ISBN 92-894-1040-X
Cat. No. KS-AF-01-001-EN-N

2001 EDITION

Regions: Statistical yearbook 2001

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EUROPEAN COMMISSION

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THEME 1
General
Statistics

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

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

Luxembourg: Office for Official Publications of the European Communities, 2001

ISBN 92-894-1040-X

Printed in France

PRINTED ON WHITE CHLORINE-FREE PAPER

Commissioner's foreword

to the regional yearbook 2001

Regional diversity is an important asset of the European Union. At the same time, the policy challenges it poses have resulted in an ever greater focus on regional aspects. This undeniable increase in the importance attached to the regional dimension of the European Union can be traced to a number of factors.

On the one hand, the Commission's Treaty obligations to assist those parts of the Union facing particular difficulties have necessarily involved a regional approach. Regional aid under the Structural Funds has played a major part in attempts to revive or safeguard healthy economies in EU regions facing difficulties because of geographical constraints, inadequate infrastructure or declining traditional industries.

At the same time, the dismantling of the Union's internal frontiers as barriers to movement has meant that links, and many forms of cooperation, between neighbouring regions across these borders are an increasing daily reality.

Reliable, comparable and recent data on key indicators are necessary for the shaping, implementation, monitoring and evaluation of policies — at Community, national, regional and even local level — to improve the living conditions of citizens across the Union.

Eurostat's regional yearbook has provided such data for many years. In the 2001 edition, the inclusion of data on the candidate countries of central and eastern Europe allows the reader to compare regional realities in today's and tomorrow's European Union. I am confident that this information will prove invaluable to a wide range of users in the European institutions, in national and regional administrations and in the private sector.

Pedro Solbes Mira
European Commissioner for Economic
and Monetary Affairs, responsible for Eurostat

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INTRODUCTION

Further improvements

Eurostat's *Regions: Statistical yearbook* has always contained a selection of comparable statistics chosen to best represent the social and economic situation in the regions of the European Union. As part of a continuing strategy of enhancing the usefulness, attractiveness and flexibility of the publication, however, the 1999 edition for the first time provided tables in machine-readable form on an accompanying CD-ROM. In its turn, the 2000 edition was completely remodelled to make information even more readily available to the user. For each of the fields covered by the REGIO database, a series of detailed colour maps and graphs were used to identify key interrelationships and comment on their impact on individual regions.

Now the 2001 edition of the *Regions: Statistical yearbook* takes a further step designed to reflect the extensive additions made to the REGIO database in the light of upcoming enlargements of the European Union. For the first time, coverage of a number of these indicators is extended to include the following 10 candidate countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

The regions of the European Union

The nomenclature of territorial units for statistics (NUTS) was established by Eurostat to provide a uniform and consistent breakdown of territorial units for the production of regional statistics for the European Union. Until now, the NUTS classification has had no legal base. The NUTS nomenclature is defined only for the 15 Member States of the European Union.

NUTS subdivides each Member State into a whole number of NUTS 1 regions, each of which is in turn subdivided into a whole number of NUTS 2 regions, and so on. It is thus a hierarchical classification. The present version of NUTS (NUTS 99) subdivides the economic territory of the European Union into 78 regions at NUTS 1 level, 211 regions at NUTS 2 level and 1 093 regions at NUTS 3 level.

Because of their relatively small area or population, some countries do not have all three regional levels. Ireland and Sweden have no level 1 regions; accordingly, the country level and level 1 are identical. Denmark has neither level 1 nor level 2 regions; thus the country level, level 1 and level 2 are identical. Luxembourg, not having regions at levels 1, 2 or 3, is defined at all levels of NUTS as the whole country.

In the maps in this yearbook, the statistics are presented at NUTS 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 European Union. For further information on the NUTS classification, the reader is referred to the booklet *Regions — Nomenclature of territorial units for statistics — NUTS*, ISBN 92-828-7275-0.

The regions of the candidate countries

To meet the ever-increasing demand for statistical information at a regional level for the candidate countries (CC), Eurostat and the national statistical institutes of these countries have agreed that the regional levels set out below are to be used by the European Commission for statistical purposes whenever possible. These regions have been defined according to principles similar to those used in the establishment of the Community nomenclature of territorial units for statistics (NUTS). However, the classifications presented do not preclude any decision on NUTS which will be taken as and when individual countries join the EU. Given that there is as yet no agreement on the regional structure to be defined for Turkey, Malta or Cyprus, data coverage for candidate countries in this yearbook, and indeed in the REGIO database, is restricted to the 10 countries listed in the following table.

Regions in the candidate countries of central and eastern Europe

Country	Level 1	Level 2	Level 3
Bulgaria	Bulgaria	Rajon za planirane (planning regions) (6)	Oblasti (28)
Czech Republic	Ceska Republika	Groups of Kraje (8)	Kraje (14)
Estonia	Eesti	Eesti	Groups of Maakond (5)
Hungary	Magyarorszag	Tervezesi-statisztikai	Megyek and Budapest (20)
Latvia	Latvija	Regio (7)	Apskritis (10)
Lithuania	Lietuva	Lietuva	Regions (5)
Poland	Polska	Wojewodztwa (16)	Podregiony (44)
Romania	Romania	Regions (8)	Judet and Bucuresti (42)
Slovenia	Slovenija	Slovenija	Statisticne Regije (12)
Slovakia	Slovenska Republika	Zoskupenia Krajov (4)	Kraje (8)

For further information

The data presented on the CD-ROM represent the most significant regional indicators at NUTS levels 1 and 2 (or the equivalent statistical region level in the case of the candidate countries) for the latest available year. These are, however, only part of the data obtainable in REGIO, Eurostat's database for regional statistics. Additional methodological notes concerning the data can be found on the CD-ROM, as can the data tables used as the basis for the maps in this publication. This option has been included this year to make it easier for users to work with the data as presented on the maps (since these are often figures derived from one or more of the indicators in REGIO rather than the values for the indicators themselves as they are stored in REGIO).

More extensive time series (which may go back as far as 1970), more detailed statistics than those given in this yearbook (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 the structure of agricultural holdings, etc.) are all available in REGIO.

Moreover, there is coverage in REGIO of a number of indicators at NUTS level 3 (such as area, population, births and deaths, gross domestic product, unemployment rates). This is important because two EU Member States (Denmark and Luxembourg) and four candidate countries (the three Baltic States and Slovenia) do not have a level 2 breakdown. All REGIO data may be obtained by contacting your nearest Datashop.

For more detailed information on the contents of the REGIO database, please consult the Eurostat publication *REGIO database — Reference guide*, 2001 edition, ISBN 92-894-1002-7.

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AGRICULTURAL STATISTICS

1

Introduction

Agricultural statistics are one of the cornerstones of European regional statistics. Eurostat has been collecting, processing and publishing data on agriculture in a regional breakdown for more than 20 years.

The maps, graphs and commentary in this yearbook give an impression of the wealth of data available in the REGIO databank and the ways in which they can be analysed. The maps provide a simplified picture of European agriculture. They reflect regional differences only and do not claim to take account of specific cases. They refer to regional averages and are not intended as a substitute for detailed analysis.

Wherever possible, cartographic representation is at NUTS 2 level, which offers sufficient detail for analytical purposes and generally good data availability. For regional agricultural statistics specifically, however, the NUTS 1 level had to be used for several Member States, since these countries have not supplied Eurostat with data at NUTS 2 level.

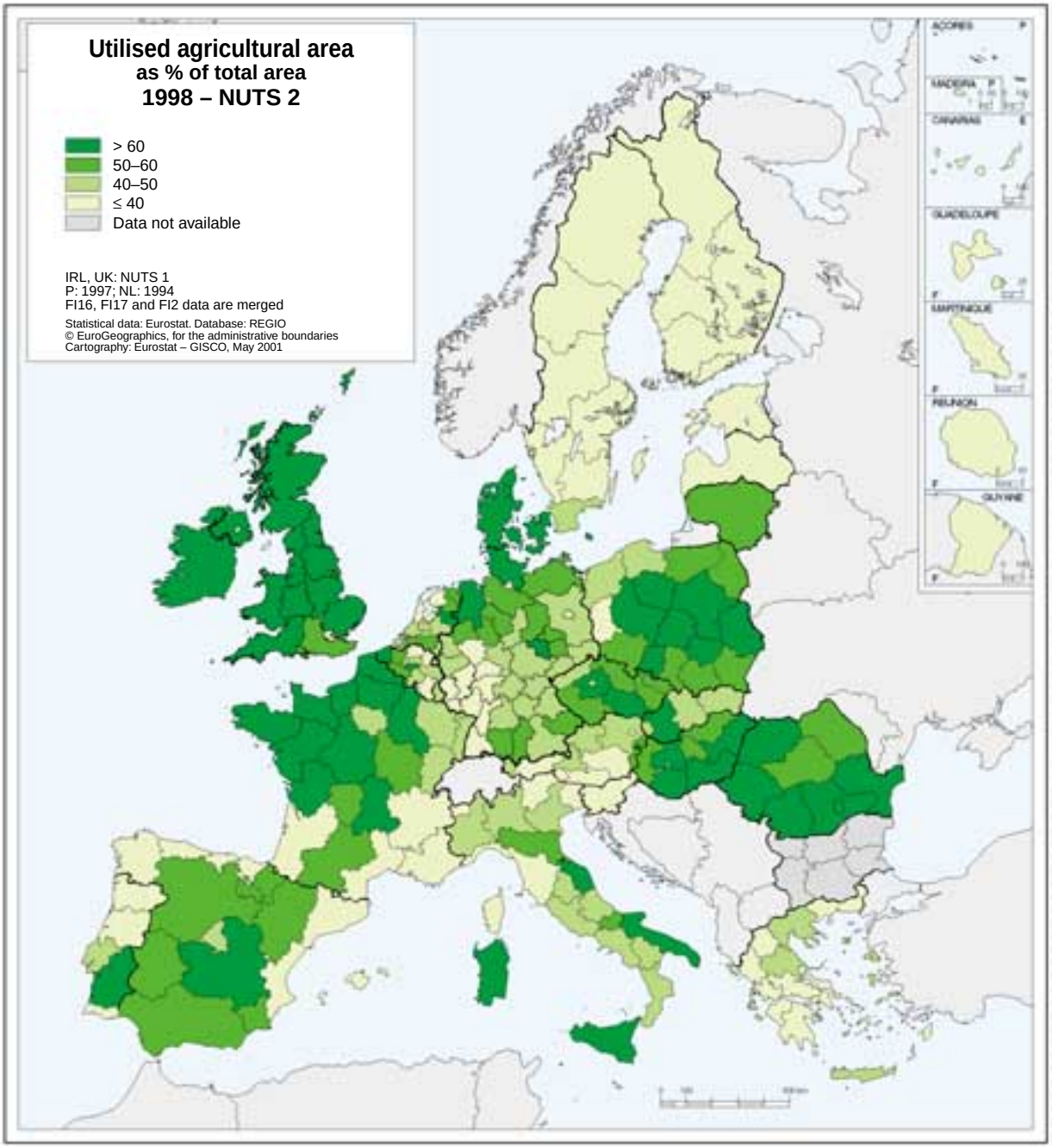
Care was taken to use data from the latest year available. To keep gaps to a minimum, however, we have nevertheless inserted older data where necessary, assuming that no structural changes capable of altering the analysis would be likely to occur in the space of a year or two.

Regional diversity in agriculture

Maps 1.1 (Impact of agriculture) and 1.2 (Types of agricultural land use) show the importance and type of farming practised.

Firstly, the natural environment (woodland, mountains, moorland, marshland, inland waters, rocks and other undeveloped land) restricts the impact of agriculture. Farming is limited or even impossible in such areas, given the poor agronomic potential of the land, its inaccessibility or climatic constraints. The far north of Europe (Sweden, Finland, Estonia and Latvia) together with part of the alpine chain are obvious examples at NUTS level 2. Areas which are generally too mountainous to be farmed include Dytiki Makedonia, Ipeiros and Anatoliki Makedonia, Thraki in Greece, Friuli-Venezia Giulia in Italy and Galicia in Spain.

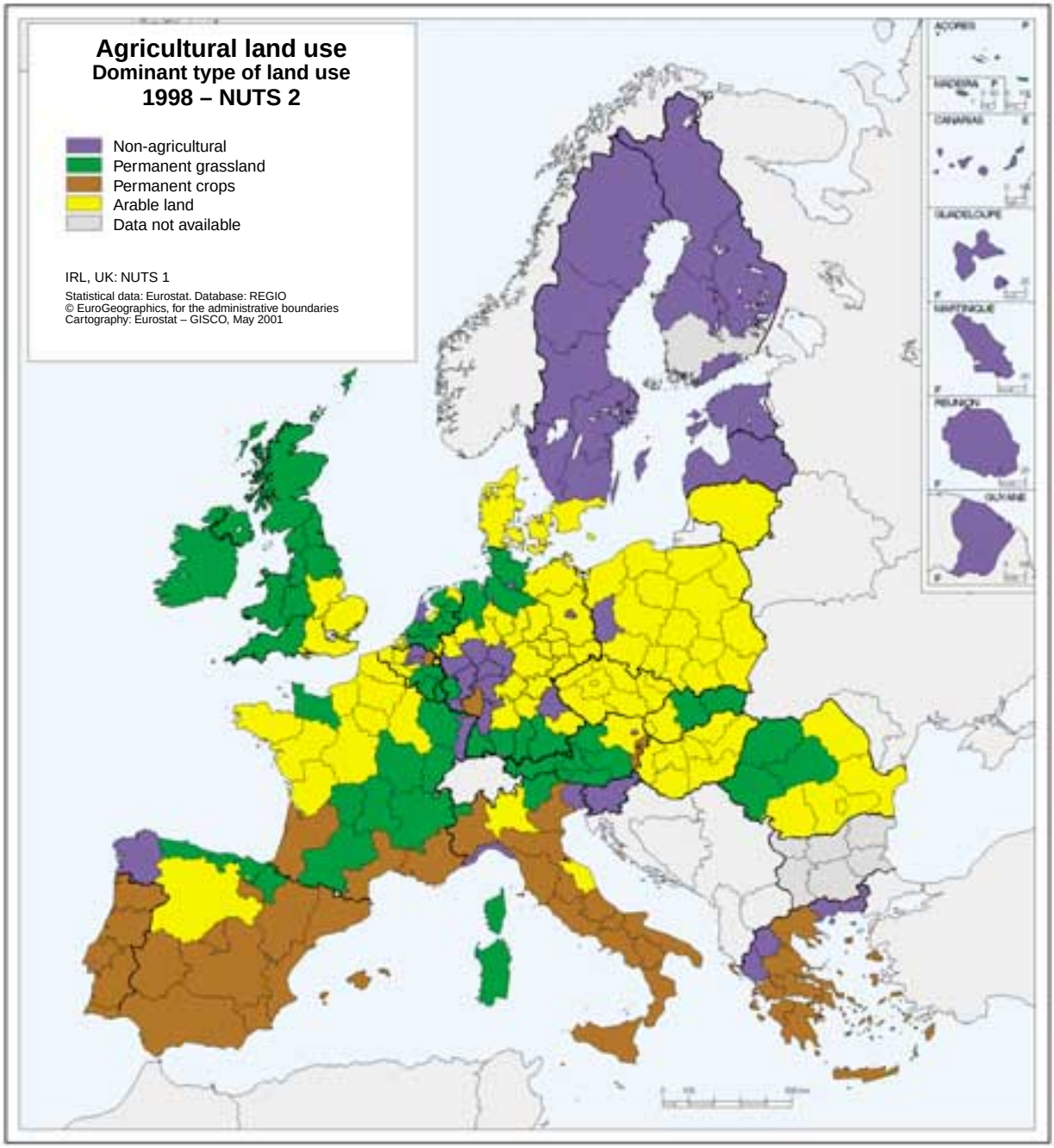
Map 1.1 — Utilised agricultural area



Secondly, agriculture competes with other land uses (urban areas, industrial or transport infrastructures, tourist amenities, etc.). This is the case in central Germany or in urban micro-regions such as Berlin, Hamburg, Prague and Vienna.

As regards utilised agricultural area (UAA), grassland (shown in green) is found mainly in mountainous areas and in the British Isles, and in certain other regions where arable land is rare. Where climatic conditions are favourable, the permanent crops of fruit trees and vines (shown in brown) dominate the landscape. In the extended Mediterranean area, permanent crops are more profitable overall and more tolerant of natural conditions (dry summers, shallow soils and slopes) than most other arable crops (except maize and durum wheat). Domination by permanent crops may also be the result of a low level of agricultural land use, such as in the regions of Stuttgart in Germany and Limburg in Belgium.

Map 1.2 — Agricultural Land Use



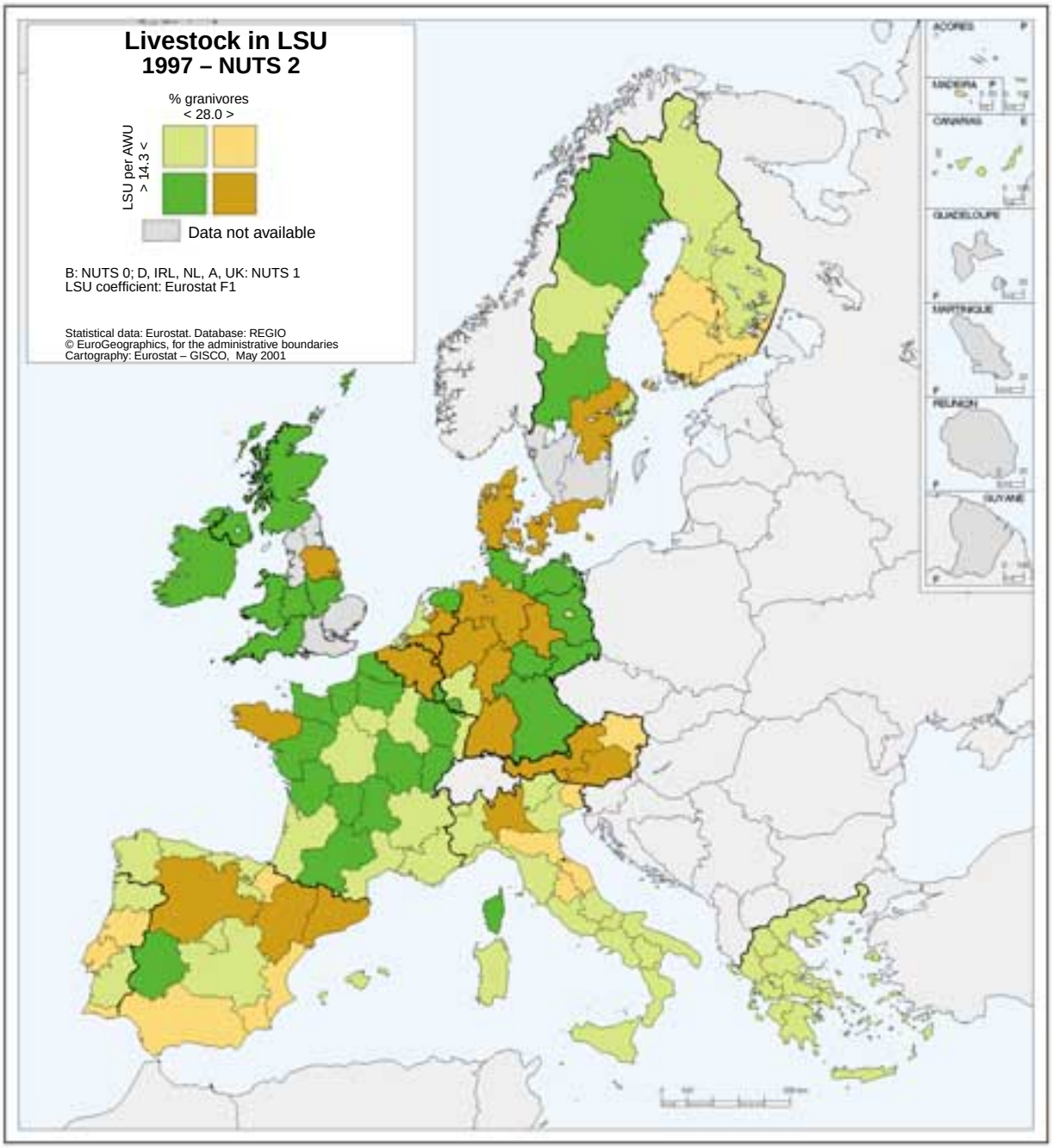
By contrast, the richer soils and open spaces of the northern European and Danubian plains, and the Parisian and Castile-Leon basins allow major crops to be cultivated (arable crops in open country). The regions concerned appear in yellow.

Map 1.3 (Density and type of livestock) shows the breakdown of stock farming in the European Union. The bold colours represent areas in which each unit of labour is responsible for more than 14.3 LU (livestock units, used to compare different species), the average for the European Union. They can therefore be classed as stock farming areas. Shown in brown are regions in which the proportion of granivores (pigs and poultry) is higher than the European average (28.0 % of livestock in LU). Herbivores (cattle, sheep, goats, etc.) dominate in the areas coloured green. The presence of granivores is linked to arable land, given that their

feedingstuffs are cereal-based, whereas that of herbivores is linked to grassland. Where grassland makes up only a small proportion of the utilised agricultural area, naturally grown grass may suffice for small ruminants (sheep and goats), as in the areas surrounding the Mediterranean.

With dairy farming, a balance needs to be struck between permanent grassland and fodder areas of arable land (maize and temporary grassland). Finally, in some areas (Brittany in France, Oost- and Zuid-Nederland), the small utilised agricultural area is compensated for by purchasing feedingstuffs, mainly for granivores.

Map 1.3 — Livestock in LSU

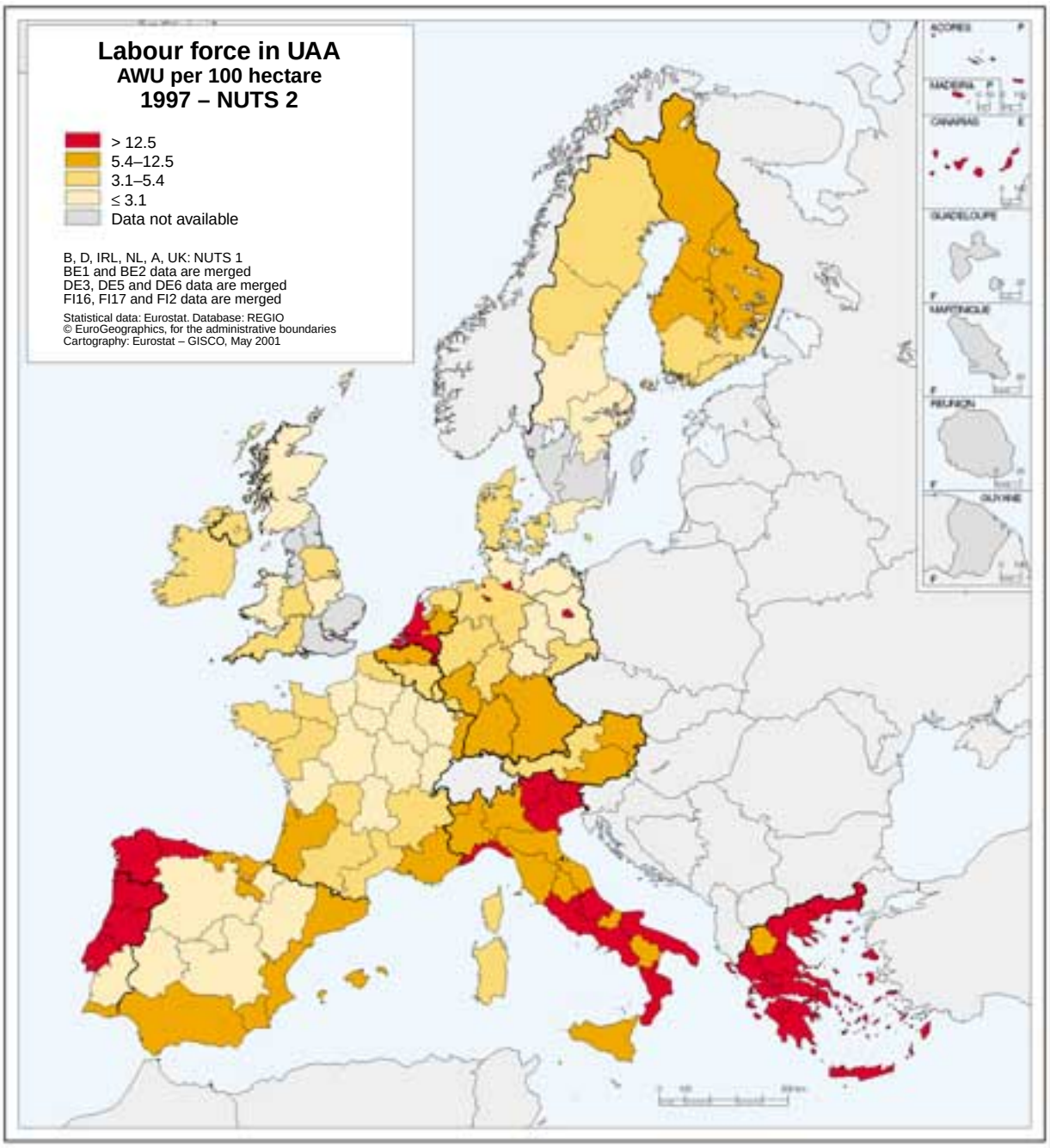


The agricultural workforce

Map 1.4 shows the intensity of agricultural activity, measured in terms of the amount of labour in the utilisable agricultural area (UAA). Within the European Union, 100 ha of UAA require on average 5.4 full-time workers, or their equivalent (5.4 annual agricultural work units or AWU).

The type of work and its intensity account for the regional variations observed. Permanent crops, for instance, demand more labour than arable crops, whose production is highly mechanised. Stock farming is generally labour intensive, although the only production areas it takes up are those that the animals need to feed on. Intensive practices increase the output, and often the need for labour, for a given production area. Market gardening and intensive stock farming use very little UAA relative to labour. The bright red areas on the map consequently reflect the strong presence in southern Europe of permanent crops and market gardening, as well as of areas of intensive farming (peripheral urban areas such as Hamburg, Bremen and Berlin in Germany and areas of

Map 1.4 — Labour force in UAA

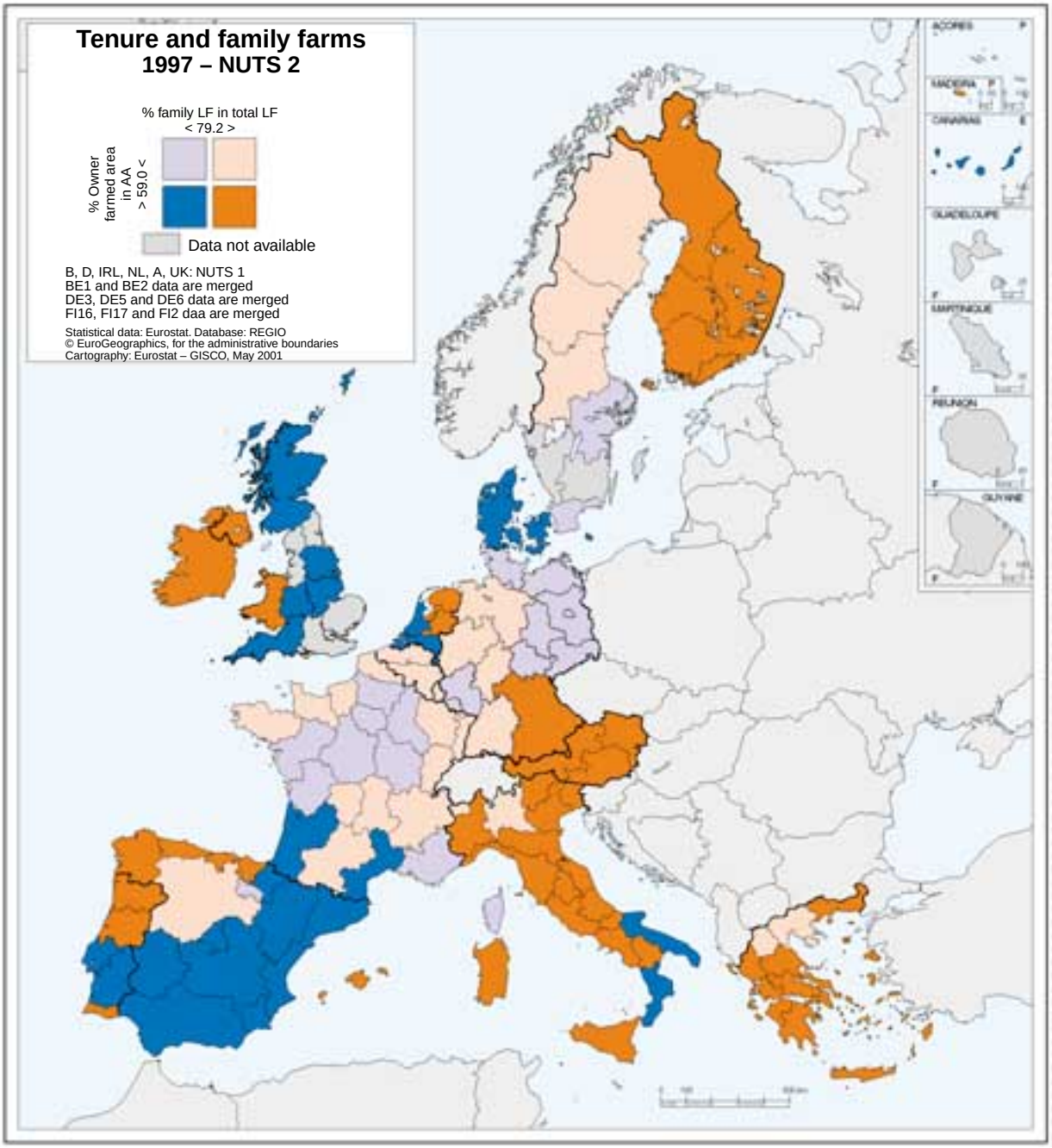


high-density population such as West- and Zuid Nederland in the Netherlands. The lighter areas show basins characterised by major crops or extensive stock farming. The colours in between correspond to mixed regions, which either combine these different types of farming (heterogeneous regions), or take up an intermediate position in terms of their ratio of labour to UAA (dairy farming).

Agriculture as a business

Agriculture in the European Union is based on family-run farms. However, so-called professional farming is becoming more common, using land owned by third parties (tenant farming) and managing labour as a factor of production (farm employees).

Map 1.5 — Tenure and family farms

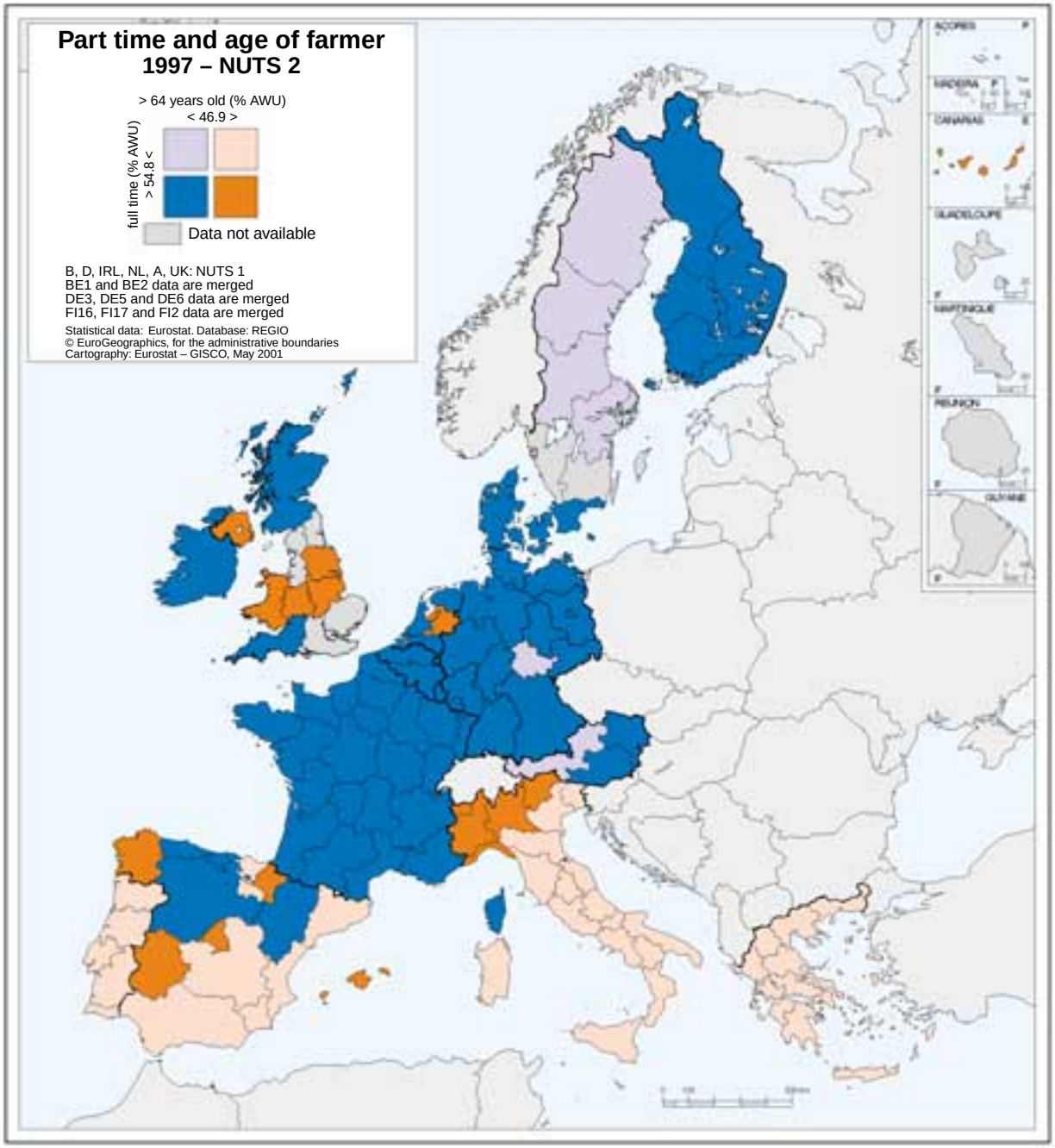


Map 1.5 shows a breakdown of the dominant factors in the tenure of UAA and of the proportion of family members working on farms.

The red colours represent regions where the proportion of time spent working on the farm by its owner and his or her family is higher than the European average (79.2 % AWU). The proportion of farm work carried out by non-family members (wage earners), shown in blue, is over 20.8 %. The proportion of owner-farmed agricultural area completes this simplified table showing a Europe characterised by 'professional' farming, on the one hand, and by owner-occupied and family-run farms, on the other.

Farm holdings of the first type are highly mechanised and efficient, produce major crops and use substantial inputs. The regions where such holdings are found are shown in light blue. Small permanent crop farms require greater security of tenure to ensure that their plantations will last. The same applies to farm holdings with substantial investment in buildings (intensive stock farming and greenhouses). In regions where agriculture is less profitable (upland areas such as Austria or Bavaria or less favoured areas such as

Map 1.6 — Part time and age of farmer



Wales or Northern Ireland in the United Kingdom), land does not attract sufficient investment, requiring farm holdings to be owner-occupied. The regions where such farms are found are coloured bright red.

In certain zones, there is a concentration of ownership, particularly where inheritance or property management practices have allowed agricultural land to be amassed over generations. Such regions, which appear in dark blue, may be found in Italy, Spain or the United Kingdom.

Finally, capital not invested in land may be transferred to livestock. Regions of family-run stock farms appear in pink. In Map 1.6, the growth of farming as a profession is also linked to the age of the farmer (proportion of farmers 65 years of age or above) and his or her time spent working on the farm (proportion of full-time farmers). In southern Europe, the percentage of farmers 65 years of age or above is higher than the European average (46.9 %). The regions concerned are shown in various shades of red. This phenomenon is explained by (i) the difficulties faced by young people in taking over very small farms; (ii) family farms continuing to be run by the oldest person; and (iii) the need to continue farming to provide an extra source of income.

This kind of complementary activity is reflected in farmers' working hours, contrasted in two types of regions which are shown in pink (older farmers working part-time) and dark blue (young farmers working full-time) respectively.

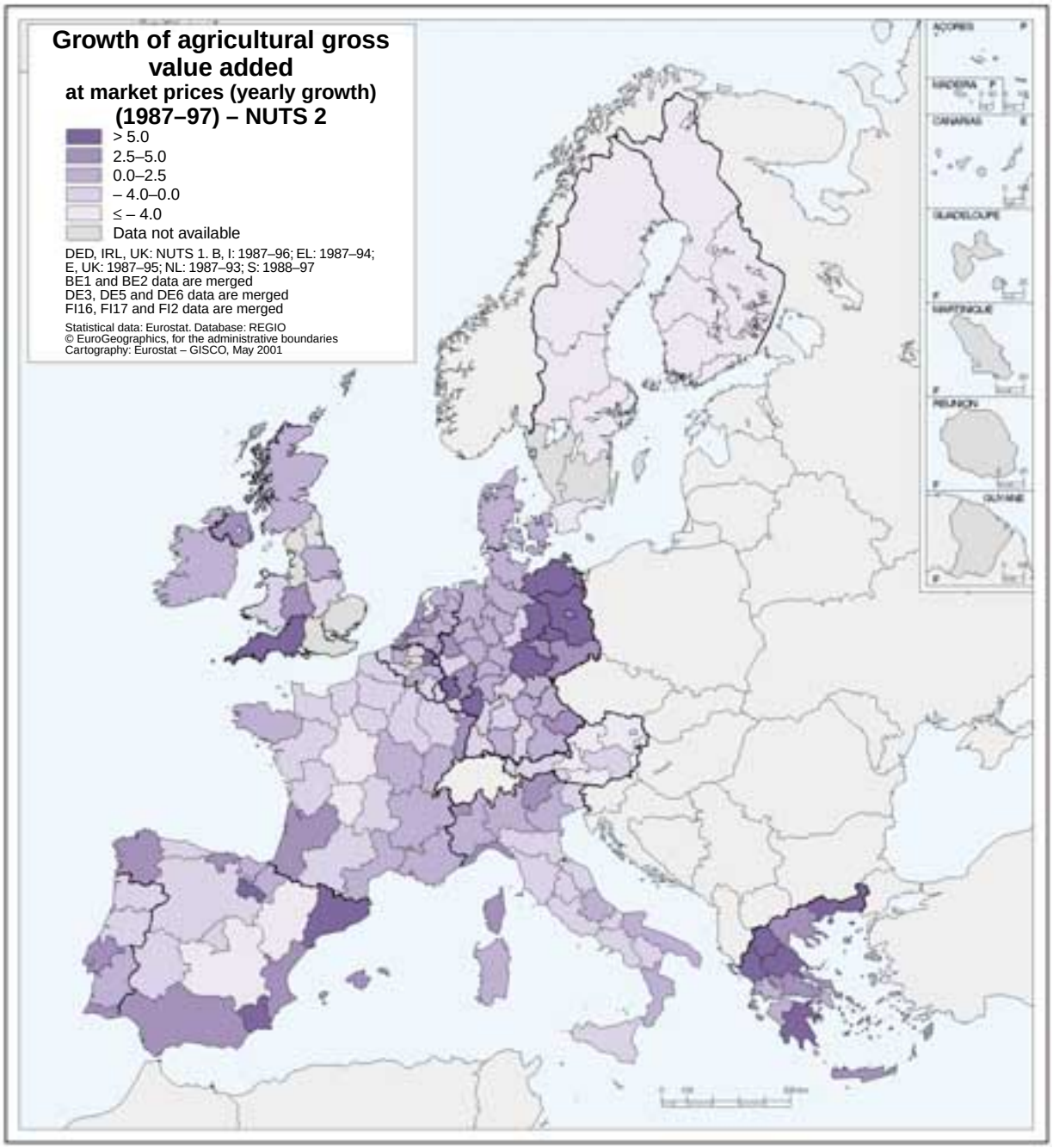
However, in some regions, part-time work undertaken by younger farmers (shown in light blue) reflects the marginal nature of agriculture as structurally an additional source of income (Sweden and the part of Austria along the Danube).

Elsewhere, the full-time work of older farmers (in red) may mean that their role is reduced to managing the farm or continuing farm work without any additional income.

Map 1.7 (annual change in gross value added (GVA) at market prices, according to the previously used methodology) analyses economic trends in agriculture between 1987 and 1997. These statistics are not designed for use at regional level, given the impact of factors at national level. Nevertheless, the variation between regions does supply us with useful information.

