Flanders Outlook 2015

Flanders In Action Pact 2020

Research Centre of the Government of Flanders

Flanders State of the Art

FLANDERS OUTLOOK 2015

A BENCHMARKING OF FLANDERS AMONGST THE EUROPEAN REGIONS

January 2015

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1. INTRODUCTION

Flanders is a prosperous region. Still, prosperity has to be earned. In the past Flanders took advantage of its central location in Western Europe, of an important inflow of foreign investments and of indigenous entrepreneurship. Many multinationals have opted to establish a plant in Flanders. Although these assets are most certainly still available today, they are under pressure and require constant reassessment due to growing international competition. Moreover, like other regions and countries, Flanders is faced with important issues, such as the unwinding of the debt crisis, possible renewed unrest on the financial markets, geo-economic problems in certain parts of the world, changing migration patterns, the ageing population, mobility problems and energy and climate issues.

In order to tackle these challenges, the Government of Flanders wants to strengthen Flanders' economic and innovative potential, in order to have it rank among the top European regions in 2020.

Flanders Outlook focuses on the evolution of Flanders towards an innovative region. In order to meaningfully analyse this process, a number of regions were defined which are still one step ahead of Flanders in this respect. From a database of 134 EU regions, 16 areas were labelled 'benchmark region'. This list of benchmark regions is renewed each time a new Government of Flanders takes office, which is usually every five years.
The topic at the end of this paper describes in greater detail how the present analysis was conducted.

The benchmark list now consists of:

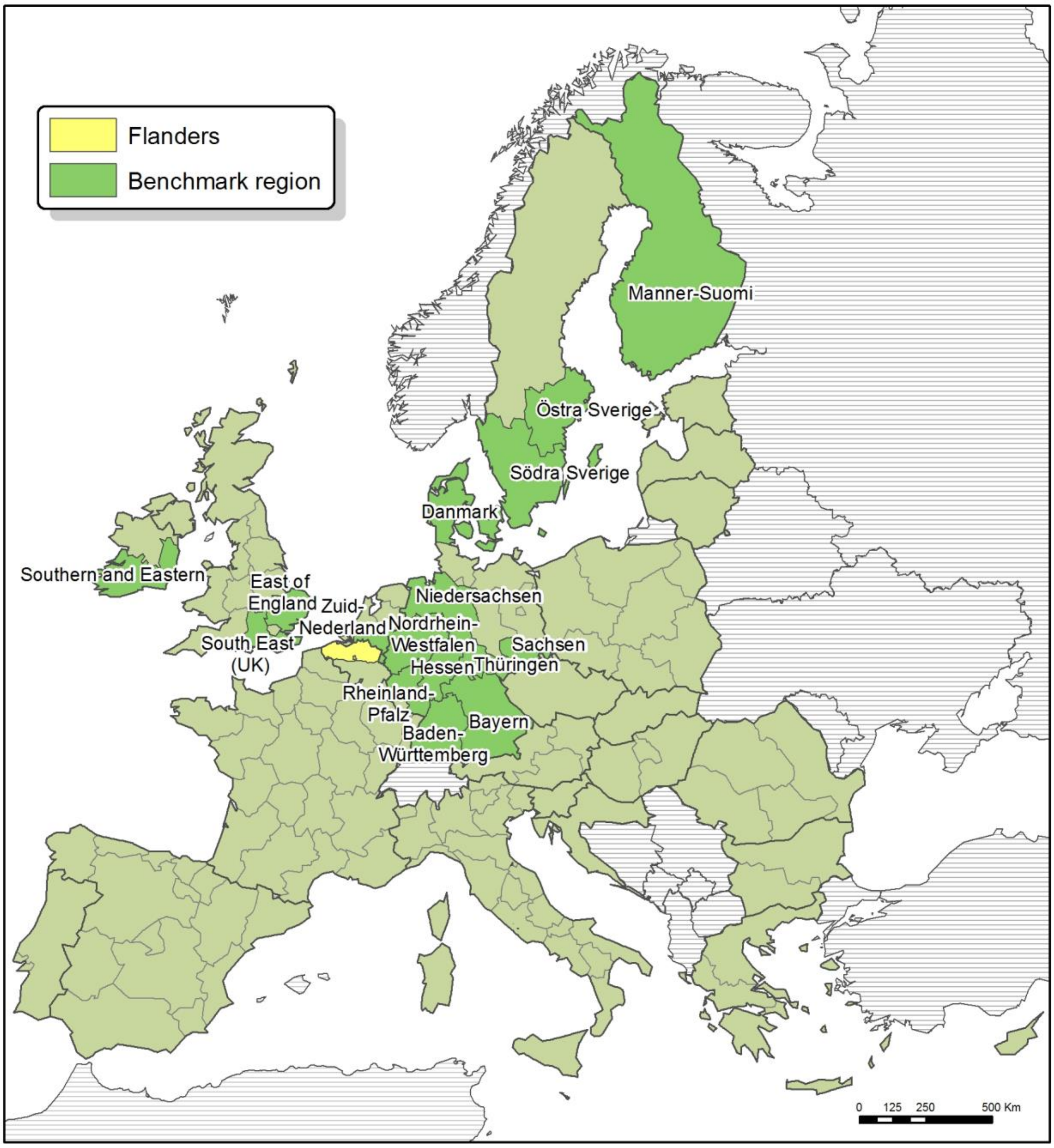
Denmark	Thüringen
Baden-Württemberg	Southern and Eastern Ireland
Bayern	Zuid-Nederland
Hessen	Manner Suomi (Finland)
Niedersachsen	East Sweden
Nordrhein-Westfalen	South Sweden
Rheinland-Pfalz	East of England
Sachsen	South East (UK)

In the statistical analysis below Flanders will be compared to those other regions in a ranking of 17 regions (16 benchmark regions + Flanders).

