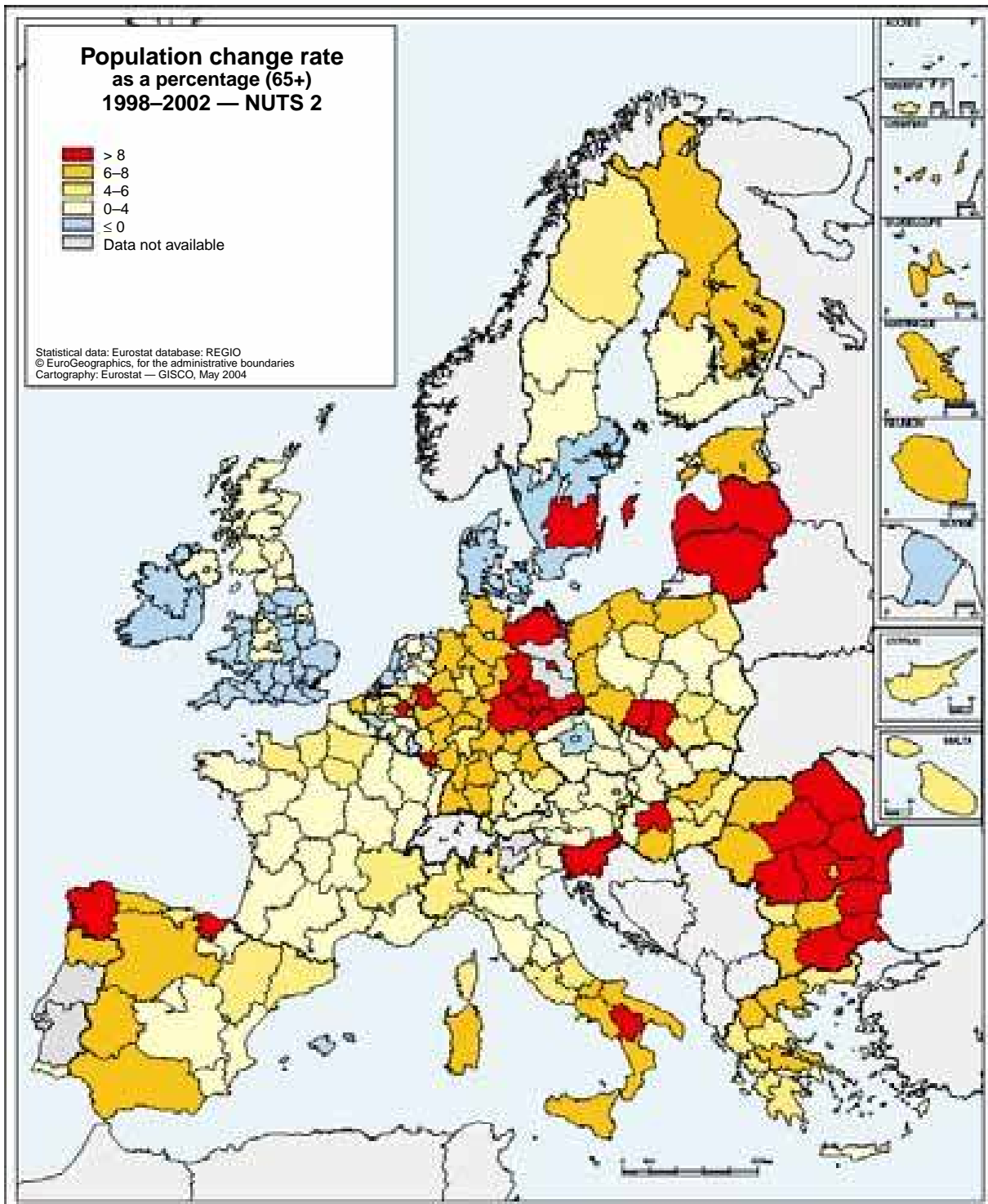
Graph 1.5 — Age pyramid on 1 January 2002 for Principado de Asturias (ES)





The population pyramids show the considerable differences in the population structure between regions. Map 1.1 shows the changes in the number of older people between 1 January 1998 and 1 January 2002 for the various NUTS 2 regions in the EU (i.e. the percentage of people aged 65 and older as a proportion of the whole population). In the blue coloured regions, the share of people in that age group decreased during the period. This

decreasing number of elderly during the last five years can be observed in both regions in Ireland, most of the regions in England and Wales in the United Kingdom, in Denmark, in Noord-Holland, Zuid-Holland, Utrecht, Flevoland and Groningen in the Netherlands, in the regions of Sydsvetige, Västsvetige, Östra Mellansvetige and Stockholm in Sweden, and in Praha and the surrounding region in the Czech Republic.



Map 1.1

Regions with a relatively high increase, the dark red regions, can mainly be observed in the eastern part of Germany, in parts of the new Member States, such as Latvia and Lithuania, Slovenia and in major parts of Bulgaria and Romania. In most of the regions of France, Austria, Hungary, the Czech Republic and the Slovak Republic, the calculated change rate is rather low.

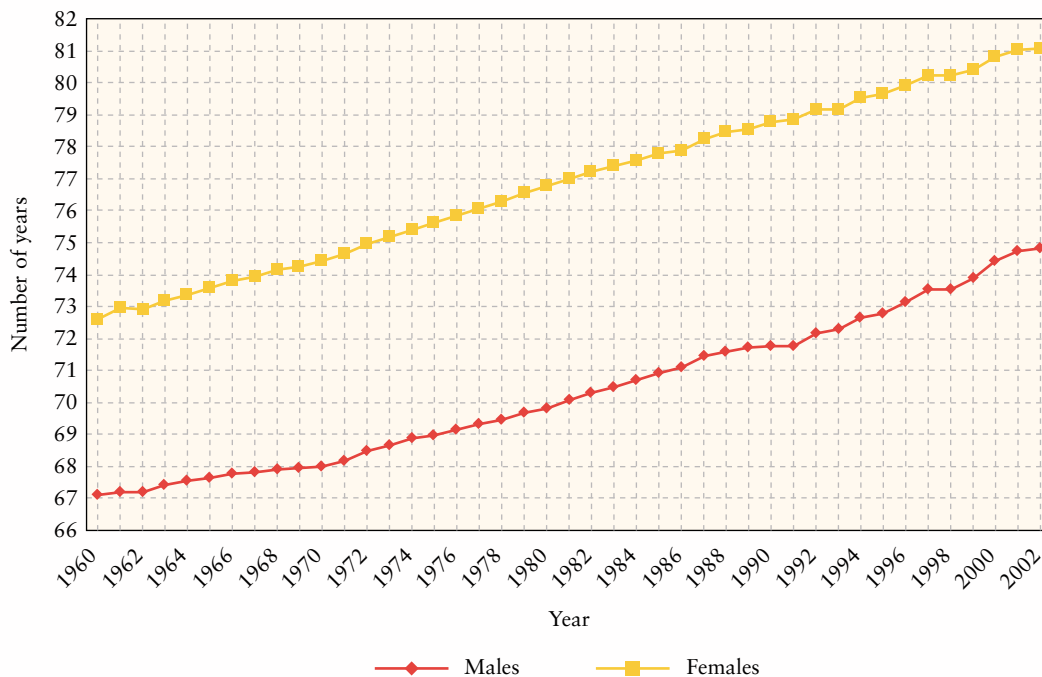
sate each other. Population dynamics are the result of demographic behaviour and are mainly influenced by mortality (the mean life expectancy), fertility (the average number of children born and the mean age at which women have children) and migration (the relative number of immigrants and emigrants and their age distribution).

To start with the last mentioned cause, the consequences of specific immigration and emigration flows in certain regions can have a great impact on the population structure. Within the European Union we can observe flows of young people to regions with more jobs; the elderly stay behind. In the Netherlands we also see an opposite flow, as mentioned earlier, in Flevoland. In that specific example the government developed a policy to attract young people and young households to settle in this region. Graph 1.3 clearly shows these working age people and their children.

Causes of the ageing population

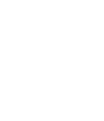
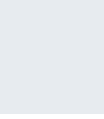
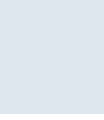
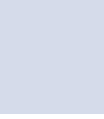
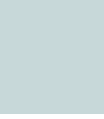
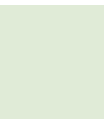
In general one could say that the ageing of the population is caused by a population dynamic which is too low: the relative influx of youngsters and outflow of older people is too low to compen-

Graph 1.6 — Life expectancy at birth 1960–2002, EU-25



In the course of the 20th century, life expectancy increased considerably. Graph 1.6 shows the trend in life expectancy at birth for men and women within the EU-25 over the period 1960–2002. In 1960 the average life expectancy at birth was 67.1 years for men and 72.6 for women. During the following years this expectancy increased for men by nearly eight years and for women by near-

ly nine years to respectively 74.8 and 81.1 years in 2002. However such an increase in the number of expected years to live at birth does not necessarily mean an increase in years of good health. Researchers have different opinions on this point: some say that the increase in life expectancy has been accompanied by an increasing frailty of people at higher ages, others hold the opposite view.



In a study, commissioned by the Council of Europe, Dragana Avramov and Miroslava Maskova consider this point:

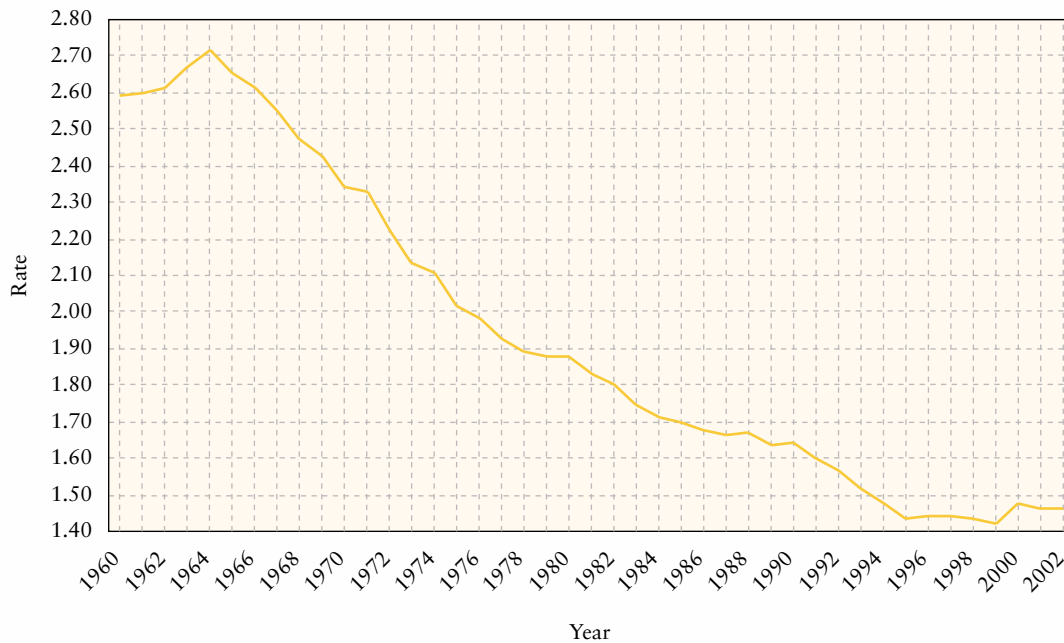
‘... the increase in life expectancy in the course of the 20th century was accompanied by a compression of morbidity to higher ages, resulting in a double trend: better health and increasing capabilities of the younger aged and an increasing frailty of the oldest old who are no longer suffering or dying from infectious diseases but are confronted with the degenerative processes of senescence at a very high age. At the same time large proportions of the new generations of elderly people have benefited from higher levels of education

acquired in youth, enjoyed the advantages of the modern affluence culture and experienced less demanding or debilitating living conditions during their life course ...’

Either way, it is inescapable that the increase in life expectancy also means an increase in the costs for healthcare.

The most important explanation for the changing population structure however, is the level of fertility. In general, it can be argued that the process of our ageing population was caused directly by the remarkable trends in the number of births since the Second World War.

Graph 1.7 — Total fertility rate 1960–2002, EU-25



In most of the countries of the European Union, there were high numbers of births during the first 25 years after the war. However, after 1970 birth rates dropped dramatically as women had fewer children and at a later age. The babyboom can clearly be observed in all of the previous population pyramids; a considerable group of persons born in the 1950s and 1960s moves like a bulge up the pyramid.

Graph 1.7 shows the overall trend in the total fertility rate (TFR) in the EU-25 since 1960. The total fertility rate is the mean number of children

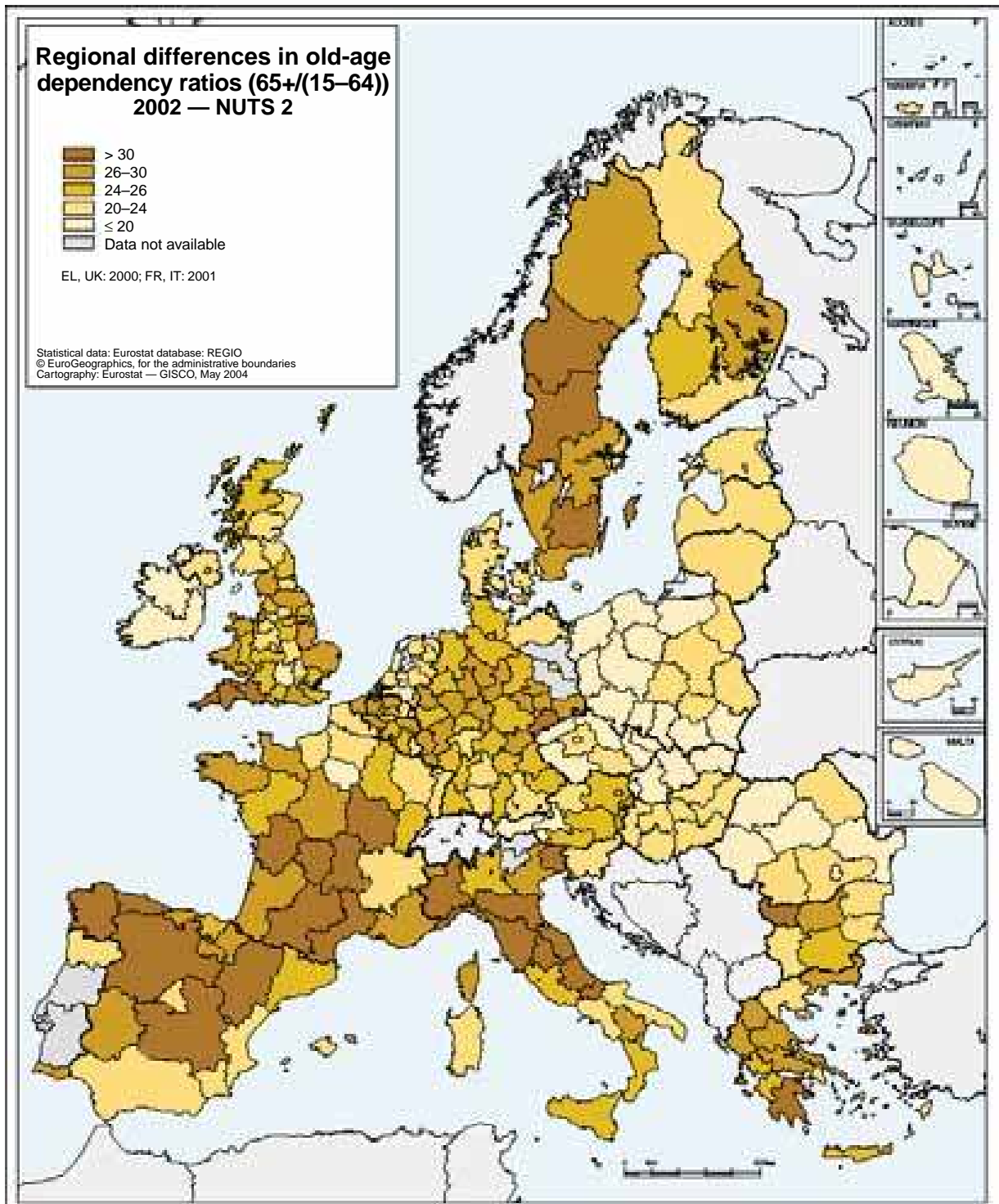
that would be born alive to a woman during her lifetime assuming that her reproductive pattern during each of her childbearing years was the same as the overall fertility rate for women of that age in that specific year. This rate is also used to indicate the replacement level fertility; in more developed countries, a rate of 2.1 is considered to be replacement level. At the beginning of the 1960s, the TFR was around 2.6. Since the second half of the 1990s, the level of the TFR seems to have stabilised around 1.44 and, as the graph shows, the 21st century even starts with a small increase in the number of births to a level of 1.46.

Consequences of an ageing population

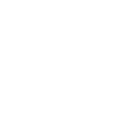
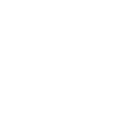
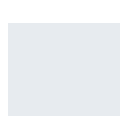
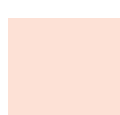
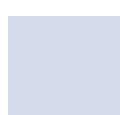
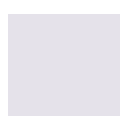
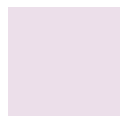
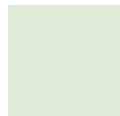
In economic terms the consequences of the ageing population are often expressed in the old-age dependency ratio, the ratio of the number of elderly persons of an age when they are generally eco-

nomically inactive (here 65 and over) to the number of persons of working age (here 15 to 64).

Map 1.2 shows the regional differences in old-age dependency ratios ($65+/(15-64)$). As can be observed, a high dependency ratio (the dark brown regions) can mainly be found in northern and central Spain and Italy, in the south-west of the United Kingdom, southern and central France and parts of Sweden. Regions with low dependency



Map 1.2



ratios, coloured light brown, can especially be observed in Poland, the Czech and Slovak Republics, Ireland and in Romania.

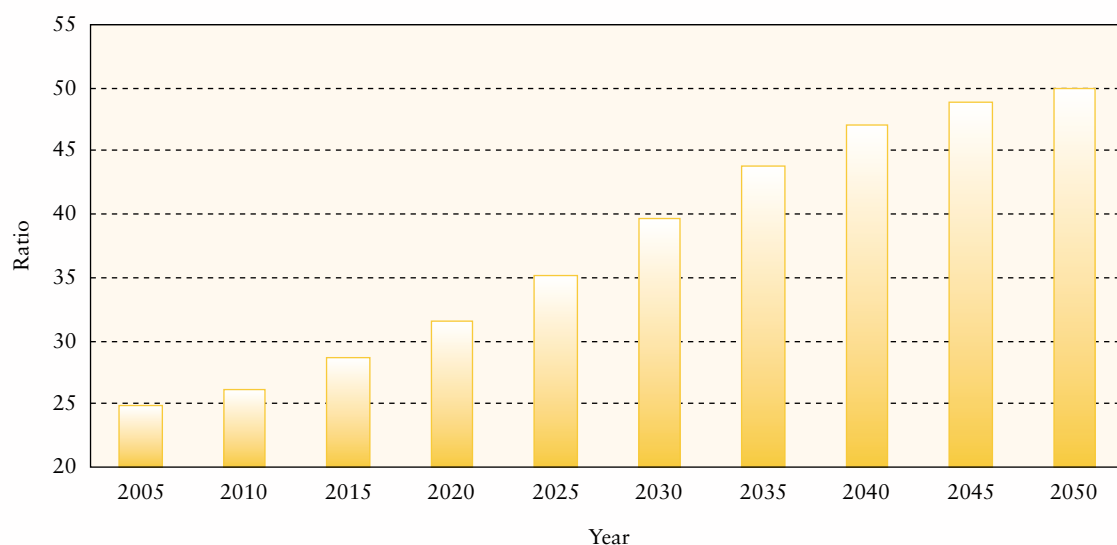
A special working group within the European Commission is currently studying the consequences of the ageing populations on society, in particular on public finances. The working group is especially focusing on the impact on public spending on pensions, healthcare and long-term care. The discussion around the impact on healthcare was mentioned earlier in passing. With regard to pensions, it can be noted that most of the countries of the European Union have a public pension system called ‘pay-as-you-go’. This system implies that the active population has to pay the State pensions for the elderly, in the form of taxes. The higher the dependency ratio, the smaller the active population who have to bear the increasing burden of the growing number of elderly.

At this moment there are for every person aged 65 and over around three or four persons in the active age group. In the future, this will decrease to between 1.5 and 2 persons.

Expectations for the future

The previous section ended with expected developments with regard to the relation between active and inactive population in the EU. Accordingly, we cannot finish this chapter without turning our attention to the future. The pyramids presented earlier show people (the ‘babyboom bulge’) moving slowly upwards in the population structure; these are our future elderly.

Graph 1.8 — Old-age dependency ratio (65+) 2005–50, EU-25 (¹)
(based on UN population estimates)



(¹) Cyprus excluded.

Graph 1.8 shows expected developments (median scenario) in the old-age dependency ratio in the coming decades in the EU-25 (excluding Cyprus), based on the population estimates calculated by the United Nations. The graph shows a steady growth of the ratio from 25 to 50 % in 2050. Researchers expect that after 2040 a turning point will be reached in most of the EU countries after which the proportion of elderly within the population will slightly decrease.

Finally, some thought is given to the issues of whether and how the consequences of the ageing population can be influenced. Researchers doubt that changes in fertility behaviour would be effective and even migration flows are no more than a temporary and partial solution. So, if demographic changes occur, their impact on ageing will probably be of minor importance. Accordingly, the solution may lie not in the demographic but in the political field, with such sensitive issues as

postponing the age of retirement, reallocating State resources and private supplementing of State pensions.

Literature

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C. van Ewijk e.a., *Vergrijzing als uitdaging. Kansen en bedreigingen van een vergrijzende Europese bevolking*, Den Haag, December 2003.

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Introduction

Eurostat's coverage of regional agricultural statistics comprises three main fields; land use and crops, agricultural accounts and livestock. This latter aspect is the focus of this year's agriculture chapter — first in terms of major types of farm animals found throughout Europe and then with specific attention to the dairy industry. In the latter case, there is an historical overview of the development of the relevant European legislation with regard to milk statistics.

Animal-rearing in Europe's regions

Pigs, cattle and sheep are among the earliest farm animals to have been domesticated and are an integral part of the farming landscape throughout the EU-25 countries. However, as the following maps demonstrate, there are very clear regional disparities in their distribution.

Given the great range in area between NUTS 2 regions, it would clearly have been misleading to map absolute numbers of animals. Similarly, some regions have terrain and land cover that permit almost all the land surface to be used for agriculture: in others, a harsh climate, dense forest cover or altitude may mean only a fraction of the land area can be used in this way. Accordingly, Maps 2.1, 2.2 and 2.3 relate the numbers of animals in each region to the area of utilised agricultural land. The same logic is taken a step further in Map 2.4, where the surface area concept used is that of land permanently under grass.

Pigs

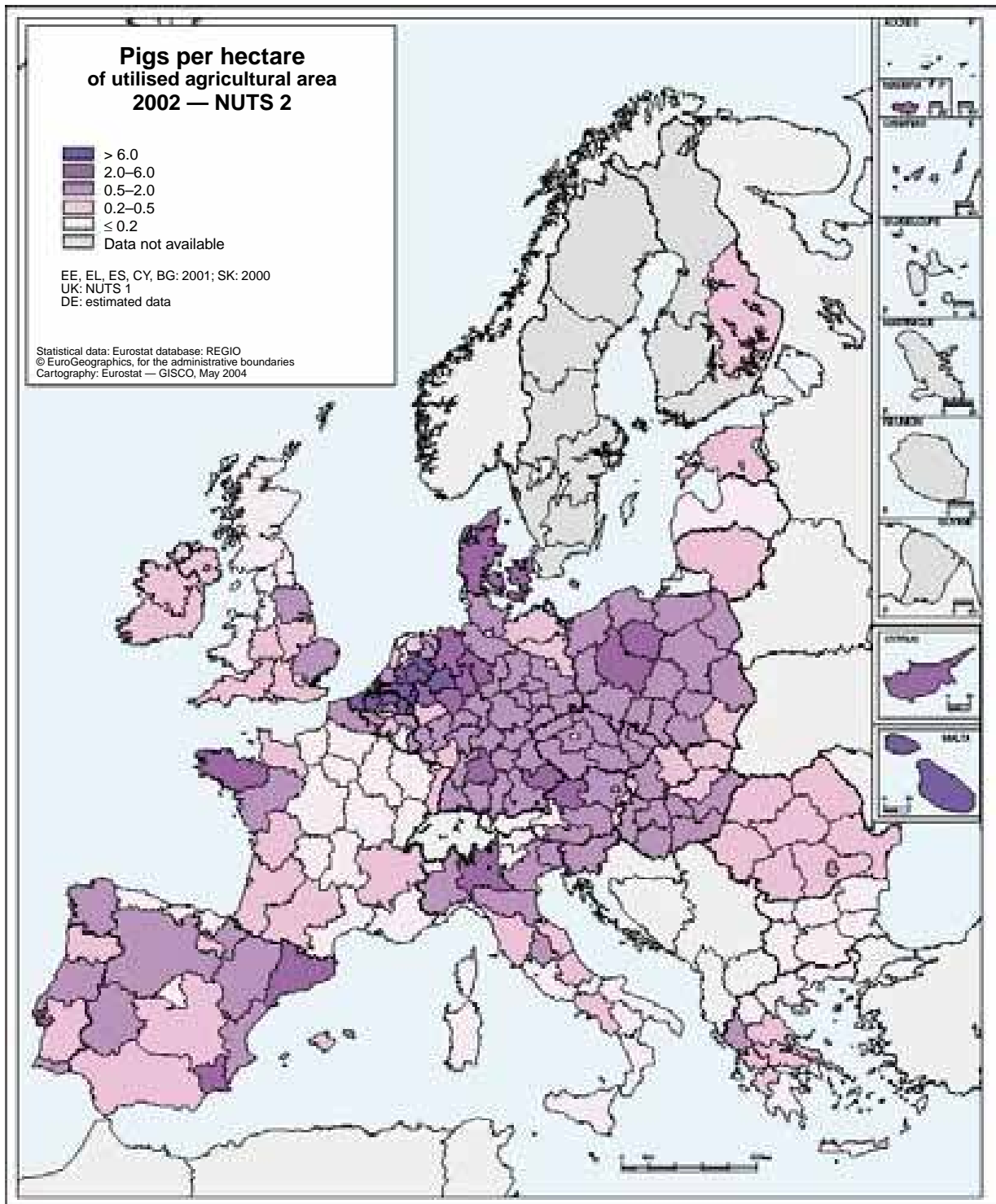
Because pigs can be raised effectively indoors in 'zero grazing' systems, it might be assumed that they would most often be found where human population density is high enough to put pressure on farming land. In fact, Map 2.1 shows that this is not the case. While the most dense concentration of pigs is found in Belgium (in such regions as Antwerpen, Oost-Vlaanderen and Limburg), in the Netherlands (from Limburg in a sweep across the south of the country from Dutch Limburg to Drenthe and in the adjoining German region of Münster, these are not in fact zones with the dens-

est human population in each of these countries. This concentrated area of pig farming is probably much better explained by the co-existence of arable land on which the pig slurry can be spread and the availability of grain imports via the ports of Rotterdam and Antwerpen. Denmark, Bretagne in France, Cataluña in Spain and Lombardia in Italy follow close behind in terms of the intensity of pig-raising. Among the new Member States, all Hungarian and Czech regions have significant numbers of pigs, as do all Polish regions except Podkarpackie. Indeed, Poland is the EU-25's third largest producer, after Germany and Spain, which together make up over one third of EU-25 pig production.

Obviously, there is a close interrelationship, built up over many centuries, between the farming tradition of a region and its traditional diet. Over a large part of western and central Europe, the omnivorous nature of pigs (which could be fed on food wastes and forest acorns and beech nuts) and the many ways it was possible to preserve their meat, gave them an important role in permitting communities to survive the winter. Accordingly, even in today's less climate-dependent lifestyle, they form part of the diet (and thus the agriculture) in a zone that (as Map 2.1 clearly shows) is not bounded by national frontiers.

Sheep

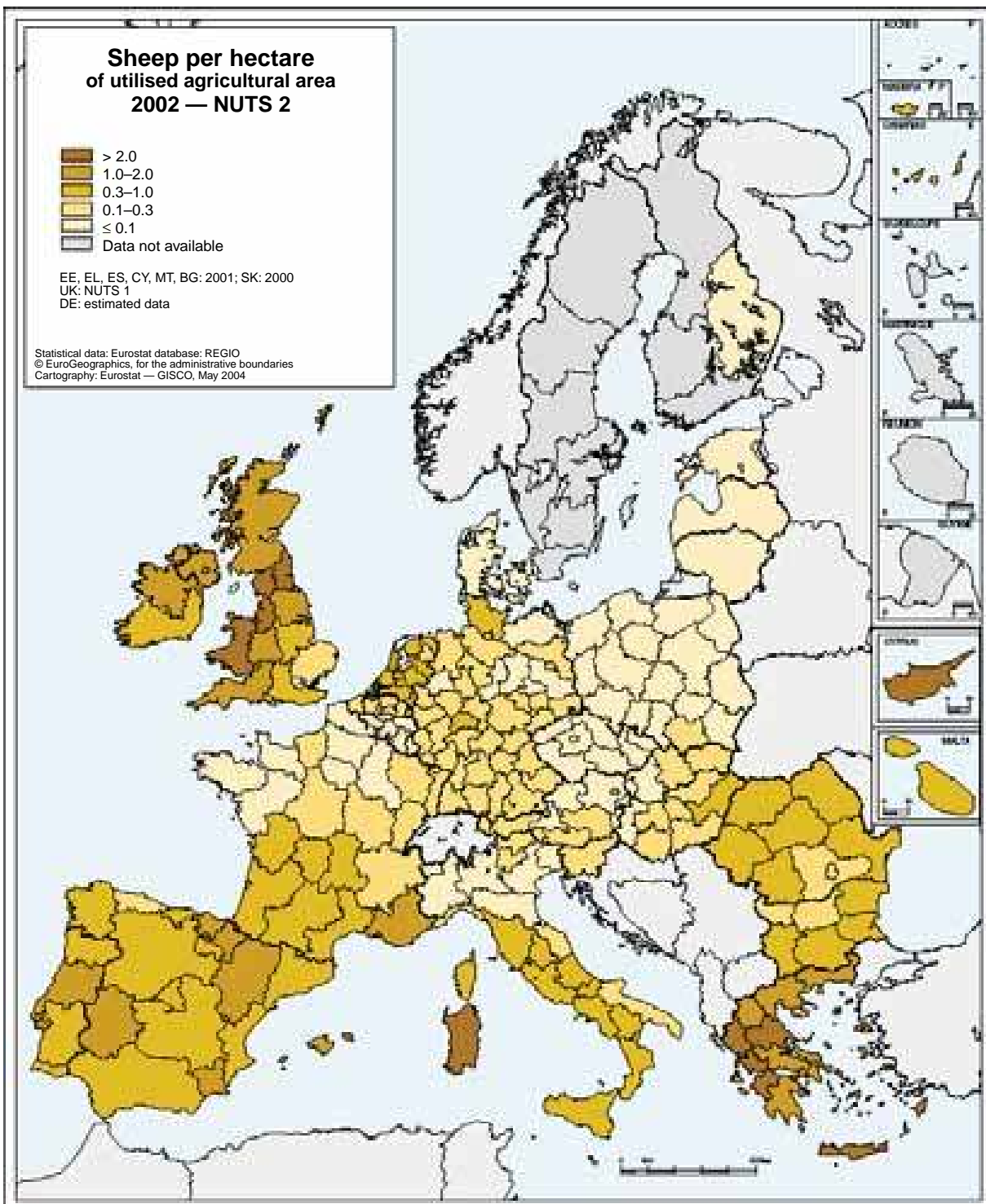
A wide variety of different breeds of sheep is farmed across the EU, breeds that have emerged as being best adapted to the specialised local conditions, or to local demand for particular types of wool to supply local industries, such as clothing or carpets. While some breeds remain highly localised, others have been exported to similar regions in other EU countries or, as exemplified by the Merino from northern Spain, to countries as far away as Australia and New Zealand. Three particular characteristics of sheep; their hardiness thanks to the protection offered by their wool, their ability to graze on grass that is short or of poor quality and their sure-footedness on very steep slopes, mean that they can use land too hilly, cold or rough for other livestock. This element is very clearly apparent in Map 2.2, where one observes a high concentration of sheep in Thessalia, Ipeiros, Ionia Nissia and Dytiki Ellada in the northern part of Greece, as well as on Crete and Sardinia, and in the hilly regions of the north of England and Wales. Spain and the UK together account for more than half of EU-25 total production (2002 provisional figures) but the dominance



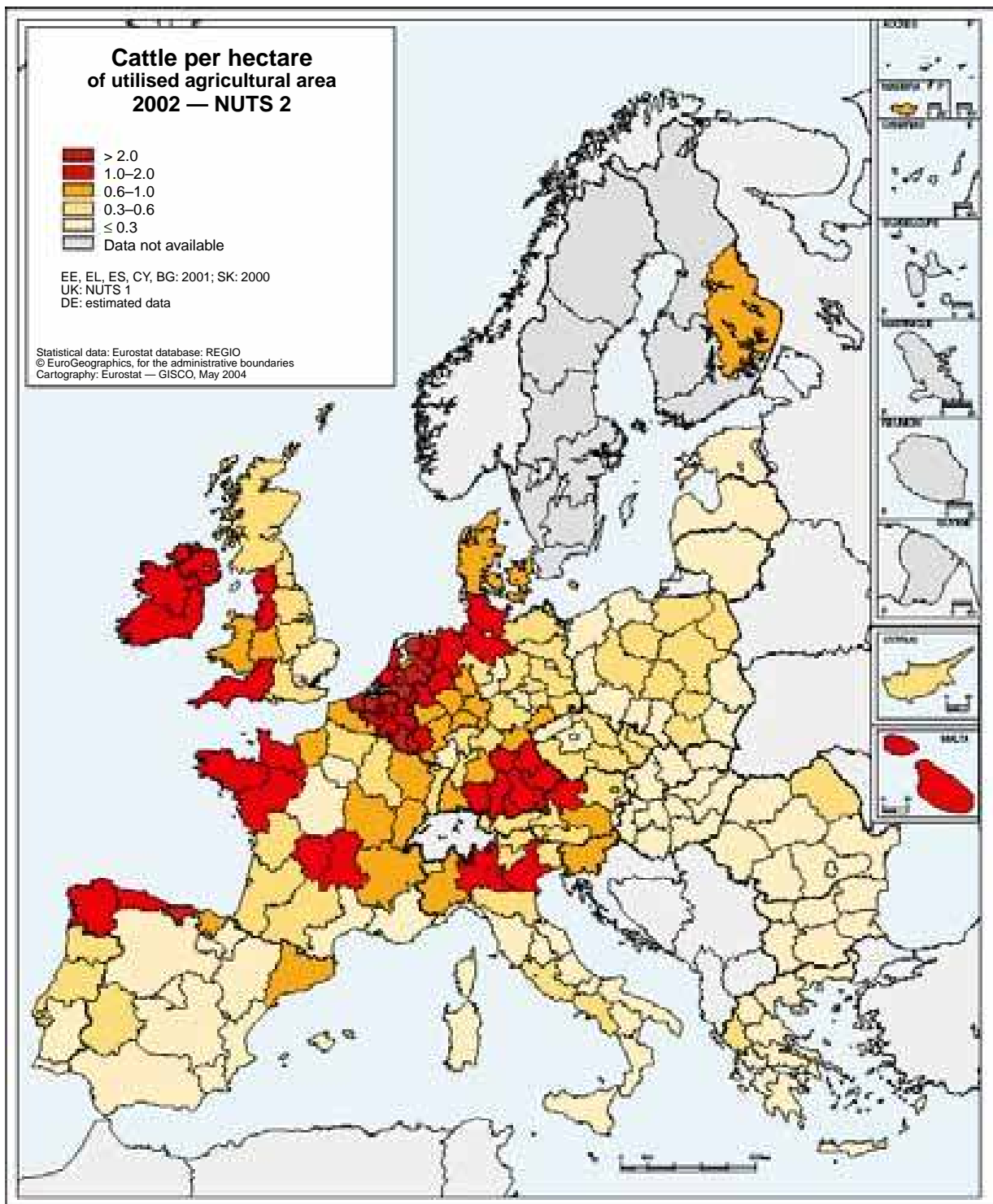
Map 2.1

of this form of livestock in the two countries, clearly visible in Map 2.1, may differ in having climatological and historical origins respectively. The ability of sheep to cope with relatively arid conditions, and hence poor grass growth, is an important aspect in regions such as Extremadura in Spain (and also Provence-Alpes-Côte d'Azur in

France). In the UK, the high prices paid in continental Europe for English wool in the Middle Ages resulted in large-scale landowners reserving huge areas for sheep and laying the basis for a major sheep-rearing industry, a precedent followed in the Highland clearances in Scotland some centuries later.



Map 2.2



Map 2.3

Cattle

Unlike sheep, which are subject to footrot in boggy conditions and bloat when the feed is too rich, cattle thrive in conditions where the rainfall is plentiful and the grass is good. Not surprisingly, Map 2.3 therefore includes a number of clear contrasts with the previous map, reflecting, in particular, altitude and climate differences. Western Europe lies squarely across the predominant

westerly airstreams at this latitude. Typically, where these moisture-rich winds strike the coast, rainfall is abundant, and, as a result, rich pasture is available for cattle. The Spanish regions of Galicia, Principado de Asturias and Cantabria fall into this category, as do Pays de la Loire, Bretagne and Basse-Normandie in France. Further north, this applies to both Irish regions, to Northern Ireland and to the whole western seaboard of England (as noted above, however, the mountain-

ous nature of Wales and Scotland mean sheep remain important there). A similar well-watered coastal crescent is visible across the north-western corner of continental Europe comprising the Antwerpen, Oost-Vlaanderen, West-Vlaanderen and Luxembourg regions of Belgium, most of the Netherlands except for the very low-lying region of Zeeland, and into the Schleswig-Holstein region of northern Germany. This 'coastal rainfall' effect is less noticeable in the much drier Mediterranean environment but still clearly apparent in the mountain regions lying north of the Po Valley in Italy, which face onto winds moving north up the Adriatic.

In the drier 'rain shadow' area further inland, especially behind coastal hills or mountains, arable farming or sheep-rearing tend to be more favoured than cattle (for example, Centre in France). However, if the air masses encounter further high ground the cooling effect produces more rain — again favouring cattle-rearing, particularly where slopes are too steep for arable farming. This pattern is clearly evident in Limousin and Auvergne in France (both famous cheese-producing regions) and along the whole arc west and north of the Alps (except for Alsace, lying in the Rhine rift valley). In particular, the southern regions of Germany (Tübingen, Schwaben, Oberbayern, Niederbayern, Oberpfalz and Mittelfranken) are major milk-producing areas. Cattle are less common in Scandinavian and Mediterranean countries, reflecting a short grass-growing season and rainfall shortages respectively. Unsurprisingly, therefore, the three biggest cattle-producing countries are France, Germany and the United Kingdom, which together produce about half of the EU-25 total production (2002 provisional figures).

Location of milk production

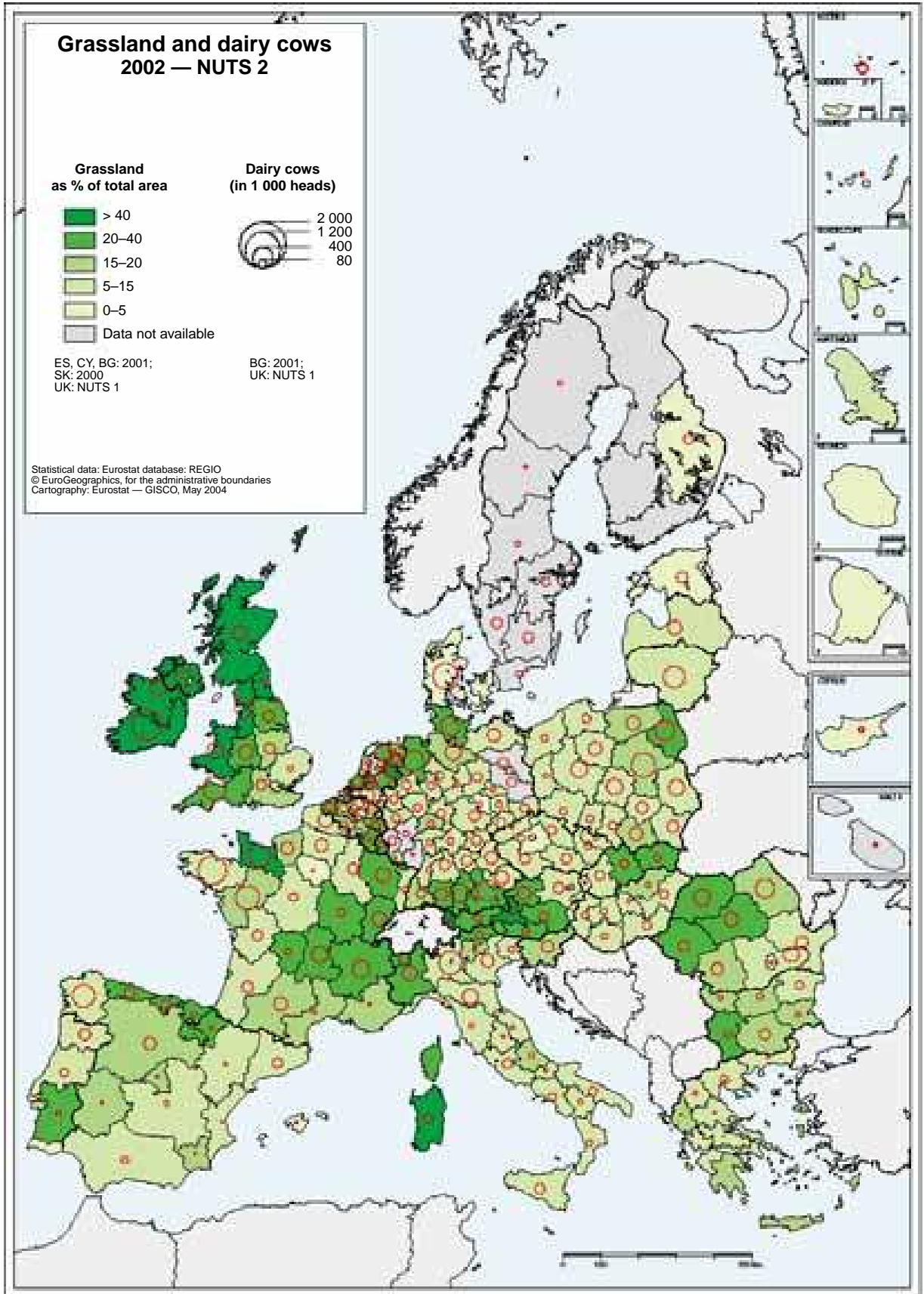
There are two possible modes of milk production: on grazing land, which requires sufficiently productive grassland, and in stalls. The second method needs either arable land for the production of fodder or concentrated feed (e.g. cereals), or imports of feed from other regions or countries. This flexibility explains why in Map 2.4 the number of dairy cows is not necessarily linked to the proportion of grassland. In the Southern and Eastern re-

gion of Ireland we can see that the high percentage of grassland (dark green) corresponds with a large number of dairy cows (red circle). The same is true for the Basse-Normandie region. However, in Bretagne the amount of livestock is just as high despite a lower percentage of grassland. Finally, we can see regions in dark green with a lower, sometimes much lower, number of dairy cows. One possible explanation in the case of the drier regions (such as Alentejo in Portugal, Sardinia or the Yugozapaden region of Bulgaria) is that because the grazing land is not as rich it is therefore first and foremost used for sheep or goats. Elsewhere, it is beef cattle which use the grasslands, as we can see in Map 2.5, in regions such as Bourgogne in France, Scotland and Andalucía in Spain.