Gross value added rose considerably (the dark blue regions) in the former German Democratic Republic, from a weak base level and in a favourable monetary context at national level. In Greece, the monetary effect amplified an increase due to

Map 1.7 — Growth of agricultural gross value added

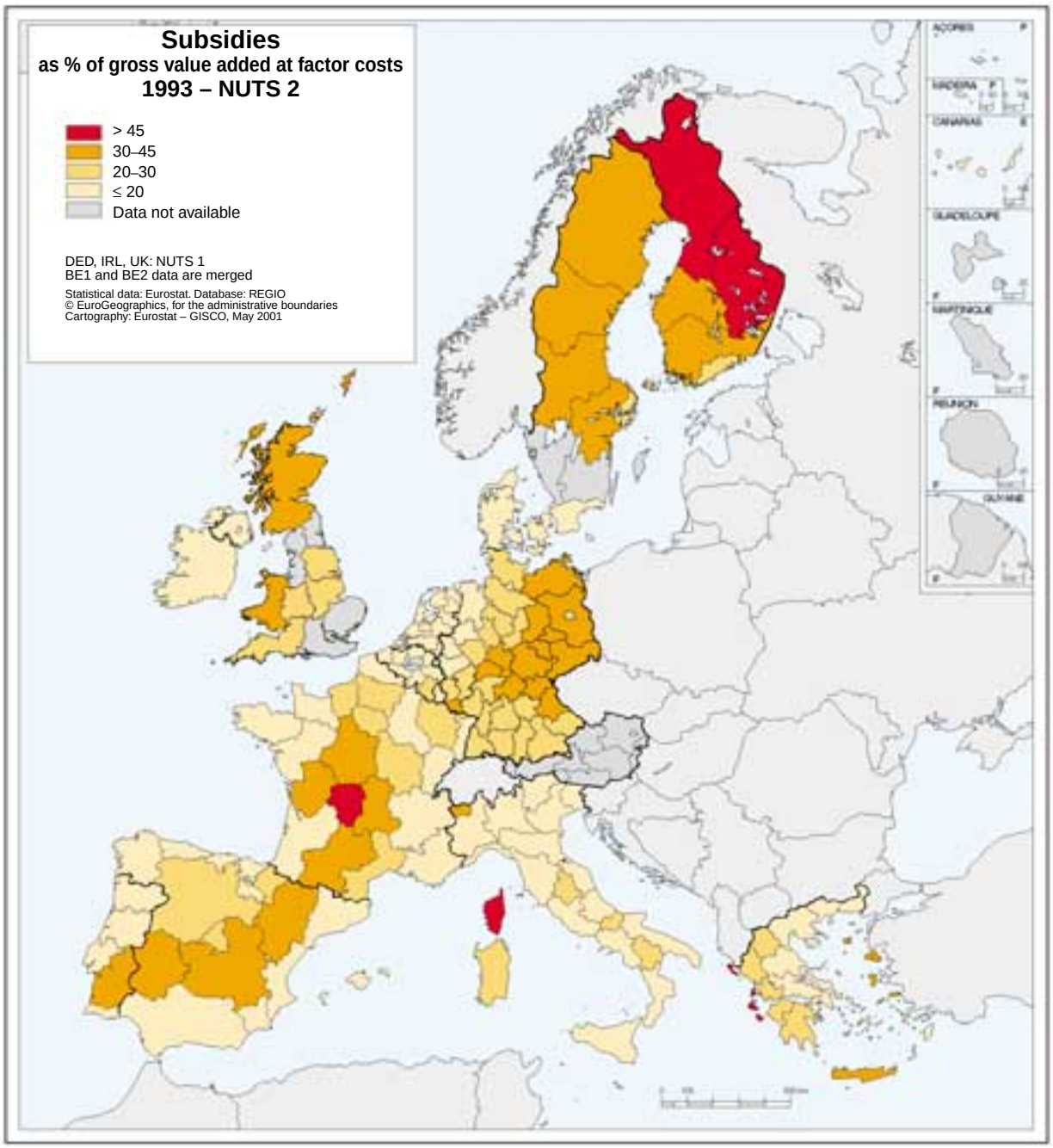


favourable circumstances, particularly for fruits (including citrus fruits and olives) and vegetables.

Enlargement of the Union to include Austria, Finland and Sweden was accompanied in these countries by a fall in GVA. Admittedly, the dominant effect was monetary but a contributing factor was the opening up of these markets to products in which these countries were least competitive (tobacco and cereals in Austria, meat, eggs, oil-seed and other processing crops in Finland and Sweden).

In those countries that were not yet Member States in 1993, regional aid for the least favoured zones has played a full part in compensating for natural handicaps, particularly in Finland. Similarly, at Community level, least favoured zones continue to receive major amounts of aid as a proportion of value added, particularly given the low level of the latter. This is the case in France (Corsica, Limousin, Auvergne, Poitou-Charente, Midi-Pyrénées), in Spain (Extremadura, Castilla-La Mancha, Aragón) and in the United Kingdom

Map 1.8 — Subsidies



(Scotland, Wales). This kind of structural assistance is also very evident in eastern Germany.

The link with an increase in gross value added came about through the reform of the CAP in 1992 and the implementation of set-aside measures for arable land. It brought about a fall in value added for cereal farming and oil seed production and an increase in the level of aid for these types of farming.

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POPULATION

2

Introduction

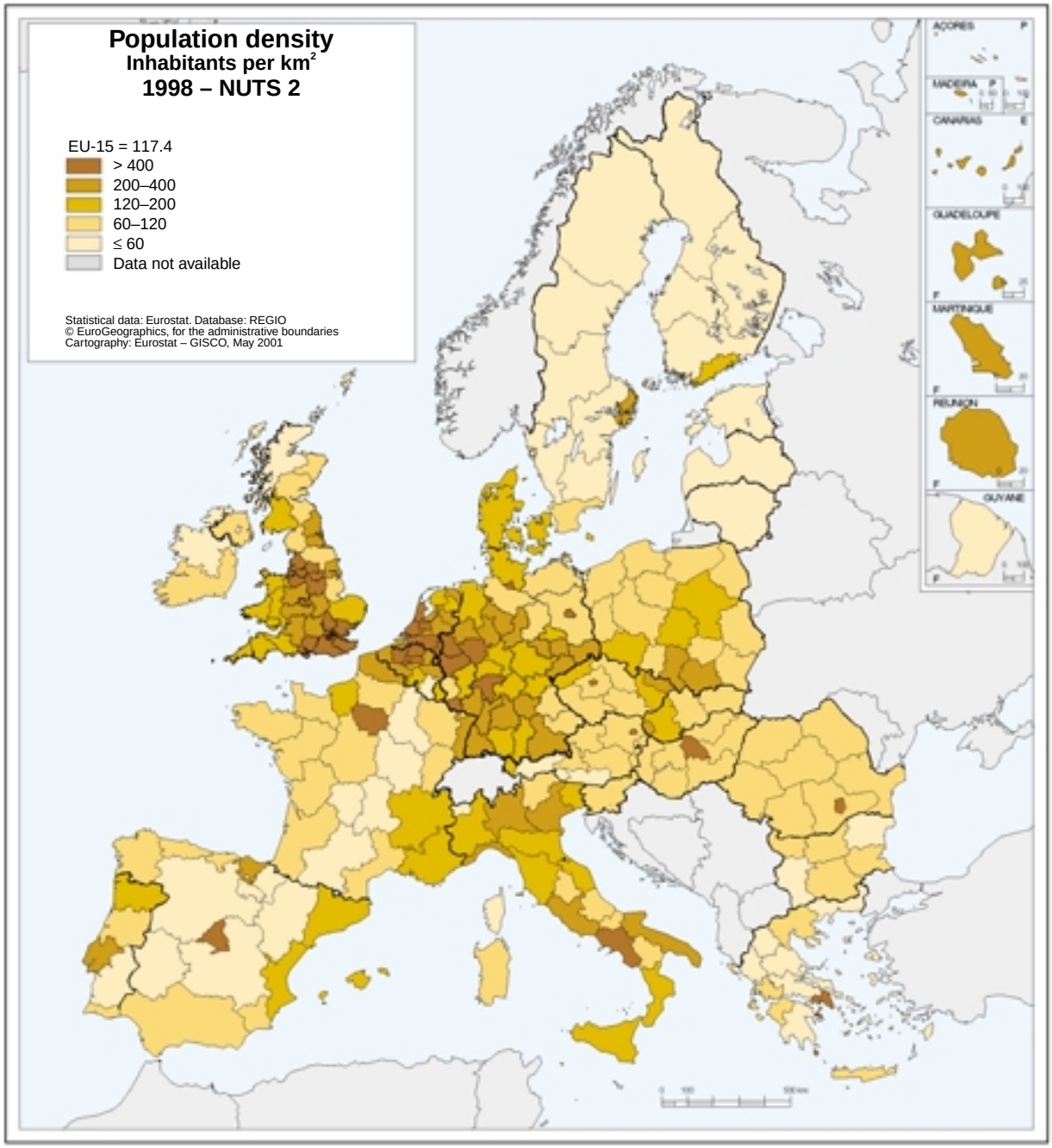
The description and thorough analysis of the distribution and changes of population are one of the backbones of all human-related spatial analyses. A broad overview of population background data is presented here in three sections, using NUTS 2 level maps for clarification. For the first time, the regions of the central European countries (CEC) are included in the analyses too.

First of all, population density in the regions is analysed. Next, population change is dealt with by looking into the crude birth rate, the crude natural population increase and the crude rate of net migration. Finally, the last section covers the so-called dependency ratios, in particular the young age dependency ratio and the old age dependency ratio.

Population density

Population density tables show the number of inhabitants per square kilometre. In 1998, the total

Map 2.1 — Population density



population of the European Union, 374 million, produced an average population density of 117. Together, the central European countries accounted for 105 million inhabitants, corresponding to 97 inhabitants per km^2.

Map 2.1 shows that the population density of the NUTS 2 regions of the European Union varies greatly, ranging from only 1.8 in French Guiana to more than 8 600 in the case of Inner London. The differences between the regions in the central European countries are less pronounced: from 33 in Estonia to 2 414 in Praha. Two thirds of the CEC regions (35 out of 53) have a population density of between 60 and 120. For the EU regions, this proportion is less than one quarter (48 out of 211).

In general, the most densely populated regions at the national level are those containing the capital of the country. Examples in the EU are Inner (and Outer) London, Region Bruxelles, Wien, Berlin, Stockholm and Uusimaa (including Helsinki). Examples in the CEC are Praha and Bucuresti. However, there are exceptions too. In Italy, Campania has the highest density at 426, while Lazio (including Rome) has only 305. In Portugal, Madeira has a density of 334, while Lisboa e Vale do Tejo has only 279. With regard to the central European countries, Slaskie in southern Poland has the highest density at 398, while the region Mazowieckie, in which Warsaw is situated, has only 142 inhabitants per km^2.

The map shows that the population density is greatest in the middle of the area of the European Union, running like a belt from the north of Italy through southern and western Germany and the Benelux countries to southern and central England.

The least densely populated areas can especially be found on the southern, western and northern margins of the European Union. Of the 44 regions with a population density below 60, 39 are situated in the EU and only 5 in the CEC. Most of the least densely populated EU regions belong to Greece (8), Spain, France, Sweden (all 6) and Finland (5). Besides the three Baltic states, there are only two other CEC regions with a population density of less than 60. These are both part of Bulgaria.

In general, the thinly populated regions are characterised by typical natural conditions (mountainous area, climatological circumstances, etc.), and by the way the soil is used (agriculture, forestry, etc.). Often, a small number of cities form a stark contrast with an extensive but thinly populated hinterland.

Population change

The main features of population change are analysed in this chapter in five maps:

- crude birth rate;
- crude natural increase;
- crude rate of net migration;
- components of population change;
- rate of population increase.

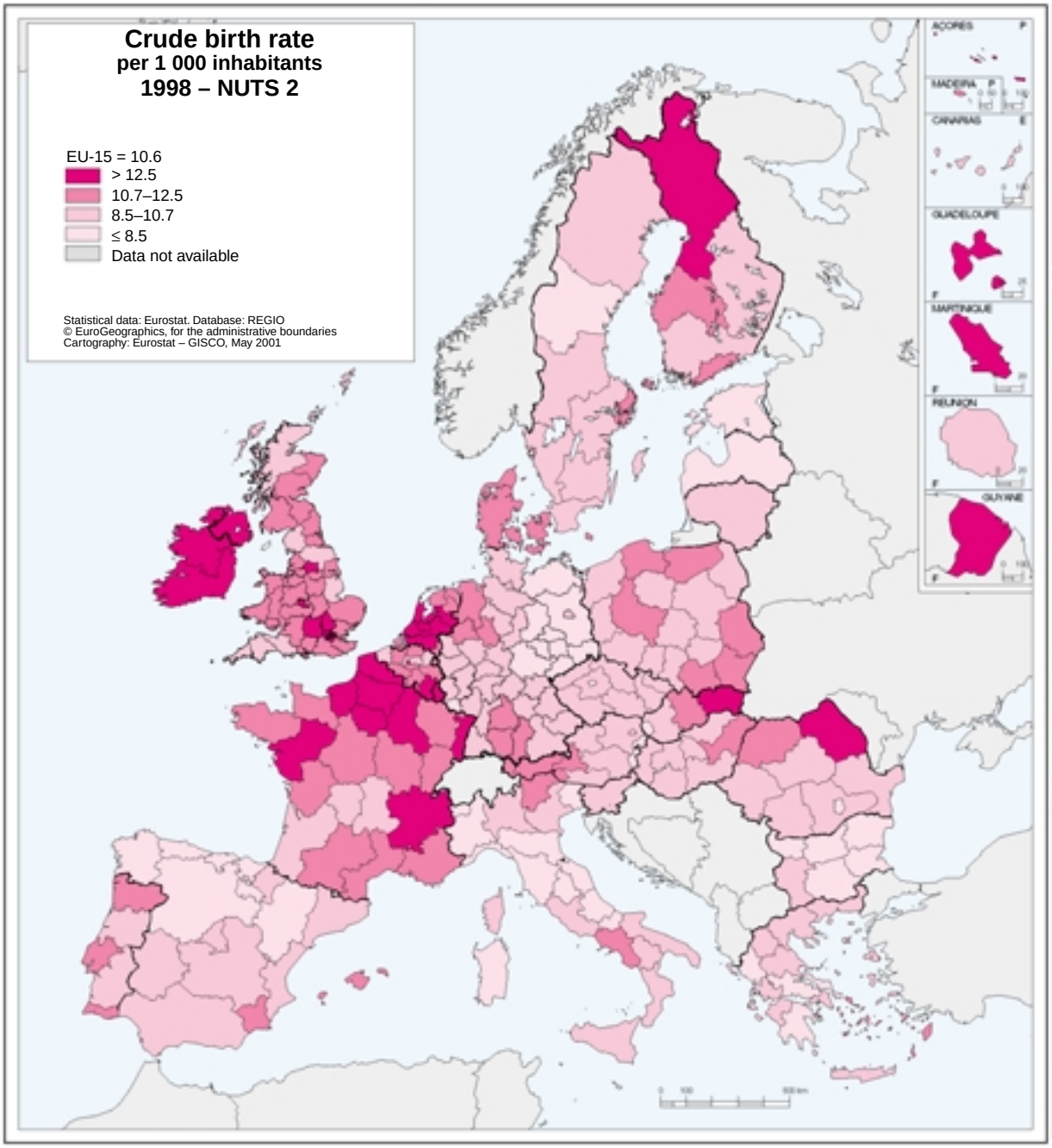
Map 2.2 represents the number of births per 1 000 inhabitants in the NUTS 2 regions. In 1998, the average for the European Union was 10.6 and for the central European countries 9.8.

The map shows that within the EU the regions with the highest crude birth rates (12.5 and higher) are mainly to be found in the Benelux, France, Denmark, the United Kingdom and Ireland. For the CEC countries, only the Nord-Est region in Romania and Vychodne Slovensko in the Slovak Republic can be mentioned in this context. The five regions with the highest birth rates, besides French Guiana (31), were Flevoland in the Netherlands with 16, Inner London with 15.8, Île-de-France with 15.2, Ceuta y Melilla in Spain with 14.9, and the southern and eastern part of Ireland with 14.7 births per 1 000 inhabitants.

EU regions with a birth rate lower than 8.5 are situated particularly in Germany (nearly the whole eastern part), in northern and central Italy, and in northern Spain. Most CEC regions with low crude birth rates can be found in Bulgaria. Also Praha in the Czech Republic, Latvia, Bucuresti in Romania, and Bratislavsky in the Slovak Republic have relatively low birth rates. The region with the lowest crude birth rate in 1998 is Principado de Asturias in Spain (6.1) The next four regions are all part of eastern Germany: Dessau (6.2), Chemnitz (6.5), Halle (6.5) and Leipzig (6.6).

Map 2.3 shows the natural growth rate per NUTS 2 region, being the difference between births and deaths per 1 000 inhabitants. While the overall natural growth rate is still positive for the European Union (0.7), it is negative for the central European countries (– 1.4).

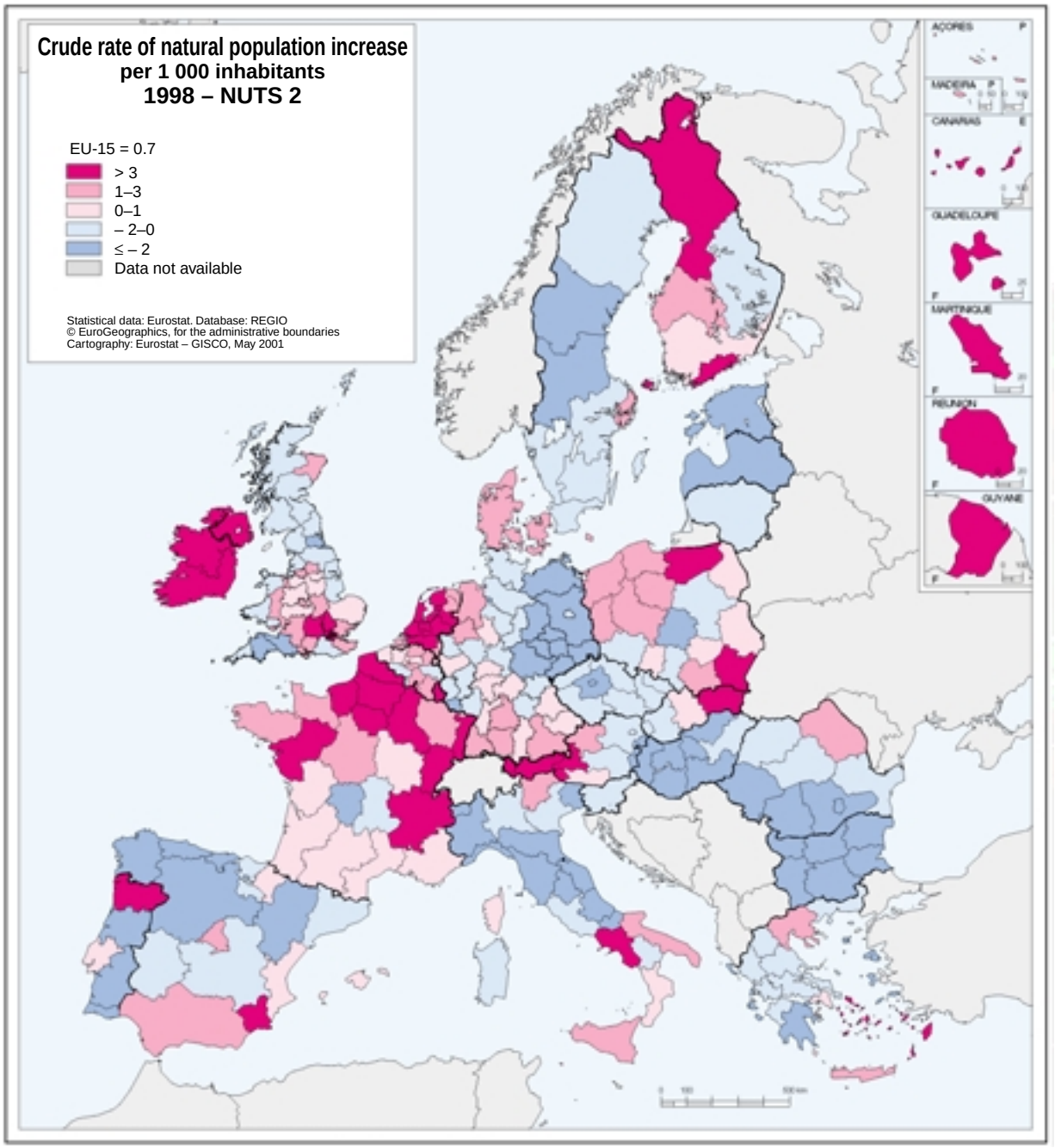
Map 2.2 — Crude birth rate



Just focusing on the blue coloured regions on the map, it can be concluded that 44 % of EU regions (92 out of 211) and 72 % of the CEC regions (38 out of 53) experienced a negative natural population increase in 1998. Due to relatively low crude birth rates and/or high crude mortality rates, the five regions with the strongest population decrease were Severozapaden in Bulgaria (– 12.1 per thousand of the population), Severen Tsentralen, also in Bulgaria (– 9.4), Ligura in Italy (– 7.1), Latvia (– 6.4), and Alentejo in Portugal (– 6.0).

EU regions with a natural growth rate of plus 3 per thousand or higher are mainly situated in Ireland, France, the Netherlands, Finland and Luxembourg. Only three CEC regions showed such a high growth rate in 1998: two in Poland and one in the Slovak Republic. The five regions with the largest natural population increase were Flevoland in the Netherlands (10.9), Île-de-France (8.3), Ceuta y Melilla in Spain (8.1), Inner London (8.0) and southern and eastern Ireland (6.8).

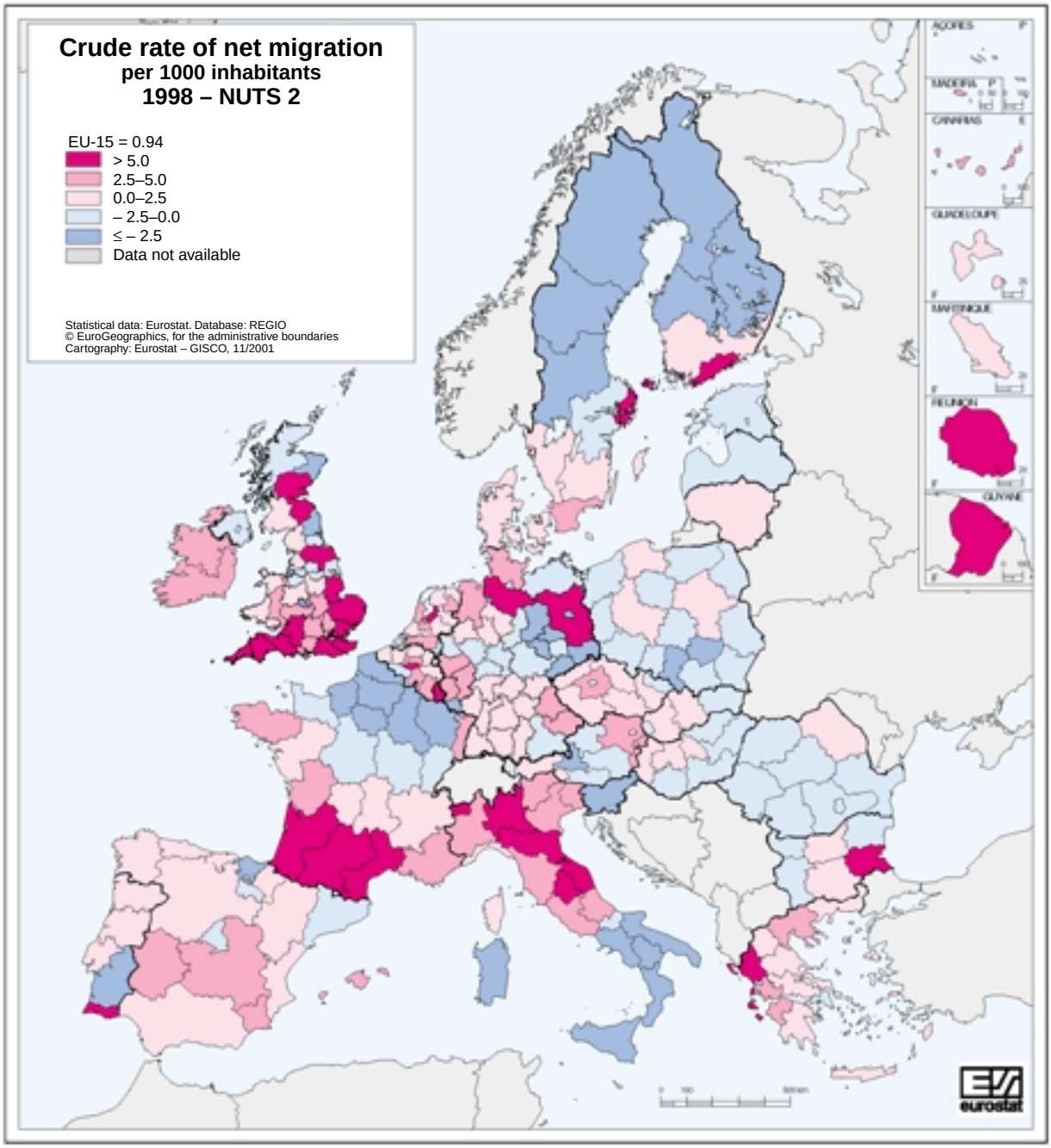
Map 2.3 — Crude rate of natural population increase



In Map 2.4 the difference between in- and out-migration per 1 000 inhabitants on the regional level is presented.

About one in three EU regions showed a negative migration figure in 1998. For the CEC regions this figure was almost double. Especially in Poland and Romania, the vast majority of regions had a negative migration balance. As a result, the overall net migration rate for the EU regions was 1 in 1998, while for the CEC regions – 2 was recorded. The top five regions losing population due to migration are to be found in northern parts of Finland, Germany and the United Kingdom (Itä-Suomi, Finland, – 6.9; Bremen, Germany, – 6.7; Pohjois-Suomi, Finland, – 6.4; Berlin, Germany, – 6.2 and north-eastern Scotland, United Kingdom, – 6.1). Other EU regions with strong negative migration figures are located in the southern part of Italy, the northern part of France, central and eastern Germany and central and northern Sweden. The first CEC region on this list is in only 26th place: Slaskie (Poland, – 3.0) followed in 32nd and 33rd place, respectively, by

Map 2.4 — Crude rate of net migration

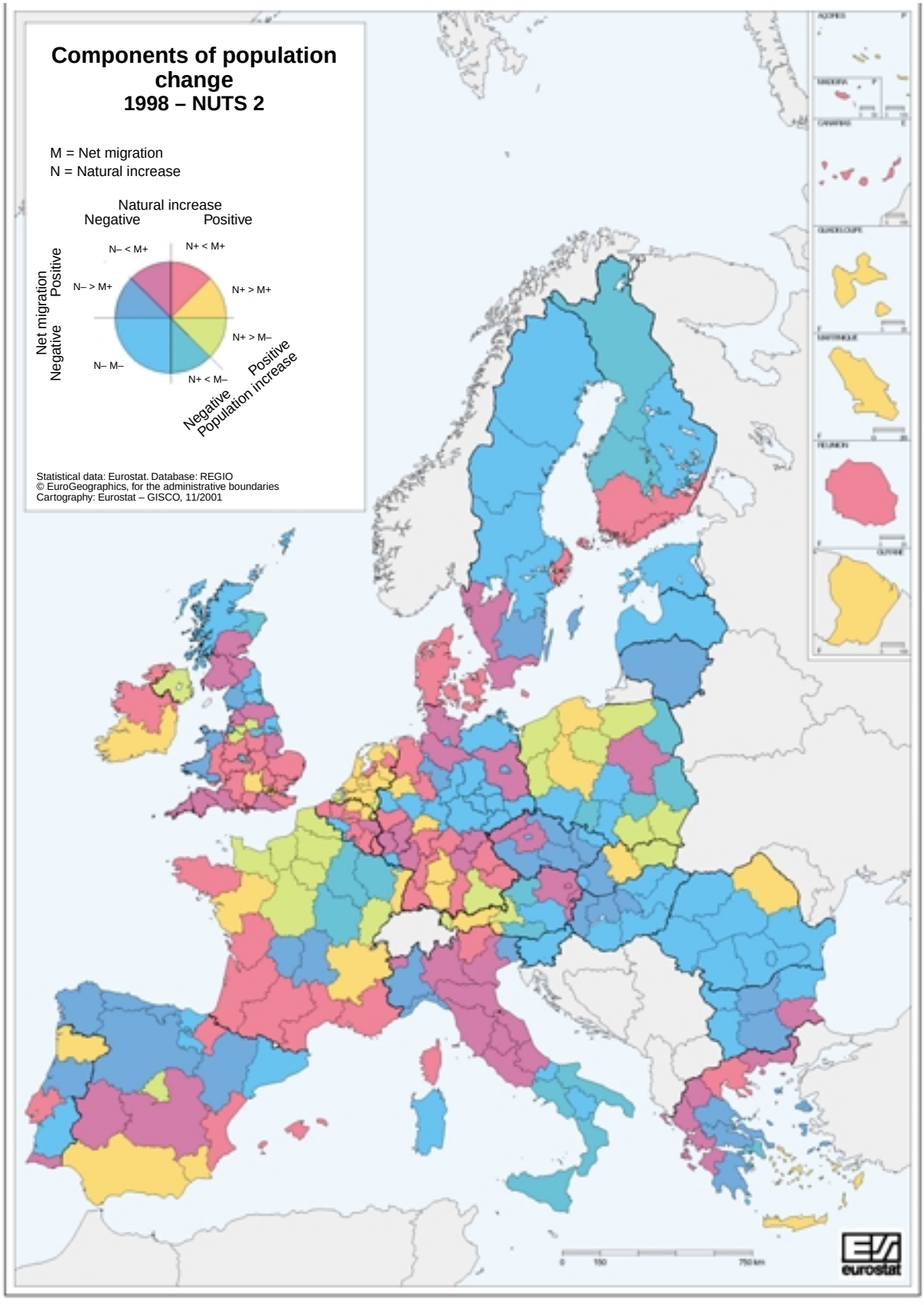


Swietokrzyskie (Poland, – 2.8) and Slovenia (– 2.7).

Regions that received relatively many migrants are mainly located in the southern part of the UK (plus eastern Scotland), the southern part of France and the central and northern part of Italy. The top five regions gaining population due to migration are Flevoland, 34 (Netherlands), Stockholm, 12.2 (Sweden), Guyane, 12.0 (France), Brandenburg, 9.6 (Germany) and Surrey, East and West Sussex, 9.6 (United Kingdom). In the central European countries, there is only one region with a crude net migration that equals or exceeds 5, namely Yugozapaden in Bulgaria.

Summarising, it may be said that there are significant net migration flows in England going from north to south, in France, again from north to south, and in Italy from the southern to the central and northern parts of the country. Economic push and pull factors, which often cause young people to move to other regions, are the main cause of these shifts.

Map 2.5 — Components of population change



In Map 2.5, both aspects of population dynamics — natural growth and net migration — have been combined. If natural increase is denoted with N and net migration with M, there are six combinations of these components which determine the sign (+, –) of the total population increase. A positive increase will result from any of the following three combinations: |N–| < |M+| (absolute value of negative natural increase is smaller than absolute value of positive net migration), |N+| > |M–| (absolute value of positive natural increase is greater than absolute value of negative net migration) or, finally, N+, M+ (both natural increase and net migration are positive). In the map, this last combination has been further divided into two subclasses showing which of the components has a bigger role in the positive total increase; N+ < M+ and N+ > M+ respectively.

A negative increase (decrease) will result from combinations N–, M– (both natural increase and net migration are negative), |N–| > |M+| (absolute value of negative natural increase is greater than absolute value of positive net migration), and |N+| < |M–| (absolute value of positive natural increase is smaller than absolute value of negative net migration).

Because of low fertility levels, migration has become the decisive factor for the still positive, but slow, population increase in the European Union as a whole. It is important also at regional level. As could be seen in Map 2.3, there were 92 NUTS 2 regions (out of the 211) in the European Union with a negative natural population increase in 1998. Because of positive net migration, the total increase was negative in only 78 of those regions. This effect does not occur in the central European countries: 38 (out of the 53) regions showed a negative natural growth while the same number of regions showed a negative population growth.

EU regions of 'severe population decrease' (with both negative natural increase and negative net migration and a total population decrease of 7.5 per 1 000 or more) can be found in Germany (Dessau, Halle, Magdeburg, Chemnitz, Bremen, Berlin), in central and northern Sweden (Mellersta Norrland, Norra Mellansverige), in southern Portugal (Alentejo), in central Finland (Itä-Suomi) and in north-western England (Merseyside). Among the central European countries these regions are Severozapaden in Bulgaria and Latvia.

EU regions with a strong population increase (with both positive natural increase and positive net migration and a total population increase of 7.5 per 1 000 or more) can be found in the Netherlands (Flevoland, Utrecht, Noord-Brabant), in Sweden (Stockholm), in Finland (Uusimaa, Åland), in Luxembourg, in Belgium (Brabant Wallon), in Spain (Ceuta y Melilla, Canarias), in Ireland (Border, Midlands and Western Regions), in France (Languedoc-Roussillon) and in the United Kingdom (Kent). In the CEC there is no single region that complies with the above-mentioned conditions. Although there are four CEC regions with both positive natural increase and positive net migration (Nord-Est in Romania; Pomorskie and Wielkopolskie in Poland; Stredné Slovensko in the Slovak Republic), none of them had a population increase of 7.5 per 1 000 or more in 1998.

Map 2.6 shows the relative population increase (%) over the five-year period 1995–99 (population at 1 January 1999, minus population at 1 January 1995, divided by the population at 1 January 1995 and multiplied by 100).

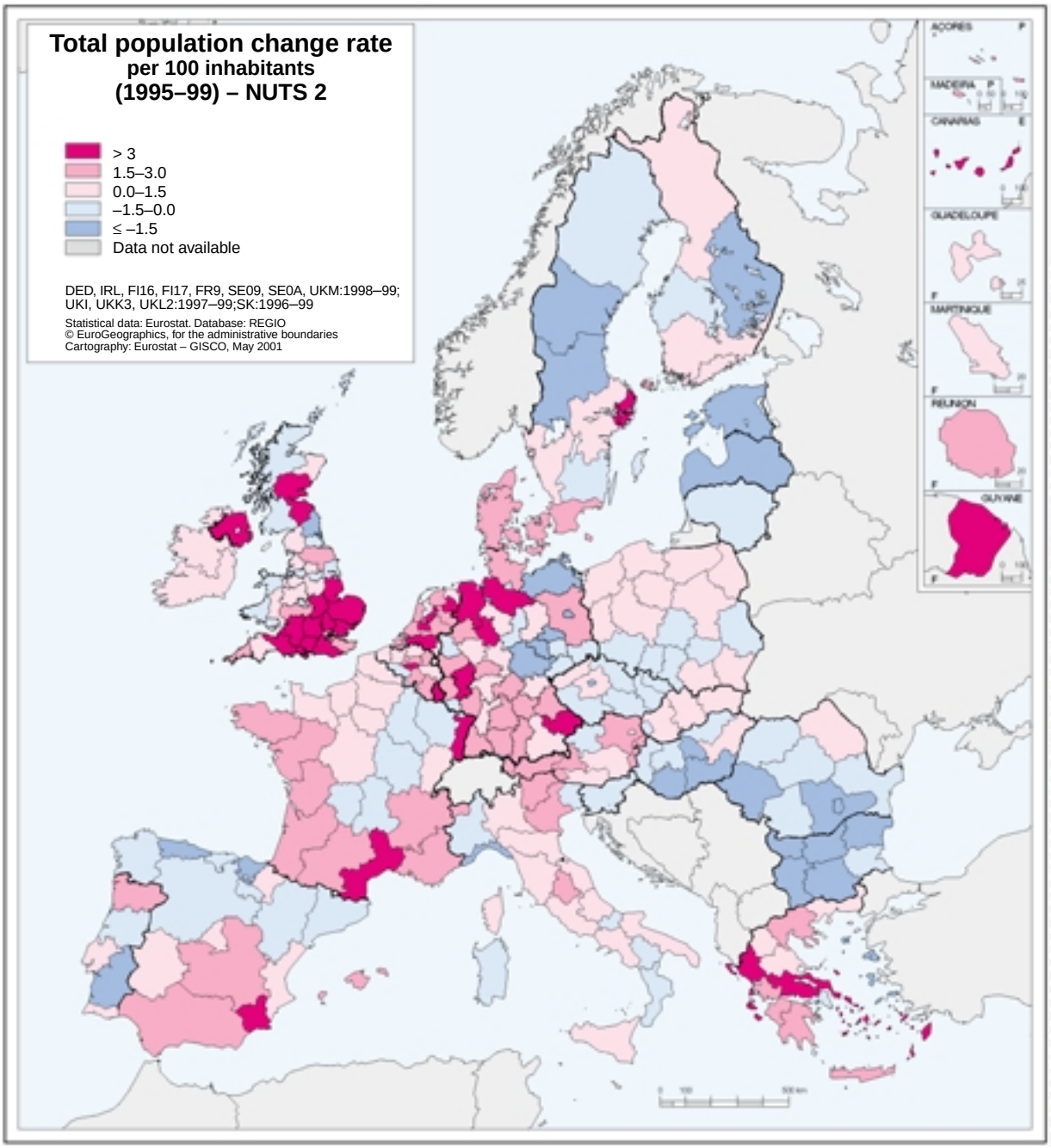
In the period 1995–99, the relative total population increase was negative in one quarter of the regions in the European Union (55 out of 211) and two thirds of the regions in the central European countries (36 out of 53). The overall population increase for the EU was 1.3 %; for the CEC there was an overall decrease of – 0.9 %.

The five regions with the strongest relative population increase during this period were:

Flevoland (Netherlands) with 20.8 %, Luxembourg with 7.1 %, Ceuta y Melilla (Spain) with 5.9 %, Stockholm (Sweden) with 5.8 % and Lüneburg (Germany) with 5.5 %.

The five regions with the fastest relative population decrease during this period were: Halle (Germany) with – 10.3 %, Latvia with – 4.9 %, Severozapaden (Bulgaria) with – 4.9 %, Alentejo (Portugal) with – 4.3 % and Estonia with – 4.1 %.

Map 2.6 — Total population change rate



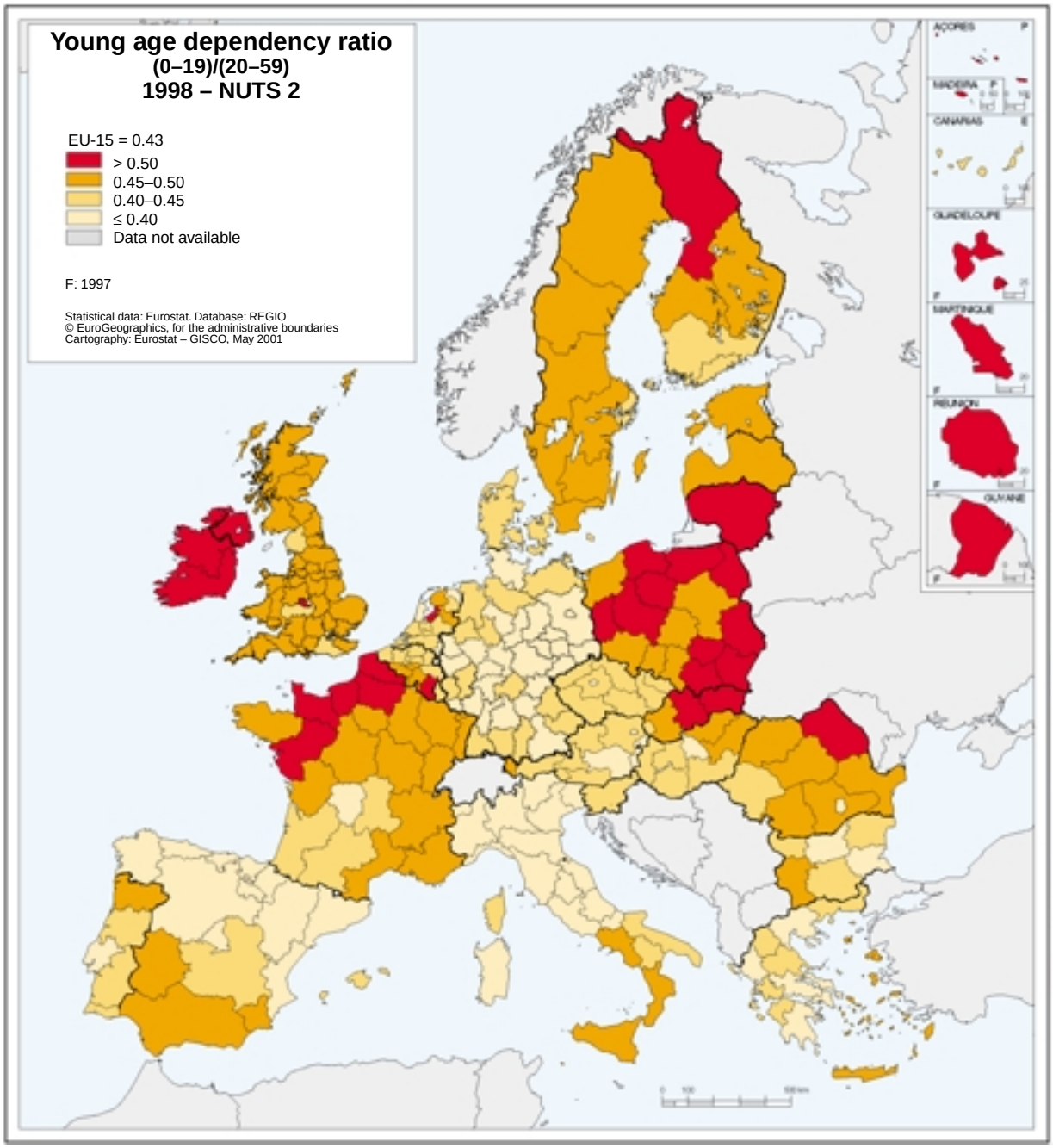
Dependency ratios

Dependency ratios are measures in which the inactive population is compared to the economically active population in order to show the extent of the 'care-taking burden', imposed by the inactive population on the active one. In order to calculate the dependency ratio, one can use employment data, which gives the closest picture. Indicators can also be calculated from purely demographic age-structure data. The ratios then only roughly reflect the real inactive/active ratios. Demographic age data has been used in this context.

Map 2.7 describes the proportion of young people aged 0–19 years (mostly living at home or in education) to the population aged 20–59 (mostly economically active). This so-called young age dependency ratio indicates the degree of economic burden the inactive young population imposes upon the population of working age.