The following areas will be analysed: economic welfare, labour market and innovation. This is owing to the focus on an innovative region, but also because variables regarding other areas are usually not so readily available.

The broader picture is more important than the focus on Flanders' ranking among the benchmark regions or the whole set of EU regions. This is not an analysis of how the benchmark regions have evolved, but rather of Flanders' socio-economic performance over the past years and in the light of the recent top performance of the benchmark regions. The benchmarking will reveal whether Flanders will be able to catch up with the benchmark regions in the (near) future.

Map 0: Selection of benchmark regions



Source: Research Centre of the Government of Flanders.

This year analysis takes into account a new definition of creative employment and regional entrepreneurship. Furthermore, the patent data are updated in accordance with the data from the Flemish Centre for Research and Development Monitoring. The topic provides more details on the new benchmarking method.

In what follows the focus will be on Flanders' relative position within the group of benchmark regions. This is complemented with some short comments on the ranking of all 134 EU regions, whenever useful. Next, the situation in the surrounding countries and regions is described. This is new in comparison to the previous editions of Flanders Outlook.

2. ECONOMIC WELFARE

2.1. Gross domestic product

Gross domestic product (GDP) is a broadly used indicator for economic welfare in a country or region. It is the market value of the goods and services produced in a given period of time. For the moment, the GDP data of the European countries and regions are produced in keeping with the European System of National Accounts 1995 (ESA95). The new ESA2010 framework has not yet been applied to these data, but it will be in future editions. By means of purchasing power standards (PPS), GDP data within the European Union can be compared. Price differences in relation to income are thus accounted for.

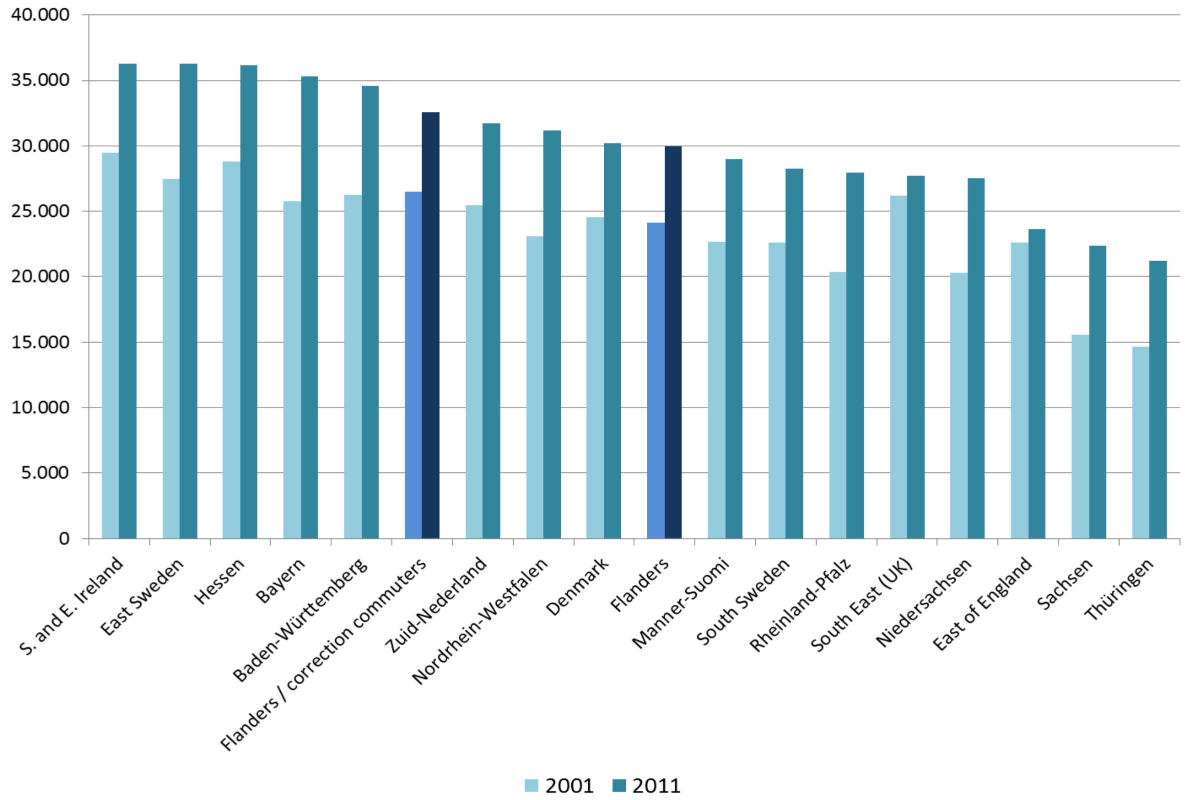
Flanders is a prosperous region, thanks to its location at the heart of Western Europe and its intense trade relations with the surrounding countries. This logically results in a high degree of material welfare for the Flemish citizens. An important remark has to be made concerning the GDP statistic: the specific geographical structure of the three Belgian Regions is such that the capital area of Brussels is quite small, compared to capital regions elsewhere. Furthermore, the Flemish administration is mainly located in Brussels, like many decision-making centres of (big) companies. This brings about a relatively high share of people living in Flanders and commuting to Brussels. These workers contribute to the Brussels (instead of the Flemish) GDP. In other countries this is far less the case because their capital regions are larger (e.g. Greater London, Île-de-France, Lazio Roma, …). This part of the regional GDP which is realised by commuters can to some extent be attributed to the region of origin.