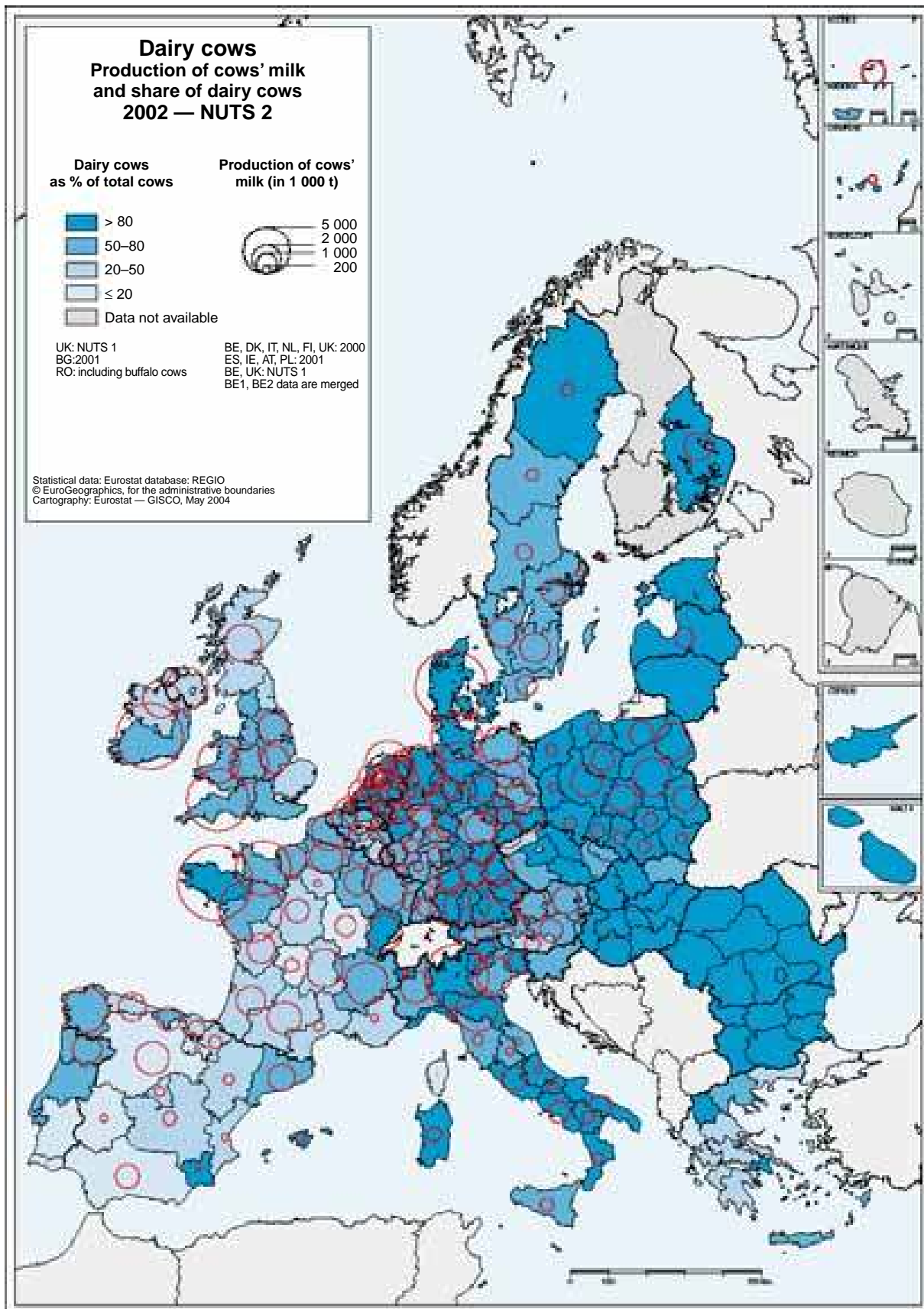
Map 2.5 shows that bovine livestock in the new Member States, and in Romania and Bulgaria, is largely dominated by dairy cows. In the Member States of the former EU-15, the situation is much more varied. In France, Spain, Portugal and Greece (except the largely urban area surrounding the capital) the most southern regions have a high proportion of beef cattle. In Italy, the situation is less clear-cut.

Milk production

Previously, regional statistics on milk were based on collection data, which meant that inconsistencies arose from the fact that milk produced in one region might be delivered to a nearby collection centre in another region. Nowadays these statistics are based on where the milk is produced (the farm). When interpreting the data, as shown here in Map 2.5, it must be noted that these are total figures which ignore differences (often major) in size between regions. Even after taking this into account, the most productive zones are to be found on both sides of the Alps, in the Benelux countries, in Denmark, in Bretagne, in the Pays de la Loire region and in Haute- and Basse-Normandie in France, in the south-west of England and in the Southern and Eastern region of Ireland. Once it is processed into cheese, butter or other dairy products, or packaged as drinking milk, milk is easily transported. As a result even densely populated regions such as the Comunidad de Madrid, Île-de-France or Wien in Austria have very low production levels.



Map 2.4



Map 2.5

REGIONAL GROSS DOMESTIC PRODUCT



3

What is regional gross domestic product?

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

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

In areas with a high proportion of commuters, regional GDP per inhabitant can be extremely high, particularly in such economic centres as London or Vienna, Hamburg, Prague or Luxembourg, and relatively low in the surrounding regions, even if these are characterised by high household purchasing power or disposable income. Regional GDP per inhabitant should not, therefore, be equated with regional disposable income (see Chapter 4 of this yearbook).

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, not all differences in price levels between countries are reflected by exchange rates. In order to compensate for this effect, GDP is converted using currency conversion rates, known as purchasing power parities (PPPs), to an artificial common currency, called purchasing power standards (PPS). This makes it possible to compare the purchasing power of different national currencies (see box).

Purchasing power parities and international volume comparisons

International differences in GDP values, even after conversion via exchange rates to a common currency, are not due simply to differing volumes of goods and services. The 'level of prices' component is also a contributing factor. Given that exchange rates are determined by many factors influencing demand and supply in the currency markets, 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 such currency conversion rates that convert economic data expressed in national currencies to an artificial common currency, called purchasing power standards (PPS). PPPs are therefore used to convert the GDP of various countries into comparable volumes of expenditure, expressed as purchasing power standards.

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

In their simplest form, PPPs are a set of price relatives, which show the ratio of the prices in national currency of the same good or service in different countries (e.g. a loaf of bread costs EUR 1.87 in France, EUR 1.68 in Germany, GBP 0.95 in the 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 PPS of the EU is used as an artificial common unit of reference.

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.

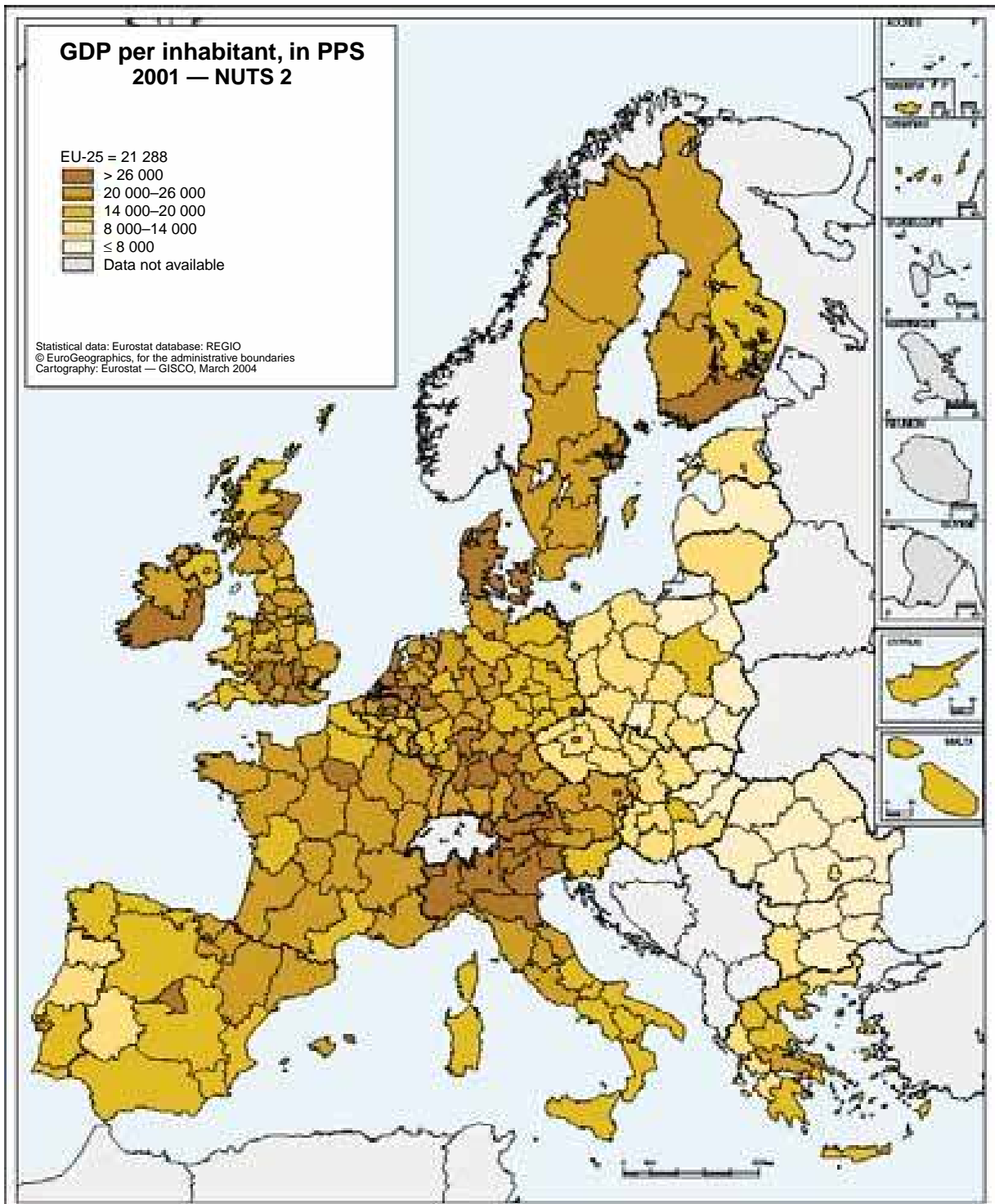
The regions may be ranked differently when calculating in PPS instead of euros. For example, in

2001 the Polish region Śląskie was recorded as having a per capita GDP of EUR 5 834, ranking above the Hungarian region of Közép-Dunántúl with EUR 5 298. However, with PPS 11 208 per capita Közép-Dunántúl ranks above Śląskie, with its PPS 10 526 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 rela-

tively high price levels. This reduces the range of per capita GDP in NUTS 2 regions in EU-25 plus Bulgaria and Romania from around EUR 66 000 to around PPS 57 000.

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



Map 3.1

Regional GDP in 2001

Map 3.1 provides an overview of the regional distribution of per capita GDP (in PPS) for the European Union, plus Bulgaria and Romania. It ranges from PPS 4 088 per capita in north-east Romania to PPS 61 316 per capita in the UK Inner London region. Région de Bruxelles-Capitale/Brussels Hfdst. Gew. (PPS 50 749) and Luxembourg (PPS 45 310) follow in second and third place, with Hamburg (PPS 39 862) and the French capital region Île-de-France (PPS 38 452) in fourth and fifth place.

Prague (Czech Republic), the region with the highest GDP per inhabitant in the new Member States, has already risen to 16th place with PPS 31 639 (149 % of the EU-25 average) among the 268 NUTS 2 regions of the countries examined here (EU-25 plus Bulgaria and Romania). It should be noted, however, that Prague is an exception. The next regions of those joining the EU in May 2004 follow a long way behind: Bratislavský kraj (Slovakia) is in 65th place with PPS 23 782 (112 %), Közép-Magyarország (Hungary) is 147th with PPS 18 993 (89 %), Cyprus is 157th with PPS 18 281 (86 %), Malta is 179th with PPS 16 221 (76 %) and Mazowieckie (Poland) 196th

Graph 3.1 — GDP per capita (in PPS) 2001, NUTS 2 level, in % of EU-25 average (EU-25 = 100)



(1) Without overseas departments.
 | Average of all regions in the country.
 • Region containing the capital city.

with PPS 15 033 (71 %). All other regions of the new Member States are below 70 % of the EU-25 average.

Major regional differences within the countries

There are also substantial differences within the countries, as Graph 3.1 shows. In 2001, the highest per capita GDP was more than twice the lowest in 12 of the 19 countries examined here incorporating NUTS 2 regions. The largest regional differences are in the United Kingdom, where there is a factor of 4.4 between the two extreme values (Inner London: 288 % of the EU-25 average; Cornwall and the Isles of Scilly: 65 %), and in Belgium, with a factor of 3.1 (Région de Bruxelles-Capitale/Brussels Hfdst. Gew.: 238 %; Hainaut: 76 %). In 10 countries, the highest regional per capita GDP is between twice and three times that of the lowest. Half of this group of countries is made up of the older Member States, plus four of the new Member States and Romania. Comparatively marked regional disparities in per capita GDP therefore emerge in both the old and the new Member States.

Moderate regional disparities in per capita GDP (i.e. factors between the highest and the lowest value of less than 2) are, however, almost exclusively found in the older Member States. This is particularly true of Sweden (Stockholm: 159 %; Norra Mellansverige: 98 %) and Ireland (Southern and Eastern: 141 %; Border, Midland and Western: 97 %). Bulgaria (Yugozapaden: 40 %; Yuzhen tsentralen: 24 %) is the only country in this group that is not one of the older Member States.

In both the older and the new Member States, a substantial share of economic activity is concentrated in the capital regions. This is borne out by the fact that in 14 of the 19 countries included here with NUTS 2 regions, the capital regions are also the regions with the highest per capita GDP. For example, Map 3.1 clearly shows the prominent position of the regions of Région de Bruxelles-Capitale/Brussels Hfdst. Gew., Praha, Comunidad de Madrid, Île-de-France, Lisboa as well

as Budapest, Bratislavský kraj, London, Sofia and București.

Peripheral regions and new Member States catching up

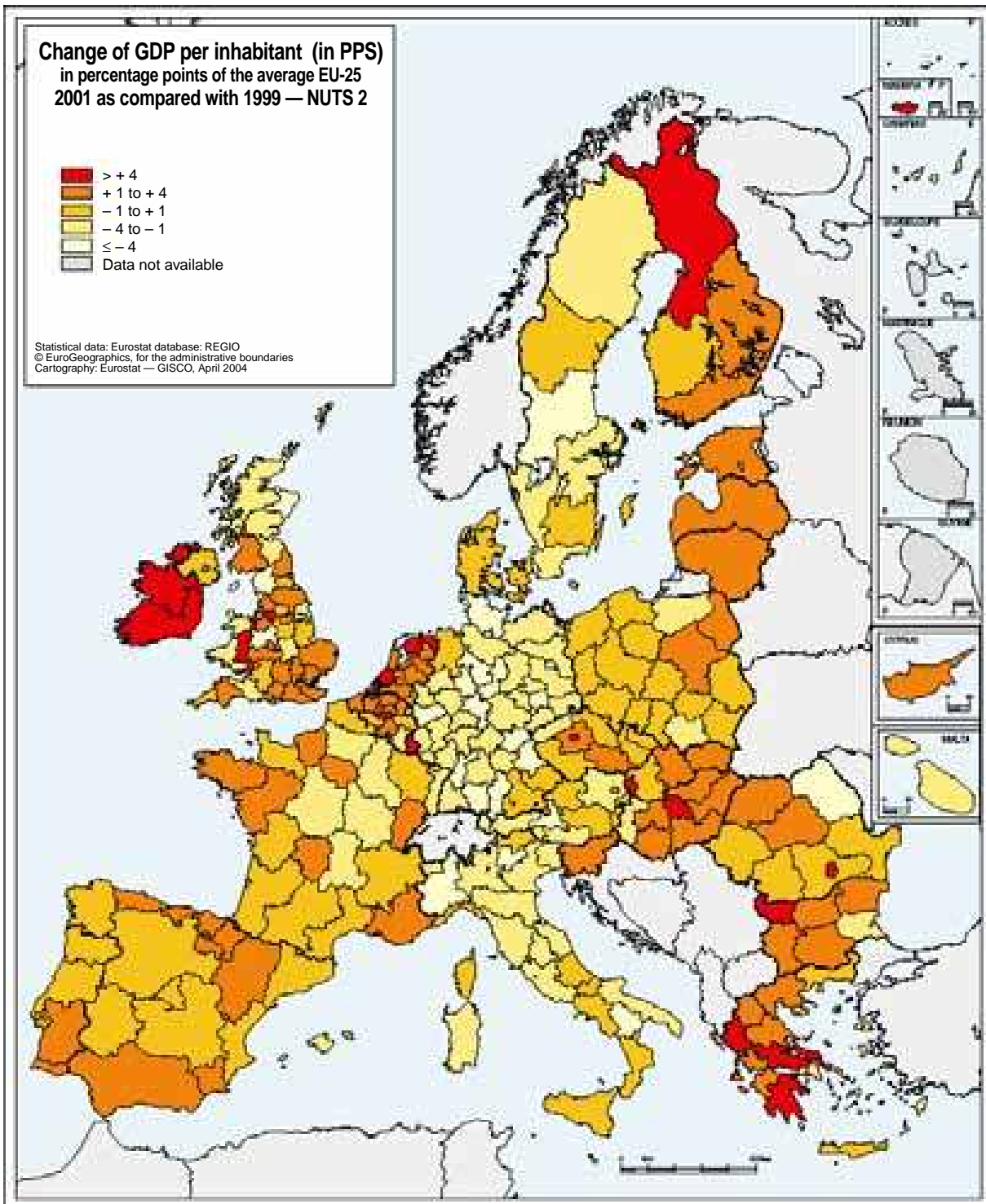
Map 3.2 shows how much per capita GDP changed between 1999 and 2001 by comparison with the EU-25 average (expressed in percentage points of the EU-25 average). Economically dynamic regions, whose per capita GDP increased by more than 1 percentage point when compared with the average, are shown in orange and red. Less dynamic regions (those with a fall of more than 1 percentage point in per capita GDP as against the EU-25 average) are shown in yellow. Figures range from + 21.2 percentage points for Inner London in the United Kingdom to - 7.1 percentage points for Schwaben in Germany.

Of the 10 most dynamic NUTS 2 regions, three are in Greece and one each in the Czech Republic, Ireland, the Netherlands, Hungary, Slovakia, the United Kingdom and Romania. The fastest growing regions are therefore scattered relatively broadly across the 27 countries examined here.

Conversely, 6 of the 10 least dynamic regions are in Germany, with 2 in the United Kingdom and 1 each in Austria and Romania.

Upon closer examination, we can see that between 1999 and 2001, numerous somewhat peripheral regions of the enlarged European Union managed to catch up by comparison with central regions with higher per capita GDP. This is particularly true of Ipeiros (+ 9.6 percentage points) and Peloponnissos (+ 9.3) in Greece, Região Autónoma da Madeira (+ 6.7) in Portugal and Pohjois-Suomi in Finland (+ 5.1), but also of Alentejo (+ 1.4) in Portugal, Andalucía (+ 1.4) in Spain and South Western Scotland in the United Kingdom (+ 1.3).

Encouragingly a quantifiable process of catching up is under way in most of the new Member States and in Bulgaria and Romania: of the 97 regions that have seen clearly above-average growth rates (greater than 1 percentage point), 27 are to be found in these countries. Only 6 of the 93 regions



Map 3.2

with clear below-average growth rates (less than - 1 percentage point) were among these countries.

Of the 10 most dynamic regions in the 2001 to 1999 comparison, 4 are to be found in the accession countries: Bucureşti (+ 14.2 percentage points) in Romania, Praha (+ 12.1) in the Czech Republic, Közép-Magyarország (+ 9.7) in Hungary and Bratislavský kraj (+ 8.8) in Slovakia. Although these are all capital regions, above-aver-

age growth has also been recorded elsewhere in the new Member States plus Bulgaria and Romania, e.g. in Közép-Dunántul (+ 3.3) and Észak-Magyarország (+ 2.1) in Hungary, Jihovýchod (+ 2.3) in the Czech Republic and in Severozapaden (+ 4.2) in Bulgaria. With the exception of Malta (- 2.4), all new Member States where the national and NUTS 2 levels are the same achieved above-average growth: the figures range from

+ 3.9 percentage points in Cyprus to + 1.1 in Slovenia; Estonia, Latvia and Lithuania recording + 3.6, + 3.4 and + 3.1 respectively.

An analysis of the individual countries shows that the dynamics of economic development between the regions of a country are far from being more evenly balanced than between countries: between 1999 and 2001, per capita GDP (in PPS) in the most dynamic region of the United Kingdom increased by comparison to the EU-25 average by 27 more percentage points than in the weakest. At the opposite end of the scale, Ireland has a regional range of 1.0 and Bulgaria a difference of 1.6 percentage points.

In 11 of the 19 countries with NUTS 2 regions examined here, the differences between the most dynamic regions and those with the weakest growth amount to between 5 and 10 percentage points, in 6 countries the figure is over 10 and only in 2 countries is it below 5 percentage points. Economic growth in most countries therefore continues to be visibly concentrated in certain regions. This is particularly true for the new Member States and Romania. At the same time, the size of the country does not appear to have any noticeable bearing on the regional concentration of economic dynamics.



HOUSEHOLD ACCOUNTS



Introduction: Measuring wealth

One of the major aims of regional statistics is undoubtedly to measure regions' wealth. It is interesting not only from an intellectual standpoint, but also as a basis for policy measures, so that support can be given to less well-off regions. However, providing a statistical record of regional wealth is not as easy as it may first appear.

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. This use of regional GDP is described in detail in this yearbook.

GDP is calculated using the output approach; it is the value of the goods and services produced in a region. GDP contributes to regions' wealth by generating income. However, the multitude of interregional links and measures taken by the State mean that there is absolutely no guarantee that this income actually reaches the inhabitants of the region in which it is generated.

Regional per capita GDP has some undesirable features as an indicator of wealth, one of which is that a 'place-of-work' figure is divided by a 'place-of-residence' figure. This inconsistency is of relevance wherever there are commuter flows — i.e. more or fewer people working in one region but living in another. The most obvious example is the UK Inner London region, which has by far the highest regional per capita GDP. This GDP is not, however, directly translated into income for the region of Inner London, as thousands of commuters journey to work into London every day but live in neighbouring regions. Hamburg, Wien and Praha are other examples of this phenomenon.

Given this and other conceptual weaknesses involved with GDP, it therefore seems worthwhile to take a closer look at private household income itself.

Private household income

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

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

Primary income is the point of departure for the **secondary** distribution of income, which denotes the State redistribution mechanism. All social benefits and transfers other than in kind are now added to primary income. Out of their income, households have 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

Note: the measurement unit

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

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

However, there is a problem with this. PPS are designed to apply to GDP as a whole. The calculations use the expenditure approach and PPS are sub-divided 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, so regional accounts are only calculated from the output side. This means, however, that there is no exact correspondence between the income parameters and the PPS. PPS only exist for private consumption.

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



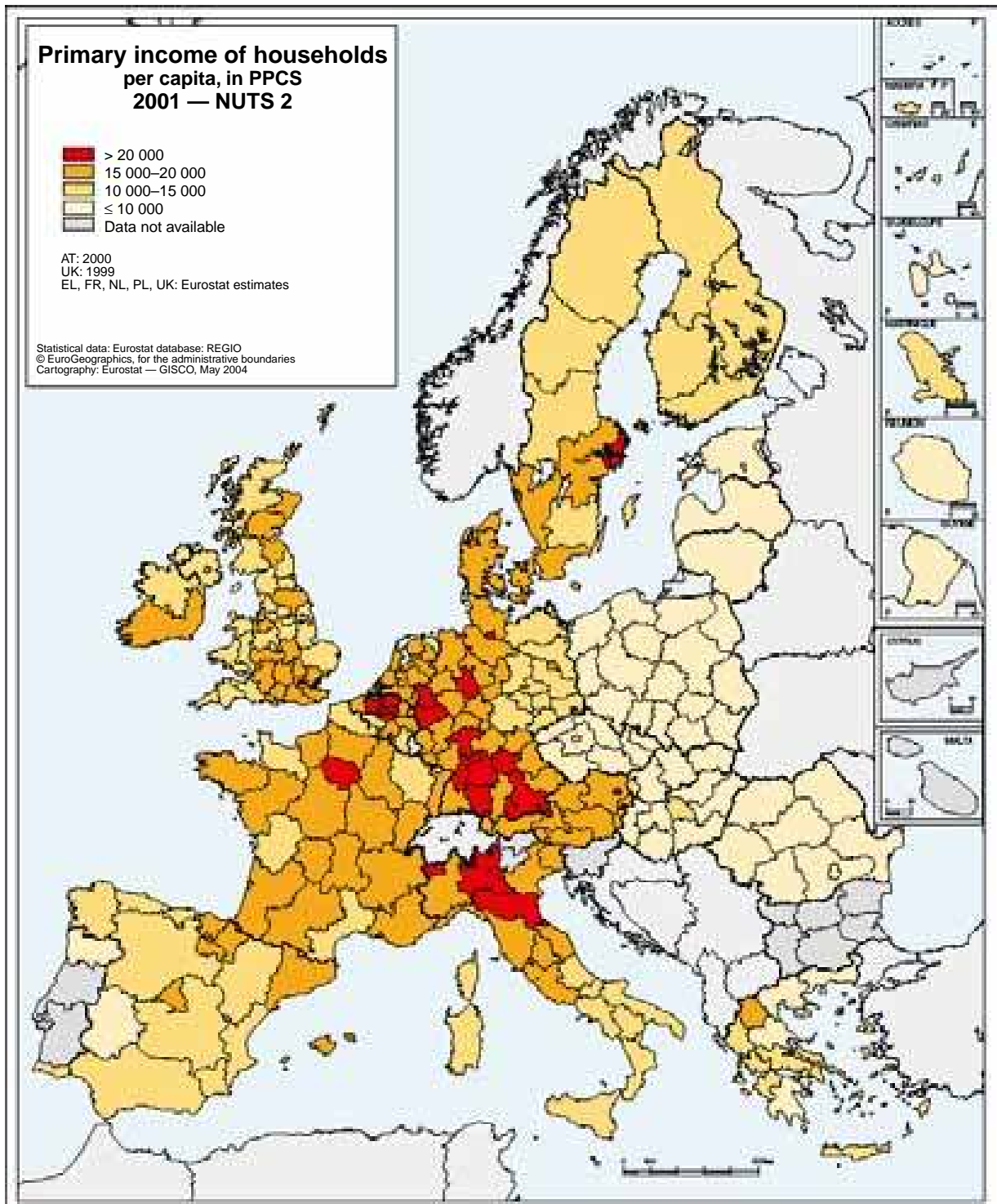
called the **disposable income** of private households.

It is only in recent years that Eurostat has had a regional breakdown of data for these income categories of private households. The data are collected in the regional accounts for NUTS 2 level. It is the results of these statistics that are discussed here.

Results for 2001

The two following maps show primary income (Map 4.1) and disposable income (Map 4.2) for 2001 at regional level. There are currently no data for Luxembourg, Slovenia, Cyprus, Malta and Bulgaria.

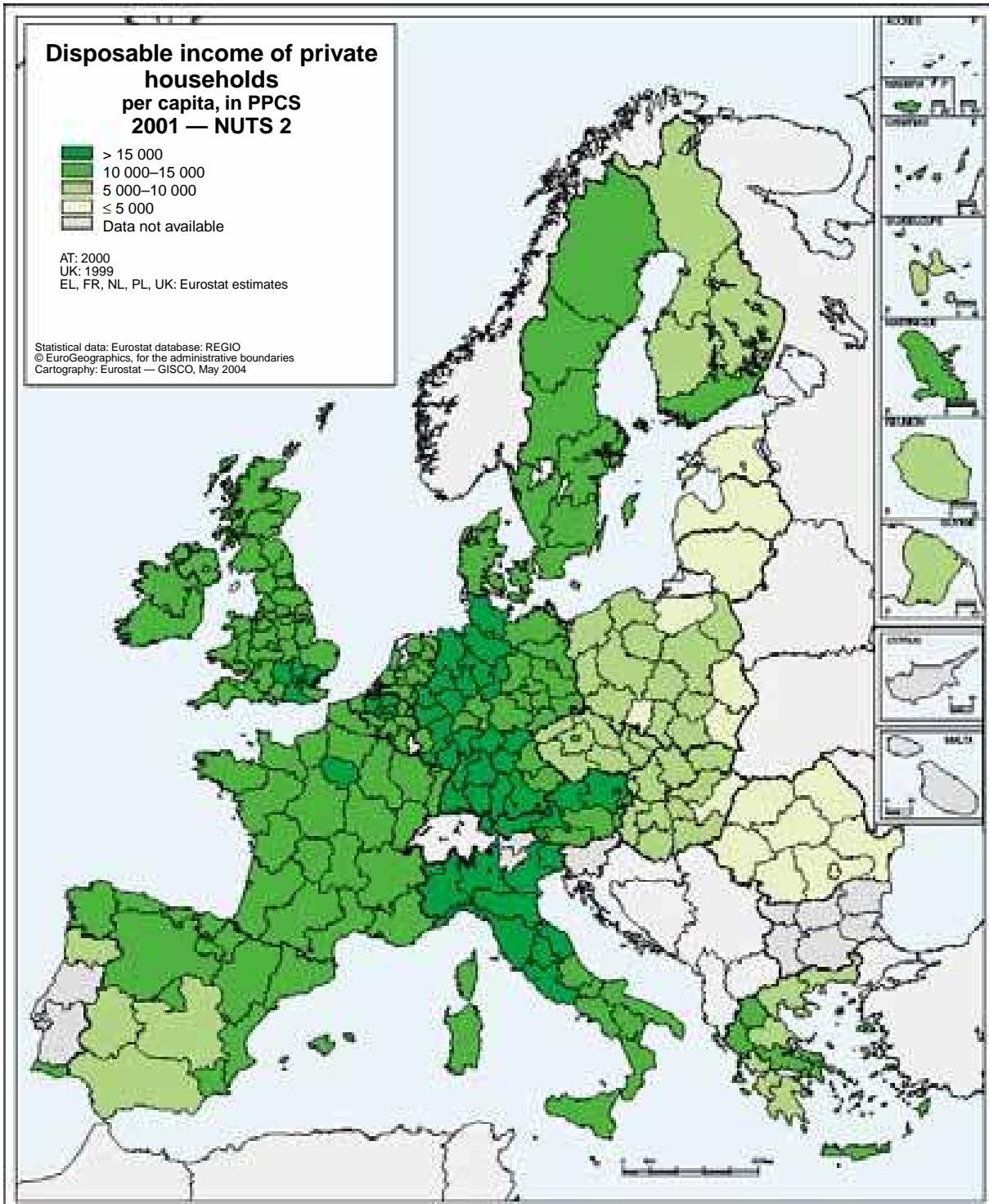
Analysis of primary income in Europe's regions indicates that there are islands of prosperity (as



Map 4.1

defined here) in central and southern England, Île-de-France, northern Italy, Comunidad de Madrid, the País Vasco and Cataluña, Flanders, Stockholm and in parts of Nordrhein-Westfalen, Baden-Württemberg and Bavaria. In the new Member States, however, household primary income is clearly below the European average. There is also a clear north-south divide in Italy and a west-east divide in Germany.

For household disposable income, on the other hand, it is much more difficult to identify any clear structures. The redistributing influence of the general government is apparent. However, this does not mean that disposable income is the same in all regions. The old Member States are wealthier than the new Member States, and peripheral regions such as southern Spain, northern Finland and Greece have a lower income than central re-



Map 4.2

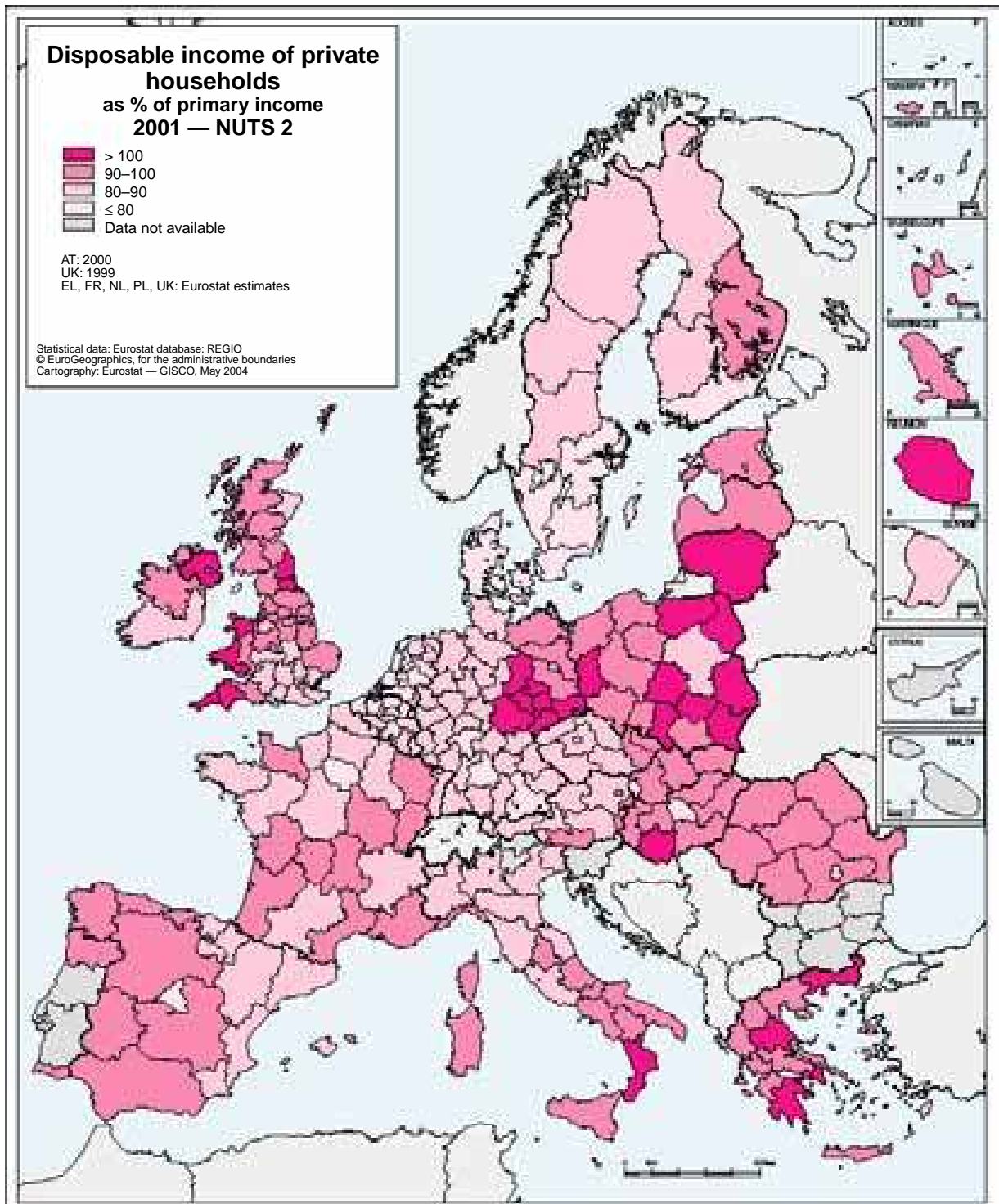
gions. The same also applies to the new Member States, where eastern Poland, eastern Hungary, Romania and the Baltic States are less well-off than the more central regions of the new countries.

The third map shows available income as a percentage of primary income.

Here there are major differences between the regions. In southern Sweden and southern Finland,

but also in Flanders and the Netherlands, disposable income is below 80 % of primary income. This reflects the strong redistributing influence of general government.

There are, however, also some regions in which the disposable income of households is higher than their primary income on account of monetary social benefits and other transfers. It is they then who profit from State redistribution policy.



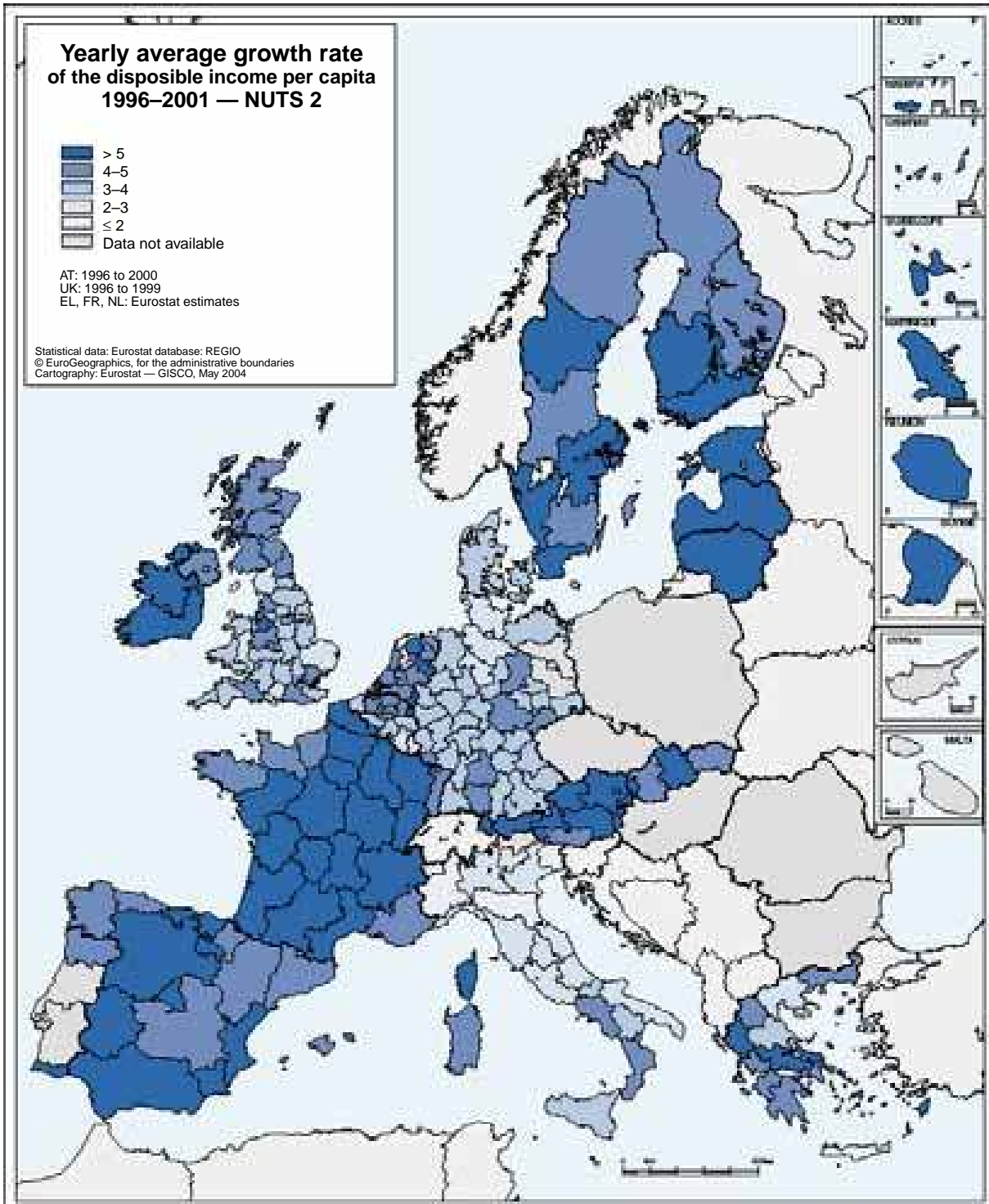
Map 4.3

Households in several regions of eastern Germany, Poland, southern Italy, Greece and Lithuania have a higher disposable income than primary income.

It is also noticeable that there are countries where general government activity is very high and disposable household income is very low. This would seem to suggest that in these instances the general government claims a large proportion of private

household income. On the other hand, this does not mean that those regions are particularly poor as they may perhaps benefit considerably from this government activity in the form of non-monetary services, such as roads and kindergartens. This subject will be addressed in more detail below.

However, first let us look at the rates of change in nominal private household disposable income over the last five years.



Map 4.4

Unfortunately, there are often no data for the new Member States, since there are no statistics for previous years (up to 1996). Otherwise, the differences in growth rates are substantial.

In Germany, Italy and large areas of the United Kingdom, growth areas are very low. The households' level of prosperity has stagnated in these areas for the last five years. The growth rate is particularly low, i.e. below the rate of inflation, in Schleswig-Holstein, Niedersachsen, East Anglia, East Wales, Hampshire and Isle of Wight, Piemonte, Emilia-Romagna, Valle d'Aosta and Crete.

In contrast, above-average increases in prosperity have been recorded in Ireland, nine regions of Spain, almost all of France and Austria and in two regions of Slovakia. Disposable income has also risen noticeably in southern Sweden and Finland, in the three Baltic States and in two regions of Greece.

Here we see again the same dynamism — or lack of dynamism — that we saw in the analysis of regional GDP in Chapter 3.

Extended concept of income

How prosperous are private households in the various regions of Europe? This is a question we will be attempting to answer in this chapter of the yearbook, and have already addressed in our analysis of households' primary income and disposable income. However, it seems reasonable to extend the concept of income beyond its strictly monetary sense and include public goods which are provided free of charge, since they also provide utility and can therefore equally be considered as income.

This analysis is pragmatic, concentrating on data which are currently available. An indicator is required which uses available information as efficiently as possible.

As is widely known and mentioned above, the proportion of disposable household income in the GDP varies widely from country to country (between 45 and 70 %), in particular due to differences in the level of government activity.