The overall young age dependency ratio for the EU as whole was 0.43 in 1998 while this rate for

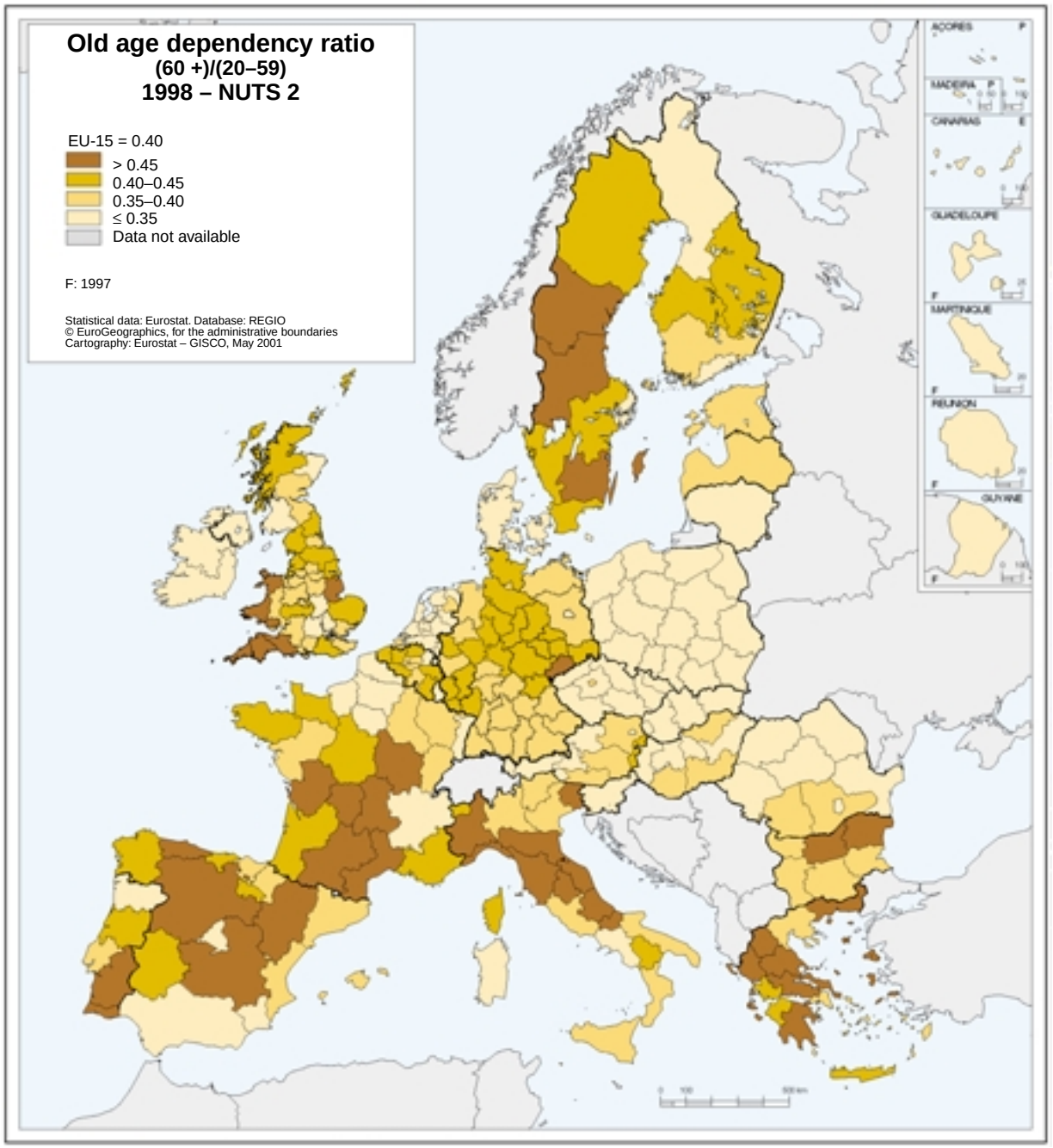
Map 2.7 — Young age dependency ratio



the CEC was 0.48. This difference is reflected in the regions. For example, only 8 % of EU regions have a young age dependency ratio equal to or higher than 0.50, as against 30 % of the CEC regions. Another illustration of the difference between the EU and the CEC in this respect is the fact that no single region in Germany has a young age dependency ratio of 0.45 or higher. On the contrary, all regions in Poland have ratios of 0.45 or higher.

In the European Union, the young age dependency ratio is (apart from in the French overseas departments) highest in Ireland (Border, Midlands and Western, 0.64; Southern and Eastern, 0.57), in Portugal (Açores, 0.60), in Northern Ireland (0.58), In France (Nord-Pas-de-Calais, 0.56), and in Spain (Ceuta y Mellilla, 0.56). Among the central European countries, most of the regions with very high ratios can be found in Poland (Podkarpackie, 0.59; Podlaskie, 0.57, Warmi_sko-Mazurskie, 0.57, Lubelskie, 0.56). Furthermore, the regions Vychodné and Stredné Slovensko in the Slovak Republic (0.59 and 0.52 respectively) has to be mentioned in this context.

Map 2.8 — Old age dependency ratio



Six regions in the EU have a young age dependency ratio lower than 0.30. These are all Italian (Liguria, Friuli-Venezia Giulia, Emilia-Romagna, Toscana, Piemonte and Valle d'Aosta). The lowest non-Italian region is Hamburg in Germany (0.31). The lowest CEC region is Praha in the Czech Republik (0.35).

The regional variation of the young age dependency ratio roughly reflects the variation of fertility in the recent past. In areas of high fertility in the recent past, the ratio is usually high, whereas it is low in areas of low fertility.

The last map (2.8) shows the proportion of elderly people aged 60 and more (mostly retired for old age or health reasons) in relation to the population aged 20–59 (mostly economically active). The old age dependency ratio is an indicator which shows the degree of economic burden the inactive elderly population imposes upon the population of working age.

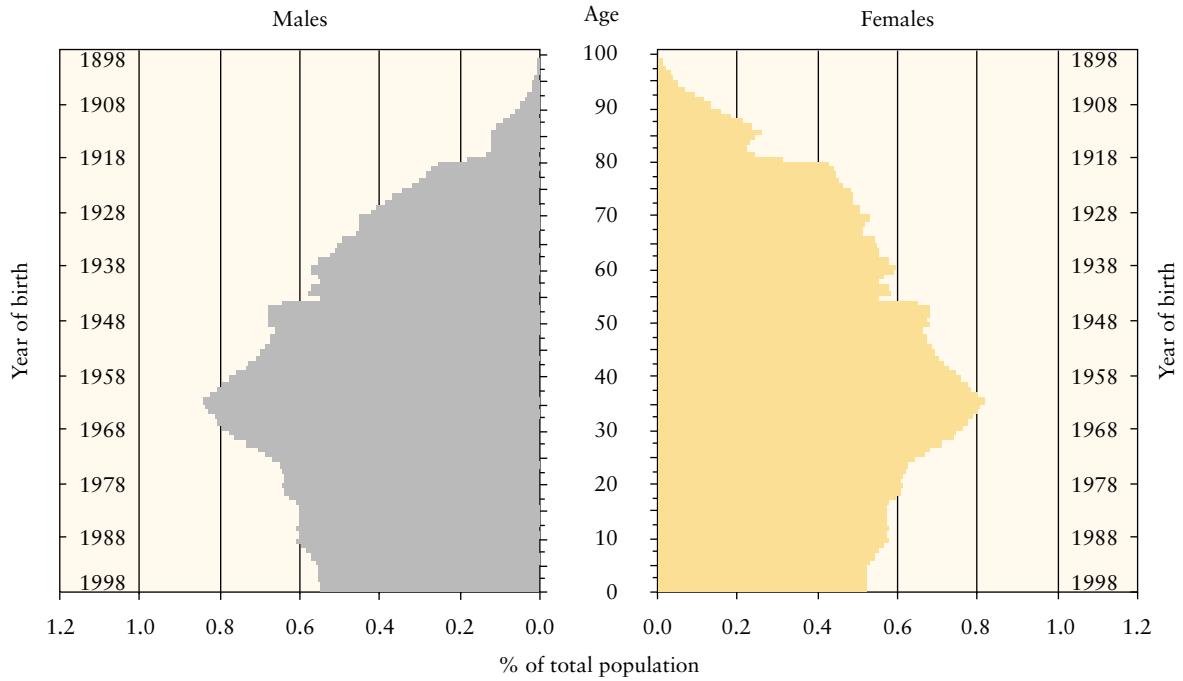
The overall old age dependency ratio for the EU as whole was 0.42 in 1998 while this rate for the CEC was much lower, 0.33. Again, this difference is clearly reflected in the regions. For example,

23 % of EU regions have an old age dependency ratio below 0.35 (50 out of 211) as against 70 % (37 out of 53) for the CEC regions. However, the lowest ratios can be observed for two French overseas departements (French Guiana, 0.11; Réunion, 0.18) and Flevoland in the Netherlands (0.21), followed by Inner London in the United Kingdom (0.24) and Warminsko-Mazurskie in Poland (0.26).

In only two CEC regions is the old age dependency ratio higher than 0.40. These regions are both situated in Bulgaria (Severozapaden, 0.53; Severen Tsentralen, 0.45). EU regions with old age dependency ratios of 0.50 or higher can be found in Greece (Voreio Aigaio, Peloponnisos, Ionia Nisia), in Italy (Liguria, Umbria, Toscana, Emilia-Romagna, Marche), in France (Limousin), in Portugal (Alentejo) and in the United Kingdom (Dorset and Somerset, Cornwall and Isles of Scilly).

The old age dependency ratio is often a mirror image of the young age dependency ratio. Low fertility tends to increase the proportion of the elderly in the total population. However, survival rates for the elderly play an important role too. So, the combined effect of higher fertility levels and a lower expectation of life (especially for men) in the CEC regions compared to the EU regions, explains the majority of the observed differences in the dependency ratios. Of course, for some regions the consequences of significant (age-specific) in- or out-migration flows should not be forgotten in this context.

Graph 2.1. Age pyramid for the European Union on 1 January 1999



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3

REGIONAL GROSS DOMESTIC PRODUCT

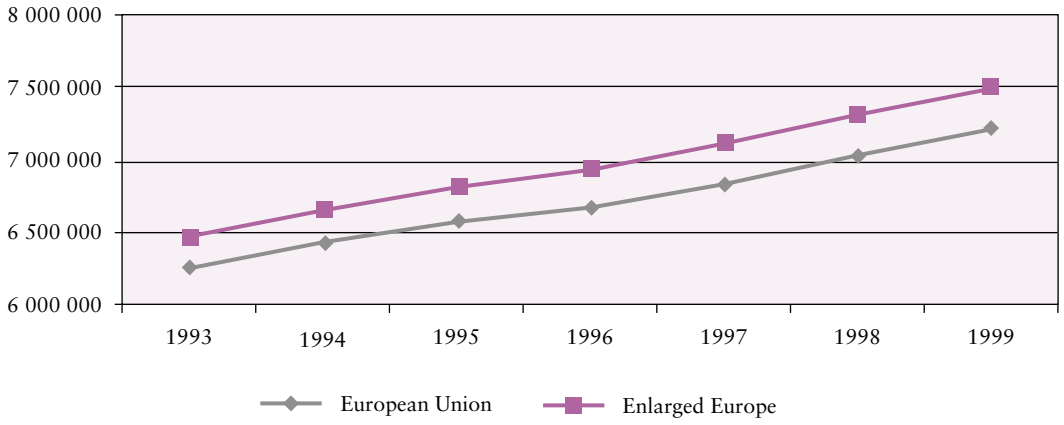
Introduction

A key variable which features in the public debate about the European regions is the regional gross domestic product (GDP). GDP is generally interpreted as a measure of economic strength and production activity and, unlike gross national product, is based on the country rather than on its nationals, which means that foreign residents are taken into account. Moreover, this indicator is often expressed in per capita terms in order to facilitate comparisons between regions.

Before focusing on the regional aspect, a brief outline of recent trends in Europe as a whole will be given. The European Union will be looked at both as a single entity and in conjunction with the candidate countries. The following figure, which assumes constant prices (i.e. it does not allow for inflation), shows a clear upward trend in economic development in Europe as a whole, although the GDP of the candidate countries is fairly small compared with that of the EU.

Considerable interest is attached as to how GDP is distributed among the regions of Europe. In order to break down the data at regional level, however, certain restrictive assumptions (and, in some cases, estimates) have to be made. The main thing is to ensure comparability between regions, which is why the method used to estimate GDP is important. That method is described in the following section.

Graph 3.1. GDP at constant prices: European Union



Method of estimating regional GDP

The starting point for estimating regional GDP is to use the GDP data provided by the national statistical institutes. These data are calculated in accordance with the rules of the European system of integrated economic accounts (ESA 95). The national values are divided among the regions in line with the contribution (at producer prices) which each one makes to national gross value added (GVA). The implication is that regional GDP and GVA structures are a sufficiently close match. This requires certain restrictive assumptions regarding the regional distribution of taxes and subsidies, although it would be beyond the scope of the present publication to discuss those assumptions in any detail. The most important thing is that the algorithm ensures comparability between GDP figures for individual regions. Given that the method employed by Eurostat is a harmonised one which is not used by all the countries involved, there can be differences between national GDP data published by Eurostat and the data published by the countries themselves.

In some cases, the regional structures are still based on ESA 79, which is a superseded version of the European system of integrated economic accounts. This is particularly true of level 3 regions, and therefore not very relevant to the present publication. These inconsistencies will be ironed out once all the Member States can provide regional data in accordance with ESA 95.

Ideally, GDP estimates should be based on regional GVA patterns for the years in question. Unfortunately, the data for all the countries and regions were not available when the calculations were made. Some estimates are therefore based on the assumption that structures have remained unchanged since the previous year.

ESA 95 provides for an 'extra-regio' item to accommodate GVA which cannot be attributed to specific regions (e.g. off-shore production, military bases and embassies). Current practice is to distribute extra-regio GVA among the regions in proportion to their own GVA.

ESA 95 has the force of law throughout the European Union. Eurostat has made a considerable effort in recent years to bring the candidate countries into line with ESA 95 rules and to coordinate their basic statistics with it. Care has been taken to harmonise the rules for applying ESA 95, and it is safe to assume that the GDP figures for the regions in question are comparable.

Regional GDP as a measure of prosperity

Methodology

Comparison of the economic situation in the European regions is of particular interest. A prerequisite for any such comparison is precise definitions: What exactly is being compared: economic strength, competitiveness or wealth? And how are these variables to be quantified?

Comparisons of the prosperity, or wealth, of regions is certainly important. Wealth is determined by the ability of individuals in a given territory to consume goods and services. That ability, in turn, is determined by the level of their disposable income. Unfortunately, information on disposable income is currently not available at regional level. This shortcoming will be eliminated under the ESA 95 data transmission programme, although the information will not become available until the beginning of 2002, at the earliest.

It is therefore necessary to find another possibility of expressing and comparing regional prosperity. One such possibility is to use GDP, which is available for all regions of the European Union and the candidate countries down to NUTS-3 level. As GDP is a measure of output, however, it requires certain modifications.

As the various regions obviously have different populations, it makes sense to express GDP in per capita terms. To do this, regional GDP is divided by the regional annual average population. Commuter flows can distort comparisons between the per capita GDP figures for countries and, especially, regions. Some well-known examples include the Grand Duchy of Luxembourg, city regions such as Hamburg, Bremen and Vienna, and the Flevoland region of the Netherlands. Commuter flows have a particularly big impact in Inner London, the region which currently enjoys the highest per capita GDP in Europe. In the city regions, commuter flows cause the production activity recorded in those regions to be higher than would normally be possible given the size of their resident workforce. As a result, there is a tendency for the 'per capita GDP' indicator to overstate the productivity of these regions and to understate productivity in the regions where the commuters live, an example being the Flevoland region, many of whose residents commute to work in other regions.

Moreover, the 'per capita GDP' indicator is influenced by the age structure of the population. In regions with a relatively high share of persons who are not of working age, i.e. schoolchildren and other children, pensioners or the unemployed, this indicator tends, other things being equal, to be lower than in regions where those categories make up a smaller share of the population.

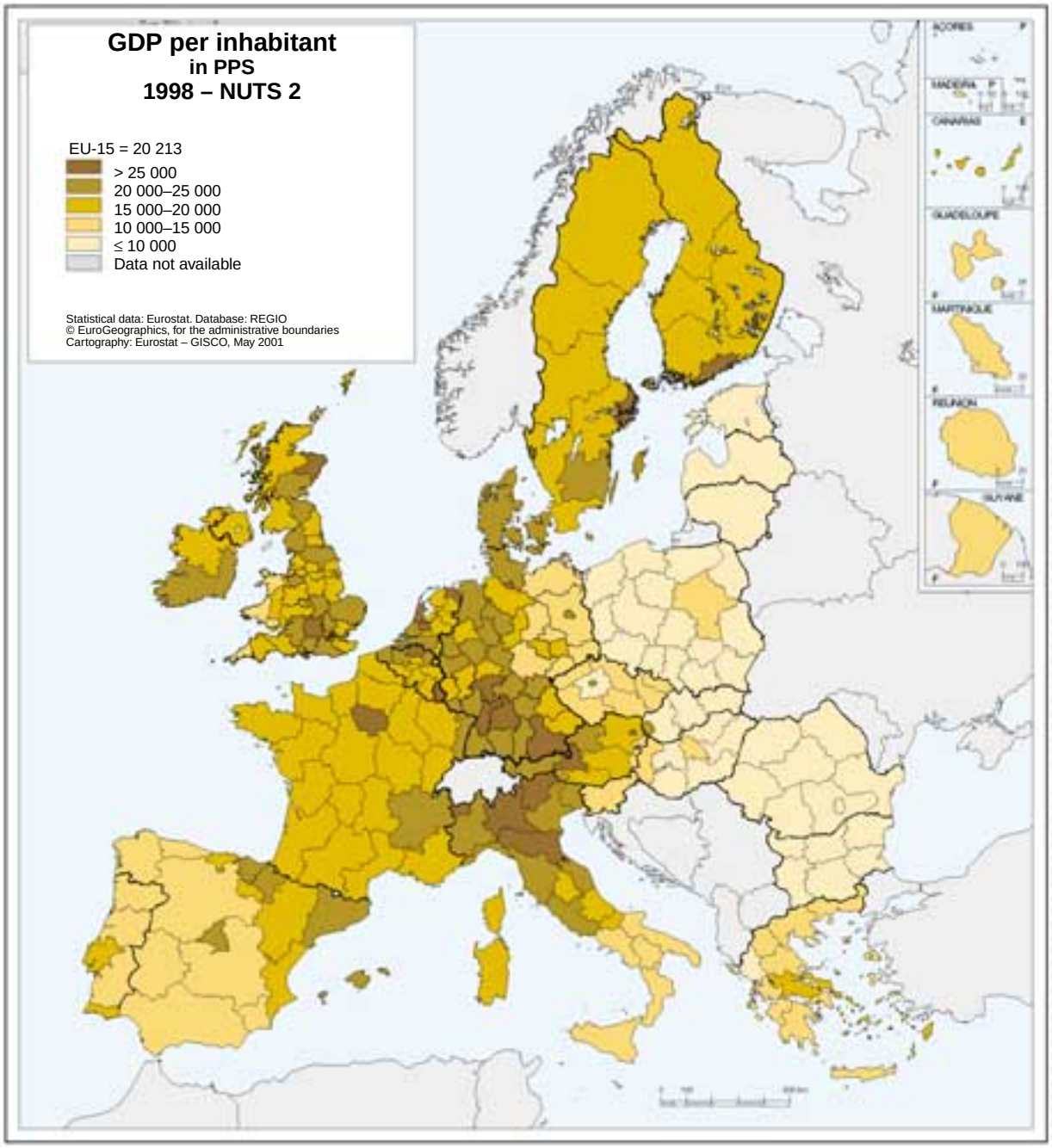
Another problem is that exchange rates do not always reflect differences in purchasing power. This phenomenon can also be seen within individual countries, i.e. within long-established currency areas. For example, living costs in rural areas are often lower than in urban areas. In order to compensate for this, what are known as purchasing power standards (PPS) are applied. PPS takes into account price differences which are not reflected in exchange rates. This is why the coefficient applied when converting from ecu into PPS is greater than one in the case of 'poorer' countries (e.g. Portugal), which tend to have lower price levels, whereas the coefficient applied to countries with relatively high prices (e.g. Sweden) is less than one. The conversion from ecu to PPS should actually be based on regional purchasing power parities. Eurostat does not possess comparable regional data, however, and has to apply national PPS, which means that differences in price levels within countries are not taken into account.

It is worth repeating that GDP and per capita GDP are indicators of production activity in a country or region, and are therefore useful instruments for measuring and comparing the levels of economic development in countries and regions. It should be borne in mind that GDP is not the same as the final disposable income of private households in a given country or region. GDP or per capita GDP data cannot be used as a basis for claiming, say, that region A is richer than region B.

Major regional differences in per capita GDP

The following map takes account of the adjustments referred to above, i.e. GDP is expressed in per capita and PPS terms. In the 264 NUTS 2 regions under consideration, regional per capita GDP for 1998 was between 4 347 PPS in the Bulgarian region of Yuzhen Tsentralen and 49 202 PPS in Inner London. In other words, the figure for the region with the highest GDP was more than 10 times that of the region with the lowest.

Map 3.1 — GDP per inhabitant



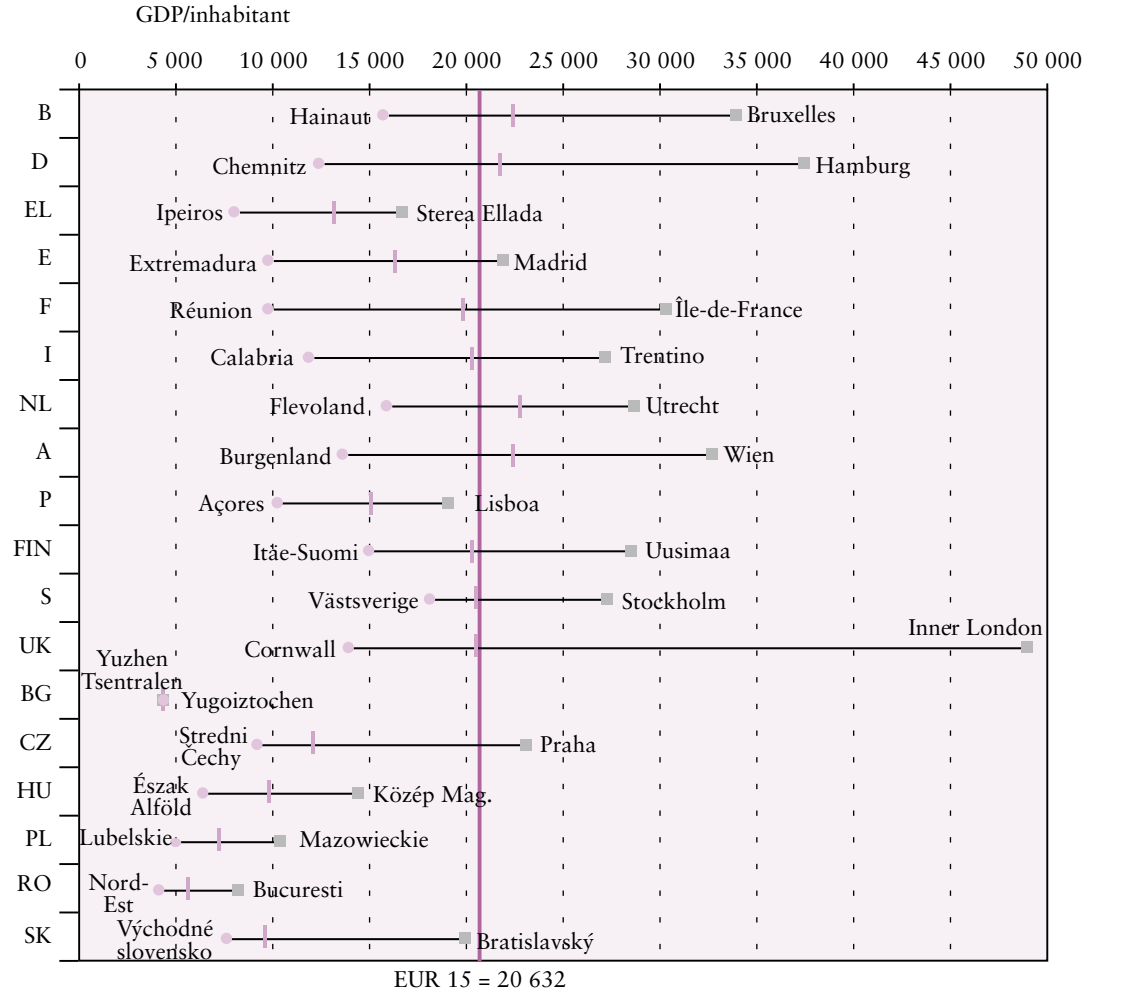
The figures for these two regions correspond to 22 and 243 % of the EU average (20 213 PPS) respectively.

In the reference period, there were 97 regions whose per capita GDP (expressed in PPS) was less than 75 % of the EU average. Some 51 of those regions were in candidate countries, with only Bratislava, in the Slovak Republic (at 99 % of the EU average) and Prague, in the Czech Republic (115 %) well above the 75 % mark (equivalent to 15 160 PPS). Overall, there were 42 regions with a per capita GDP of under 10 000 PPS, although only one of them was in a current EU Member State. The wealth gap between the regions of the European Union and the candidate countries is accordingly quite significant, even when the figures are converted into PPS.

About 171 million people lived in these 97 regions in 1998 (including about 68 million in the EU and 103 million in the candidate countries). That figure represents about 35 % of the total population of the EU and candidate countries combined. The 68 million or so people living in regions of the EU whose per capita GDP is less than 75 % of the EU average make up about 18 % of the total current EU population. It should be borne in mind, however, that, when candidate countries join the EU, its average GDP will decline and there will therefore be fewer regions with a GDP below 75 % of the average. If all 10 candidate countries had been Member States in 1998, for example, average per capita GDP in the EU would have been just 17 476 PPS, which would have reduced the number of regions below the 75 % mark to 70 %.

Inner London had by far the highest per capita GDP. Regions such as Hamburg and Upper Bavaria in Germany, the Grand Duchy of Luxembourg, Brussels and Vienna followed some way behind, although the figures for all of these regions were 160 % or more of the EU average. The impact of commuter flows in these regions should not be underestimated.

Graph 3.2. GDP per inhabitant at national level and regional extremes, NUTS 2, in 1998



In 12 of the 18 countries with more than one NUTS 2 region, the highest per capita GDP in 1998 was at least twice as big as the lowest. Examples are Belgium (Brussels: 169 % of the EU average, Hainaut: 79 %), Italy (Trentino-Alto Adige: 136 %, Calabria: 61 %) or Austria (Vienna: 163 %, Burgenland: 69 %). In Bulgaria and Sweden, the differences between the regions with the lowest and highest per capita GDP were smaller.

In Germany, the figure for Hamburg (185 %) was about three times that for Chemnitz (63 %). A similar situation pertains in France, although that country's overseas departments are of course something of a special case. If we ignore Inner London and instead take the region with the second highest figure in the United Kingdom (Berkshire, Buckinghamshire and Oxfordshire, which came out at 130 %), the United Kingdom would not be much different from most other Member States. This effect is not so important in Germany, where the figure for the Darmstadt district (154 %) was not that far behind the figure for Hamburg (185 %). The conclusion is that regional disparities in the candidate countries are comparable to those in the EU Member States, albeit at lower base levels.

Comparisons of average values for the years between 1995 and 1998 on the one hand, and the figures for 1998 on the other, show that four-year averages do not always accurately reflect the current situation: in no fewer than 51 of the 211 EU regions under consideration, the difference between the two values was 2 percentage points or more. In 20 of these 51 regions, the average was above the value for 1998: evidence that economic growth in these regions lagged behind the EU average. One is struck by the fact that these regions are mainly in Germany, France and Italy.

In the other 31 regions, the four-year average was below the figure for 1998, which suggests that the average figures may underestimate the latest trends. It is interesting to note that, once again, the regions are concentrated in a small number of Member States: No fewer than 11 of these 31 regions were in the United Kingdom. The two Irish regions were also in this group (at 8.9 percentage points, Southern and Eastern shows the largest differential of all), together with regions in Spain, the Netherlands and Portugal.

If we compare trends in per capita GDP in the candidate countries from 1995 to 1998 with the EU average, we see that seven of those countries are engaged in a catching-up process. In the regions of Bulgaria, the Czech Republic and Romania, however, economic growth lags behind the EU average. This subdivision reveals almost no regional differences in trends over time.

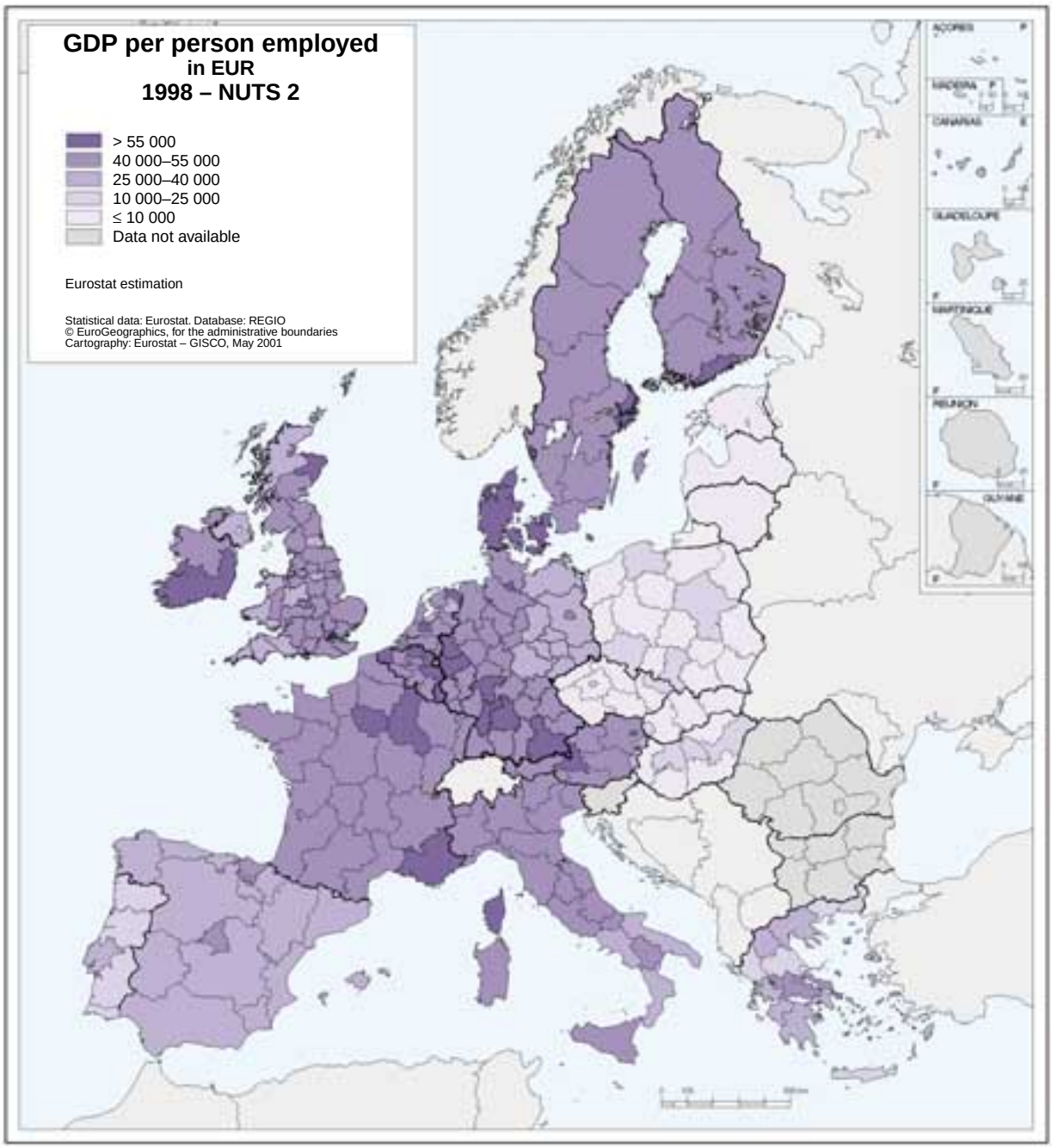
Regional GDP as a measure of productivity

GDP can also be used for a different purpose, i.e. to measure productivity. To this end, regional GDP is divided by the number of employed persons, to give 'GDP per employed person'. There is some controversy about the most appropriate method of measuring productivity, and the authors of the present publication do not claim to have discovered that method. It would, however, be more satisfactory to divide regional GDP by the number of hours worked or by full-time equivalents, rather than by the number of persons. The chosen measure does at least provide some insights into the different levels of productivity in the regions of Europe. This variable could also be expressed in PPS, in order to compensate for price differences which are not reflected in exchange rates. For present purposes, however, it was decided to dispense with this option, and to make the comparisons in ecu. It could, in any case, be argued that ecu-denominated market products are in competition with each other, and that it is more appropriate to express comparisons in ecu. Again, detailed examination of the pros and cons would be beyond the scope of this publication.

Although the regional structures are basically similar to those described in the previous section, there are some differences. When the data are expressed in ecu, for example, the regions of western Germany rank higher. This reflects western Germany's age structure, education system and retirement regulations. The proportion of its population who are not economically active is higher than in the rest of Europe, but lower in conurbations. This is a clear example of the statistical problem associated with commuters, who swell the number of persons in employment to the extent that 'GDP per employed person' in the host region is actually lower than its per capita GDP.

The contrast between the EU Member States and the candidate countries is even starker, although the main reason for this is the use of ecu, rather than PPS.

Map 3.2 — GDP per person employed

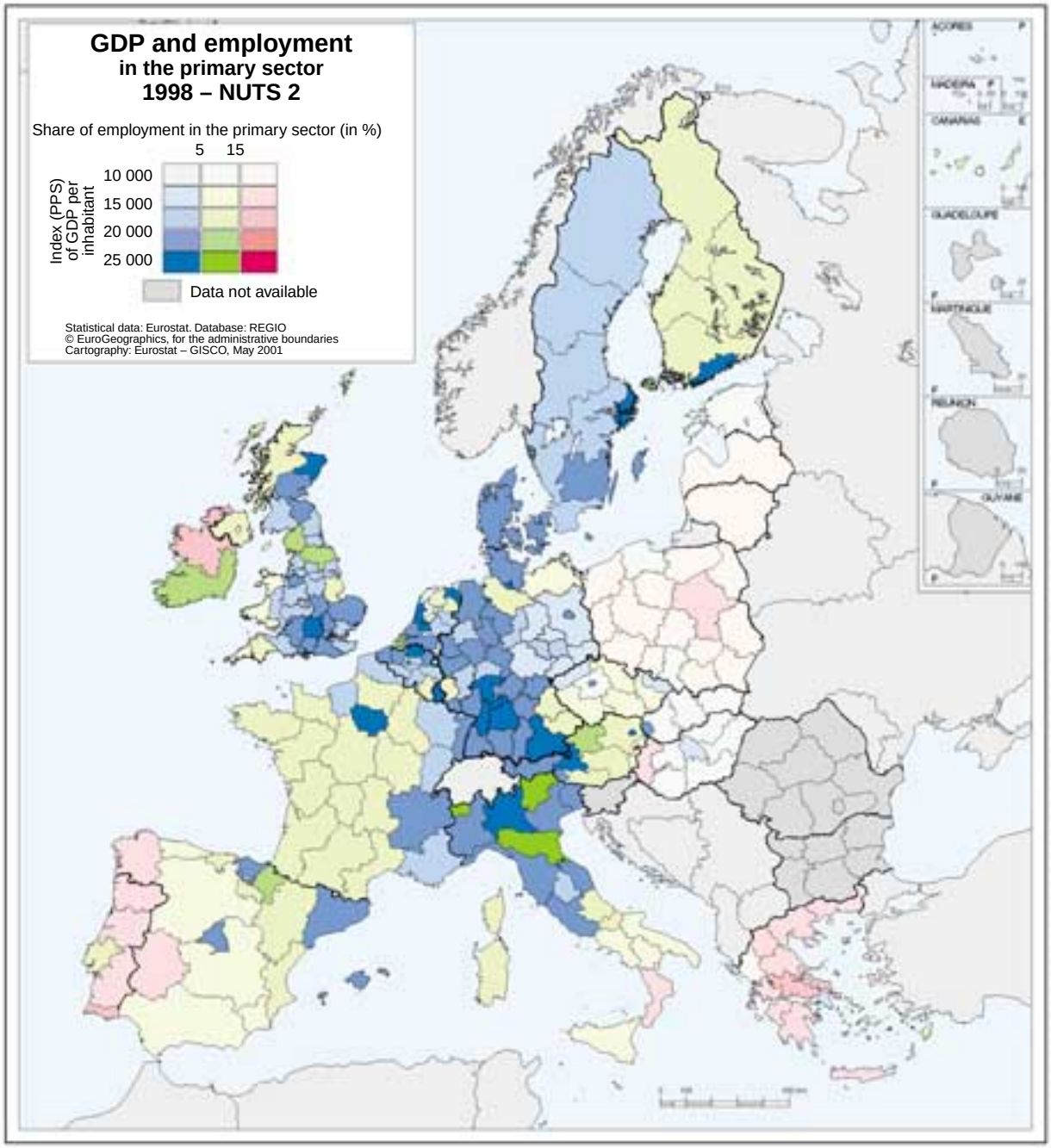


Regional GDP and employment

As an aid in visualising the geographical relationship between GDP and employment, the following maps show the 264 NUTS 2 regions grouped into five categories: (1) those with a per capita GDP of less than 10 000 PPS; (2) those in a band between 10 000 and 15 000; (3) those between 15 000 and 20 000; (4) those between 20 000 and 25 000; and (5) regions with a per capita GDP of more than 25 000 PPS. The higher a region's per capita GDP, the darker the colour in which the region is marked; the lower a region's per capita GDP, the lighter its colour.

The share of employment provided by the agriculture, industry and service sectors (Maps 3.3, 3.4 and 3.5 respectively) was then compared with GDP in all of these regions. A small share is shown in blue, an average share in green and a large share in red. The major differences in the share of employment accounted for by each of these sectors meant that each map is divided up differently. The thresholds between the three cat-

Map 3.3 — GDP and employment in the primary sector



egories (small, average and large) were chosen with a view to making the visual representation as clear as possible.

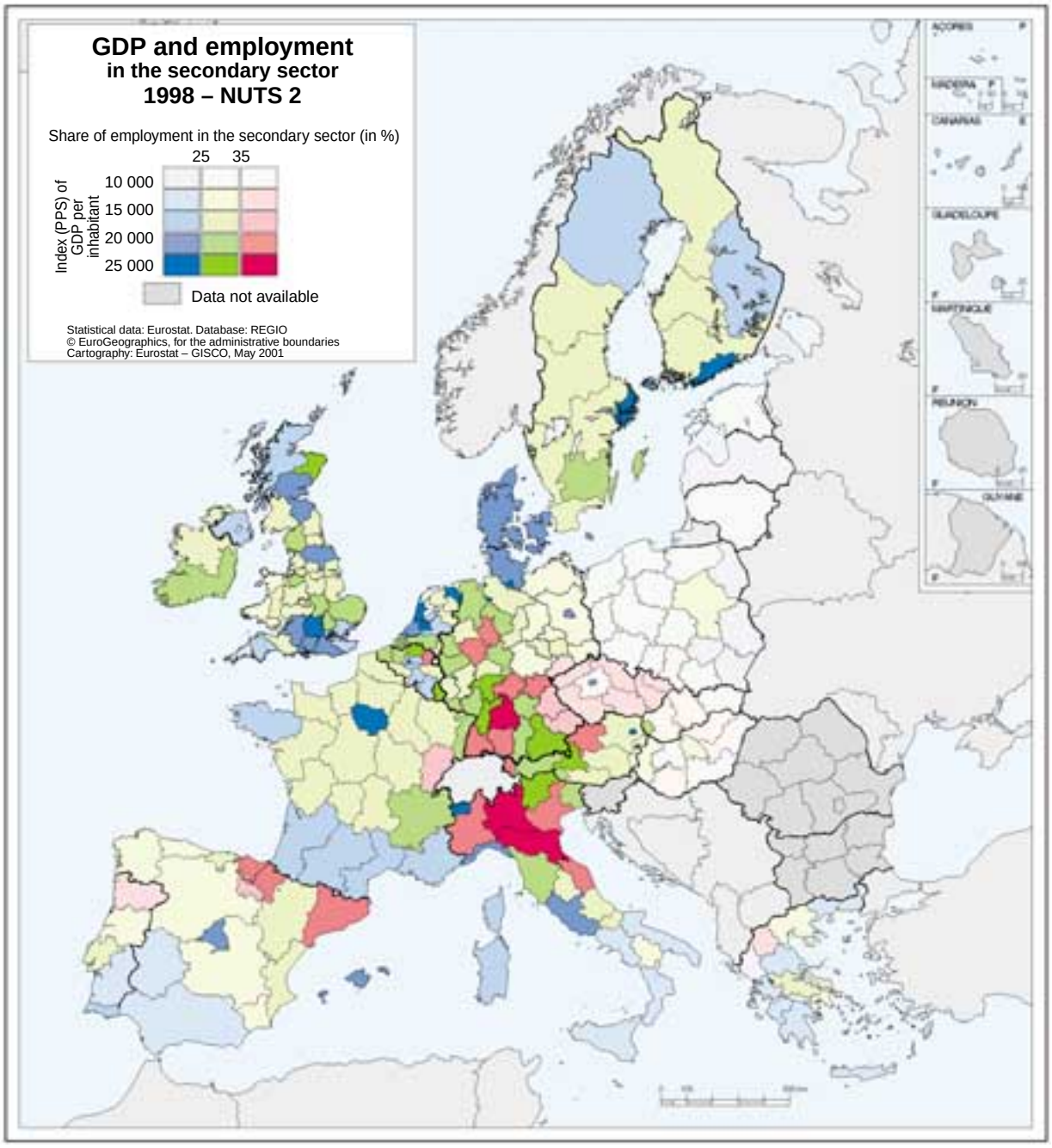
In Map 3.3, for example, areas marked in dark blue are 'prosperous' regions in which agriculture accounts for only a small share of overall employment. Areas marked in a pale green, on the other hand, are 'poorer' regions, in which agriculture accounts for an average share of total employment. Regions marked in a pale red have a low GDP and relatively large share of employment accounted for by agriculture. Maps 3.4 (share of employment accounted for industry) and 3.5 (service sector) should be read in the same way.

We should not be surprised by what Map 3.3 tells us. Europe is crossed by a broad swathe of regions which have a high per capita GDP and in which agriculture accounts for only a small share of employment. That swathe takes in Sweden, Helsinki and Paris and their surrounding regions, the United Kingdom (although this combination occurs only in the south and north of the United Kingdom), the Benelux countries, Germany and northern Italy. This is in stark contrast to the peripheral regions: in large parts

of France, Spain, southern Italy, western Austria and most of Finland, agriculture accounts for a larger share of employment than in the more central regions. The importance of agriculture in the Baltic States of Latvia and Lithuania, and in Greece, Poland, Portugal and parts of Ireland, is striking. These peripheral regions are often characterised by a combination of economic weakness and an agricultural sector which makes up a large share of employment. Estonia, the Czech Republic, the Slovak Republic and Hungary have, to some extent, already managed the transition from agricultural to industrial economies, with agriculture now accounting for only an average share of employment.