Thus, when adjusted for commuting labour, the Flemish GDP per inhabitant amounts to € 33,000 PPS in 2013 (estimated at € 33,700 PPS in 2014). In this exercise, the recent data of all regions pertain to 2011 (graph 1). At that time, Flanders was in 6th position on the ranking of the benchmark areas according to its adjusted GDP per inhabitant. The best performing regions are Southern & Eastern Ireland and East Sweden, followed in second order by the three German Länder Hessen, Bayern and Baden-Württemberg. In relative terms, GDP is lowest in Thüringen, Sachsen (both former GDR regions) and the East of England. In 2010, Flanders also ranked 6th. Ten years earlier, in 2001, Flanders was in 4th place. After that, its position gradually deteriorated to 7th place in 2006-2008. The 2009 crisis brought about a lower GDP everywhere, but apparently the economic difficulties struck less hard in Flanders, since it climbed to 5th place in 2009. Over a ten years period, the growth performance of the German areas was best, especially of the two former GDR regions. Two German regions (Baden-Württemberg and Bayern) overtook Flanders during that period. The two British regions performed the weakest.

On a broader list of all 134 EU regions Flanders can be found in 18th position, which is well within the first quartile of best performing regions. This is quite good, given that capital and small urban areas are also included in this ranking. Luxembourg is the top region. Once again, Flanders initially performed worse than some other regions until 2008. However, it improved its position in the years following the 2009 crisis. It currently occupies almost the same position as it did ten years ago.

On the basis of commuting adjusted data, Flanders has a higher GDP per inhabitant than Belgium as a whole, Germany, France and the Netherlands (table 1), even though the latter comes quite close to Flanders. Luxembourg, however, has a much higher GDP per capita, due to its specific European and financial function. In 2011, Flanders was also ranked first among the surrounding regions (commuter adjusted data). Zuid-Nederland, Nordrhein-Westfalen and, to a lesser extent, the Brussels-Capital Region (commuter adjusted data) also perform well (€ 30,000 – 32,000 PPS). Nord–Pas-de-Calais produces the lowest GDP per inhabitant (€ 22,100 PPS).

Graph 1: GDP per capita, Flanders and the benchmark regions, 2001 and 2011, in euro PPS.



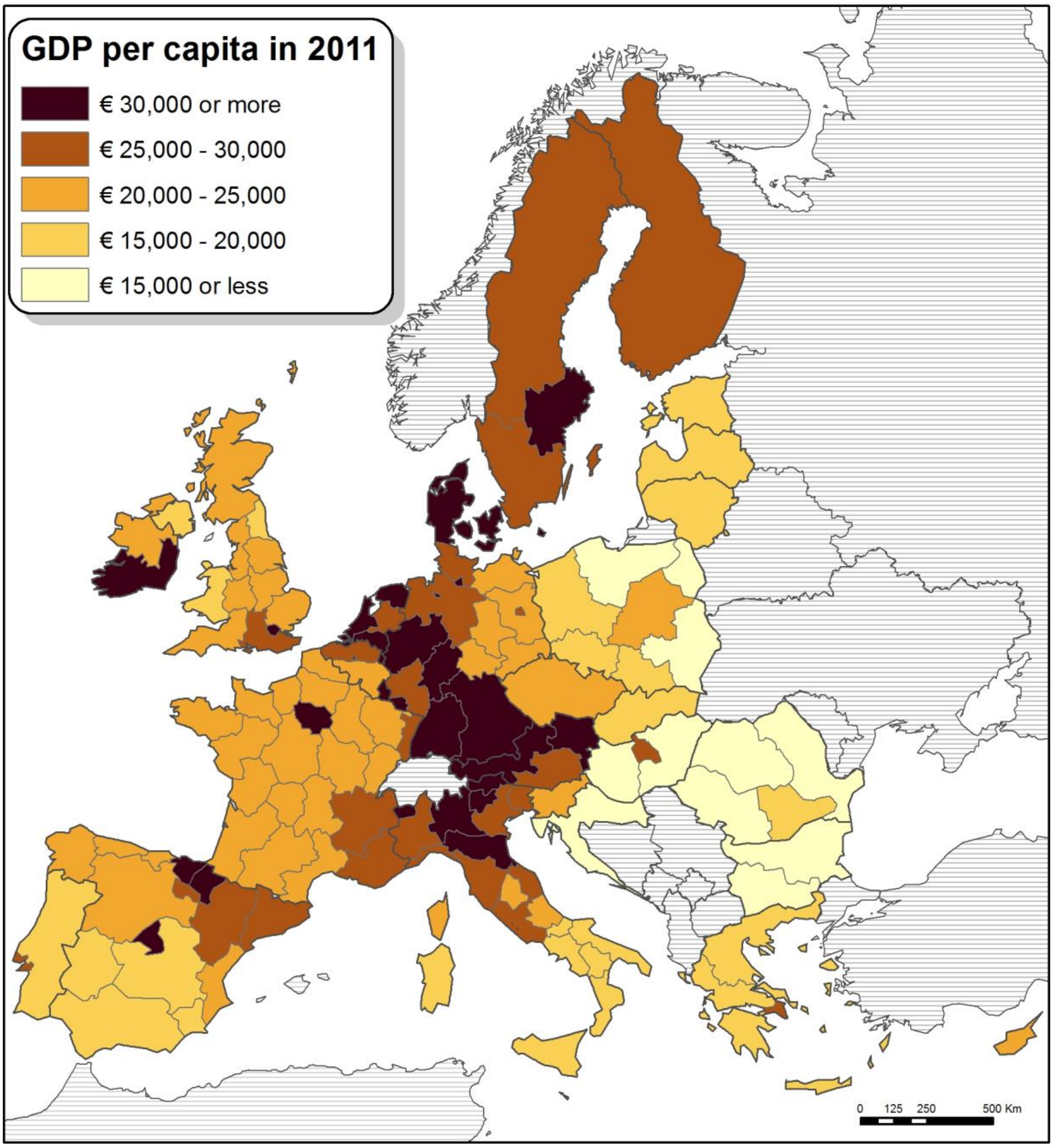
Source: Eurostat, Research Centre of the Government of Flanders.