Table 4.1 — Proportion of disposable income for different sectors

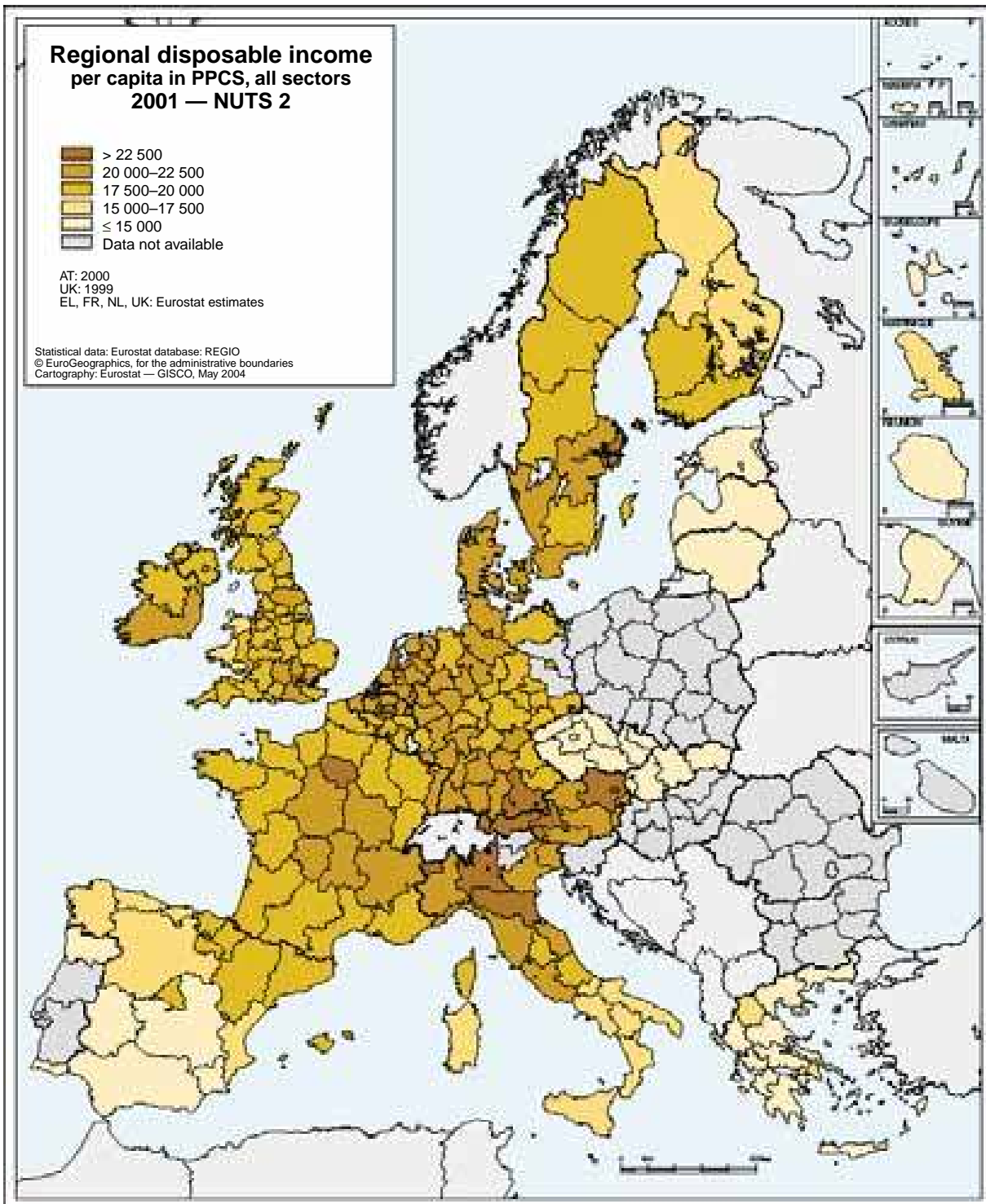
	EU average (%)	Range (%)
Corporations	2	1–9
General government	25	19–39
Private households	73	45–79

These huge differences make it difficult to compare, let alone rank, regional disposable household income. Differences between countries relating to fixed capital consumption and primary income balances or the balance of transfers to/from abroad are not taken into consideration, and in particular the whole issue of government activity is completely neglected. If, nonetheless, such a comparison is drawn, the regions of Sweden and Finland end up in the bottom third of the table, as the general government accounts for a large slice of economic performance in these countries, thus leaving households with a relatively lower income at their disposal.

On the other hand, general government activity is usually for the benefit of citizens, with the result that less of their disposable income has to be spent. One example should make this clear: if the government uses its income to finance cheap childcare facilities, then private households do not need to purchase this service at a high cost on the private market. Equally, a good public transport system reduces private expenditure on cars. To sum up, it can be established that comparing regional disposable income does not reflect the actual prosperity of a region, which should be expressed in the consumption of private and public goods and services.

The following analysis therefore covers not only disposable income of private households at regional level, but disposable income of all sectors of the economy, since all income is to the benefit of the individual in some form or other. This also applies to the operating surplus and property income of corporations, as these do ultimately also belong to private individuals.

It is useful first of all to get an idea of the figures involved. Disposable household income in the European Union is by far the largest component of total disposable income, making up an average of 73 % of the total. General government disposable income accounts for 25 %. The rest makes up the rather modest average total of 2 %.



Map 4.5

Moving on to the regional distribution of these components, figures are available for the regional distribution and level of disposable household income, but not for the regional distribution of disposable income for other sectors (operating surplus and property income of corporations, and government activity).

Assuming that the disposable income of these other sectors is of equal benefit to citizens in all re-

gions, the difference between the ‘disposable income of all sectors’ and ‘disposable household income’ is divided per capita among the populations of the various regions.

This is the easiest and most transparent method of dividing up the remaining balance. This approach seems to be easier to justify for the general government sector than for private organisations. Given, however, how low a percentage of the total figure

is involved, this has only a marginal influence on the results. Experiments with other distribution keys, such as value added or persons in employment, resulted in a virtually identical regional structure. The per capita approach was therefore chosen for transparency reasons.

Regional income of all sectors

Map 4.5 shows the results of these calculations for 2001. Unfortunately, no data are available from the national accounts for Malta and Cyprus, nor for Hungary, Poland and Slovenia, although there are regional data for households.

Per capita disposable income, taking into account all sectors, is particularly high in Stockholm, London, Hamburg, Région de Bruxelles-Capitale/Brussels Hfdst. Gew., Niederösterreich and Wien, Oberbayern, Île-de-France, Lombardia and Emilia-Romagna. Capital cities and city regions are clearly the wealthiest.

By contrast, the regions in southern Spain, Portugal, Greece and the new Member States for which data are available are the poorest.

In general, the prosperity divide usually drawn for per capita GDP appears here too, but with a few interesting details: within Germany and the United Kingdom, for example, households in all regions have a similar income as a result of State redistribution.

Conclusion

Analysis of the income accounts of private households at regional level is a useful addition to the previous technique of measuring wealth by means of regional GDP per capita. It makes important detailed corrections and enhances the objective comparison of Europe's regions.

When the data on regional household accounts are completed in the near future, these statistics should be used in addition to the GDP per capita for decisions on regional policy measures.

REGIONAL LABOUR MARKET



Introduction

The information used for studying the regional labour market at NUTS 2 level is primarily based on the Community labour force survey (LFS). The data are available in the NewCronos database in the REGIO domain (theme1/region/lfs-r and theme1/regio/unemp). In 2003, Eurostat implemented a major reform of regional labour market statistics changing the second-quarter results to annual average ones (data is available from 1999 onwards). This change was made possible by the fact that most of the EU-25 countries had quarterly LFS in 2002, as did Bulgaria and Romania. The indicators used for monitoring the development of the regional labour markets are employment, the proportion of services and agriculture in total employment, and unemployment. Female, youth and long-term unemployment are also individually measured. A short description of indicators is included in a separate section of the chapter.

Due to the change to the NUTS 2003 classification, some employment data in these regions is missing: Centro, Alentejo and the capital region of Lisboa (Portugal), Ciudad Autónoma de Ceuta and Ciudad Autónoma de Melilla (Spain), Brandenburg — Nordost and Brandenburg — Südwest (Germany), Provincia Autonoma Bolzano/Bozen and Provincia Autonoma Trento (Italy), and Etelä-Suomi, Länsi-Suomi and Pohjois-Suomi (Finland).

Employment rate of age group 15–64

The employment rate of the 15–64 age group represents employed persons aged 15–64 as a percentage of the population of the same age group. In 2002, this employment rate was generally lower in southern Europe. Poland's low employment rate was an exception in the northern part of Europe (see Map 5.1). There were 24 NUTS 2 regions with an employment rate below 50 % — two in Spain, five in France (including all four overseas regions), six in Italy, one in Hungary and five each in Poland and Bulgaria. Of the six Italian regions below 50 %, three (Campania, Calabria and Sardegna) had the lowest rates (41.9 %) of all European NUTS 2 regions studied. In all Polish regions except two (Lubelskie, Mazowieckie),

the employment rate of the 15–64 age group was less than 55 %.

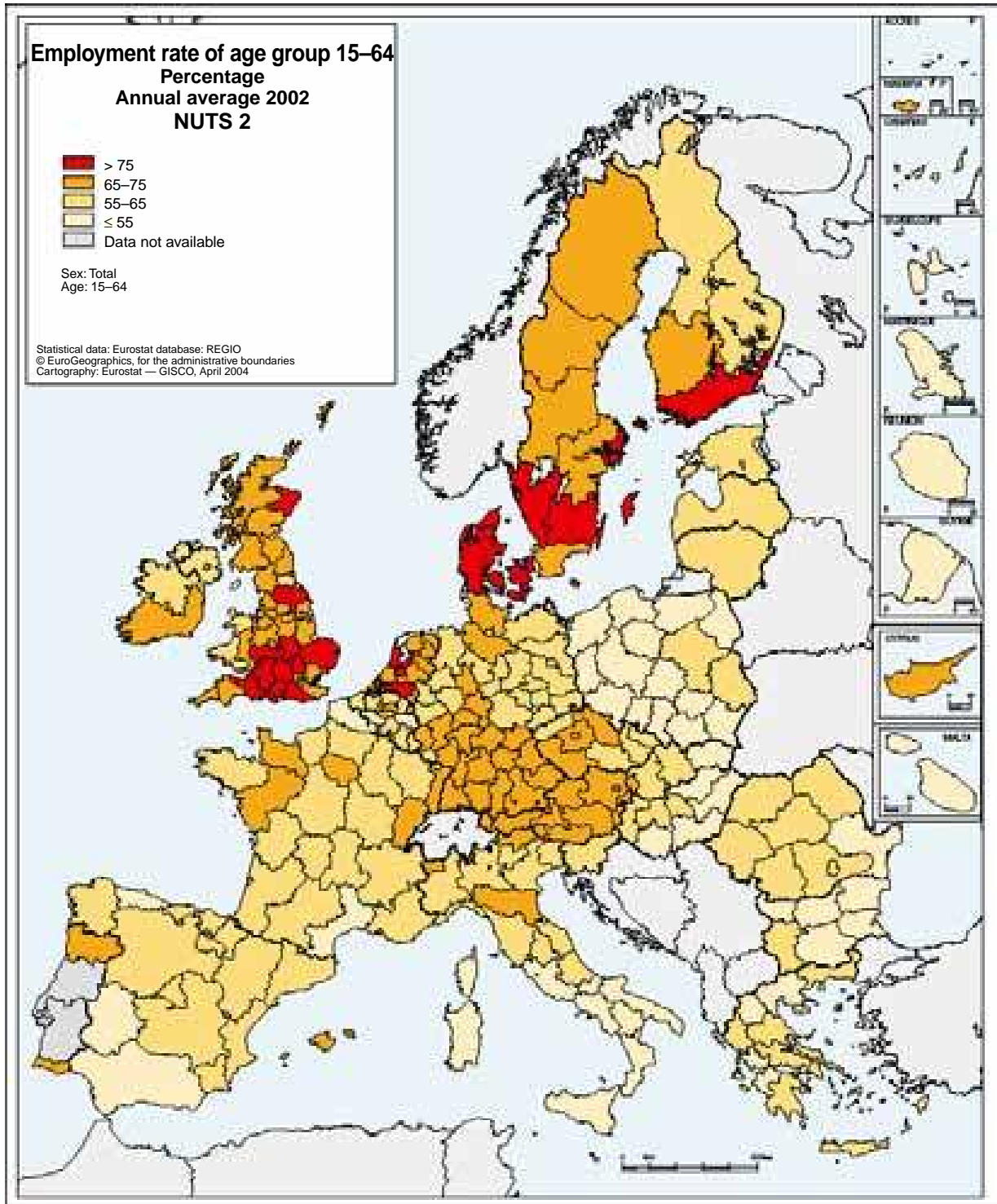
NUTS 2 regions in which the employment rate exceeded 75 % in 2002 (altogether there were 21 of them) can be found in the Netherlands (4), Finland (2), Sweden (3) and the UK (11). Denmark (comprising one NUTS 2 region) also had an employment rate above this level. Among the new Member States, only six NUTS 2 regions exceeded 65 %: four in the Czech Republic (the capital region Praha, Střední Čechy, Jihozápad, Severovýchod), one in Slovakia (the capital region Bratislavský kraj) and Cyprus (which, like Denmark, comprises a single NUTS 2 region).

Change in employment

In most countries there was a positive trend in employment between 2001 and 2002. Only two of the former EU-15 Member States recorded a decrease in total employment (Germany 0.7 % and Denmark 0.5 %); the highest increase was observed in Spain (2 %, representing an increase of 312 000 employed persons), Italy (1.9 % or 315 000 employed persons) and Ireland (1.9 % or 33 000 employed persons). The intensity of the decline in the new Member States, and especially Romania, was substantially greater: 9.5 % in Romania (decrease of 1.01 million employed persons), 3 % in Poland (decrease of 424 000 employed persons) and 5.5 % in Lithuania (decrease of 81 000 employed persons). The biggest upturn was recorded in Latvia (2.5 %, representing an increase of 24 000 employed persons) and Bulgaria (1.5 %, or 41 000 employed persons).

In 17 countries, most NUTS 2 regions recorded a rise in 2001–2002 in total employment – this was the case for Ireland, the UK, Spain, France, the Netherlands, Austria, Sweden, Finland, Italy, Greece, the Czech Republic, Hungary and Bulgaria and also the Member State Luxembourg, Cyprus, Latvia and Estonia, each comprising one NUTS 2 region.

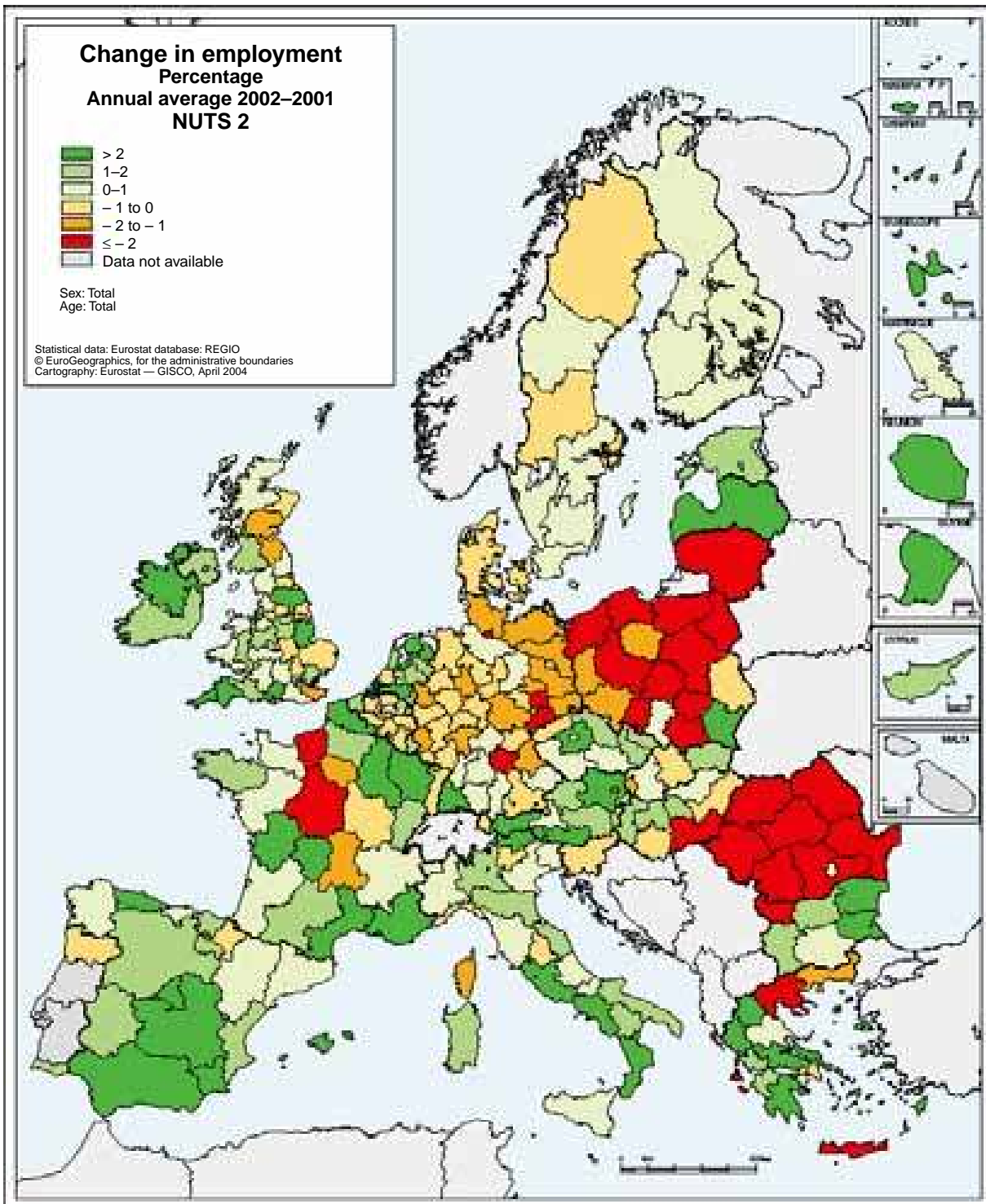
The greatest decrease in total employment (more than 5 %) was recorded in no fewer than seven Romanian regions, in Poland (Mazowieckie, Opolskie, Podlaskie, Warmińsko-Mazurskie), the Ionian Islands in Greece and Lithuania. In Poland, the greater absolute decrease (108 000 employed



Map 5.1

persons) was observed in the region of Mazowieckie; in Romania it was the region of Nord-Est (214 000 employed persons). At the other extreme, the most positive development in total employment in 2002 (increase of more than 5 % in comparison with the previous year) was in Spain (Ciudad Autónoma de Melilla), France (Cham-

pagne-Ardenne, Poitou-Charentes, Languedoc-Roussillon and also two overseas regions, Guyane and Réunion, despite their high unemployment rates), Greece (Ipeiros, Sterea Ellada, Peloponnissos, Voreio Aigaio, Notio Aigaio) and Portugal (Região Autónoma da Madeira).



Map 5.2

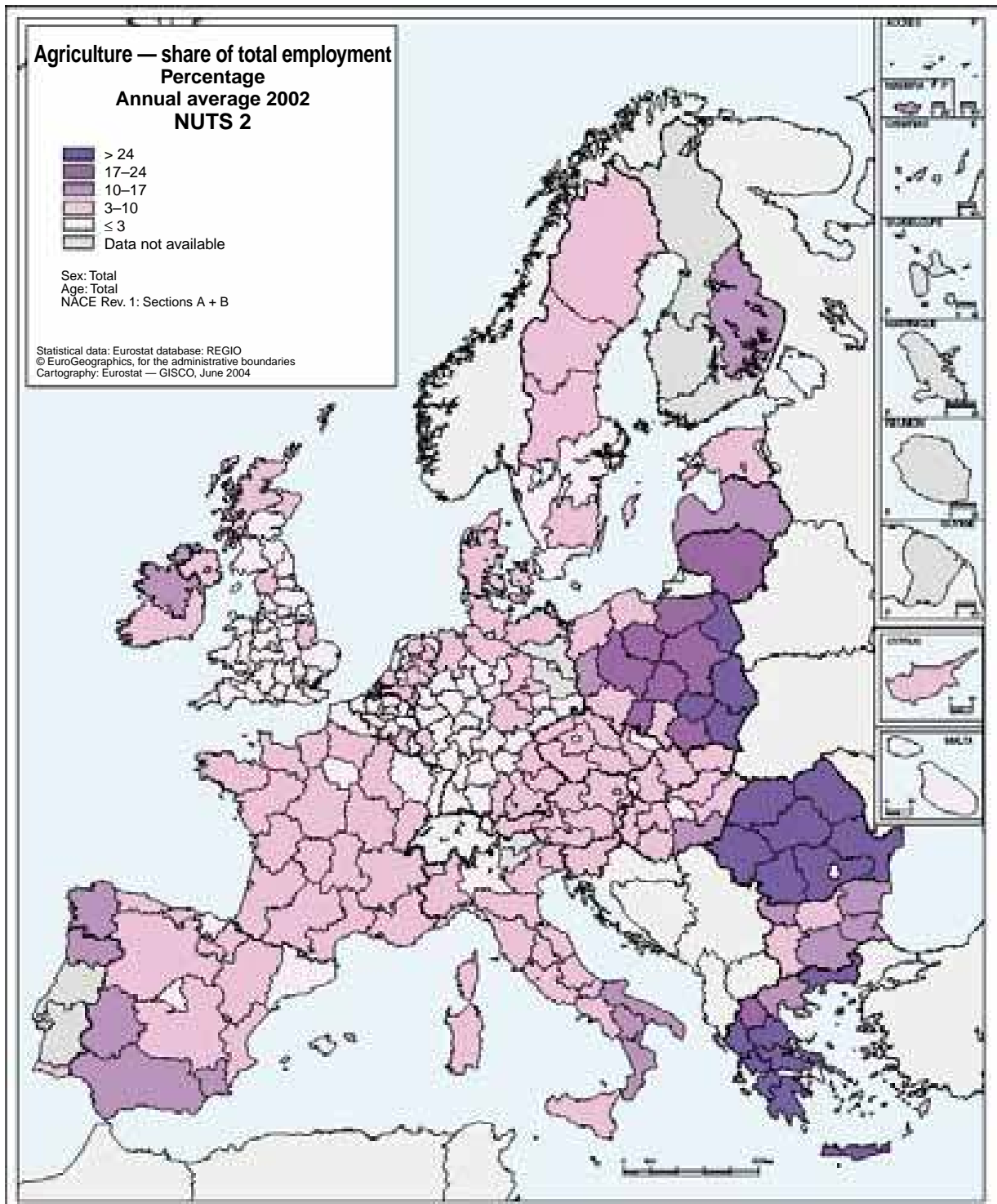
Agriculture

Map 5.3 shows that people in the eastern countries of the EU tend more often to be employed in agriculture (Sections A and B according to NACE Rev. 1). Whereas in 2002 there were only a few NUTS 2 regions in western Europe where agriculture comprised between 10 and 17 % of employ-

ment (Extremadura, Andalucía and Región de Murcia in Spain; Border, Midland and Western in Ireland; Norte, Região Autónoma dos Açores and Região Autónoma da Madeira in Portugal), this indicator exceeds 17 % in most regions in Greece (four of which surpass 30 % — Dytiki Ellada, Peloponnissos, Kriti and Anatoliki Makedonia, Thraki). In Romania, with the exception of the capital region of București with 2.7 %, Centru

with 26.1 % and Vest with 27.9 %, all regions have more than 30 % of their employment in agriculture. Other high rates were found in Poland (four regions above 30 % — Lubelskie, Podkarpackie, Podlaskie, Świętokrzyskie) and Lithuania (17.9 %). The highest proportion in agriculture was recorded in the Romanian regions of Sud (44.3 %), Nord-Est and Sud-Vest (51.3 %).

Levels between 10 and 17 % were also observed in regions in Italy (Molise, Puglia, Basilicata and Calabria), Greece (Kentriki Makedonia), Bulgaria (Severozapaden, Severoiztochen, Yuzhen tsentralen, Yugoiztochen), Hungary (Dél-Alföld), Finland (Itä-Suomi) and Latvia. In more than half of European NUTS 2 regions the participation of employed persons in agriculture in 2002 was below 5 %.



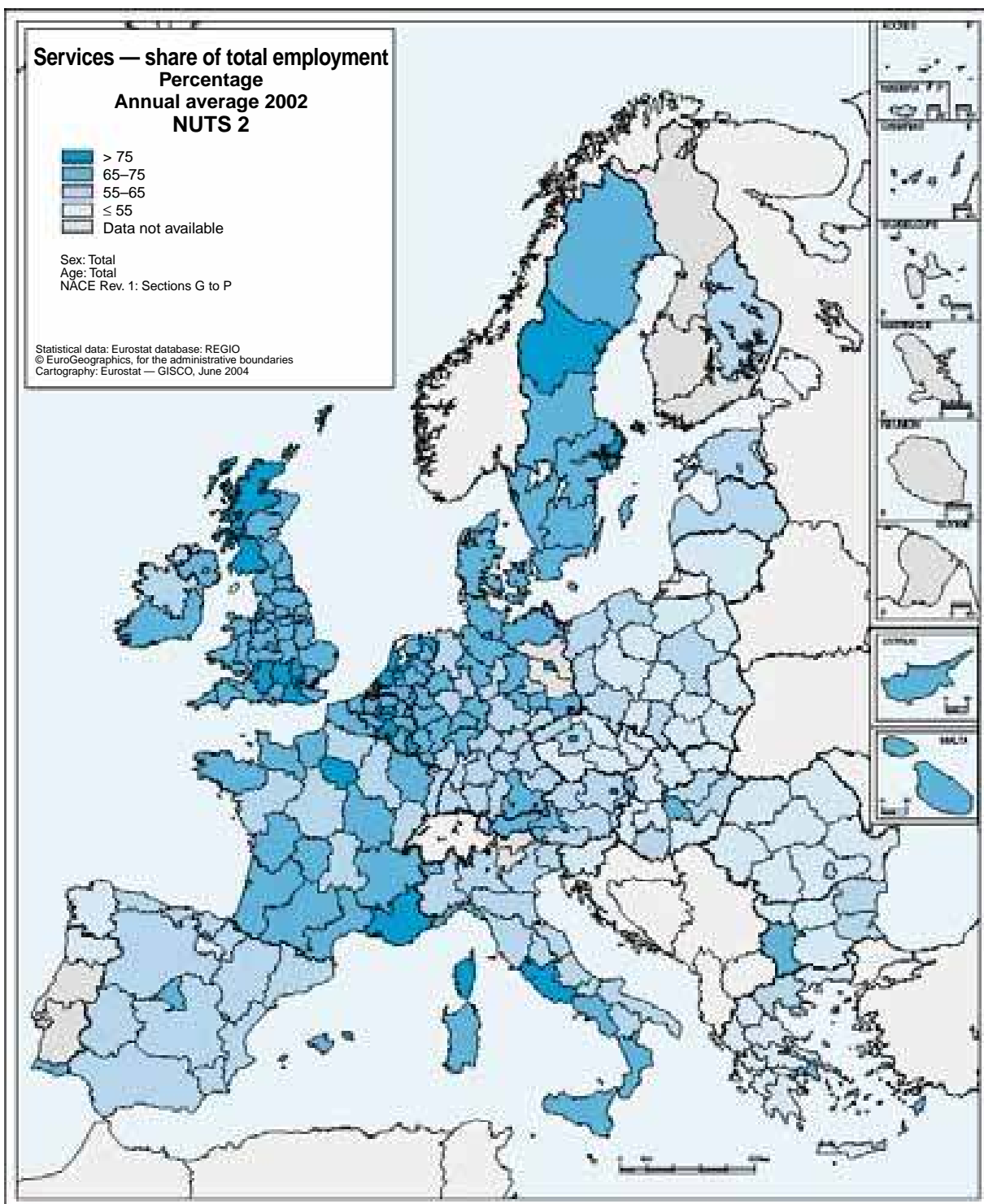
Map 5.3

Services

Map 5.4 (Services — share of total employment — Sections G to P, NACE Rev. 1) shows clearly the differences between the former EU-15 Member States and the new Member States. In 2002, at national level this indicator varied in the former EU-15 Member States from 60 to 77.9 % (except

Portugal (53.8 %)). By contrast, in the new Member States and also in Bulgaria and Romania this share was below 60 % (except in three countries — Cyprus (71.6 %), Malta (66.1 %) and Estonia (61.7 %)).

Nevertheless, there were some regions in the new Member States where services comprised a high proportion of employment — the capital region of



Map 5.4

Praha (78.2 %) in the Czech Republic, Hungarian region of Közép-Magyarország (71.9 %), the capital region of Bratislavský kraj (74.7 %) in Slovakia, Polish region of Zachodniopomorskie (62.2 %), Bulgarian region of Yugozapaden (65.2 %) and the capital region of București (62.4 %) in Romania.

Services dominated total employment (share of more than 75 %) in 2002 in Belgium (Région de Bruxelles-Capitale/Brussels Hfdst. Gew., Prov. Vlaams-Brabant, Prov. Brabant Wallon, Prov. Namur), Germany (Berlin, Hamburg), France (Île-de-France, Provence-Alpes-Côte d'Azur, Corsica), the Netherlands (Overijssel, Groningen, Flevoland, Zuid-Holland, Noord-Holland, Utrecht), Sweden (Mellersta Norrland, and the capital region of Stockholm), the UK (Merseyside; Bedfordshire and Hertfordshire; Inner London; Outer London; Berkshire, Buckinghamshire and Oxfordshire; Surrey, East and West Sussex; Gloucestershire, Wiltshire and North Somerset; Eastern Scotland; South Western Scotland; Highlands and Islands), Finland (Åland), Austria (the capital region of Wien), the Czech Republic (the capital region of Praha), Italy (Lazio) and Luxembourg.

At the other end of the scale, the lowest services share at regional level in the former EU-15 Member States were in Portugal (Norte at 45.3 %), Italy, with six regions between 50 and 60 %, Spain, with nine regions between 50 and 60 %, Greece, with four regions below 50 %, Germany, with nine regions between 55 and 60 %, France (Franche-Comté at 56.6 % was the only French region with a services share below 60 %) and Ireland (Border, Midland and Western at 57.3 %). In the new Member States, less than 50 % of employed persons worked in services in two regions in the Czech Republic (Severovýchod, Střední Morava), one in Hungary (Közép-Dunántúl) and eight in Poland. In Romania such a low share was recorded in seven regions.

Unemployment rate

The unemployment rate, representing unemployed persons as a percentage of the economically active population (i.e. employed persons and the unemployed), stood at 7.7 % in the former EU-15 Member States, at 14.9 % in the new Member States, at 18.2 % in Bulgaria and at 8.4 % in Romania.

Seventy-four NUTS 2 regions had unemployment rates below 5 %: 8 in Austria (only 1 Austrian region exceeded 5 %), 19 in the UK, 9 in Italy, 3 in the Czech Republic, 8 in Germany, all 12 regions in the Netherlands, 2 in Hungary, 3 each in Portugal and Sweden, 1 each in Spain, Finland and Ireland, and the three single-region States of Denmark, Luxembourg and Cyprus.

In 22 regions unemployment was particularly high (i.e. those with an unemployment rate over 20 %): 3 in Italy (Campania, Calabria, Sicily), all 4 French overseas regions, 2 regions in Germany (Dessau, Halle) and no fewer than half the regions in Bulgaria, Slovakia and Poland.

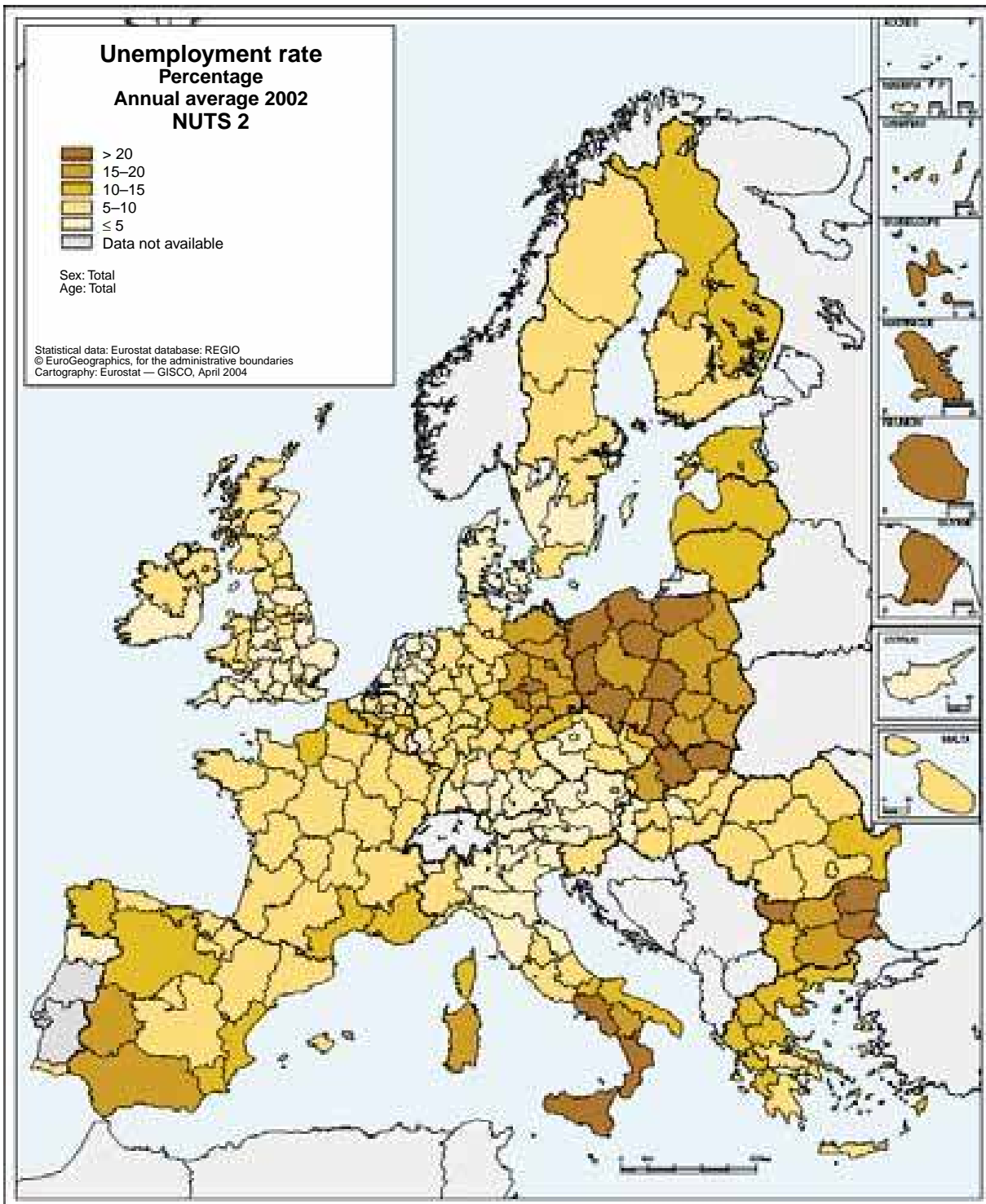
In the case of Italy, there were big differences between the northern (low unemployment rate) and southern regions (high unemployment rate).

Change in unemployment

The situation in the labour market was more stable in the former EU-15 Member States, among which only Greece and Italy improved between 2001 and 2002 (decrease of 0.5 percentage points). Even though the unemployment rate rose the most in Portugal (by 1 percentage point), the overall level still remained very low (5.1 %). The changes in the new Member States and in Bulgaria and Romania were more dynamic — with the biggest decrease of the unemployment rate being in Estonia (2.3 percentage points), Latvia (2.8 percentage points) and Bulgaria (2.1 percentage points), as well as notable increases in Poland (1.7 percentage points) and Romania (1.8 percentage points). In the case of Romania, the unemployment rate in 2002 was relatively low: 8.4 %.

In 2002, an improvement of more than 0.5 percentage points in comparison with 2001 was observed in 57 NUTS 2 regions, whereas an equivalent worsening was noted in 107 regions.

The greatest decline in the unemployment rate (over 2 percentage points) was recorded in Bulgaria (Severen tsentralen, Severoiztochen, Yugoiztochen, where the latter two had an unemployment rate above 20 %), France (two overseas regions, Guyane and Réunion, both with high unemployment rates), Greece (Sterea Ellada) and the new Member States Estonia and Lithuania.

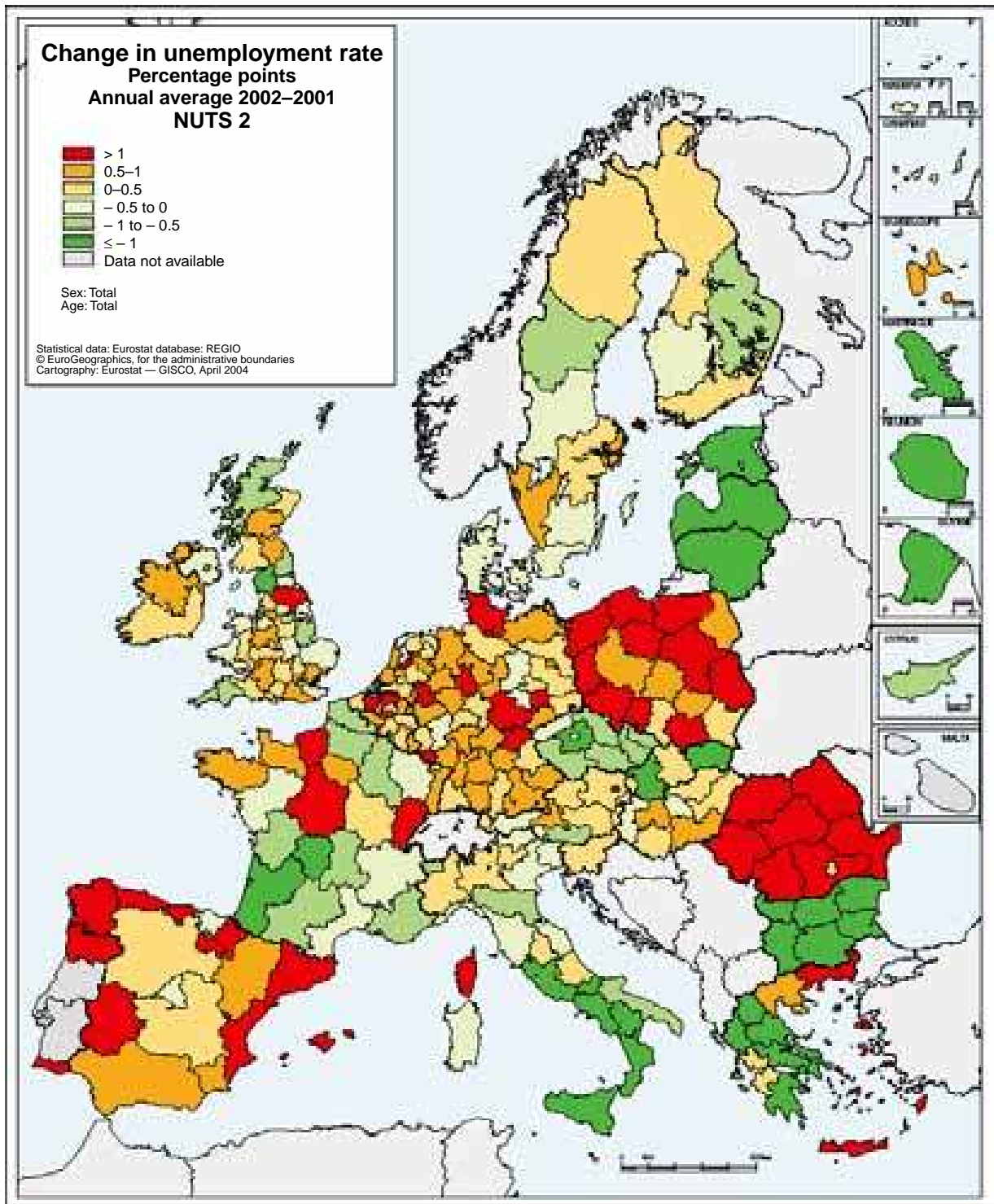


Map 5.5

Regions with the largest increase in the unemployment rate (more than 2 percentage points) in 2002 were as follows: six Polish regions, two Spanish regions (La Rioja and Extremadura), two in Greece (Voreio Aigaio and Notio Aigaio), two in Romania (Sud-Est and Sud) and one French region (Franche-Comté).

Female unemployment

Female unemployment in 2002 in the former EU-15 Member States was 8.7 % (countries with a rate higher than 10 % were Spain (16.4 %),



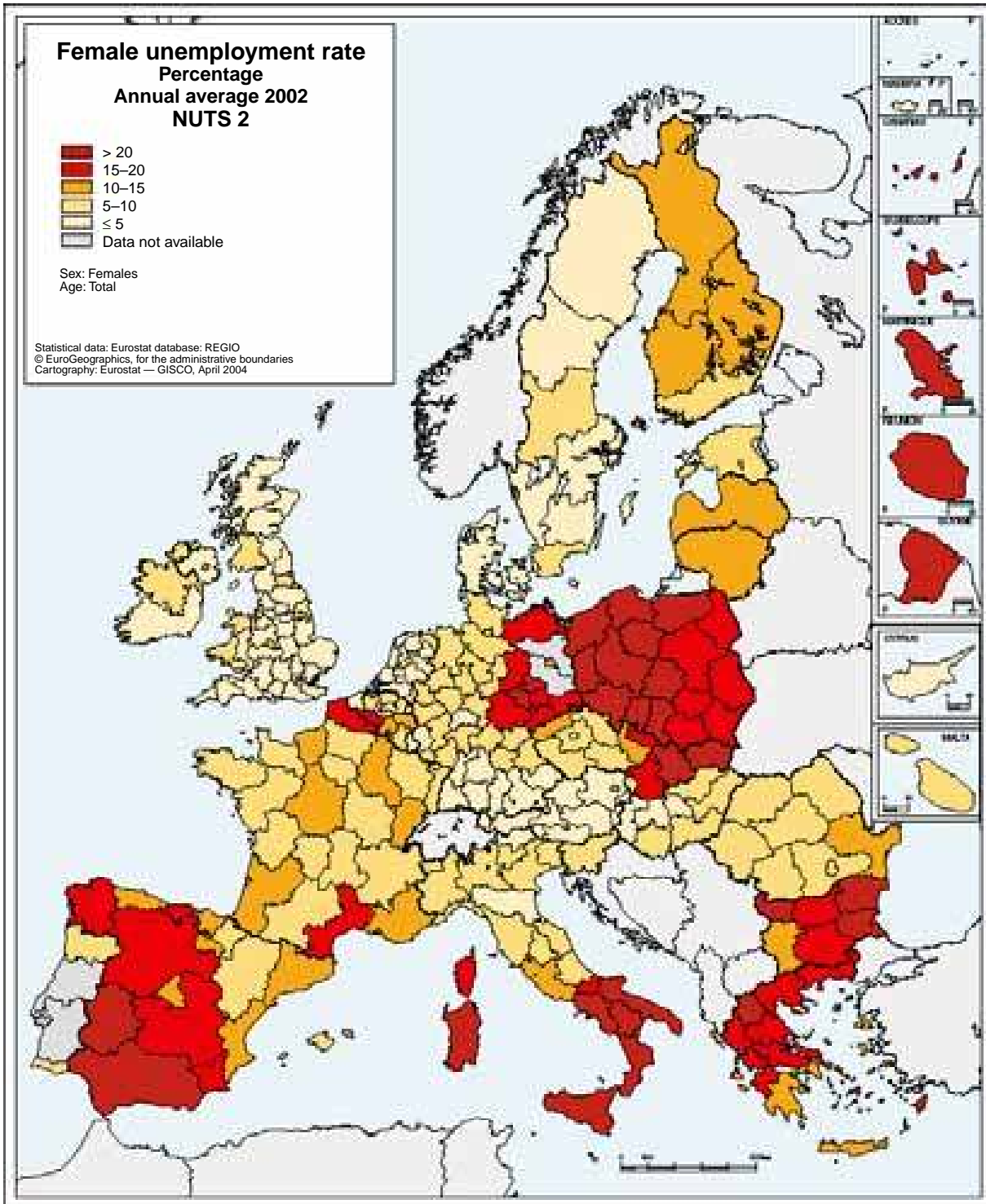
Map 5.6

Greece (15.0 %) and Italy (12.2 %)); in the new Member States, it stood at 15.6 % (more than 10 % in Lithuania (12.9 %), Latvia (11.0 %), Slovakia (18.7 %) and Poland (20.9 %)). In Bulgaria and Romania it was 17.3 % and 7.7 % respectively.

