

Regional specialisation in the EU's business economy

This publication presents an analysis of regional specialisation and business concentration within the EU's business economy based on structural business statistics (SBS) available with a detailed sectoral breakdown. It includes a section with a special focus on chemicals manufacturing.

high in many activities, with often a few regions with a particularly high degree of specialisation.

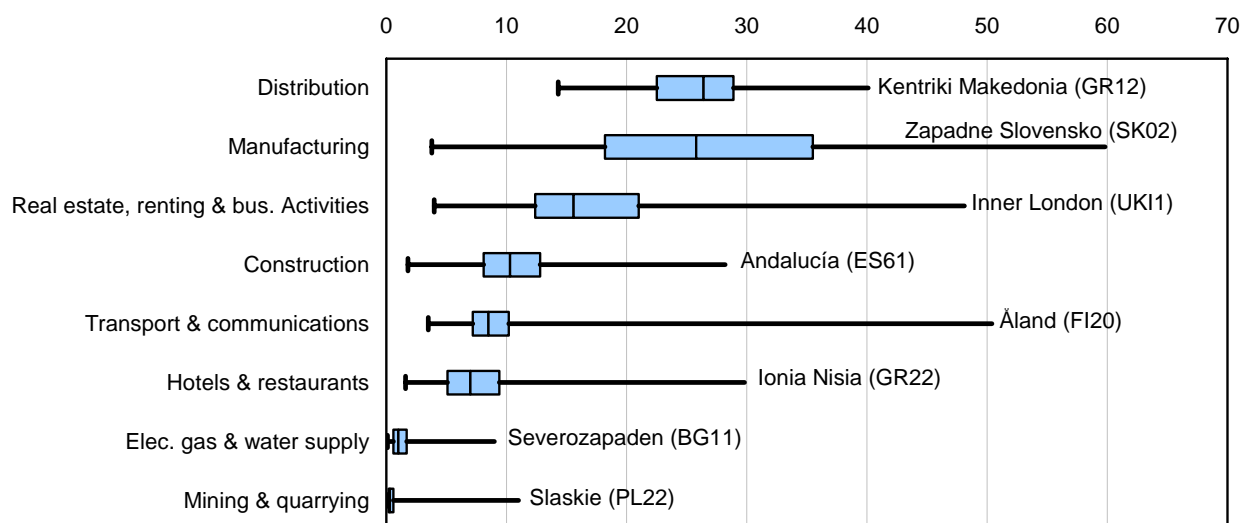
The share of a particular activity within the business economy gives an idea of which regions are the most or least specialised in a certain activity, regardless of whether the region or the activity considered are large or small. Figure 1 shows that there is a wide range in the contribution of manufacturing to non-financial business economy employment, in contrast to construction and distributive trades. Mining and quarrying, hotels and restaurants, and transport and communications are characterised by the fact that these activities contribute a similar share to non-financial business economy employment in many regions, with a few regions being strong outliers with a high specialisation in these activities.

Specialisation and concentration

There are considerable disparities between European regions as regards the importance of different activities within the business economy, and in many cases, particularly within industrial activities, this has widened through 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, the variation in regional specialisation is

Figure 1: Degree of regional specialisation in activities (NACE sections) within the EU-27 and Norway, % of non-financial business economy employment, 2005 (1)

Minimum and maximum share (horizontal line), inter-quartile range (box) with half of all regions in the box and a quarter of all regions on each side of it, median share (vertical line in box)



(1) NACE Sections C to I and K; Czech Republic and Norway, 2004; Bulgaria based on preaccession regions; Malta, not available.

Table 1 shows the most specialised region in each activity. Natural endowments play an important role in activities such as mining and quarrying, and many regions record negligible or no such activity,

with only a very few regions strongly specialised in these activities, based on coal deposits, or oil and gas.

