

# Eurostat regional yearbook 2008





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## Preface

Dear reader,

I am pleased to present the 2008 edition of the Eurostat regional yearbook, which gives an overview of the most recent developments in the regions of the European Union, with its current 27 Member States, as well as in the candidate countries and EFTA countries.

We have again selected themes that we think will show you the most interesting facets of development in the economic, social and demographic fields in Europe's regions. We are also pleased to include a contribution from our colleagues at the Commission's Directorate-General for Regional Policy for the second year running. This time the chapter is about 'Sectoral productivity' and it examines how productivity in different business sectors differs between the EU's regions.

Regional policy programmes initiated last year under the EU's new cohesion policy are now well under way and we hope that this publication will give some flavour of the progress being made in regional cohesion throughout the EU. We have also included some of the most recent results from the Urban Audit exercise, a data collection that compiles a great deal of statistical information on Europe's cities.

We are progressively developing the range of regional indicators available and will hopefully be able to include these in our choice of topics in future editions, as data availability and quality allow.

I wish you a stimulating read.



Hervé Carré  
Director-General, Eurostat



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# Introduction





## Regional statistics give more detailed information

Eurostat, the statistical office of the European Communities, collects data on a range of different statistical topics, mainly from the 27 Member States of the European Union, but also from the three candidate countries (Croatia, the former Yugoslav Republic of Macedonia, and Turkey) and from the four EFTA countries (Iceland, Liechtenstein, Norway and Switzerland). The statistical data are often only collected at national level, but very many statistical fields also have statistics at regional level, which gives us a more complete picture.

This aim of this publication, the *Eurostat regional yearbook 2008*, is to give you detailed information on life in the European regions today. Looking at the regions of Europe under the magnifying glass allows the authors of the 13 different chapters to make an in-depth analysis of a large variety of statistical domains. We very much hope you will enjoy reading it!

The first chapter is about population statistics (demography), because population data form the basis for all other statistics. Many other statistical indicators are divided by the population figures, thus resulting in data with the unit expressed in terms of 'per inhabitant'. Therefore, we start the first chapter by presenting some basic facts about how the population is spread over the regions in Europe, providing birth and death rates, migration patterns and age distribution.

The second chapter, on urban statistics, is based on the Urban Audit data collection and it presents data on a range of different topics from all European capitals and from many other large European cities. As a large proportion of EU citizens live in these cities, it should be a topic that is interesting and directly relevant for many people.

The other chapters can be divided into four different themes.

The first concerns economic or financial indicators: gross domestic product (GDP), household accounts and structural business statistics. Economic cohesion is one of the main goals in EU policy and, one might say, the engine for all other policies. In particular the chapter on GDP gives a very good idea of the situation in the European Union today.

Labour market indicators form the second group of themes in this publication, containing a basic chapter on the labour market, and also introduc-

ing two totally new subjects for the *Eurostat regional yearbook*; sectoral productivity, written by a subject specialist from the Directorate-General for Regional Policy, and labour costs, where the regional differences in labour costs per hour are analysed.

The theme for the third group of chapters is more general and concerns the everyday life of most European citizens. Transport and tourism both focus on the mobility of people, while science, technology and innovation is often seen as one of the main cornerstones in the new Lisbon strategy for growth and jobs.

Well-being in general is the theme for the last two chapters; statistics on health are a welcome reappearance this year, focusing on the main causes of death and on the density of healthcare staff in the European regions; the chapter on agriculture this year concerns animal-rearing, mainly regarding pigs, sheep and cows.

## The NUTS classification

All statistics at regional level within the EU are based on the nomenclature of territorial units for statistics (NUTS). The NUTS classification has been used for regional statistics for many decades, and has always formed the basis for regional funding policy. It was only in 2003, though, that NUTS acquired a legal basis, when the NUTS regulation was adopted by the Parliament and the Council <sup>(1)</sup>.

Whenever new Member States join the EU, the NUTS regulation is of course amended to include the regional classification in those countries. This was the case in 2004, when the EU took in 10 new Member States, and in 2007 when it expanded to include Bulgaria and Romania.

The NUTS regulation provides for a review to be conducted every three years whereby the regional classification can be changed and adapted to new administrative boundaries or economic circumstances. In 2006, this exercise took place for the first time, and the results of these changes to the NUTS classification have now been valid since 1 January 2008. Most territorial changes are at NUTS level 3, affecting 11 countries, while four countries had changes made at NUTS level 2 and only one country at NUTS level 1.

The main changes in this latest revision of the NUTS classification are the following: Denmark introduced new NUTS 2 regions and revised the existing NUTS 3 regions following a substantial

<sup>(1)</sup> More information on the NUTS classification can be found on the Internet ([http://ec.europa.eu/eurostat/ramon/nuts/splash\\_regions.html](http://ec.europa.eu/eurostat/ramon/nuts/splash_regions.html)).



administrative regional reform. In one German region, Sachsen-Anhalt, three different NUTS 2 regions were merged into just one NUTS 2 region. Slovenia introduced two new NUTS 2 regions where it had only one previously. In the United Kingdom, more specifically in north-eastern Scotland, a boundary shift at both NUTS 2 and 3 levels had the effect of creating new regions. Sweden introduced NUTS 1 regions for the first time due to the size of the country. For more detailed information on the most recent NUTS changes, please consult the Eurostat website.

Since these NUTS changes were introduced only on 1 January 2008 and the statistical data for all the chapters had already been extracted by the beginning of this year, you will find that regional data, especially for Denmark and Slovenia, are missing or have been replaced with national values on many of the statistical maps. The regional data availability for these two countries will have hopefully improved for next year's publication.

As a rule regional data by NUTS 2 regions are displayed and analysed in the *Eurostat regional yearbook 2008*, but there is one exception. Regarding labour costs, Eurostat only collects data at NUTS level 1 and therefore in that chapter the data are based on NUTS 1 regions instead.

Please note that some of the Member States have a relatively small population and they are therefore not divided into more than one NUTS 2 region. Thus, for these countries the NUTS 2 value is exactly the same as the national value. Following the latest revision of the NUTS classification this now applies to six Member States (Estonia, Cyprus, Latvia, Lithuania, Luxembourg and Malta), one candidate country (the former Yugoslav Republic of Macedonia), and two EFTA countries (Iceland and Liechtenstein): in all these cases the whole country consists of one single NUTS 2 region.

A folding map accompanies this publication on the inside of the cover and it shows all the regions at NUTS level 2 in the 27 Member States of the European Union (EU-27) and the corresponding statistical regions at level 2 in the candidate and EFTA countries. In the annex you will find the

full list of codes and names of these regions. This will help you to locate a specific region geographically on the map.

## Coverage

The *Eurostat regional yearbook 2008* mainly contains statistics from the 27 Member States of the European Union, but when available also from the three candidate countries: Croatia, the former Yugoslav Republic of Macedonia, and Turkey; and from the four EFTA countries: Iceland, Liechtenstein, Norway and Switzerland.

Regions in the candidate countries and the EFTA countries are called statistical regions and they follow the same rules as the NUTS regions in the European Union, except that there is no legal base. Data from the candidate and EFTA countries are not yet available in the Eurostat database for some policy areas, but the data availability situation is constantly improving, and we hope to have even better coverage in the near future.

## More regional information

Under the theme 'General and regional statistics' on the Eurostat website you will find tables with statistics on both 'Regions' and the 'Urban Audit' with more detailed time series (some of them going back as far as 1970) and with more detailed statistics than contained in this yearbook. You will also find a number of indicators at NUTS level 3 (such as area, demography, gross domestic product and labour market data). This is important since some of the countries covered are not divided into NUTS 2 regions, as mentioned above.

For more detailed information on the contents of the regional and urban databases please consult the Eurostat publication *European regional and urban statistics — Reference guide — 2008 edition*, which you can download free of charge from the Eurostat website. The specific data used for producing the maps and other illustrations in this publication can also be found as Excel tables on the Eurostat website.

# Structural business statistics

# 5





## Introduction

What effects do the European Union's economic and regional policies have on the business structure of the regions? Which sectors are growing, which sectors are contracting and which regions are likely to be most affected? What are the differences in investment levels and wages and what effects will this have on growth and the future location of business? A detailed analysis of the structure of the European economy can only be made at regional level. Regional structural business statistics (SBS) provide data with a detailed activity breakdown which can be used for this kind of analysis. The first part of this chapter presents an analysis of regional specialisation and business concentration within the EU's business economy. The second part analyses the activity of chemicals manufacturing in more detail.