Table 1: GDP per capita, Flanders and the surrounding countries and regions, 2011, in euro PPS and indices (Flanders = 100)

Geographical area	GDP per inhabitant (€ PPS)	GDP per inhabitant (indices, Flanders = 100)
Flanders *(commuting adjusted)*	32,558	100
SURROUNDING COUNTRIES		
Belgium	29,968	92
Germany	30,825	95
France	27,354	84
Netherlands	32,456	100
Luxembourg	66,838	205
BENELUX	*32,114*	*99*
SURROUNDING REGIONS		
Wallonia	25,127	77
Brussels-Capital Region	30,421	93
Zuid-Nederland	31,713	97
Nordrhein-Westfalen	31,191	96
Nord-Pas-de-Calais	22,076	68
South East (UK)	27,703	85
INTERREGIONAL AREA	*29,445*	*90*

Source: Eurostat, Research Centre of the Government of Flanders.

Map 1: GDP per capita in 2011



Source: Eurostat, Research Centre of the Government of Flanders.

2.2. Components of GDP

In order to better understand GDP per capita, it can be subdivided into three factors: labour productivity, job ratio, and the share of people aged 15 to 64 in the total population. Each of these factors has an impact on the creation of welfare.

Flanders owes its prosperity primarily to a high **labour productivity**. This is a basic characteristic of the Flemish economy. After adjustment for commuters, Flemish labour productivity equals € 75,700 PPS in 2013 (estimated at € 77,500 PPS in 2014). In the benchmark ranking Flanders is in 3rd position in 2011 (€ 74,000 PPS, graph 2). Labour productivity is particularly high in Southern & Eastern Ireland, followed by Zuid-Nederland. The majority of the benchmark regions have a value between € 50,000 and 70,000 PPS. Thüringen, Sachsen and the East of England have the lowest labour productivity, which is the main reason for their relatively low GDP. Flanders' position has not changed compared to 10 years ago.

In the ranking of 134 regions, Flanders ranked 10th in 2011, which was better than in 2001 (14th). London is the top region on this indicator.

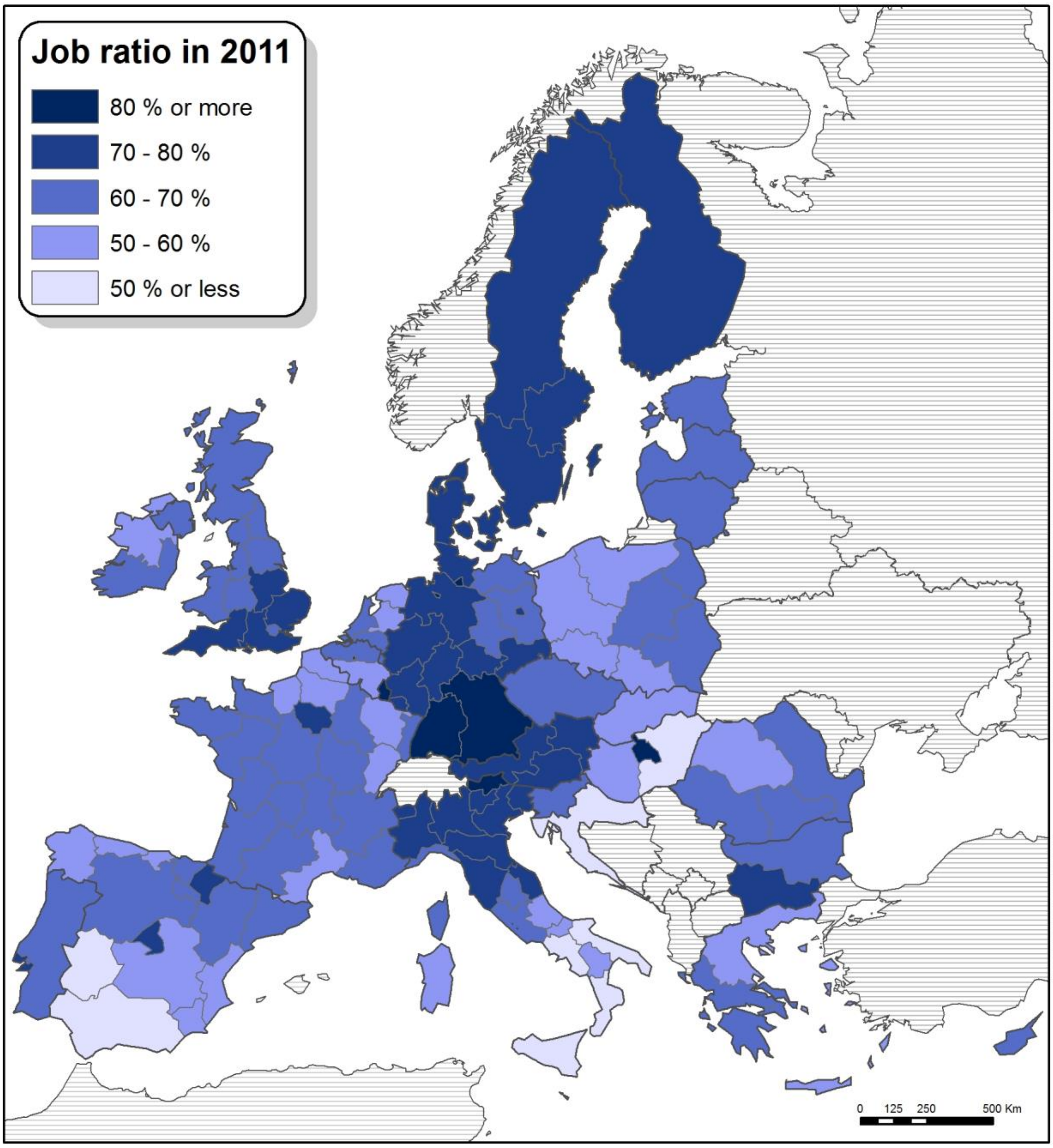
Compared to Belgium and the surrounding countries, Luxembourg (€ 93,700 PPS) and the Netherlands (€ 80,200 PPS) have a higher labour productivity, whereas Germany has the lowest (€ 61,300 PPS). Among the set of surrounding regions, Brussels-Capital Region and Zuid-Nederland score better than Flanders. On the other hand, labour productivity is the lowest in the British South East (36% lower than in Brussels).