Table 1: Most specialised region by activity, EU-27 and Norway, % share of non-financial business economy employment, 2005 (1)

	Most specialised region		Mean share (%)	Standard deviation
	Name (NUTS code)	Share (%)		
Mining & quarrying (C)	Slaskie (PL22)	11.0	0.7	1.5
Coal, lignite & peat (10)	Slaskie (PL22)	c	0.3	1.1
Crude petroleum & natural gas (11)	North Eastern Scotland (UKM1)	c	0.2	0.9
Uranium & thorium ores (12)	Severovychod (CZ05)	c	0.0	0.0
Metal ores (13)	Övre Norrland (SE08)	c	0.1	0.3
Other mining & quarrying (14)	Alentejo (PT18)	c	0.2	0.2
Manufacturing (D)	Zapadne Slovensko (SK02)	59.8	27.0	10.8
Food & beverages (15)	Bretagne (FR52)	12.1	4.0	1.9
Tobacco products (16)	Trier (DEB2)	c	0.1	0.2
Textiles (17)	Prov. West-Vlaanderen (BE25)	5.8	0.8	1.0
Wearing apparel; fur (18)	Dytiki Makedonia (GR13)	11.8	1.1	2.1
Leather & leather products (19)	Marche (ITE3)	7.9	0.4	0.9
Wood & wood products (20)	Itä-Suomi (FI13)	c	1.2	1.0
Pulp, paper & paper products (21)	Norra Mellansverige (SE06)	4.9	0.6	0.6
Publishing & printing (22)	Inner London (UK11)	4.4	1.2	0.6
Fuel processing (23)	Cumbria (UKD1)	c	0.2	0.4
Chemicals & chemical products (24)	Rheinhessen-Pfalz (DEB3)	12.4	1.3	1.3
Rubber & plastic products (25)	Auvergne (FR72)	9.1	1.4	1.1
Other non-metallic mineral prod. (26)	Swietokrzyskie (PL33)	5.5	1.4	0.9
Basic metals (27)	Vychodne Slovensko (SK04)	c	1.0	1.4
Fabricated metal products (28)	Franche-Comté (FR43)	9.1	3.0	1.6
Machinery & equipment n.e.c. (29)	Unterfranken (DE26)	12.3	2.7	2.1
Office machinery & computers (30)	Southern and Eastern (IE02)	1.4	0.1	0.2
Elec. machinery & apparatus (31)	Zapadne Slovensko (SK02)	c	1.3	1.3
Radio, TV & comm'tion equipment (32)	Pohjois-Suomi (FI1A)	7.0	0.6	0.8
Medical, precision & optical instr. (33)	Border, Midland & Western (IE01)	6.1	0.7	0.6
Motor vehicles & (semi)-trailers (34)	Braunschweig (DE91)	c	1.6	2.3
Other transport equipment (35)	Agder og Rogaland (NO04)	6.5	0.8	0.9
Furniture; manufacturing n.e.c. (36)	Warminsko-Mazurskie (PL62)	8.1	1.4	1.1
Recycling (37)	Brandenburg - Nordost (DE41)	0.7	0.1	0.1
Electricity, gas & water supply (E)	Severozapaden (BG11)	9.0	1.3	1.1
Electricity, gas & hot water supply (40)	Severozapaden (BG11)	c	1.0	0.9
Water supply (41)	Stredne Slovensko (SK03)	3.1	0.3	0.4
Construction (F)	Andalucía (ES61)	28.2	10.7	4.9
Distributive trades (G)	Kentriki Makedonia (GR12)	40.1	26.0	4.8
Motor trades (50)	Réunion (FR94)	6.8	3.7	0.9
Wholesale trade (51)	Attiki (GR30)	15.4	7.5	2.2
Retail trade & repair (52)	Kriti (GR43)	24.9	14.9	3.6
Hotels & restaurants (H)	Ionía Nisia (GR22)	29.8	7.9	4.4
Transport, storage & communication (I)	Åland (FI20)	50.4	9.2	3.9
Land transport, & pipelines (60)	Bratislavsky kraj (SK01)	14.9	4.6	1.6
Water transport (61)	Åland (FI20)	41.3	0.4	2.5
Air transport (62)	Corse (FR83)	7.2	0.2	0.6
Supporting trans. activities (63)	Bremen (DE50)	11.9	1.9	1.2
Post & telecommunications (64)	Köln (DEA2)	25.7	2.0	1.9
Real estate, renting, business activities (K)	Inner London (UK11)	48.1	17.0	6.9
Real estate activities (70)	Latvija (LV)	5.4	1.9	0.9
Renting (71)	Hamburg (DE60)	1.7	0.5	0.3
Computer activities (72)	Berks., Bucks. and Oxon (UKJ1)	7.8	1.6	1.3
Research & development (73)	Oberbayern (DE21)	2.2	0.3	0.3
Other business activities (74)	Inner London (UK11)	36.9	12.7	5.3