At regional (NUTS 2) level, a female unemployment rate below 5 % was recorded in 8 regions in

Austria, 2 each in Belgium, Portugal and Italy, 30 in the UK, 6 in Sweden, 10 in the Netherlands, 9 in Germany, 3 in Hungary, 1 in Finland, Ireland and the Czech Republic. In Denmark, Luxembourg and Cyprus the female unemployment rate was also below 5 %.

In 2002, regions with a female unemployment rate over 20 % could be found in Poland (10 of



Map 5.7

the 16 regions), France (all 4 overseas regions, with Réunion exceeding 30 %), 3 regions in Bulgaria and 2 each in Germany, Slovakia, Spain and Greece. The situation in Italy was marked by a big difference across the country — of the six regions

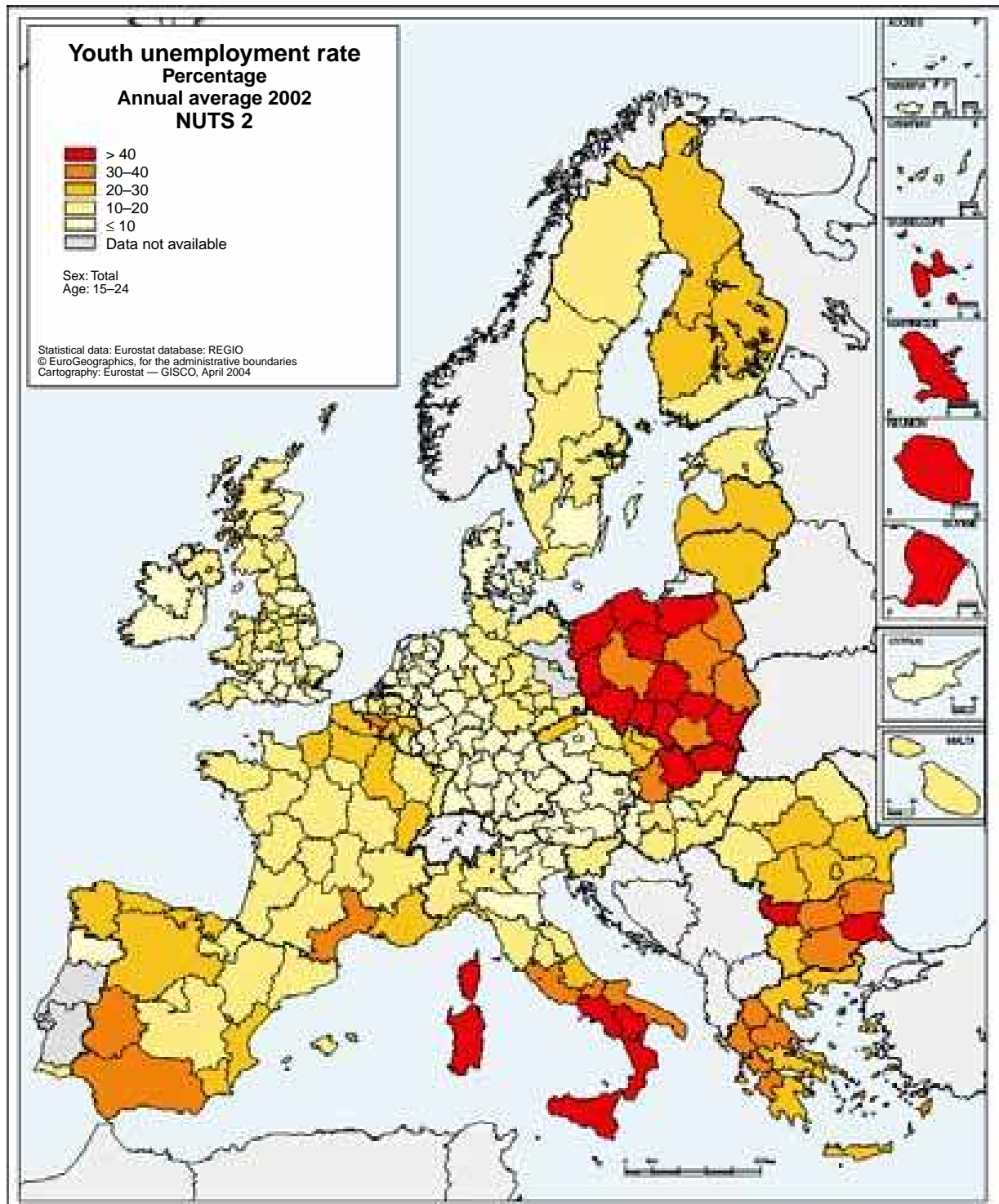
in this category, Campania and Calabria were over 30 %. In Germany the female unemployment rate was noticeably higher in the regions of the former GDR.

Youth unemployment

The youth unemployment rate represents unemployed persons aged 15-24 as a percentage of the economically active population of the same age group. Map 5.8 shows a similar pattern of youth unemployment rates as was the case with female unemployment. However, there is a bigger divergence between the former EU-15 Member States

(14.9 %), and the new Member States (32.4 %), Bulgaria (37.2 %) and Romania (23.2 %).

In the former EU-15 Member States, a youth unemployment rate of over 25 % was observed in Italy (27.2 %) and Greece (26.5 %), whereas it was below 10 % in Denmark (7.4 %), Germany (9.7 %), Ireland (7.8 %), Luxembourg (7.0 %), Austria (6.2 %) and the Netherlands (5.0 %). In the new Member States, the only countries to

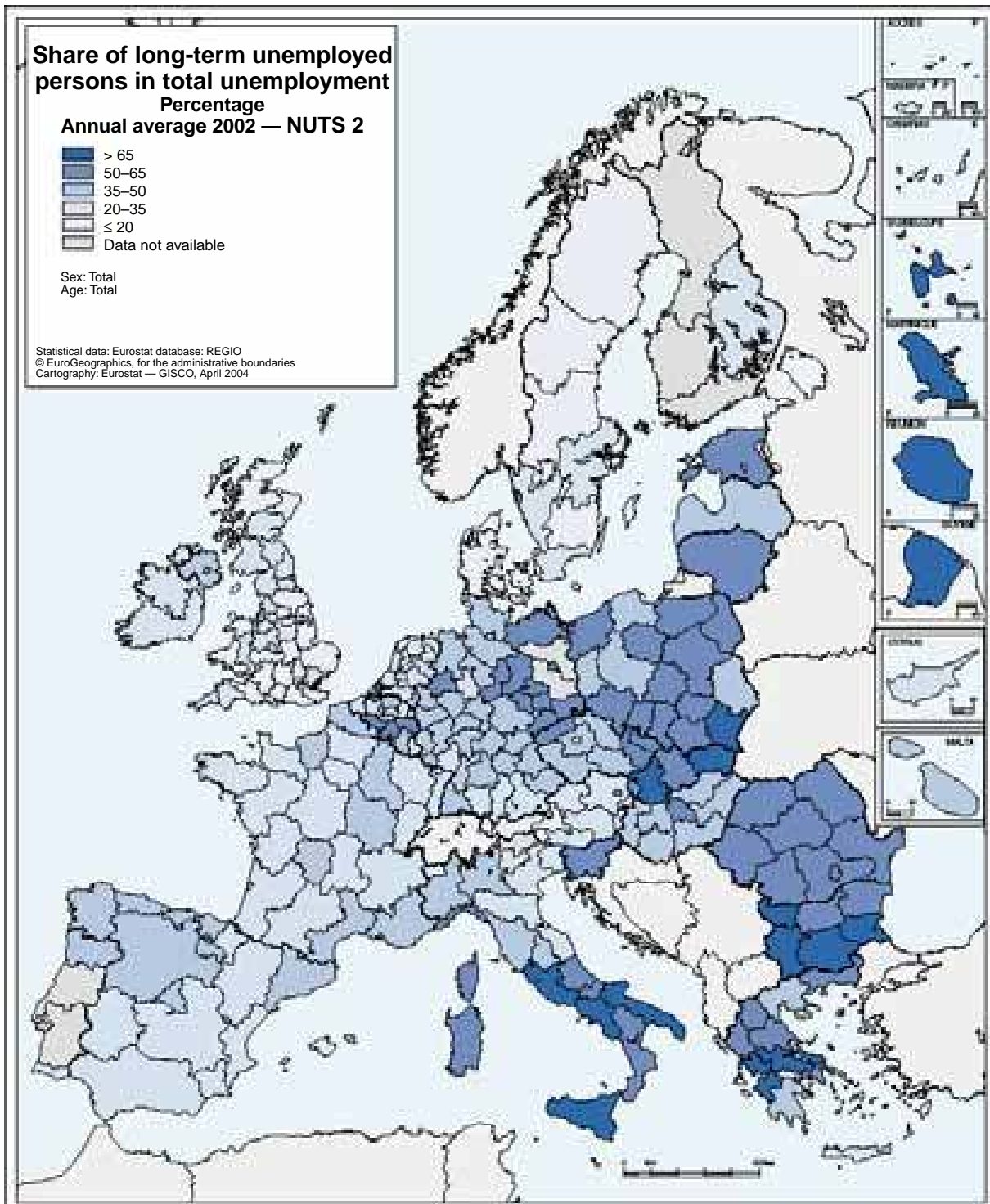


Map 5.8

have less than 20 % youth unemployment were Slovenia (16.5 %), the Czech Republic (16.9 %), Hungary (12.4 %), Cyprus (7.7 %), Malta (15.3 %) and Estonia (17.6 %). The highest level of this indicator was recorded in Poland (42.5 %).

Across the enlarged EU and Bulgaria and Romania youth unemployment was below 10 % in 76

regions. At the other extreme, regional youth unemployment rates above 50 % were observed in Bulgaria (Severozapaden), France (Guadeloupe, Martinique), Italy (Campania, Calabria, Sicily) and Poland (Dolnośląskie, Lubuskie, Warmińsko-Mazurskie, Zachodniopomorskie).



Map 5.9

Long-term unemployment

The long-term unemployment rate represents persons unemployed for one year or longer, as a percentage of the sum of those unemployed for less than one year and those unemployed for one year or longer.

In 2002, relatively low long-term unemployment rates (below 20 %) were recorded in 5 Swedish regions, 17 British regions, 3 Austrian regions (Salzburg, Tirol, Vorarlberg), one Spanish region (Illes Balears), 1 Italian region (Valle d'Aosta) and in Denmark.

In spite of the high youth and female unemployment in the Spanish region of Andalucía, the long-term unemployment rate was relatively low here. The opposite situation was observed in Slovenia.

A long-term unemployment rate of more than 65 % was observed in four Bulgarian regions (Severozapaden, Yugozapaden, Yuzhen tsentralen, Yugoiztochen), all four French overseas regions, in four Italian regions (Lazio, Campania, Puglia, Sicily), two Greek regions (Dytiki Ellada and Sterea Ellada), two Slovak regions (Západné Slovensko and Východné Slovensko) and in the Polish region of Podkarpackie.





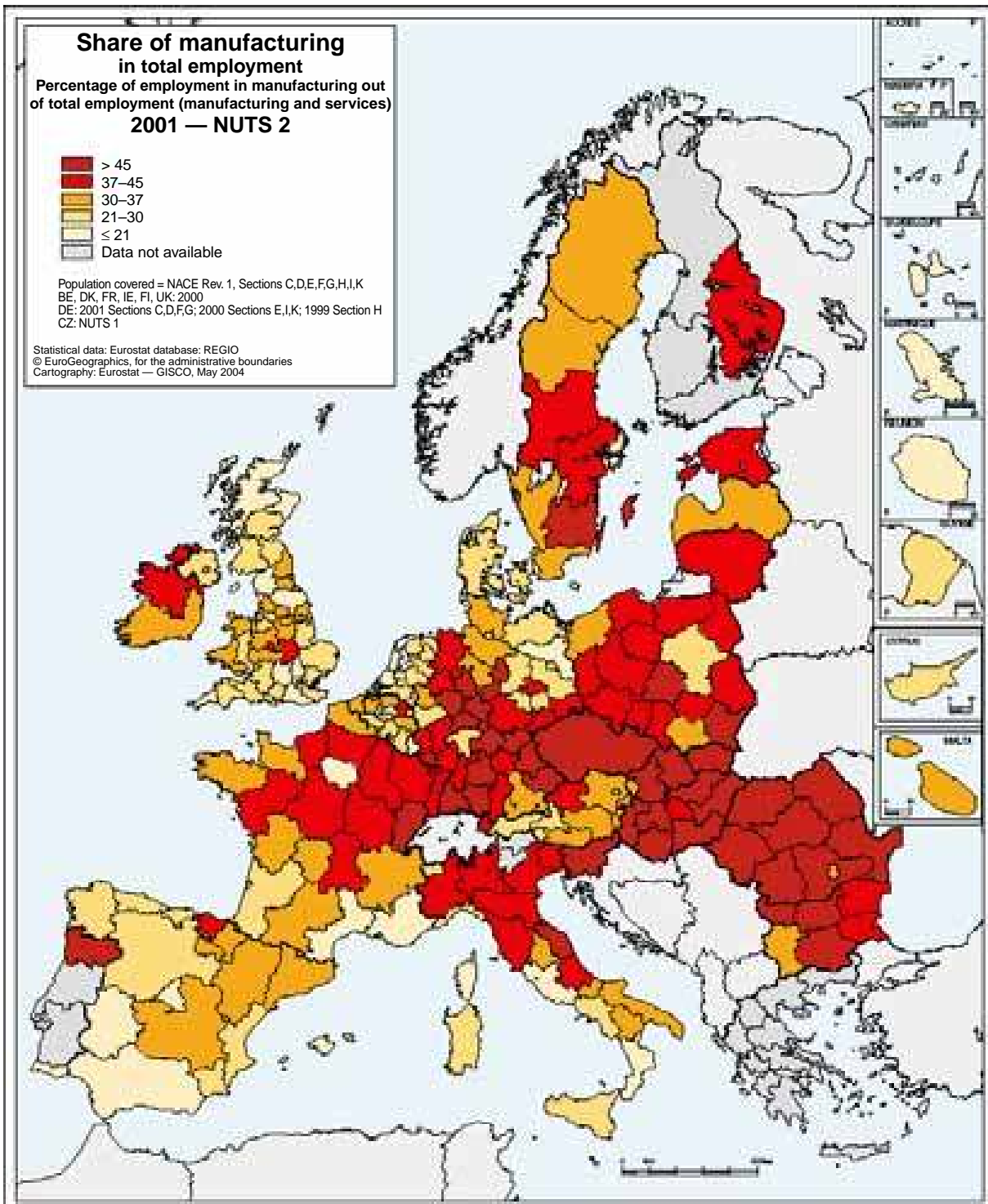
Introduction

Regional business statistics are prepared using information which comes from the businesses themselves. They are therefore a vital source of information for anyone requiring details of economic activity in the regions of Europe.

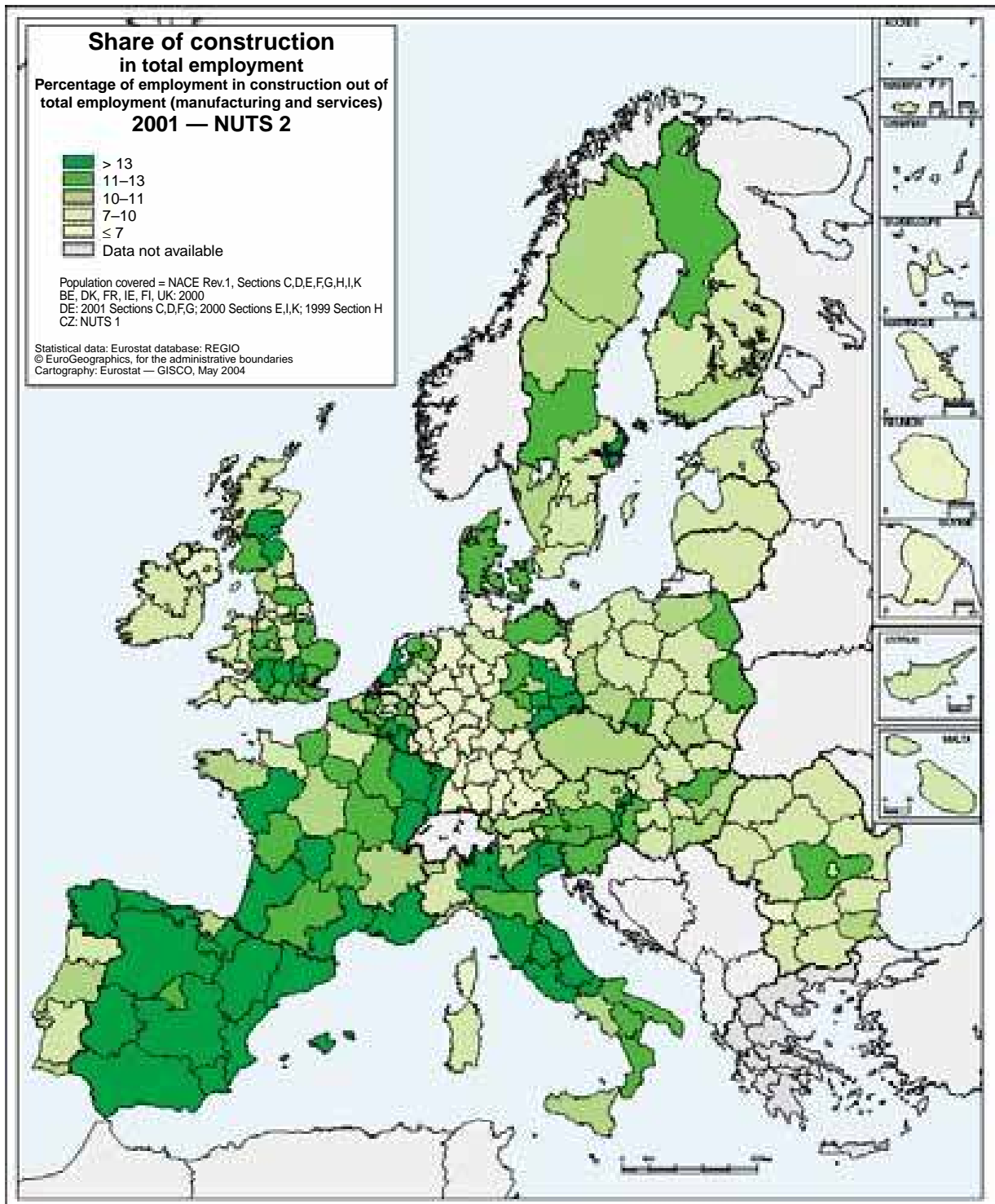
What effects do the European Union's commercial and regional policies have on the industrial struc-

ture of the regions? How is employment in industry changing in the regions? What are the wage and investment rates in any particular region or sector of activity?

Detailed analysis of the structure of the European economy by sector can only be done at the regional level. In fact, a country's flagship industry is often concentrated in a few regions; conversely, within a very dynamic country there may be re-



Map 6.1


Map 6.2

regions where economic growth is lagging because there is a crisis in certain key sectors in those regions.

These regional business statistics cover all the EU Member States, including the 10 countries that joined on 1 May 2004.

Maps 6.1 to 6.9 are based on the structural business statistics (SBS) for regions available in the NewCronos database in the SBS domain

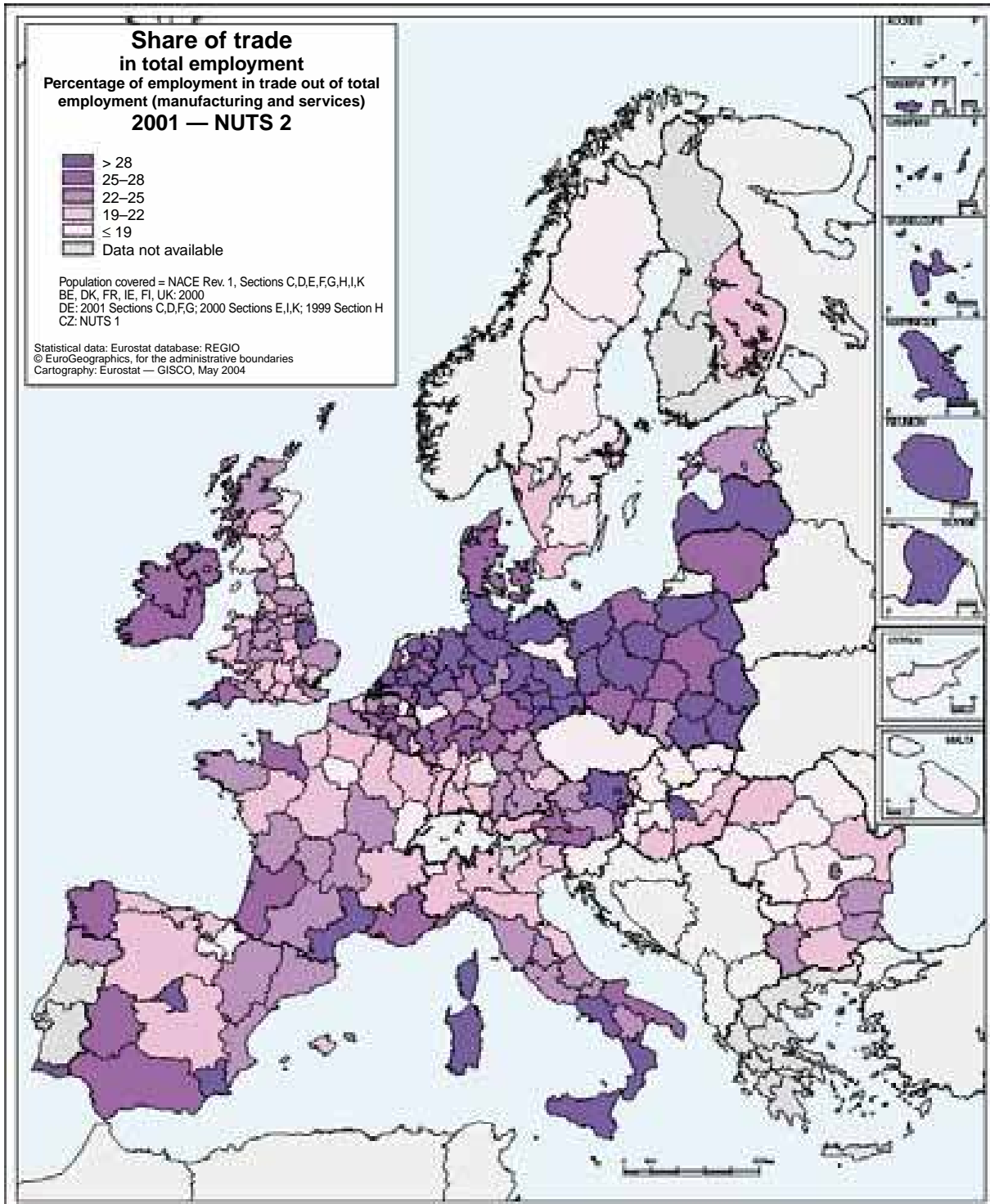
'theme4/sbs/region' and in the REGIO domain 'theme1/region/sbs-r'. The maps presented here briefly summarise the regional business statistics available: the full database has much more information.

Maps 6.1 and 6.4 illustrate the regions' respective shares in the major sectors of activity: industry, construction, commerce and services. Maps 6.5 and 6.6 show the average wages in services in the

broadest sense (including commerce) and industry, again taken in the broadest sense. Maps 6.7 and 6.8 show job density in these two sectors. Of course, this analysis by major sectors can be further broken down to a detailed level of economic activity using REGIO in the NewCronos database. Lastly, Map 6.9 illustrates per capita industrial investment in the regions.

Industry predominates in the new Member States

As stated above, Maps 6.1 to 6.4 show the major market sectors' respective shares across the regions.

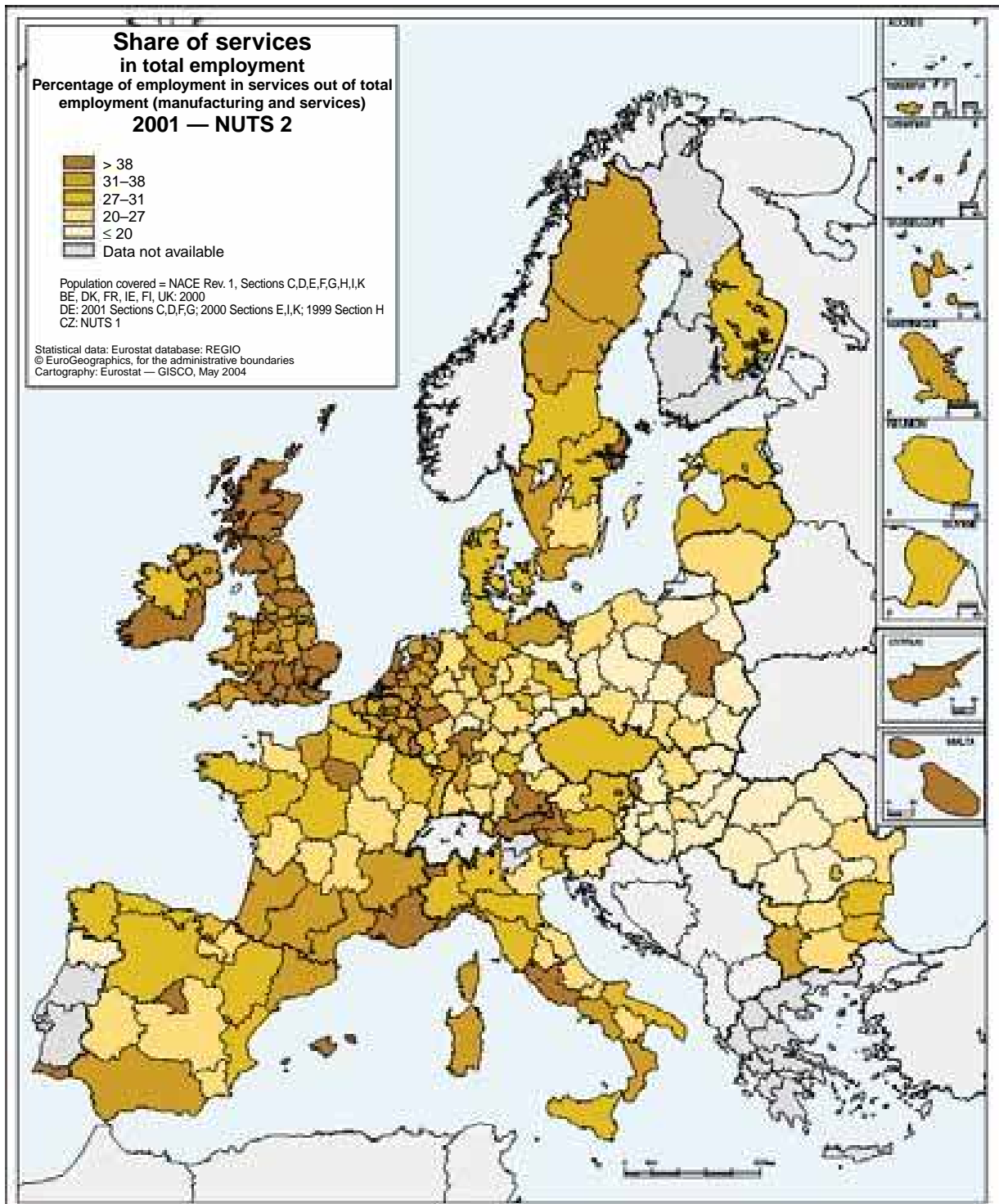


Map 6.3

Traditionally, the German economy, which focuses on manufacturing, is contrasted with the UK economy, which is more geared to services. This national generalisation broadly applies at local level in these two countries as well, but there are a few UK regions, most of them in the centre and west (such as Leicestershire, Rutland and Northamptonshire, and West Wales and the Valleys), which are almost as industrialised as German regions. What is more, it is above all the former

West Germany that is highly industrialised. The new *Länder* are more focused on construction and traditional services.

The pattern of employment in France is unlike that in any other EU country. In terms of total employment, jobs in services are particularly evident around the capital, whereas there are far fewer in the rest of the country. This high proportion of services in the Île-de-France is related to the high



Map 6.4

population density in that region, and can be explained by the fact that the major industrial areas are now far away from the capital. Map 6.5 shows that these jobs in services tend to be more skilled than those in other French regions.

The coastal regions of the Mediterranean have a particularly high concentration of trade and services, with a band stretching from the Algarve in Portugal through Andalucía, Provence-Alpes-Côtes-d'Azur, Lazio and Campania to Calabria in the south of Italy. Corsica and Sardinia also have a high density of service jobs. How should this grouping of jobs be interpreted? On the one hand, these are very much tourist regions and on the other, the influence of traditional, job-intensive sectors such as the retail trade or sea transport is still felt. As Map 3.1 on per capita gross domestic product shows, the south of Italy is still desperately trying to catch up with the economy in the north of the country, where the high level of industrialisation is evidence of a dynamic economy.

In Italy, France and Spain, there is a sharp contrast between a very highly industrialised area in the north of the country and another in the south which is more geared to trade and services. In France, the Languedoc-Roussillon and Provence-Alpes-Côtes d'Azur regions are very service-intensive.

Belgium, the Netherlands and the north of Sweden also have very service-intensive regions. In the Netherlands, in particular, there is a great deal of commercial and transport activity around the ports of Amsterdam and Rotterdam, i.e. in the Noord-Holland and Zuid-Holland regions.

The regions of the new EU Member States are generally more industrial than the European average. However, services predominate in Latvia and in the Mazowieckie region of Poland.

High wages around capital cities, particularly in industry

Maps 6.5 and 6.6 show the average wages in services in the broadest sense (including commerce) and industry, again taken in the broadest sense (including construction).

Wages and salaries per capita are a good proxy for the qualifications of the industrial labour force in the region in question, i.e. the average wage or salary received by a person working in that sector of activity. According to how they are assessed by an observer, high average wages and salaries in a region or a country may, as has been suggested, denote a qualified workforce, but they may also make a region less competitive.

Generally speaking, wages and salaries in Europe, and in the euro zone in particular, vary surprisingly widely. In a unified monetary zone, differences in wages and salaries or in productivity can no longer be masked by exchange rate fluctuations. While it is true that wage and salary levels are by no means the only criterion of competitiveness, this noticeable difference between regions cannot fail to have economic consequences in the long term in an area where people and capital circulate freely.

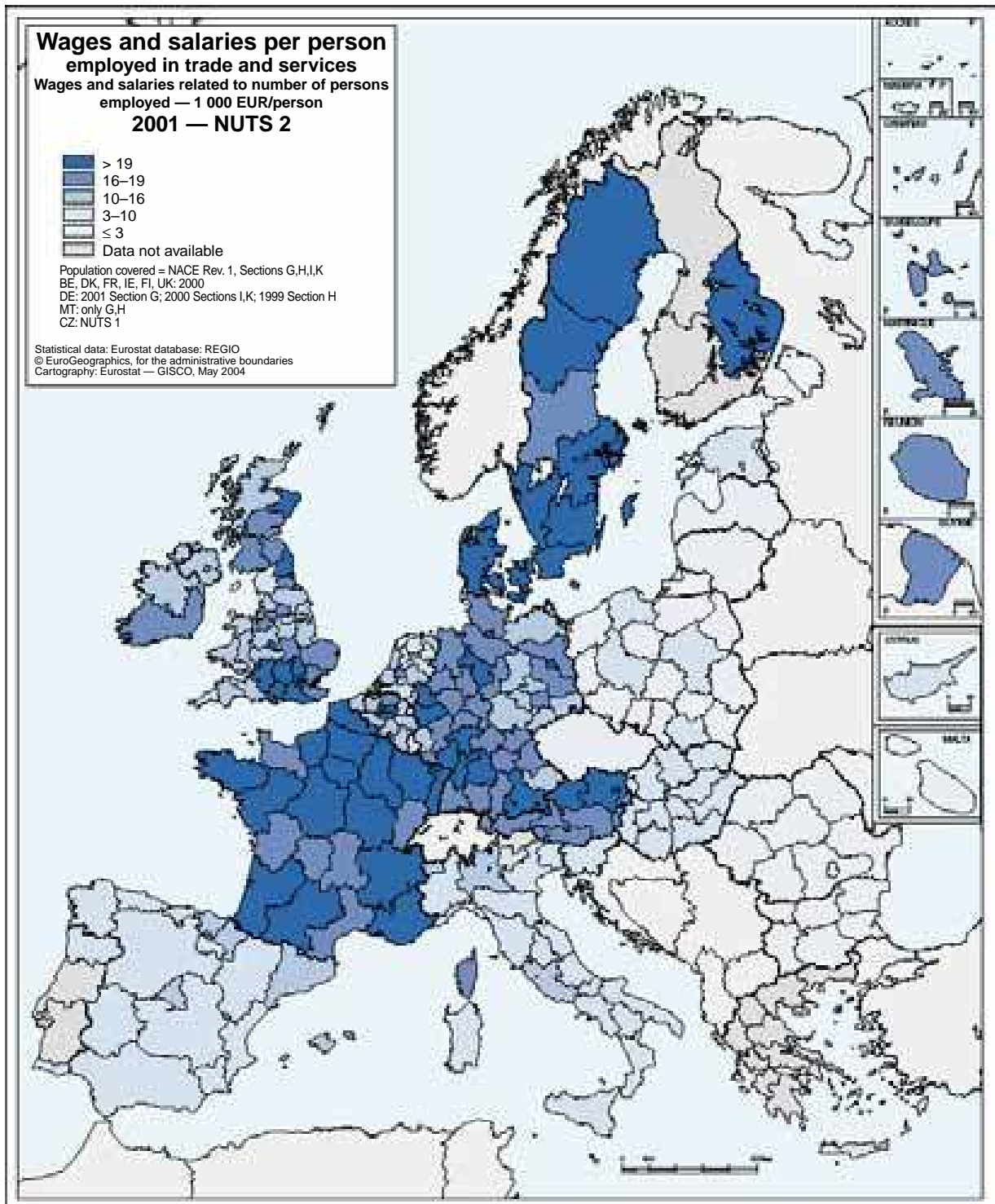
In Italy, Spain and Portugal, in particular, average wages and salaries are under EUR 15 000 per capita and no region stands out by virtue of truly high pay.

Nevertheless, average wages and salaries per capita may show marked imbalances between regions within a single country. In Île-de-France, pay is much higher than in other regions of the country. In fact, there is an enormous number of highly skilled jobs in this region, particularly in the head offices of the country's major businesses. Similarly, in Finland wages are higher in the Uusimaa region than in the rest of the country. In general, wages and salaries are highest in the regions closest to the capital cities, with the striking exception of Portugal and the Lisboa region, which includes Lisbon.

The difference between wages and salaries in the capital cities and the rest of the country is quite pronounced in industry, but much less so in services and trade, where wages and salaries are far more uniform between regions.

Proximity to northern Europe seems to have an effect in Spain and Italy, where wages and salaries are highest in the north of each country. In Italy, the higher level in the north and in Lombardy is to some extent a sectoral effect: in the north, industry is more productive and employees are better paid than in the traditional regions of the south.

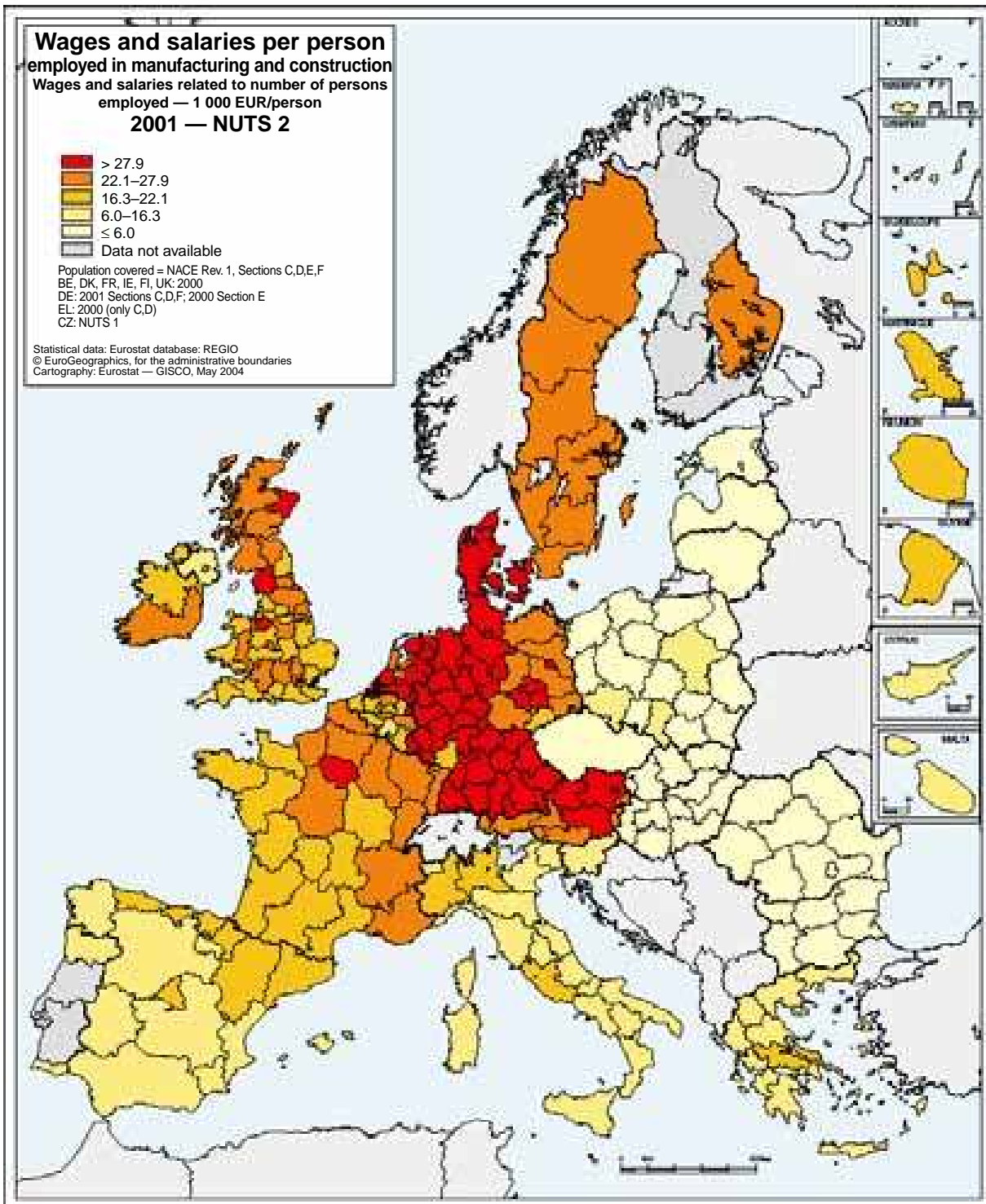
Pay levels are lower in the former East Germany than in the rest of the country. In fact, the old *Länder* contrast with both the eastern areas of the country and the rest of Europe in that wages and



Map 6.5

salaries are fairly high in all regions, in particular around Stuttgart and Darmstadt (including Frankfurt as a financial centre). This high level is largely due to the method of wage negotiation in Germany, where trade unions play a major role. This is typical of German-style capitalism, where pay is negotiated through collective agreements at the level of branches rather than of businesses. In this respect, it differs from capitalism as practised in the English-speaking world.

Users who are interested in a greater level of detail can break down this study on wages and salaries in the regions to sectoral level using the REGIO database. It is at this sectoral level in particular that regional competitiveness can be assessed. For example, users will be able to compare relative pay levels in the automobile industry in Piemonte in Italy and in Niedersachsen in Germany.



Map 6.6

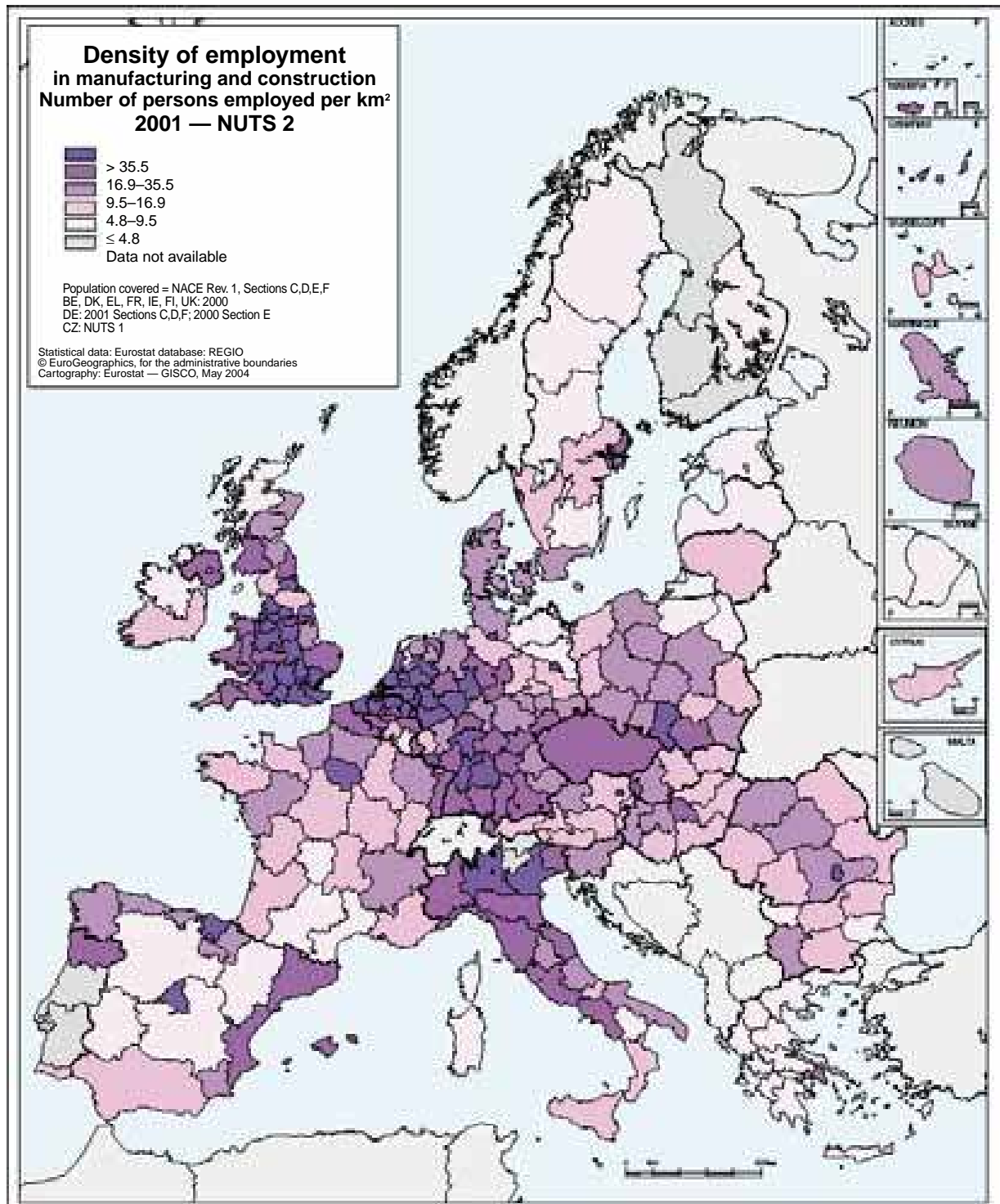
In the new member countries as a whole, average wages and salaries are markedly lower than the European average. This difference is amplified because, in these cases, wages and salaries are calculated in euros at a average annual nominal exchange rate, taking no account of purchasing power parity. If purchasing power parity were taken into account, the gap between the old and new Member States would certainly shrink. The regional GDP tables nonetheless show that the re-

gions of the new Member States remain less well off overall, even once purchasing power parity has been taken into account.