## Regional specialisation and business concentration

There are considerable disparities between European regions in terms of the importance of different activities within the business economy. In many cases, particularly within industrial activities, this trend has become more pronounced as a result of the recent expansion of the EU from 15 to 27 Member States. Conversely, while some activities are characterised by a relatively even distribution across most regions, many activities exhibit a considerable variation in the level of regional specialisation, often with a few regions having a particularly high degree of specialisation.

The share of a particular activity within the business economy gives an idea of which regions are the most or least specialised in that activity, regardless of whether the region or the activity considered is large or small. There are various reasons for relative specialisation. Depending on the type of activity, these can include availability of natural resources, availability of skilled employees, culture and tradition, cost levels, infrastructure, legislation, climatic and topographic conditions and proximity to markets.

Figure 5.1 shows that, on an aggregate activity level (NACE sections), the widest spread in the relative importance of an activity in each region's non-financial business economy (NACE sections C to I and K) workforce was in manufacturing (NACE section D) — the activity with the second-highest median employment. Manufacturing ac-

counted for only 3.8 % of the persons employed in Ciudad Autónoma de Ceuta (Spain) and under 10 % in a further 11 regions, including the capital regions of both Spain and the United Kingdom. The distribution of the remaining regions was relatively symmetrical, from 10 % to over half of the workforce in two Slovakian regions, Východné Slovensko (52.4 %) and Západné Slovensko (59.8 %). In contrast, the spread of employment was much narrower in distributive trades (NACE section G), which was the activity displaying the highest median employment, present in all regions and serving more local clients. Shares ranged from around 15 % in Åland (Finland) and Východné Slovensko (Slovakia) to just over 40 % in Kentriki Makedonia (Greece).

On the other hand, transport, storage and communication (NACE section I) and mining and quarrying (NACE section C) are two activities with a similar relative size in most regions, but where there are a few strong outlier regions that are highly specialised in them. Transport, storage and communication accounted for between 3.5 % and 7.1 % in a quarter of the regions (line to the left of the box in Figure 5.1) and between 7.1 % and 10.1 % in half of the regions (the box in the figure). These narrow ranges are mainly due to the fact that road transport and post and telecommunications account for a large share of employment in this sector and that these activities tend to be of relatively equal importance across most regions. The remaining quarter of the regions were spread over a wide range, from 10.1 % to just over 50 %.

The region most specialised in transport, storage and communication was the Finnish island region of Åland, which is due almost exclusively to the importance of water transport. Åland was far ahead of Köln in Germany (33 %), where post and telecommunications was particularly important, and Bratislavský kraj (22 %), the capital region of Slovakia, owing to the importance of road and other land transport. Natural endowments play an important role in activities such as mining and quarrying. Many regions record little or no such activity, with only very few regions being highly specialised on the basis of deposits of metallic ores, coal, oil or gas. Mining and quarrying accounted for less than 0.2 % of the persons employed in one quarter of all regions, and between 0.2 % and 0.5 % in half of the regions. However, this sector accounted for over 5 % in eight regions and as much as one 10th of the total non-financial business economy workforce in Śląskie (Poland) and Dytiki Makedonia (Greece).

Table 5.1 shows which region was the most specialised in 2005 on a more detailed activity level (all NACE divisions within each NACE section) and, as a comparison, the median and average share of the non-financial business economy workforce among all regions within the EU-27 and Norway. Manufacturing activities that involve the processing or consumption of minerals may be located close to mineral deposits. Świętokrzyskie in the south-east of Poland was the second most specialised region in other mining and quarrying (NACE 14) after Alentejo (Portugal), as well as the most specialised in manufacturing of other non-metallic mineral products (NACE 26) such as glass, ceramics, cement and concrete.

Similarly, manufacturing activities which involve the primary processing stages of agricultural, fishing or forestry products are particularly concentrated in areas close to the source of the raw material. The regions most specialised in food and beverages manufacturing (NACE 15) were all located in rural areas in or close to agricultural production centres: Bretagne (the most specialised of all the regions) and Pays de la Loire in France, Lincolnshire in the United Kingdom, Lubelskie, Podlaskie and Warmińsko-Mazurskie in the eastern part of Poland, Dél-Alföld in Hungary, and La Rioja in Spain. Heavily forested Nordic and Baltic regions were the regions most specialised in the manufacture of wood and wood products (NACE 20), as well as the related manufacturing of pulp, paper and paper products (NACE 21): Latvia, Estonia (each considered as a single region at the NUTS 2 level) and Småland med öarna (Sweden) in wood products; Norra Mellansverige, Mellersta Norrland (both Sweden) and Länsi-Suomi (Finland) in pulp and paper; and Itä-Suomi (Finland) in both activities.

Weather and the environment (natural or man-made) can also play a role: regions traditionally associated with tourism, in particular in Spain, Greece or Portugal, were the most specialised in hotels and restaurants (NACE 55) and in activities that support hotels and restaurants, notably retail trade (NACE 52) and construction (NACE 45), providing tourism infrastructure. Hotels and restaurants accounted for more than 20 % of the workforce in the Greek island regions of Ionia Nisia and Notio Aigaio, the Spanish Illes Balears, the Algarve in the south of Portugal and Provincia Autonoma Bolzano/Bozen in the north-east of Italy on the border with Austria.

Transport services are also influenced by location, with water transport (NACE 61) naturally being important for coastal regions and islands, while air transport (NACE 62) is also important for many island regions (especially those with a developed tourism industry), but also regions with or close to major cities. The small island region of Åland (Finland) is a centre for the ferry services between Sweden and Finland as well as other Baltic Sea traffic. Åland was very highly specialised in water transport, which accounted for over 40 % of the persons employed in 2005, over 10 times more than the next most specialised regions: Hamburg in Germany and Agder og Rogaland, Vestlandet and Nord-Norge along the west coast of Norway. Corse in France was the region most specialised in air transport, followed by metropolitan Amsterdam, Outer London and Köln, and the Illes Balears in Spain.

As with air transport, specialisation in real estate, renting and business activities (NACE 70–74) may be based on access to a critical mass of clients (enterprises or households) or to a knowledge base (external researchers and qualified staff). Within the countries, the capital region or other large metropolitan regions were normally among the most specialised in the business services sectors: computer services (NACE 72) and other business activities (NACE 74) <sup>(\*)</sup>. Real estate (NACE 70) and renting (NACE 71) are activities which could also be particularly important in small tourism-dominated regions. Latvia was most specialised in real estate in 2005, ahead of Inner London (United Kingdom) and Algarve (Portugal), while Hamburg was most specialised in renting, ahead of the French overseas departments of Guadeloupe and Martinique.

While an analysis of specialisation shows the relative importance of different activities in the regions, regardless of the size of the region or the activity, an analysis of concentration looks at the dominance of certain regions within an activity, or activities within a region. In most activities, there are many examples of regions which are highly ranked in terms of both specialisation and concentration. Figure 5.2 shows the extent to which employment in certain activities was concentrated in a limited number of regions in 2005. Four of the five mining and quarrying activities came at the top of the ranking based on the share of total employment in the EU-27 and Norway accounted for by the 10 regions with the largest workforces. Most concentrated was the mining of uranium and thorium ores (NACE 12), with persons employed in only seven of the 262 regions in 2005.

<sup>(\*)</sup> For a detailed analysis of business services, see Eurostat regional yearbook 2007.

Air transport (NACE 62) and leather and leather products manufacturing (NACE 19) were also highly concentrated in the 10 largest regions, which together accounted for 61 % and 54 % of total employment respectively. In the case of air transport, this dominance is due to concentration in large metropolitan regions where the large airports are situated: chief among them the regions of Paris, Outer London, Köln, Amsterdam and Madrid. Leather and leather products manufacturing, on the other hand, is a small activity in Europe, heavily concentrated in Italy, Portugal and Romania: five of the 10 regions with the largest workforces were situated in Italy, three in Romania and one each in Portugal and Spain. The region with the largest workforce was Norte in Portugal, with 48 000 persons employed; this region alone accounted for almost 9 % of the total leather manufacturing workforce in the EU-27 and Norway.