(1) NACE Sections C to I and K; Czech Republic and Norway, 2004; Bulgaria based on pre-accession regions; Malta, not available. c: confidential. Standard deviation is a measure of statistical dispersion, measuring how widely spread around the mean the values in a data set are, measured in the same unit as the data.

Some manufacturing activities involve first processing stages of agricultural, fishing or forestry products, and these may also often be located close to the source of the raw material. For example, agricultural and maritime products in Bretagne (France) which is the most specialised region in food and beverage processing. Several heavily forested Nordic and Baltic regions are specialised in the manufacture of wood and wood products, and pulp, paper and paper products. Some manufacturing activities that involve processing or consuming minerals may be located close to mineral deposits. Swietokrzyskie (Poland) is specialised in other mining and quarrying, as well as other non-metallic mineral products manufacturing.

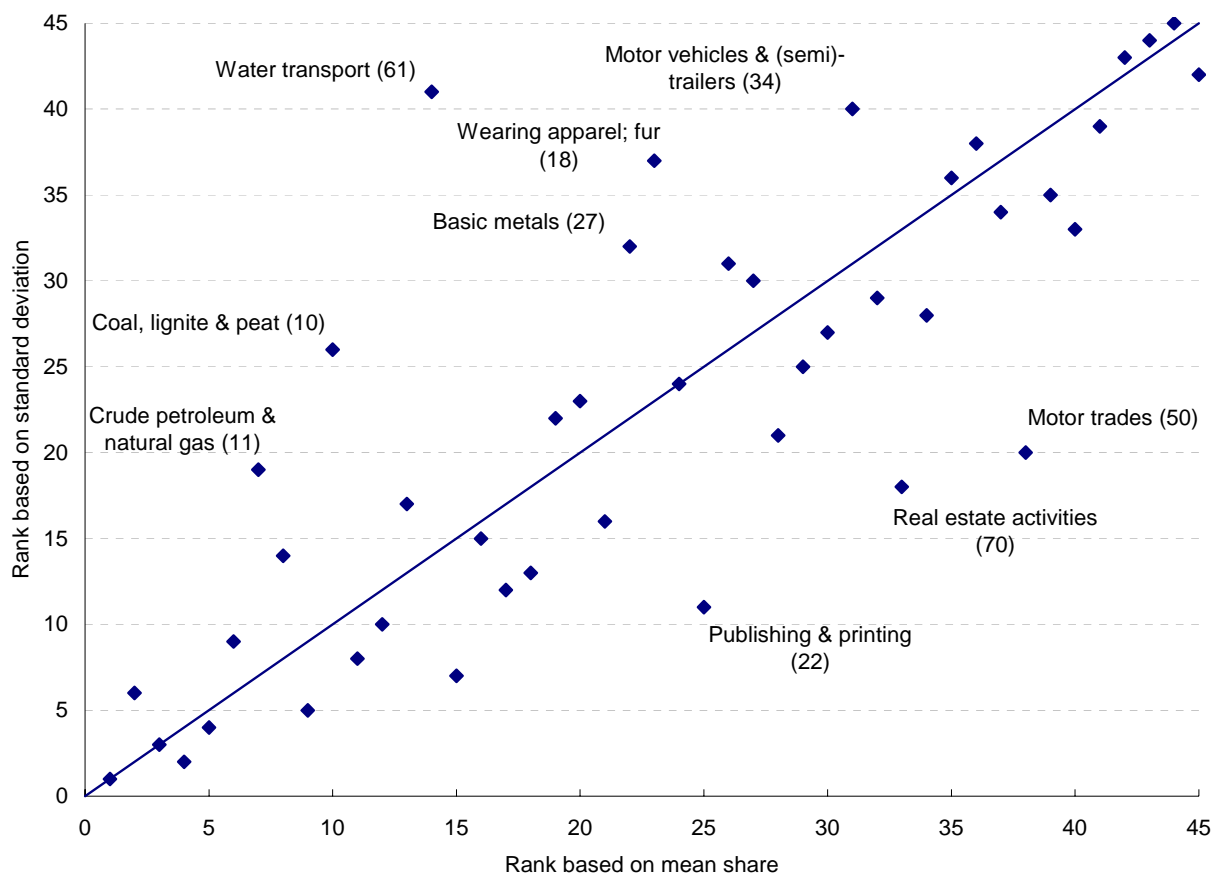
Weather and the environment (natural or man made) can also play a role: regions within several countries traditionally associated with tourism, notably Spain and Greece, are among the most specialised in hotels and restaurants, and in activities that support hotels and restaurants, notably retail trade, and construction (providing tourist infrastructure). Transport services are also