However, the level of wages and salaries in the *Länder* of the former East Germany is fully comparable with that in the new Member States (who joined the EU on 1 May 2004). Employees in Slovenia or Poland's Śląskie region are actually paid better than those in Thüringen.

Employment in industry unevenly distributed across the regions

Maps 6.7 and 6.8 show the density of employment in these two sectors, i.e. the number of industrial and service jobs, respectively, per km². 'Industry' is used here in the broad sense, covering Sections C, D, E and F of the NACE Rev. 1, i.e. mining and quarrying, manufacturing and construction. Many of the regions with high job density have a high population density as well, but we have already seen that some regions may be poor



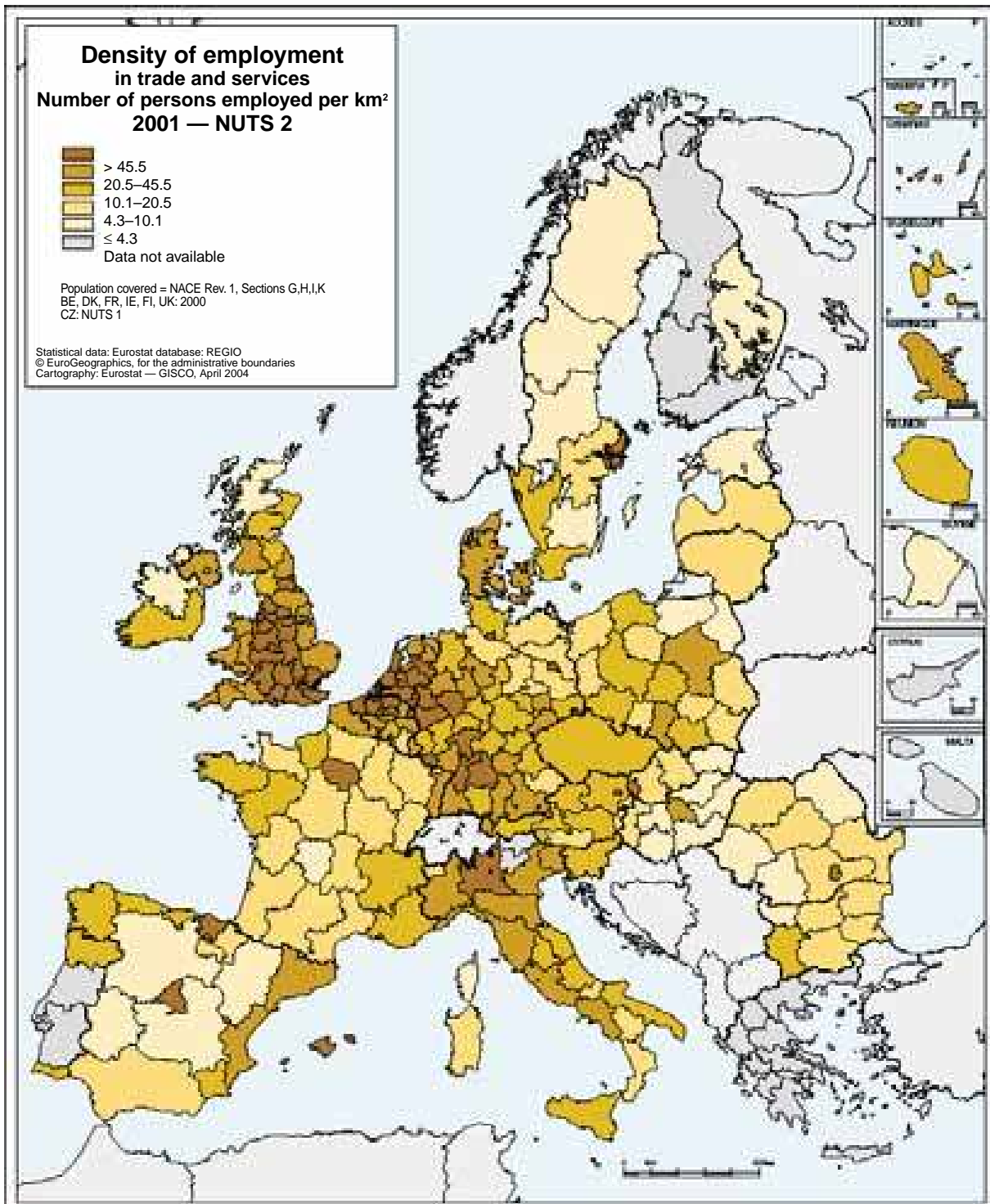
Map 6.7

in terms of industrial jobs but rich in terms of service sector jobs. Moreover, industry and services are certainly capable of developing in parallel within a region, particularly since, over recent decades, industry has outsourced a large part of its services.

The north of Italy, the west of Germany, Belgium and the Netherlands are highly industrialised regions with job density in most cases higher than

20 industrial jobs per km². Similarly, the eastern coast of Spain, the Comunidad de Madrid region and the País Vasco are more highly industrialised than the rest of the country.

The regions around capital cities generally have both a high job density in industry and services, and the higher wages and salaries which go with skilled jobs. This is the case in Paris, in particular, with the Île-de-France, Madrid with the Comuni-

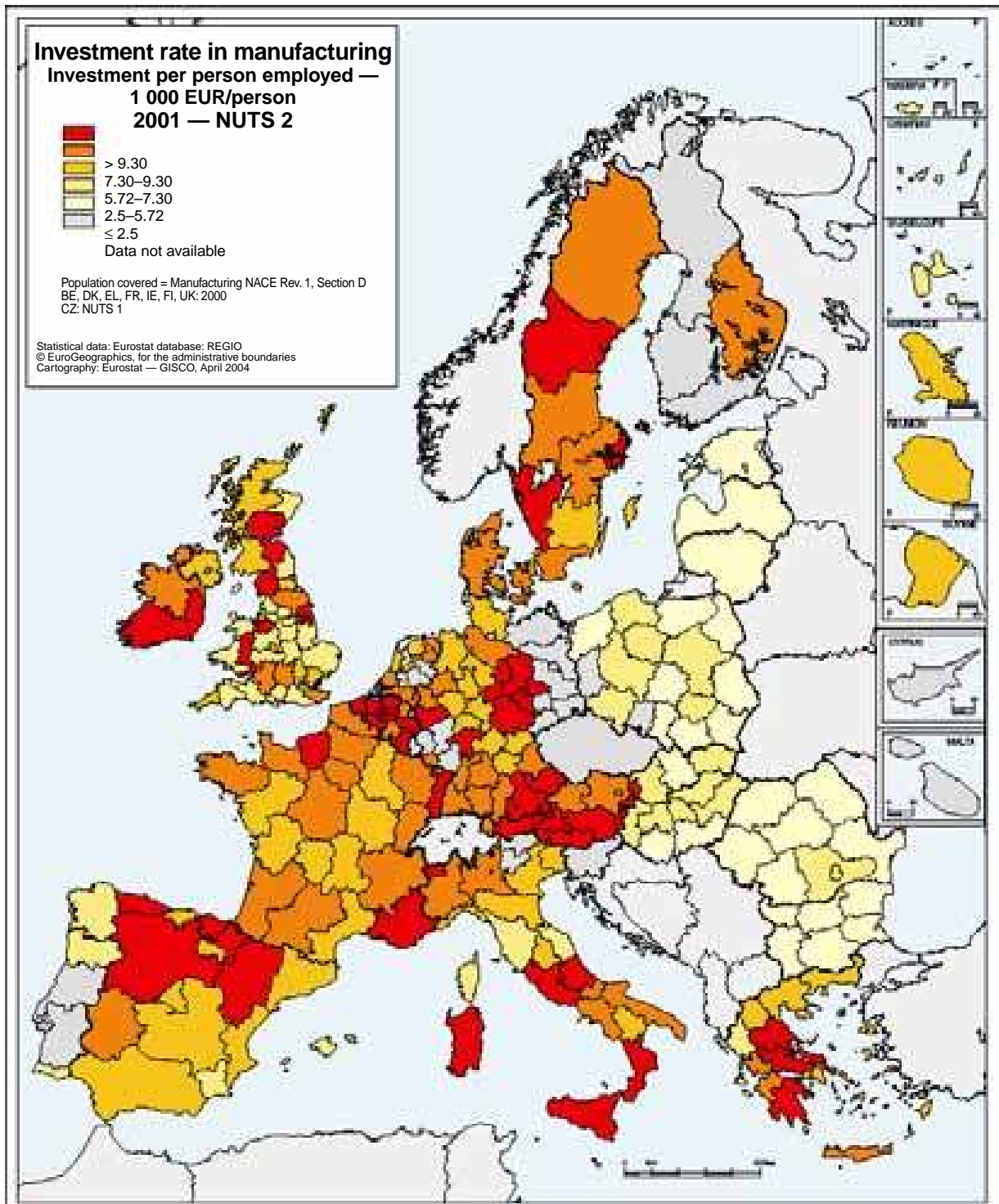


Map 6.8

dad de Madrid, Helsinki with Uusimaa and the Közép-Magyarország region around Budapest. In particular, head offices and senior management tend to be located in capital cities.

Employment density and high salaries do not necessarily go hand in hand, however. Salaries are fairly low in certain regions of central England, even though these have high industrial employ-

ment density. In the East Midlands in the United Kingdom or in Lisboa in Portugal, the predominant industries are labour intensive, and, as a result, average wages and salaries are fairly low despite high industrial job density. In the Southern and Eastern region of Ireland, the industrial employment density is low, but wages and salaries are very high, in part due to the considerable presence of transnational corporations.



Map 6.9

Southern Poland, particularly the Śląskie and Małopolskie regions around Krakow, have a particularly high industrial job density, as do the Bucureşti region, Zápádne Slovensko around Bratislava, and Yugozapaden in south-west Bulgaria.

Capital-intensive industries in the regions

Map 6.9 shows the rate of investment in manufacturing industry, i.e. physical investment in relation to employment in industry. It illustrates the increase in capital associated with each person in employment in industry in the regions. Since this investment rate is likely to fluctuate markedly from one year to the next, the capital intensity of a given region cannot necessarily be inferred from the fact that investment may have been high in 2000. Investment flows would have to be looked at over several years, to enable capital stock figures to be calculated.

The data shown here are business statistics, which are not, as has already been suggested, the same as national accounts. But investment is still one of the major components of gross domestic product, along with household consumption and the trade balance. Thus those regions which invest the most are often the wealthiest, as can be seen from the similarity with the map on page 38 showing per capita GDP.

A few results stand out, however. The former East Germany invests more than the former West Germany, which is more highly geared to light industry. Investment is particularly high in the Halle and Dresden regions. It is also fairly high in relation to the European average in the north of Italy and in all the Austrian regions — Carinthia in particular — with the exception of the Wien region. Finally, in contrast to their counterparts in Ireland, the industries in the south and the centre of the United Kingdom invested surprisingly little in 2001.

The relatively low rate of investment per capita throughout the regions of the new Member States is yet again accentuated by the fact that the exchange rates used take no account of purchasing power parity. In other words, it is likely that the cost of investment in the 10 new Member States is

lower, so, if it were assessed in real terms, it would be closer to that in the other Member States.

Conclusion

Domains SBS: theme4/sbs/region and REGIO: theme1/region/sbs-r offer users who are interested in regional sectoral data a detailed, harmonised overview of economic activity by sector in the regions. Those looking for greater detail can use the full database, of which the nine maps presented here give only a brief view. In particular, they can compare per capita wage costs from one region of Europe to another, or observe the regions' relative specialisation in different sectors of the economy.

To take one example: what are the main European regions specialising in the chemical industry? Users can establish how employment in this field is distributed within the different regions of Europe. They can also compare the relative share of chemical industry jobs in total industrial employment within the different regions. They can look at investment in the regions in a given year and in the past, because it does have a substantial cyclical component. Finally, they can correlate employment in the regions with the number of local units, and this provides a good proxy value for the concentration of the sector with the average size of the local units in the sector in the region.

Summary of regional business statistics methodology

The population covered by the SBS regulation is the whole of the market economy, except for agriculture and fishing. The population more or less covers the secondary and tertiary market sectors, corresponding to NACE Rev. 1, Sections C to K.

The regional data collected under the SBS regulation are the number of local units, employment, wages and salaries and material investment.

'Employment' refers to persons in employment, i.e. those persons (paid or unpaid) working in a local unit and those working outside the unit while remaining part of it and being paid by it.

'Wages and salaries' means all sums in cash and benefits in kind paid to persons who are counted as employees, including home workers, in return for their labour during the accounting year, whether they are paid by the hour, by output or

at piece rates, and whether they are paid regularly or not.

With regard to 'investment', account is taken of investments made during the reference period in all kinds of tangible goods, i.e. all those purchased from third persons or produced for own account (i.e. capitalised production of tangible capital goods) which have a useful life of more than one year.

Regional business statistics are in the main available from reference year 1995. However, 1995–98 was a transition period in the implementation of the regulation, during which the national statistical institutes adapted to a system complying with Council Regulation (EC) No 58/97.

Availability is better from 1999, the first reference year after the transitional period. The quality is also better. For example, for the first time the Belgian data for 1999 cover all enterprises' local units. In previous years, the population covered by Belgian regional statistics was limited to local units of enterprises with more than 20 employees. Similarly, for the first time, the German data cover all local units as from reference year 2000, whereas German regional statistics in previous years covered only local units in enterprises with over 20 persons in employment.

Regional statistics also comprise the third of the four sections of the SBS collection. The first two are the national and size-class series (the results of small and medium-sized enterprises in particular)

and the last consists of the other structural series (such as statistics on environmental protection expenditure).

Regional business statistics are broken down by region (NUTS 2 level) and activity (NACE Rev. 1, 2- or 3-digit level, depending on sector). The population covered is market employment in the non-financial sectors, corresponding to NACE Rev. 1, Sections C to K excluding J, which covers the financial sectors.

The collection unit is the local unit. In most cases, its principal activity is calculated at local level, but in some countries the principal activity which counts is that of the enterprise of which the local unit is a part, given that an industrial enterprise may consist of several local units. As the statistical unit is not the same in the two collections, the results broken down by size class (available in the NewCronos database in domain sizclass: theme4/sbs/sizclass) and by region may diverge to some extent, even if the scale is the same. This divergence is no reflection on the quality of either collection.

Value added, on the other hand, is not recorded at local level under the SBS regulation, but is calculated at enterprise rather than local unit level. Business statistics differ from national accounts (which calculate a regional gross domestic product) in that they are drawn directly from the data observed rather than being the result of processed economic data.



Introduction

The regional health indicators for the European Union, developed by Eurostat to help set objectives in the field of health, comply with standardised definitions and methods which aim to make comparisons possible. If they are to yield high-quality, comparable information on the general health of the population, the data will have to be comparable from one region to another and reflect changes over time. The main non-medical factors governing the health of the population at regional level will also have to be taken into account.

Currently, regional-level health statistics are available for two major areas. On the one hand, there are data on mortality by underlying causes, where the illnesses or diseases in question are defined according to an international classification and where data are collected using comparable methods. The majority of this chapter highlights the main causes of mortality in Europe — namely diseases of the circulatory system, cancer, diseases of the respiratory system and violent causes of death — and its regional distribution. Eurostat also collects health-sector data on infrastructure, in the broad meaning of the term, and on staffing in the health sector. The second part of this chapter analyses these figures and is followed by a detailed examination of the methodological issues affecting regional health statistics.

Mortality in the EU regions

Looking at the overall mortality in the EU for the period 1999–2001, diseases of the circulatory system are the major cause of death both for women (44 % of all deaths) and men (37 %). The second most frequent cause is malignant neoplasms, accounting for more than 29 % of deaths of men and nearly 23 % for women.

However, beyond this very general picture, mortality patterns vary considerably among regions and by age and sex. While crude death rates describe the mortality in relation to the population, this measure is strongly influenced by the age structure of the population. However, it is useful to consider the ageing phenomenon as well as the

differences in life expectancies between women and men, with women throughout Europe living longer. In order to adjust for the effects of a population's age structure, age standardised death rates are used to highlight geographical inequalities in the risk of death. Age standardised death rates bring out the higher mortality of men compared to women. For men, an overall excess mortality can be observed, with rates up to twice as high as those for women. Despite these differences, most of the worst affected regions have high rates for both men and women.

Many factors influence regional mortality

One of the adverse developments accompanying transition has been the sharp and unanticipated deterioration in life expectancy in east European countries, especially for men. The overall mortality in most of the new Member States as well as in Bulgaria and Romania is particularly high, both for women and men, and the national trend is also shown throughout the regions, with very few exceptions. In the West, such levels are evident only in Ireland and Portugal (both for women and men), Belgium and Finland (for men) and Denmark and the United Kingdom (for women).

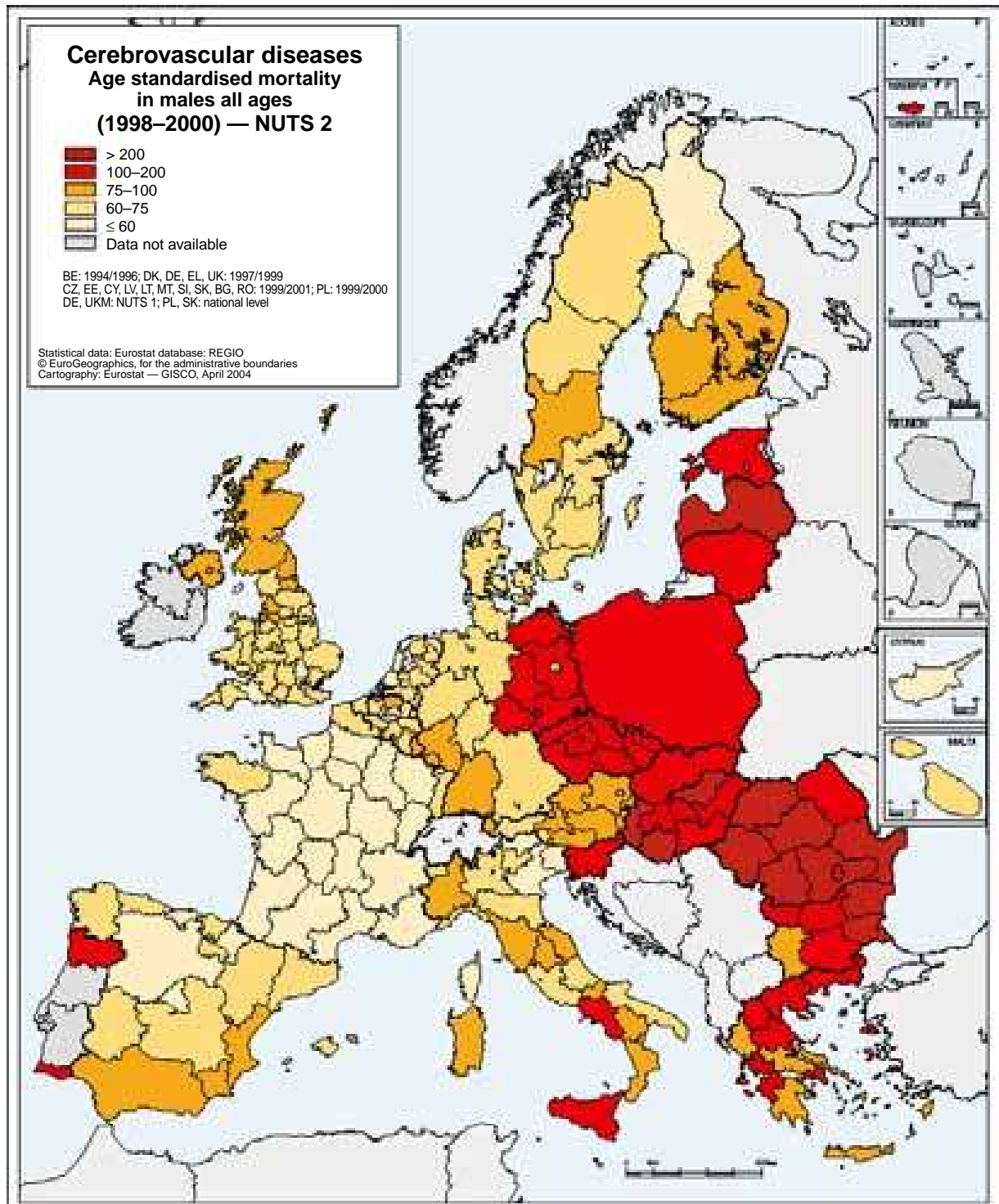
Focusing on the regions throughout the former EU-15 Member States, we see that regional disparities are more marked. Low mortality prevails in the south — in Italy, Spain and Greece. However, Portugal with excess mortality throughout its regions forms an exception. The overall situation in France and Austria is also favourable. Germany still shows a clear east–west divide, with considerably higher mortality in the eastern regions. For the United Kingdom a north–south contrast can be reported, with lower mortality in the southern regions. Many of the regions with higher mortality are those whose economies are lagging. In France, the United Kingdom and Germany, the regions which used to have heavy industry and which are now changing to other types of employment, such as Nord - Pas-de-Calais, Lancashire, Yorkshire and Saarland, have high mortality rates for both men and women. However, this socioeconomic factor is not sufficient in itself to explain mortality levels.



As well as socioeconomic and environmental factors, which frequently interact, one key feature determining differences in mortality is health practices. Differences in mortality figures from one region to another may also reveal inequalities in efficiency or access to healthcare in the European Union.

Remarkably few cerebrovascular deaths in France

In EU-25, diseases of the circulatory system are the most frequent cause of death for both women

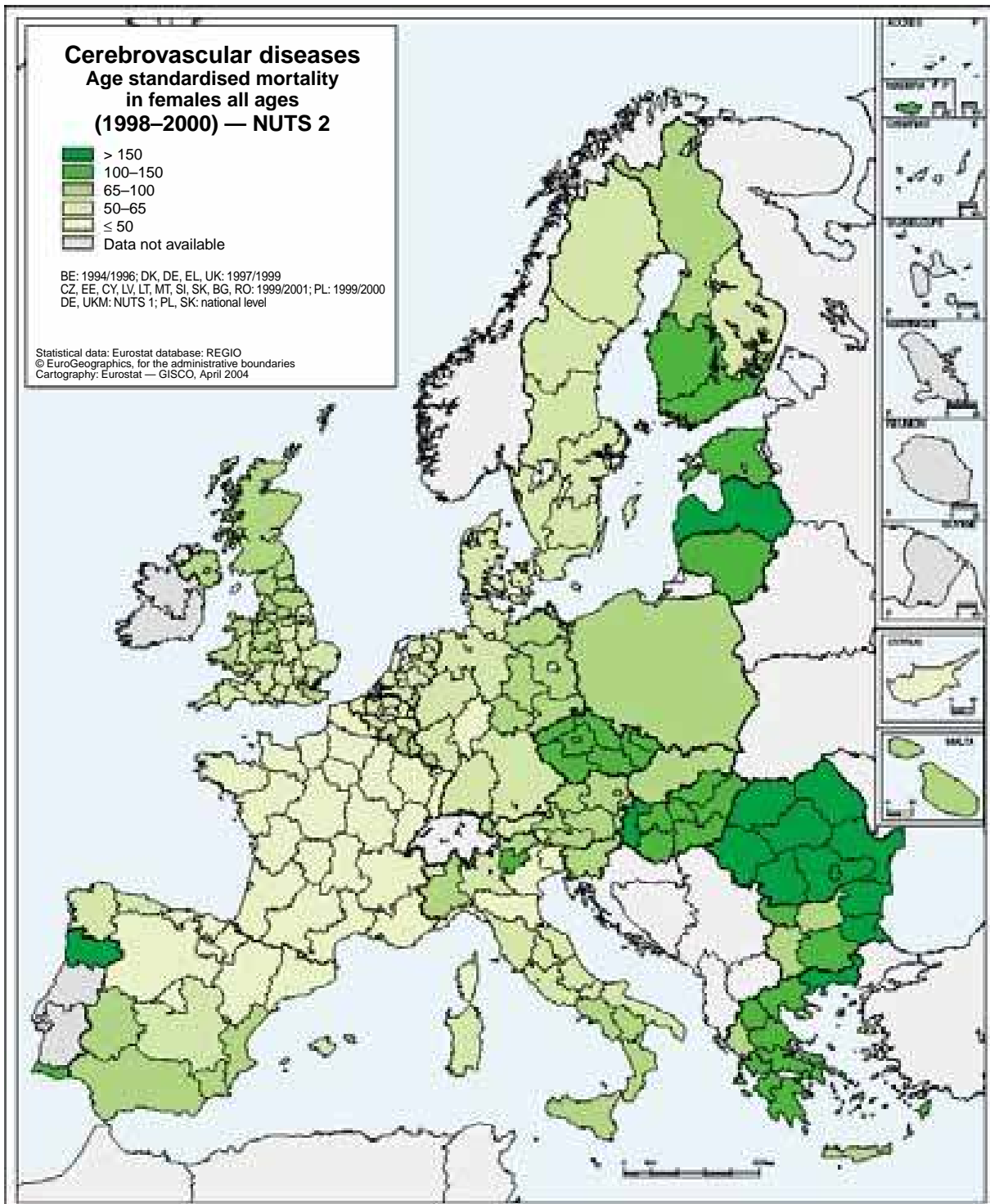


Map 7.1

and men, with especially high mortality in the east European regions. A general excess mortality for men as compared to women can be observed, with male/female mortality ratios ranging between 1.1 and 1.9 across the NUTS 2 regions.

Among the diseases of the circulatory system, cerebrovascular diseases account for 22 % of male and 28 % of female deaths and are thus the sec-

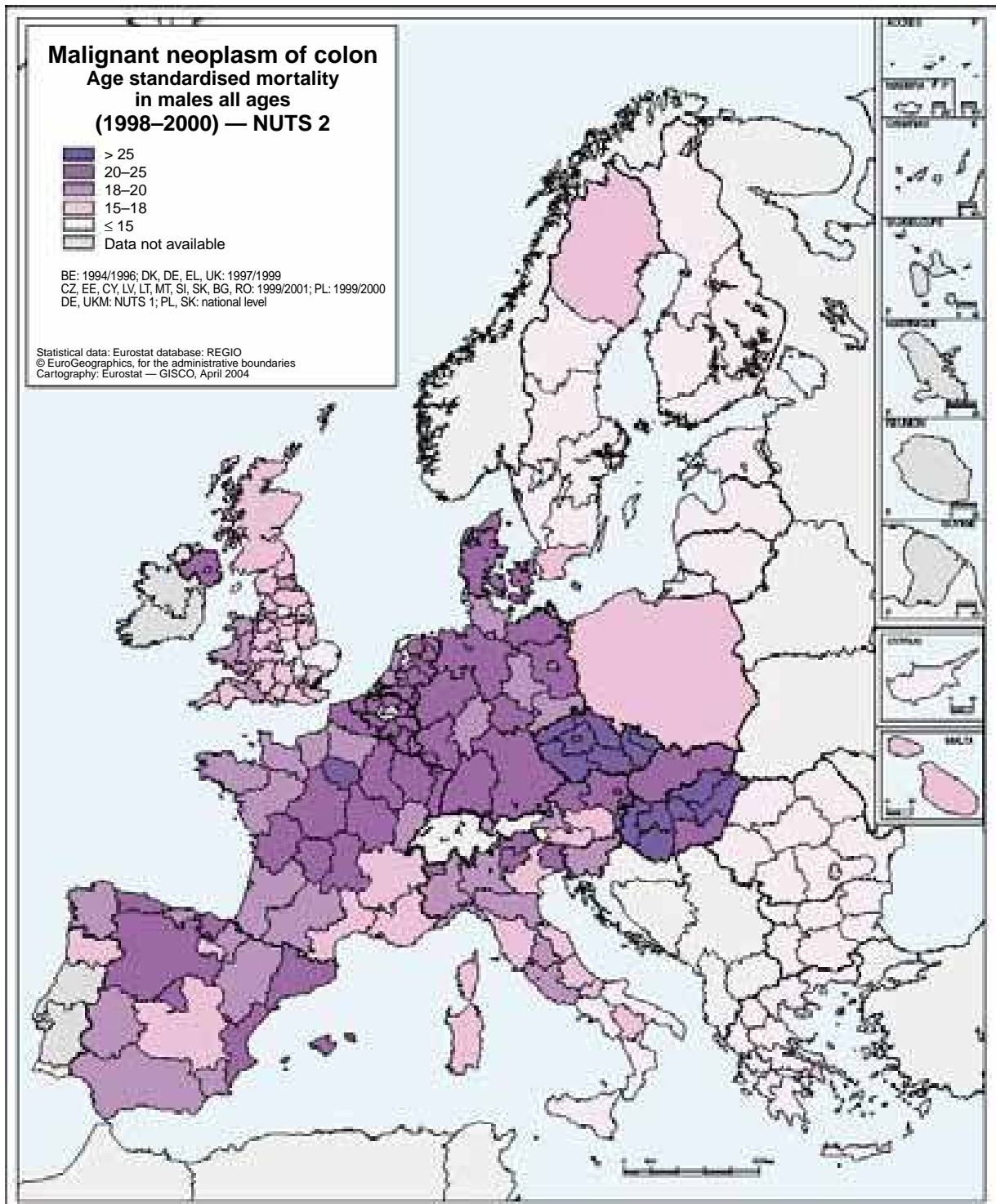
ond most frequent cause in this group after the ischaemic heart diseases. The higher absolute number of women's stroke-related deaths is reflected in smaller regional differences between the male and female age-standardised mortality rates which vary in the majority of the regions between 1 and 1.4, with a number of Greek regions even showing lower rates for men than for women.



Map 7.2

Latvia and regions in Hungary, Romania, and Bulgaria show the highest stroke-caused mortality rates for men. The picture for women is quite similar but in addition one Greek and two Portuguese regions report very high mortality rates. The low rates are remarkable throughout France, where all regions follow the national trend of below average mortality: the French rate for wom-

en is 35.3, the one for men 49, both well below the EU-25 values of 50.6 and 63.1 respectively. Low stroke-caused mortality rates are more likely in the west — France, Belgium, the Netherlands, and the western regions of Germany, but also in the south — Cyprus, parts of Italy and Spain. For the latter, a clear north-south divide can be seen while in Italy, the pattern is less spe-



Map 7.3

cific. The United Kingdom and the Scandinavian regions also show a fragmented picture with neighbouring regions showing quite different stroke-related mortality.

As with ischaemic heart diseases, excess weight, lack of physical exercise, smoking, alcohol consumption, diabetes, high blood pressure as well as stress in general are considered to constitute the main risk factors for having a stroke. Although some potential methodological biases arising from certification practices have to be considered, differences throughout the regions might be explained by eating habits in the 15 former Member States as well as the ongoing effects of transition in the new Member States and candidate countries.

Colon-cancer rates reflect similarities in eating habits

EU-25 wide, cancer of the colon accounts for more than 8 % of all malignant neoplasms and therefore constitutes one of the most frequent cancers. Male mortality is about 1.5 times higher than female. However, the worst affected regions (with a male mortality rate above 25) show an above average excess mortality of men as compared to women. An overall age-standardised mortality rate of 16 is reported for men in EU-25, but in a number of Hungarian and Czech regions values above 30 are reached.

An unhealthy diet, i.e. the excessive consumption of fat, protein, meat and alcohol, is favourable for the development of malignant neoplasms of the colon. Risk factors further include genetic predisposition and chronic diseases of the colon such as Colitis ulcerosa and Morbus Crohn.

For men, excess mortality is to be found in a diagonal belt reaching from the North Sea to Hungary while both northern and southern regions record below-average mortality. In the north, the Baltic States as well as all regions throughout Finland and Sweden consistently show low male mortality caused by colon cancer. The same holds

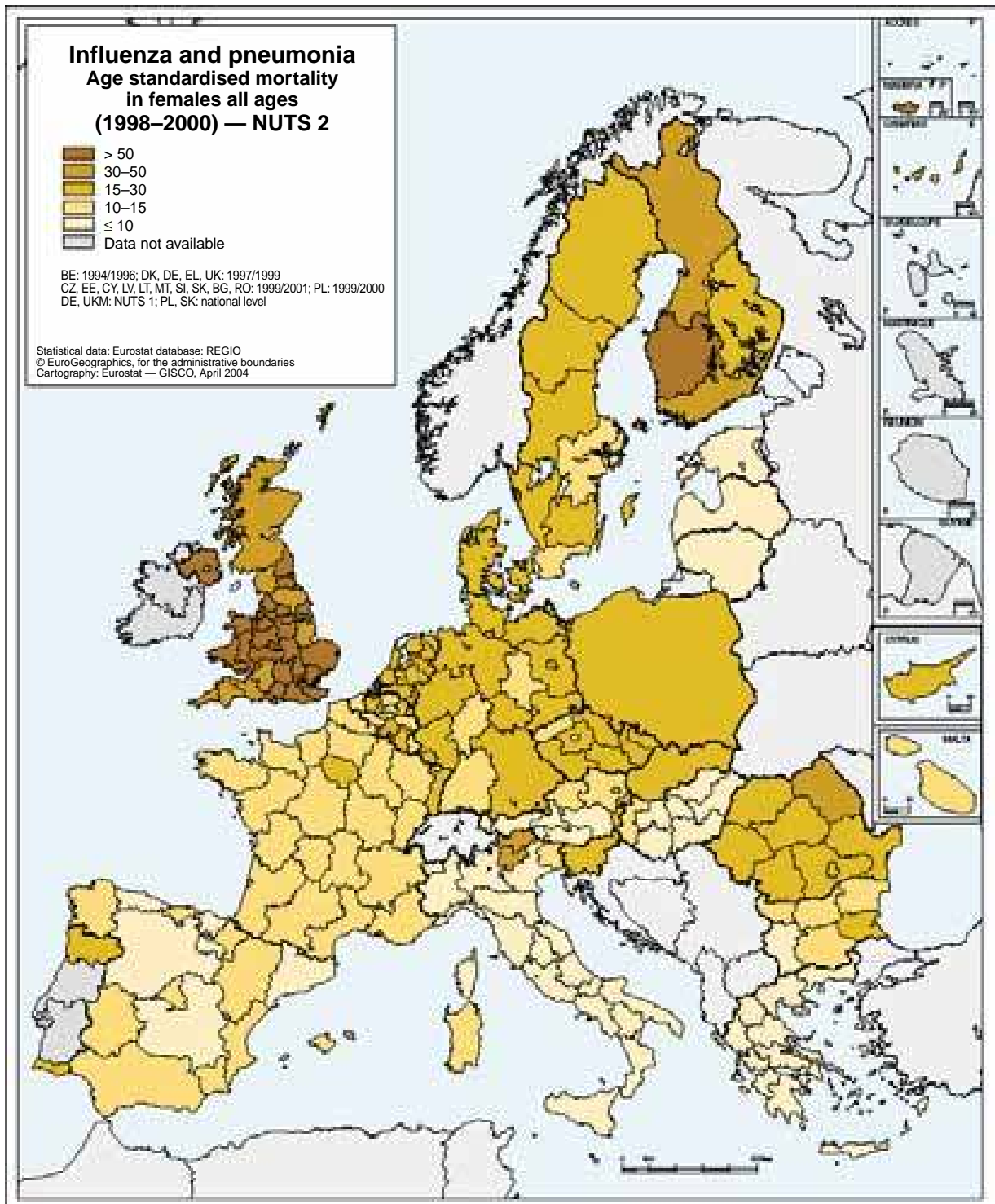
true for Bulgarian and Greek regions, southern Italy and Cyprus. These coherent areas of low mortality are probably due to regional eating habits, with cross-national similarities in the daily diet.

High UK female mortality from influenza and pneumonia

Diseases of the respiratory system account for almost 10 % of all deaths in EU-25 and are therefore the third most frequent causes of death. It is worthwhile pointing out that this group excludes cancerous diseases; these are classified with malignant neoplasms. Within the diseases of the respiratory system, considerable gender differences can be observed: men are more likely to die of chronic respiratory diseases including asthma (more than 45 % of all men's deaths is caused by diseases of the respiratory system), while women are more affected by infectious respiratory diseases — influenza and pneumonia (almost 50 % of all female mortality is related to respiratory diseases). While being common at all ages, influenza and pneumonia become serious and lethal at advanced ages. The overall population structure (with a large number of older women) accordingly explains this gender difference in absolute numbers.

The age-standardised mortality of women caused by influenza and pneumonia is shown in Map 7.4, with clear pockets of high and low mortality. The overall mortality rate is relatively low, reaching the maximum value of 77 in Madeira — but more than 85 % of the regions report an age-standardised mortality rate of less than 50. Particularly high rates are observed in the United Kingdom, where more than 75 % of all regions report an age-standardised mortality rate of 50 and above. Regions throughout Italy and Greece, and also in Austria and Spain, show low rates. The Baltic States, together with regions in Hungary and Bulgaria, also report very low rates for these causes of death — which is in contrast to the overall high mortality in these countries.





Map 7.4

Prostate cancer — clear north–south divide

Prostate cancer is more likely to affect older men — EU-wide, more than 9 out of 10 deaths occur after the age of 65. Prostate cancer accounts for

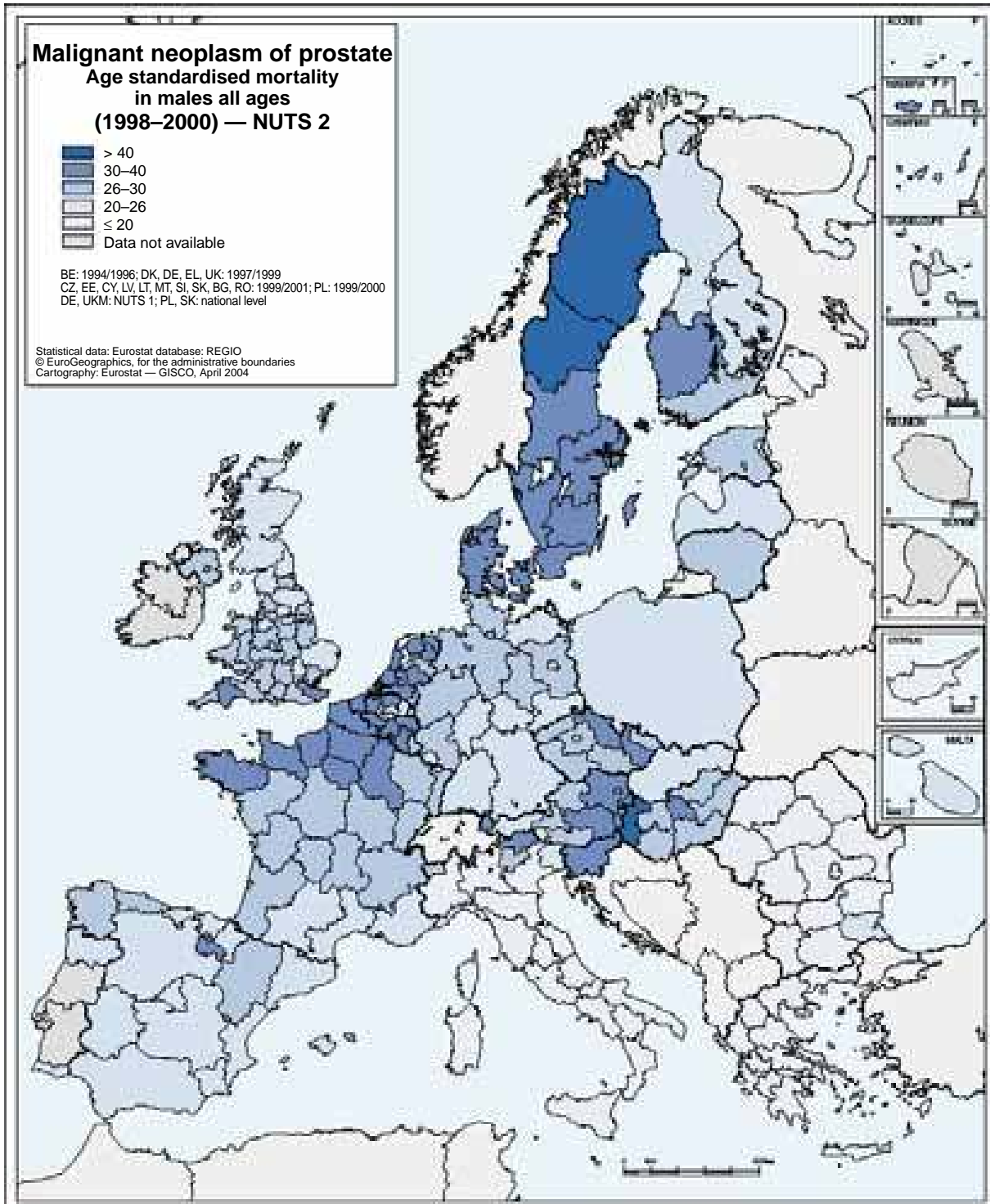
about 10 % of all male deaths caused by malignant neoplasms. This corresponds to 3 % of all male deaths and has thus a minor impact on male mortality. However, with further increasing life expectancy, it could become a more important public health issue.

For the EU as a whole, a clear contrast between northern and southern regions can be seen. Mortality due to prostate cancer is relatively high in

the Scandinavian regions but also in Belgium, the Netherlands, and in some French regions. Mediterranean regions consistently show below-average mortality, together with regions in Bulgaria, Hungary and Romania. The lower life expectancy for men in the latter countries might partly explain the lower prostate-cancer mortality.