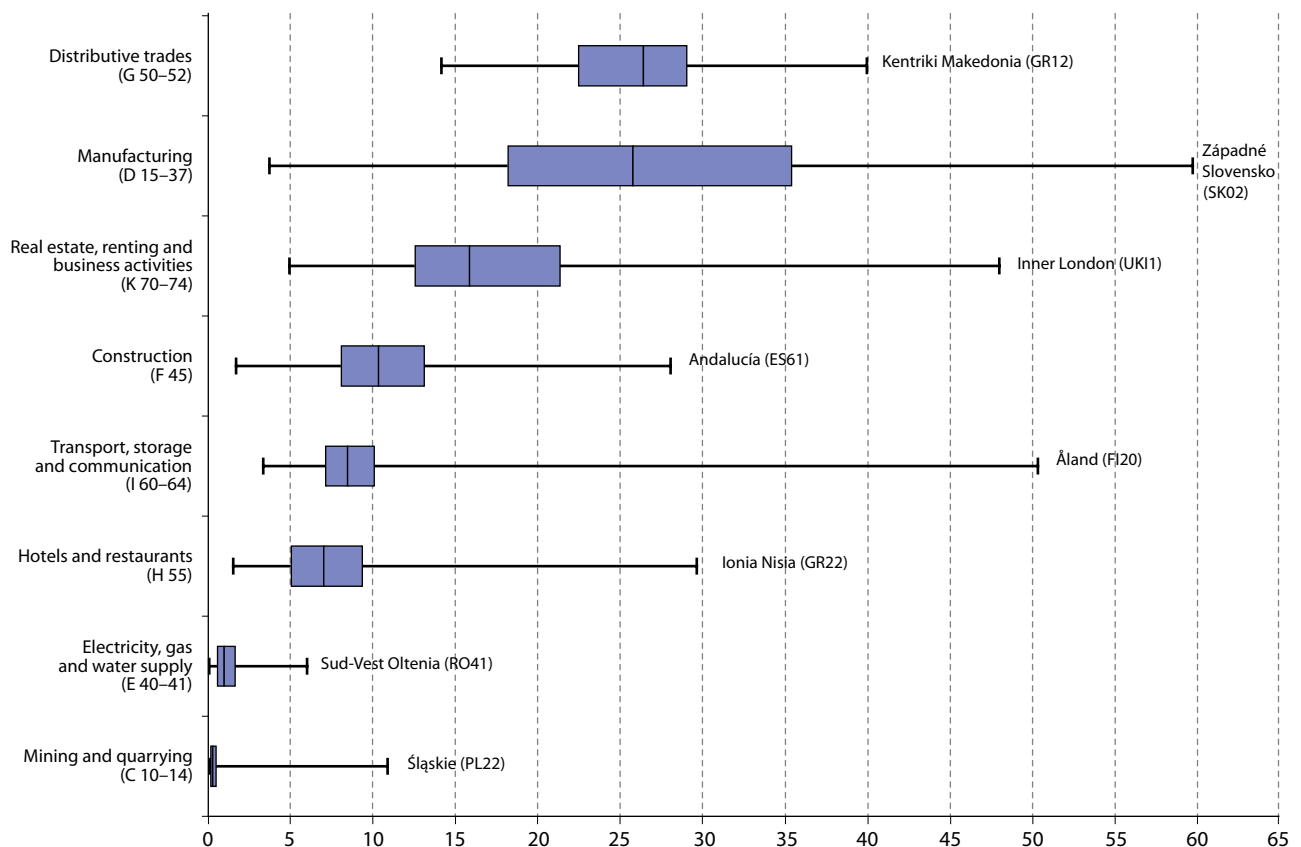
In contrast to the more specialised types of mining and quarrying, other mining and quarrying (NACE 14) was among the activities in which the 10

largest regions were least dominant, accounting for only 18 % of total sectoral employment. This is due to the widespread availability and local sourcing of many construction materials, such as sand and stone, which dominate this type of mining in most regions. Among all activities (NACE divisions), only retail trade (NACE 52), food and beverages manufacturing (NACE 15) and motor trades (NACE 50) had a lower concentration in 2005. In contrast to other mining and quarrying, these are all major activities in terms of employment in the EU.

Post and telecommunications (NACE 64) and motor vehicles manufacturing (NACE 34) are examples of the opposite — that is major activities which were relatively highly concentrated in a few regions.

Map 5.1 gives an indication of how concentrated (or, conversely, how diversified) the regional business economy was in 2005, measured as the share of the five largest activities (NACE divisions) in the total non-financial business economy workforce. The level of concentration tends to be highest in regions where trade and services dominate

**Figure 5.1:** Degree of regional specialisation by activity (NACE sections), EU-27 and Norway, by NUTS 2 regions, 2005



**Table 5.1:** Most specialised region by activity (NACE sections and divisions), EU-27 and Norway, 2005  
*Percentage of total non-financial business economy employment of the region and the median and average share of all regions (%)*

| Activity (NACE)                                     | Most specialised region                           |           | All regions      |                   |
|---|---|-----------|------------------|-------------------|
|   | Name (NUTS 2 region)                              | Share (%) | Median share (%) | Average share (%) |
| Mining and quarrying (C 10–14)                      | Śląskie (PL22)                                    | 11.0      | 0.3              | 0.6               |
| Coal, lignite and peat (10)                         | Śląskie (PL22)                                    | c         | 0.0              | 0.3               |
| Crude petroleum and natural gas (11)                | Agder og Rogaland (NO04)                          | 7.7       | 0.0              | 0.1               |
| Uranium and thorium ores (12)                       | Severovýchod (CZ05)                               | c         | 0.0              | 0.0               |
| Metal ores (13)                                     | Övre Norrland (SE33)                              | c         | 0.0              | 0.0               |
| Other mining and quarrying (14)                     | Alentejo (PT18)                                   | c         | 0.2              | 0.2               |
| Manufacturing (D 15–37)                             | Západné Slovensko (SK02)                          | 59.8      | 25.8             | 26.4              |
| Food and beverages (15)                             | Bretagne (FR52)                                   | 12.1      | 3.7              | 3.4               |
| Tobacco products (16)                               | Trier (DEB2)                                      | c         | 0.0              | 0.0               |
| Textiles (17)                                       | Prov. West-Vlaanderen (BE25)                      | 5.8       | 0.4              | 0.9               |
| Wearing apparel; fur (18)                           | Dytiki Makedonia (GR13)                           | 11.8      | 0.3              | 1.1               |
| Leather and leather products (19)                   | Marche (ITE3)                                     | 7.9       | 0.1              | 0.4               |
| Wood and wood products (20)                         | Itä-Suomi (FI13)                                  | c         | 0.8              | 1.0               |
| Pulp, paper and paper products (21)                 | Norra Mellansverige (SE31)                        | 4.9       | 0.5              | 0.6               |
| Publishing and printing (22)                        | Inner London (UK11)                               | 4.4       | 1.2              | 1.4               |
| Fuel processing (23)                                | Cumbria (UKD1)                                    | c         | 0.0              | 0.1               |
| Chemicals and chemical products (24)                | Rheinhessen-Pfalz (DEB3)                          | 12.4      | 1.0              | 1.5               |
| Rubber and plastic products (25)                    | Auvergne (FR72)                                   | 9.1       | 1.2              | 1.3               |
| Other non-metallic mineral products (26)            | Świętokrzyskie (PL33)                             | 5.5       | 1.2              | 1.2               |
| Basic metals (27)                                   | Východné Slovensko (SK04)                         | c         | 0.5              | 0.9               |
| Fabricated metal products (28)                      | Franche-Comté (FR43)                              | 9.1       | 2.7              | 2.9               |
| Machinery and equipment (29)                        | Unterfranken (DE26)                               | 12.3      | 2.1              | 2.8               |
| Office machinery and computers (30)                 | Southern and Eastern (IE02)                       | 1.4       | 0.0              | 0.1               |
| Electrical machinery and apparatus (31)             | Západné Slovensko (SK02)                          | c         | 0.9              | 1.3               |
| Radio, TV and communication equipment (32)          | Pohjois-Suomi (FI1A)                              | 7.0       | 0.4              | 0.6               |
| Medical, precision and optical equipment (33)       | Border, Midland and Western (IE01)                | 6.1       | 0.6              | 0.8               |
| Motor vehicles and (semi)-trailers (34)             | Braunschweig (DE91)                               | c         | 0.8              | 1.8               |
| Other transport equipment (35)                      | Agder og Rogaland (NO04)                          | 6.5       | 0.5              | 0.7               |
| Furniture and other manufacturing (36)              | Warmińsko-mazurskie (PL62)                        | 8.1       | 1.1              | 1.4               |
| Recycling (37)                                      | Brandenburg - Nordost (DE41)                      | 0.7       | 0.1              | 0.1               |
| Electricity, gas and water supply (E 40–41)         | Sud-Vest Oltenia (RO41)                           | 6.1       | 1.0              | 1.2               |
| Electricity, gas and hot water supply (40)          | Bratislavský kraj (SK01)                          | c         | 0.8              | 0.9               |
| Water supply (41)                                   | Stredné Slovensko (SK03)                          | 3.1       | 0.2              | 0.3               |
| Construction (F 45)                                 | Andalucía (ES61)                                  | 28.2      | 10.3             | 10.2              |
| Distributive trades (G 50–52)                       | Kentriki Makedonia (GR12)                         | 40.1      | 26.4             | 25.0              |
| Motor trades (50)                                   | Réunion (FR94)                                    | 6.8       | 3.6              | 3.3               |
| Wholesale trade (51)                                | Attiki (GR30)                                     | 15.4      | 7.2              | 7.8               |
| Retail trade and repair (52)                        | Kriti (GR43)                                      | 24.9      | 14.6             | 13.9              |
| Hotels and restaurants (H 55)                       | Ionia Nisia (GR22)                                | 29.8      | 7.0              | 7.1               |
| Transport, storage and communication (I 60–64)      | Åland (FI20)                                      | 50.4      | 8.5              | 9.5               |
| Land transport and pipelines (60)                   | Bratislavský kraj (SK01)                          | 14.9      | 4.5              | 4.4               |
| Water transport (61)                                | Åland (FI20)                                      | 41.3      | 0.1              | 0.2               |
| Air transport (62)                                  | Corse (FR83)                                      | 7.2       | 0.0              | 0.3               |
| Supporting transport activities (63)                | Bremen (DE50)                                     | 11.9      | 1.7              | 2.1               |
| Post and telecommunications (64)                    | Köln (DEA2)                                       | 25.7      | 1.8              | 2.4               |
| Real estate, renting, business activities (K 70–74) | Inner London (UK11)                               | 48.1      | 15.9             | 20.0              |
| Real estate activities (70)                         | Latvija (LV00)                                    | 5.4       | 1.9              | 2.2               |
| Renting (71)  | Hamburg (DE60)                                    | 1.7       | 0.4              | 0.5               |
| Computer activities (72)                            | Berkshire, Buckinghamshire and Oxfordshire (UKJ1) | 7.8       | 1.3              | 2.1               |
| Research and development (73)                       | Oberbayern (DE21)                                 | 2.2       | 0.2              | 0.3               |
| Other business activities (74)                      | Inner London (UK11)                               | 36.9      | 11.8             | 14.8              |