influenced by location, with water transport naturally important for coastal regions, particularly islands, while air transport is also important for island regions and regions with or close to major cities. Like air transport, specialisation in real estate, renting and business activities may be based on access to a critical mass of clients (enterprises or households).

Figure 2 provides an analysis of the variation in regional specialisation: each point represents one activity (NACE division), and its position reflects its ranking (from 1 to 45) in terms of its mean and standard deviation. An example of a small activity with a high standard deviation due to exceptionally high levels of specialisation is water transport which is among the smallest services NACE divisions (in terms of employment) and yet has the fourth highest standard deviation among services NACE divisions. In contrast, motor trades have one of the highest mean employment shares and yet in terms of its standard deviation it is in the lowest half of the ranking.

Figure 2: Variation in regional specialisation in activities (NACE divisions) in the non-financial business economy, EU-27 and Norway, 2005

Ranking according to mean and standard deviation based on shares of non-financial business economy employment (1)



(1) Standard deviation is a measure of statistical dispersion, measuring how widely spread around the mean the values in a data set are, measured in the same unit as the data.

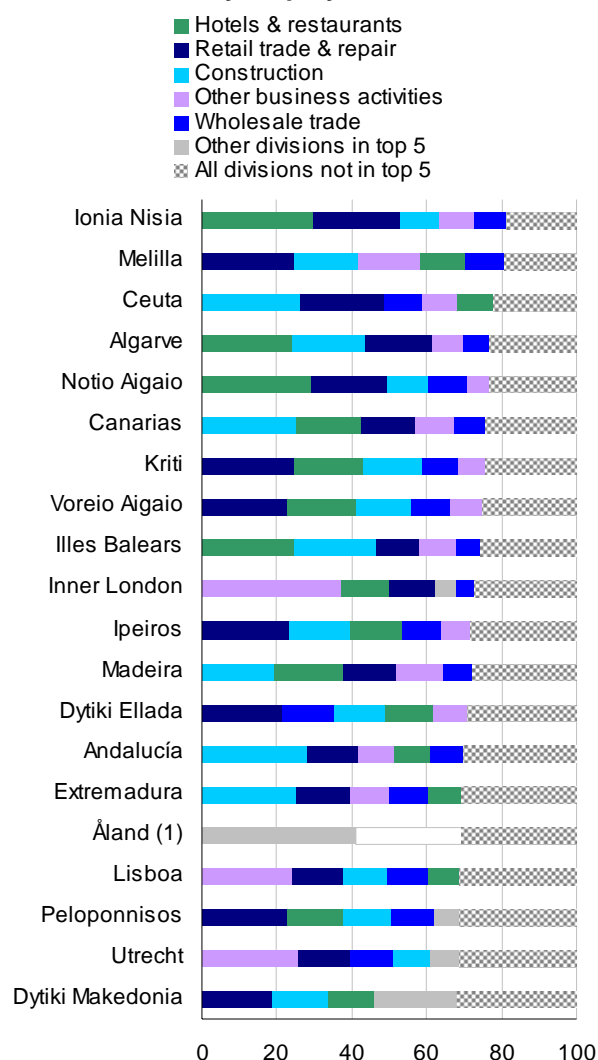
Table 2 is based on the aggregate employment share of the five largest NACE divisions in each region, providing an analysis of activity concentration in each region: The table shows the 20 most concentrated regions by this measure. These are generally in countries traditionally associated with tourism, notably Greece, Spain and Portugal, which is unsurprising given the importance of construction, retail trade, and hotels and restaurants in many tourism-oriented regions, and the fact that these are all large activities. In fact the 20 most concentrated regions are all from these three countries with the exceptions of the urban areas of inner London (United Kingdom) and Utrecht (the Netherlands), and the small Finnish island of Åland.