The **job ratio**, i.e. the number of jobs per 100 people aged between 15 and 64 (adjusted for commuters), amounted to 67.1% in Flanders in 2013 (estimated at 67.3% in 2014). With a value of 67.3% in 2011 Flanders ranks 15th among the benchmark regions, leaving only Zuid-Nederland and Southern & Eastern Ireland behind (graph 2). The job ratio is particularly high in Bayern, Baden-Württemberg and Hessen (more or less 80%). Ten years ago, Flanders was in 14th position. Although this is not much different from today, the composition of the ranking has changed: apart from the aforementioned three German Länder, the British South East also belonged to the top regions in 2001. Zuid-Nederland was likewise last, but was joined by Thüringen and Sachsen. Between 2001 and 2011 the catch-up movement of the two former GDR regions was remarkable (increase of more or less 10 percentage points or ppt). This contrasts with the deterioration in the Anglo-Saxon, Swedish and Danish benchmark regions (Flanders recorded an increase by 1.6 ppt).

In the whole ranking of 134 European regions Flanders is 58th, which is rather mediocre. The highest values are recorded in Luxembourg and some Danish, German, Austrian and Swedish areas. A number of Eastern and Southern EU regions have the lowest values.

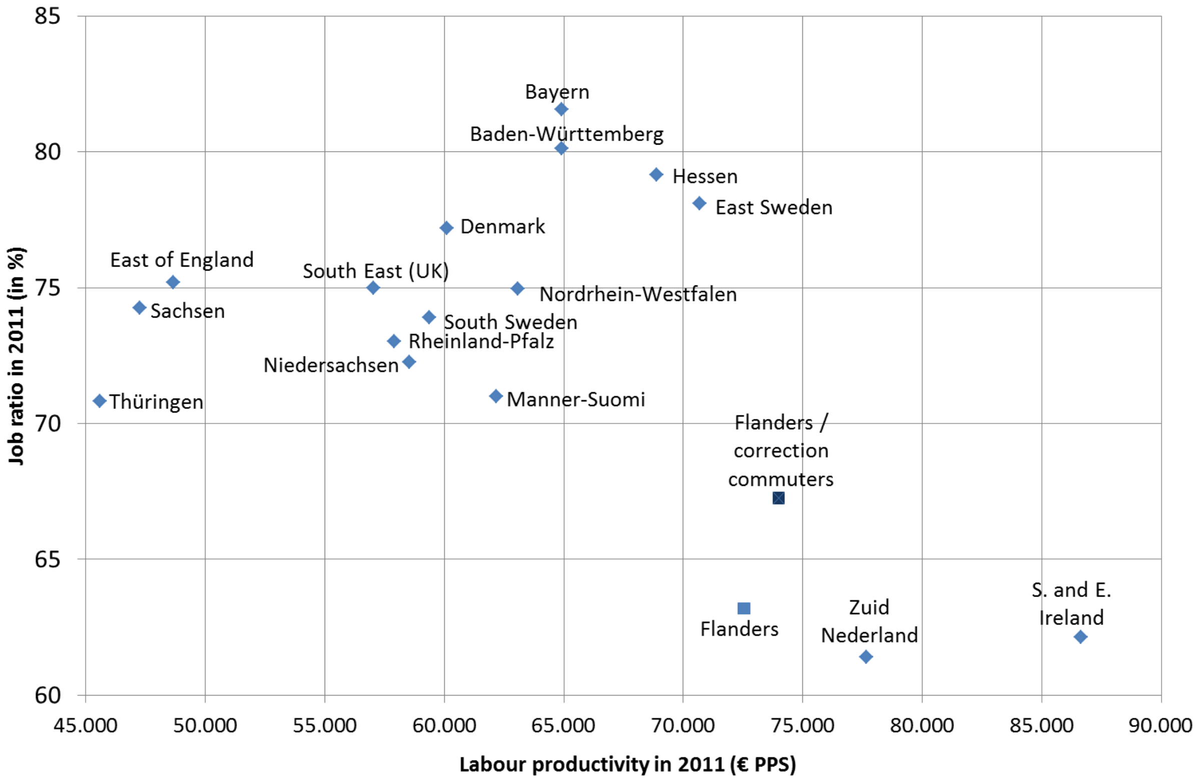
With respect to Belgium and the neighbouring countries, Luxembourg and Germany score higher than Flanders. Luxembourg even has a value of 103.8%, which means that there are more jobs than inhabitants of working age. The Netherland and France have a less high job ratio than Flanders. Among the set of surrounding regions, Nordrhein-Westfalen and the British South East have the highest job ratios in relative terms (both 75.0%), followed by Flanders. The indicator is lowest in the Brussels-Capital Region (adjusted for commuting labour!).