BG, DK, SI, MT, North Eastern Scotland (UKM5) and Highlands and Islands (UKM6): data not available

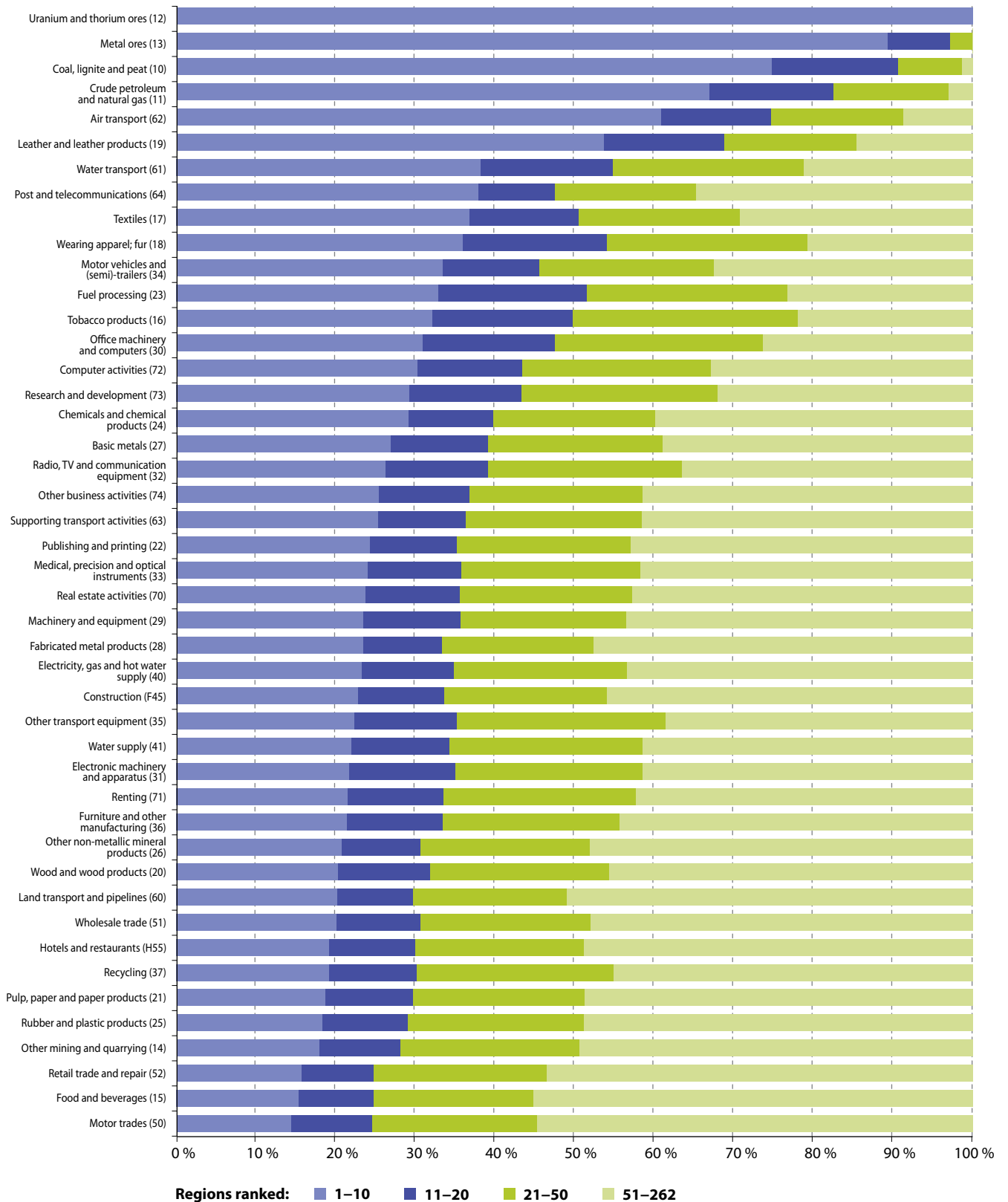
CY excluding Research and development (K73) and NO excluding Water supply (E 41)

CZ and NO: 2004

c: confidential



**Figure 5.2:** Most concentrated activities (NACE divisions), share of largest regions in total employment, EU-27 and Norway, 2005  
Percentage of sectoral total