Table 2: Most concentrated regions, based on the share of the five largest activities in non-financial business economy employment, EU-27 and Norway, 2005

Region	Employment in 5 largest divisions	Share of 5 largest divisions
Ionia Nisia (GR22)	42 687	81.0
Melilla (ES64)	7 522	80.8
Ceuta (ES63)	7 547	77.5
Algarve (PT15)	113 240	76.9
Notio Aigaio (GR42)	63 547	76.5
Canarias (ES70)	407 530	76.0
Kriti (GR43)	101 590	75.8
Voreio Aigaio (GR41)	22 434	74.5
Illes Balears (ES53)	253 750	73.9
Inner London (UK11)	1 109 724	72.8
Ipeiros (GR21)	43 962	72.1
Madeira (PT30)	55 492	72.1
Dytiki Ellada (GR23)	77 640	70.7
Andalucía (ES61)	1 183 153	69.6
Extremadura (ES43)	126 375	69.5
Åland (FI20)	5 612	69.1
Lisboa (PT17)	697 824	69.0
Peloponnisos (GR25)	73 914	68.9
Utrecht (NL31)	261 541	68.6
Dytiki	36 126	67.9
Makedonia (GR13)		67.9
Mean shares (%)		56.0

Figure 3 provides a more detailed analysis for the same regions. Although the largest activities vary from one region to another there is a clear pattern. In fact looking at all 274 regions for which data are available retail trade is among the five largest NACE divisions in every one; 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 NACE divisions studied: none of the others are in the top five activities in more than 20 % of the regions; 14 do not make the top five in any region; while 20 are in the top five activities in five regions or less.

Figure 3: Most concentrated regions, share of the five largest activities in non-financial business economy employment, 2005



(1) Second to fifth top divisions are confidential.

Focus on chemicals manufacturing

The second part of this publication focuses on chemical and chemical products manufacturing (NACE Division 24). Half of the ten regions most specialised in chemicals manufacturing are in Germany, and two of the top four are in Belgium (Table 3). In all of these regions this sector's share of manufacturing investment is higher than its share of employment, accounting for more than two thirds of all manufacturing investment in 2005 in the Province Brabant Wallon (Belgium).