Map 2: Job ratio in 2011



Source: Eurostat, Research Centre of the Government of Flanders.

Graph 2: Labour productivity (euro PPS) and job ratio (%), Flanders and the benchmark regions, 2011



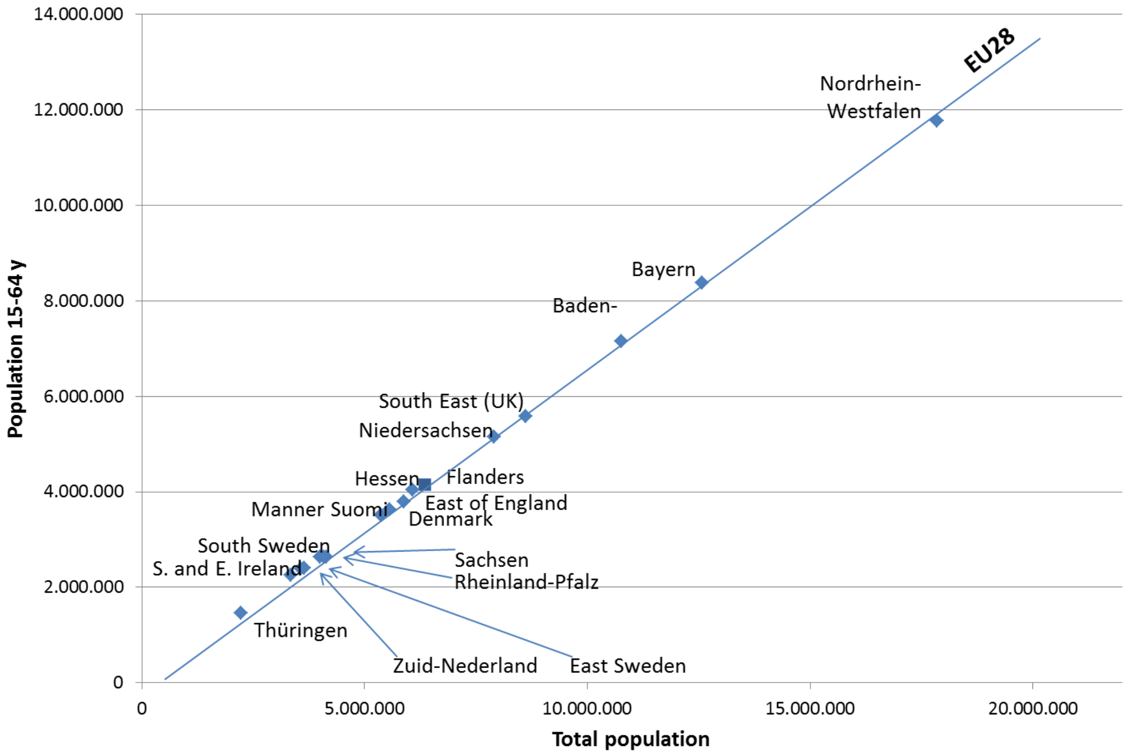
Source: Eurostat, Research Centre of the Government of Flanders.

The last factor that is important in the GDP/capita decomposition is the **share of people aged 15 to 64**. This amounted to 64.9% in 2013 (estimated at 64.6% in 2014). In the benchmark analysis the 2011 data are used. With 65.4% in 2011 Flanders ranked 11th among the benchmark regions. The differences are not very big. Southern and Eastern Ireland is leading with 67.4%. Sachsen (63.8%) has the lowest share of people aged 15 to 64. Over time, there has been a slight deterioration of this ratio in Flanders. Still, all other benchmark regions faced a decline as well (worst in the two former GDR Länder). In 2001, Flanders was in 13th position.

In the ranking of all 134 EU regions Flanders is 84th. The best performing regions are located in the new EU member states.

Of the surrounding countries only France has a lower value. Luxembourg is the top performer (68.7%). Among Flanders' neighbouring regions, the Brussels-Capital Region has the highest share of people aged between 15 and 64 (67.5%), followed by Zuid-Nederland and Nordrhein-Westfalen and, to a lesser extent, Wallonia. The British South East and Nord–Pas-de-Calais score worst. Again, this indicator does not vary greatly.

Graph 3: Total population, population 15-64 y and the ratio between them, Flanders and the benchmark regions, 2011, in %