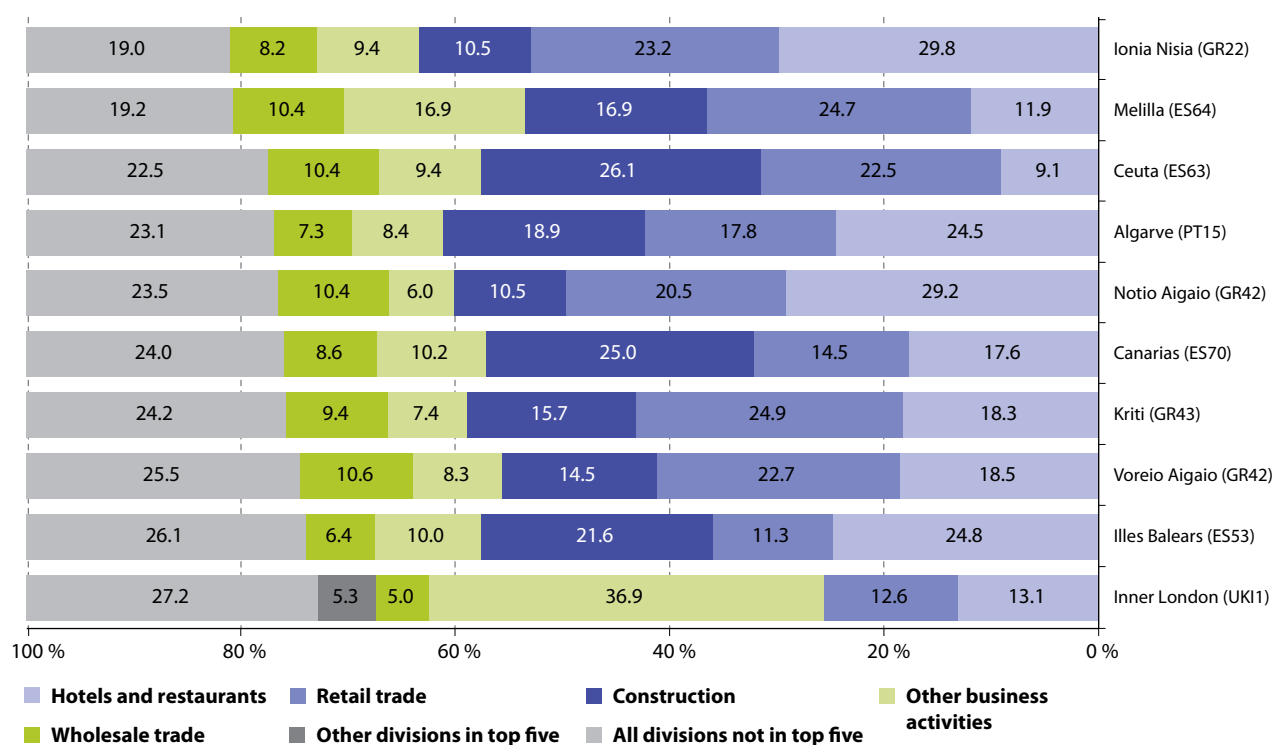
the business economy, as industrial activities are more fragmented. By this measure, the most concentrated regions were generally in countries traditionally associated with tourism (in particular Spain, Greece and Portugal), underlining the importance of construction, trade, and hotels and restaurants in tourism-oriented regions.

However, high concentrations were also recorded in several densely populated areas such as the south-east of the United Kingdom, most parts of the Netherlands, and also the capital region in most countries (at least relative to the national average). In these regions, other business activities (NACE 74) are particularly important, due to proximity to clients and availability of skilled labour. These activities include legal, accounting and management services, architecture and engineering consultancy, labour recruitment and similar highly specialised, knowledge-intensive business services, and also, for example, security and industrial cleaning services. The situation was similar in most countries; the capital region was usually among the regions with the highest business concentration and often was top of the list. The main exceptions were Etelä-Suomi in Finland (47 %), Île-de-France (55 %) and Lazio (57 %) in Italy, with a business concentration just above the respective country average.

In contrast, the lowest business concentrations were recorded mainly in regions with a relatively small services sector and a large manufacturing sector in eastern Europe (in particular in Slovakia, the Czech Republic, Hungary, Romania and Bulgaria), although low shares were also recorded in Sweden (except the capital region) and Finland (except the island region of Åland). The five largest activities accounted for less than 40 % of total employment in Centru and Vest in Romania, Západoé Slovensko and Stredné Slovensko in Slovakia and in Severovýchod in the Czech Republic. These are regions where between 44 % and 60 % of the workforce were employed in various manufacturing activities, which means they were among the top 12 regions by this measure.

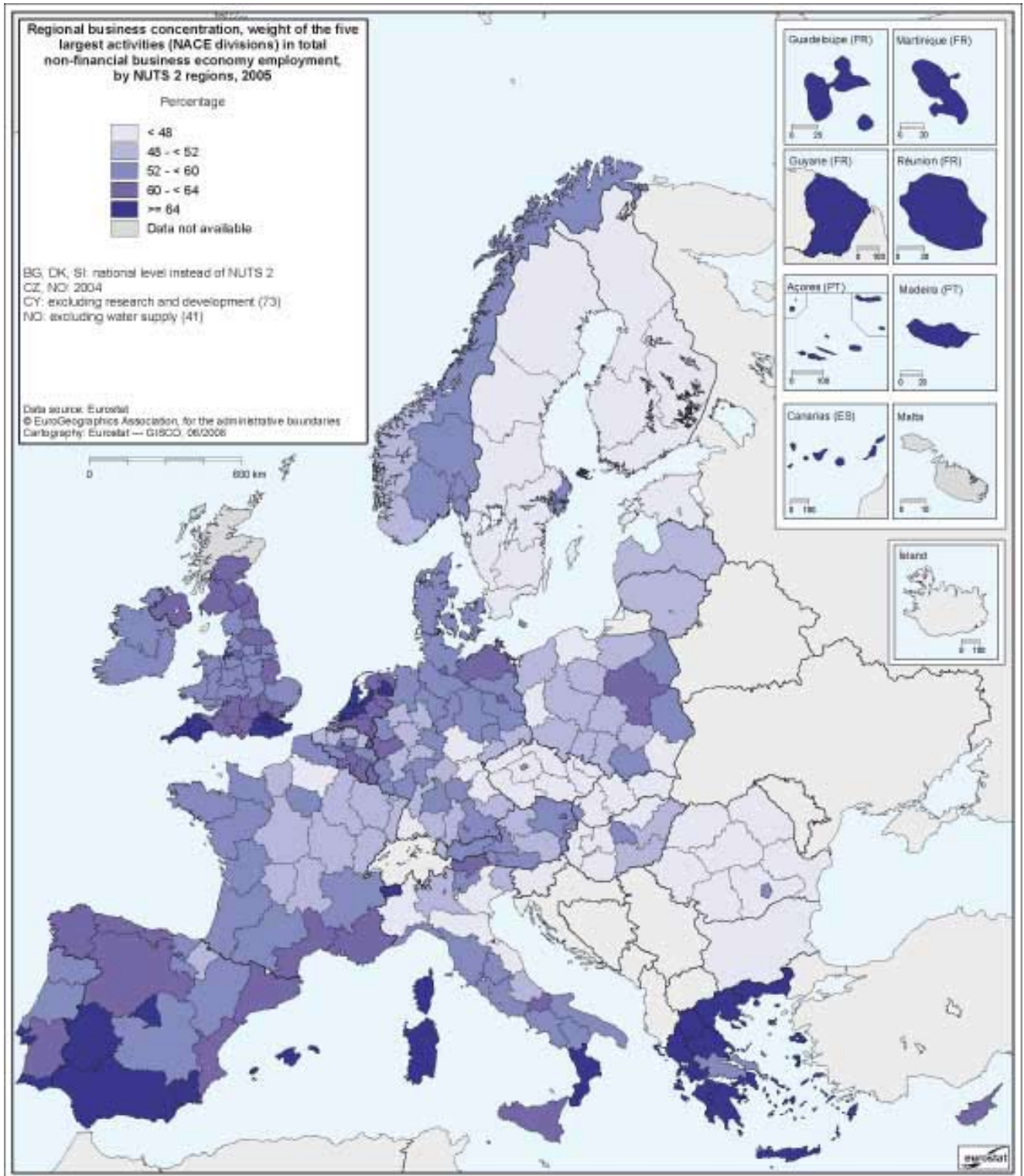
The nature of the largest activity varies from region to region, but there is a clear pattern. Figure 5.3 provides a more detailed analysis for the 10 regions with the largest concentration. Among the top 10 regions, Inner London stands apart as the only large metropolitan region with a fundamentally different business profile. Here, other business activities dominate, accounting for 37 % of total employment, which is much higher than in all the other regions shown. In addition, real estate activities (NACE division 70) are among the

**Figure 5.3:** Most concentrated regions, share of the five largest activities (NACE divisions) in non-financial business economy employment, EU-27 and Norway, 2005  
Percentage of regional total





**Map 5.1:** Regional business concentration, weight of the five largest activities (NACE divisions) in total non-financial business economy employment, by NUTS 2 regions, 2005  
Percentage



top five activities in Inner London (and not construction), whereas in all other regions shown the top five activities in terms of employment were retail trade, construction, hotels and restaurants, other business activities and wholesale trade. In fact, looking at all regions for which data are available, retail trade is among the five largest activities (NACE divisions) in every region, other business activities is among the five largest in more than 90 % of the regions, construction and wholesale trade in more than 80 % of the regions, and hotels and restaurants in more than 60 % of the regions. These five activities stand apart from the remaining 40 activities studied: none of the others are among the top five activities in more than 20 % of the regions, 14 do not make it to the top five in any region, while 20 feature among the top five in five or fewer regions.