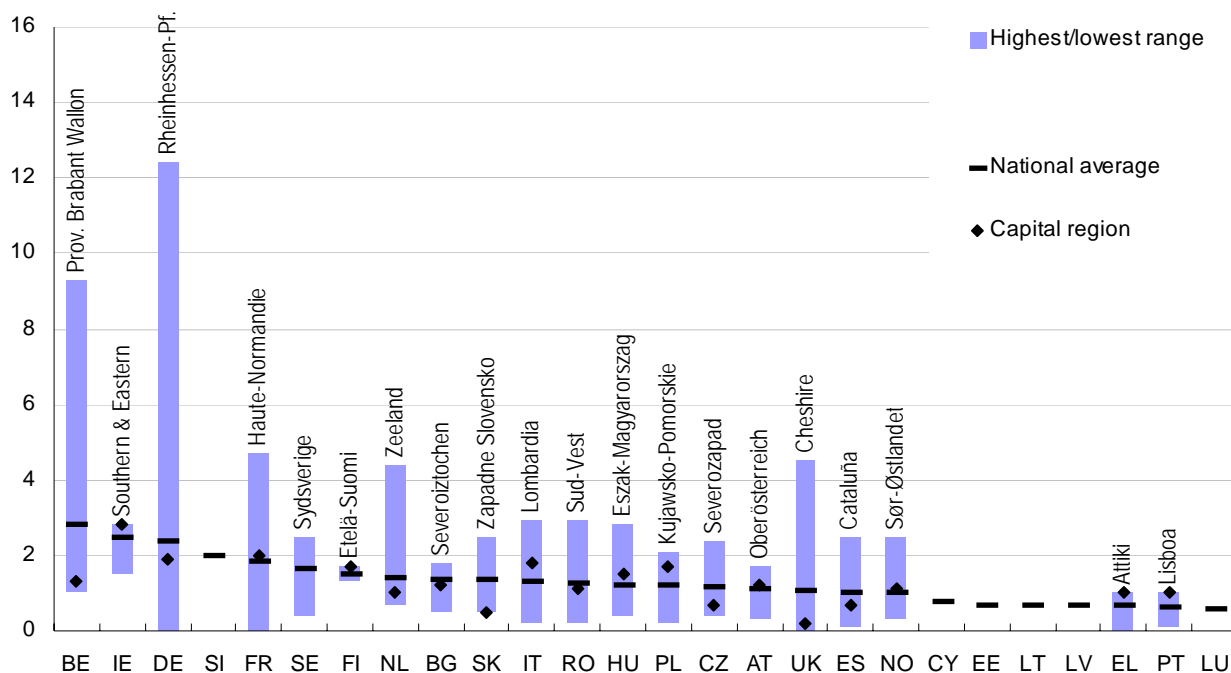
Generally the largest regional disparities appear to be within the countries that are most specialised in chemicals manufacturing, namely Belgium and Germany, with large regional disparities also in the United Kingdom (Figure 4). An analysis of specialisation rankings shows that the wide range in a few countries is mainly due to a very high specialisation in just one or two regions in each of those countries, notably in Germany.

Table 3: Ten most specialised regions in chemicals manufacturing (NACE Division 24), EU-27 and Norway, 2005

	Persons employed			Share in manufacturing (%)			Investment per person employed (EUR thousand)
	Number	Share in the non-fin. business economy (%)	Growth 2005/2004 (%)	Persons employed	Wages & salaries	Investment	
Rheinhesen-Pfalz (DEB3)	50 156	12.4	c	34.8	43.9	37.0	8.7
Prov. Brabant Wallon (BE31)	7 214	9.3	34.5	42.0	55.3	68.8	22.2
Dessau (DEE1)	4 915	6.4	8.5	c	c	20.6	17.8
Prov. Antwerpen (BE21)	28 431	6.2	-1.4	21.4	30.7	36.3	15.3
Haute-Normandie (FR23)	17 454	4.7	-5.0	14.9	19.9	31.9	20.5
Cheshire (UKD2)	15 971	4.5	-4.5	23.9	33.5	54.8	36.8
Zeeland (NL34)	4 198	4.4	0.0	21.9	28.7	c	c
Darmstadt (DE71)	47 808	4.3	-4.4	20.5	23.8	39.2	12.4
Münster (DEA3)	17 936	3.6	-1.5	11.7	15.3	21.6	13.0
Halle (DEE2)	4 404	3.5	1.2	c	c	13.2	15.2

c: confidential.