Turning to the share of employment accounted for by industry, however, the picture is much less even. The one consistent feature is that regions where industry provides a large share of employment tend to be concentrated in the central part of the continent, i.e. in southern Germany, northern Italy and parts of the Czech Republic and Slovak Republic. The situation in

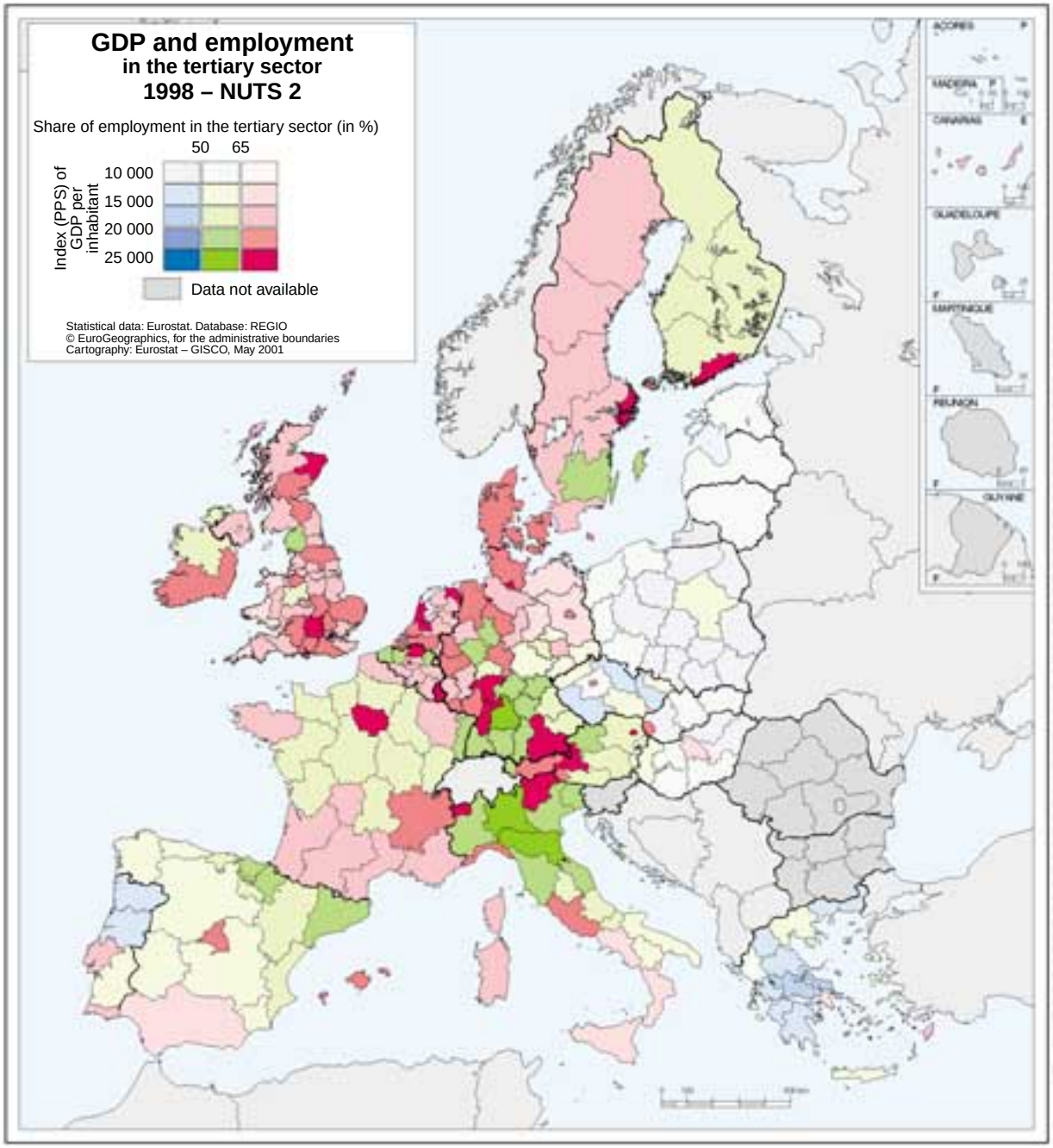
Map 3.4 — GDP and employment in the secondary sector



the peripheral regions of the European Union is more difficult to characterise, and there are any number of combinations of industrial employment and GDP. One reason for this patchy situation might be the various types of industry in Europe, which have widely varying levels of productivity. It is possible for two regions to have identical shares of industrial employment and yet have completely different structures. Some regions, for example, have efficient industrial structures, while others have 'too much' industrial employment. There is a need for more detailed analysis of individual regions.

Turning now to the share of employment accounted for by the service sector, Europe is, once again, rather like a patchwork quilt, even though an overview is easier to obtain than it was from Map 3.4. The share of employment accounted for by the service sector is fairly small in Greece (apart from the tourist regions), parts of Portugal and the candidate countries. The rest of Europe is characterised by an average or high share of employment in the service sector.

Map 3.5 — GDP and employment in the tertiary sector



Any number of different combinations can be found. To summarise, then, the correlation between a high share of employment accounted for by services and a high level of GDP is much less clear-cut than one might have expected. It is, however, apparent that less developed regions have some catching up to do.

Generally speaking, the maps lend support to the premise that there has been a shift in employment away from agriculture and towards the service sector, although, again, more detailed analysis is required.

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LABOUR FORCE SURVEY

4

Introduction

The development of the labour markets in Europe is increasingly becoming the focus of European policy, one of the stated aims of which is to reduce regional imbalances.

The data on the labour market that can be found in the REGIO databank constitute an important basis for discussion for anyone interested in employment policy. These results of the EU labour force survey provide data which are comparable for all EU Member States. Their methodological basis has been harmonised to apply throughout the EU. Many of the applicant countries also conduct surveys on the labour force, using the harmonised basis and thus providing results which can be compared with those of the Member States. The labour force survey is an example which clearly shows that Europe's statisticians have the future in mind and are making the European statistical system (ESS) a forerunner of European integration.

An advantage of the labour force survey is that it not only looks at the national situation — it also goes down to the regional level. Many of the maps shown in this chapter indicate the extent to which different employment situations are regional in character.

The labour force survey also provides information on the population's breakdown into persons in employment, unemployed persons and inactive persons, and thus allows employment and unemployment rates to be calculated. The labour force survey obtains data on the employment situation of the interviewees, their training, the economic branch in which they are working and on part-time work, second jobs, job-seeking and many other points. These data can be retrieved from the REGIO databank with a breakdown by age category and gender.

Methodological notes

The results of the labour force survey refer exclusively to private households.

The Community survey is generally held in spring and provides data only once a year. To keep data more up to date, it is currently being converted into a continuous survey which will allow the calculation of quarterly figures.

When calculating the trend in part-time employment (Map 4.2), it has not always been possible to select the same reference period for all Member States because of the limited availability of data. In order to allow comparisons to be made nonetheless (even though they are not fully conclusive), annual averages have always been calculated. All cases where the normal reference period has not been applied have been indicated.

The data generally refer to the year 1999 (Map 4.2: 1989 to 1999); Maps 4.5 and 4.6 (employment rates) refer to the situation in the spring of 2000.

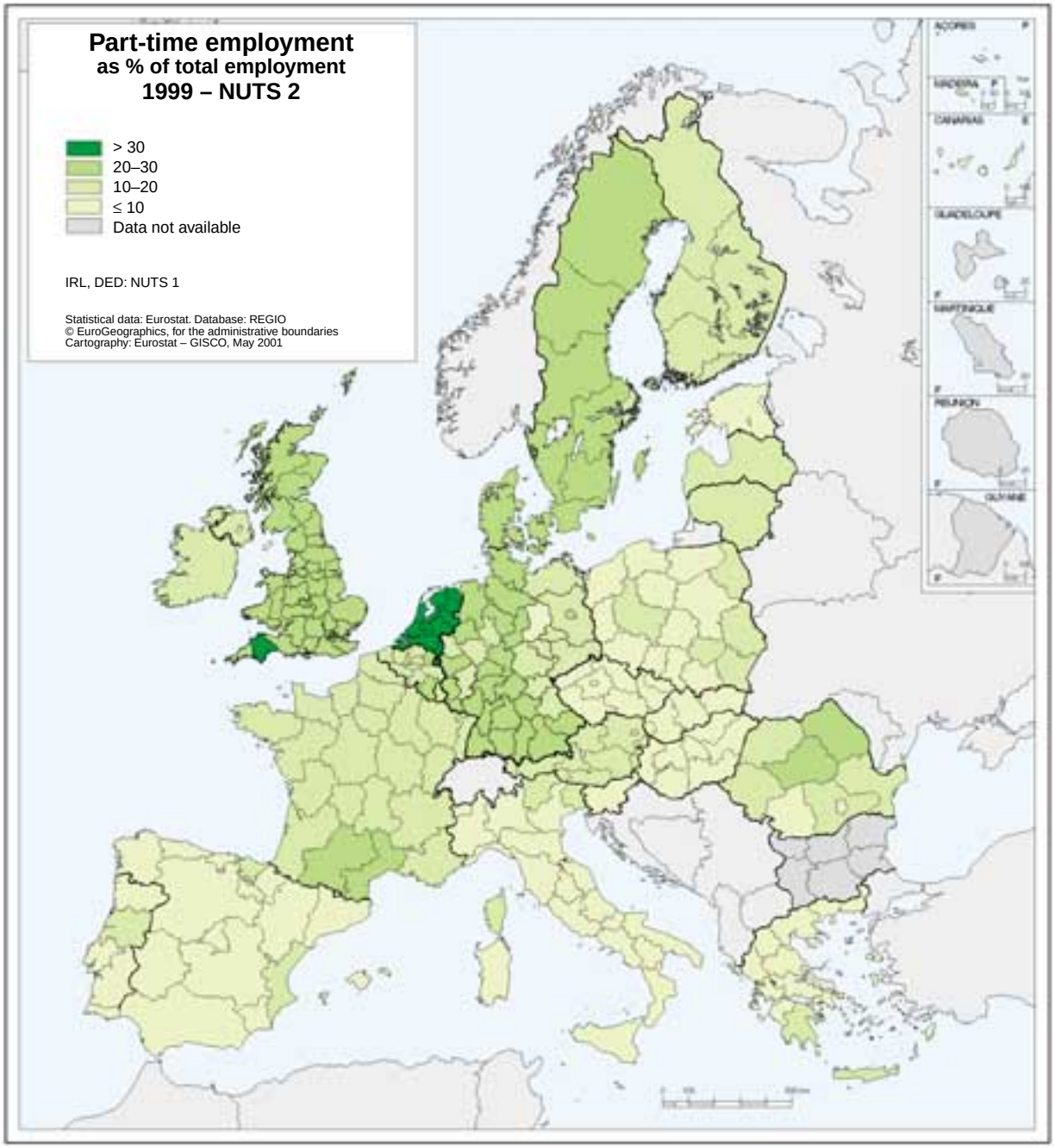
The definitions of the characteristics covered by the labour force survey are in line with the recommendations of the International Labour Organisation (ILO).

Part-time work

Map 4.1 shows the proportion of those persons in employment who work fewer than the full number of hours of the country concerned. It is evident that for part-time work, not only regional but above all national influences are important: in Greece, Italy, Portugal and Spain, part-time work is much less widespread than in the Netherlands, Sweden or the United Kingdom. The highest proportion of part-time work in 1999 was reached by the Netherlands, with just under 40 %. The EU average for the proportion of part-time work was about 18 % in 1999.

An interesting comparison can be made between Map 4.1 on part-time work and Map 4.3, which shows the percentage of persons in employment represented by women: here, too, the north-south divide is evident. This is not surprising in

Map 4.1 — Part-time employment

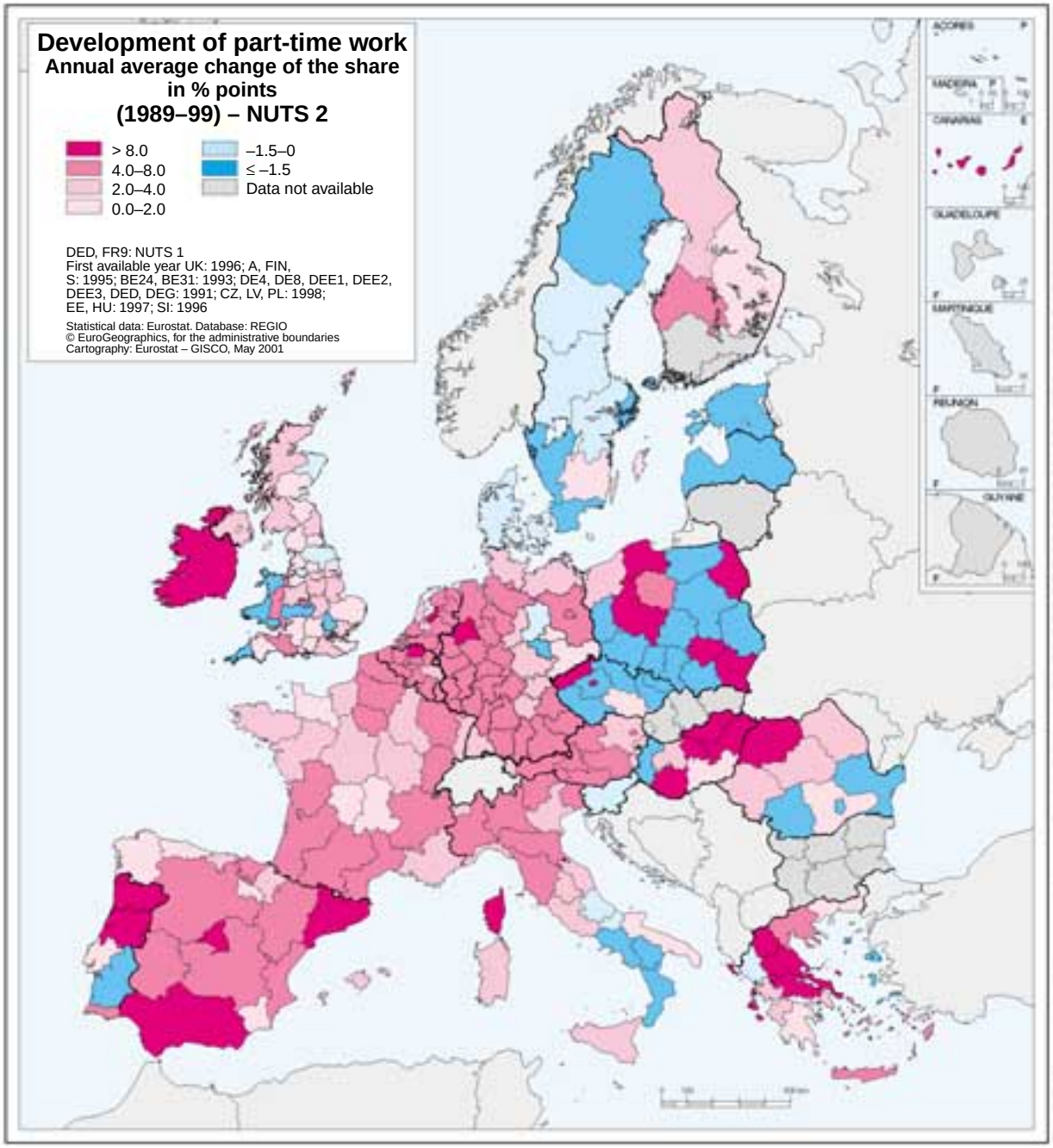


the light of the fact that in 1999 some 80 % of all persons in part-time employment were women.

It is clear from Map 4.2 that the countries and regions that are below the European average for part-time employment have some catching up to do. This map shows trends in part-time work based on the average annual change in part-time employment between 1989 and 1999. Greece, northern Italy, Spain and Ireland show sharp increases, while Sweden and the United Kingdom have less marked increases or even declines.

In Poland, Slovenia, the Czech Republic and Hungary, the share of part-time employment in most regions was under 10 %. It is striking that in Poland and the Czech Republic, part-time employment declined sharply between 1998 and 1999. In Estonia and Latvia, too, the proportion of part-time work fell sharply since 1997 or 1998 and was around 10 % in 1999.

Map 4.2 — Development of part-time work

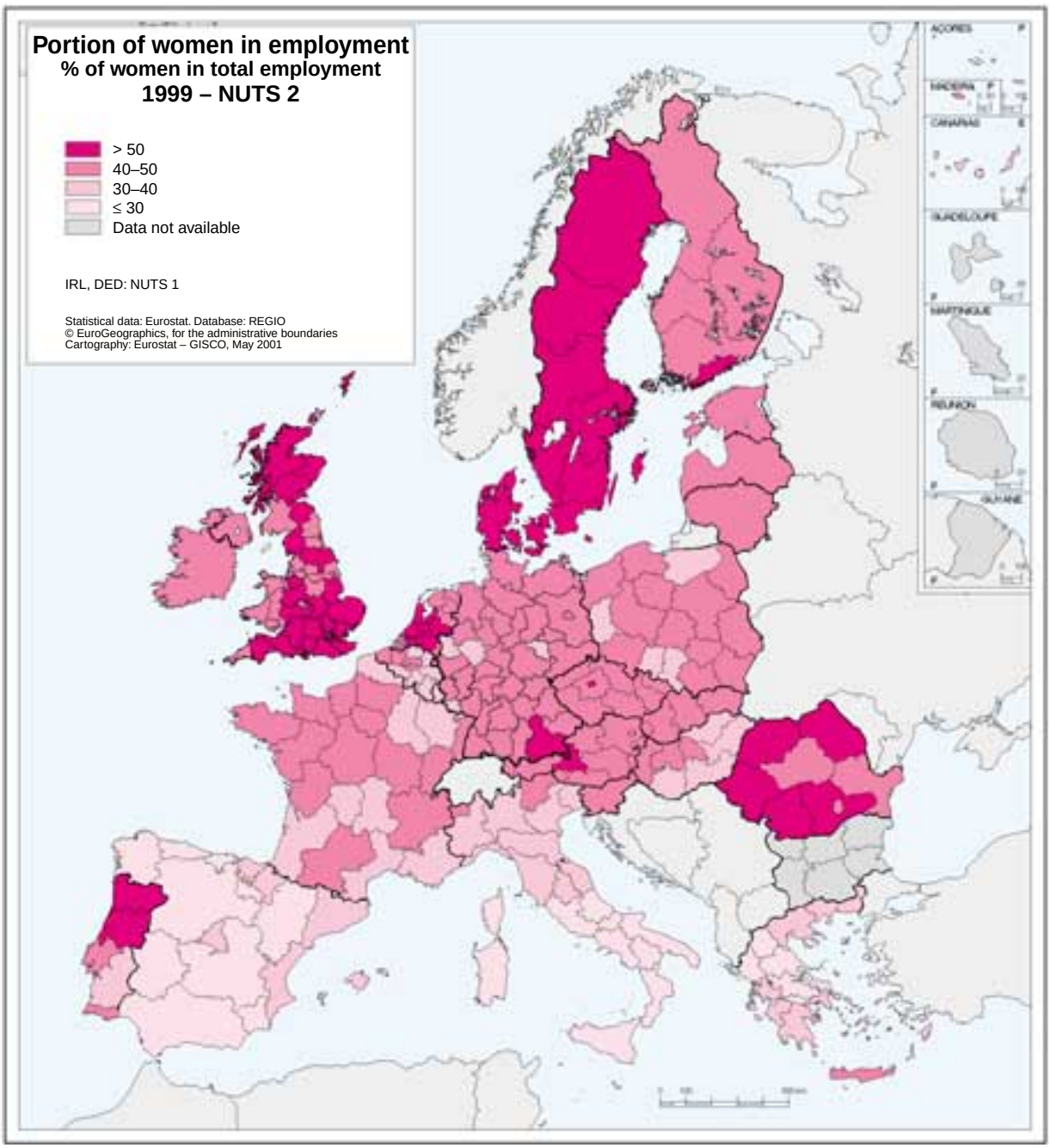


Working women

The north-south divide in the proportion of women within the working population, depicted in Map 4.3 was already evident in the part-time employment figures. Greece, Spain and southern Italy have the lowest percentages, whilst the Netherlands, Sweden and United Kingdom have the highest. The regions of northern Portugal are conspicuous in that they form 'islands' within the Iberian peninsula: there, over half of those in employment are women, whereas in Spain they represent less than 30 %.

In the applicant countries, the share of women in the working population in most regions is over 40 %. The figures from Romania show an even higher percentage of women within the working population.

Map 4.3 — Portion of women in employment



Older people

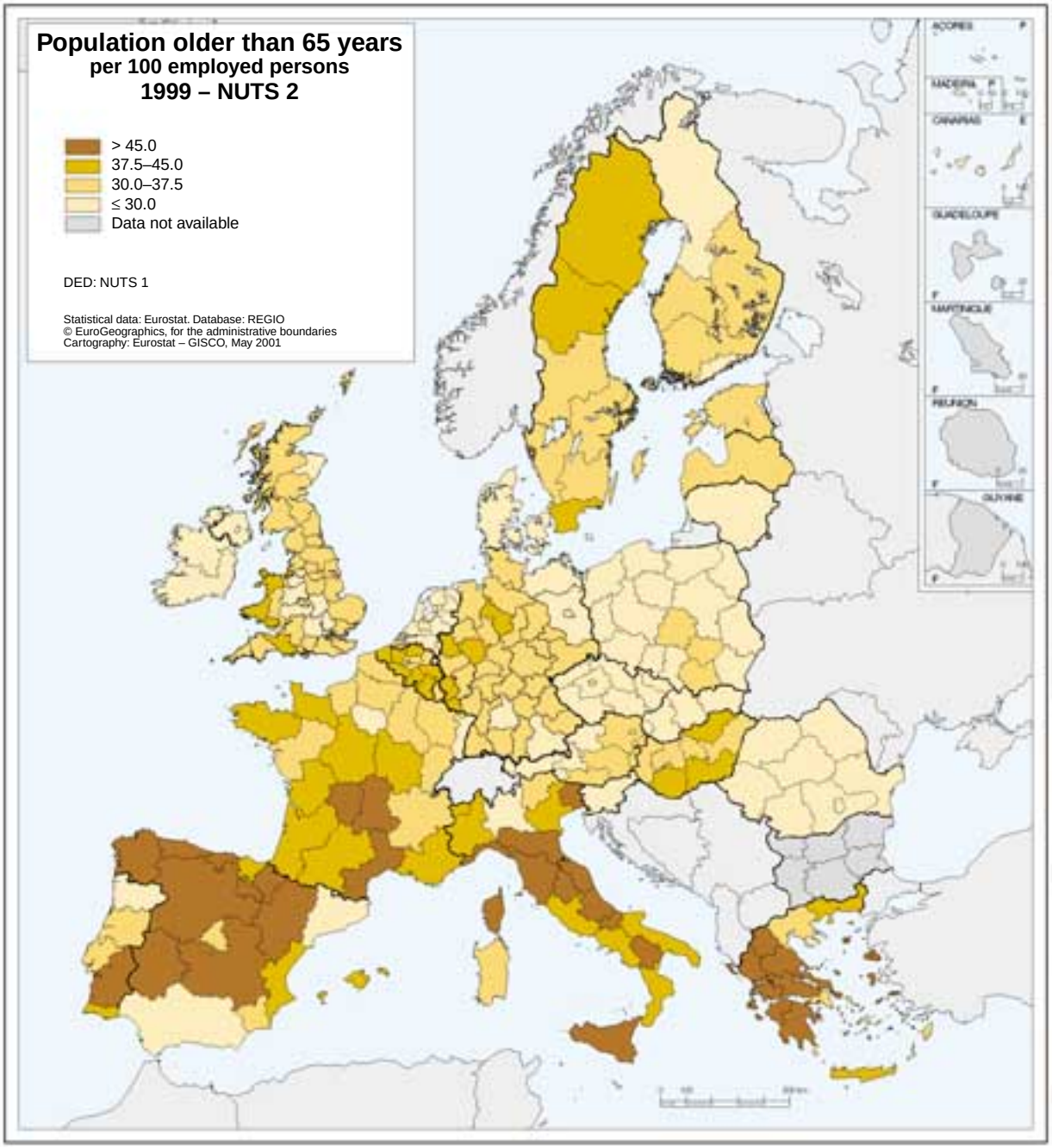
What percentage of persons in employment are over 65? The answer to this question provides clues about the financial burden on the working population in supporting the elderly. Map 4.4 provides evidence of major differences: in parts of Greece, Italy, Spain and southern France, over 45 % of persons in employment were over 65. In northern Europe, the figure was much lower in some cases.

Map 4.4 indicates that Lithuania, Poland, Romania, Slovenia and the Czech Republic were 'young' countries: there, in most regions, less than 30 % of the population in employment were over 65. Estonia and Latvia, too, are 'young' compared with the average for the 15 EU Member States.

The employment rate (general)

At the meeting of the European Council held in Nice in December 2000, the Member States of the

Map 4.4 — Population older than 65 years



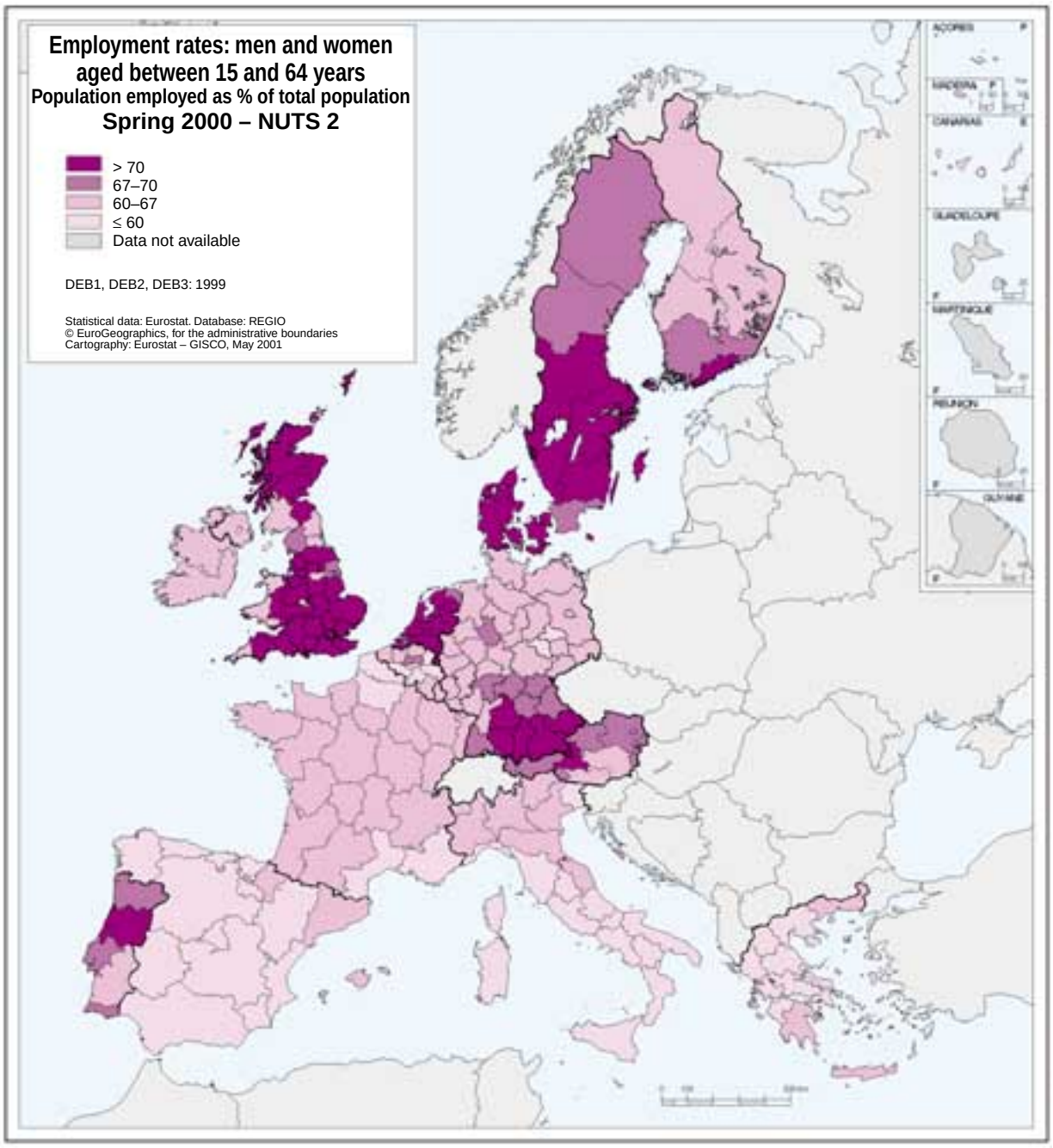
European Union re-asserted the strategic objectives which had been agreed in March 2000 in Lisbon, and in particular:

- the aim of full employment: 'The ultimate role is, on the basis of the statistics available, to bring the employment rate (...) up to a level which is as near as possible to 70 % by 2010 …';
- the aim of a society more adapted to the personal choices of women and men, in other words '… to increase the proportion of working women (...) to over 60 % by 2010.'

The European Council agreed on further aims at the Stockholm Summit in March 2001 — among others, on the role of a general employment rate (i.e. for men and women) of 67 % by January 2005 and 57 % for women by the same deadline.

Where had these aims already been achieved for the general employment rate in the year 2000? The answer lies in the dark shading of Map 4.5. The map shows the employment rate for all persons in employment between 15 and 64 years; in other words, the percentage of persons between 15 and 64 in employment. The Lisbon aim of achieving an employment rate of at least 70 % had been reached in 1999 only in Denmark, a large part of the Netherlands and the

Map 4.5 — Employment rates: men and women aged between 15 and 64 years



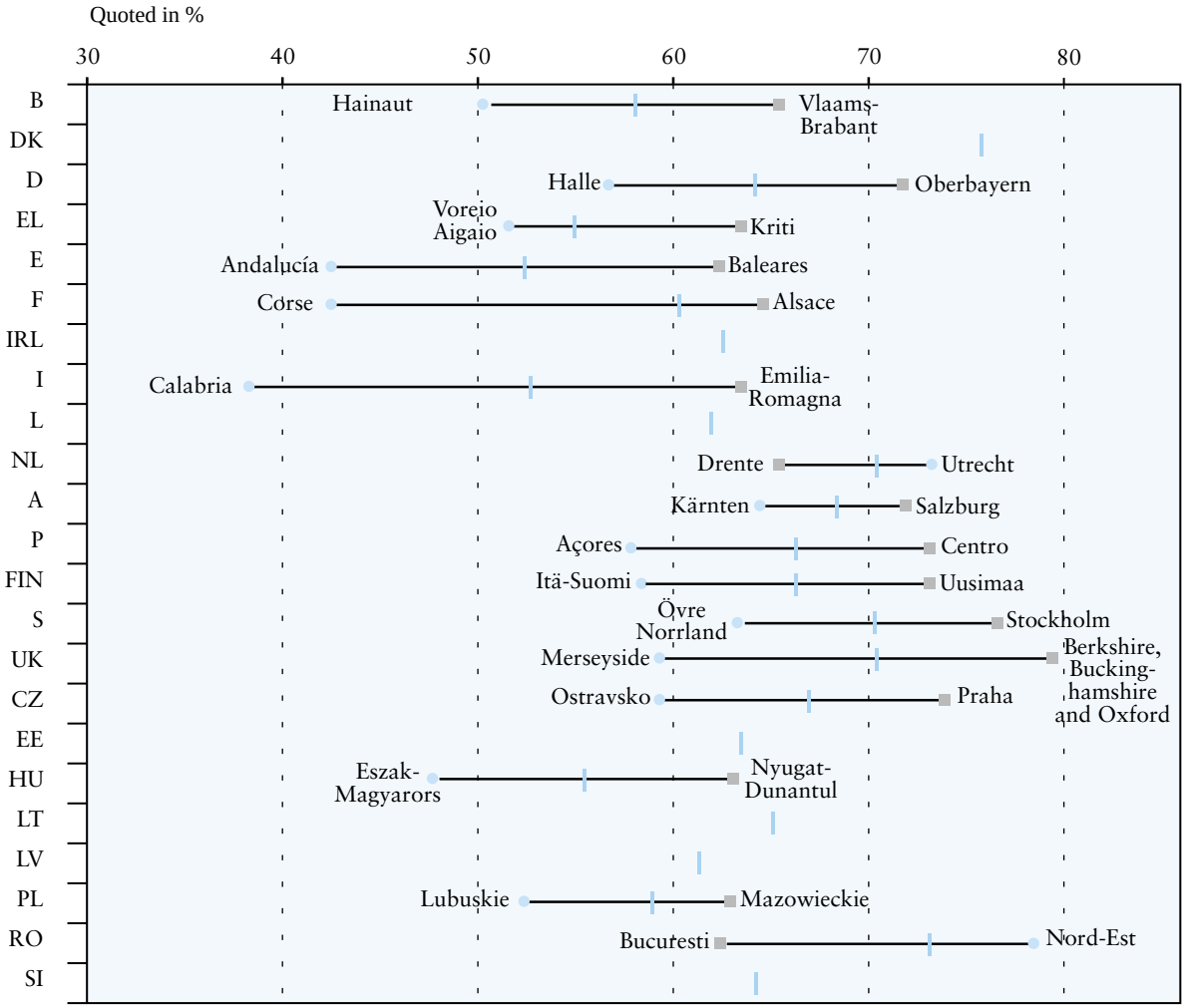
United Kingdom, in smaller areas of Finland, Portugal and Sweden and in a region stretching from the west of Baden-Württemberg, through Bavaria (Germany) to the area around Salzburg (Austria). In these regions, the employment rate was on average about 74 % (the EU average: 63 %).

An employment rate of under 60 % is recorded particularly in regions in Greece, Italy and Spain as well as parts of Belgium, Germany and France. There, the average employment rate (about 53 %) was just over 20 percentage points below the value of the regions with the highest rates.

The regions which had achieved the interim goal of a general employment rate of 67 % in the year 2000, but were still below the 70 % mark, were located mostly around the regions which had already exceeded this level.

An idea of the range in employment rates within individual countries can be obtained from Graph 4.1, which indicates the regions with the highest and lowest employment rates respectively.

Graph 4.1. Employment rates, at national level as well as regional extremes (NUTS 2) in 1999



The employment rate for women

Where had the aim of achieving an over 60 % share for women in employment out of the total number of women between 15 and 64 already been reached in the year 2000? The answer is in the dark shading in Map 4.6: in Denmark, Sweden and in regions of Finland, the Netherlands, Austria, Portugal, southern Germany and the United Kingdom.

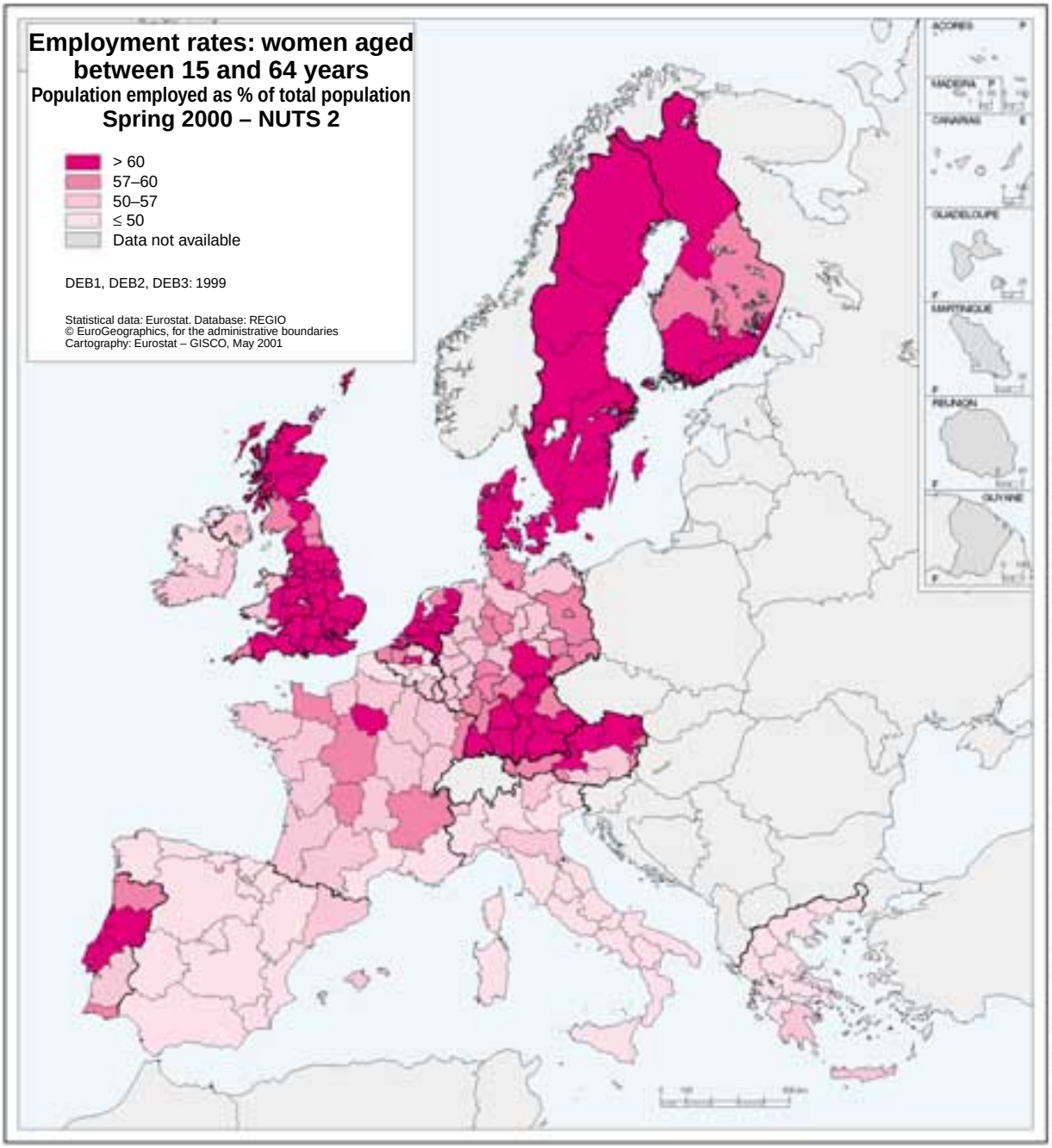
A comparison between Maps 4.5 and 4.6 shows that the employment target for women set in Lisbon has already been achieved in more regions than the aim for general employment. This applies above all to regions in Germany, Austria and Swe-

den, and to the 'Île-de-France'. In regions which had already reached the target in the year 2000, the employment rate for women was around 66 %.

In the regions with the lowest employment rates for women, the average was about 26 percentage points lower — at around 40 %. These regions are located for the most part in the south of the EU — in other words, in Greece, Italy, Spain and southern France. In this connection, the special, positive situation of Portugal is conspicuous, since the employment rate there was much higher (at about 60 %).

Many regions, especially in Germany, Finland, France and the United Kingdom, have already achieved the interim aim of a female employment level of at least 57 %.

Map 4.6 — Employment rates: women aged between 15 and 64 years



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SCIENCE AND TECHNOLOGY

5

Introduction

In order to achieve the goals stated at the Lisbon Summit of March 2000, one requirement is the creation of an environment that encourage research and innovation, so facilitating the transition to the knowledge-based economy. This policy needs information on science and technology, a wider field than just research and development (R & D), as it includes also data on patents, on high technology manufacturing sectors and on knowledge-intensive services.

The dynamism of a region can be measured by its capacity to innovate: indicators of the regional innovative potential are provided by R & D expenditure and employment, as well as by data on patent activities and the development of the high technology sectors. This chapter covers all these areas.

Science and technology statistics are available in REGIO. The analysis of the regional data highlights the existence of great differences between the European regions.

Although the reference year for science and technology data is the same as in the 2000 yearbook, this is a reflection of the fact that many Member States carry out surveys only every second year. Since the publication of the last yearbook, however, data for many countries have been updated and some provisional data confirmed. Such changes are in many cases not visible in the maps because the new figure still lies within the same cartographic interval.

Methodological notes

Research and experimental development (R & D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this to devise new applications. The methodological issues are completely set in the Frascati Manual (OECD, 1993).

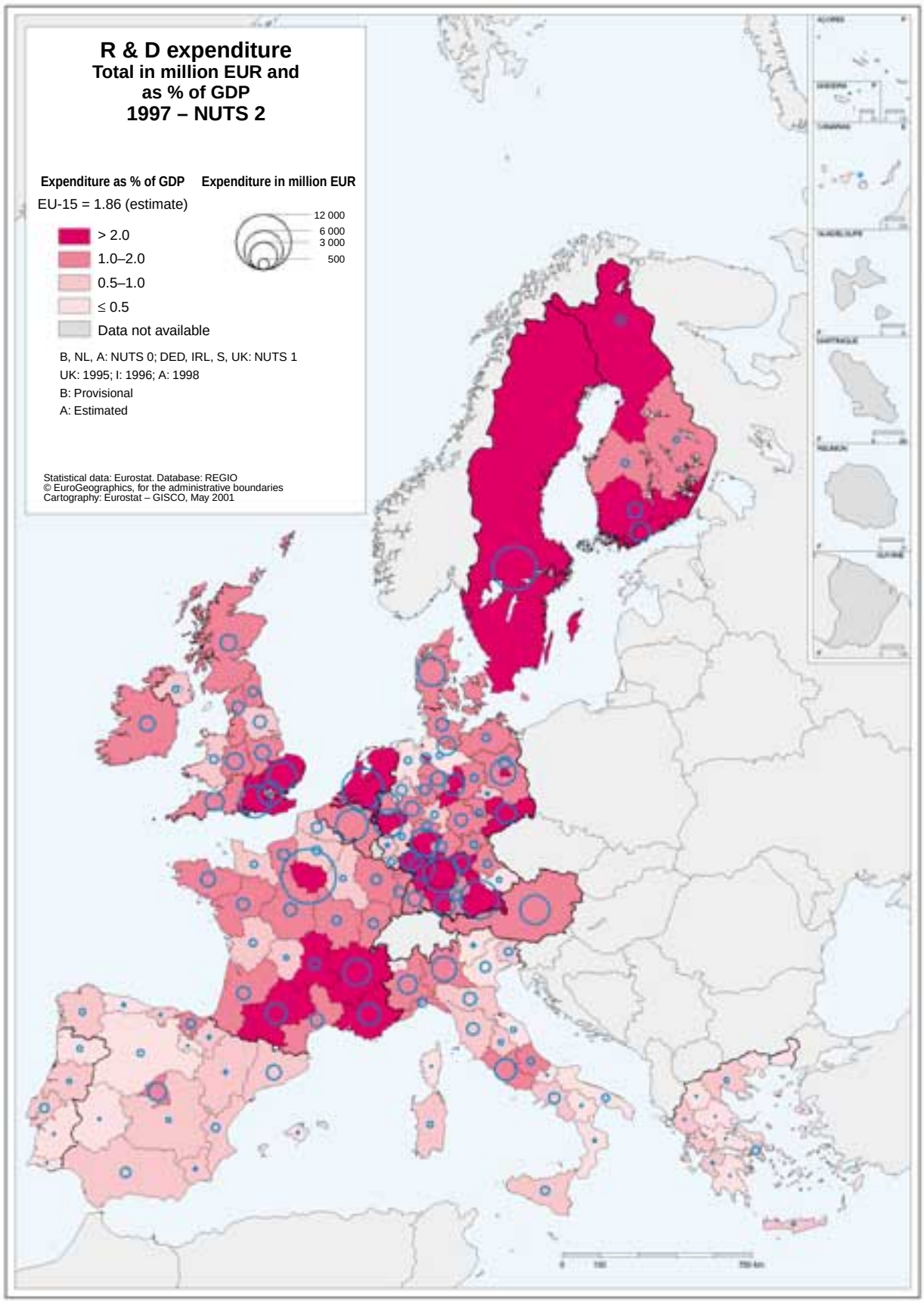
'R & D expenditure' covers all the resources employed within the area covered by a given statistical unit in carrying out R & D, such as labour costs, operational costs and capital expenditure, whatever the sources of funds.