## Focus on chemicals manufacturing

The second part of this publication focuses on chemicals manufacturing (NACE division 24), where raw materials, particularly oils and minerals, are transformed into a wide variety of sub-

stances which are used as inputs by many downstream economic sectors and in a wide variety of consumer products. Chemicals manufacturing, dominated by the manufacturing of pharmaceuticals and basic chemicals (see Figure 5.4), was the fifth-largest manufacturing activity (NACE division) in terms of employment in the EU-27 in 2005. It also had the second-highest labour productivity (value added per person employed).

While employment in chemicals manufacturing has decreased steadily in the EU-27 over the last decade, production has increased steadily (respectively - 8 % and + 22 % in total between 2000 and 2007, according to short-term statistics), indicating a considerable increase in productivity. Chemicals manufacturing is a sector dominated by large enterprises. Small and medium-sized enterprises (SMEs), with fewer than 250 persons employed, accounted for only one third of the workforce in the EU-27 in 2005, compared with close to 60 % in manufacturing as a whole and around two thirds in the total non-financial business economy. The European enterprises within this sector account for about 30 % of global chemicals sales and include many of the world's largest enterprises (groups) <sup>(3)</sup>.

<sup>(3)</sup> Source: CEFIC (<http://www.cefic.org>) and Chemical and engineering news (<http://pubs.acs.org/cen>) in *European business: facts and figures*, 2007 edition, Eurostat (2008).

**Figure 5.4:** Employment in manufacture of chemicals and chemical products (NACE division 24) by subsector, EU-27, 2005  
Percentage of sectoral total

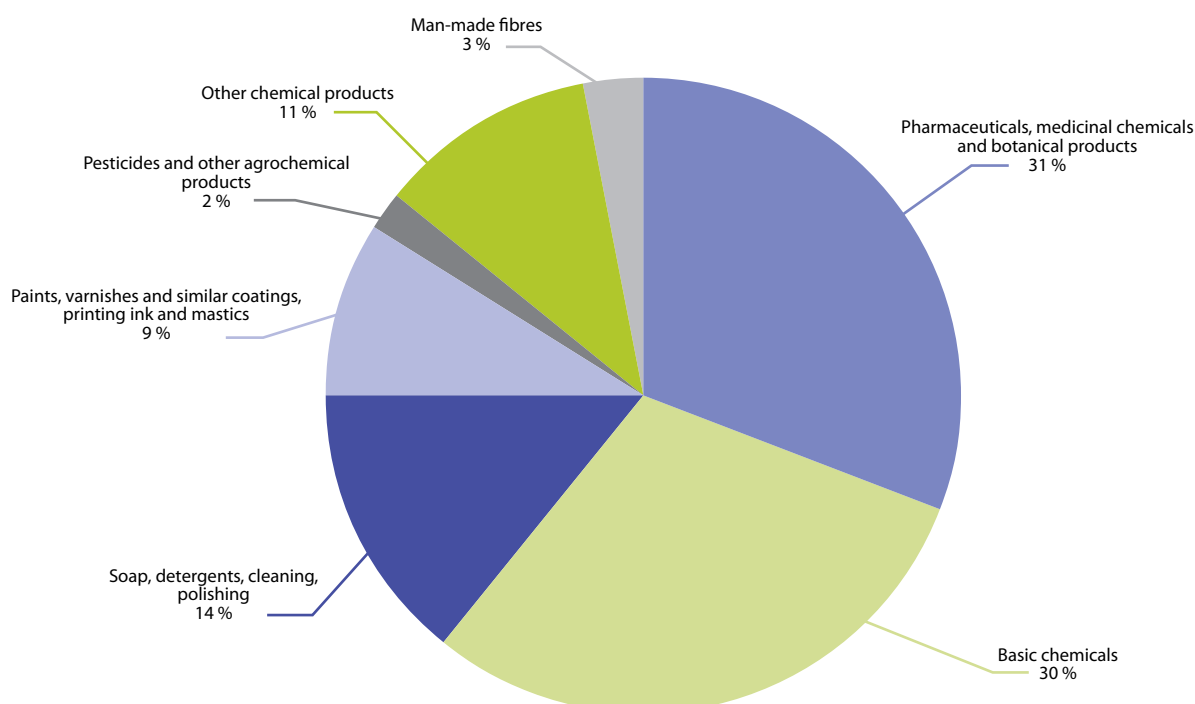


Figure 5.5 shows the 30 regions most specialised in chemicals manufacturing in 2005, in terms of this activity's share of total non-financial business economy employment. The most specialised region was Rheinhesen-Pfalz (Germany), where 12.4 % of the total persons employed worked in chemicals manufacturing. Five of the 10 most specialised regions in chemicals manufacturing were in Germany, two of the top four were in Belgium, and there were also several highly specialised regions in France and the United Kingdom. Only three of the 30 most specialised regions were in Member States that joined the EU in 2004 or 2007, namely Sud-Est in Romania, Észak-Magyarország in Hungary and Západoé Slovensko in Slovakia. Figure 5.5 also shows the share accounted for by these regions in total chemicals employment in the EU-27 and Norway.

Many of the regions shown were also among those with the largest workforces, including 15 of the 30 largest regions in terms of employment in 2005, including nine of the 14 regions with a workforce over 20 000 people. This includes Lombardia in Italy, the region with the largest workforce of all, alone accounting for 5.2 % of total chemicals employment in the EU-27 and Norway in 2005. However, the figure also includes several smaller-sized regions where chemicals manufacturing accounted for a large proportion of regional employment, but where the region's actual share of total chemicals employment was rather small.

By far the largest difference in relative terms concerned the second and sixth most specialised regions: Prov. Brabant Wallon in Belgium and Zeeland in the Netherlands, where chemicals manufacturing accounted for 9.3 % and 4.4 % respectively of regional employment in 2005, which was respectively 23 and 18 times their contribution to total chemicals employment in the EU-27 and Norway (0.4 % and 0.2 %).

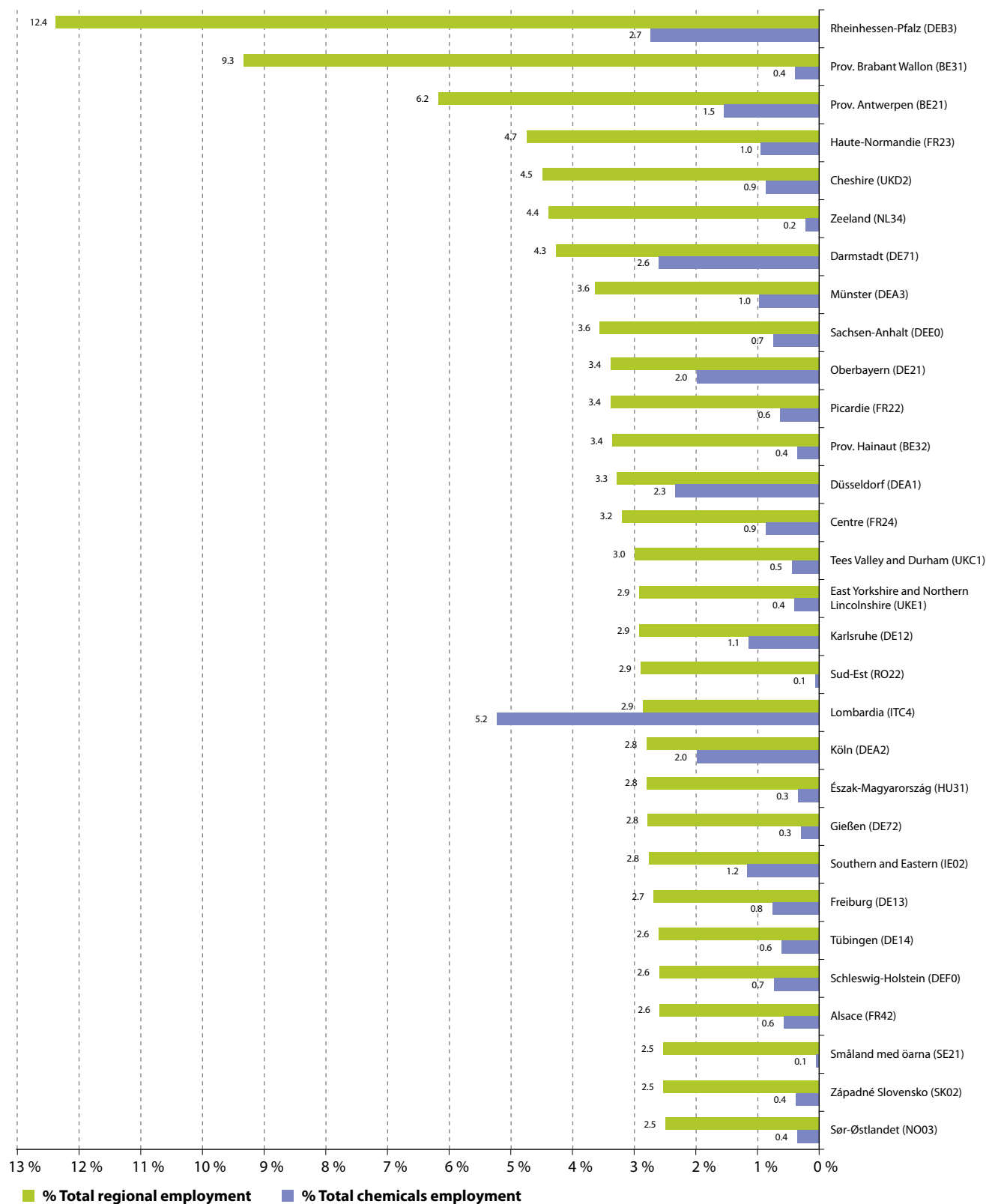
Map 5.2 shows the size of the chemicals manufacturing workforce in the regions of the EU-27 and Norway in 2005. As can be seen, this activity was relatively dispersed throughout the EU, but with a sizeable part located in central Europe: particularly in western Germany, northern Italy, France, Belgium and the Netherlands. The regions with the largest chemicals manufacturing workforces in 2005 were Lombardia in northern Italy (with 96 000 persons employed), Île-de-France (81 000) and Cataluña in Spain (62 000), followed by five regions in southern and western Germany: Rheinhesen-Pfalz (50 000), Darmstadt (48 000), Düsseldorf (43 000), Köln (37 000) and Oberbayern (36 000).