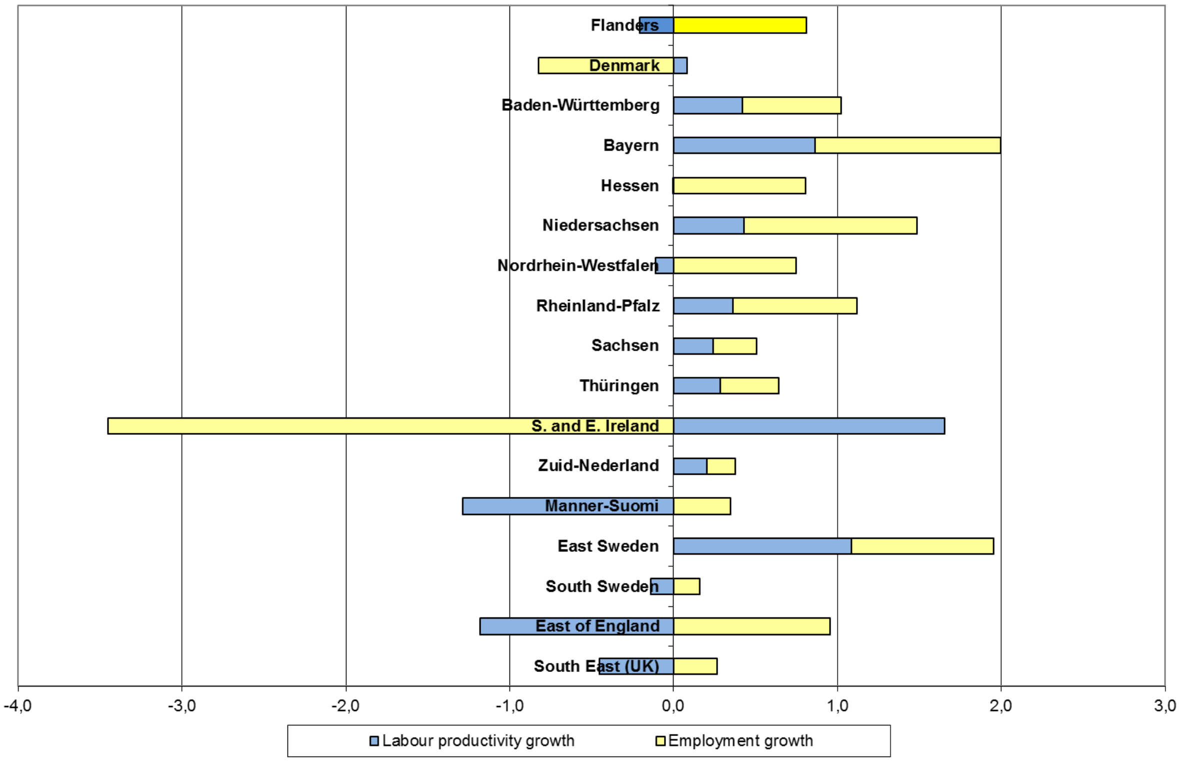
Source: Eurostat, Research Centre of the Government of Flanders.

2.3. Economic growth

According to Eurostat, **real growth of gross value added** in Flanders amounted on average to 0.6% in the years 2008-2011[1]. This is not much. Moreover, it is mediocre in comparison to the benchmark regions (graph 4). The highest growth figures were recorded in Bayern (+2.0%) and East Sweden (+1.9%). The recipe of their success lies in a real labour productivity growth that almost equalled their employment increase. Flanders kept pace with employment growth (+0.8% during 2008-2011), but lost ground in terms of labour productivity (-0.2% during 2008-2011). In the years 2010 and 2011 the increase in labour productivity was particularly low in Flanders. This is not apparent from graph 4 because it covers the whole period 2008-2011 and Flanders suffered relatively less in the crisis years 2008 and 2009.

1 2008 is the year of the outbreak of the financial crisis; 2011 is the last available year for regional growth figures.

Graph 4: Breakdown of average real GDP growth, Flanders and the benchmark regions, 2008-2011, percentage points



Source: Eurostat, Research Centre of the Government of Flanders.

The Institute of National Accounts and HERMREG provide data about real economic growth, based on the GDP[2]. The main advantage of this source is that the data are more up-to-date. They can thus be compared to countries' recent growth calculations. However, no up-to-date data are available for regions in other countries. According to these figures, real GDP growth of Flanders was on average +0.4% during 2008-2013. This is as high as in Belgium. Of the surrounding countries Germany performed better (+0.7%). There was hardly any growth in France or Luxembourg (both +0.1%). The Netherlands even faced a decline of real GDP during those years (-0.3%). Economic growth in Flanders (and Belgium) was brought about by an employment increase (+0.6%). Real labour productivity decreased by 0.2%, due to the financial economic crisis during that period (which resulted in a loss of GDP). In Germany as well, employment was the main driver (+0.8%). German labour productivity slightly declined in real terms (-0.1%). The Netherlands had to cope with a standstill in employment growth during 2008-2013, combined with a decrease in real labour productivity. France was an exception: its scarce economic growth was due to labour productivity (+0.2%). Employment in France diminished slightly (-0.1%). Finally, in Luxembourg, the positive evolution in employment was almost balanced by a negative one of real labour productivity.

The surrounding regions were also confronted with low economic growth. However, Flanders performed relatively well. With a growth figure of 0.6% on average during 2008-2011 Flanders was on an equal footing with the Brussels-Capital Region and Nordrhein-Westfalen. Wallonia did better (+1.2%). The other regions in the vicinity realised less high growth figures, the British South East even negative figures. Especially Flanders and the other Belgian Regions were successful in creating employment, compared to the neighbouring regions.

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2 Gross value added is the amount of goods and services produced in a country/region. Gross domestic product (GDP) is gross value added plus taxes minus subsidies on products (e.g. value added taxes, import subsidies…).