A number of risk factors are being discussed as possible causes of prostate carcinoma. Family pre-

disposition, as well as age, plays an important role. Fatty foods, exposure to cadmium and sexually-transmitted viral infections are also clearly identified risk factors. However, these factors would only seem to produce a slight increase in the risk of cancer and do not easily explain the geographical pattern shown in Map 7.5. Potential differences in certification practices within Member States might also play a role. In some cases, prostate cancer may not appear as the underlying

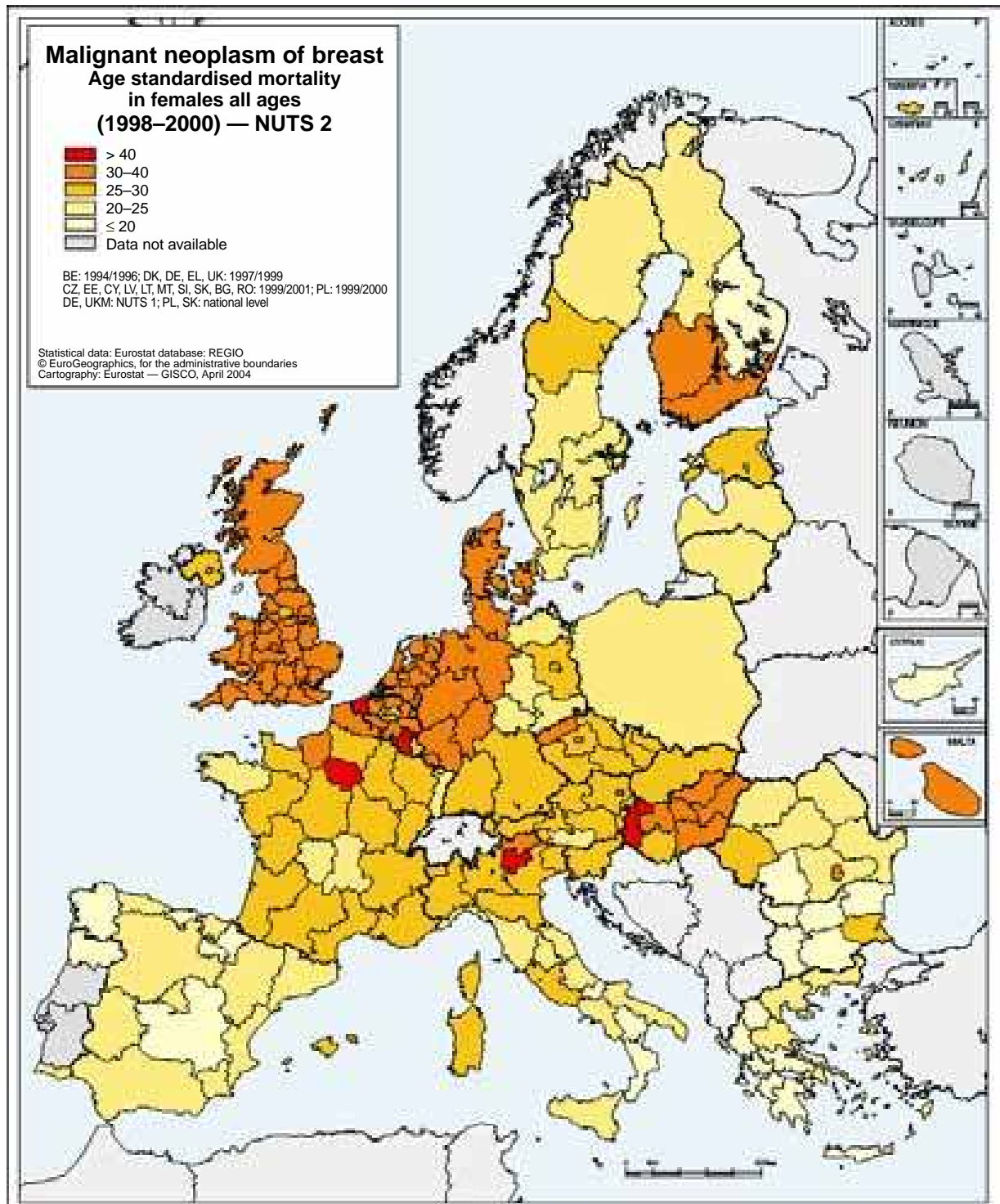


Map 7.5

cause of death even though it is a major contributory factor. It may also be declared as a metastatic cancer without any more precise description. The analysis of regional disparities must therefore take these potential problems of data comparability into account.

Breast cancers: sharp geographical distinction

Breast cancers are the most common cancers affecting women, responsible for almost 4 % of



Map 7.6

deaths in the female population of Europe, and accounting for 18 % of all female deaths caused by malignant neoplasms. Breast cancers quite frequently affect young women: almost 40 % of deaths occur before the age of 65. Although the geography of female mortality from breast cancer shows clear gradations, differences in mortality within Europe are noticeably less marked than with other cancers, in particular those of the respiratory tract or upper aerodigestive tract.

A predisposition within the family, i.e. incidence of breast cancer within the family, overweight, hormonal factors such as early menarche, late pregnancy or having no children at all, late menopause as well as hormone therapy (oestrogen) are quoted as recognised risk factors. The geographical breakdown reflects the uneven spread of these factors.

The regional map of breast cancer (see Map 7.6), which is similar for the total of all ages and for women below 65, shows the geographical breakdown. One vast area where there is excess mortality compared to the EU-25 average of 23.4 stretches diagonally across Europe, covering regions from Ireland down to Hungary. In the rest of the countries, rates are much lower, especially in Bulgaria, Cyprus, Greece, and Spain. Within some countries, regional disparities are quite remarkable — the Belgian region Luxembourg (BE) reports with 45, one of the highest death rates, while the Région de Bruxelles-Capitale/Brussels Hfdst. Gew. records one of the lowest (13). Regions throughout Italy, Portugal, Romania and Sweden also show both excess and below average mortality but within a much smaller range.

Fatal accidents — men in traffic, women in falls

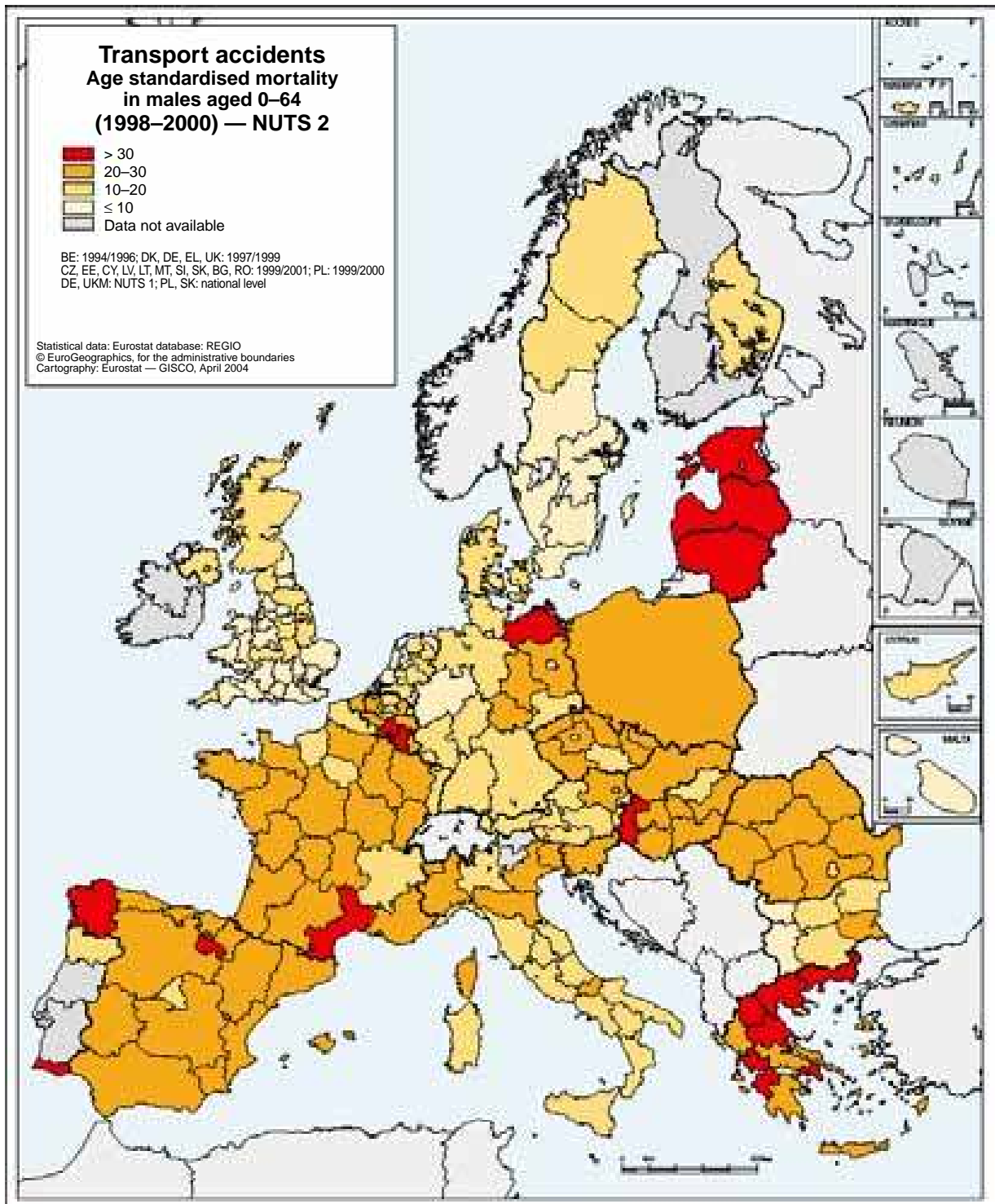
Responsible for more than 6 % of men's deaths and 3.5 % of women's, externally caused violent deaths have a considerable impact on EU-wide

mortality. Fatal accidents play a prominent role among the external causes, accounting for 63 % of men's violent deaths and as much as 74 % of women's. This lower percentage of men dying through accidents is largely explained through the fact that men are more likely to commit suicide or to become victim of homicide; the latter two are the other main violent causes of death. A closer look at fatal accidents reveals some interesting gender differences. Transport accidents, with a ratio of 3.3 for male over female standard mortality and accounting for over 40 % of all accident-caused male deaths, are worth some regional examination. For women, accidental falls will be looked at here, some 45 % of fatal accidents are due to this cause.

Fewer traffic deaths in urban areas

More than 80 % of fatal transport accidents occur to men below the age of 65. The geographic distribution for this age group is shown in Map 7.7. Road accidents are the most frequent among transport accidents. Accordingly, a number of NUTS 2 regions representing urban agglomerations with better infrastructure and lower speed limits in general show particularly low mortality: Berlin, Hamburg and Bremen in Germany as well as the regions containing capitals such as Brussels, Stockholm, Vienna and Sofia. European differences in deaths from transport accidents are very marked. The areas with highest mortality are particularly to be found throughout Greece and in the Baltic States. In Germany, the east-west divide is remarkable, with the eastern regions — except Berlin and Sachsen — showing excess mortality. Pockets of high mortality above the national trend are seen in the Belgian provinces of Luxembourg (BE) and Namur as well as in some regions in France, Spain and Portugal — however, these being countries with overall excess mortality. The situation is much more favourable in northern regions.



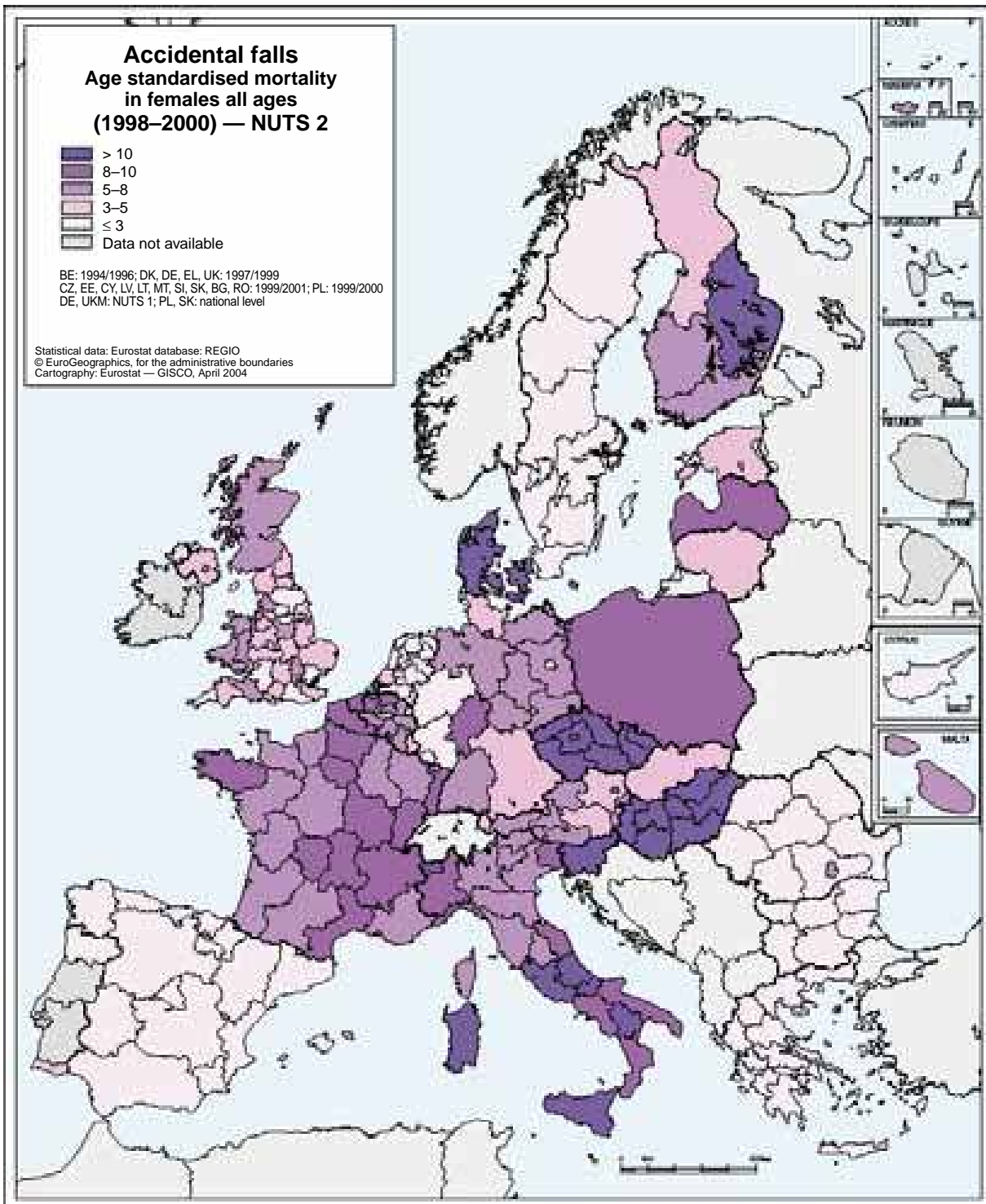


Map 7.7

Falls — regional diversity in Belgium and Germany

Accidental falls comprise all type of everyday accidents — home, school, sports and leisure. In

contrast to the other types of violent deaths, they mainly affect older people. To a certain extent, this can be linked to a generally higher risk of accidental falls as one gets older. For women, who EU-wide have higher life expectancies, almost as many as 95 % of all deaths caused by accidental falls occur after the age of 65. Looking at the regional pattern, excess mortality concentrates on regions throughout Hungary and the Czech Re-



Map 7.8

public as well as on regions in France, Italy and Finland. In Greece, Spain, the Netherlands and Sweden, as well as in Bulgaria and Romania, all regions follow the national trend of below-average mortality. However, regions within Austria, Belgium, Germany and the United Kingdom show

considerable sub-national contrasts, with neighbouring regions reporting quite substantial differences in fatal accidental falls. Most marked are these sub-national differences in Belgium and Germany, with regional mortality varying by a factor of 8 and 7 respectively.

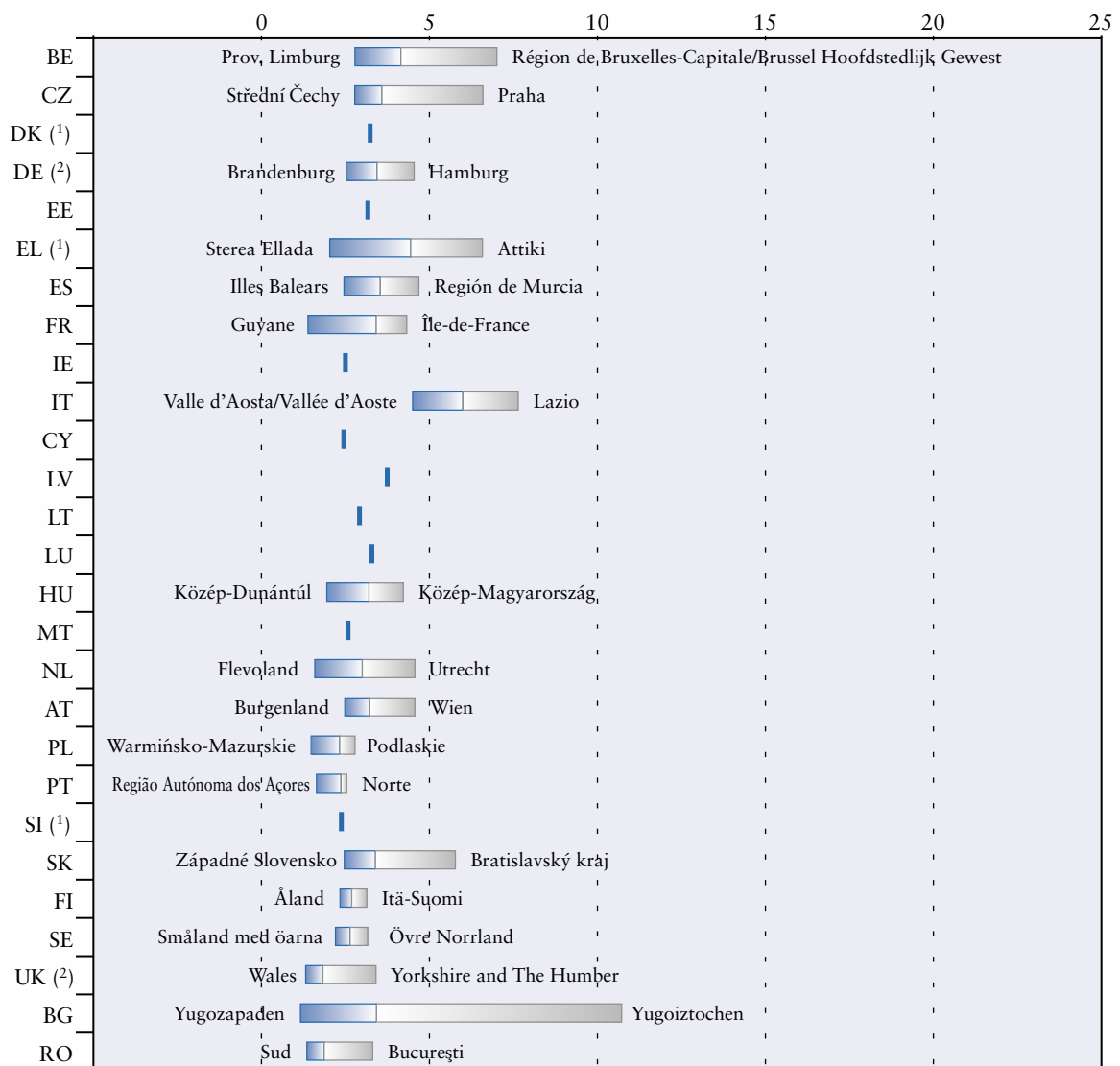
Healthcare resources in EU regions

Changes in the number of doctors

There has been a steady increase in the number of practising doctors/physicians in most Member States over the past 20 years. The number of doctors qualified to practise is noticeably higher than those actually practising in virtually all countries, even though the ratio reported in 2000 varies from one country to another. In Luxembourg, there is comparatively little difference whilst in Spain it is substantial. Density rates for practising

doctors (doctors per 1 000 inhabitants) have increased in all previous and new Member States and in the candidate countries over the past 20 years. Within the former EU-15 Member States, Greece and Italy reported rates above 4 for practising doctors per 1 000 inhabitants, and in Belgium, Denmark, Spain, Luxembourg and Austria values exceeded 3. In the new Member States and the candidate countries, values range from Romania (1.9), Poland and Slovenia (both 2.2) up to the Czech Republic (3.7) and Lithuania (3.8). There is a noticeable regional variation within those countries reporting regional data, which may be explained by differences in healthcare systems. In some Member States, studies suggest that the number of doctors might increase (need for

Graph 7.1 — Health personnel — Doctors per 1 000 habitants — 2000 — NUTS 2



(¹) 1999.

(²) NUTS 1.

certain specialists, increased need in the long-term care sector, for example) and in others (the United Kingdom, for example) discussions are under way on the need for more general practitioners and specialists due to the lack of housemen in hospitals.

The relevant graph (see Graph 7.1) shows the regional disparity for doctors per 1 000 inhabitants, i.e. either licensed, practising or active doctors according to different national definitions used for regional data, using data at the NUTS 2 level for 2000. In some Member States, the rate is fairly uniform from one region to another whilst in other countries it varies considerably. The density rates are highest in metropolitan areas. This holds true for the former EU-15 Member States — Île-de-France (FR), Lazio (IT), Région de Bruxelles-Capitale/Brussels Hfdst. Gew. (BE), Attiki (GR), Wien (AT), Hamburg (DE) — as well as for the new ones — Praha (CZ), Bratislavý kraj (SK). Compared with 1986, the figures have gone up in almost all Member States' regions. The lowest figures are in general observed for sparsely populated areas. Regional disparities are low in Finland, Portugal and Sweden, where the coefficient of relative variation (CRV — range divided by mean) ranges from 13 to 37 %, and high in the United Kingdom, Germany, Belgium, Greece and the Netherlands with CRVs of 100 % and above. For the new Member States and candidate countries, the regional variation is generally higher, the lowest CRV values being reported for Poland (64 %) and the highest values for Bulgaria and Slovakia (282 and 106 % respectively).

Changes in the number of hospital beds

Numbers of hospital beds per capita show a quite different trend. Over the period 1980–2000, the number of beds declined sharply in most Member States. For the EU as a whole, there was a 30 % drop, probably due largely to the fact that stays in hospital were cut from 17.4 days in 1980 to under 11 in 1997. In many countries, the length of time patients spend in hospitals has declined substantially over the past 30 years. At the same time, there is now less difference from one country to another. In 1980, the highest value (23.2 days) was in Luxembourg and Sweden, and was over 2.4 times higher than the lowest value (9.8 days) recorded in Ireland. In 1996, the highest value was 15.3 days (Luxembourg) and the lowest 7.2 days (Denmark).

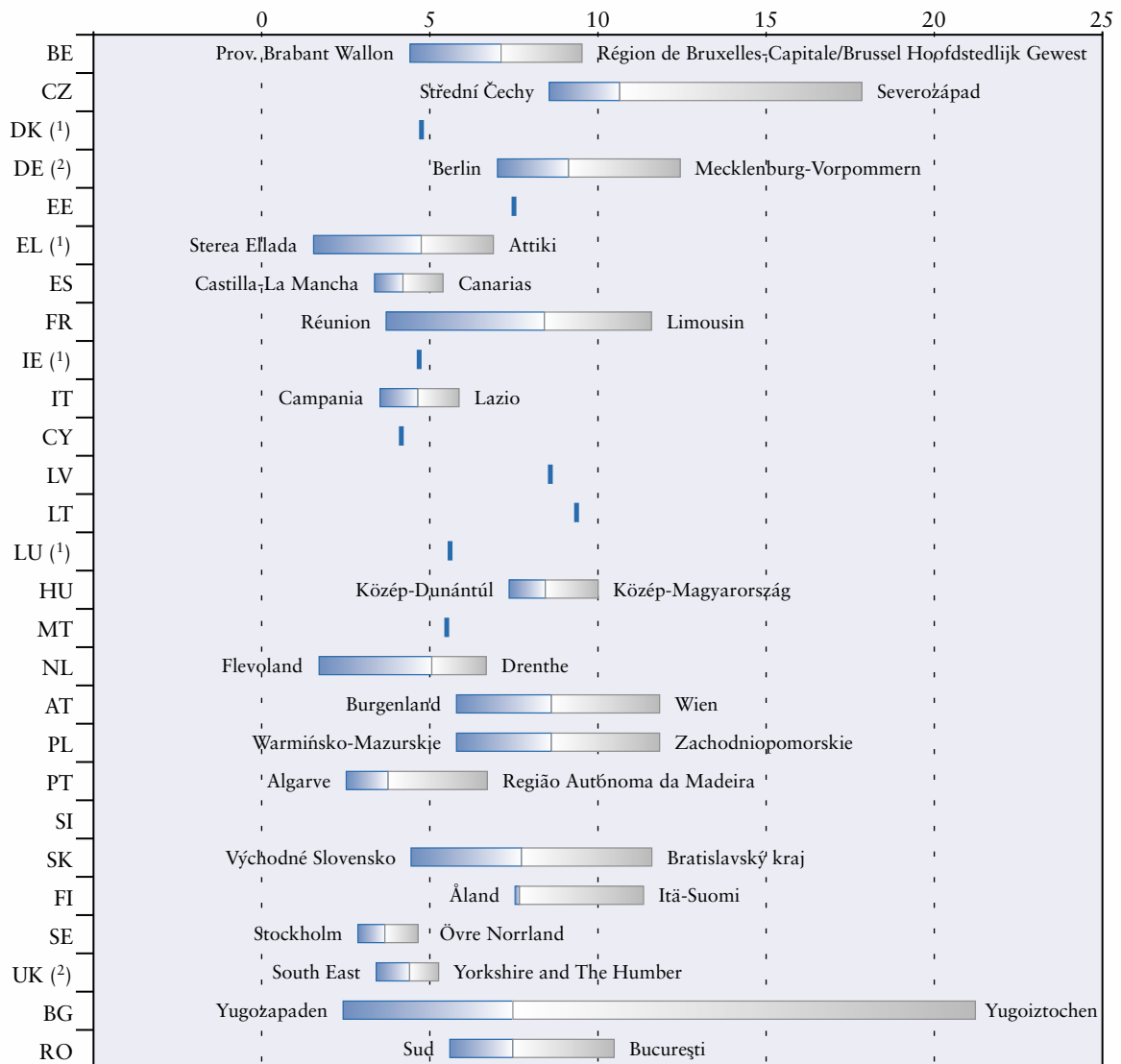
A further reason for this tendency lies in the growing financial constraints of the 1990s, which has led to a rationalisation of healthcare services everywhere. The increasing demand for healthcare for elderly people, most often suffering from chronic disability or illness, was in most cases met by a transfer of beds for acute or psychiatric care to beds for long-term care, accompanied by a steady fall in total numbers. Available resources, expressed as the number of hospital beds per capita, vary noticeably from one Member State to another. Nevertheless, the supply of hospital services at national and regional levels correlates closely with total expenditure on healthcare.

In Sweden, Portugal, and Spain, the number of beds per 1 000 inhabitants in 2000 is lower than in any of the other EU-15 Member States (3.6, 3.8 and 4.1 respectively), whilst it is highest in Germany (9.1). For the new Member States, the variation ranges from 0.2 in Cyprus up to 10.9 in the Czech Republic, whereby the majority of countries are found at the upper range level. These numbers include both public and private hospitals, but differ as regards including clinical beds and day-care beds. The difference in bed density is still substantial, even if differences in definition are taken into account.

A north–south pattern applies to hospital beds (see Graph 7.2), but with certain provisos. The German, French, Austrian and Finnish regions (headed by Mecklenburg-Vorpommern, Wien, Itä-Suomi, and Limousin) have the highest densities of beds within the former EU-15 Member States, in marked contrast to the Spanish, Portuguese and Greek regions (Algarve and Campania in particular) and Sweden, the United Kingdom and Ireland. Within the new Member States, such patterns are less prominent.

The regional variation in countries reporting regional data differs substantially. In Italy, Sweden and Spain but also in Hungary, the density of beds per 1 000 inhabitants is fairly uniform with a coefficient of relative variation (CRV) ranging from 30 to 48 %, whereas it varies substantially in Portugal, Greece, the Netherlands and France (between 94 and 118 %). Bulgaria reports the highest regional disparities, with the highest value reported for Yugoiztochen exceeding the lowest value (for Yugozapaden) by more than nine-fold. Many regions with high density rates can clearly be identified as metropolitan areas (Région de Bruxelles-Capitale/Brussels Hfdst. Gew. in Belgium, Lazio in Italy, Wien in Austria), but the effect

Graph 7.2 — Hospital beds — Rate per 1 000 inhabitants — 2000 — NUTS 2



(1) 1999.

(2) NUTS 1.

of servicing surrounding, more rural areas may only partially be used to explain the regional differences observed.

Comments on methodology

The provision of medical and hospital services at national and regional levels is closely linked to total expenditure on healthcare. The share of gross domestic product (GDP) which the Member States spent on healthcare in 1998–2000 ranged

from 6 to 10.4 %. There is a certain north–south (plus Ireland) divide, but the difference is not great. Healthcare expenditure accounted for a higher share of GDP in Germany (10.3 %), France (9.5 %) and Denmark (8.3 %) than in Slovakia (5.9 %) or Poland (6.2 %). Between 1980 and 2000, the share of GDP spent on healthcare increased in most Member States. The level of expenditure depends partly on the prices of goods and services and partly on quantities supplied. In this sector, the problem generally arises because the output of ‘health’ cannot be directly measured. Whereas figures for goods and prices are readily available in most sectors of the economy, it is impossible to record items such as outpatient or hospital services directly. Additionally, since

healthcare is organised and defined differently at national or regional level, it is difficult to interpret comparisons between countries, whether they relate to figures on given dates or to tendencies (for example, where should the dividing line be drawn between health services and social services?). The EU's healthcare systems depend more and more on gate-keeping and referral systems to ensure that they function properly and that there is continuity of care. Structures for public health differ markedly across countries and public health activities as a whole are highly fragmented, with various authorities involved. Most secondary care is provided by general hospitals. Daycare hospitals and day surgery are gradually emerging as alternatives to inpatient care in countries such as Denmark, Ireland, the United Kingdom, Belgium, France, Italy and the Netherlands. Day surgery is growing in importance in Germany, Luxembourg and Portugal but remains uncommon in Greece and Spain. There is also an increasing tendency to locate specialised mental healthcare within general hospitals, to coordinate provision with community care and to close down large psychiatric institutions.

Socio-health regions

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

Hence, the difficulty with statistics on health and on medical/health/hospital services at regional level stems from the fact that local-government boundaries, and thus the regional breakdown

which is of interest to health authorities in the Member States, do not always coincide with the NUTS regions and problems may therefore arise with cross-referencing to compare regional statistics.

Mortality indicators

Eurostat collects data on the absolute number of deaths (at national level and at NUTS 1 and NUTS 2 regional levels). Coding is based on the **primary cause of death** (Section B) on the death certificate. The causes of death are defined on the basis of the World Health Organisation's (WHO) **international classification of diseases (ICD)**, with all the Member States using the 9th or 10th revision. A crude death rate (CDR) describes mortality in relation to the total population. However, this indicator is strongly influenced by the age structure of a given population. Age-standardised death rates (SDRs) are therefore used in order to adjust for this factor. SDRs are weighted by the age structure of a standard population. Eurostat uses the European standard population as recommended by the United Nations. 'Premature' mortality (before the age of 65) is in many cases linked to a cause of death whose frequency could be reduced by a change in behaviour (alcoholism, smoking, violent deaths) and that behaviour is in turn linked to social, economic and cultural risk factors.

Resource indicators

For the indicators of available health resources used in this publication, Eurostat collects regional-level statistics on healthcare workers (numbers of doctors and of other professions) and numbers of hospital beds.

At national level, it collects data on numbers of doctors divided according to existing definitions: **doctors qualified to practise**, who may be working, retired, unemployed or abroad, **practising doctors**, who are those consulted by patients in a hospital, in the doctor's surgery or elsewhere, or **active doctors**, i.e. those employed in the health sector. At regional level, information is not always available in terms of these three concepts, and in this case the Member States establish the number



of doctors in each region on the basis of different concepts and registers. In most Member States and candidate countries, the number of doctors refers to the number of **practising doctors**. In Belgium, Italy, the Netherlands and Finland, it refers to **doctors qualified to practise** and in Spain to **active doctors**. The United Kingdom and Irish figures include the public sector only.

The data on numbers of beds reported to Eurostat are normally presented in the form of annual average numbers of beds used during the reference year, or according to recording concepts or budgetary or planned approval. Not all the figures are readily comparable and they should be interpreted with care, since the definition of 'hospital' and

'hospital bed' varies from one Member State to another. In general, however, differences in numbers of beds are affected by accounting practices (annual average, years ending 31 March or 31 December, 'official', 'budgetary' or 'planned' beds). Only beds used for full inpatient accommodation are counted. The 'total inpatient care beds' covers all beds in general hospitals (with the exception of cots for infants in good health) and in specialised hospitals, psychiatric hospitals and other establishments treating those with mental disorders, nursing homes, etc. Hospital beds available for nursing care during the day, in medical centres for children, in crèches under medical supervision and in establishments for those with sensory deficiencies are not necessarily included.





Introduction

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

Tourism has great potential as regards contributing to the achievements of several major EU objectives, such as economic growth, employment, sustainable development and economic and social cohesion.

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

With the enlargement in place since 1 May 2004, data from the new member countries are included in the respective maps.

Eurostat has collected statistics on tourism since 1994. The coverage is threefold: capacity, occupancy and demand. At regional level, the coverage is twofold: capacity and occupancy. Capacity refers to the accommodation infrastructure that is available to the tourist in the region concerned. Occupancy provides statistics on the number of nights spent in hired accommodation in a particular region. Demand refers to domestic and outbound tourism: outbound tourism shall mean residents of a country travelling in another country.

Methodological notes

Although throughout this section, for reasons predominantly of cartographic clarity, the regional level adopted for the analyses is that of the NUTS 2 region, Eurostat's REGIO database in fact contains extensive data at NUTS 3 level.

Capacity (infrastructure) statistics

Map 8.1 examines the availability of bed places taking into account the region's permanent population.

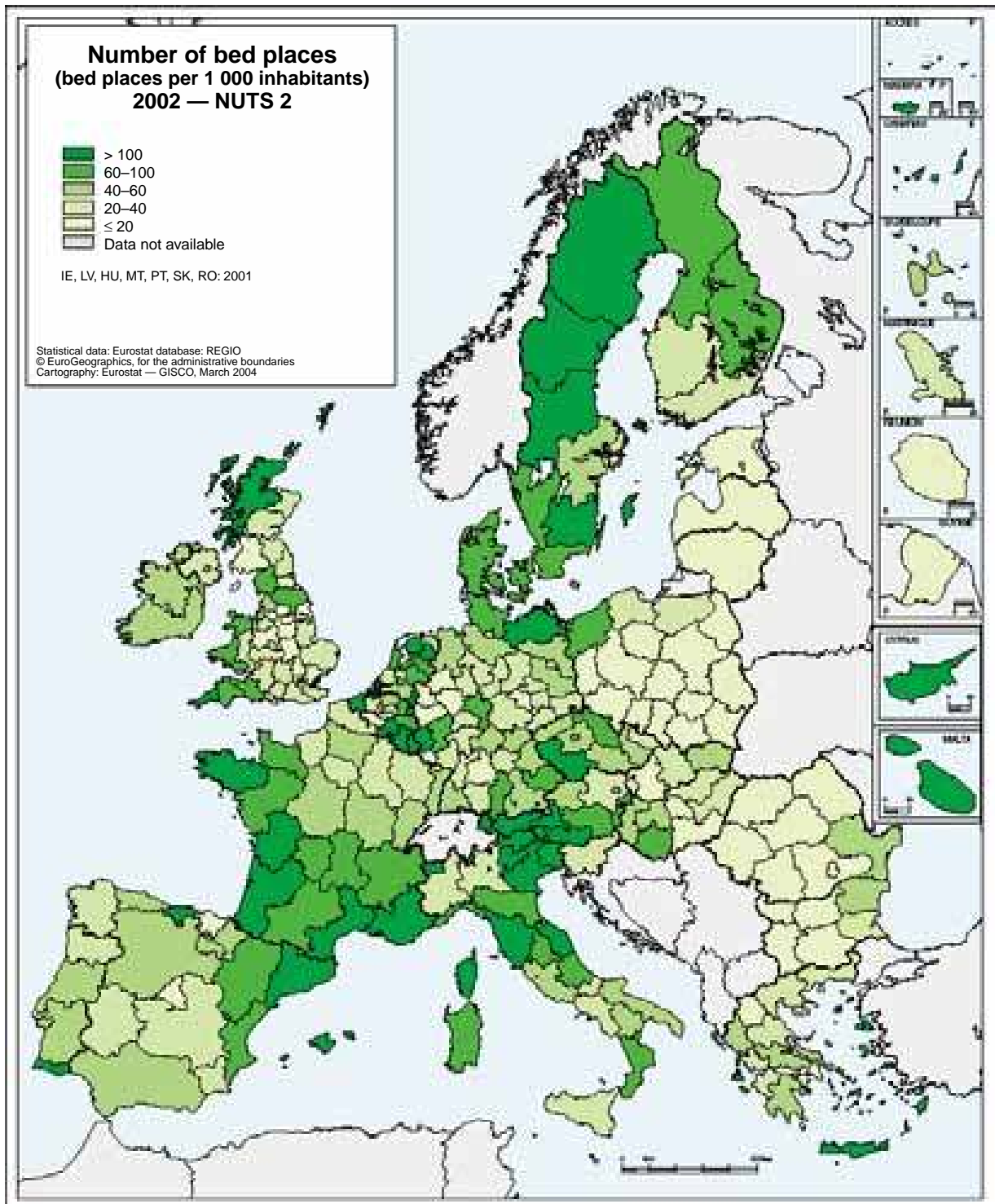
The map highlights regions having high accommodation densities, because of their high number of bed places (i.e. Illes Balears (ES); Provincia Autonoma Bolzano (IT); Corsica (FR)), while other regions have high accommodation densities because of their low populations (Åland (FIN); Highlands and Islands (UK); Övre Norrland (SE)). Some classic destinations for package holiday flights, such as the Illes Balears in Spain and the Algarve in Portugal do indeed have a very high supply of accommodation per head of population. To these traditional destinations in the European Union, one can add the island of Cyprus which has a hotel capacity similar to the Algarve.

That tourism can be a year-round phenomenon is shown in a typical way by the Tirol region in Austria.

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

Turning specifically to the total number of bed places, Map 8.2 clearly illustrates the number of bed places in hotels and similar establishments as a proportion of total bed places per region. Apart from hotels and similar establishments, other collective tourist accommodation establishments comprise holiday dwellings, tourist campsites and other collective establishments, such as youth hostels, tourist dormitories, etc. Most noticeable on this map is the fact that the concentration of hotel capacity is higher in urban areas and around the respective capitals than in other areas. This is most evident in France, where the proportion of hotels in Paris is more than 75 % of total bed places, but also in Germany, in Berlin.

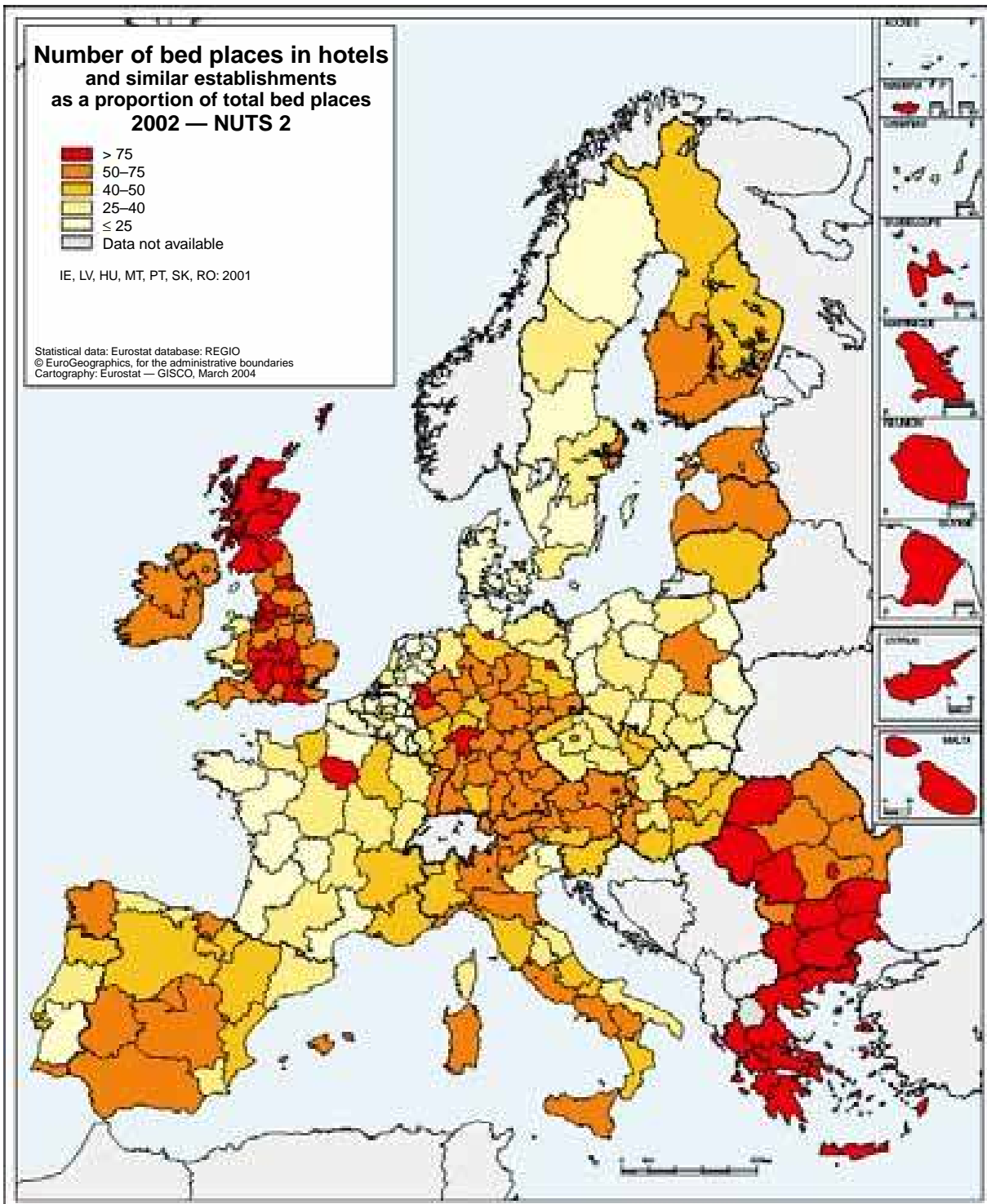
However, in other regions as well, particularly in Scotland, in parts of England, and in Greece, the number of bed places as a proportion of total bed places is equally high. In rural areas, for example in many parts of Belgium and the Netherlands, in West and South West France, in Denmark, in most parts of Sweden, but also in Poland, the number of bed places in hotels and similar establishments as a proportion of total bed places can be less than 25 % and does not exceed 40 %. A third group-



Map 8.1

ing, comprising the Baltic States (Estonia, Lithuania and Latvia) and Finland can be situated between these two extremes: the number of bed pla-

ces in hotels and similar establishments accounts for between 40 and 75 % of total bed places in those countries.