Between 2004 and 2005, employment in chemicals manufacturing increased in 105 regions, decreased in 156 regions and was unchanged in four regions (see Map 5.3). In total, employment among the regions shown decreased by 20 600 persons employed, or 1.1 %. There is some evidence of an increase in the regional concentration of employment in chemicals manufacturing. In France and Italy, employment has risen substantially in the regions with the largest workforce while, at the same time, it has fallen in almost every other region. As a consequence, the leading regions have significantly increased their share of total national employment: from 23.5 % in 2004 to 30.9 % in 2005 in the capital region of France, and from 45.7 % to 48.8 % in Lombardia in Italy. In addition, an analysis of the employment trend based on the employment size-classes used in Map 5.2 shows that employment decreased in all classes, except the one containing the regions with the largest workforces. The 16 regions with a chemicals workforce of over 20 000 persons employed in 2005 recorded a total net increase of 19 300 persons employed, or + 3.0 %, between 2004 and 2005.

Employment in regions with a workforce of between 10 000 and 19 999 decreased by 3.2 %, with a decrease of 2.4 % in regions with a workforce between 4 000 and 9 999. The largest relative decline in chemicals employment occurred in regions with the smallest workforces: 1 000 to 3 999 persons employed (- 5.7 %) and below 1 000 persons employed (- 5.0 %). Five of the eight regions with an increase in employment of more than 1 000 people were among the regions with the largest workforces in 2005: Île-de-France (Paris region) with an increase of 21 000 persons employed, Lombardia in Italy (+ 5 300), Düsseldorf (+ 2 100) and Oberbayern (+ 1 300) in Germany and Southern and Eastern Ireland (+ 1 200). The other three regions had a relatively small chemicals workforce in 2005, despite growth of between 15 % and 25 %: Prov. Brabant Wallon in Belgium (+ 1 900), Lorraine in north-eastern France (+ 1 300) and Sør-Østlandet in southern Norway (+ 1 100).

Chemicals employment decreased by over 1 000 people in 19 regions: five of these were in the United Kingdom, four in France, three each in Germany and Italy, one each in Belgium, Hungary and Romania, and also Denmark (considered here as one region). The largest decrease was recorded in Picardie in north-western France (- 3 400 people), followed by Köln in Germany (- 3 000) and Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest in Belgium (- 2 600).

**Figure 5.5:** 30 most specialised regions in chemicals manufacturing, EU-27 and Norway, 2005  
 Share of non-financial business economy employment of the region and the region's share of total chemicals manufacturing employment, in percentage





Investment and growth are correlated at the macro level, but not necessarily in terms of employment creation, as investments in new machinery and equipment could reduce the need for labour input. Map 5.4 shows how much was invested, on average, per person employed in chemicals manufacturing in 2005 in each region, with regions classified in one of two categories according to the size of the chemicals workforce: below 4 000 persons employed, or 4 000 and above. It should be noted that data have not been adjusted to take into account differences in purchasing power between regions, which generally are significantly lower in the Member States that joined the EU in 2004 and 2007.

The highest investments relative to the size of the workforce in chemicals manufacturing were recorded in Åland (Finland) and in Ionia Nisia (Greece), but these were among the regions with the smallest workforces, which means that, in euro terms, investments were actually among the smallest of all the regions. Among the regions with over 4 000 people working in chemicals manufacturing the highest investment rate was recorded in Sør-Østlandet in Norway, EUR 42 100 per person employed, followed by Észak-Magyarország in Hungary with EUR 38 400 and Cheshire in the United Kingdom with EUR 36 800. Five of the 16 regions with over 20 000 persons employed in chemicals manufacturing had an investment rate of over EUR 15 000 per person employed: these were Southern and Eastern in Ireland (EUR 33 800), Oberbayern in Germany (EUR 20 800), Denmark (EUR 19 700), Köln in Germany (EUR 16 300) and Prov. Antwerpen in Belgium (EUR 15 300).

The investment rate tended to be higher on average in regions which experienced an increase in

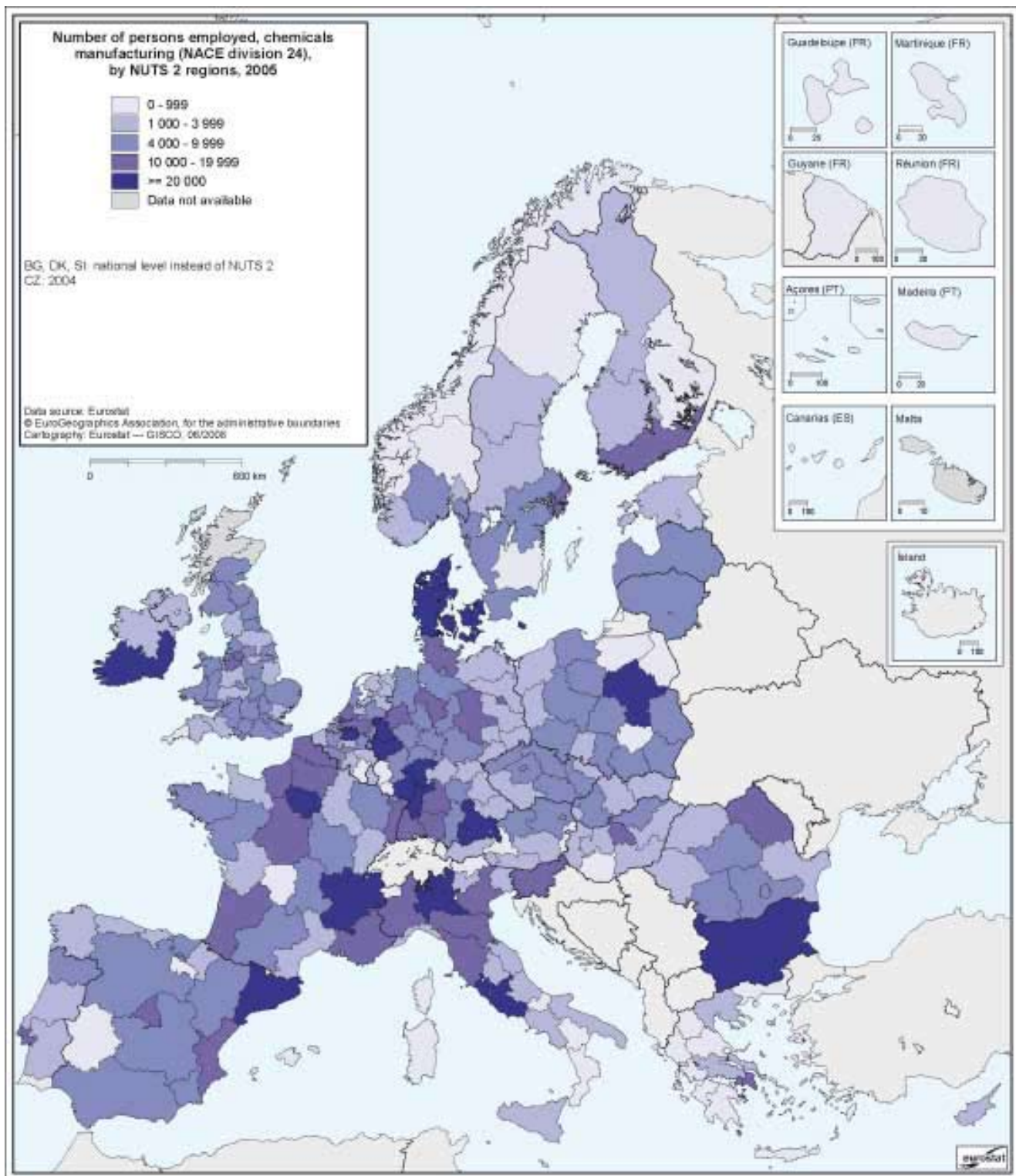
employment. Regions where employment decreased in 2005 recorded an investment rate of EUR 12 900 per person employed on average. This is somewhat lower than the investment rate in regions where employment increased (EUR 13 300). The difference is greater between the 20 regions with the largest increase and decrease in employment — EUR 14 700 and EUR 12 500 respectively.