'R & D personnel' comprises all persons employed in the R & D sectors, as well as persons such as administrators or administrative personnel, whose services have a direct link with R & D work.

A patent is a public title of industrial property conferring on its owner the exclusive right to exploit the invention for a limited number of years. Patents are the most widely used source of data for measuring the innovative activity and technological development of an area, as well as for comparisons of technology growth. The patent data reported here include the patent applications filed at the European Patent Office (EPO).

The high technology sectors are defined in terms of the R & D intensity of the sector, following the definition applied by OECD (1997). R & D intensity is calculated as the ratio of R & D expenditure of the sector to its value added. To this is added the indirect R & D intensity, which expresses the R & D ratio of the input to the sector, relating both to intermediary products and to capital investments. Applying this approach to the industrial sectors of the European economic activity classifica-

Map 5.1 — R & D expenditure



tion NACE Rev. 1, 10 main high technology sectors are identified: aerospace, computers and office machinery, electronics and communications, pharmaceuticals, scientific instruments, motor vehicles, electrical machinery, chemicals, other transport equipment, non-electrical machinery.

R & D intensity does not serve as a suitable indicator in the case of services. Eurostat has identified three NACE service sectors as being 'High tech': post and telecommunications, computer and related activities and research and development.

However, in order to take into account the indirect interaction between industry and services, a broader definition of high-grade, knowledge intensive services makes additional sense. Knowledge-intensive services (KIS) include: water transport, air and space transport, post and telecommunications; financial intermediation; real estate, renting and business activities; education; health-care and social work; recreational, cultural and sporting activities, radio and television activities; libraries, archives, museums, etc.

R & D expenditure and personnel

Map 5.1 presents the situation of R & D expenditures in European regions in 1997. The leading regions of the EU countries showed different behaviours: wide differences are observable between the leading regions of Germany (Braunschweig), France (Île-de-France) and Finland (Uusima) and the leading region of the other countries.

The German regions form strong centres of European R & D, as shown by the fact that seven of them were among the top 10 regions in 1997 in terms of percentage of GDP. The remaining three regions were Île-de-France, Midi-Pyrenées (both France) and Uusima (Finland).

In absolute terms, Île-de-France was in the lead, ahead of Oberbayern, Stuttgart, Lombardia and Köln; these five regions alone accounted for over 20 % of government expenditure on research and development (GERD) in the EU.

R & D personnel data are represented in Map 5.2, which shows both totals and percentages of active population. In absolute terms, the European region with the largest number of employees in R & D is again Île-de-France (150 484) but when this is expressed as a percentage of the labour force the leading region is Stockholm, with 3.65, followed by Uusima (Finland), with 3.59, and Oberbayern (D), with 3.33.

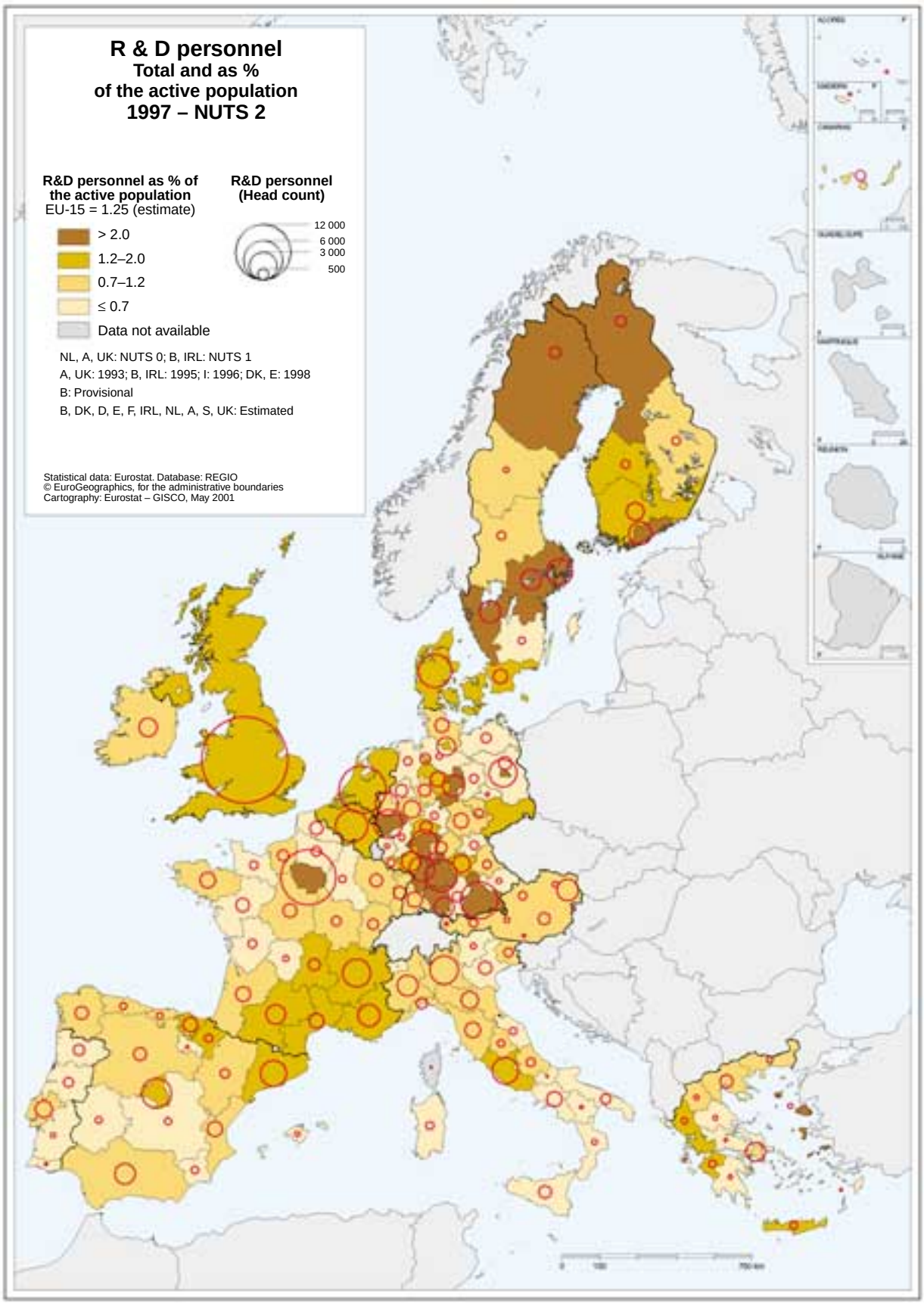
Map 5.3 shows simultaneously the wealth of each region (in terms of GDP per inhabitant) and its R & D intensity (proportion of R & D expenditure over GDP).

Map 5.3 is the result of a two-stage process of analysis. First, the regions are ranked in terms of their average GDP per inhabitant. This aspect is represented cartographically by the depth of colour: regions with lower GDP per inhabitant are lighter while those with higher GDP per capita are a darker shade. Next, these values are linked to a second indicator, the percentage of a given region's GDP that is devoted to R & D. The EU average is determined (in 1997 it was 1.86 % of GDP) and the regions are then grouped into two categories: those regions where the percentage of GDP spent on R & D is less than the Community average (marked here in blue) and those where R & D expenditure as a percentage of the region's GDP is above the EU average (marked on the map in red). In each case, the depth of colour, whether blue or red, continues to show the per capita GDP level.

This map shows that there is no positive correlation between GDP and R & D expenditure, as all the four possible situations are observable:

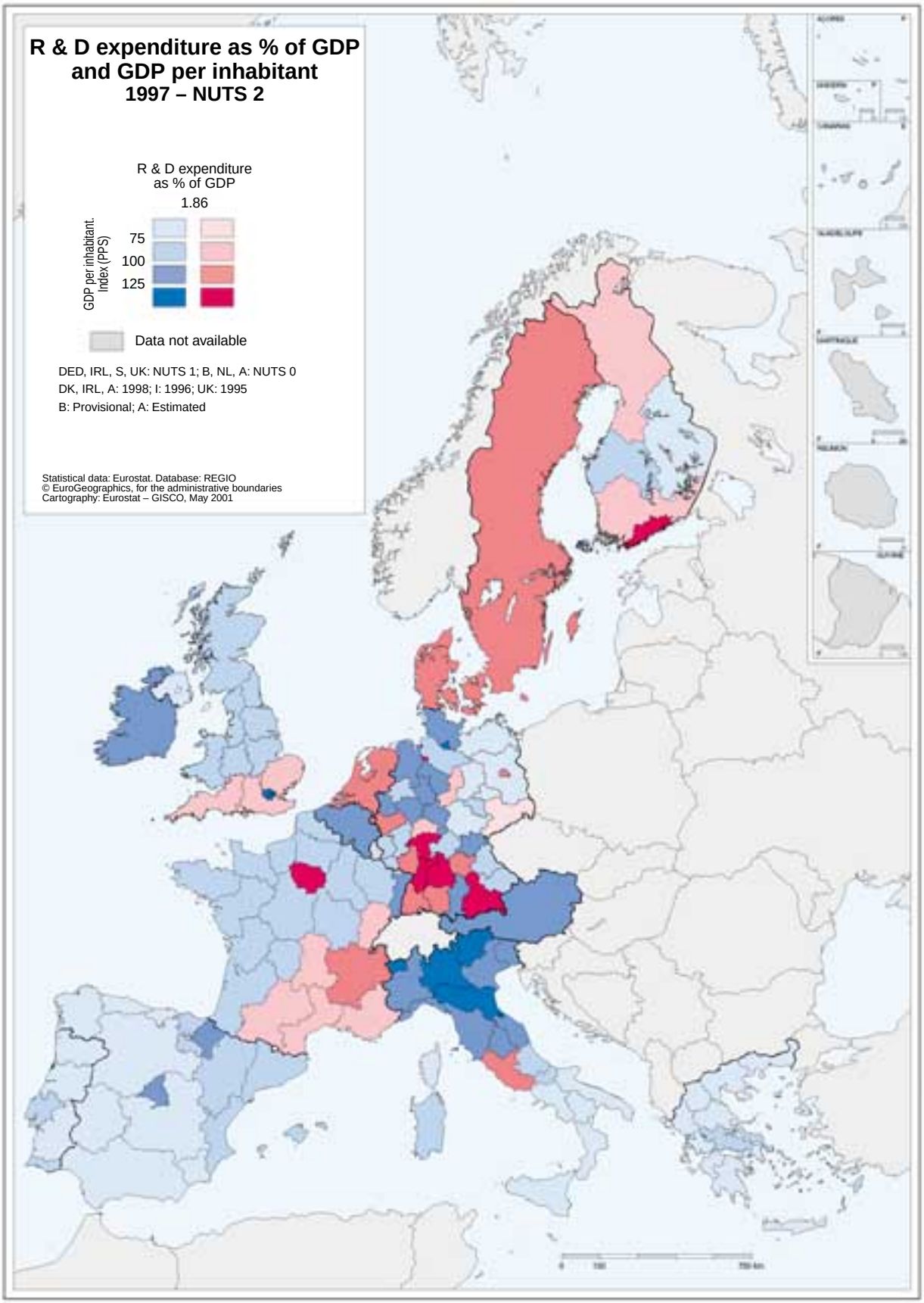
- regions, which are both wealthy (per capita GDP above the Community average) and innovative (share of GDP spent on R & D above the Community average): Île-de-France, Lazio (Italy) Uusima (Finland) south-western Germany, etc.;
- regions that are wealthy but less innovative than the EU average: north of Italy, Ireland, Madrid region, Belgium, etc. In these regions, the economy may still be benefiting from innovation in the past or the region may simply have an economy in which its commercial or administrative role outweighs the technology-dependent sectors;
- less wealthy regions that are nevertheless innovative: south-eastern France, southern United Kingdom, northern Finland, etc. Leading-edge technologies in these regions, such as aerospace industries in south-eastern France and southern United Kingdom and telecommunications in Finland, may be generating wealth among subcontractors and shareholders in other regions;

Map 5.2 — R & D personnel



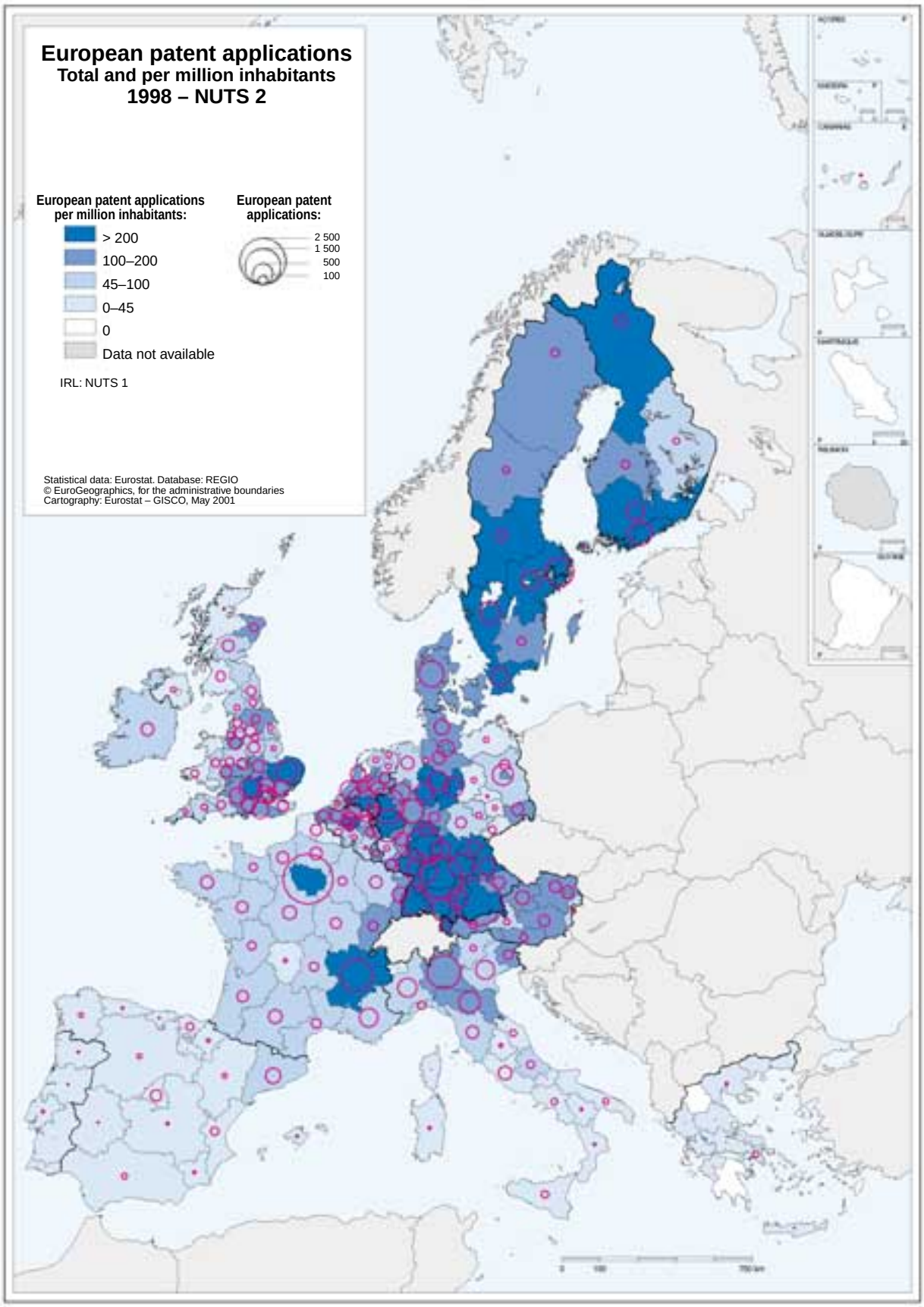
- finally, regions that are both poorer and less innovative than the EU average: southern Italy, Greece, northern Portugal, eastern Germany (except for Berlin region), etc.

Map 5.3 — R & D expenditure as % of GDP and GDP per inhabitant



Patent applications

Map 5.4 — European patent applications

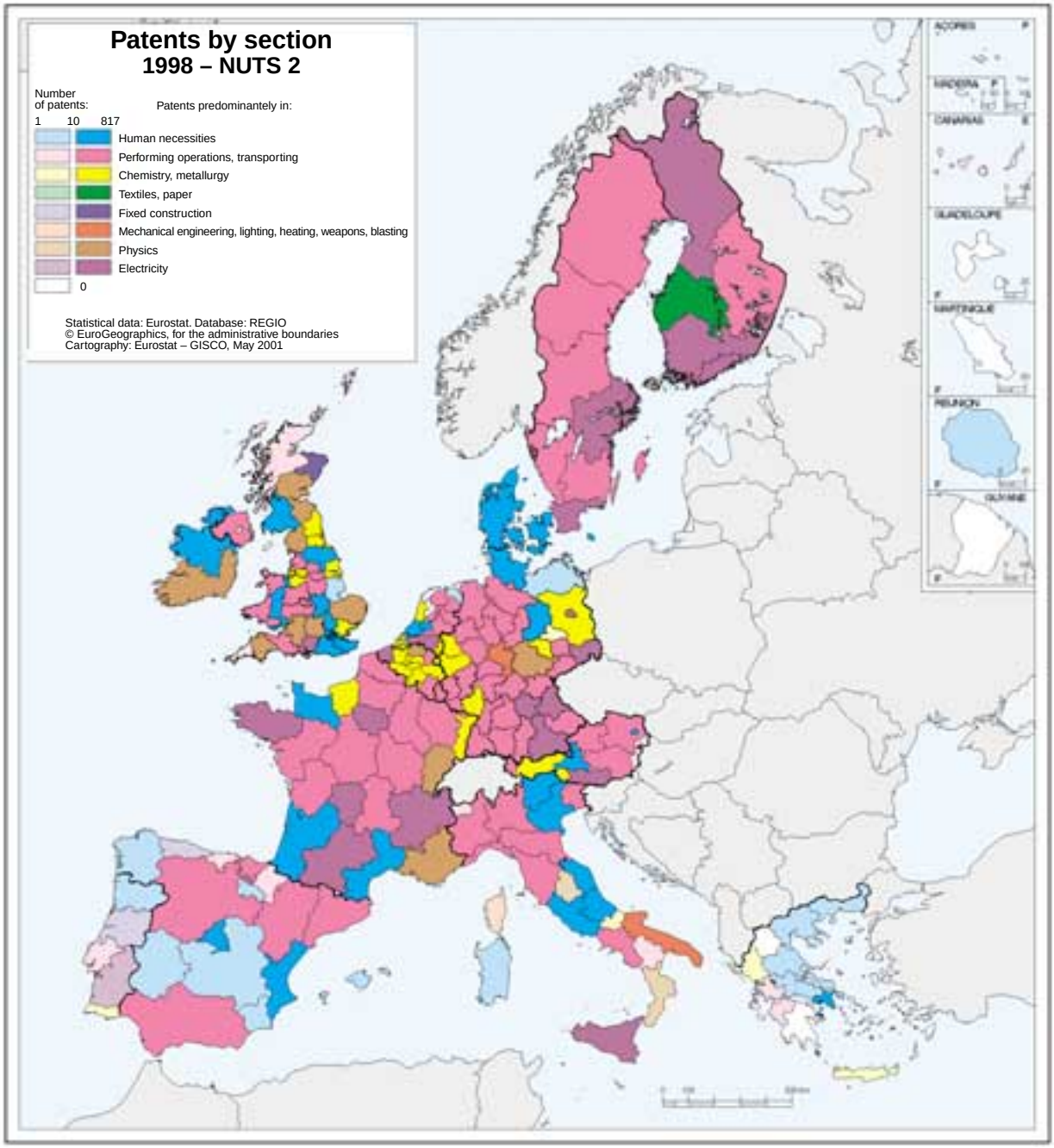


Data on applications for European patents are also held in the REGIO database. Map 5.4 shows the number of patents filed with the European Patent Office (EPO) in 1998, classified according to the inventor's region, both in absolute terms and expressed as a ratio (per million inhabitants).

The geographical pattern that emerges corresponds to a dark blue stripe running from the Scandinavian regions, to southern Germany and continuing through Austria; the dark part in south-eastern France is limited to the Rhone-Alpes region, and it is also evident in the Lombardia, Friuli and Emili-Romagna regions of northern Italy.

Map 5.5 shows the predominant technological sector for each region, according to the International Patent Classification (IPC). The variety of colours within each country demonstrates the very different specialisation of the regions. The dark pink colour (industrial technology and transport) that dominates across the EU is interrupted by many blue regions (human necessities), especially in Spain, Italy, and Greece; and by several yellow spots (chemistry

Map 5.5 — Patents by section



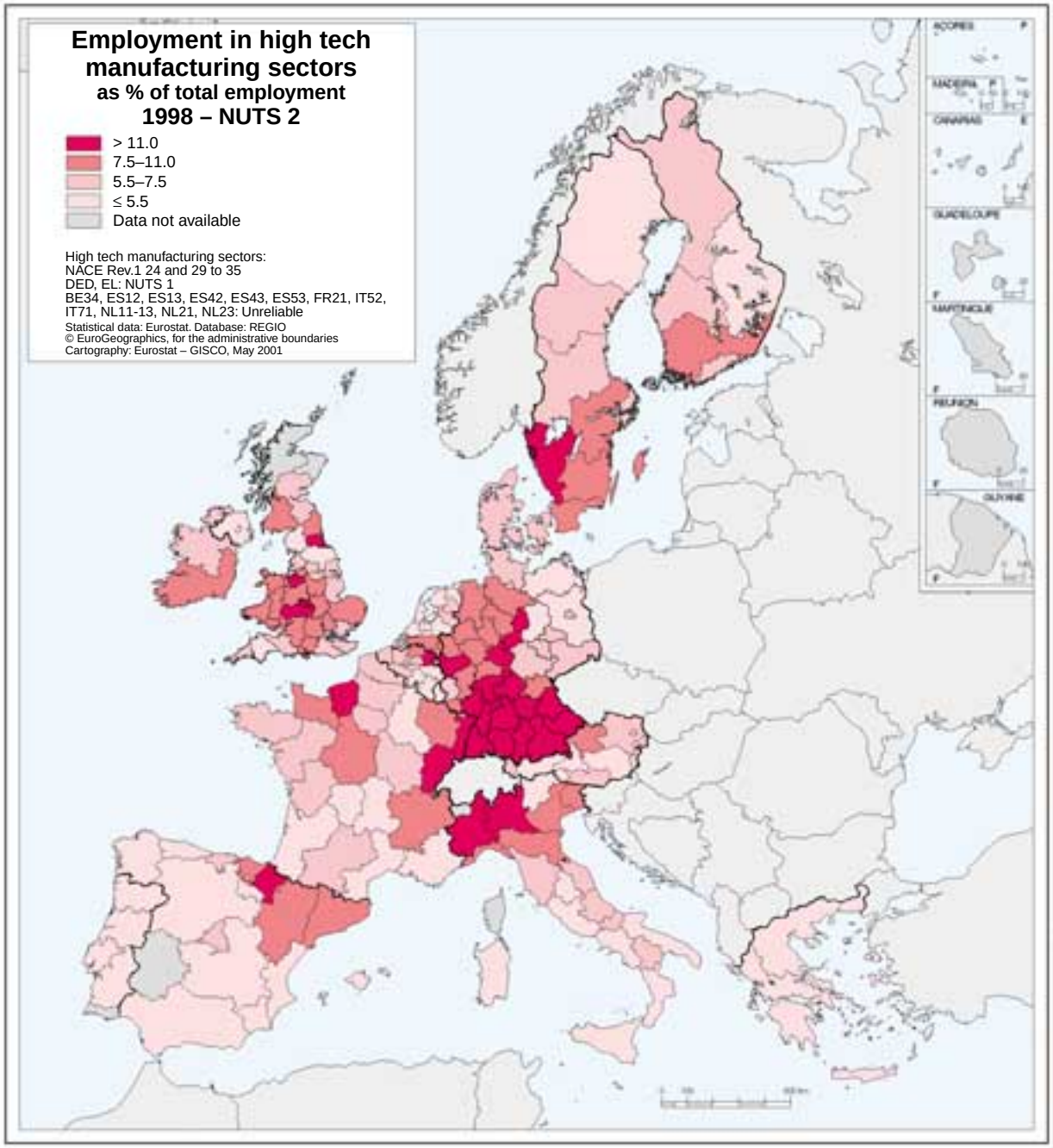
and metallurgy), mainly in Germany, the United Kingdom and Belgium. One striking feature is the dark green Finnish region with its high performance in patent activities covering textiles and paper.

Employment in high technology sectors

In all major industrialised countries, there is a link between the input of research and development, on the one hand, and expansion, productivity and exports on the other. This section attempts to identify innovative regions, in both the industrial and service sectors, using data on employment.

Map 5.6 portrays European regions according to the percentage of total employment that is taken up by employment in high-tech industries. At the EU level, 7.7 % of all employees were working in high technology manufacturing sectors. Taking all the regions into consideration, the rate of employment in high technology in-

Map 5.6 — Employment in high tech manufacturing sectors

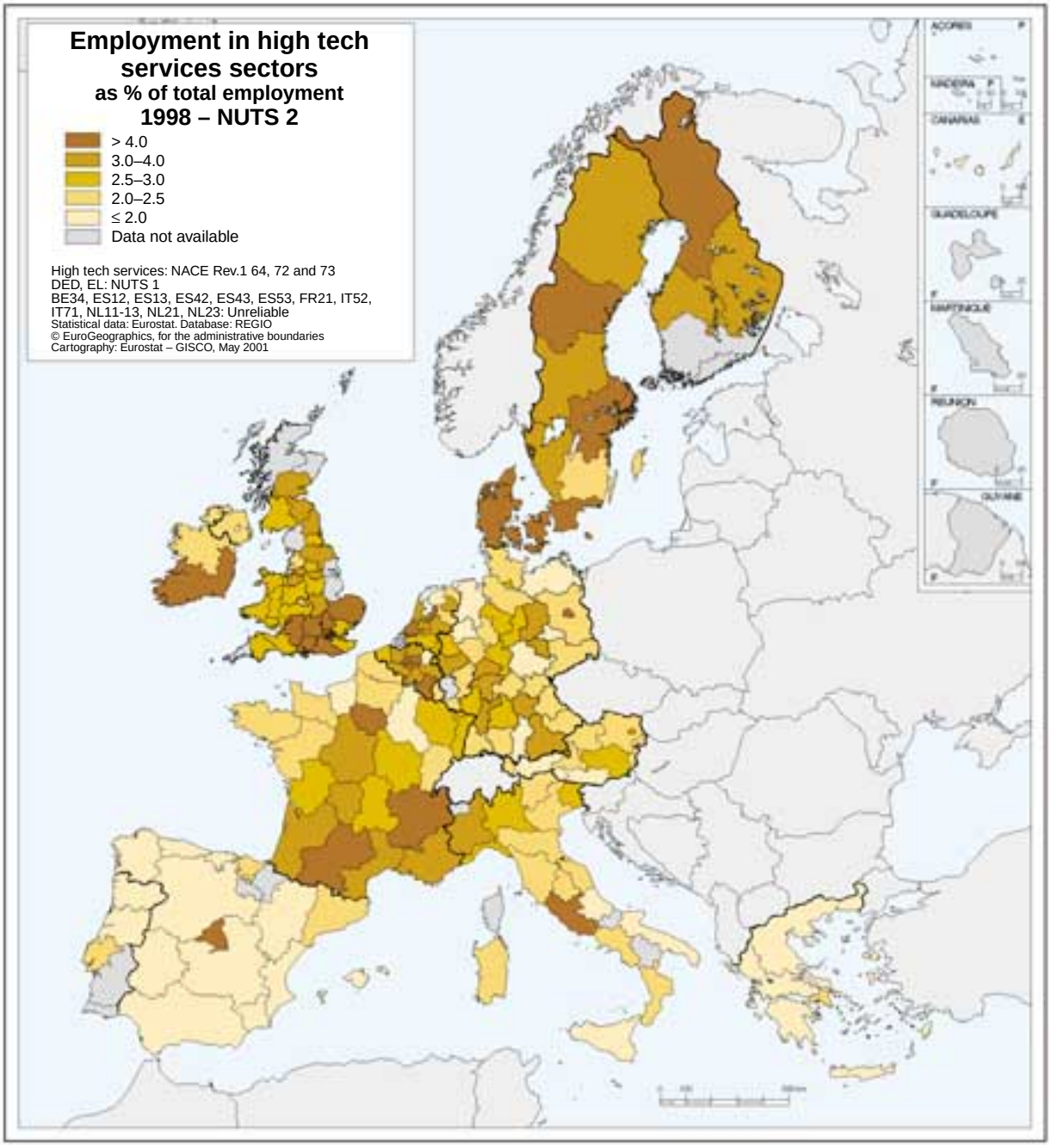


dustries ranges from close to 0 % to just over 20 % for Stuttgart (D). The group of leading industrial high-tech areas comprises a total of 27 regions, accounting for about 39 % of total industrial high-tech employment in the EU. No fewer than 16 of them are German, with a further four from the United Kingdom and Italy. Västsverige (Sweden), Catalunia (Spain) and Alsace (France) also show a high rate of employment in high-tech industry. The low rates in southern regions (mainly in Greece, Spain and Italy) demonstrate the unbalanced distribution of high-tech industries in Europe.

Map 5.7 presents the distribution of employment in high tech service sectors as a percentage of total employment. The darkest regions are quite widespread all over Europe, with the exceptions of southern United Kingdom, probably related to the presence of universities, Denmark and Ireland.

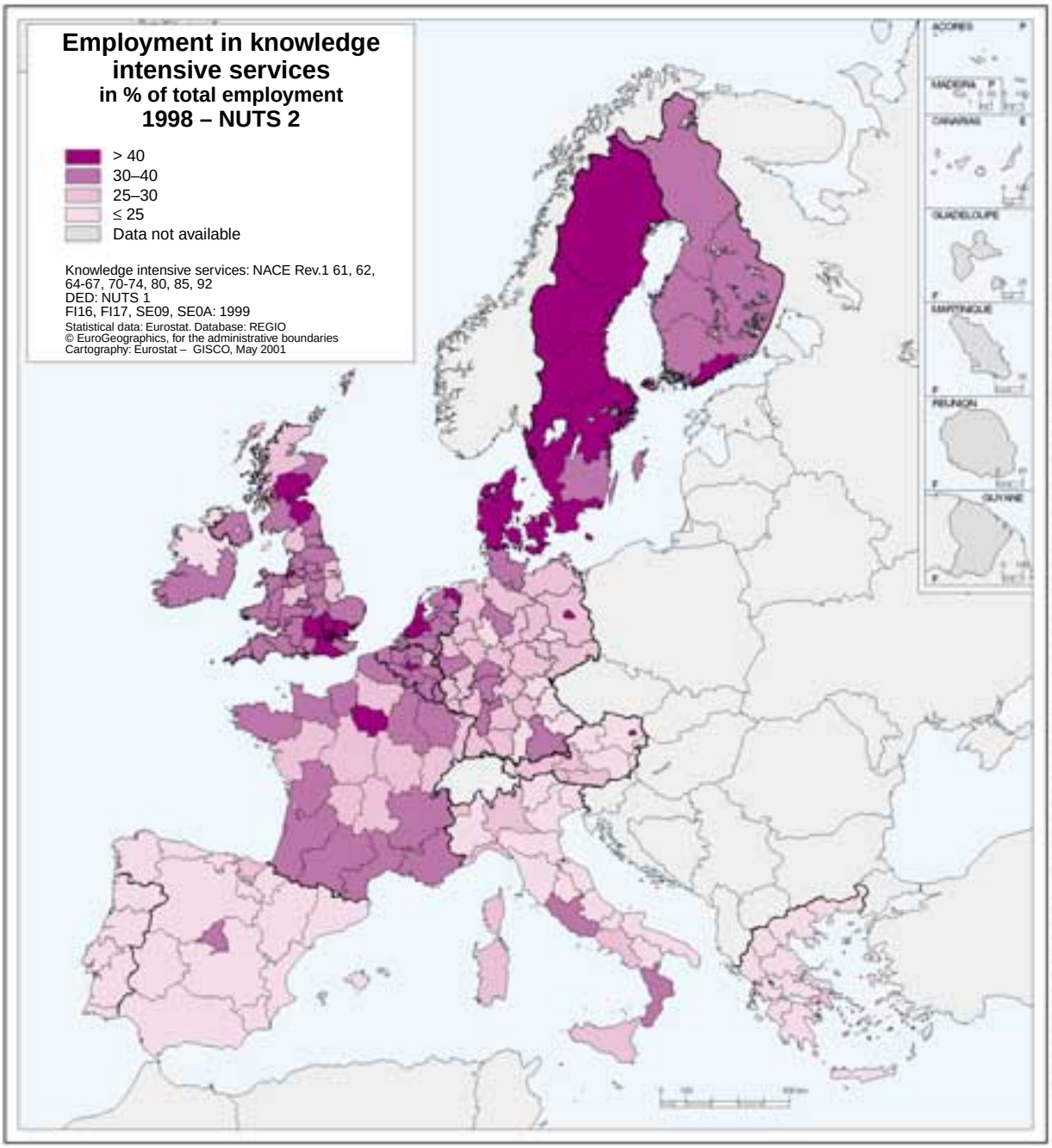
If the wider definition for the services sector, namely knowledge-intensive services (KIS), is used, as in

Map 5.7 — Employment in high tech services sectors



the case of Map 5.8, the picture that emerges is quite different. This approach identifies several clusters of regions, mainly located in Sweden, the United Kingdom, Denmark, Belgium and southern France.

Map 5.8 — Employment in knowledge intensive services



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TOURISM

6

Introduction

The scope for tourism within Europe has dramatically altered over the past 40 years. After the Second World War, tourism was greatly limited in volume by financial constraints and geographically by transport limitations, frontier formalities and linguistic barriers. In the European Union of the year 2001, the picture is very different. Package holidays provide affordable access to geographically remote parts of the Union, while widespread car ownership and a good network of motorways has made frequent shorter holidays in nearby regions possible. With the accession of the Nordic countries to the Schengen Treaty, border formalities have virtually disappeared and language skills are increasingly valued in the tourist trade. These trends have been accompanied in parallel by the emergence of many European regions with a pronounced orientation towards tourism, in terms of both the infrastructure provided for visitors and the importance of the tourist industry for the region's economy.

Eurostat has collected statistics on tourism at regional level since 1994. 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.

Since the enlargement process is going on, Eurostat has started recently to collect data from the future central and east European member countries. So far, however, only national and not regional data have become available and it is therefore not possible to cover these countries in this chapter of the yearbook.

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.

In compiling the maps, data from the latest available year were used. In the majority of countries, this was 1998. Although this is often the same reference year as in the 2000 yearbook, it should be noted that in many cases the data have been revised and checked in the meantime, giving rise to an evident enhancement of their quality. Should, in the case of individual countries, the latest available year be 1997 or 1999, these data were used on the assumption that in a matter of just a few years no structural changes would have taken place that might alter the interpretation.

Tourist infrastructure

Map 6.1 illustrates which kind of tourist infrastructure dominates in the various regions of the European Union. Three forms of accommodation were analysed:

- hotels (including motels and bed and breakfast);
- campsites;
- holiday dwellings and other accommodation.

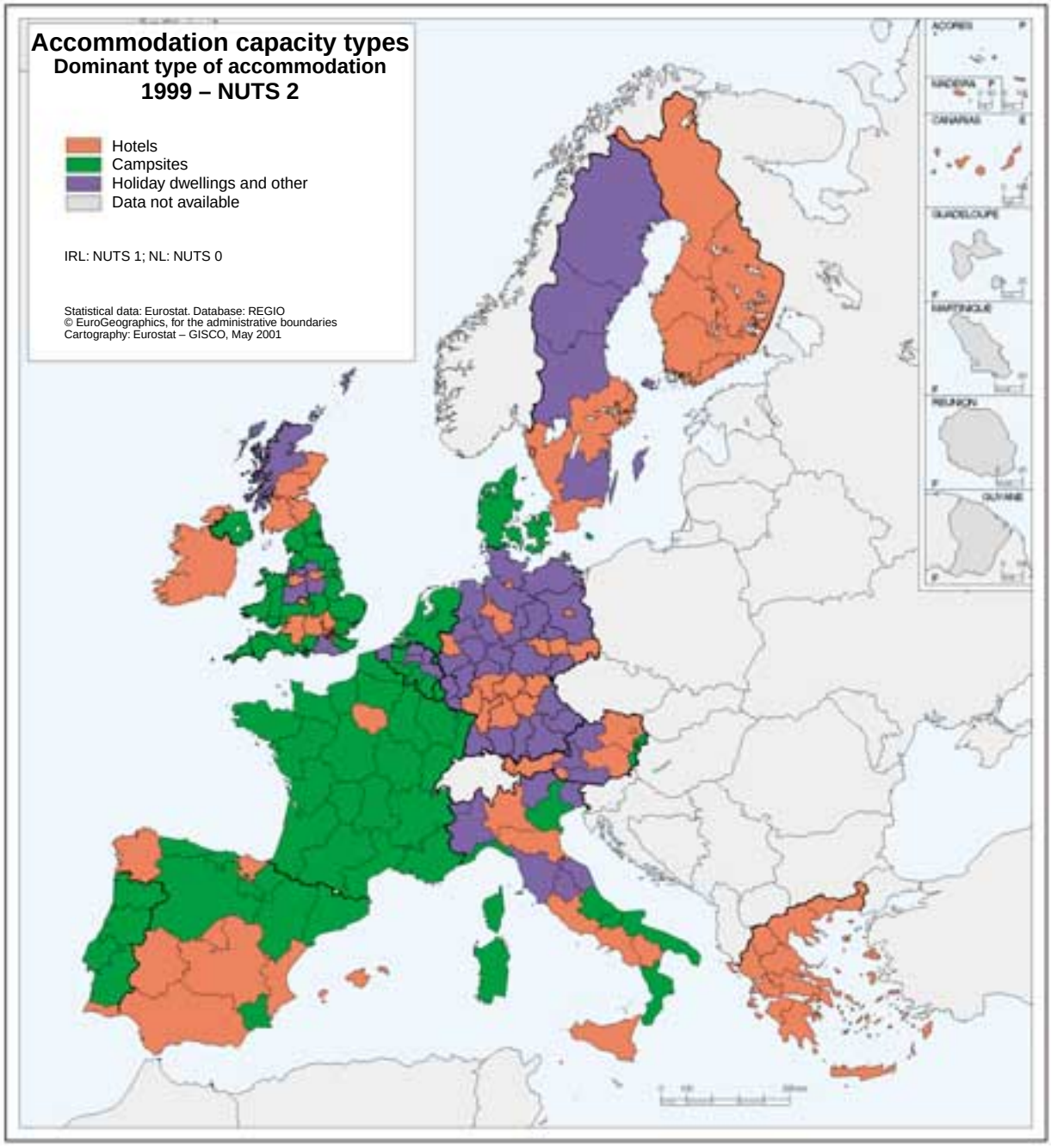
It is clear that particularly in Denmark, the Netherlands, virtually all of France, northern Spain, Portugal, eastern Italy and many English regions, campsites predominate over other forms of tourist infrastructure. It should be no-

ted, however, that the cost structure of campsite operations differs markedly from the other accommodation types in that operators can afford to offer a very high capacity that may be fully used only a few days a year. Accordingly, within a 'camping region', hotels or holiday dwellings may record as many or more actual nights spent by tourists.

Holiday dwellings dominate in northern and southern Germany, Sweden, the Ardennes region of Belgium, the Channel coast in Surrey, East and West Sussex (traditionally popular as a holiday area for the London conurbation), the highlands and islands of Scotland and some parts of the Alpine belt. These are regions in which the local climate often rules out a camping holiday and where there is a longstanding tradition of renting out holiday homes.