Figure 4: Share of chemicals manufacturing in non-financial business economy employment, 2005 (%) (1)

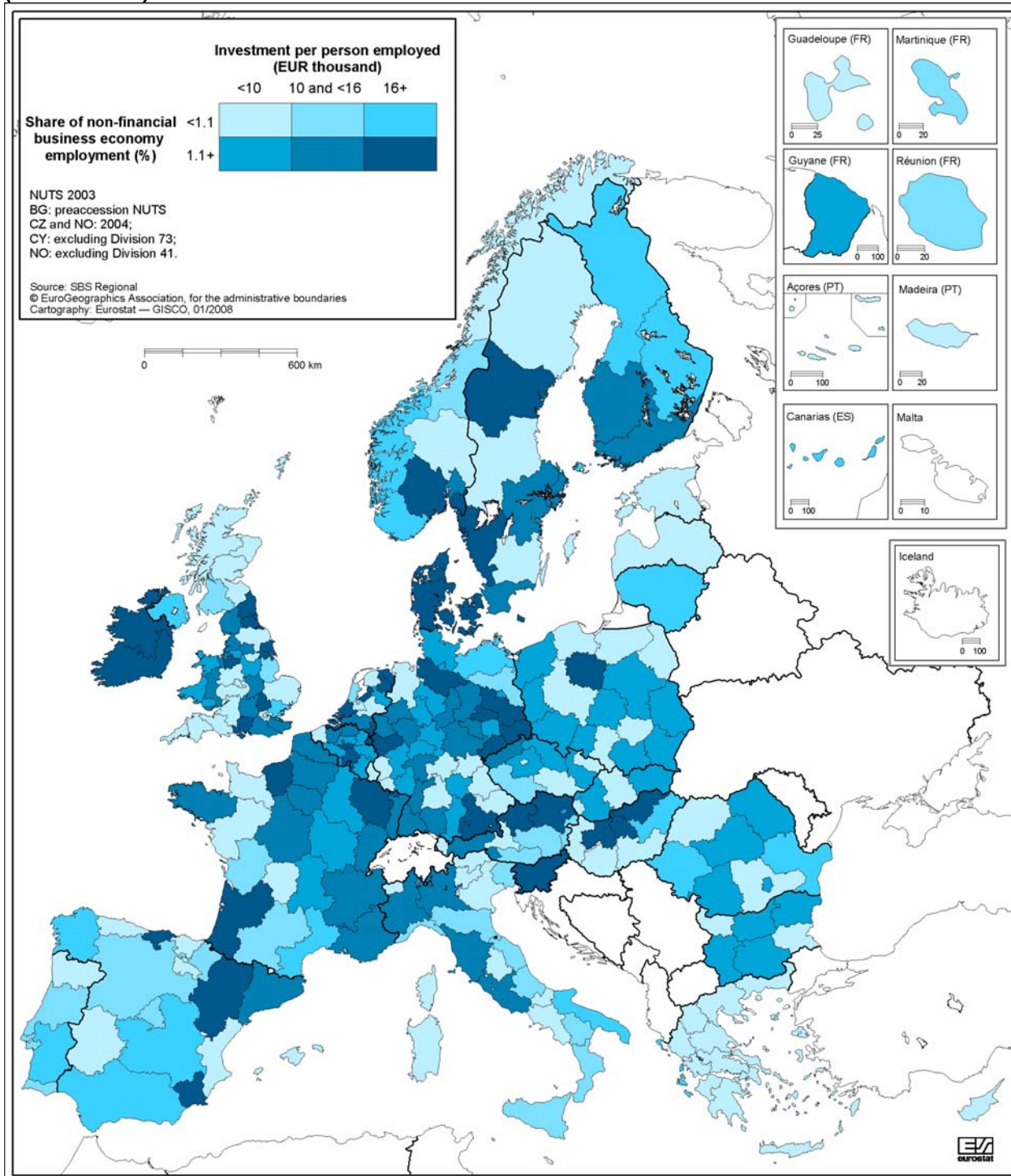


(1) Czech Republic and Norway, 2004; Sweden, capital region confidential; Denmark and Malta, not available.