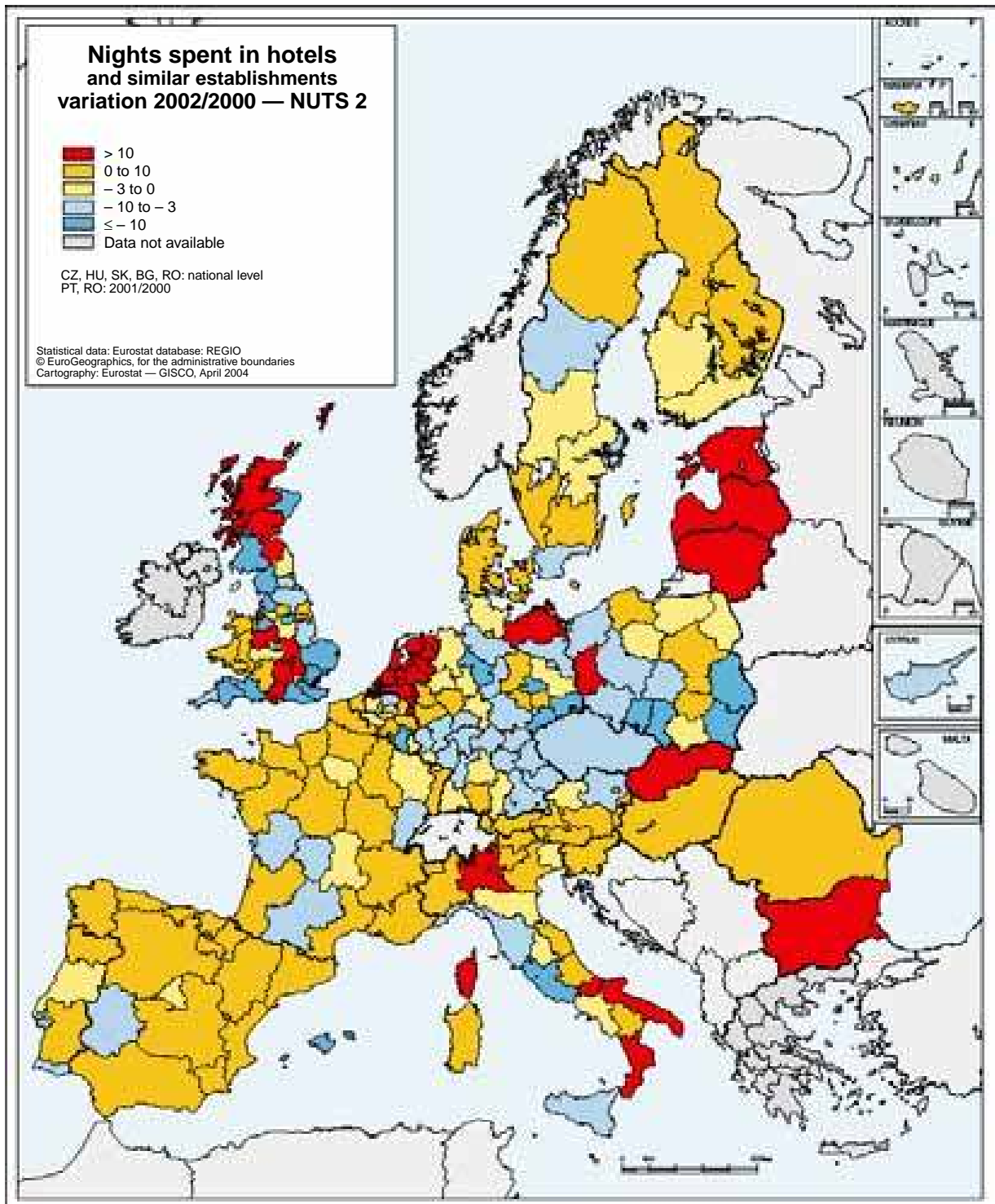
Map 8.2

Occupancy data

While tourist infrastructure figures such as those examined in Maps 8.1 to 8.2, yield an indication of the accommodation capacity available in a specific region, it is important to know the extent to which this capacity is actually used. Some measure of occupancy is therefore required. At NUTS

2 level and for the years 1994–2002, the REGIO database holds data on arrivals and nights spent. These figures are further broken down into residents and non-residents. Non-residents are defined as persons living in another country than that in which the region is located.

Given that this indicator is measured here on a proportion of total nights, one can identify the



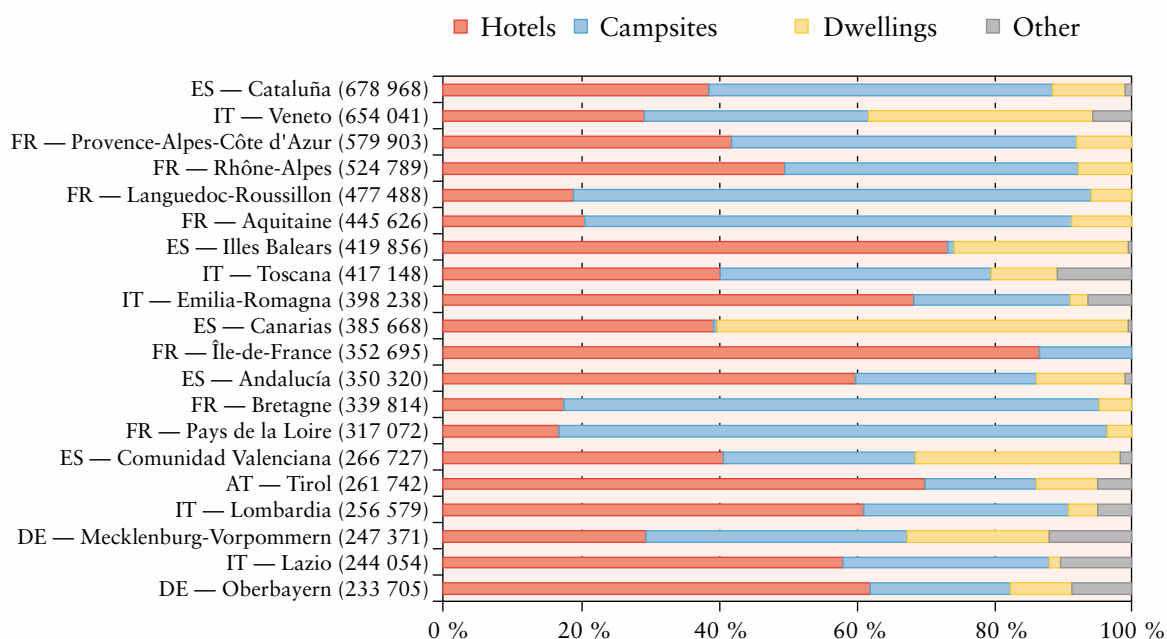
Map 8.3

share of foreign tourists and thus the attractiveness of regions in the context of international tourism.

Yet the percentage share of foreign tourists' nights compared to the total number of tourists' nights is of course also dependent on the size of a country: smaller countries will always have a higher share of foreign tourists' nights than bigger countries.

The highest proportion of nights spent by non-residents of the total nights can be found in Austria, Estonia, Cyprus, Luxembourg and in the Flemish part of Belgium. This shows the dependence on foreign tourists for some of the countries mentioned, such as Austria and Cyprus. Germany and France on the other hand show less dependence on foreign tourism, as domestic tourism plays a predominant role in these big countries.

Graph 8.1 — Top 20 EU-15 tourist regions — Distribution of bed places by type of accommodation, 2002 — NUTS 2

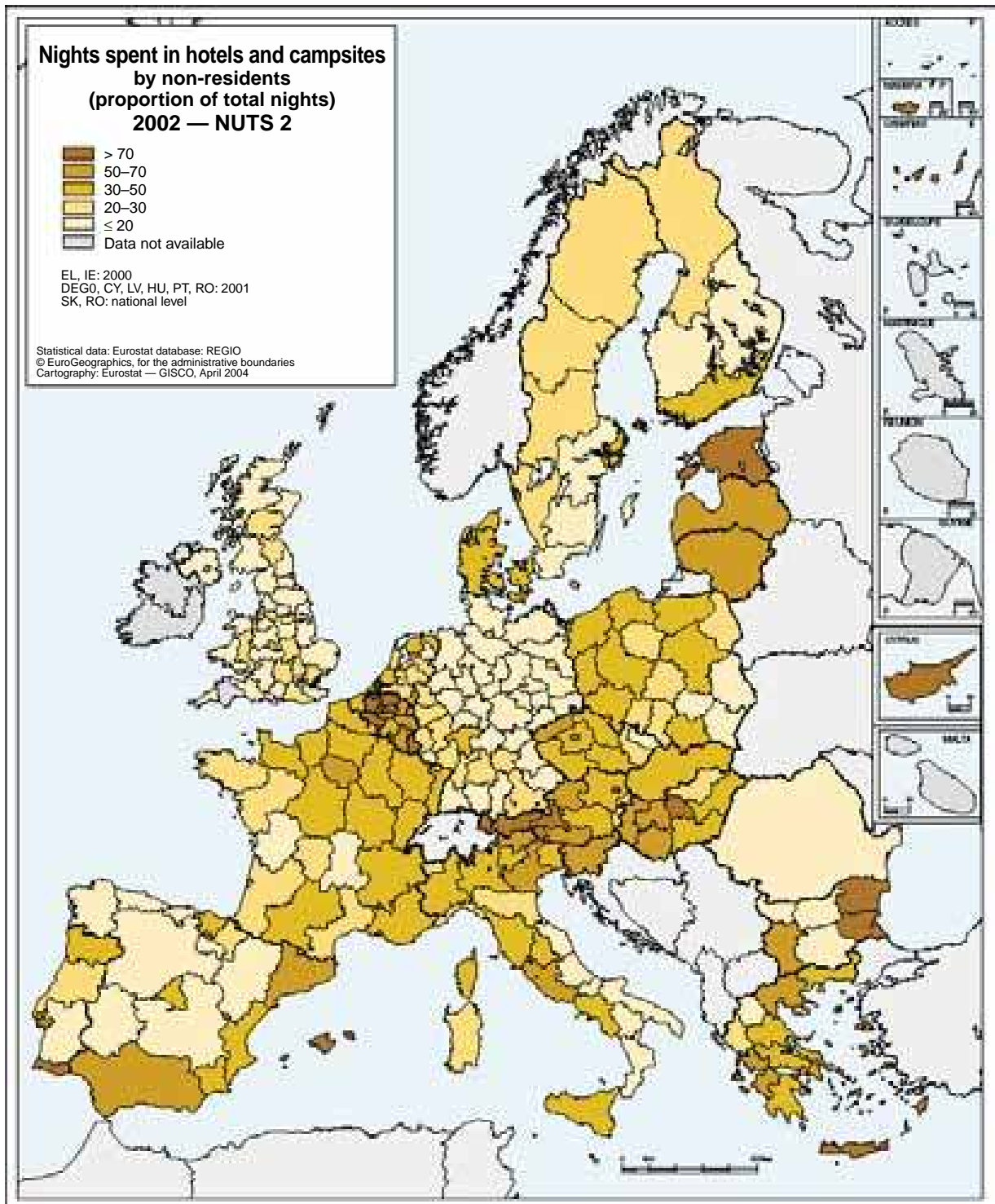


A very different picture emerges if one examines the variations in nights spent in hotels and similar establishments between the years 2000 and 2002. An increase of more than 10 % of nights spent compared to the previous period can be found in the Baltic States, in Scotland, in the Netherlands, but also in the northern and southern parts of Italy as well as in the Baltic sea coast of Germany, in Hungary and in Bulgaria (for the two latter countries, the years 2000 and 2001 are compared). Although these rates of change are heavily influenced by the base values of the comparison (giving a very high rate if the base value was quite low), it nevertheless indicates the change in travel behaviour. This may well be due to economic pressure, forcing people to choose closer destinations for holidays, or due to political decisions (such as additional taxes imposed in the Illes Balears) or other factors favouring new destinations

over such traditional tourist destinations as Spain and Italy.

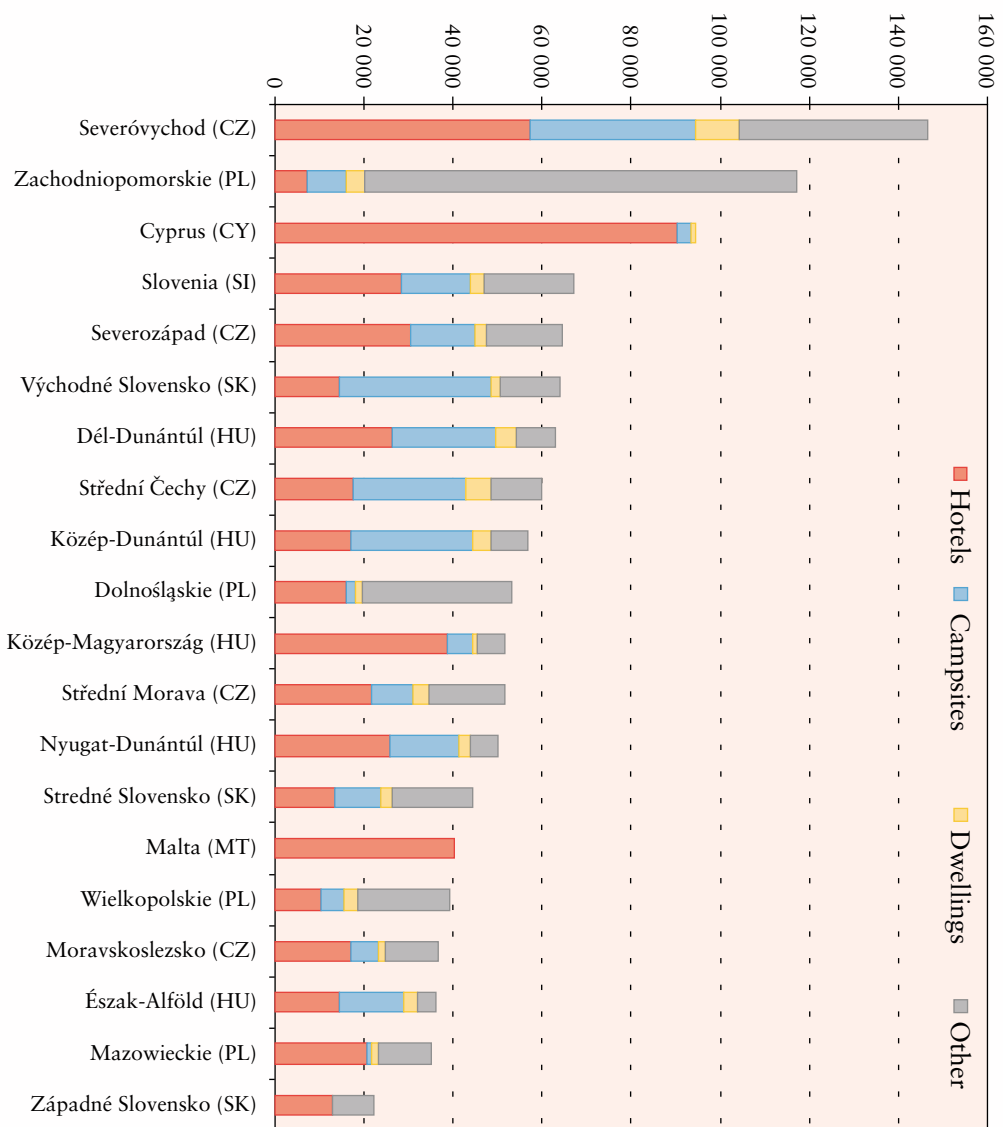
Conclusion

European tourism and its industries have been undergoing major changes for several years. The figures collected by Member States and published by Eurostat show that tourism becomes more and more important for European regions. The tendency of more and shorter trips especially encourages regions to promote their attractiveness. The shown examples will hopefully inspire the reader to make even more intense use of regional data regarding European tourism.



Map 8.4

Graph 8.2 — Top 20 tourist regions in the new Member States — Distribution of bed places by type of accommodation, 2002 — NUTS 2





Background

Some EU countries have been heavily urbanised since the Industrial Revolution; in others, the level of urbanisation has increased sharply over the past 50 years. Whether as homes, workplaces or centres of learning, cities accordingly have a major impact on the lives of very many of Europe's citizens.

Assessing that impact is a prerequisite for any improvements in the quality of urban life, but needs to be based on comparable data. In the past, comparing cities in the European Union was fraught with problems due to differences in data collection methods and definitions across such a geographically vast and culturally varied continent. As a result, it was very difficult to analyse and compare European cities.

The Urban Audit seeks to solve these problems by providing a comprehensive set of urban indicators covering the various aspects of urban life. The audit was launched as a joint effort by Eurostat and the Regional Policy DG of the European Commission and covers 258 large (over 250 000 inhabitants) and medium-sized (between 50 000 and 250 000 inhabitants) cities in the enlarged European Union, Bulgaria and Romania (EU-27). The cities were selected in collaboration with the national statistical offices. The selected cities are geographically dispersed to ensure a representative sample. The combined population of the 258 cities is 107 million inhabitants, covering more than 20 % of the EU-27 population. This large sample ensures that the Urban Audit can provide much more reliable information about European cities today than was previously available.

The preliminary results presented here are available thanks to a major effort by the cities, national statistical offices, Eurostat and the Regional Policy DG.

The data collection for the old Member States (EU-15) was finalised in spring 2004. The data collection for the 69 cities of the new Member States was launched at a later stage (due to the use of a different financing mechanism) and consequently the complete data for these cities will not be available until early 2005. Nevertheless, a large part of these statistics had already become available by May 2004.

In addition, it was felt that the citizen's perception of quality of life within 'their' city is very impor-

tant supplementary information. Perception indicators are the result of opinion polls among a representative random sample of inhabitants of the city in question. The data of the Urban Audit perception survey are the result of such telephone interviews in 31 cities. Part of the EuroBarometer series, these interviews were carried out by GAL-LUP institutions and covered the 15 EU Member States during the period 5 to 16 January 2004.

On the basis of the available results of the Urban Audit, this chapter of the yearbook highlights several aspects of the social and economic situation in European cities.

Content and spatial coverage

But first of all let's have a look at the collected data set and its spatial coverage.

A total of 336 variables are included in the Urban Audit. They cover most aspects of urban life, for example, demography, housing, health, crime, labour market, income disparity, local administration, educational qualifications, environment, climate, travel patterns, information society and cultural infrastructure. From these raw variables, over 200 indicators were calculated that allow a broad spectrum of analyses.

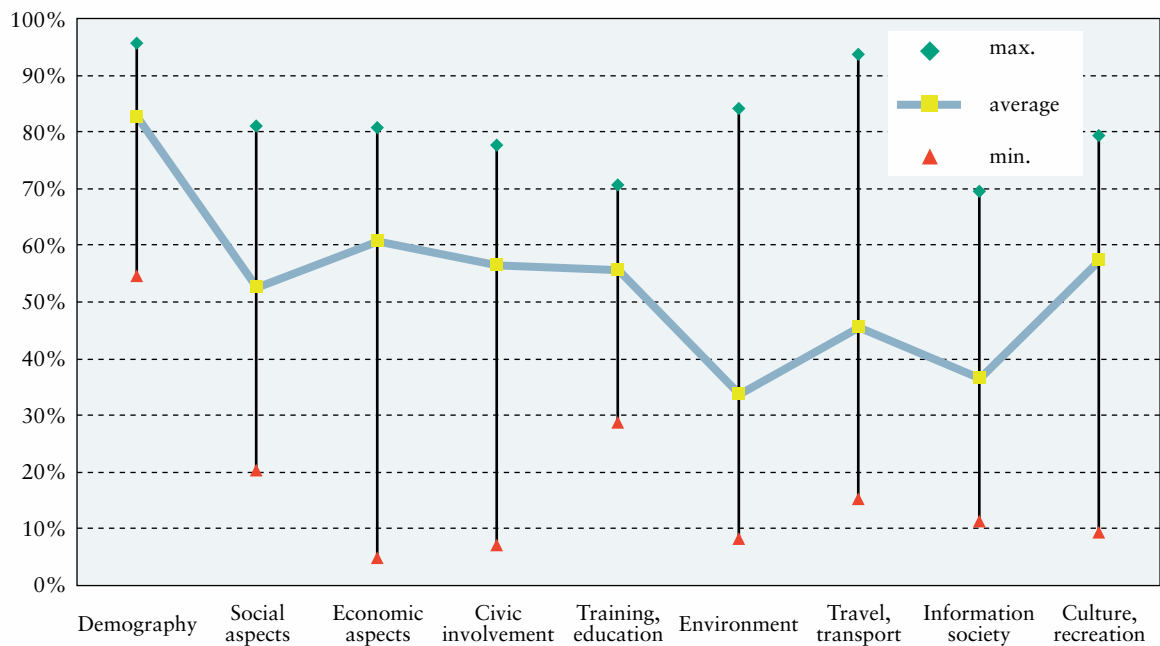
Of course the coverage of these indicators varies. In particular, environmental and information society data are difficult to collect.

With regard to the spatial coverage of urban data, the Urban Audit aims to provide information at three spatial levels:

- the city, which adopts an administrative definition that reflects local-government responsibilities;
- the larger urban zone, which is an approximation of the functional urban zone centred around the city;
- the sub-city district, which is a subdivision of the city according to strict criteria (5 000–40 000 inhabitants in each sub-city district).

In addition, national data on the collected Urban Audit variables and derived indicators was exploited as much as possible, to allow comparisons

Graph 9.1 — Availability of indicators



to be made between cities and the overall national situation.

Some interesting results

Let us turn now to an analysis of some of the results from the Urban Audit. This is mainly intended to whet readers' appetites for Urban Audit statistics and to encourage them to consult the information in the NewCronos database for themselves. A detailed analysis of the Urban Audit results will be reserved for future publications.

There are two key characteristics of the Urban Audit data which should be borne in mind: given the very large number of different data sources, urban statistics are clearly not as comparable as other more aggregated statistics which tend to be more homogeneous. Secondly, the frequent lack of data for some countries means that any possible conclusions should be viewed with caution.

Let us look first at the **population growth rates** for the core cities from 1996 to 2001. Fluctuating figures from -15% to $+15\%$ over this five-year period reveal some significant changes in the number of inhabitants. The map shows cities with high growth rates in red, those with a more or less

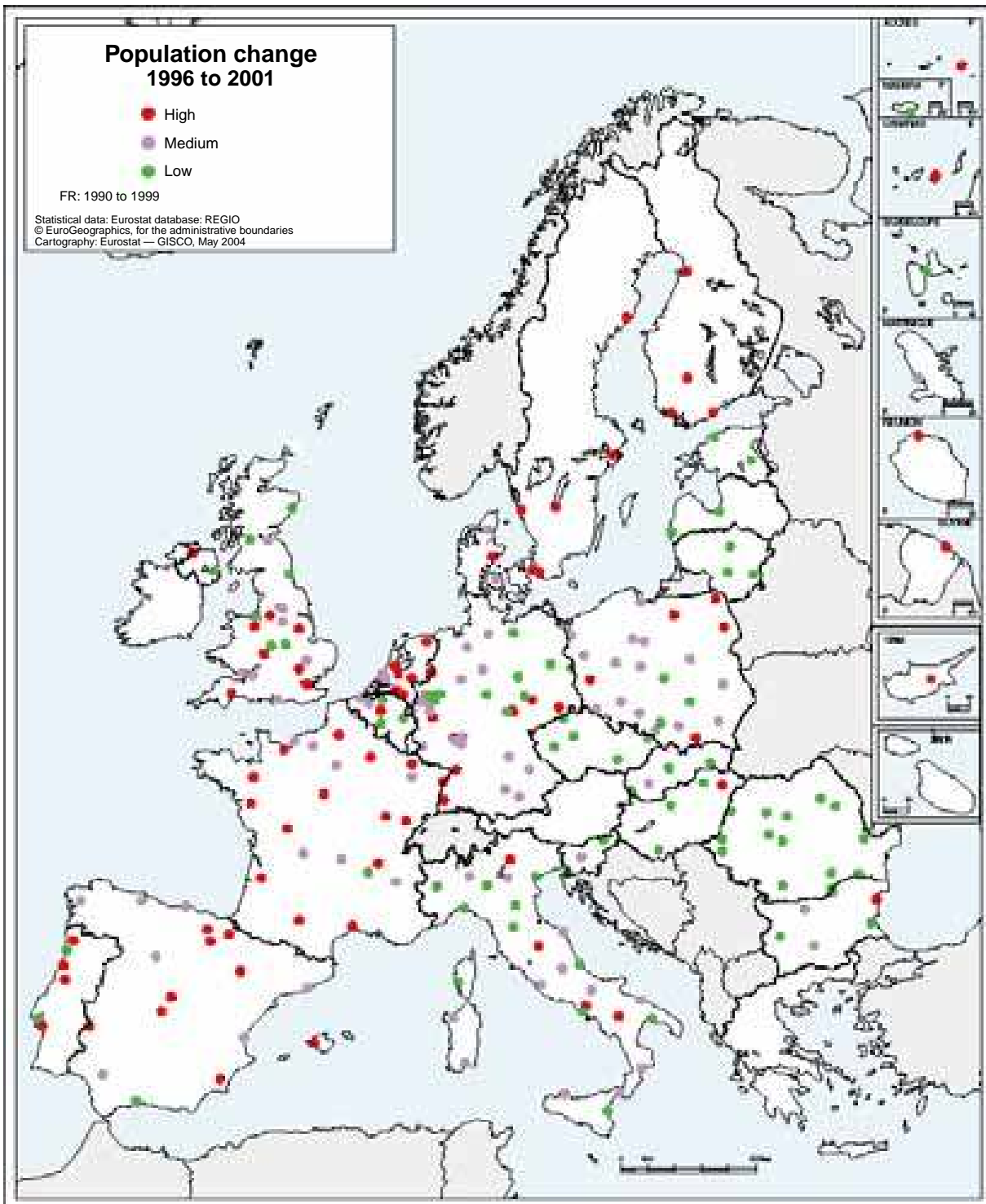
stable population in blue and cities where the population has fallen in green. At the time this went to print, there were unfortunately no data available for Irish and Greek cities.

As we can see, all three types of growth rates are present in some countries, such as the United Kingdom, Italy, Germany and Poland. In Belgium, the capital Brussels is growing whilst the trend in other cities is downward. Mainly positive growth rates were recorded in Scandinavian, Spanish and Portuguese cities. The trend in Austria, Hungary, Romania and the Baltic countries is for cities to shrink.

It should be noted that this analysis concerns the core cities in each case. If a significant number of inhabitants moves out of the core city to the surrounding urban region, the core city may shrink, but the larger urban region may remain constant or even expand.

Let us look now at the **proportion of the population aged 75 and over** in European cities. This proportion fluctuates from just 2% (in Zory in Poland, followed by Cayenne in France) to 13% (in Trieste, followed by Bologna and Florence, all in Italy).

The map shows that the proportion of the population aged 75 and over is generally low in the new Member States and in Ireland, whereas it tends to be higher in cities in the old Member

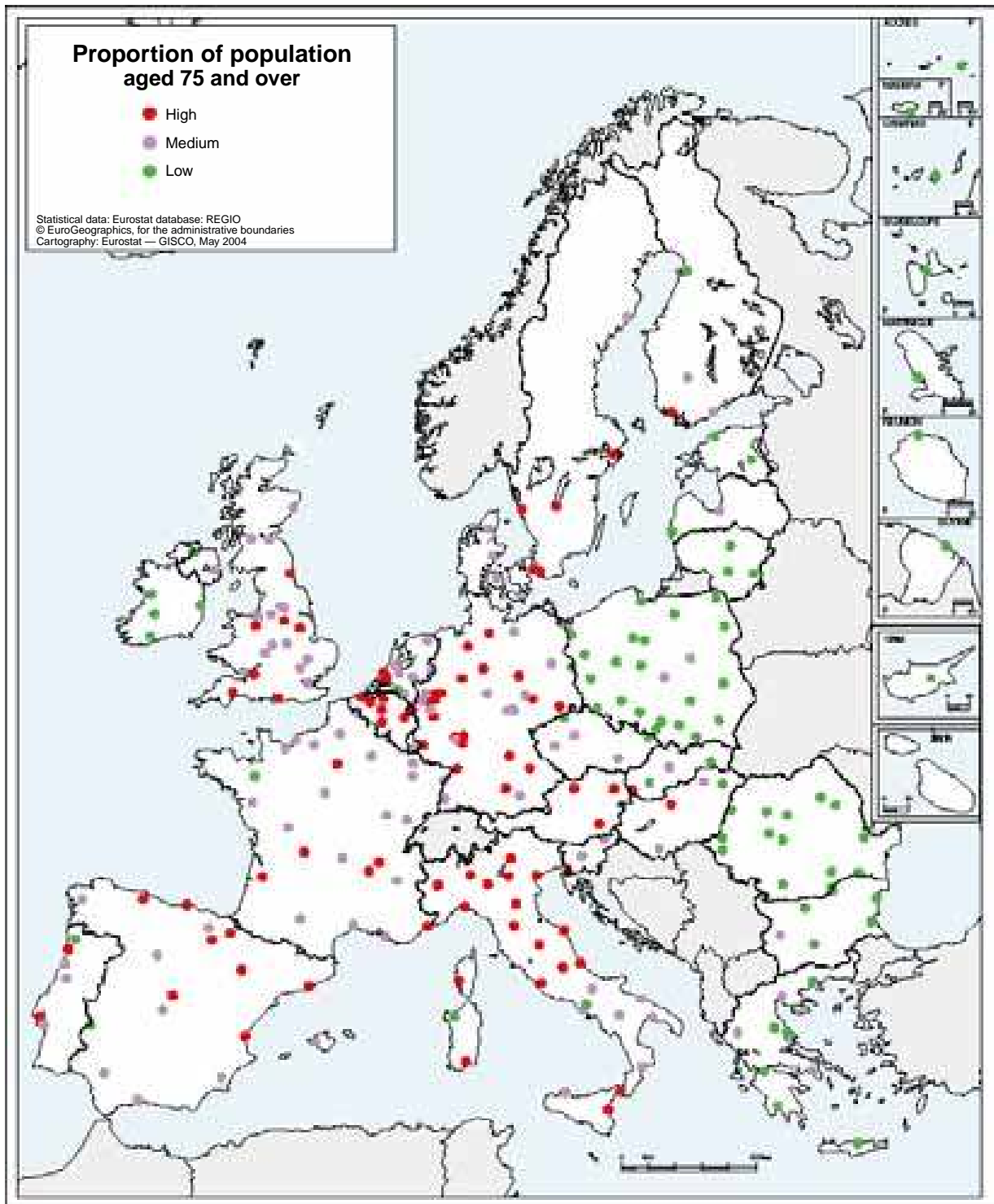


Map 9.1

States. This effect is remarkably pronounced. In the west there are hardly any green dots (cities with a low proportion of over-75s) to be found, and in the east no blue or red dots (cities with an average or high percentage of over-75 year olds). There is undoubtedly a connection here with the generally lower life expectancy in the new Member States, where there are therefore fewer people aged over 75 than in the old Member States. See

also Chapter 1 of this yearbook on regional population statistics.

Within Italy and Spain, the proportion of the population aged over 75 is higher in the north than in the south, within France it is the other way round. This is clearly related to the fact that pensioners may seek a more pleasant climate in which to live.



Map 9.2

In Germany or the United Kingdom, there is no identifiable model explaining any particular urban distribution of the very elderly.

The last demographic trend we will look at is the **proportion of non-EU nationals** in Europe's cities. The table shows the 10 cities with the highest and lowest proportions of non-EU nationals.

Table 9.1 (proportion of non-EU nationals)

City	Proportion of non-EU nationals
Tallinn	27.8
Cayenne	22.7
Athina	16.7
Frankfurt am Main	16.3
München	16.2
Wien	14.4
Augsburg	14.3
Köln	14.0
Wiesbaden	13.9
Bonn	13.5
.....
Katowice	0.1
Gdansk	0.1
Gorzow Wielkopolski	0.1
Lublin	0.1
Torun	0.1
Kielce	0.1
Poznan	0.1
Zory	0.0
Suwalki	0.0
Konin	0.0

Tallinn in Estonia has the highest proportion of non-EU nationals (citizens of Russian origin). Cayenne in the French overseas departments is an exception, as this French enclave in South America is surrounded by non-EU countries. Next comes Athens where the proportion of non-EU nationals is almost 17 %, presumably on account of the fact that Greece borders 4 non-EU countries: Albania, Macedonia, Bulgaria and Turkey. With the exception of Vienna, the cities occupying the next thirteen places are all in Germany.

At the foot of the table, we have all 23 Polish cities where the proportion of non-EU nationals is below 0.3 %.

A similar analysis of the proportion of single-parent households in the urban population, i.e. households with children but only one parental guardian, produces interesting results.

The highest proportion of single-parent households can be found in Riga (Latvia) with 24 %, followed by Liepaja (also in Latvia). Next in line

come the two French overseas cities of Point-a-Pitre and Cayenne, and then Charleroi in Belgium. The top 50 cities are all located in central or northern Europe (or in the overseas territories).

At the bottom end of the scale is Volos (Greece) with just under 3 %, below Plovdiv (Bulgaria) and Thessaloniki (also Greece). All 20 cities with the lowest proportion of single-parent households are in Portugal, Greece or Bulgaria, i.e. in southern Europe.

Let us move on now to the map of the number of road accidents resulting in fatalities or serious injury per 1 000 inhabitants.

As we can see, it is car drivers in Italian, Austrian, Danish and Baltic cities who are most at risk. The safest cities for driving, on the other hand, are in Greece, France, Sweden and Finland. Fatal car accidents in Milan are 500 times more frequent per capita than in Helsinki. There is almost always considerable uniformity in the incidence of accidents in each country, regardless of the city in

Table 9.2 (proportion of single-parent households)

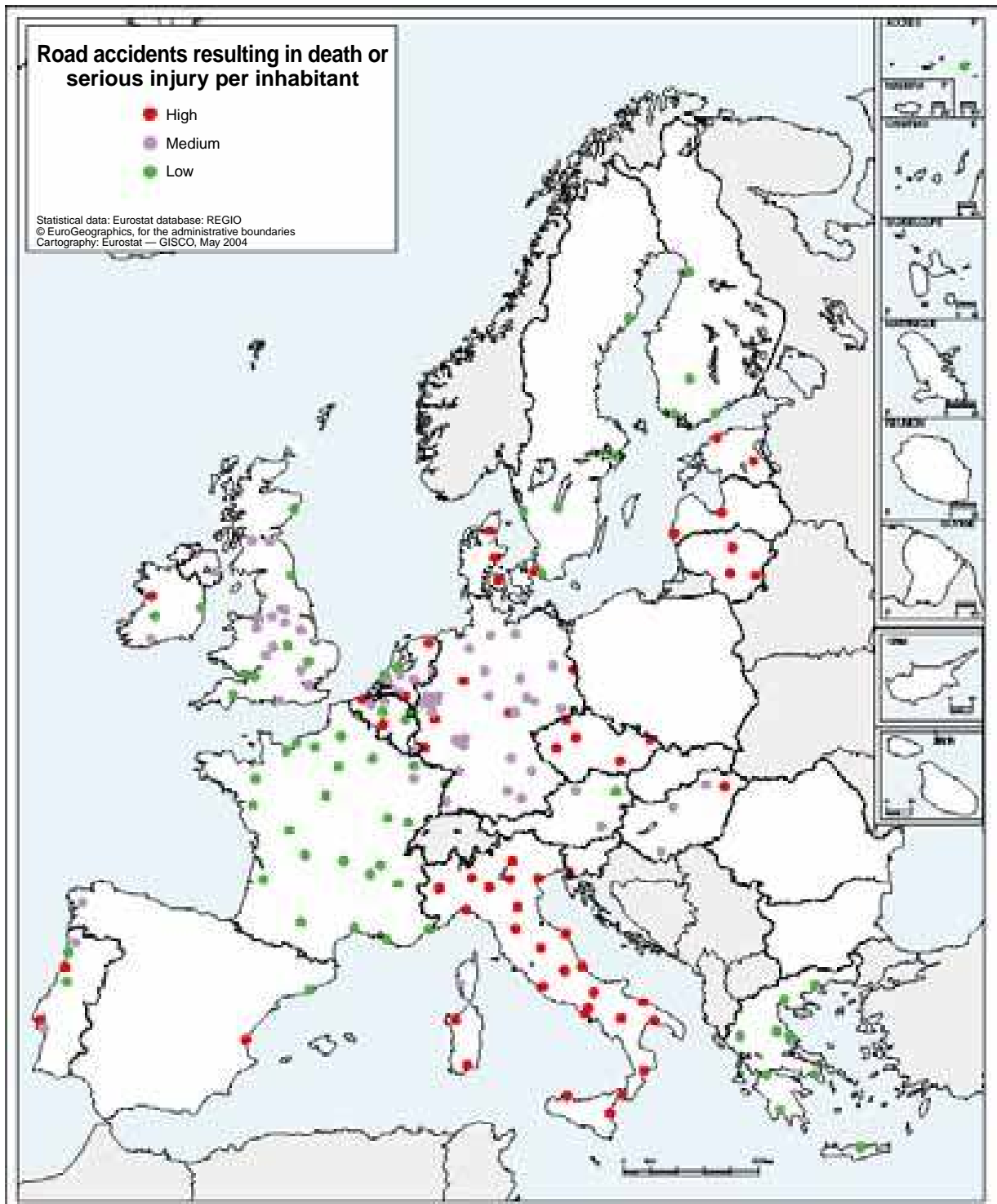
City	Proportion of lone parent households
Riga	24.3
Liepaja	19.6
Pointe-a-Pitre	18.2
Cayenne	17.5
Charleroi	17.2
Praha	16.5
Brno	15.9
Fort-de-France	15.6
Limerick	15.5
Glasgow	15.2
...	...
Kalamata	3.2
Coimbra	3.1
Sofia	3.0
Athina	3.0
Larisa	2.9
Burgas	2.9
Varna	2.9
Thessaloniki	2.9
Plovdiv	2.8
Volos	2.8

question. This suggests that the conduct of car drivers is heavily influenced by national legislation and national transport policy measures.

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

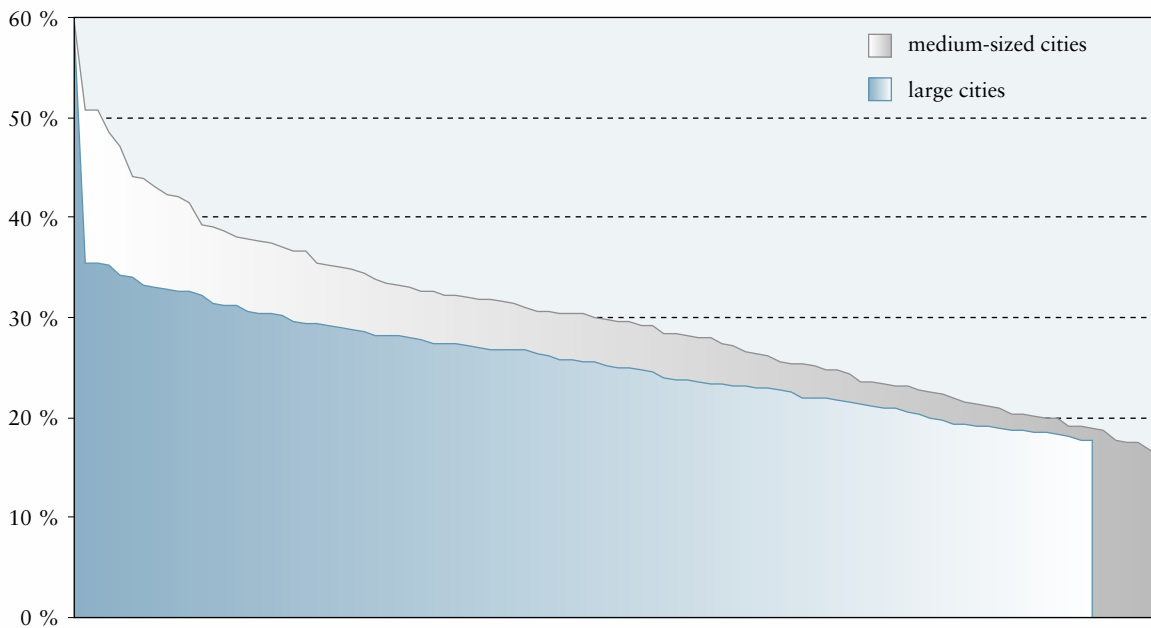
Let us look for example at the proportion of households with children, which ranges from 71 % (Ljubljana, Slovenia) to 15 % (Groningen, Netherlands).

The chart shows that the proportion of households with children fluctuates between 50 and 20 % for most cities, but that this proportion is significantly higher on average in medium-sized cities.



Map 9.3

Graph 9.2 — Proportion of households with children

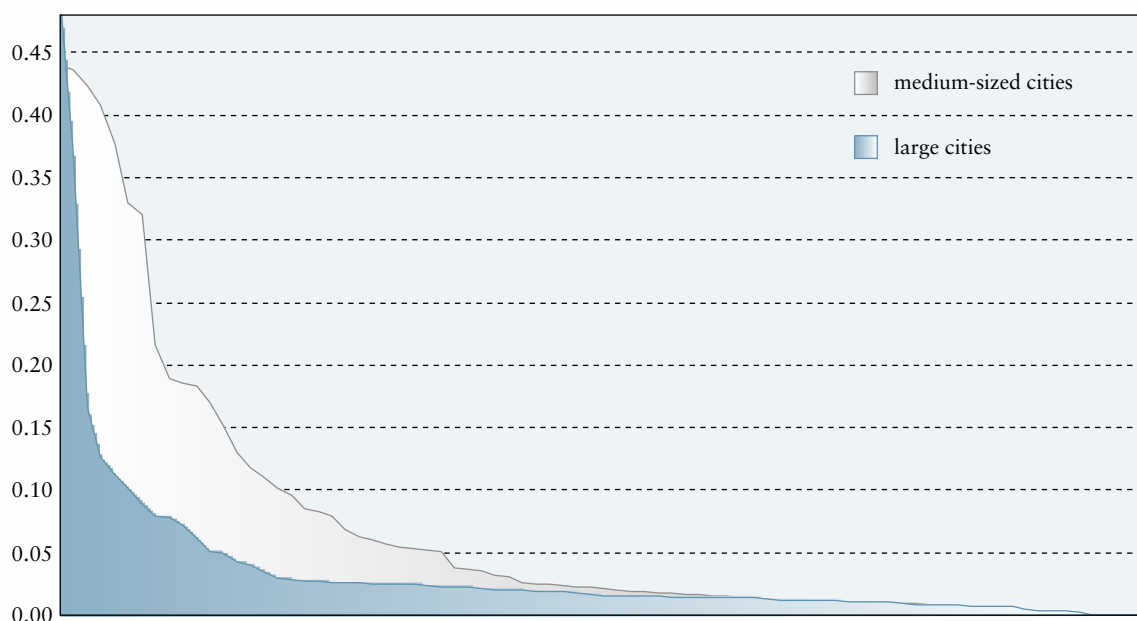


This observation might come as no real surprise. But consider this! An analysis of the number of deaths through violent crime per inhabitant in the next chart shows that life in medium-sized cities seems on average to be more dangerous than in large cities. The variations in this indicator for murders and violent deaths per inhabitant are considerable. In Athens it is 230 times higher than in Dresden.