Quite logically, hotels are the main form of tourist infrastructure in major urban centres such as Paris, London, Rome or Vienna but they also dominate in such Mediterranean holiday regions as Greece, southern Spain, western Italy and Sicily. Many of these latter regions, of which another

Map 6.1 — Accommodation capacity types

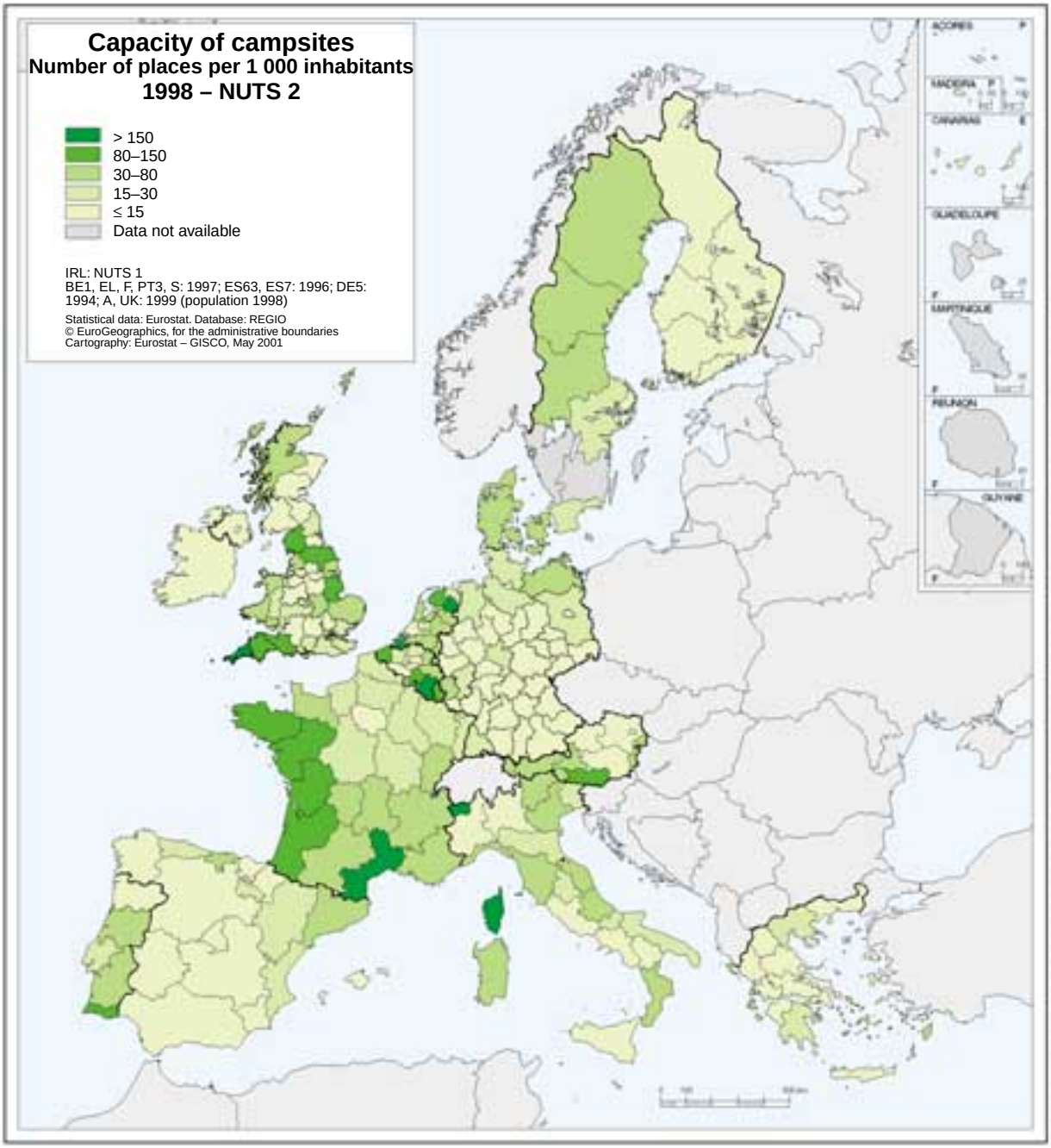


example is the Algarve in Portugal, have a tightly integrated tourist industry in which airlines and tour operators work together with the extensive local hotel sector to offer attractive holiday packages.

Turning specifically to campsites, Map 6.2 examines the availability of this kind of accommodation but in a form which takes account of the region's permanent population. Unsurprisingly, urban areas, especially regions around capitals like London, Berlin or Vienna, have few campsite places per head of population. Darker shaded areas of the map indicate regions with a much greater per capita prevalence of campsites.

- Although all of France has in general an excellent supply of sites, they are concentrated particularly on the Atlantic seaboard, from Brittany to Aquitaine, and in Languedoc-Roussillon, on the Mediterranean.
- In Belgium, there are especially two distinct high-density camping zones. West-Vlaanderen on the North Sea coast is similar to neighbouring Zeeland in the Netherlands,

Map 6.2 — Capacity of campsites



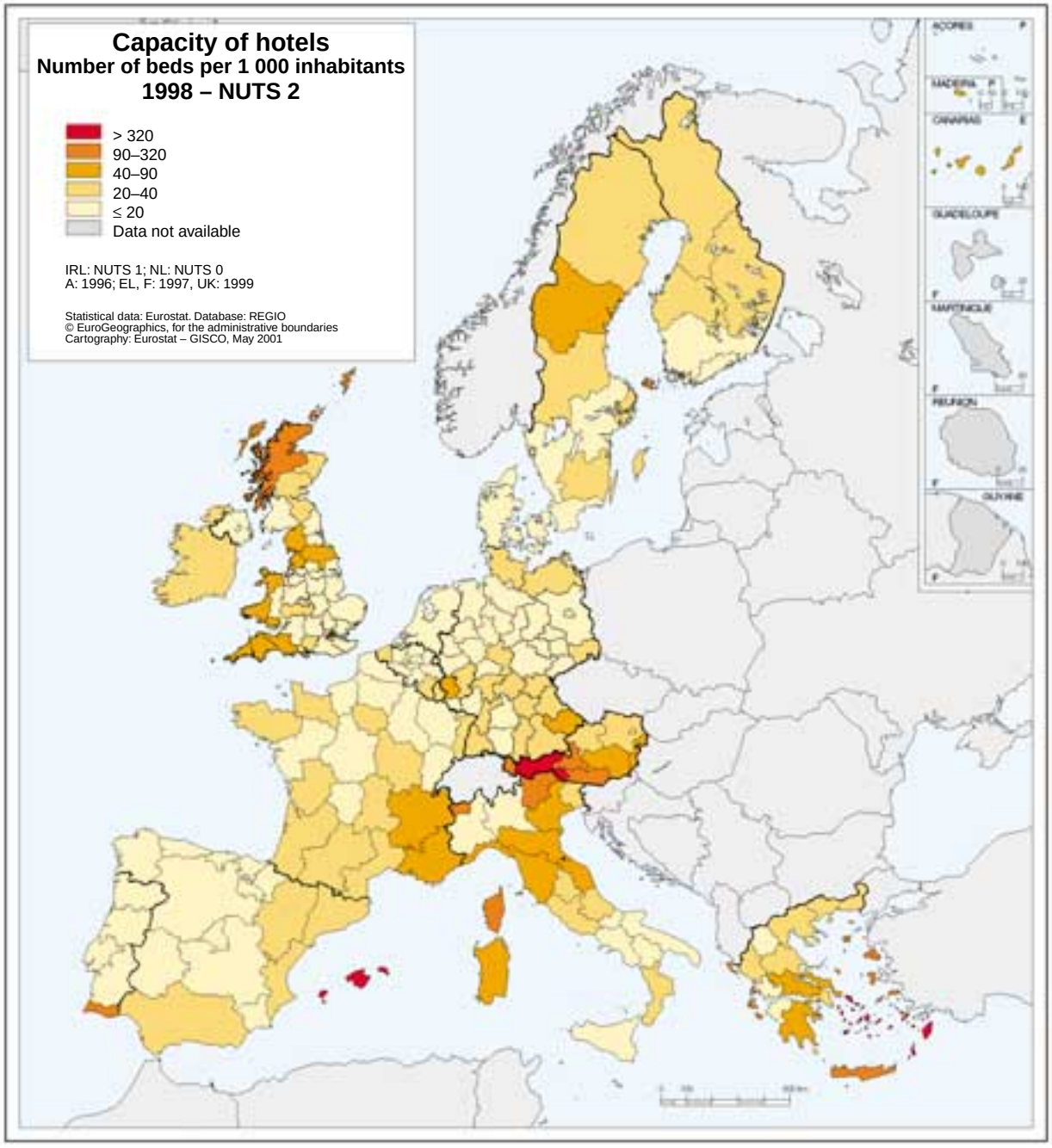
while the high number of campsites in the Province of Luxembourg, in the Ardennes, is a pattern that continues into the Grand Duchy of Luxembourg, and, to some extent, to the region of Trier in Germany.

- Mountainous terrain can also be popular with campers, as is evident from Kärnten in Austria and Valle d'Aosta in Italy.
- Although France's Corsica has a relatively good supply of campsites, this is not true of a number of other island holiday destinations in the Mediterranean, such as Crete in Greece, the Balearic Islands in Spain or Sicily in Italy. It is probable that package holidays combining flights with hotel accommodation explain this pattern.

In a similar way to the previous map, the number of hotel beds in a particular region is shown in Map 6.3 as a proportion of the region's population.

Some classic destinations for package holiday flights, such as the Balearic Islands in Spain and the Algarve in Portugal do indeed have a very high supply of hotel accommodation per head of population.

Map 6.3 — Capacity of hotels

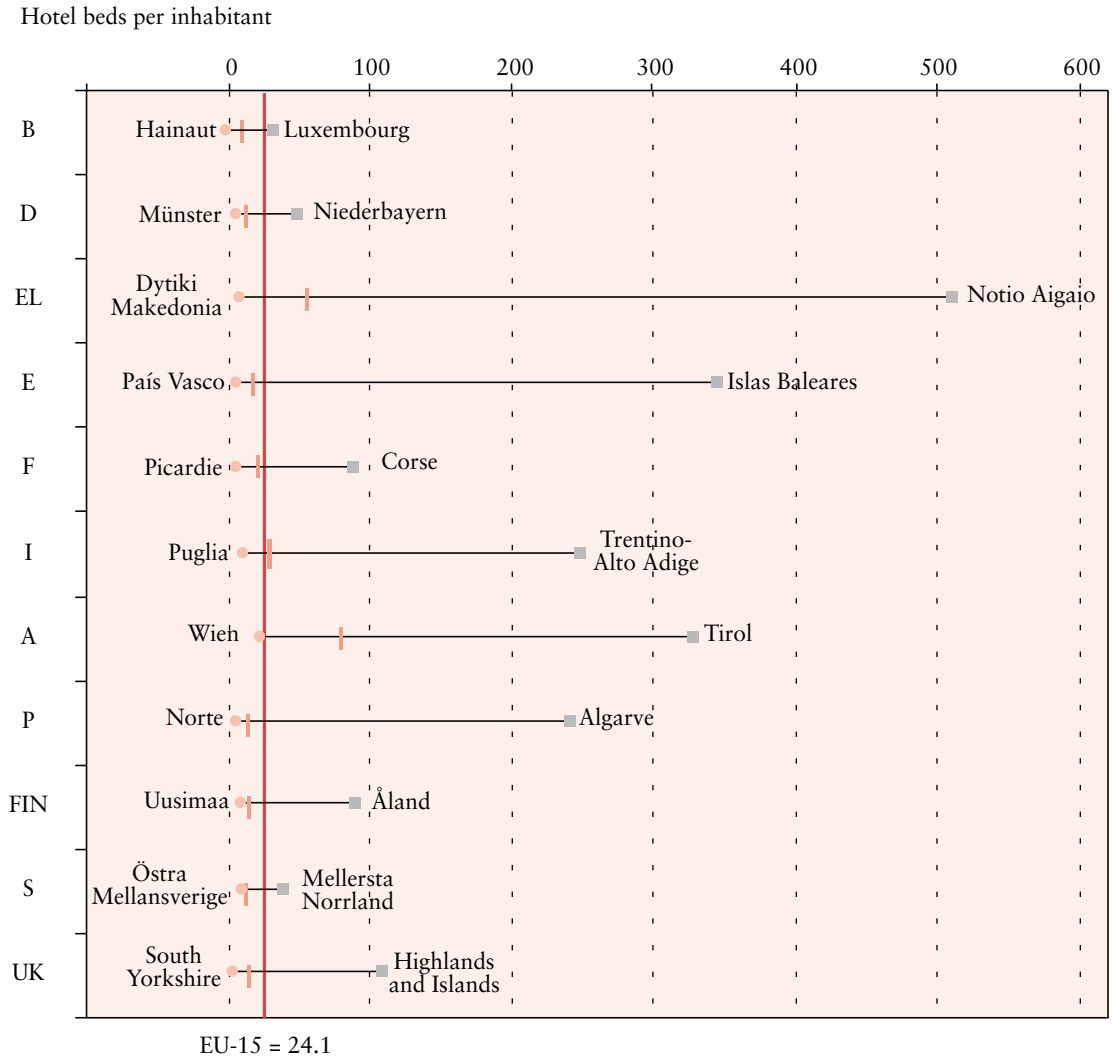


That tourism can be a year-round phenomenon is shown in a typical way by the two parts of the Tirol region in Austria.

Shorter breaks are becoming increasingly popular. A number of regions with an extensive hotel infrastructure lie within comfortable driving range of major concentrations of urban population. Examples include West Wales and the Valleys, Dorset and Somerset in the United Kingdom and the Trier region in Germany (south of the Ruhr region). Central Sweden, too, is quite attractive for short holiday breaks.

While urban centres generally rank low on hotel beds per head of population, there are a number of cities in Europe which are of such extreme importance in world as well as European tourism that they defy this trend. London is the most striking example.

Graph. 6.1. Number of hotel beds per inhabitant in 1998, regional extremes at NUTS2 level and national averages



NB: IRL: NUTS 1; NL: NUTS 0; UK: Number of beds, 1999; EL, F: 1997; A: 1996

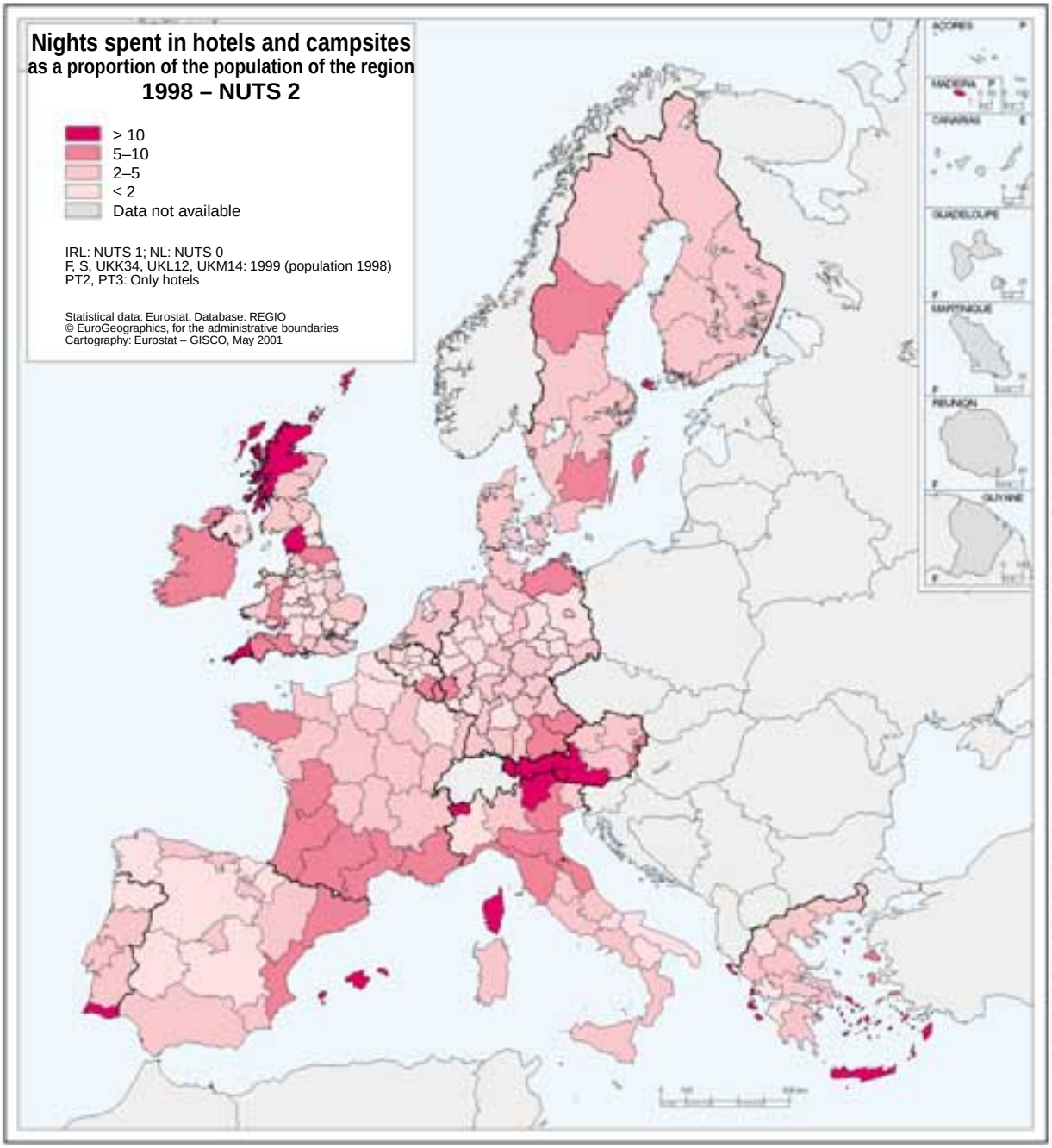
Occupancy data

While tourist infrastructure figures such as those examined in Maps 6.1 to 6.3 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. Occupancy data are therefore also collected. At NUTS 2 level and for the years 1994–99, 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 of a nationality other than that of the country in which the region is located.

Given that this indicator is measured here on a per capita basis, regions of high population density, such as those that include Madrid and the Ruhr region in Germany, do not of course rank high in terms of total nights spent.

The most striking feature of Map 6.4 is an almost continuous belt of higher than average occupancy, probably reflecting summer family holidays, that runs from Brittany along France's Atlantic and

Map 6.4 — Nights spent in hotels and campsites



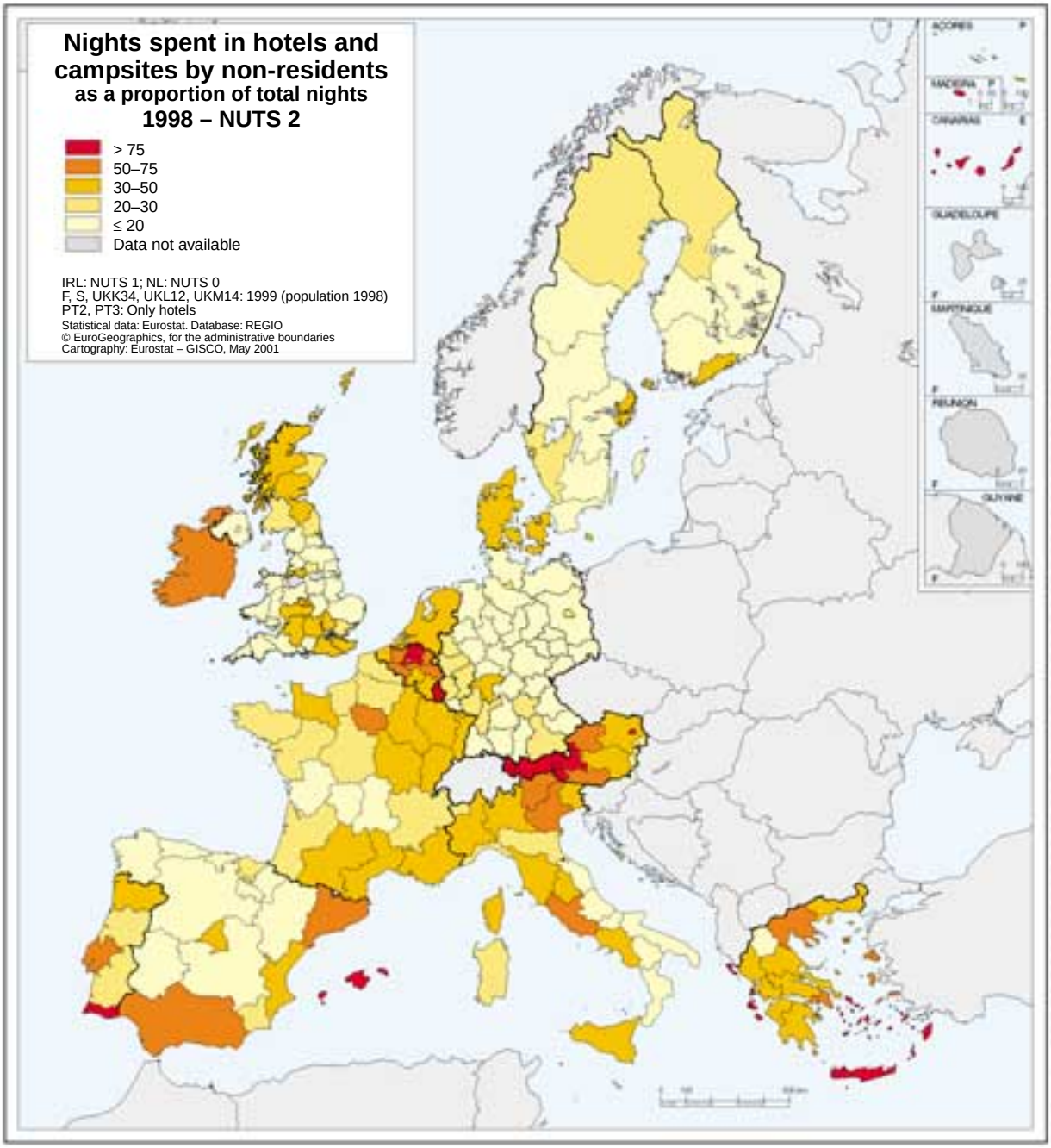
Mediterranean coasts to Marches in Italy and Comunidad Valenciana in Spain.

Within easy travelling distance of the heavily populated regions of Germany and Benelux, Mecklenburg-Vorpommern, south-east Bavaria and the Trier region, the Grand Duchy of Luxembourg and the Luxembourg Province of Belgium may owe their higher ranking to the accessibility of these regions for short breaks and also longer holidays.

Winter rather than summer holidays are probably the key factor in explaining the zone of high occupancy in Austria's four westernmost regions and the mountainous Italian regions of Valle d'Aosta and Trentino-Alto Adige.

A very different picture emerges if the domestic tourist traffic is excluded. Certain regions of high population density such as the Paris region, Vienna in Austria and Inner London are clearly key destinations for foreign visitors. Among such regions one must also count the Brussels region, due to the fact that many business travellers come to the 'capital city of Europe'.

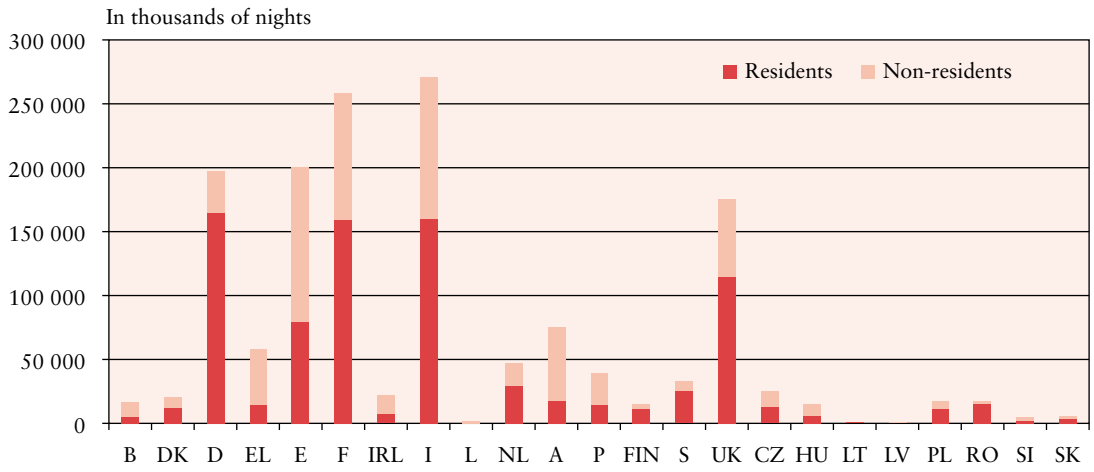
Map 6.5 — Nights spent in hotels and campsites by non-residents



Conclusion

The above examples are intended merely to highlight a few of the many possible ways of analysing tourism effects in the regions of the EU. They clearly show that tourism is having a steadily greater impact on European regions. Especially the trend towards more and shorter trips encourages regions to promote their attractiveness. The examples given are no substitute for thorough and detailed analysis. We hope, however, that they will encourage readers to probe deeper into the REGIO databank and to make many further interesting discoveries.

Graph 6.2. Inbound and domestic tourism in 1998. Nights spent in hotels and campsites



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TRANSPORT

7

Introduction

Transport links are often considered to be one of the main factors in regional economic development, and a significant proportion of the Community's regional budgets has been used for investment in transport infrastructure, including the transport part of the trans-European networks (TENs).

Regional transport statistics aim to describe regions by means of a set of transport indicators, and also to quantify the flows of goods and passengers between, within and through regions. Such data help both to analyse the role of transport in relation to the economy of regions, and also to support new investments in transport infrastructure. They may also contribute to measuring and ultimately reducing the environmental impacts of transport, most notably in regions of high transit traffic.

For more than 20 years, Eurostat has collected statistics on the transport of goods between regions within Member States. In addition, selected indicators on transport infrastructure and equipment, as well as safety, have been collected at regional level. More recently, Eurostat has started to use modelling to estimate region to region transport flows across the whole EU, while at the same time asking Member States to begin collecting data on these flows as part of regular statistics for the different modes of transport.

Methodological notes

Within the regional database REGIO, there are seven transport tables covering infrastructure, the vehicle fleet, sea and air transport (with in each case separate tables for freight and passengers) and road safety as reflected in deaths and injuries in road accidents. All tables contain annual data, the first six from 1978 and the last from 1988. Transport flows between regions no longer feature in REGIO, but these data are available in a simplified form in New Cronos Theme 7 (Transport) in the collections Road, Rail and Inland wetlands. In addition, the collection Aviation contains data on flows between airports.

Transport infrastructure

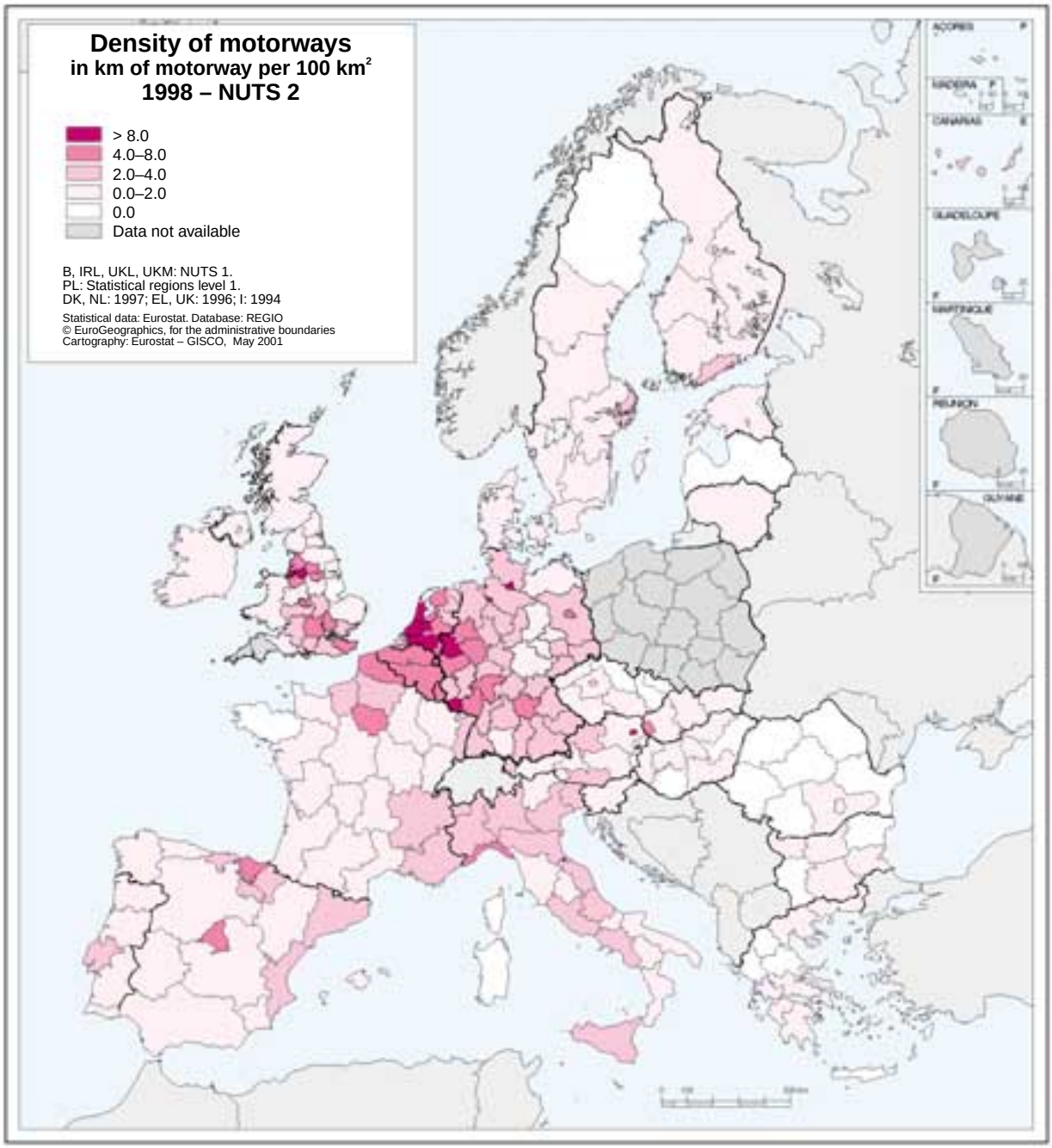
The transport networks table examines road, rail and inland waterway networks at the NUTS 2 level. In each case, the unit is kilometres of route length.

Roads are grouped by category, separating motorways from other roads, while railway links are classified in terms of two criteria — single or double track and whether they are electrified. Coverage of inland waterways is patchy, largely because many Member States have no significant network but also because data from Member States do not distinguish between high-capacity broad canals and lower-capacity narrow ones.

Regions with a highly developed road infrastructure of major roads and motorways have a competitive and developmental advantage. Map 7.1 shows the length of the motorway network in NUTS 2 regions expressed as kilometres of motorway per 100 km^2. Certain white areas, such as Brittany in France and the west and north of the United Kingdom have some dual carriageway roads but these do not qualify as motorways.

- Motorway density is closely correlated with urbanisation, most notably in the Netherlands and in the German regions of Düsseldorf and Köln.
- Regions comprising major conurbations generally have high motorway densities. Examples include Vienna in Austria, Berlin in Germany and Comunidad de Madrid in Spain. In candidate countries, this feature is seen in Prague in the Czech Republic and in Bratislava in Slovakia.
- Peripheral regions in Greece, Britain, France and Sweden have low motorway densities, as do island regions such as Corsica, Sardinia and Crete in France, Italy and Greece respectively.
- Almost all regions of candidate countries for which data are available have a motorway network density comparable to that of the less urbanised regions of the EU, such as most regions in France, Spain or Portugal.

Map 7.1 — Density of motorways

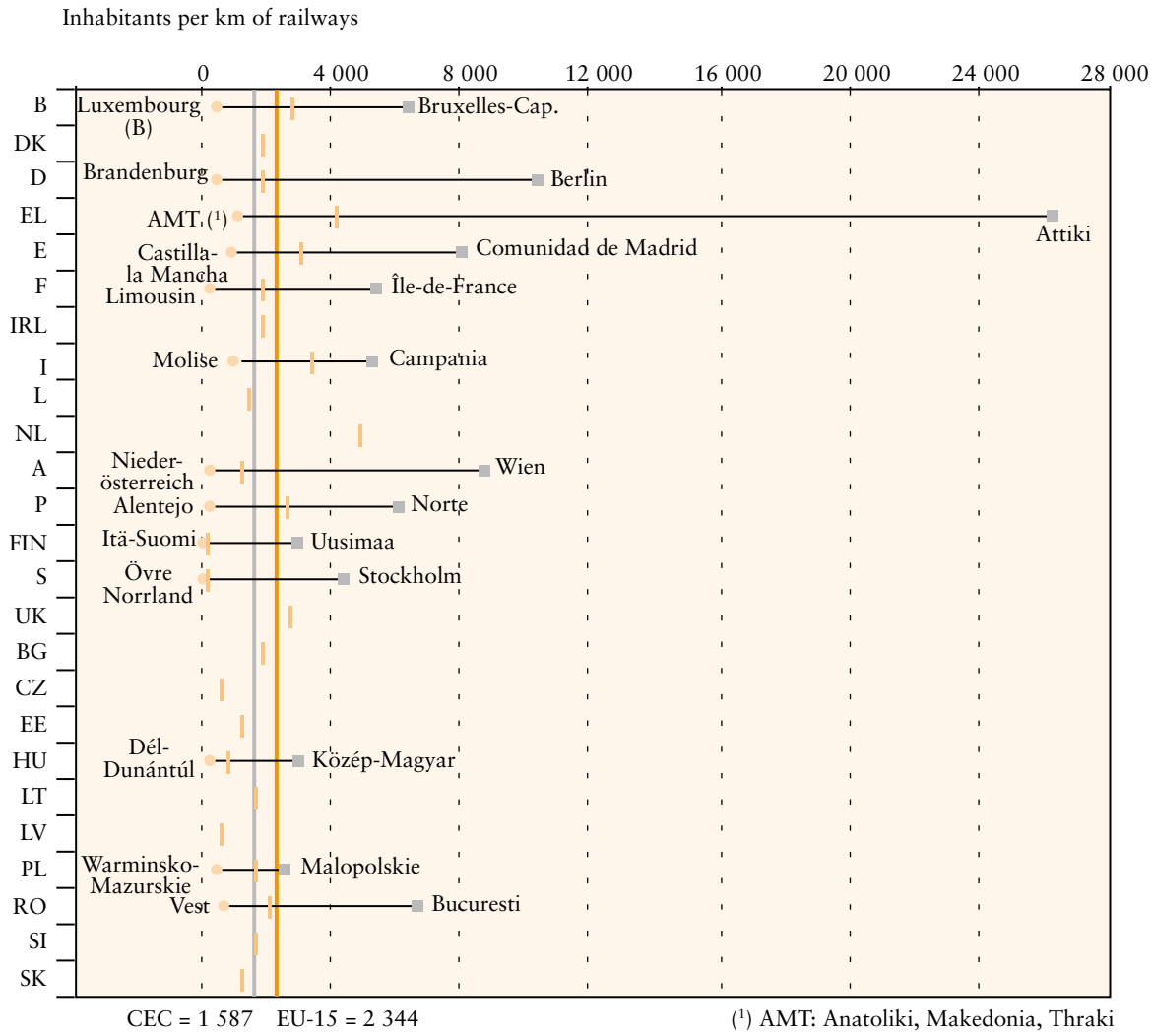


- Sweeping around the Mediterranean coast from Comunidad Valencia in Spain through Provence-Alpes-Côte d'Azur to Sicily in Italy, an arc of regions with relatively high motorway densities reflects the importance to tourist regions of having a modern transport infrastructure.

The density of the railway network is a measure of its accessibility as a means of transport. However, a simple calculation of network length per unit area of a region can be misleading in that it ignores differences in population density. Graph 7.1 expresses accessibility to rail transport in terms of the number of inhabitants per kilometre of track in NUTS 2 regions. For each Member State, the regions with the highest and lowest values have been graphed, along with the national average (the purple horizontal line). To place these regional levels in perspective, the EU average was also plotted.

- The greatest extremes appear in Greece, between the peripheral, relatively sparsely populated, northern regions and the Attiki region, which contains Athens.

Graph 7.1. Regional variation in per capita access to railways NUTS 2 1998



NB: B, D: 1994; EL, S, UK, EU-15: 1996; DK, I, NL, A, P: 1997; UK: NUTS 0; D, IRL: NUTS 1

- Stockholm, Vienna, Île-de-France and Berlin are exceptional regions in their own countries, as is shown by the fact that the lowest value region lies close to the national average. As the focal point of national rail networks, capital cities will tend to contain many kilometres of lines.
- The most evenly spread rail networks in population terms are to be found in Finland and Italy.
- Where the national average alone is marked but no regional figure, no NUTS 2 level has been defined for the country concerned.

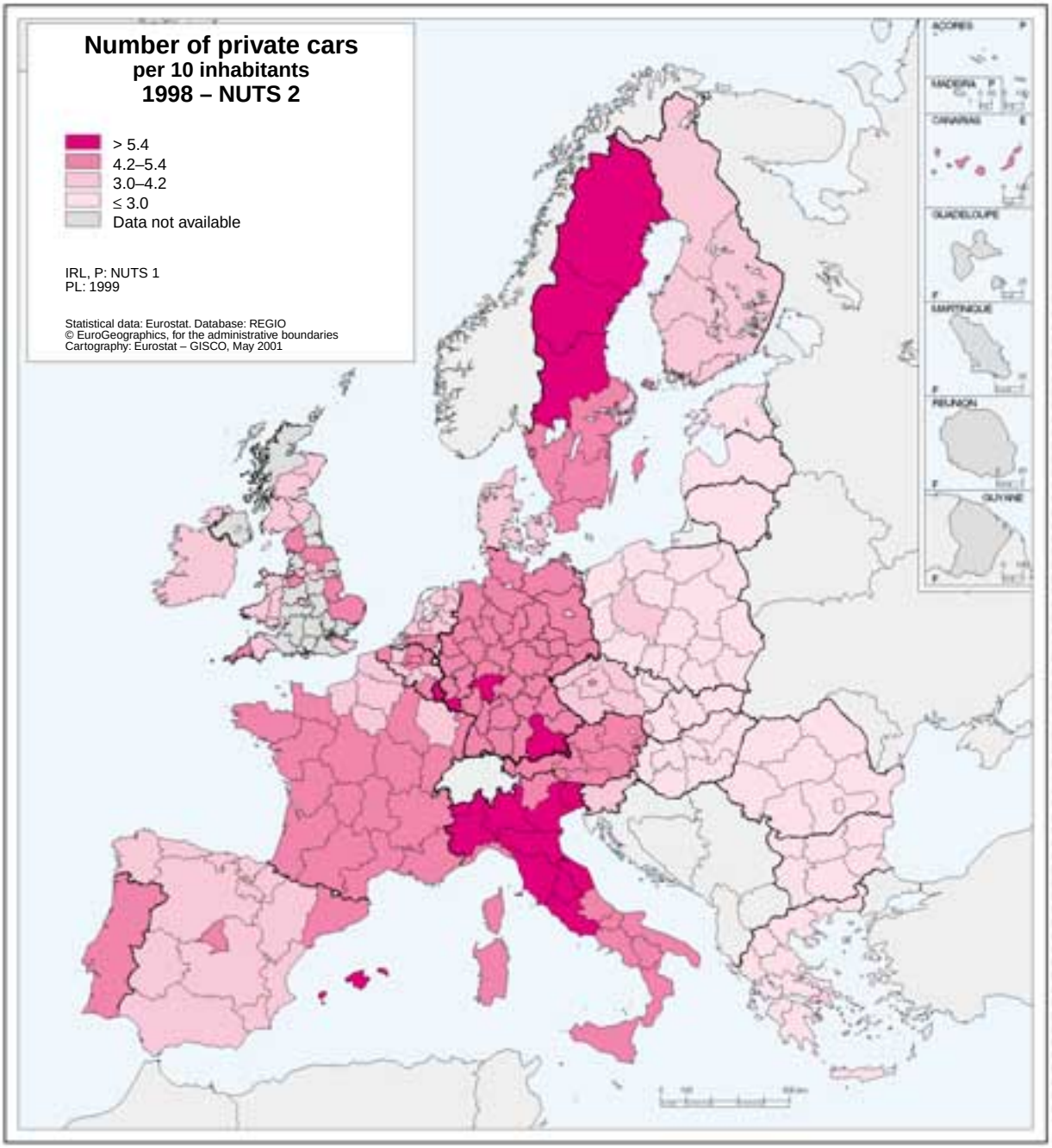
Transport equipment

A breakdown of vehicle data at NUTS 2 level into the categories of cars, buses, trucks, trailers, tractors and motorcycles is available.

Here, car ownership is expressed in terms of numbers of cars per 10 inhabitants of NUTS 2 regions. While there is some correlation with GDP levels, in that for example most German regions have high GDP and high car ownership and most Greek regions have low scores for both indicators, there are wide divergences.

- Regions which comprise major urban centres — for example Vienna in Austria, Berlin and Brussels — have relatively low car ownership, perhaps reflecting factors such as extensive public transport, parking difficulties or concentrations of students, immigrants and other low income groups.
- The core urban region may be surrounded by a region with high ownership, possibly indicating many commuters dependent on cars to get to work in the major city: this is the case in Vlaams Brabant in Belgium. Alternatively, a lower car ownership around this core may indicate extensive commuter use of

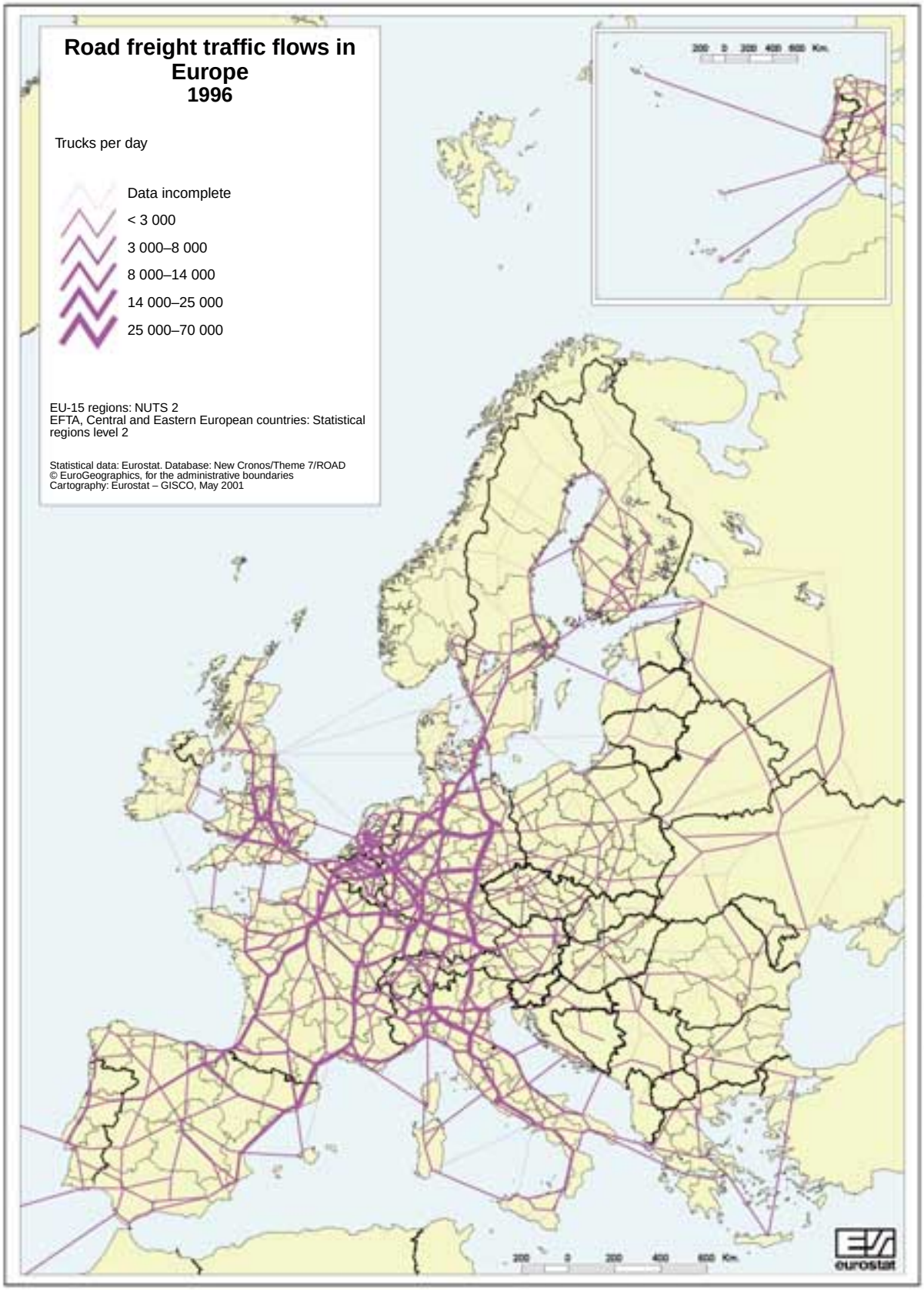
Map 7.2 — Number of private cars



public transport, such as in Outer London. In NUTS 2 regions drawn more widely around the core city, such as Comunidad de Madrid and Île-de-France, these factors tend to balance out.