Furthermore, the averages for both sets of regions with an increase in employment are strongly affected by the relatively moderate investments per person employed in the two regions with the largest workforces: Lombardia in Italy (EUR 11 900) and the French capital region (EUR 10 200). If these two regions are excluded, the average investments per person employed for regions with an increase in employment would be EUR 14 000, while the average for the top 20 regions would be as high as EUR 17 500.

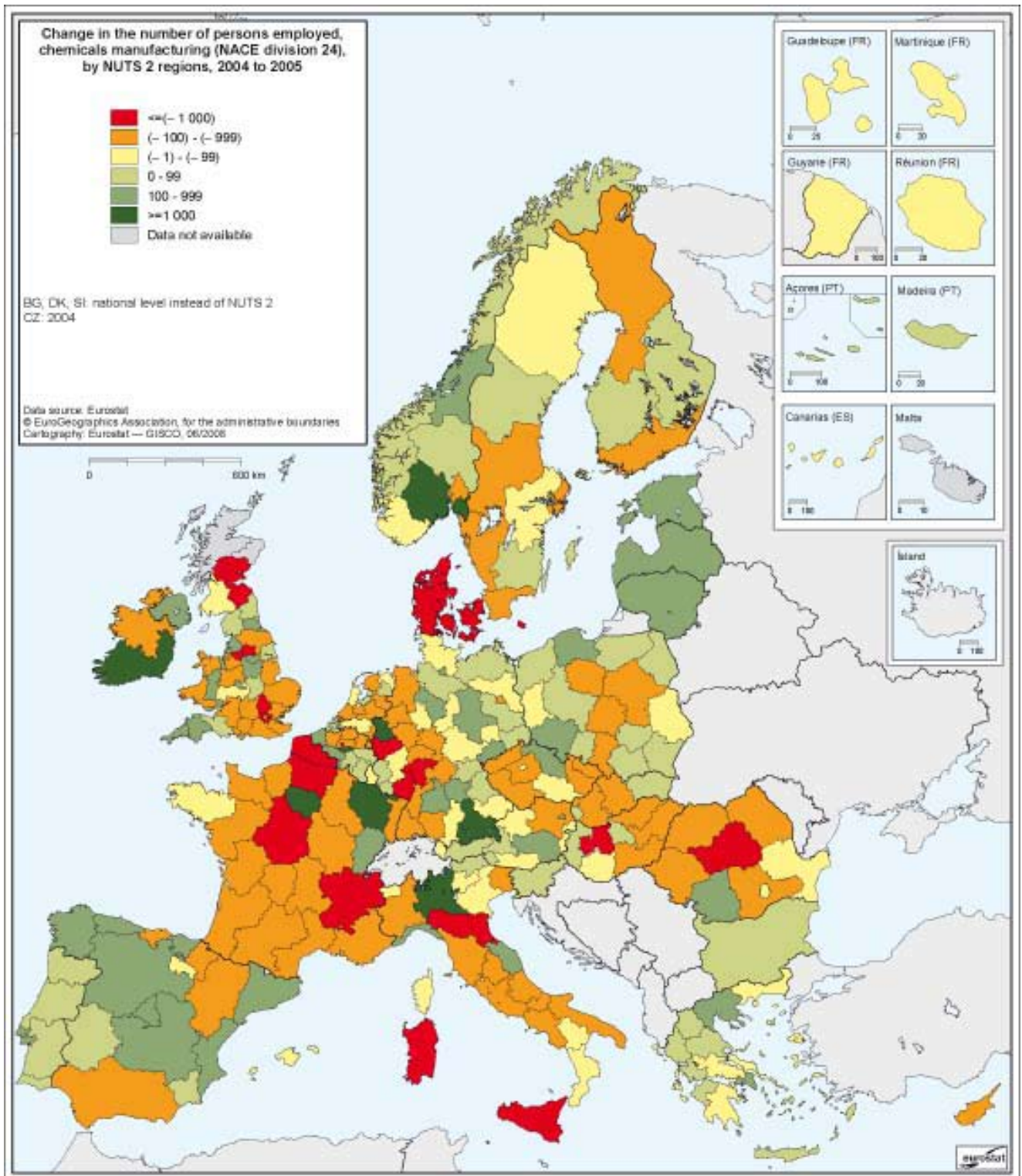
## Conclusion

Regional structural business statistics offer a detailed, harmonised data source for users who want to know more about the structure and development of the regional business economy. This chapter has shown how some of these data can be used to analyse different regional business characteristics. These are just some examples. As more time series become available, it will be possible to study changes in specialisation or concentration patterns, for example. Further horizontal studies can also be carried out where regional structural business statistics are used in combination with other sources to increase the understanding of the factors affecting the regional business economy and the driving forces behind structural changes.

**Map 5.2:** Number of persons employed, chemicals manufacturing (NACE division 24), by NUTS 2 regions, 2005



**Map 5.3:** Change in the number of persons employed, chemicals manufacturing (NACE division 24), by NUTS 2 regions, 2004 to 2005







## Methodological notes

Regional structural business statistics (SBS) are collected within the framework of a Council and Parliament regulation, according to the definitions and breakdowns specified in the Commission regulations implementing it. The data cover all the EU Member States and Norway. (Data for Bulgaria are only presented at the national level as, at the time of writing, data are only available according to pre-accession regional breakdowns.) These and other SBS data sets are available on the Eurostat website (<http://europa.eu.int/comm/eurostat/>) under the theme 'Industry, trade and services' (select 'Data'/'Industry, trade and services'/'Horizontal view'/'Structural Business Statistics'). Selected publications, data and background information are available in the section of the Eurostat website dedicated to European business, located directly under the theme 'Industry, trade and services' (direct link: <http://ec.europa.eu/eurostat/europeanbusiness>) — see special topic regional structural business statistics. Most data series are continuously updated and revised where necessary. This chapter reflects the data situation in March 2007.

Structural business statistics are presented by sectors of activity according to the NACE Rev. 1.1 classification, with a breakdown down to the two-digit level (NACE divisions). The data presented here are restricted to the non-financial business economy. The non-financial business economy includes sections C (Mining and quarrying), D (Manufacturing), E (Electricity, gas and water supply), F (Construction), G (Wholesale and retail trade), H (Hotels and restaurants), I (Transport, storage and communication) and K (Real estate, renting and business activities). It excludes agricultural, forestry and fishing activities and public administration and other non-market services (such as education and health, which are currently not covered by the SBS), as well as financial services (NACE section J), which for the time being are collected on a voluntary basis only. These activities together accounted for around 30 % of the total EU-27 value added and 38 % of employment in 2005, according to national accounts. They could, however, represent a substantially larger share in certain regions.

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

Regional data are available at the NUTS 2 level for a limited set of variables: the number of local units, wages and salaries, the number of persons employed and investments in tangible goods. The latter variable is collected on an optional basis, except for Industry (NACE sections C to E), which results in a more limited availability of data than for the other variables. Below is a summary of the definitions of the variables presented in this publication:

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

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

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