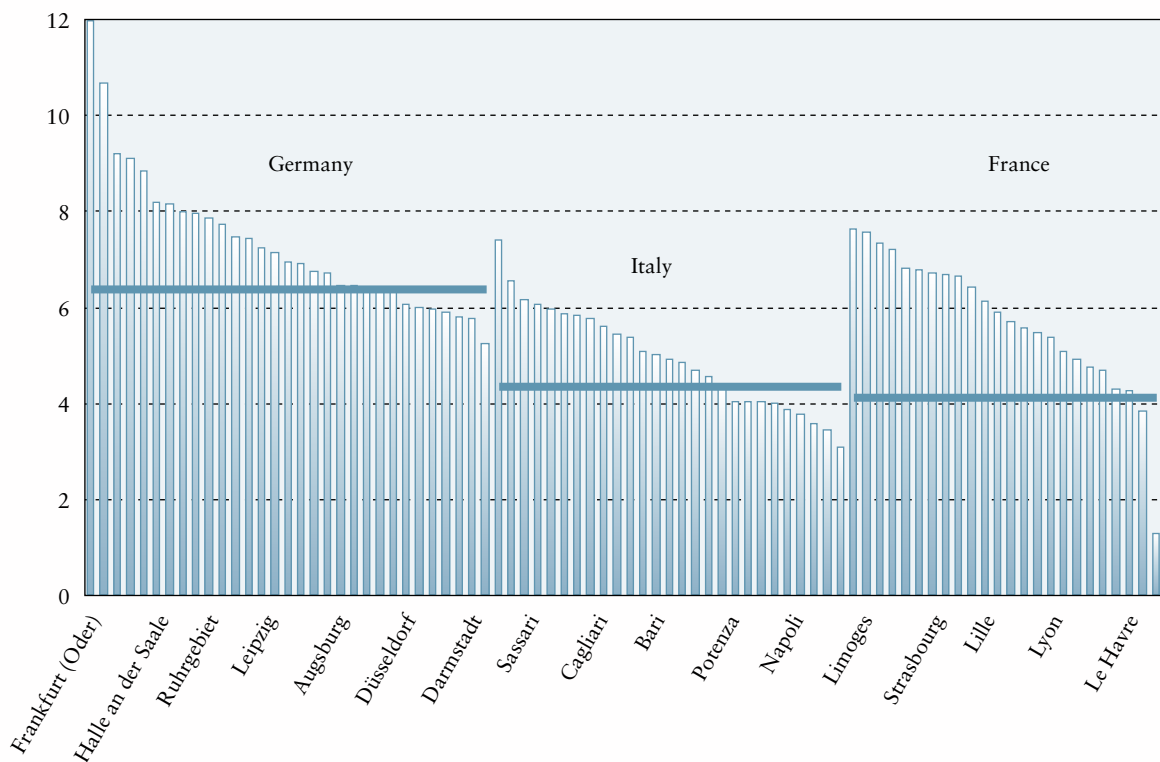
The analysis of Urban Audit results also offers an opportunity to make comparisons between respective national data, as illustrated here with the number of hospital beds per resident in German, Italian and French large urban zones. The national value is indicated in the chart by a horizontal line.

It can be seen that the density of hospital beds in all three countries is higher in the urban centres

Graph 9.3 — Number of murders and violent deaths per inhabitant



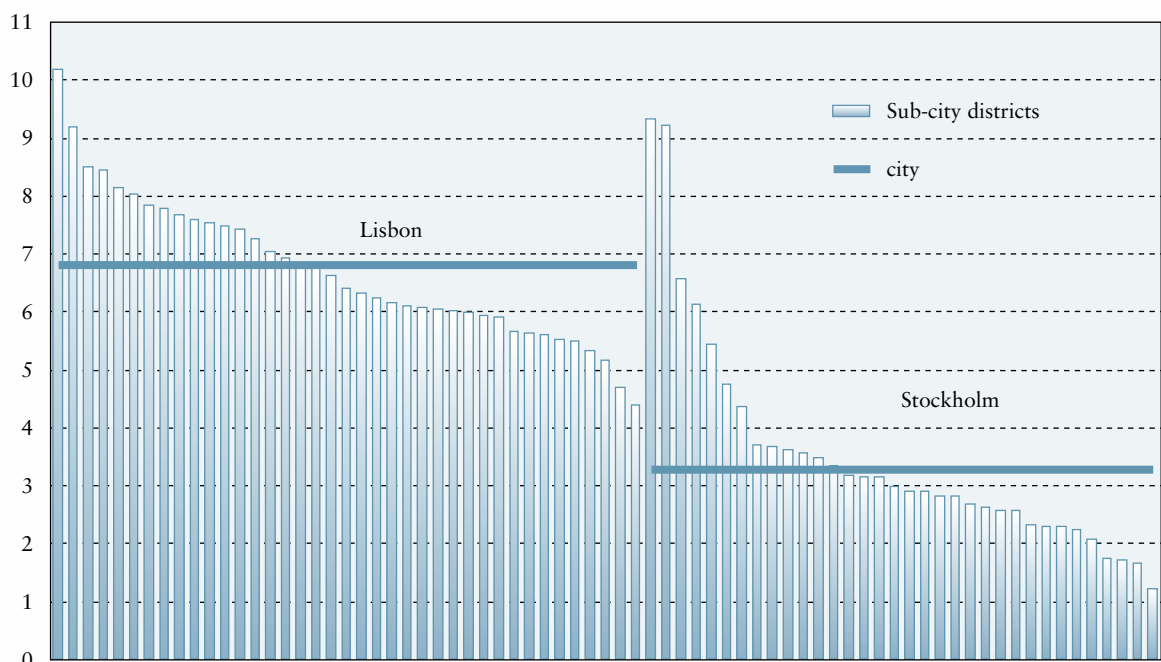
Graph 9.4 — Number of hospital beds per resident in large urban zones



than in the country as a whole. Apparently, healthcare is of less quality in rural areas. There are, however, also exceptions where the number of hospital beds per resident to be found is below the national average.

In Germany there are more hospital beds per resident than in France or Italy. It would be beyond the scope of this yearbook to show this same chart for all European countries. Readers are welcome to go ahead and download these data from New-Cronos and make their own calculations.

Graph 9.5 — Unemployment rate



Given that data were also collected in Urban Audit for sub-city districts (albeit for a very limited number of variables), similar analyses can also be compiled for individual cities, e.g. with regard to unemployment rates.

Here too, the spread can be seen very well, but this time within cities. Lisbon, which has a higher unemployment rate than Stockholm, has a narrower spread than Stockholm across its sub-city districts.

Finally, there is a short presentation of the results of the perception survey conducted in January 2004, which also produced very interesting results. In response to 23 different questions on the quality of life in cities, those interviewed could choose between 'strongly agree', 'agree', 'disagree' or 'strongly disagree'. A simplified index of results can be obtained by combining the 'strongly agrees' and 'agrees' on the one hand and the 'disagrees' and 'strongly disagrees' on the other, with the difference between agreement and disagreement being divided by the number of responses. After multiplying this figure by 50 and then adding 50, the index is standardised at a value between 0 and 100. The higher the index value, the

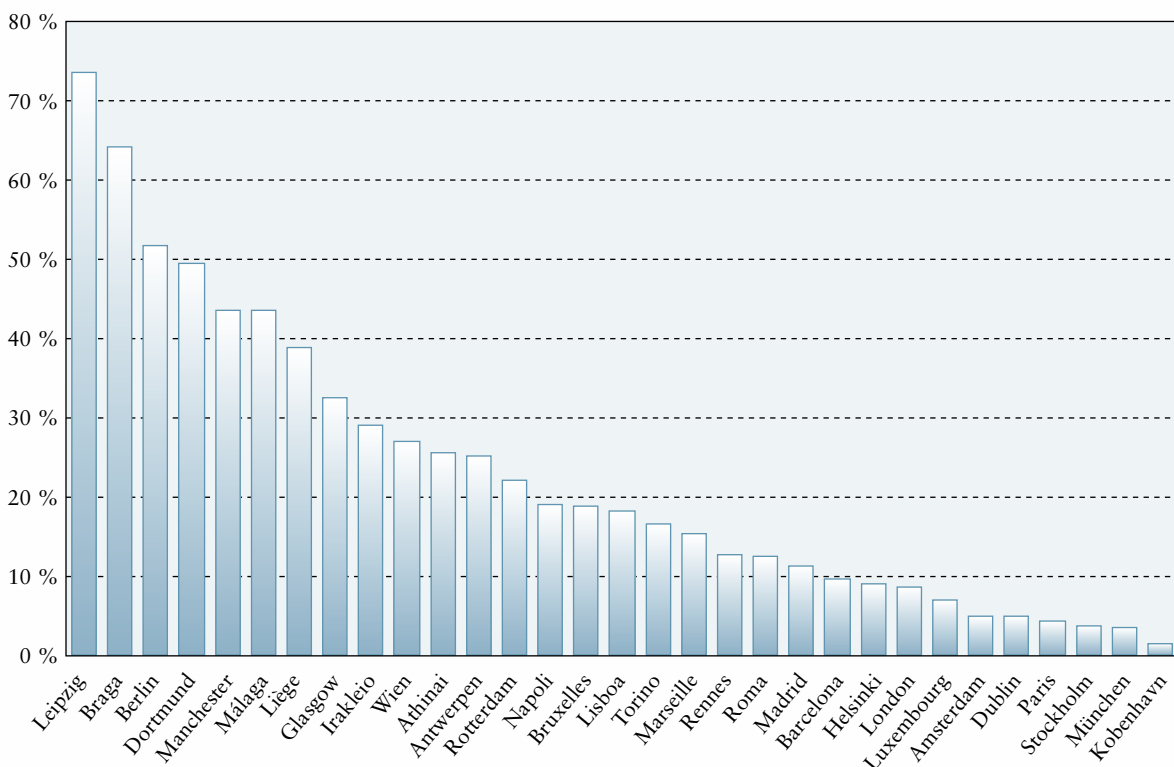
greater the agreement in the city in question. Values below 50 show that most respondents disagree.

This example shows the answer to the question about how easy it is to find accommodation in a given city at a reasonable price. Whilst this still seems to be possible in Leipzig (DE), Braga (PT) and Berlin (DE), virtually no respondents in Stockholm (SE), Munich (DE) or Copenhagen (DK) considered house-hunting to be easy.

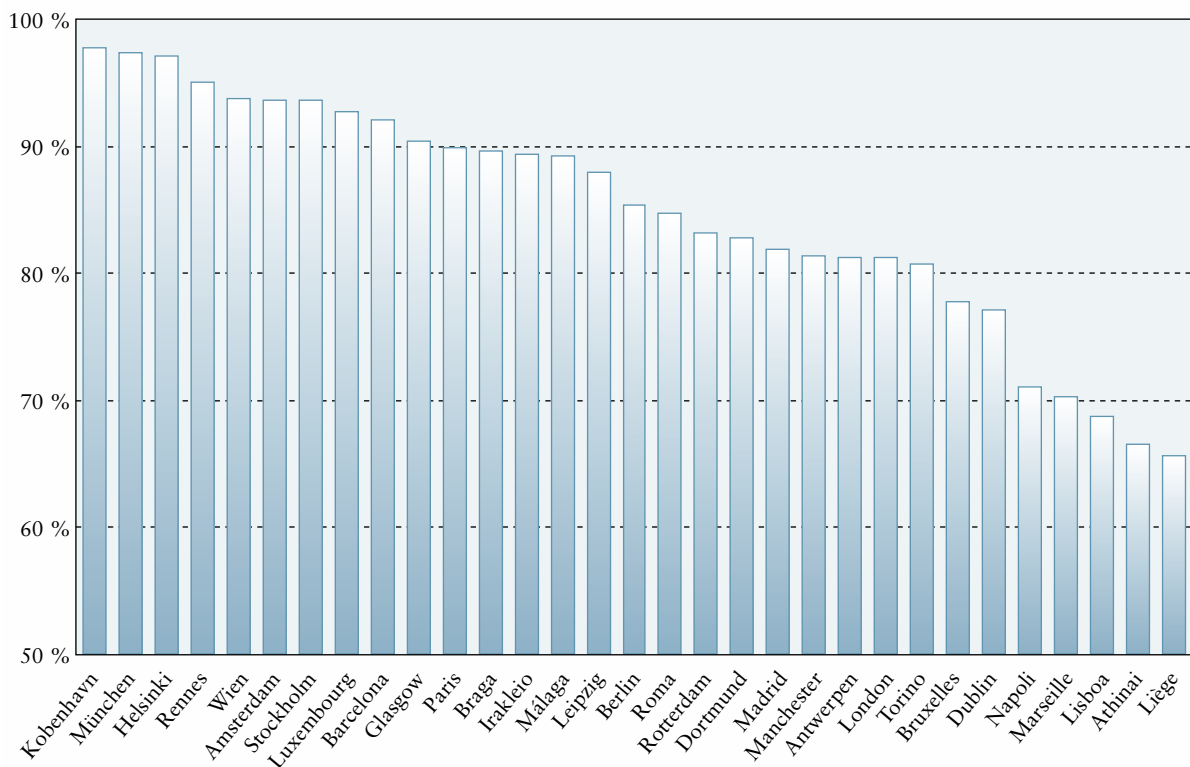
If we look finally at whether citizens feel safe in their cities, it is immediately noticeable that all the values are well over 50, indicating that more citizens feel safe than unsafe. Respondents in Copenhagen (DK), Munich (DE) and Helsinki (FI) feel the safest, those in Lisbon (PT), Athens (GR) and Liege (BE) the least safe. There is, however, much less of a spread here than in answer to the question on simply finding accommodation.

Once again readers are invited to download further survey results from NewCronos if they wish to conduct a more detailed analysis of these interesting results.

Graph 9.6 — It is easy to find good housing at a reasonable price



Graph 9.7 — I feel safe in this city



Dissemination of results

Several dissemination tools for the Urban Audit statistics have been defined:

The website: The indicators that are calculated from the Urban Audit database will be published on the Urban Audit website in autumn 2004. The site will enable a selection of data for specific indicators and cities. Tools will allow graphs and tables to be created interactively at all three spatial levels and be downloaded free of charge. Maps will be available for viewing.

NewCronos: Further access to the Urban Audit data (all 336 variables and relevant metadata delivered by the national statistical offices) has been available since the beginning of May 2004 through Eurostat's NewCronos database.

The paper publication: The analyses of the Urban Audit data will be published in the form of a paper publication. Each city will be described in a standard format of two pages with chapters on context information about the city itself and key results with diagrams (quintiles). The book covers

the EU-15 only. It will have in total about 400 pages and will be published in autumn 2004.

The methodological handbook: Yet another document, the 'Urban audit methodological handbook', provides both the information required by the data suppliers to achieve coherence and comparability of the Urban Audit data, on the one hand, and helps users understand the methods that have been applied in data compilation, and assess the relevance of the data for their own purposes, on the other. It is available in PDF at the Eurostat website and can be downloaded free of charge.

Next steps

It is planned to finalise the current Urban Audit data collection exercise in 2004. Some key tasks are, however, still under way.

Data quality: As the data came from 258 different cities, comparability of the data is very difficult to achieve. A thorough analysis of all data is therefore being conducted during the summer and autumn of 2004; should there be any doubt as to the

data quality, the data sources are contacted again to check and if necessary improve the data.

Time-line: In 2003 and 2004, data was collected for the reference year 2001. It was felt that this data set would be considerably enriched if historic data were also available — thus making it possible to calculate growth rates. A collection of 1991 and 1996 data from all cities has accordingly been organised, but only for a limited number of 80 variables, as this collection of historic data is quite a complicated and difficult task.

Perception survey: For contractual reasons, the perception survey in January 2004 could only be done for the old EU-15 Member States. It is planned to have a similar perception survey for the new Member States and the candidate countries in autumn 2004. Within the old Member States, an increase in the number of cities studied is also envisaged.



NUTS 1 STATISTICS

10



NUTS 1 – potential unrealised

In the 1970s, the growing interest in regional data gave rise to the NUTS nomenclature as an attempt to standardise regional statistics. Since its inception, the NUTS classification has comprised a three-level hierarchy — NUTS 1, NUTS 2 and NUTS 3. Of the three, by far the greatest attention has been paid over the past three decades to the NUTS 2 level. This may have been because in a number of countries the NUTS 2 level is a significant administrative unit. Quite definitely, the primacy of the NUTS 2 level was strengthened by its adoption, initially informally but increasingly explicitly in European legislation, as the level of regional discrimination for the purposes of the statistical determination of regions' eligibility for aid under the Structural Funds. Meanwhile, the NUTS 3 level has been enjoying a steady increase in popularity among those who seek a greater depth of regional analysis. Such key indicators as GDP and unemployment are now published across the EU at NUTS 3 level. In a sense, therefore, the NUTS 1 level is the 'forgotten' one of the hierarchy, little used thus far as a data-dissemination level, although in most REGIO database tables it is quite easy to derive the NUTS 1 figure. This paper seeks to focus on the nature of the NUTS 1 level, the potential it offers and the associated limitations.

NUTS 1 in the Member States

Up until the NUTS regulation came into force in July 2003, there was no legal basis to the NUTS classification, and hence no obligation for a Member State to propose a NUTS 1 breakdown. Nevertheless, by the time NUTS 99 ceded its place to NUTS 2003, there were NUTS 1 regions in place for no fewer than 11 of the 15 Member States and by early 2004 Sweden had also submitted a proposed NUTS 1 breakdown. The other EU-15 countries, Luxembourg, Denmark and Ireland are all clearly too small to subdivide and in each case the entire country is a single NUTS 1 region.

In fact, the change to NUTS 2003 affected the NUTS 1 structure very little. With the single ex-

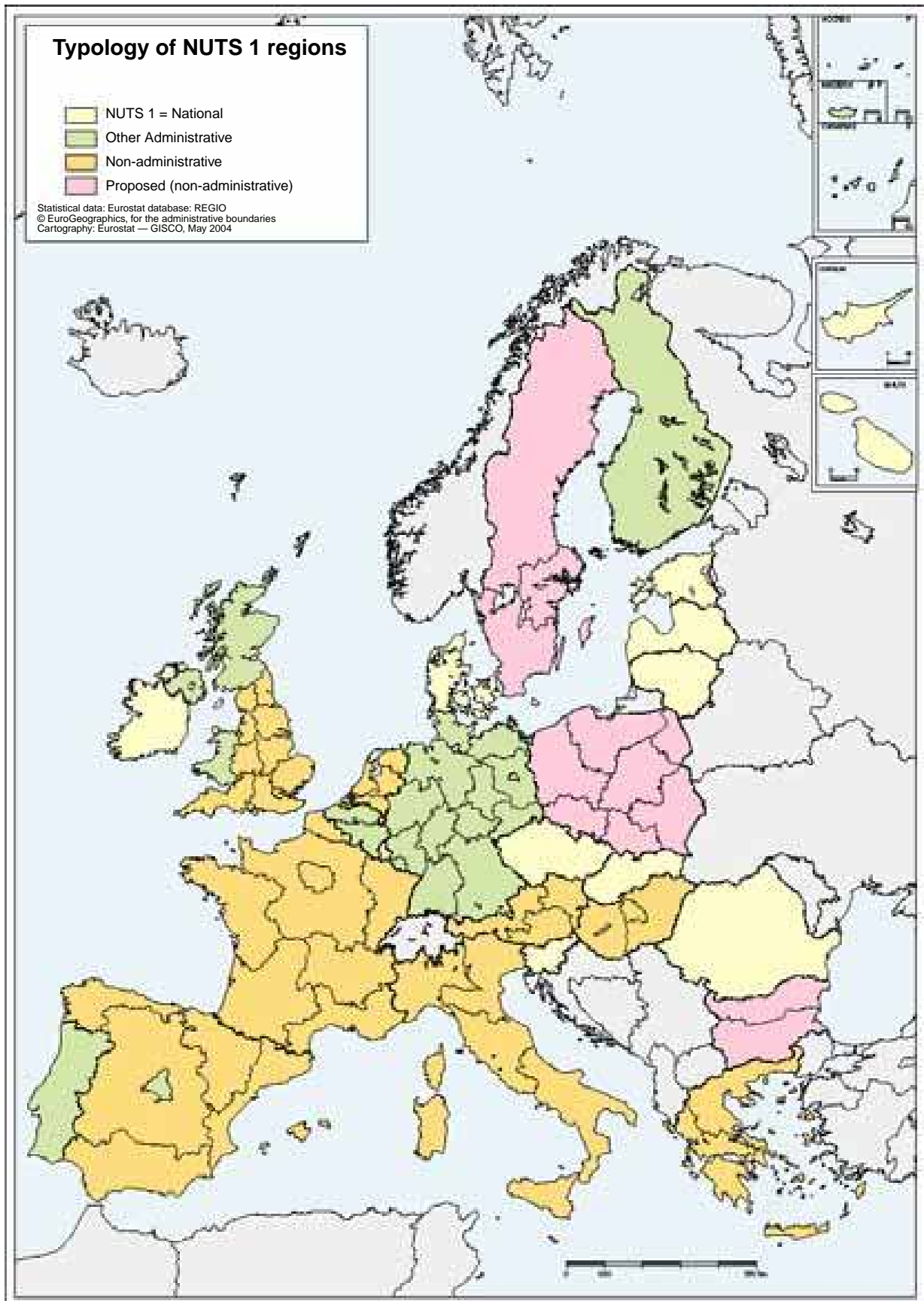
ception of Italy (where the number of NUTS 1 regions was halved from 11 to 5) it merely fixed the status quo. However, as with the other NUTS levels, it also set thresholds for each NUTS level. Under the regulation, NUTS 1 regions should have a population of between 3 and 7 million. Although future changes are required to move in the direction of these guidelines, not all NUTS 1 breakdowns now comply with them. The EU average does, at just over 5 million, but the average is lower in Greece (2.6 million), Austria (2.7 million) and Finland (2.6 million), and in the Swedish proposal (2.9 million). Luxembourg's population of under half a million is, of course tiny for a NUTS 1 region. Italy (some 10 million on average) exceeds the threshold.

With the accession in May 2004 of the 10 new Member States, the annex to the NUTS regulation is of course being amended to include the regional breakdowns of the acceding countries, as is shown in Map 10.1. No fewer than six countries (Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia) join the group of countries smaller than the lower threshold value of 3 million. Falling neatly into place as a single NUTS 1 region is Slovakia with its 5.4 million people. The Czech Republic exceeds the upper threshold but proposals have been put forward by Hungary and Poland for a NUTS 1 subdivision into three and six regions respectively, the former already having been accepted by Eurostat. Among the accession countries, Bulgaria has submitted a proposal for two regions and one is awaited from Romania which, with its 22 million people, is of course much too large to be a single NUTS 1 region.

Administrative NUTS 1 regions – historical and cultural entities

As is true of the NUTS hierarchy as a whole, the NUTS 1 breakdown across Europe is a mixture of administrative regions and non-administrative groupings of lower-level units (in this case, of course, the 'building blocks' used are NUTS 2 regions).

As can be seen in Map 10.1, several administrative NUTS 1 regions are associated with very considerable legislative, executive and even fiscal



Map 10.1

powers. This is the case for Germany's 16 *Länder* and for Wales and Scotland within an increasingly federal United Kingdom. Other NUTS 1 administrative breakdowns reflect similarly fundamental aspects of the way the nation State is structured. The atypically small Åland region (only 25 000 people compared to Nordrhein-Westfalen, at the other end of the NUTS 1 spectrum, with 18 million) has a constitutionally separate place within Finland as a Swedish-speaking autonomous region. Belgium's evolution over the past quarter century into a federal State is also reflected in its three regions of Wallonia, Flanders and Brussels. For their part, the former colonial empires of France, Spain and Portugal distinguish between their metropolitan regions and those overseas possessions still forming part of the national territory. For example, the départements d'outre mer, or DOM, together form one of France's nine NUTS 1 regions; Madeira and the Azores, as separate autonomous regions, each comprise one of Portugal's three such regions. Finally, in Spain, the Comunidad de Madrid is the only one of the *Comunidades Autonomas* (regional authorities with extensive powers and a regional parliament) to be simultaneously a NUTS 1 region. Map 10.1 also shows as 'administrative' regions that are de facto separate units by virtue of other parts of the national territory being declared administratively separate. Manner Suomi (mainland Finland) and mainland Portugal come into this category.

Non-administrative — primarily geographical divisions

The non-administrative NUTS 1 regions, by contrast, are a reflection of a perceived need for just such a statistical structure in between nation and NUTS 2. They therefore tend to reflect major physical or geographic zones. In Greece, for example, they split the country into Northern Greece, Central Greece, Attica and, a fourth group, Crete and the Aegean islands. There are similar geographic groupings in mainland France, Spain and Bulgaria, where the mountains running east-west split northern and southern Bulgaria. Breakdowns

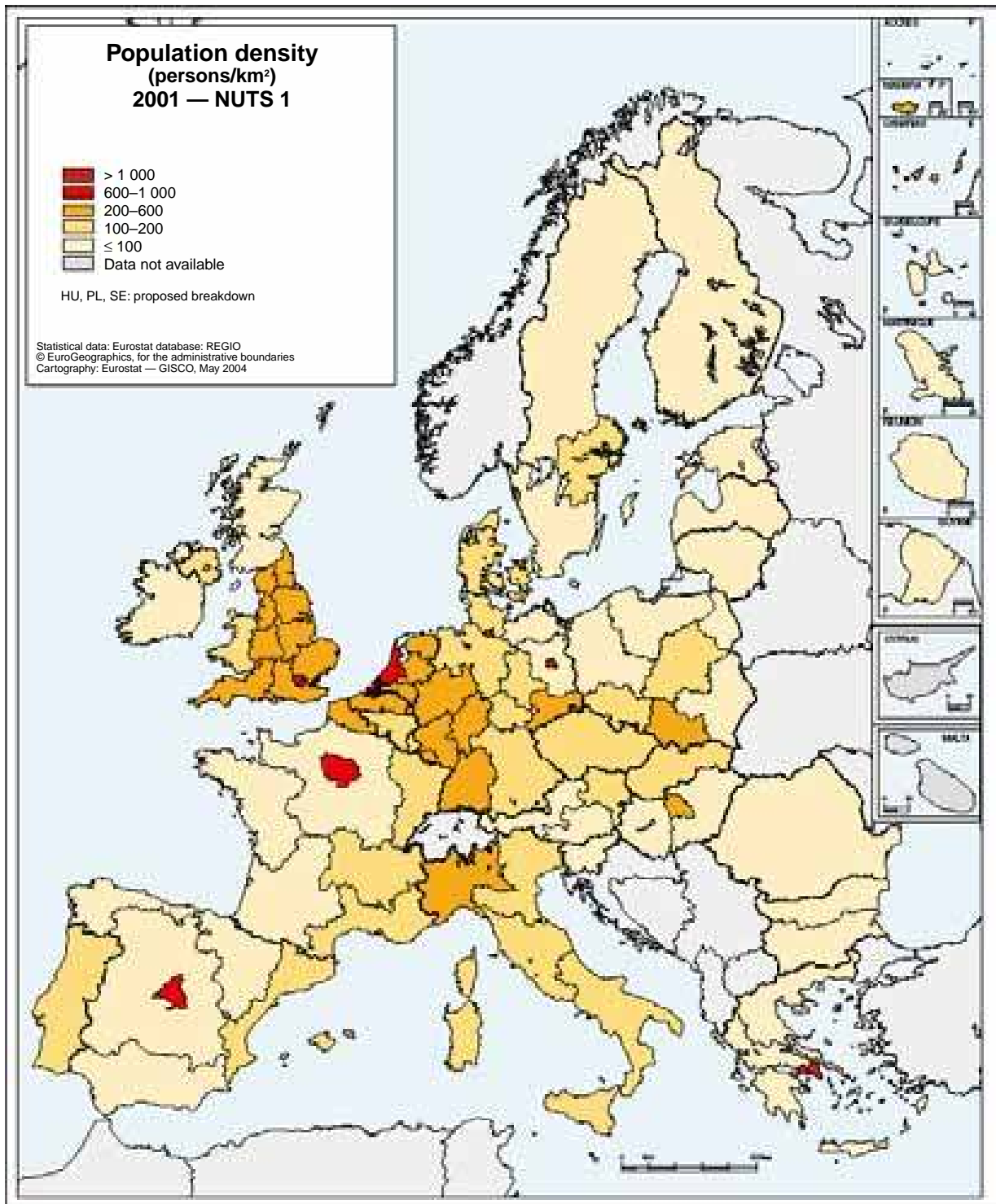
which better reflect economic and population patterns are evident in the Netherlands, England, Hungary and Sweden (see Map 10.2). It is in this spatial niche that we should look for the possible statistical applications of the NUTS 1 level.

What does the NUTS 1 level offer?

The immediately obvious application is to allow greater comparison between more similarly sized units than is possible with national statistics alone, given the differences in size between Member States. A coverage at NUTS 1 automatically groups together parts of the larger Member States and the entirety of the smaller ones. In this way, trends may be apparent that would be 'dampened out' by the national data.

In Map 10.2, for example, the variations in population density between the regions containing the capital and its much more rural hinterland are clearly visible in Spain, France and Greece, and to a lesser extent in Hungary and Sweden. Also apparent are areas of particularly low or high density within a country. Scotland in the UK and the Wallon region in Belgium are examples of the former; while the industrial heartlands of north-western Italy and Sachsen in the former East Germany illustrate the latter.

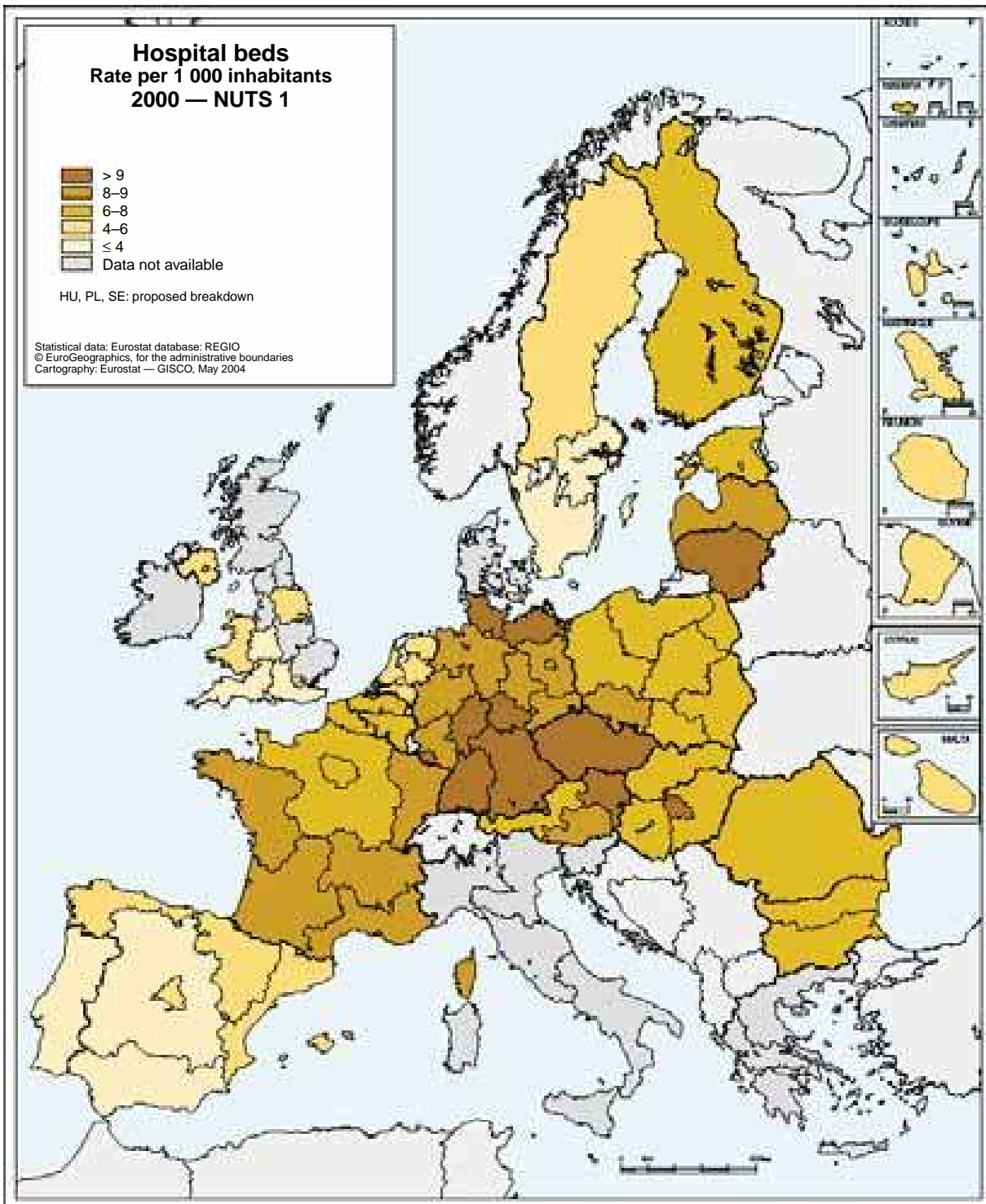
The opposite case applies to variables or indicators where the NUTS 2 level is actually too fine a level of regional discrimination. To some extent, this is apparent in Map 10.2. The elimination of the fluctuations in NUTS 2 population density makes it easier to observe the central European core zone of high population that curves from north-western Italy up through western Germany and on to the Netherlands, Flanders and England. Other transnational zones that appear clearly at this NUTS level include the Baltic ring of low population relieved only by the region containing Stockholm, the rural belt linking western France with central and northern Spain and the arc of low population in the predominantly mountainous terrain from Austria right round to Greece. Indeed, earlier issues of our regional yearbook used a similar approach to air traffic statistics. Given the size of the catchment area for a major airport, it made more sense to map passenger-traffic figures to NUTS 1 regions than to NUTS 2.



Map 10.2

Another size-related argument in favour of a NUTS 1 approach in specific fields is where confidentiality considerations might otherwise limit the availability of NUTS 2 data. Similarly, the higher the NUTS level, the less difficulty is encountered with non-NUTS reporting units in specific thematic fields. For example, in the UK the London area covers five health authorities but it is impossible to match these authorities to the two

NUTS 2 regions: the authorities are in a radial pattern from the centre of the city; the NUTS 2 zones are concentric circles. As can be seen from Map 10.3, the problem disappears at NUTS 1 level but regionally significant information is still obtained. Interestingly, the health infrastructure in terms of hospital beds is uniform in the Netherlands (where the NUTS 1 regions are non-administrative) but varies considerably across the Ger-



Map 10.3

man *Länder*, where health planning is greatly decentralised. Similarly, agricultural censuses still often do not use exclusively NUTS 2 districts (partly a reflection of the fact that the underlying philosophy is area-based, whereas the NUTS system is effectively population based). At NUTS 1 level, there is no mismatch.

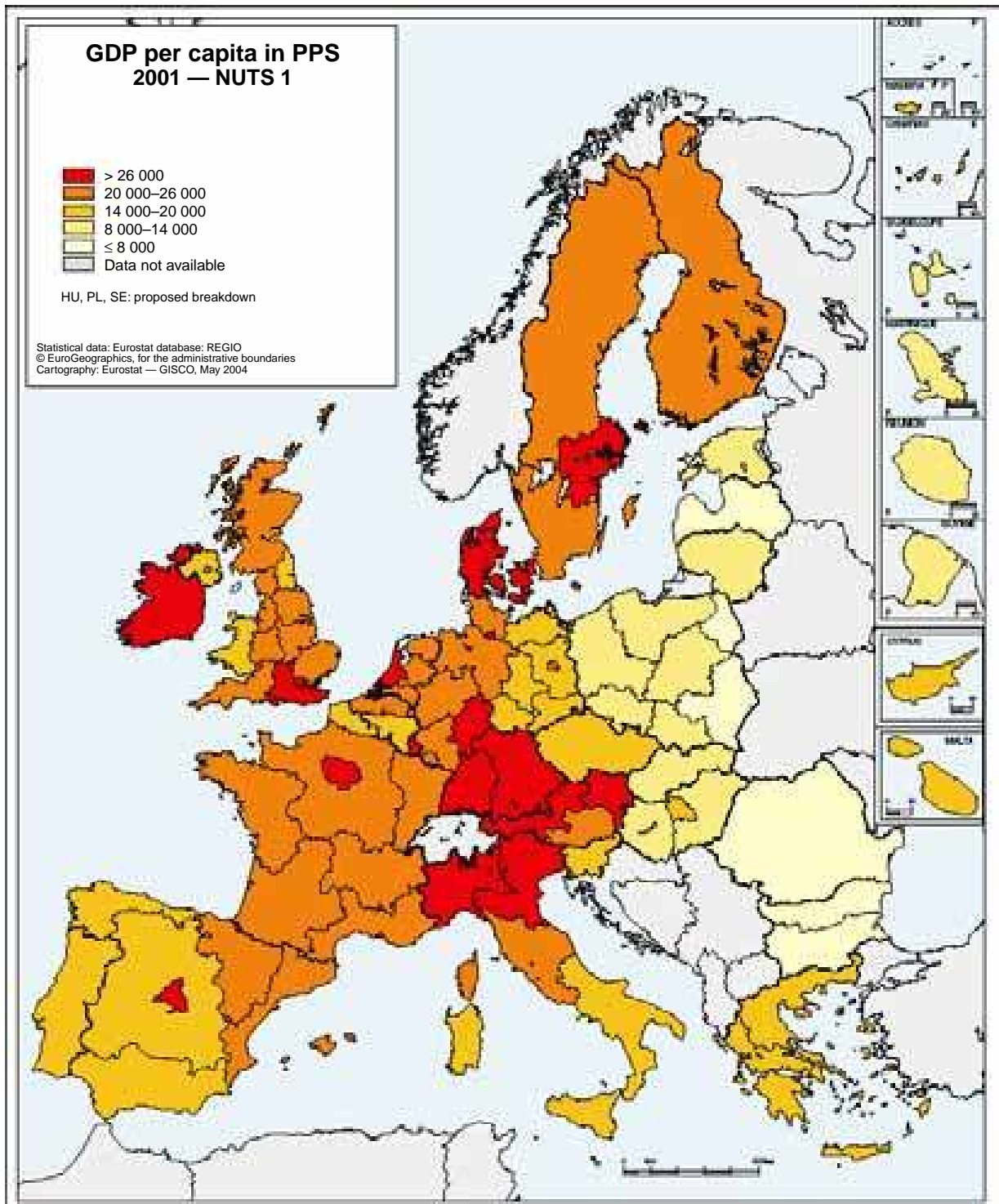
Contrasting NUTS 1 with NUTS 2

As noted above, the NUTS 1 level smoothes out some of the detail that is available at NUTS 2. It may be, however, that important detail is thereby lost. The choice rests with the user. The final map

of this section should therefore be viewed in conjunction with Map 3.1, where essentially the same information is available at NUTS 2 level.

Looking at Map 10.4, certain positive and negative features of the NUTS 1 approach emerge. At NUTS 1, not only is it clear that southern Belgium lags behind the north but also that this region is similar to the adjoining French region. The extensive higher GDP zone that runs from northern

Italy up into Austria and Germany is clearer at NUTS 1, as is the high GDP zone linking London with the south east of England. NUTS 2, by contrast, not only highlights differences across countries that are simultaneously NUTS 1 and Member State (see Ireland and the Czech Republic), but also better illustrates the impact of capital cities. Finally, it may correct a misleading impression gained from the NUTS 1 mapping. In Hungary, the NUTS 1 presentation would indicate that



Map 10.4

NUTS 1 STATISTICS



GDP is high in the region containing Budapest and low everywhere else. At NUTS 2, we see the pattern is more complex.

Constraints and expansion

Of course, any more widespread use of the NUTS 1 level faces the problem of the heterogeneity of

the units in terms of their size. This, however, is a problem familiar from NUTS 2 statistics (and indeed has the same historical roots). That disparity can be reduced if countries currently over the recommended threshold propose a more uniform breakdown. This is particularly acute in the case of large countries in population terms which have the entire country as a single NUTS 1 region.



EUROPEAN UNION: NUTS 2 regions

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

HU10	Közép-Magyarország	PL0F	Wielkopolskie	UKF1	Derbyshire and Nottinghamshire
HU21	Közép-Dunántúl	PL0G	Zachodniopomorskie	UKF2	Leicestershire, Rutland and Northamptonshire
HU22	Nyugat-Dunántúl	PT11	Norte	UKF3	Lincolnshire
HU23	Dél-Dunántúl	PT15	Algarve	UKG1	Herefordshire, Worcestershire and Warwickshire
HU31	Észak-Magyarország	PT16	Centro (PT)	UKG2	Shropshire and Staffordshire
HU32	Észak-Alföld	PT17	Lisboa	UKG3	West Midlands
HU33	Dél-Alföld	PT18	Alentejo	UKH1	East Anglia
MT00	Malta	PT20	Região Autónoma dos Açores	UKH2	Bedfordshire and Hertfordshire
NL11	Groningen	PT30	Região Autónoma da Madeira	UKH3	Essex
NL12	Friesland	SI00	Slovenija	UKI1	Inner London
NL13	Drenthe	SK01	Bratislavský kraj	UKI2	Outer London
NL21	Overijssel	SK02	Západné Slovensko	UKJ1	Berkshire, Buckinghamshire and Oxfordshire
NL22	Gelderland	SK03	Stredné Slovensko	UKJ2	Surrey, East and West Sussex
NL23	Flevoland	SK04	Východné Slovensko	UKJ3	Hampshire and Isle of Wight
NL31	Utrecht	FI13	Itä-Suomi	UKJ4	Kent
NL32	Noord-Holland	FI18	Etelä-Suomi	UKK1	Gloucestershire, Wiltshire and North Somerset
NL33	Zuid-Holland	FI19	Länsi-Suomi	UKK2	Dorset and Somerset
NL34	Zeeland	FI1A	Pohjois-Suomi	UKK3	Cornwall and Isles of Scilly
NL41	Noord-Brabant	FI20	Åland	UKK4	Devon
NL42	Limburg (NL)	SE01	Stockholm	UKL1	West Wales and the Valleys
AT11	Burgenland	SE02	Östra Mellansverige	UKL2	East Wales
AT12	Niederösterreich	SE04	Sydsverige	UKM1	North Eastern Scotland
AT13	Wien	SE06	Norra Mellansverige	UKM2	Eastern Scotland
AT21	Kärnten	SE07	Mellersta Norrland	UKM3	South Western Scotland
AT22	Steiermark	SE08	Övre Norrland	UKM4	Highlands and Islands
AT31	Oberösterreich	SE09	Småland med öarna	UKN0	Northern Ireland
AT32	Salzburg	SE0A	Västsverige		
AT33	Tirol	UKC1	Tees Valley and Durham		
AT34	Vorarlberg	UKC2	Northumberland and Tyne and Wear		
PL01	Dolnośląskie	UKD1	Cumbria		
PL02	Kujawsko-Pomorskie	UKD2	Cheshire		
PL03	Lubelskie	UKD3	Greater Manchester		
PL04	Lubuskie	UKD4	Lancashire		
PL05	Łódzkie	UKD5	Merseyside		
PL06	Małopolskie	UKE1	East Riding and North Lincolnshire		
PL07	Mazowieckie	UKE2	North Yorkshire		
PL08	Opolskie	UKE3	South Yorkshire		
PL09	Podkarpackie	UKE4	West Yorkshire		
PL0A	Podlaskie				
PL0B	Pomorskie				
PL0C	Śląskie				
PL0D	Świętokrzyskie				
PL0E	Warmińsko-Mazurskie				

ACCESSION COUNTRIES: NUTS 2 regions

BG01 Severozapaden
BG02 Severen tsentralen
BG03 Severoiztochen
BG04 Yugozapaden
BG05 Yuzhen tsentralen
BG06 Yugoiztochen
RO01 Nord-Est
RO02 Sud-Est
RO03 Sud
RO04 Sud-Vest
RO05 Vest
RO06 Nord-Vest
RO07 Centru
RO08 București