- In so far as car ownership is an indicator of relative personal prosperity, regions with higher average income would be expected to show higher ownership. Indeed the Grand Duchy of Luxembourg and Darmstadt in Germany, which includes the city of Frankfurt, display this pattern. Something of an economic divide is apparent between the southern Italian regions of Molise, Puglia, Basilicata and Calabria and the rest of the country.
- In some sparsely populated regions, a car may be more of a necessity for travel to and from work. Such regions may include Limousin in France, Itä Suomi in Finland and Mellersta Norrland in Sweden.
- Except for Hungary and Slovenia, most regions in candidate countries show a level of car ownership below 3 cars per 10 inhabitants, which amongst EU countries is found only in Greece.

Map 7.3 — Road freight traffic flows in Europe

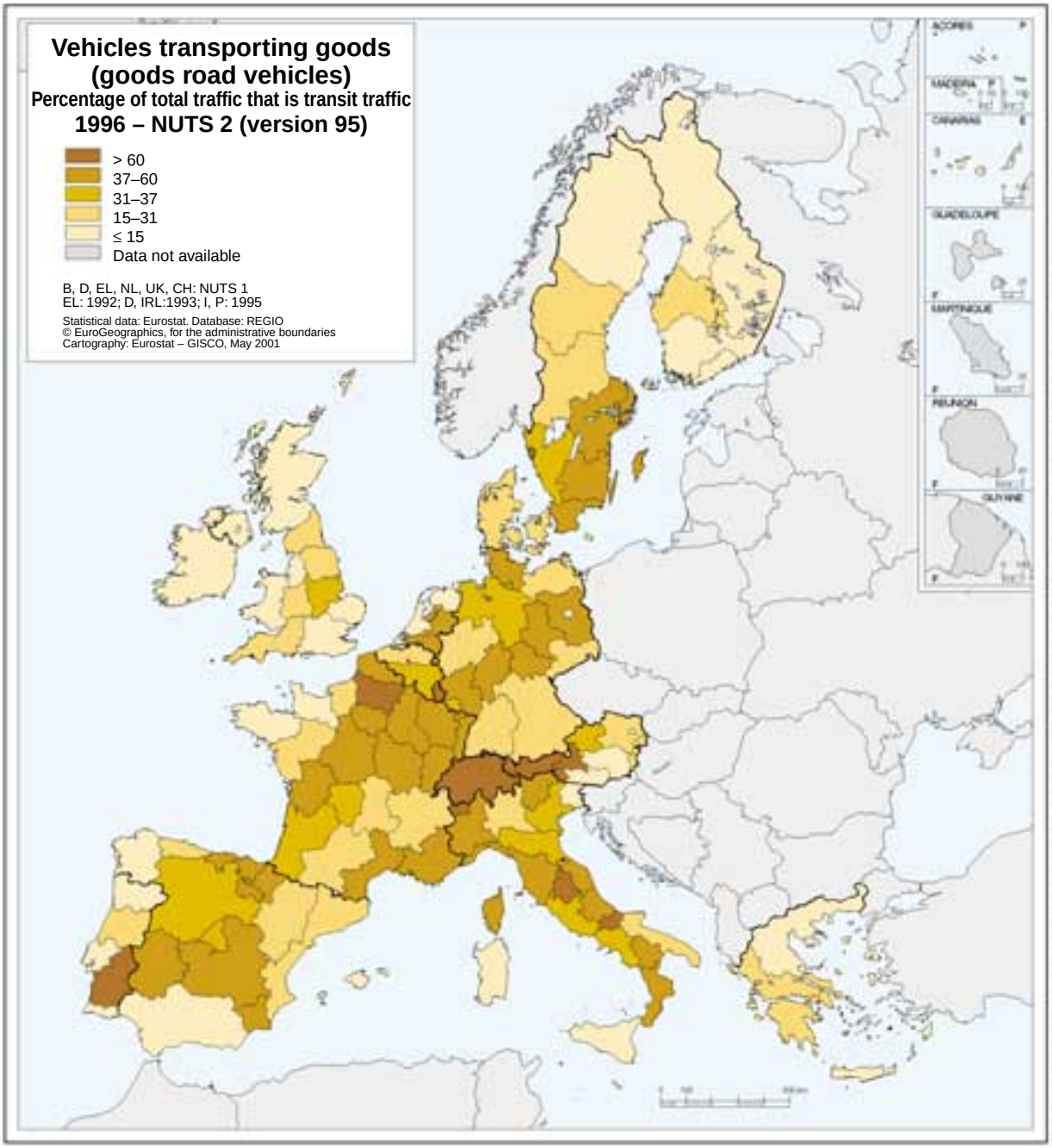


Transport of goods and passengers

Road transport

In the past, Eurostat published data on road freight transport movements between the regions of each Member State, without taking account of crossborder transport. Under present legislation, Member States are planning to collect data on region to region flows across borders, but these data will not become available for several years. In the meantime, Eurostat has used a model to derive interregional flows across the whole of the EU, using existing statistics on interregional flows within Member States, as well as data on international road freight transport. This model also provides estimates of freight traffic flows on the main road network, measured in trucks per day. The complete set of results from the model, as well as the description of the methodology, are available on request. The REGIO database contains a selection of indicators derived from the model, including the share of transit trips and the production of road freight traffic.

Map 7.4 — Vehicles transporting goods



The reader should note that the present version of the model covers only vehicles registered in EU Member States; it does not estimate transport in candidate countries carried by vehicles registered in those countries.

The map of road freight flows shows the importance of the certain major corridors, such as those running from Denmark, northern Germany and the Netherlands south through Switzerland and Austria, as well as the transport corridors across France into Spain and Portugal.

The ports of Rotterdam (in the Dutch region of Zuid-Holland) and Antwerp (in the Belgian region of Antwerpen), together with other ports on the North Sea and Channel coast, are an important focus for road freight traffic (see also Map 7.5).

The central 'core' of the EU road network carries very heavy freight traffic, estimated for certain sections at over 25 000 trucks per day.

By contrast, freight traffic levels on most of the road network in the peripheral regions of the EU are very much lower, typically less than 3 000 trucks per day.

In certain regions, the proportion of transit traffic (relative to all freight movements) is estimated to be 65 % or above. These include, for example, not only the Tirol and Voralberg regions of Austria but also the Grand Duchy of Luxembourg, Valle d'Aosta and Molise (Italy), Picardie (France), and Alentejo (Portugal).

The top 15 regions generating road freight
(trucks/day)

Nordrhein-Westfalen	33 305
Bayern	23 577
Baden-Württemberg	20 292
Vlaams Gewest	19 545
Lombardia	19 209
Niedersachsen	18 174
West-Nederland	16 343
London, Kent, Bedfordshire, Hertfordshire, Essex	15 955
Sachsen	14 619
Région Wallonne	12 587
Northern Ireland	12 513
Zuid Nederland	12 197
Île-de-France	12 041
Emilia Romagna	11 134
West Midlands	11 093

A further indication of the importance of some regions in relation to road freight traffic is given by calculating the average 'production' of traffic, measured as trucks per day leaving the region.

The top 10 regions each produce over 10 000 truck movements per day.

One region (Nordrhein-Westfalen) is estimated to produce over 30 000 truck movements per day.

The median value for the 135 regions studied was 2 935; in other words, more than half of all regions recorded fewer than 3 000 truck movements per day.

The reader should be aware that the statistics for daily truck movements are influenced by the size, the population and the economy of the region. Put simply, large regions generate more freight transport than smaller ones. Nonetheless, the table, taken together with Graph 7.3, illustrate the high level of road transport in the 'heart' of Europe's road network and in the regions it directly serves.

Sea transport

Sea transport statistics exist at the NUTS 2 regional level for both passengers and freight, showing the movements through regions, expressed in thousands of passengers and in thousands of tonnes, respectively.

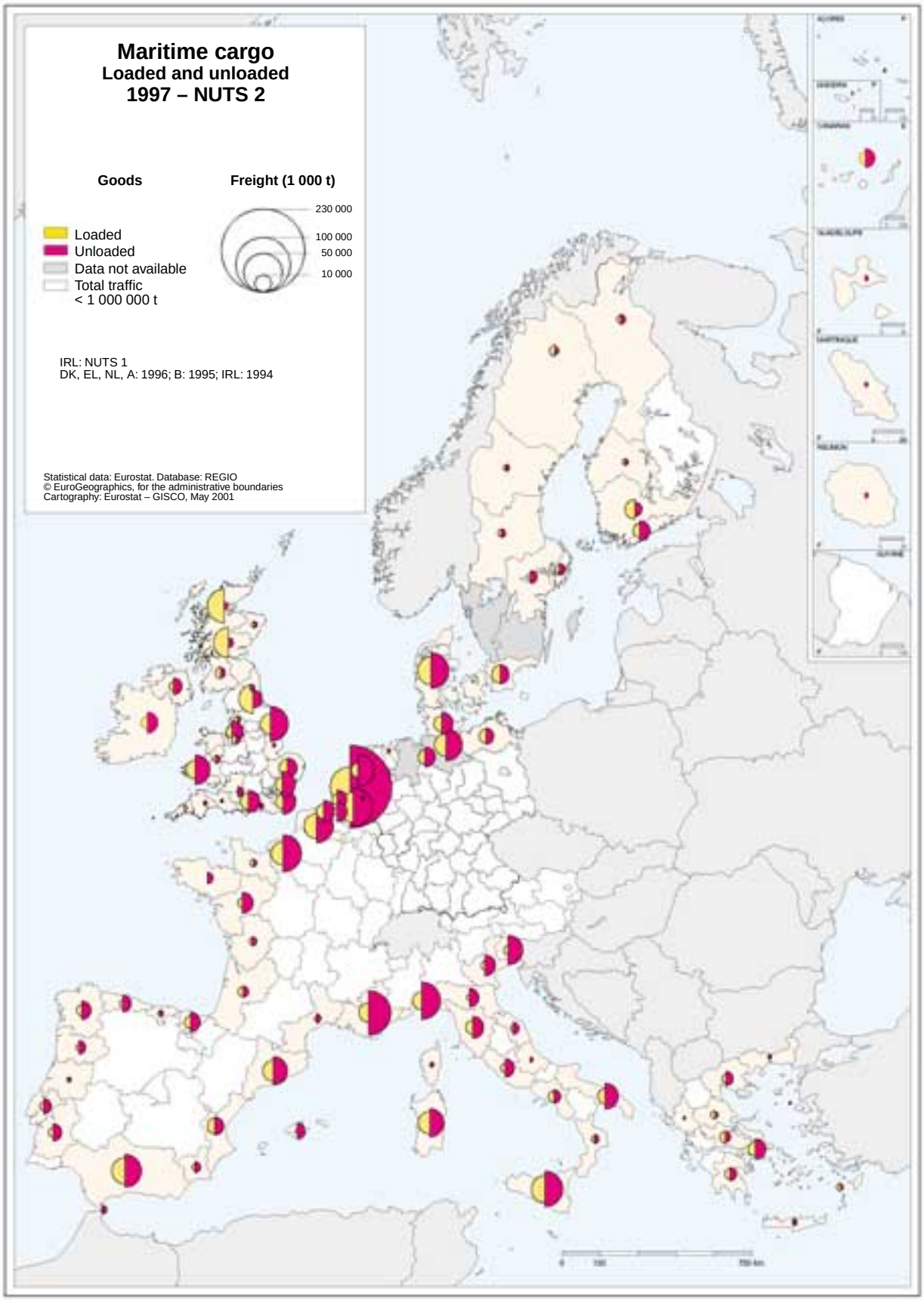
The volume of marine freight passing through the Dutch region of Zuid-Holland (containing the port of Rotterdam) is more than twice as large as for any other EU region. This has important consequences for the pattern of road freight traffic through a large part of the EU (see Map 7.3).

Cargo landed exceeds cargo loaded in most regions, reflecting the overall dependency of the EU's economy on imports of bulk commodities. However, it should be remembered that an important part of intra-EU freight transport is carried by sea — the so-called short-sea shipping — which helps to reduce the environmental impacts associated with long-distance road freight transport.

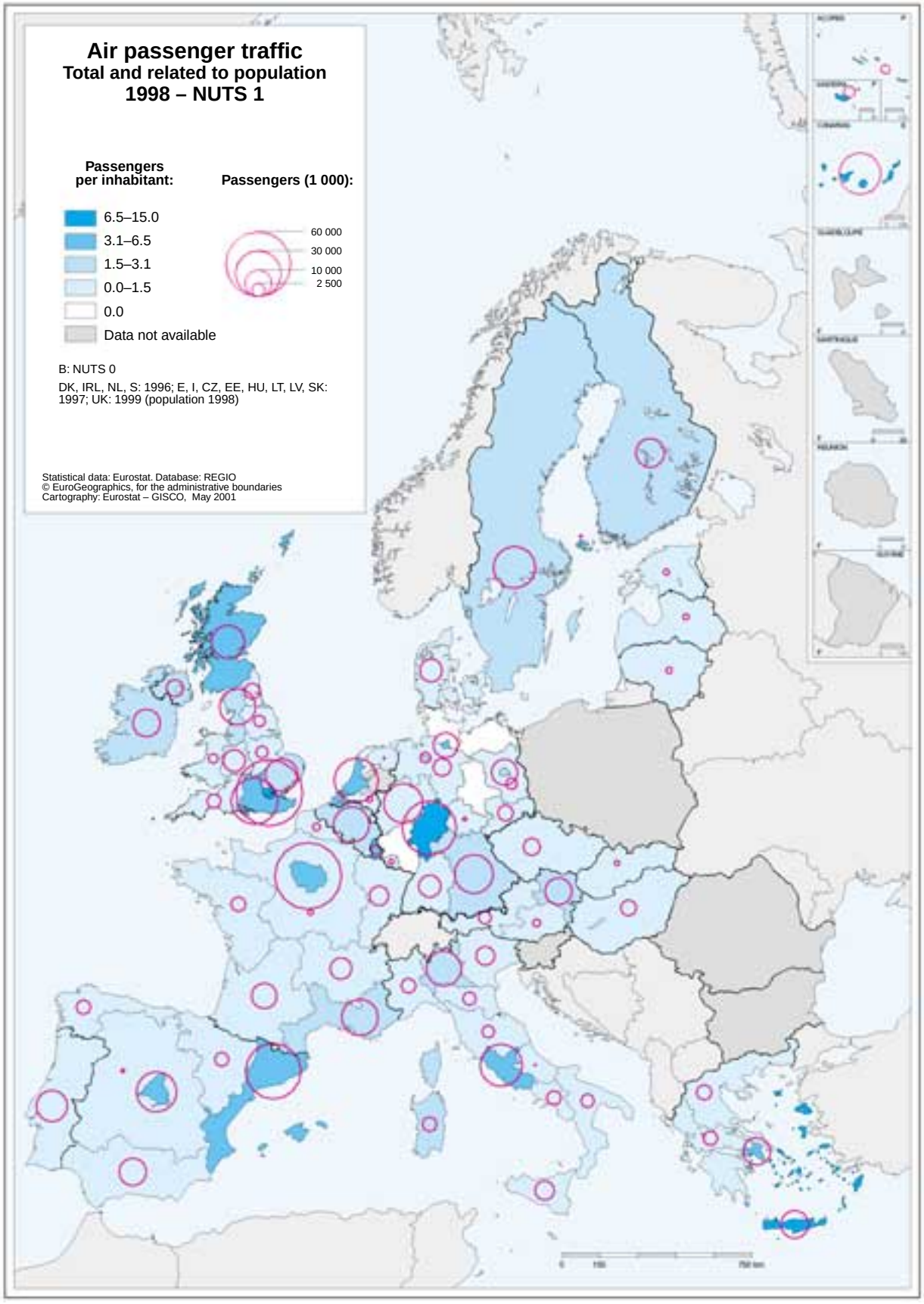
Extreme imbalances in, for example, Crete in Greece and the Balearic Islands in Spain may reflect the landing of supplies and materials needed for the tourist industry with no corresponding local freight generation.

The excess of loaded tonnage in the UK region 'Tees Valley and Durham' may reflect the shipment of bulk goods produced in this region.

Map 7.5 — Maritime cargo



Map 7.6 — Air passenger traffic



Air transport

REGIO contains tables of air transport statistics at regional level for passengers and freight. These series show passenger and freight movements through NUTS 2 regions, measured respectively in thousands of passengers and in tonnes. The passenger statistics provide a breakdown into embarking and disembarking passengers and those in transit.

Although statistics are collected at NUTS 2 level, the catchment area for a major airport (that is, the area from which it draws its customers) will in most cases be much larger than the NUTS 2 region in which it happens to be located. For the purposes of this map, NUTS 1 regions have therefore been chosen as the most appropriate scale. The area of the circle represents the total number of passengers using the airports in the NUTS 1 region concerned.

It should be noted that the large circle for London's airports is not based on REGIO data, due to non-availability of this figure, but rather on the figures provided by the airports themselves. London's airport system, comprising five international airports, is split between three NUTS 1 regions (Eastern, London and South-east).

For Portugal, Luxembourg, Ireland, Denmark, Sweden and Finland, NUTS 1 is equivalent to the national level. Regions marked in white have no airport.

The extent of the catchment area is evident in the 'Bassin Parisien'. Although much larger than the Île-de-France region, which it entirely surrounds, its own air transport needs are almost entirely met by Paris airports within Île-de-France.

The region containing the capital is not always a country's busiest air transport region. Exceptions include Este in Spain, boosted by tourist traffic, and Hessen in Germany, where Frankfurt has extensive business traffic and acts as a hub for long-distance flights.

Regions with a strong tourist vocation, such as Nisia Aigaiou/Crete in Greece and the Balearic Islands in Spain, score high on the number of passengers per inhabitant.

Air passenger traffic in those candidate countries for which data are available (at national level only) is generally below the levels found in most EU regions with significant tourist or business traffic.

Safety

The Eurostat database REGIO holds data at NUTS 2 level on deaths and injuries in road accidents.

The death rate from road accidents expressed as the number of deaths per million inhabitants has been selected for this map in order to remove the variation in absolute numbers due to the greater population of some regions. This death rate does not take into account other relevant factors such as the number of vehicles or the distance travelled. Readers may accordingly wish to consult REGIO for a full breakdown by type of vehicle, or study the map of car ownership earlier in this section (Map 7.2).

The standard definition of a road accident death includes deaths within a 30-day period after the accident. When comparing results across countries, the reader should be aware that some countries use a shorter period, so that the comparable death rate in these countries is higher than indicated. Corrective coefficients for use in these cases are available in the REGIO reference guide.

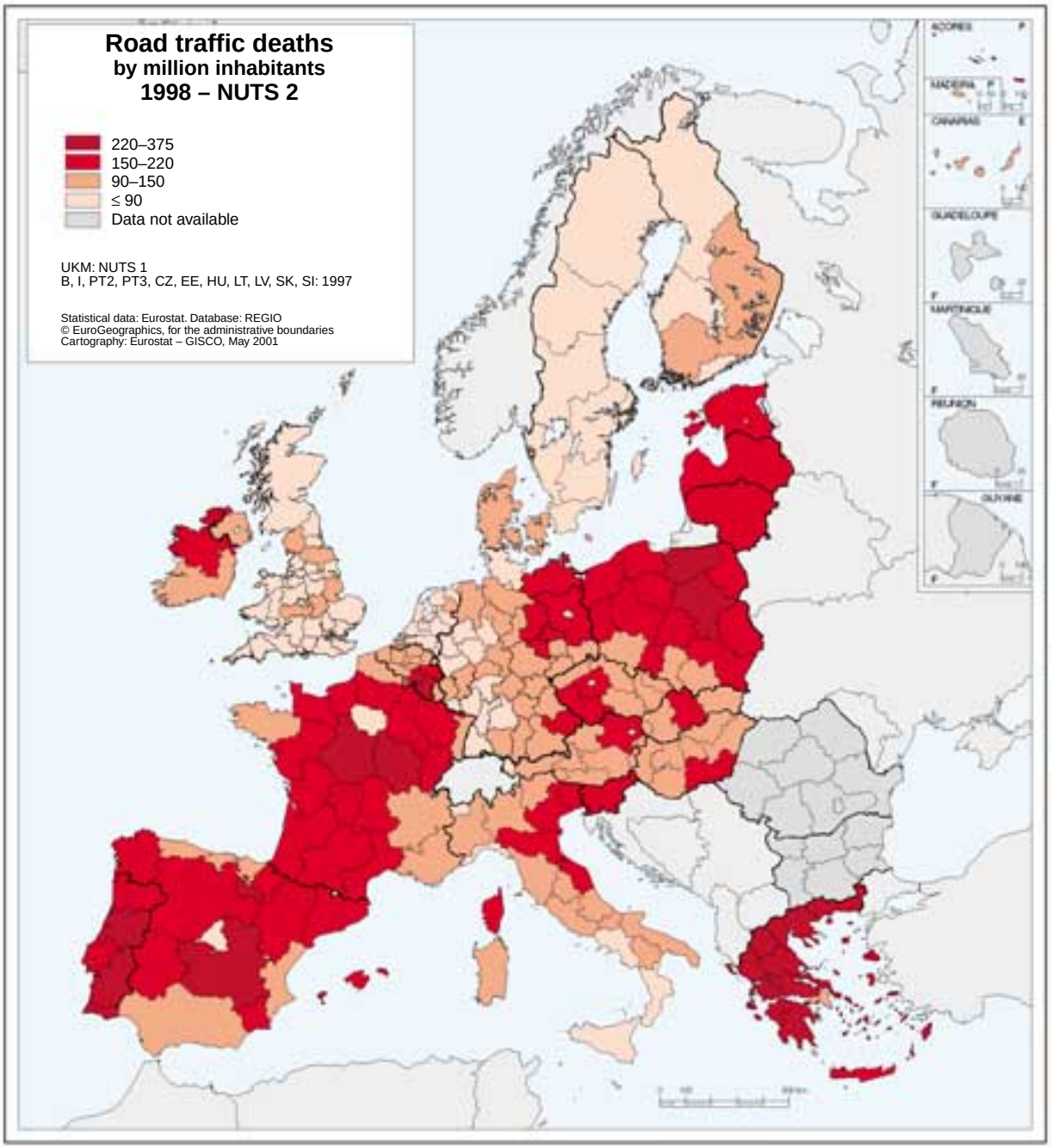
There is a very wide range of death rates, ranging from less than 25 deaths per million inhabitants in Berlin, Hamburg and Vienna, up to 406 deaths per million inhabitants in the Portuguese region of Alentejo. Most regions in Finland, the Netherlands, Sweden and the United Kingdom have well under 90 deaths per million inhabitants.

High traffic death rates in eastern Germany, Greece and Portugal may reflect an imbalance between rising car ownership and an inadequately modernised road network. However, national differences in road accident rates are influenced by many factors which are not susceptible to a simple statistical treatment, such as differences in driver training practices or the degree of enforcement of laws on speed limits and on alcohol consumption by drivers.

Regions defined around major conurbations (Attiki in Greece, Île-de-France) tend to have fewer traffic deaths, perhaps reflecting higher use of public transport and lower average speeds.

Road traffic death rates are fairly high (150–220 deaths per million inhabitants) in the Baltic republics and in Slovenia, as well as in Stredni Cechy and Jihozápad in the Czech Republic, Dél-Alföld in Hungary and Stredné Slovensko in Slovakia. However, the candidate countries include no regions in the highest category (more than 220 deaths per million inhabitants).

Map 7.7 — Road traffic deaths



Conclusion

Regional transport statistics show patterns of variation across regions in which transport-related variables are often closely related to levels of economic activity. This can be seen by comparing the maps in this chapter with those in Chapter 3 (Regional gross domestic product). This does not imply a simple causal relationship, but it tends to confirm that transport growth and economic development are closely coupled.

A closer analysis of the available regional transport data reveals many features which help to understand the extent to which transport may be a limiting factor in regional economic development. In addition, they can explain why transport flows may have a disproportionate impact on the environment of some regions.

The regional variation seen in transport indicators in the candidate countries is quite similar to that seen across the EU.

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8

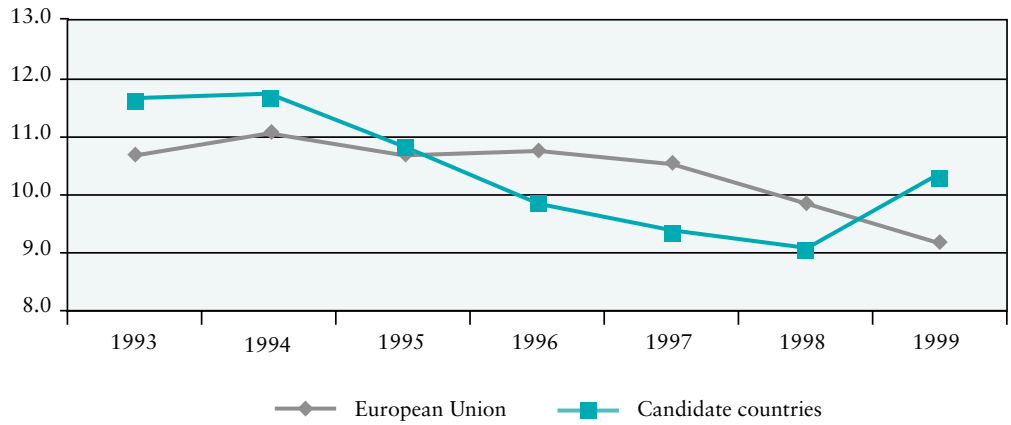
REGIONAL UNEMPLOYMENT

Unemployment trends in Europe

Unemployment is one of the central problems affecting the European Union and the candidate countries. What is taxing the countries concerned is not only the inefficient use of available resources but also, and above all, the distortions in society brought about by the lack of jobs.

The situation appears to have become less critical for the EU Member States since 1994. Unemployment rates are on the decline, and in some Member States there is already a shortage of qualified labour. Unemployment rates in the candidate countries likewise decreased from 1994 onwards, with the average rate actually lying below that of the EU. This trend appears to have turned around in 1998, however, and unemployment rates are on the increase again in the candidate countries. The following figure shows the separate trends for the European Union and the applicant countries since 1993.

Graph 8.1. Harmonised unemployment rates in %



Various aspects of this complex situation are examined in detail below, starting with the regional dimension at regional level 2. This is then broken down further by gender and age. The length of unemployment is also examined, and an attempt is made to correlate unemployment with economic growth. It is not possible to investigate every influencing factor, however, and we have therefore had to disregard the effects of education and training levels and exclude a more detailed analysis of branches of the economy.

Estimation procedures for determining regional unemployment rates

The unemployment rate is defined as the percentage of unemployed persons in the total economically active population. It relates to persons at least 15 years old at a certain point in time and may be broken down further by, for example, gender and age. The youth unemployment rate relates to persons under 25 years of age.

The definition of unemployment applied here is in line with the recommendations of the International Labour Organisation and may therefore differ markedly from the respective national definitions. According to the international recommendations, a person is unemployed if he or she fulfils each of the following three conditions:

- during the reference week of the survey, he or she is without a job;
- he or she is available to take up work within two weeks;
- he or she has taken active steps to find work over the past four weeks.

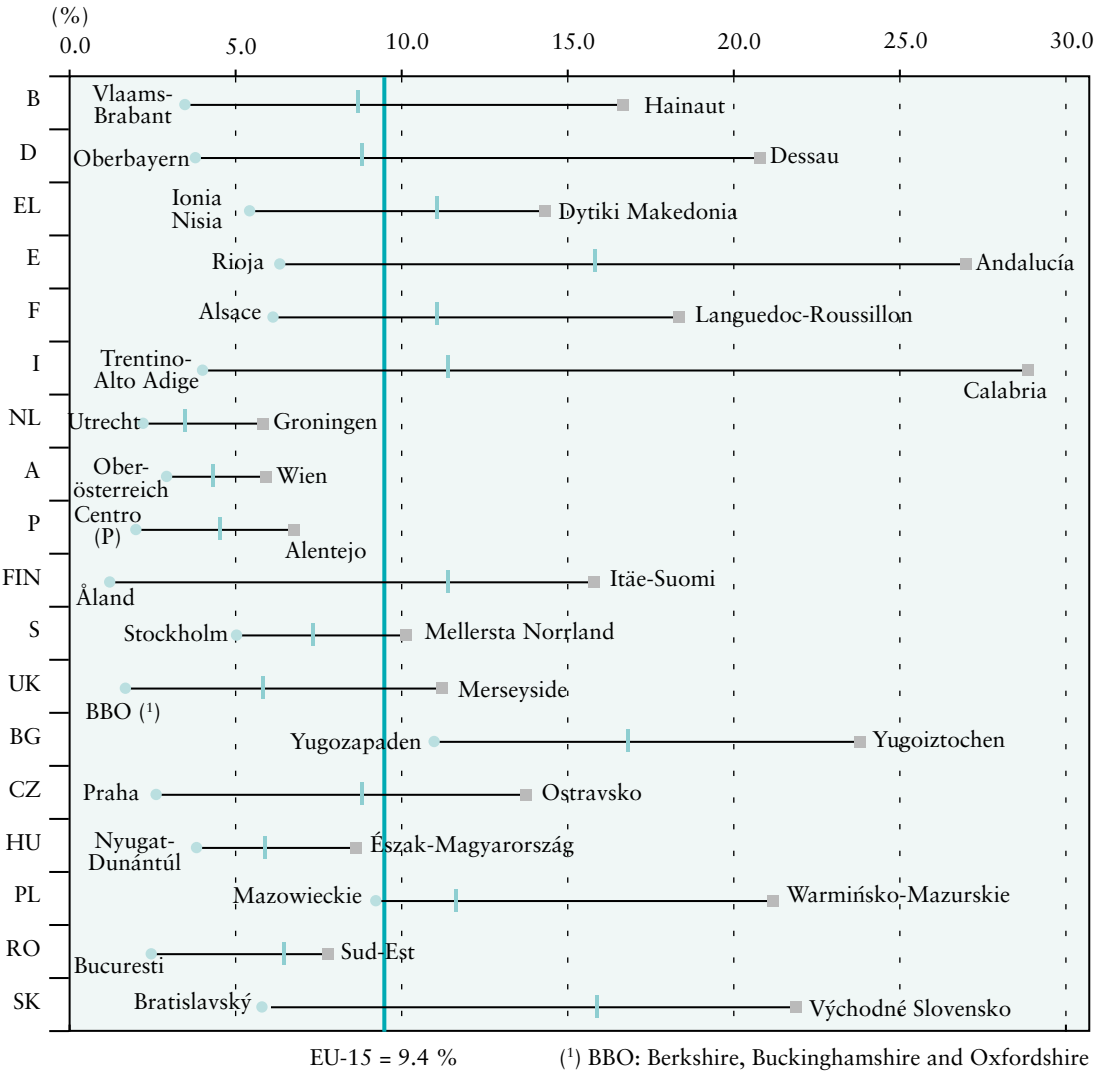
The economically active population is defined as comprising persons in employment and the unemployed. Persons in employment are all persons with jobs during the reference period.

Estimates of regional unemployment rates are based on the estimates of employed and unemployed persons taken from the Community labour force survey at national level, in each case for a specific reference date in April. If the April figures are not available in certain cases, the results for the second quarter are used. In a second step, the estimated jobless figures are broken down over the individual regions, applying the regional structures of registered unemployed persons or regionally representative results of labour force surveys. A similar procedure is followed in respect of employed persons, with results of regionally representative labour force surveys or the regional structures of the most recent population censuses being used for regionalisation.

Initially, separate estimates are made for the sub-populations comprising women under 25 years of age, women aged 25 and above, men under 25 years and men aged 25 and above. The estimates for unemployed and employed persons in the individual sub-populations are subsequently added together to obtain an estimate of the overall unemployment rate.

Unemployment rates reflect developments on the labour market. Labour market-related political decisions and general political trends may therefore influence unemployment rates. The smaller the respective sub-population, the more marked these effects will be. One example is the youth unemployment rate: if low demand for labour means that more young people remain at school, the youth unemployment rate will be lower than it would otherwise be. Such effects should always be taken into account when interpreting unemployment rates.

Graph 8.2. National unemployment rates in Europe and regional variation NUTS 2 — 1999



Margins of variation within the Member States

As this publication went to press, unemployment figures for 1999 were available at NUTS 3 level. Since a study at this regional level would be unmanageable, we have restricted the analysis to regions at NUTS 2 level, with the proviso that some characteristics of the regional structure may change as a result.

In April 1999, the unemployment rate — namely the percentage of unemployed persons in the total economically active population — stood at 9.4 % in the European Union and 10.4 % in the candidate countries. Some national and, above all, regional figures differed significantly from these averages.

Figure 8.2 highlights the regional differences within the countries of Europe. Particularly striking here are the differentials between the regions with the lowest and highest unemployment rates in some EU Member States such as Germany (4.0 % in Upper Bavaria compared with 20.9 % in Dessau) and Italy (3.9 % in Trentino-Alto Adige compared with 28.7 % in Calabria). The candidate countries display similar margins of variation. The European Union and the candidate countries thus have roughly the same degree of regional disparity in relation to unemployment rates.

However, this figure also shows that, despite the high unemployment rates in Spain, some regions in that country posted an unemployment rate below the EU average in April 1999. The situation was roughly similar in Slovakia, where the Bratislava capital region recorded an unemployment rate of only 5.9 %, in spite of an overall rate for the country of 16.4 %.

The following map shows the regional distribution still more clearly. In the case of Finland and, to a lesser extent, Sweden, a 'capital-city effect' is evident. For the candidate countries, this effect is at first sight less pronounced. However, when the key factors affecting unemployment rates at regional level 3 are taken into account (the data are available on request), it is noticeable that, here too, the capital regions have the lowest rates, whether for overall, female or youth unemployment. The only exceptions are Slovenia and Hungary, where the regions bordering Italy and Austria, respectively, have the lowest unemployment rates. The proximity of the Austrian border would also appear to have an impact on regional unemployment rates in Slovakia, whereas the Polish regions bordering Germany, by contrast, post above-average rates.

Equally striking is the division of Germany into the old Federal territory with low unemployment and the new *Länder* with high unemployment. A similar split, this time north-south, can be seen in Italy. The United Kingdom also has a north-south divide, albeit a far less pronounced one. Unemployment in France appears to be concentrated in the peripheral regions in both north and south, and the overseas departments also have high rates. In Spain, proximity to the French border appears to have a beneficial effect on employment, since the border regions have jobless figures below the national average.

If we look only at the NUTS 2 regions, the unemployment rate in the European Union ranges from 2.1 % in the Åland region of Finland to 28.7 % in Calabria, Italy. For every 100 economically active people, therefore, roughly 13 times as many were out of work in Calabria as in Åland. In the candidate countries, the unemployment rate ranges from 3.2 % in the capital of the Czech Republic, Prague, to 23.7 % in the Yugoiztochen region of Bulgaria. This means that the margins of variation are roughly the same.

Of the European Union regions considered, as many as 47 had an unemployment rate of 4.7 % or less in April 1999, that is less than half the EU average. These 47 NUTS 2 regions were spread across nine Member States. Only Greece, Spain, France, Ireland and Sweden had no NUTS 2 region with an unemployment rate under 4.7 %. This also applies to Denmark. At the other extreme, 11 regions — in Italy, Spain and Germany — had unemployment rates of over 18.9 %, at least double the rate for the European Union as a whole. Of the 53 regions examined in the candidate countries, three, in Hungary, the Czech Republic and Romania, had an unemployment rate of less than 5 %. A further 22 regions posted rates below 10 %. At the other end of the scale, only five regions, in Bulgaria, Slovakia and Poland, had unemployment rates in excess of 20 %.

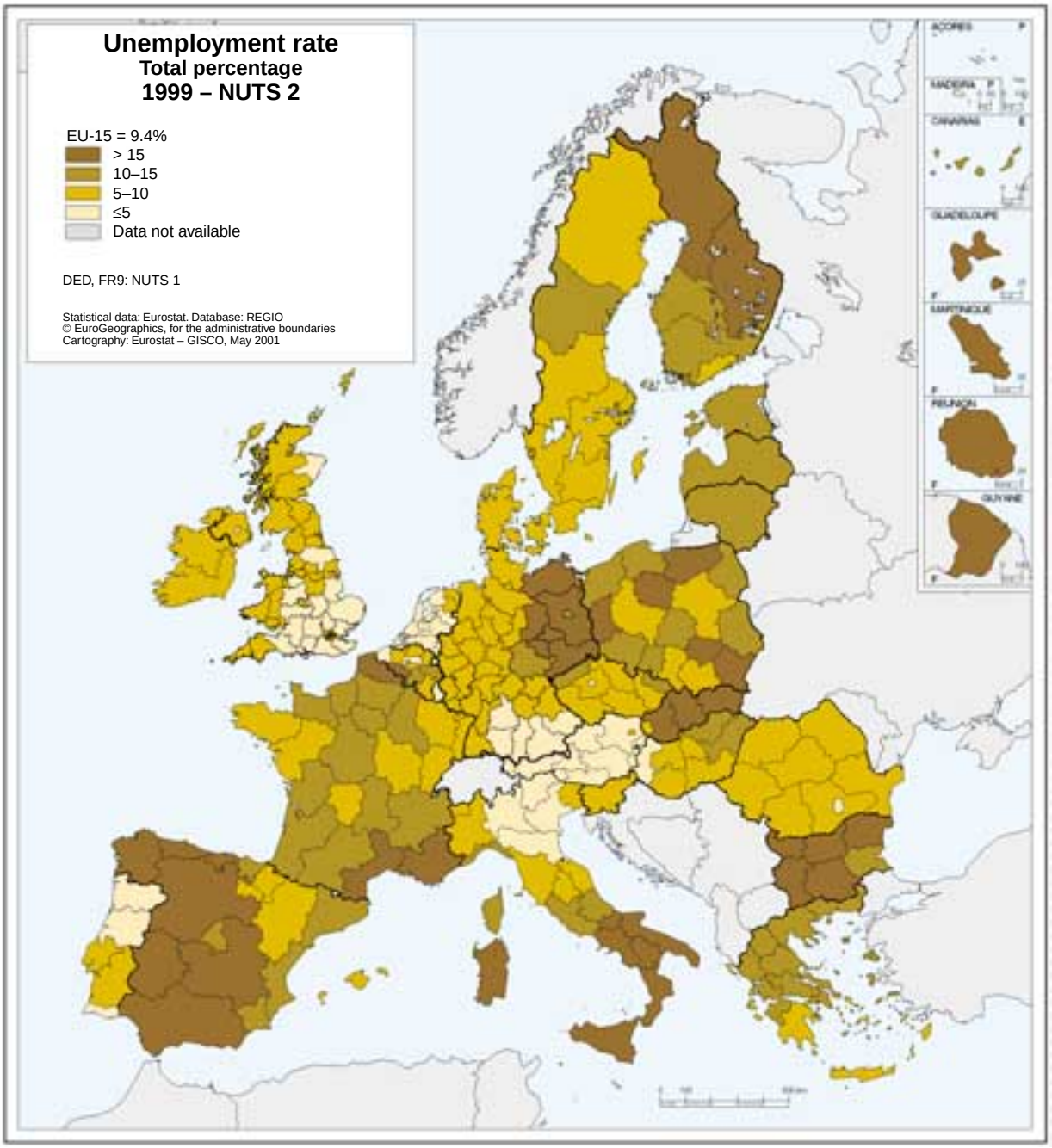
The change in the unemployment rate from April 1998 to April 1999 in the regions concerned ranged from a fall of 5.4 percentage points in Spain's Canary Islands to a rise of 3.9 percentage points in the East Macedonia, Thrace region of Greece. In all, approximately 75 % of the regions in the European Union experienced a drop, and only a quarter an in-

crease in the unemployment rate. Most of the regions with the sharpest falls in unemployment rates were in Spain, while those with the steepest increases tended to be in Greece. The trend at national level in the candidate countries is also to be observed at regional level. As already mentioned, the overall unemployment rate for these countries rose between 1998 and 1999 from 9.1 to 10.4 %. The change for Latvia, Slovenia, Romania and Bulgaria was on the small side. Lithuania and Hungary even recorded a decrease of more than two percentage points. Estonia, Poland, Slovakia and the Czech Republic, on the other hand, experienced an increase of more than two percentage points.