Map 1 distinguishes regions by their specialisation in chemicals manufacturing, and their average investment per person employed. There are many specialised regions with high investment rates in

the Netherlands, while from the Member States that joined the EU in 2004 or 2007 such a combination is found in several regions in Hungary, one in Poland, and also in Slovenia.

Map 1: Chemicals manufacturing (NACE Division 24): investment per person employed by degree of specialisation (share of non-financial business economy employment), EU-27 and Norway, 2005 (NUTS level 2)



METHODOLOGICAL NOTES

Data source and definitions of variables

The data presented here are part of Structural Business Statistics (SBS). Regional SBS data are available from Eurostat's database within the industry, trade and services theme - see back page for more details. **More information in relation to regional structural business statistics may be found on the Dedicated Section (portal) concerning European Business, located on Eurostat's website** ⁽¹⁾.

Wages and salaries - the total remuneration, in cash or in kind, payable to all persons counted on the payroll, in return for work done during the accounting period. Wages and salaries include the values of any social contributions, income taxes, etc. payable by the employee but exclude social contributions payable by the employer.

Gross investment in tangible goods - included are 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. All investments are valued before the deduction of income from disposals. Goods acquired through restructuring (such as mergers) are excluded.

Number of persons employed - the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives). Includes part-time workers, seasonal workers, apprentices, and home workers on the payroll.

Classifications and statistical units

The regional breakdown of SBS data is currently based on the 2003 version of the Nomenclature of Territorial Units for Statistics (NUTS) ⁽²⁾. It should be noted that for Bulgaria data are based on the pre-accession regional breakdowns. The most detailed level used for regional SBS is the NUTS 2 level. In NUTS 2003, the following Member States are considered as one region on the NUTS level 2: Denmark, Estonia, Cyprus, Latvia, Lithuania, Luxembourg, Malta and Slovenia.

SBS covers the business economy, which is the sum of industry, construction, distributive trades and services. Regional SBS data are available with a detailed sectoral breakdown, normally down to the 2-digit (division) level of the activity classification NACE Rev. 1.1. Regional SBS is not available for financial intermediation (NACE Section J). Comparisons are therefore made to the non-financial business economy which is an aggregate of NACE Sections C to I and K ⁽³⁾.

The observation unit for regional SBS data is normally the local unit, which is an enterprise, or part of one, situated in one geographically identified place. Local units are classified into sectors (based on NACE) according to their principal activity. As an enterprise can consist of several local units, it is possible for the principal activity of the local unit to differ from that of the enterprise to which it belongs – hence, national and regional structural business statistics are not entirely comparable.

Known methodological divergences

In Ireland, the population covered in Manufacturing (NACE Section D) is enterprises with 3 persons employed or more, while in Construction (NACE Section F) the coverage is enterprises with 20 persons employed or more. The particularly high threshold for the construction sector significantly underestimates the level of specialisation in this activity in Ireland, and as a consequence somewhat over-estimates all other activities.

In Luxembourg data are based on enterprises and not local units, and it is believed that this may also be the case for some other countries.

⁽¹⁾ <http://ec.europa.eu/eurostat/europeanbusiness>

⁽²⁾ http://ec.europa.eu/eurostat/ramon/nuts/splash_regions.html







⁽³⁾ For reasons of data availability this total is calculated excluding Division 73 (research and development activities) for Cyprus, and excluding Division 41 (water supply) for Norway.

Further information

Data: [Eurostat Website: http://ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)

Select your theme on the left side of the homepage and then 'Data' from the menu.

Industry, trade and services

-  **Industry, trade and services - horizontal view**
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