Youth unemployment

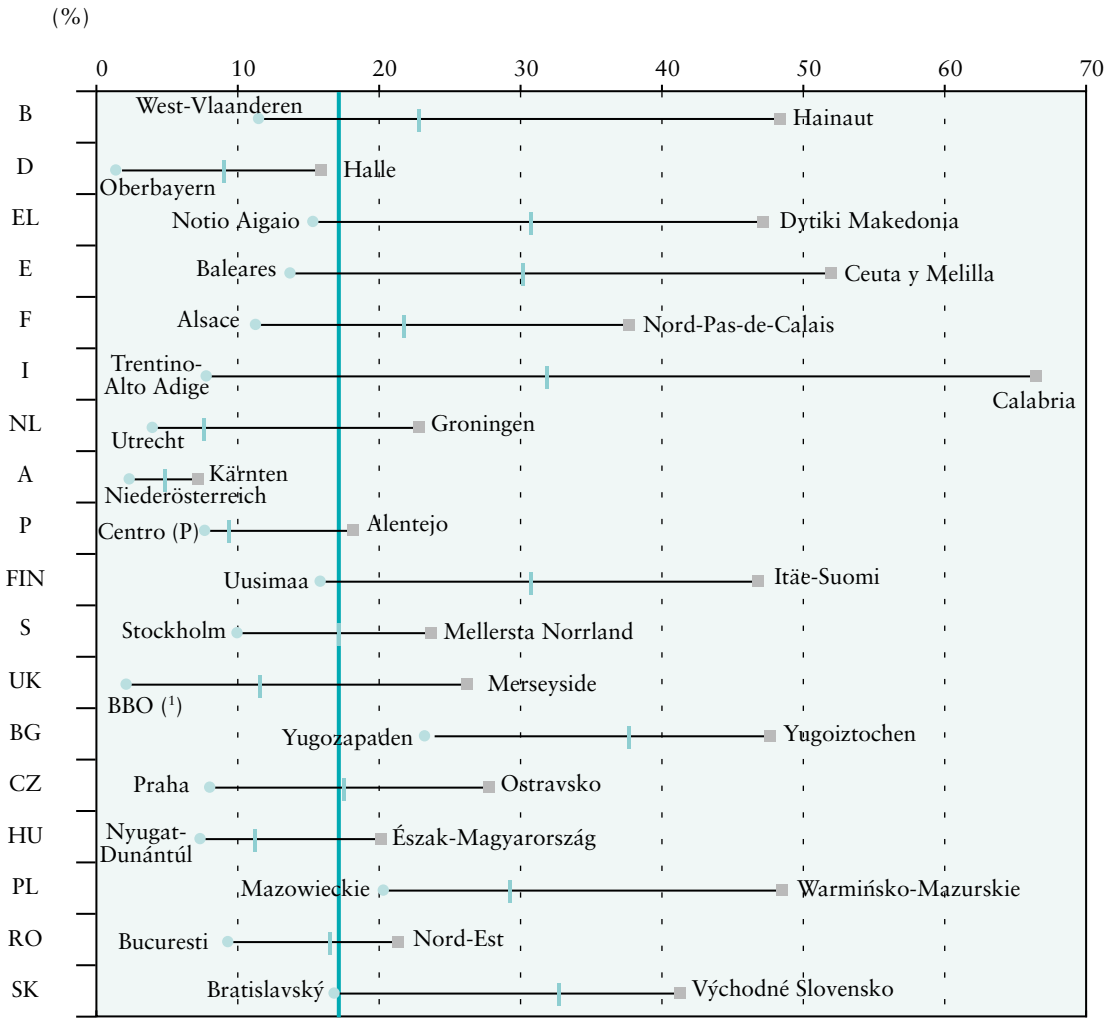
Regional differences in the youth unemployment rate, i. e. the unemployment rate amongst economically active people aged under 25, are appre-

Map 8.1 — Unemployment rate



ciably greater than for the general unemployment rate. In April 1999, they ranged from 3.5 % in Lower Austria to 65.2 % in the Italian region of Calabria. In the candidate countries, they varied between 7.2 % in Hungary's Nyugat-Dunántúl region and 48.8 % in the Polish region of Warmi_sko-Mazurskie. Compared with youth unemployment rates within the European Union, there were thus fewer extreme values, with no region in the candidate countries posting a rate of more than 50 %. In only six regions (in Poland, Bulgaria and Slovakia) was the rate higher than 40 %.

Graph 8.3. National unemployment rates for people under 25 years old in Europe and regional variations NUTS 2 — 1999



EU-15 = 17.8 %

(1) BBO: Berkshire, Buckinghamshire and Oxfordshire

In the case of youth unemployment, too, there are many regions whose rate deviates appreciably from the EU average of 17.8 % or from the candidate countries' average of 23.2 %. In April 1999, as many as 61 regions recorded youth unemployment rates of under 10 % and 18 rates of over 40 %.

Figure 8.3 depicts the regional differences within the respective countries. Major regional differences are evident, for example in Italy, where rates range from 7.4 % in the Trentino-Alto Adige region to 65.2 % in Calabria. In Belgium, Bulgaria, Greece, Spain, France, Poland, Finland and Slovakia, too, there are differences of 20 % or more between the highest and lowest values.

Figure 8.3 shows the regions with the highest or lowest youth unemployment rates in April 1999.

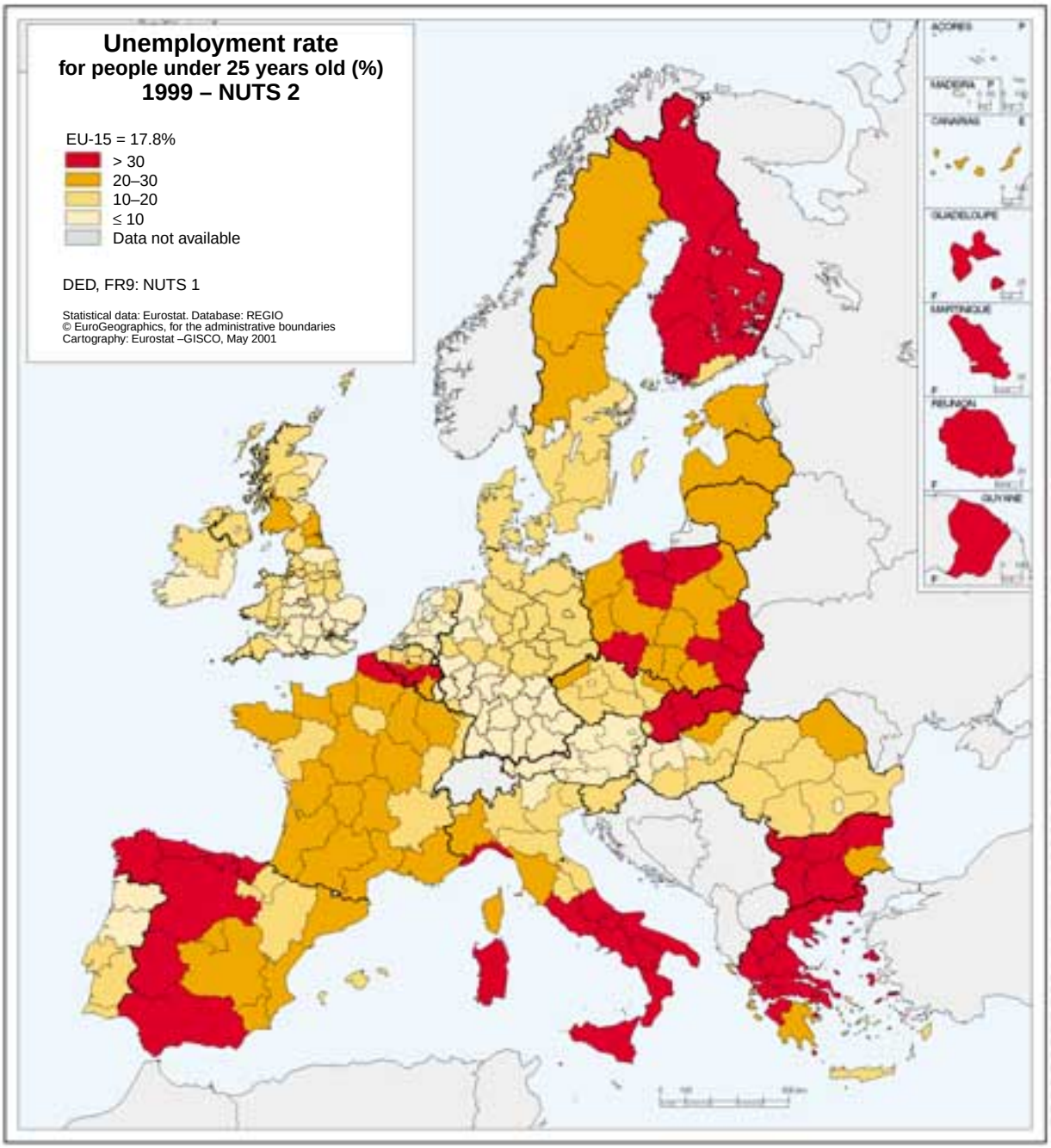
The map of youth unemployment (8.2) shows a regional structure which is essentially the same as that of overall unemployment, except in Germany, where the effects of government measures are evident: youth unemployment in the new *Länder* is basically no different from youth unemployment in Germany as a whole. Otherwise the structure is essentially the same, except that regions with high youth unemployment are more

widely distributed: in Italy, for example, they are found further north than those with high general unemployment.

The map shows a band of low youth unemployment rates in the centre of Europe extending from Hungary's border regions in the direction of the British Isles. The only exceptions to the pattern are two regions in Portugal with similar rates. It is difficult to pinpoint the reasons for this, as government measures regarding youth unemployment differ markedly and are subject to greater changes over time than those relating to older unemployed persons. As the sub-population concerned is a small one, these measures have a relatively pronounced effect.

In 134 of the 205 European Union regions under consideration, the youth unemployment rate fell between April 1998 and April 1999. The most striking improvements were in the Spanish regions of Rioja and the Balearic Islands, which recorded falls of 13.3 and 11.3 percentage points respectively, Picardy in France, with 8.6 percentage points, and Flevoland in the Netherlands, with a fall of 8.3 percentage points. At the other end of the scale, however, a total of

Map 8.2 — Youth unemployment



seven regions experienced an increase in youth unemployment of more than 7 percentage points. These were regions in Italy, Greece and Belgium. The candidate countries — with the sole exception of Romania, for which no figures are available for 1998 — recorded sharp increases in youth unemployment rates across the board, with Poland to the fore. The Czech Republic's most easterly region, Ostravsky, experienced a similarly marked rise.

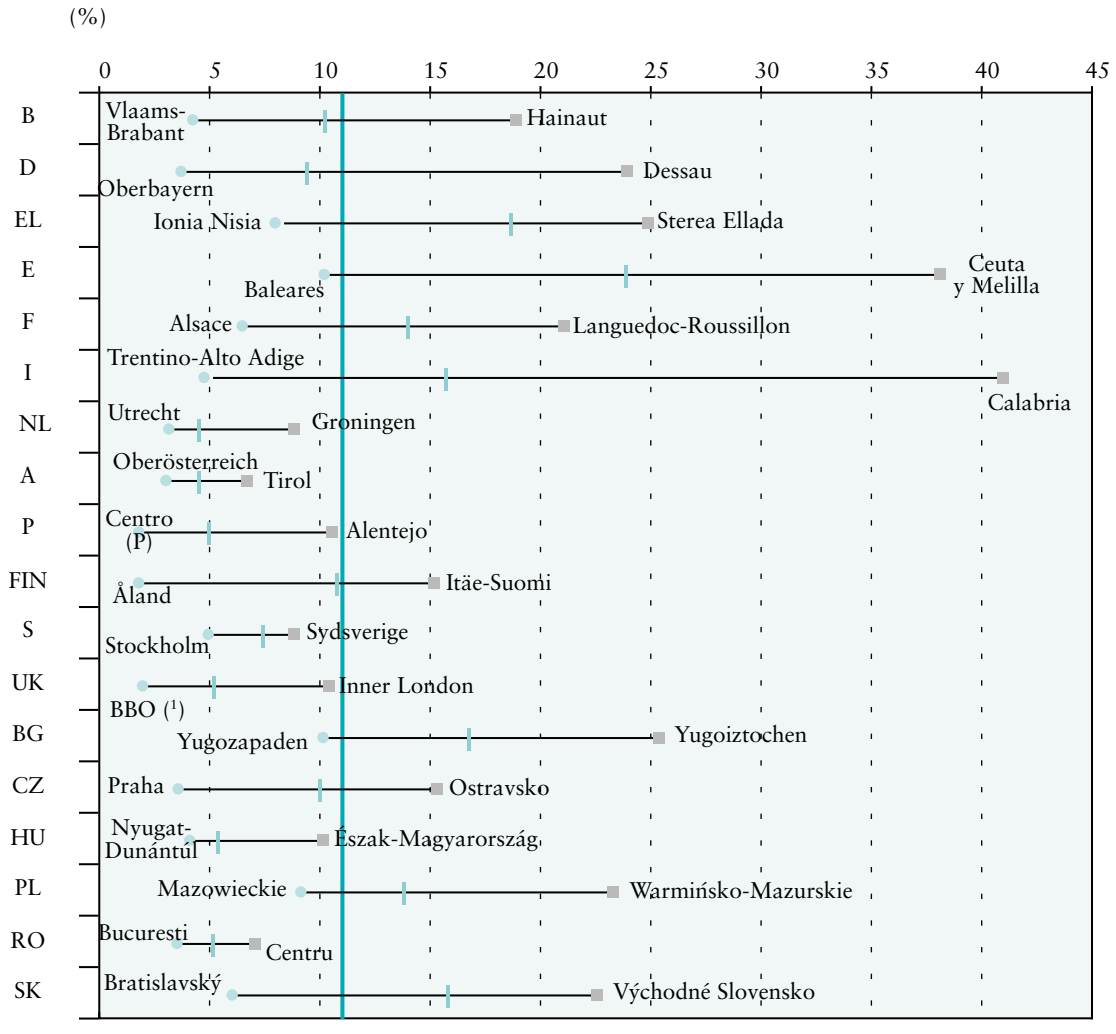
The gap between the sexes

The breakdown of unemployment by gender shows that, in the candidate countries, the female unemployment rate is just as high as that for men, that is ranging from 3.8 % in the region of the Czech capital, Prague, to 25.4 % for the Bulgarian region of Yugoiztochen. Over the same period, female unemployment rates in the NUTS 2 regions of the European Union spanned a wider range, from 2.0 % to 41.1 %. The lowest value, of 2.0 %, for Berkshire, Buckinghamshire and Oxfordshire (United Kingdom), was just under the second lowest, of 2.4 %, for Åland in Finland. The highest figures were recorded by the Italian region of Calabria (41.4 %), the Spanish regions of Ceuta y Melilla (38.0 %), Andalusia (37.5 %) and Extremadura (37.3 %). The conclusion can be drawn from these figures that the participation of men and women in the labour market is more balanced in the candidate countries than in the European Union.

Figure 8.4 gives an idea of the regional disparities within the Member States in April 1999.

The female unemployment rate, like the rate for young people, fell in most regions of the Euro-

Graph 8.4. National unemployment rates of women in Europe and regional variations NUTS 2 — 1999



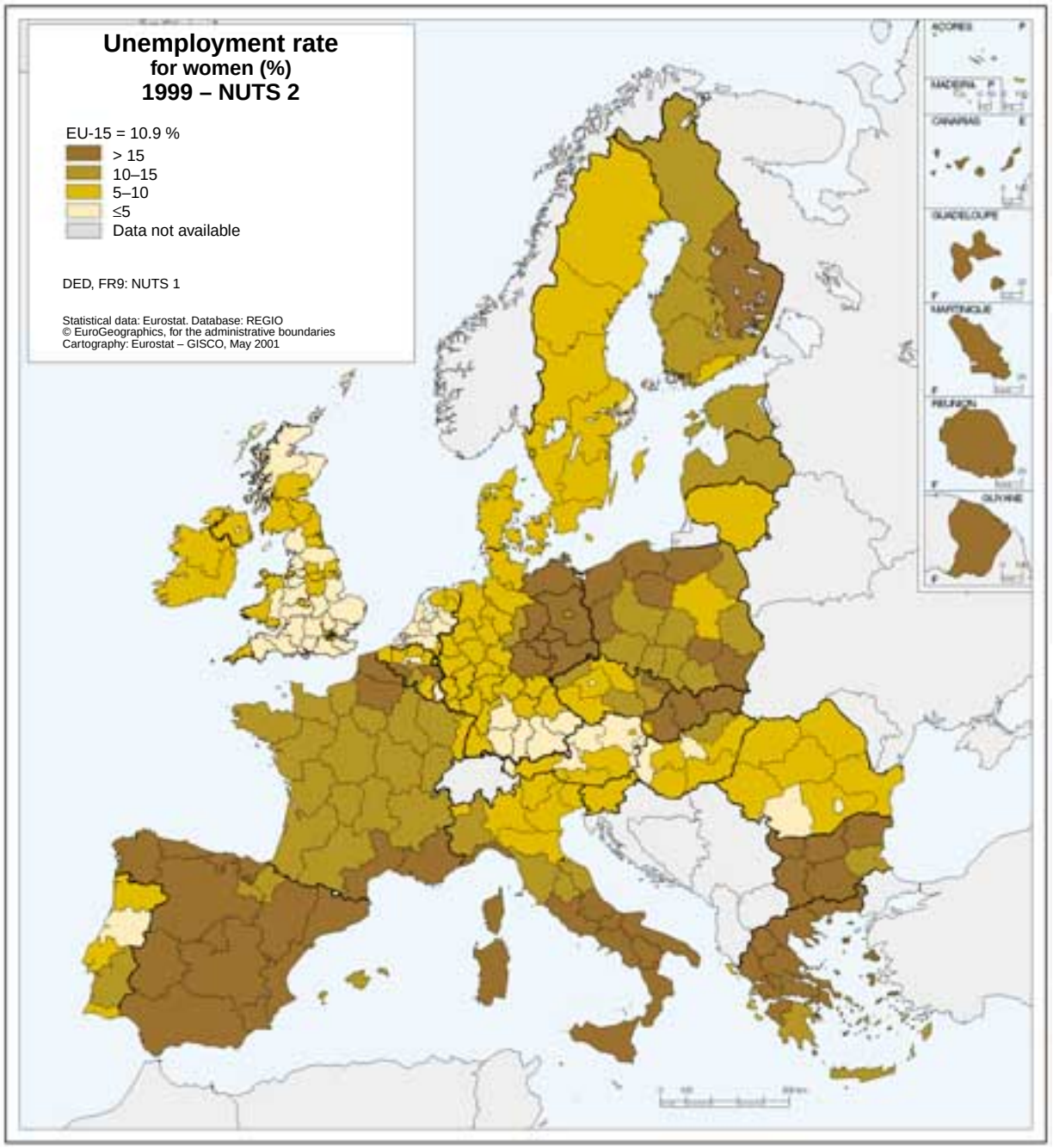
EU-15 = 10.9 %

(1) BBO: Berkshire, Buckinghamshire and Oxfordshire

pean Union between April 1998 and April 1999. In a total of 159 regions the drop was between 0.1 and 6.1 percentage points, whereas 63 regions posted increases of 0.1 to 6.8 percentage points; in the other regions the unemployment rate for women remained unchanged. Those with the sharpest drops in absolute terms were almost all in Spain. In the candidate countries, by contrast, the pattern of female employment mirrored that of overall joblessness, i.e. the change for Latvia, Slovenia, Romania and Bulgaria was on the small side, while Lithuania and Hungary saw their rates decrease. Estonia, Poland, Slovakia and the Czech Republic, on the other hand, suffered a rise in female unemployment.

In 63 of the 205 European Union regions under consideration, the female unemployment rate in April 1999 was lower than the general unemployment rate, and thus also lower than the rate for men. Of these 63 regions, 36 were in the United Kingdom, 17 in Germany, 6 in Sweden and 2 each in Finland and Ireland. As already stated, the female unemployment rate in the ap-

Map 8.3 — Female unemployment



plicant countries was very similar to the male rate.

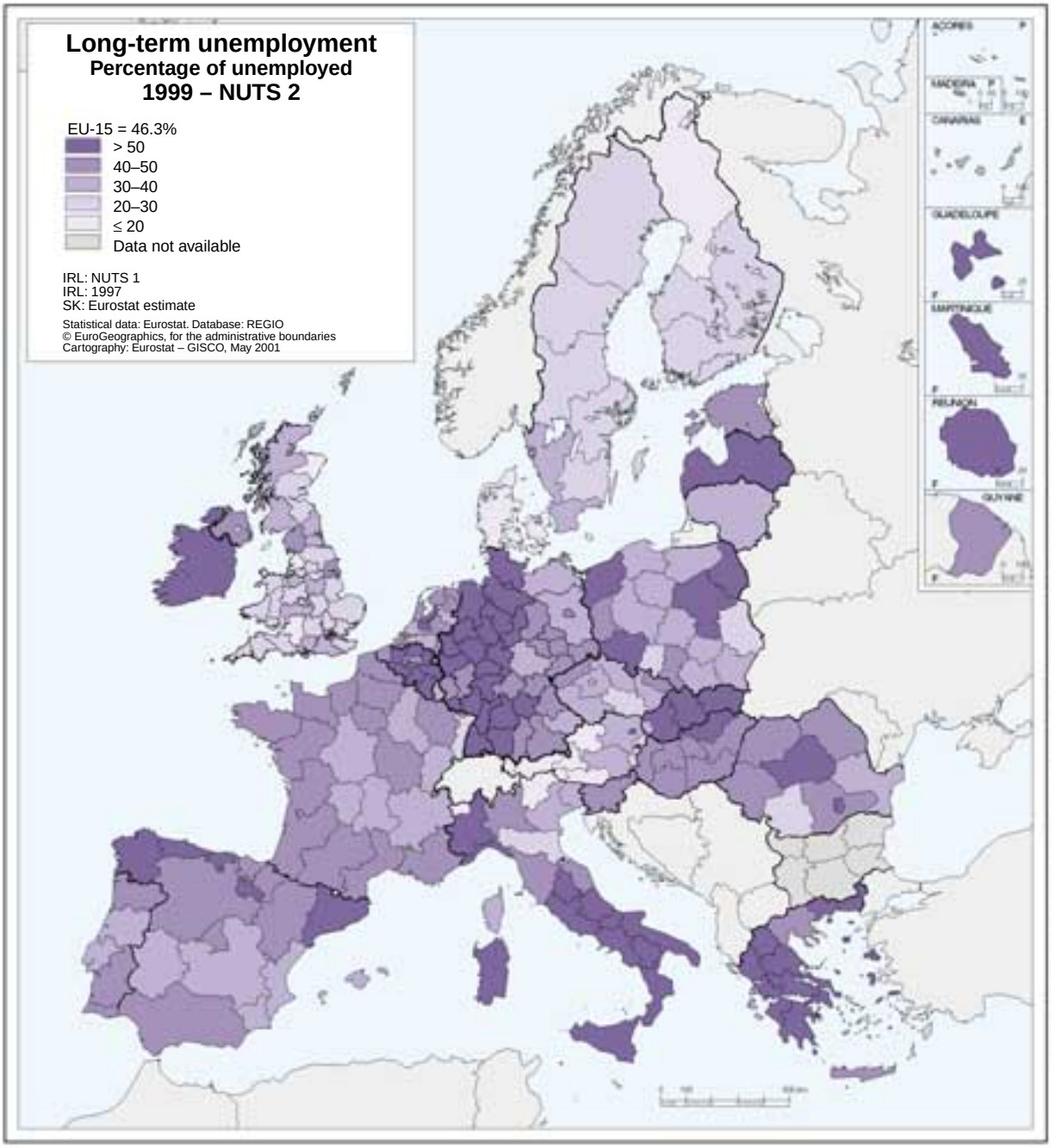
The problem of long-term unemployment

The percentage of unemployed people who have been out of work for more than a year adds a further dimension to the unemployment problem.

The average percentage for the European Union in 1999 stood at 46.3 %.

A high proportion of long-term unemployed people goes hand in hand with severe structural problems. Usually such workers cannot be taken on by other branches or regions because they lack either the necessary qualifications or the will to move. National measures (such as early retirement programmes) may boost or reduce the numbers of long-term unemployed still further. Some Member States, on the other hand, have programmes aimed at reintegrating the long-term unemployed

Map 8.4 — Long-term unemployment



into the labour market by offering retraining opportunities.

There is a small zone in the centre of Europe, namely in West Austria and Italy's North-East (Trentino-Alto Adige), with a very low level of long-term unemployment, but only 13 regions in the European Union have a long-term unemployment rate of less than 20 %, a range in which no regions of the candidate countries are to be found. In the middle range, however, rates are no different between the regions of the European Union and those of the candidate countries. It is particularly striking, on the other hand, that, apart from some regions of Slovakia, only European Union regions are to be found at the other end of the scale. Belgium, Germany, Greece and Italy each have more than two regions where over 60 % of the jobless are long-term unemployed. In summary, it can be stated that long-term unemployment rates in the regions of the European Union cover a wider range of percentage values than is the case in the applicant countries, where fewer extreme values are to be found.

Regional unemployment and economic growth

The following map illustrates two variables at once. Of the many possible combinations, we chose first of all to divide Europe into two groups of regions: those which grew more slowly, and those which grew more quickly, than the annual average for the EU between 1995 and 1998 in terms of per capita gross domestic product expressed in purchasing power standards.

Regions whose economies grew faster per capita than the EU average are shown in red, and those with a below-average growth rate in blue. This is a very crude distinction, of course, but a more detailed breakdown would make the map unclear. Next, we added the 1999 unemployment rate: the darker the colour, the greater the unemployment; conversely, the lighter the colour, the smaller the proportion out of work.

Strictly speaking, account should also have been taken of the fact that inclusion of the 10 candidate countries would lead to a decrease in average EU gross domestic product. In order to ensure consistency for the entire yearbook, however, it was agreed that all averages would be calculated in relation to the current 15 Member States. Moreover, it is still unclear when the individual candidate countries will accede to the European Union.

This produces an interesting pattern. Regions in light blue are those which had below-average economic growth but nevertheless recorded low unemployment rates. Those shown in dark red had above-average growth coupled with high unemployment.

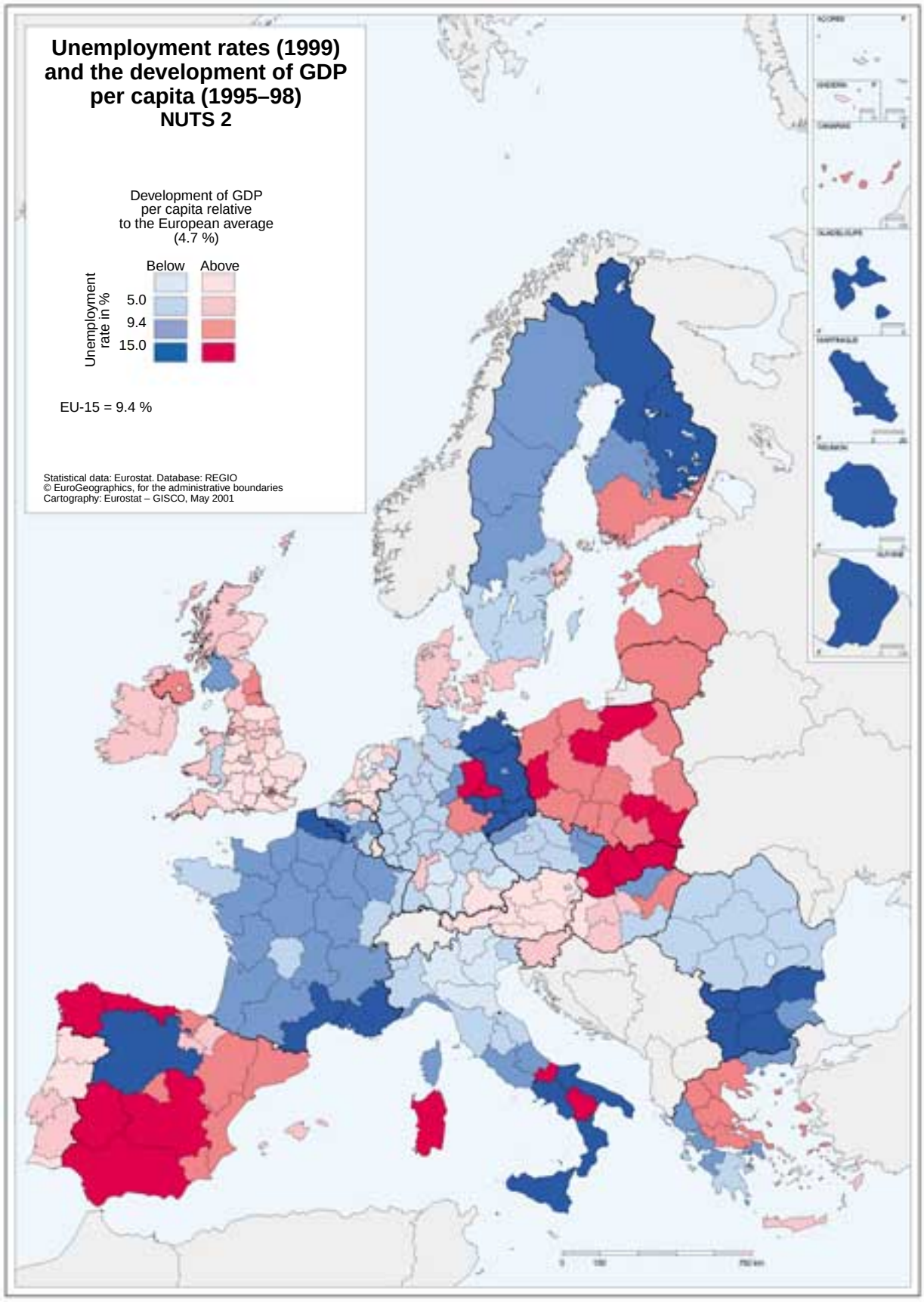
When interpreting this map, it is very important to remember that the value given for gross domestic product refers to growth and not the level. While economically very strong regions may record below-average growth, this does not necessarily imply a negative assessment. Conversely, it is often the case that regions with a low level of GDP achieve strong growth but nevertheless remain economically weak in relative terms. The following map should, therefore, always be viewed in conjunction with Map 3.1. Interpretation always requires care, however, since this representation is just one of the many ways of presenting the figures. In some respects it is merely a snapshot, and disparate price trends ought also to be taken into account. Causal relationships cannot be illustrated either. Despite these drawbacks, however, a map of this kind can offer some interesting insights.

On Map 8.5, Denmark, the Netherlands, Portugal, Ireland, Austria and the United Kingdom stand out in terms of their high economic growth and low unemployment rates. Unlike Finland and Sweden, however, where economic activity appears to be moving south, these five countries show only slight regional disparities. Germany has a clear east-west divide, a striking feature of which is that the eastern German regions of Dessau, Magdeburg and Thuringia have high unemployment yet above-average economic growth. In most regions of Italy and France, economic growth is below average, while Spain is in the extraordinary position of having a good rate of economic growth while having to contend with high rates of unemployment.

Among the candidate countries, Bulgaria stands out for its high unemployment and below-average growth. A comparable situation is to be found in France's overseas departments, in the south of France and southern Italy, as well as in some regions of eastern Germany and in northern Finland. While Romania and the Czech Republic are experiencing below-average growth, albeit at completely different levels, they have low unemployment rates. Hungary presents a very mixed picture, even though it appears to

belong more in the largest group of candidate countries which are enjoying above-average growth but at the same time have to contend with high unemployment rates. This group comprises the three Baltic States, Poland, Slovakia and Slovenia.

Map 8.5 — Unemployment rates and the development of GDP per capita



EUROPEAN UNION: NUTS 2 Regions

BE Belgique-België
BE1 Région de Bruxelles-Capitale / Brussels Hfdst. Gew.
BE2 Vlaams Gewest
BE21 Antwerpen
BE22 Limburg (B)
BE23 Oost-Vlaanderen
BE24 Vlaams Brabant
BE25 West-Vlaanderen
BE3 Région wallonne
BE31 Brabant wallon
BE32 Hainaut
BE33 Liège
BE34 Luxembourg (B)
BE35 Namur
DK Danmark
DE Deutschland
DE1 Baden-Württemberg
DE11 Stuttgart
DE12 Karlsruhe
DE13 Freiburg
DE14 Tübingen
DE2 Bayern
DE21 Oberbayern
DE22 Niederbayern
DE23 Oberpfalz
DE24 Oberfranken
DE25 Mittelfranken
DE26 Unterfranken
DE27 Schwaben
DE3 Berlin
DE4 Brandenburg
DE5 Bremen
DE6 Hamburg
DE7 Hessen
DE71 Darmstadt
DE72 Gießen
DE73 Kassel
DE8 Mecklenburg-Vorpommern
DE9 Niedersachsen
DE91 Braunschweig
DE92 Hannover
DE93 Lüneburg
DE94 Weser-Ems
DEA Nordrhein-Westfalen
DEA1 Düsseldorf
DEA2 Köln
DEA3 Münster
DEA4 Detmold
DEA5 Arnsberg
DEB Rheinland-Pfalz
DEB1 Koblenz
DEB2 Trier
DEB3 Rheinhessen-Pfalz
DEC Saarland
DED Sachsen
DED1 Chemnitz
DED2 Dresden
DED3 Leipzig
DEE Sachsen-Anhalt
DEE1 Dessau
DEE2 Halle
DEE3 Magdeburg
DEF Schleswig-Holstein
DEG Thüringen
GR Ellada
GR1 Voreia Ellada
GR11 Anatoliki Makedonia, Thraki
GR12 Kentriki Makedonia
GR13 Dytiki Makedonia
GR14 Thessalia
GR2 Kentriki Ellada
GR21 Ipeiros
GR22 Ionia Nissia
GR23 Dytiki Ellada
GR24 Sterea Ellada
GR25 Peloponnissos
GR3 Attiki
GR4 Nissia Aigaiou, Kriti
GR41 Voreio Aigaio
GR42 Notio Aigaio
GR43 Kriti
ES España
ES1 Noroeste
ES11 Galicia
ES12 Principado de Asturias
ES13 Cantabria
ES2 Noreste
ES21 País Vasco
ES22 Comunidad Foral de Navarra
ES23 La Rioja
ES24 Aragón
ES3 Comunidad de Madrid
ES4 Centro (E)
ES41 Castilla y León
ES42 Castilla-La Mancha
ES43 Extremadura
ES5 Este
ES51 Cataluña
ES52 Comunidad Valenciana
ES53 Islas Baleares
ES6 Sur
ES61 Andalucía
ES62 Región de Murcia
ES63 Ceuta y Melilla
ES7 Canarias
FR France
FR1 Île-de-France
FR2 Bassin parisien
FR21 Champagne-Ardenne
FR22 Picardie
FR23 Haute-Normandie
FR24 Centre
FR25 Basse-Normandie
FR26 Bourgogne
FR3 Nord-Pas-de-Calais
FR4 Est
FR41 Lorraine
FR42 Alsace
FR43 Franche-Comté
FR5 Ouest
FR51 Pays de la Loire
FR52 Bretagne
FR53 Poitou-Charentes
FR6 Sud-Ouest
FR61 Aquitaine
FR62 Midi-Pyrénées
FR63 Limousin
FR7 Centre-Est
FR71 Rhône-Alpes
FR72 Auvergne
FR8 Méditerranée
FR81 Languedoc-Roussillon
FR82 Provence-Alpes-Côte d'Azur
FR83 Corse
FR9 Départements d'outre-mer
FR91 Guadeloupe
FR92 Martinique
FR93 Guyane
FR94 Réunion
IE Ireland
IE01 Border, Midland and Western
IE02 Southern and Eastern
IT Italia
IT1 Nord-Ovest
IT11 Piemonte
IT12 Valle d'Aosta
IT13 Liguria
IT2 Lombardia
IT3 Nord-Est
IT31 Trentino-Alto Adige
IT32 Veneto
IT33 Friuli-Venezia Giulia
IT4 Emilia-Romagna
IT5 Centro (I)
IT51 Toscana
IT52 Umbria
IT53 Marche
IT6 Lazio

IT7 Abruzzo-Molise
IT71 Abruzzo
IT72 Molise
IT8 Campania
IT9 Sud
IT91 Puglia
IT92 Basilicata
IT93 Calabria
ITA Sicilia
ITB Sardegna
LU Luxembourg (Grand-Duché)
NL Nederland
NL1 Noord-Nederland
NL11 Groningen
NL12 Friesland
NL13 Drenthe
NL2 Oost-Nederland
NL21 Overijssel
NL22 Gelderland
NL23 Flevoland
NL3 West-Nederland
NL31 Utrecht
NL32 Noord-Holland
NL33 Zuid-Holland
NL34 Zeeland
NL4 Zuid-Nederland
NL41 Noord-Brabant
NL42 Limburg (NL)
AT Österreich
AT1 Ostösterreich
AT11 Burgenland
AT12 Niederösterreich
AT13 Wien
AT2 Südösterreich
AT21 Kärnten
AT22 Steiermark
AT3 Westösterreich
AT31 Oberösterreich
AT32 Salzburg
AT33 Tirol
AT34 Vorarlberg
PT Portugal
PT1 Continente
PT11 Norte
PT12 Centro (P)
PT13 Lisboa e Vale do Tejo
PT14 Alentejo
PT15 Algarve
PT2 Açores
PT3 Madeira
FI Suomi/Finland
FI1 Manner-Suomi
FI13 Itä-Suomi
FI14 Väli-Suomi
FI15 Pohjois-Suomi
FI16 Uusimaa
FI17 Etelä-Suomi
FI2 Ahvenanmaa/Åland
SE Sverige
SE01 Stockholm
SE02 Östra mellansverige
SE04 Sydsverige
SE06 Norra mellansverige
SE07 Mellersta Norrland
SE08 Övre Norrland
SE09 Småland med öarna
SE0A Västsverige
UK United Kingdom
UKC North East
UKC1 Tees Valley and Durham
UKC2 Northumberland and Tyne and Wear
UKD North West
UKD1 Cumbria
UKD2 Cheshire
UKD3 Greater Manchester
UKD4 Lancashire
UKD5 Merseyside
UKE Yorkshire and the Humber
UKE1 East Riding and North Lincolnshire
UKE2 North Yorkshire
UKE3 South Yorkshire
UKE4 West Yorkshire
UKF East Midlands
UKF1 Derbyshire and Nottinghamshire
UKF2 Leicestershire, Rutland and Northamptonshire
UKF3 Lincolnshire
UKG West Midlands
UKG1 Herefordshire, Worcestershire and Warwickshire
UKG2 Shropshire and Staffordshire
UKG3 West Midlands
UKH Eastern
UKH1 East Anglia
UKH2 Bedfordshire and Hertfordshire
UKH3 Essex
UKI London
UKI1 Inner London
UKI2 Outer London
UKJ South East
UKJ1 Berkshire, Buckinghamshire and Oxfordshire
UKJ2 Surrey, East and West Sussex
UKJ3 Hampshire and Isle of Wight
UKJ4 Kent
UKK South West
UKK1 Gloucestershire, Wiltshire and North Somerset
UKK2 Dorset and Somerset
UKK3 Cornwall and Isles of Scilly
UKK4 Devon
UKL Wales
UKL1 West Wales and The Valleys
UKL2 East Wales
UKM Scotland
UKM1 North Eastern Scotland
UKM2 Eastern Scotland
UKM3 South Western Scotland
UKM4 Highlands and Islands
UKN Northern Ireland

Regions in the candidate countries

NB: The following list of regions in the candidate countries is intended to assist the reader to locate on the maps regions that are mentioned in the text. **It is not an official list.**

The current state of the nomenclature of statistical regions in the candidate countries may be consulted on the Eurostat site at: http://europa.eu.int/comm/eurostat/ramon

Choose 'Classifications' and then scroll down to No 83.

Code	Country	Level 2 regions
	Bulgaria	
BG	Bulgaria	
BG01		Severozapaden (North-West)
BG02		Severen tsentralen (North Central)
BG03		Severoiztochen (North-East)
BG04		Yugozapaden (South-West)
BG05		Yuzhen tsentralen (South Central)
BG06		Yugoiztochen (South-East)
	Czech Republic	
CZ	Česká Republika	
CZ01		Praha
CZ02		Střední Čechy
CZ03		Jihozápad
CZ04		Severozápad
CZ05		Severovýchod
CZ06		Jihovýchod
CZ07		Střední Morava
CZ08		Ostravsko

Code	Country	Level 2 regions
	Estonia	
EE	Eesti	
	Hungary	
HU	Magyarország	
HU01		Közép-Magyarország
HU02		Közép-Dunántúl
HU03		Nyugat-Dunántúl
HU04		Dél-Dunántúl
HU05		Észak-Magyarország
HU06		Észak-Alföld
HU07		Dél-Alföld
	Lithuania	
LT	Lietuva	
	Latvia	
LV	Latvija	

Code	Country	Level 2 regions
	Poland	
PL	Polska	
PL01		Dolnośląskie
PL02		Kujawsko-Pomorskie
PL03		Lubelskie
PL04		Lubuskie
PL05		Lódzkie
PL06		Malopolskie
PL07		Mazowieckie
PL08		Opolskie
PL09		Podkarpackie
PL0A		Podlaskie
PL0B		Pomorskie
PL0C		Ślaskie
PL0D		Świetokrzyskie
PL0E		Warmińsko-Mazurskie
PL0F		Wielkopolskie
PL0G		Zachodniopomorskie

Code	Country	Level 2 regions
	Romania	
RO	România	
RO01		Nord-Est
RO02		Sud-Est
RO03		Sud
RO04		Sud-Vest
RO05		Vest
RO06		Nord-Vest
RO07		Centru
RO08		Bucuresti
	Slovenia	
SI	Slovenija	
	Slovakia	
SK	Slovenská Republika	
SK01		Bratislavsky
SK02		Západné Slovensko
SK03		Stredné Slovensko
SK04		Vychodné Slovensko

Installation of the CD-ROM

1. Insert CD in CD drive and wait until the automatic installation has been completed ([1]).
2. Now follow the menu listings.

How to consult the information

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

([1]) If the program does not start automatically, carry out the following steps:

- Open 'Windows Explorer'.
- Double click on the symbol for the CD-ROM drive.
- Double click on **setup.exe** (execute the program).
- Follow the installation instructions. The installation program will create a shortcut, placing the appropriate icon on your desktop. Double click on the icon and follow the menu listings.