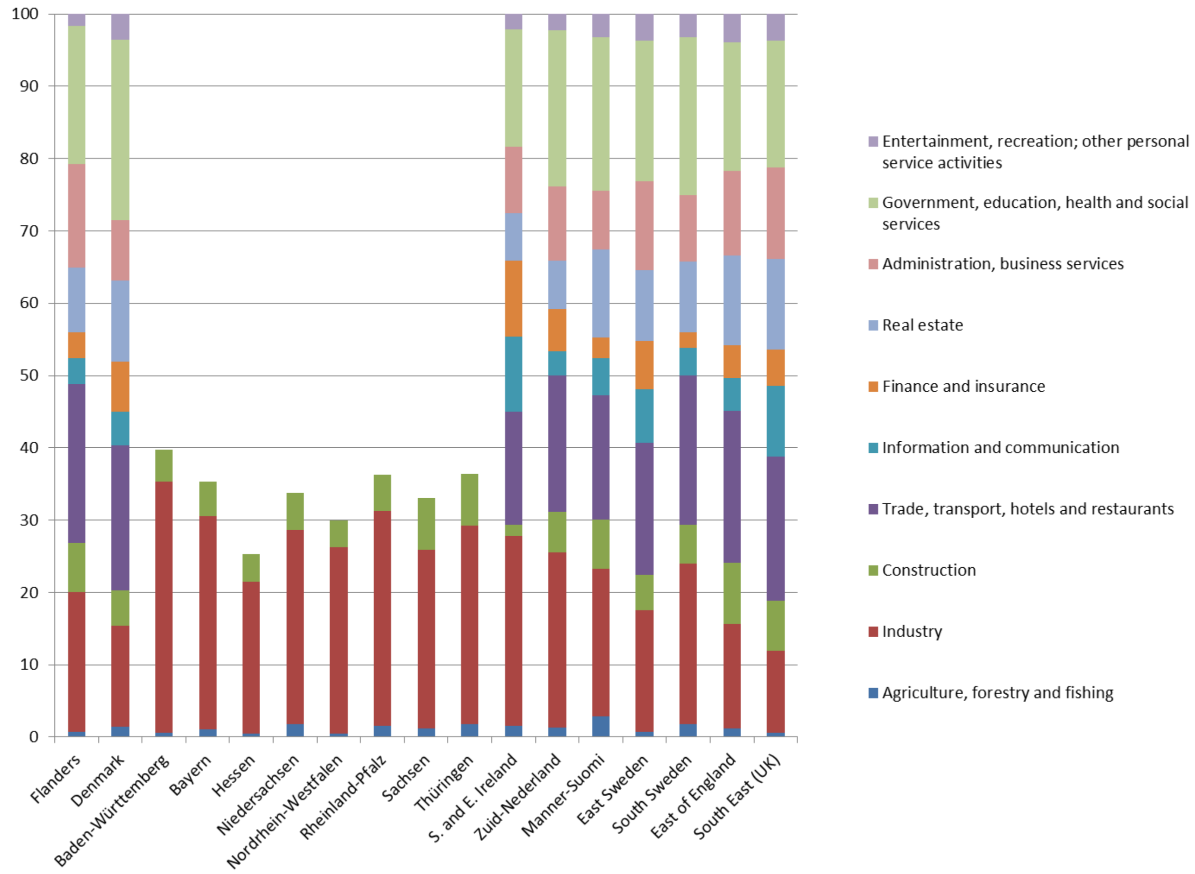
2.4. Economic structure

The economic structure in the benchmark regions differs with respect to the distribution of branches (graph 5). The available data allow for a breakdown of gross value added in ten branches (2010 data, NACE rev. 2). Unfortunately, only partial data are available for the German benchmark regions.

The **primary sector** is the least important sector in every benchmark region. The highest share of the primary sector can be found in Manner Suomi (3%). The German benchmark Länder and Southern and Eastern Ireland are the most **industrialised**. The top region in this respect is Baden-Württemberg (35%). Flanders has an average share (19%). Low values of industrialisation are recorded in Denmark and in the British regions concerned. None of the regions stand out in terms of **construction**. It is rather high (7-8%) in Flanders, the British and Finnish regions and the two former GDR Länder in this comparison. Southern and Eastern Ireland scores low (2%). The same goes for the share of **trade, transport and hotel and restaurants**. Flanders, as well as South Sweden and the British regions, have the highest values in this branch (20+%). Once again, Southern and Eastern Ireland scores the lowest. The British South East and Southern and Eastern Ireland excel in terms of **information and communication services** (both 10%). Flanders and Zuid-Nederland are not specialised in this area (3%). **Finance and insurance** activities account for 11% of gross value added in Southern & Eastern Ireland, which is much more than in the other regions. The Flemish share is 4%. **Real estate** is well-represented in the East of England and the British South East, as well as in Manner Suomi (12-13%). The smallest shares can be found in Southern & Eastern Ireland and in Zuid-Nederland. **Administration and business services** is a specialty of Flanders (14%) and to a lesser extent of the British South East, the East of England and East Sweden. Manner Suomi does not excel (8%) in this area. **Government, health and social services** is an important branch, especially in Denmark (25%), Zuid-Nederland and South Sweden (both 22%), but less so in Southern & Eastern Ireland (16%). Flanders lies in-between (19%). It should be noted that an important part of the Flemish administration is located in Brussels. Finally, **entertainment, recreation, other personal service activities** is a less important branch. Flanders has one of the lowest shares (2%).

Among the countries surrounding us, Germany has a relatively high share of industry (26%). This is far less in Luxembourg (7%), due to its role as a financial centre (25%). As far as the regions in the vicinity of Flanders are concerned, the Brussels-Capital Region has a divergent economic structure, with less industry (7%) and construction (3%) to the benefit of financial and insurance activities (19%) and public administration (24%). Nordrhein-Westfalen and Zuid-Nederland are the most industrialised (26% and 24%). The relatively high share of public administration, defence, education, human health and social work activities in Nord–Pas-de-Calais (27%) is striking.

Graph 5: Breakdown of gross value added among the main branches, Flanders and the benchmark regions, 2011, in %



Source: Eurostat, Research Centre of the Government of Flanders.

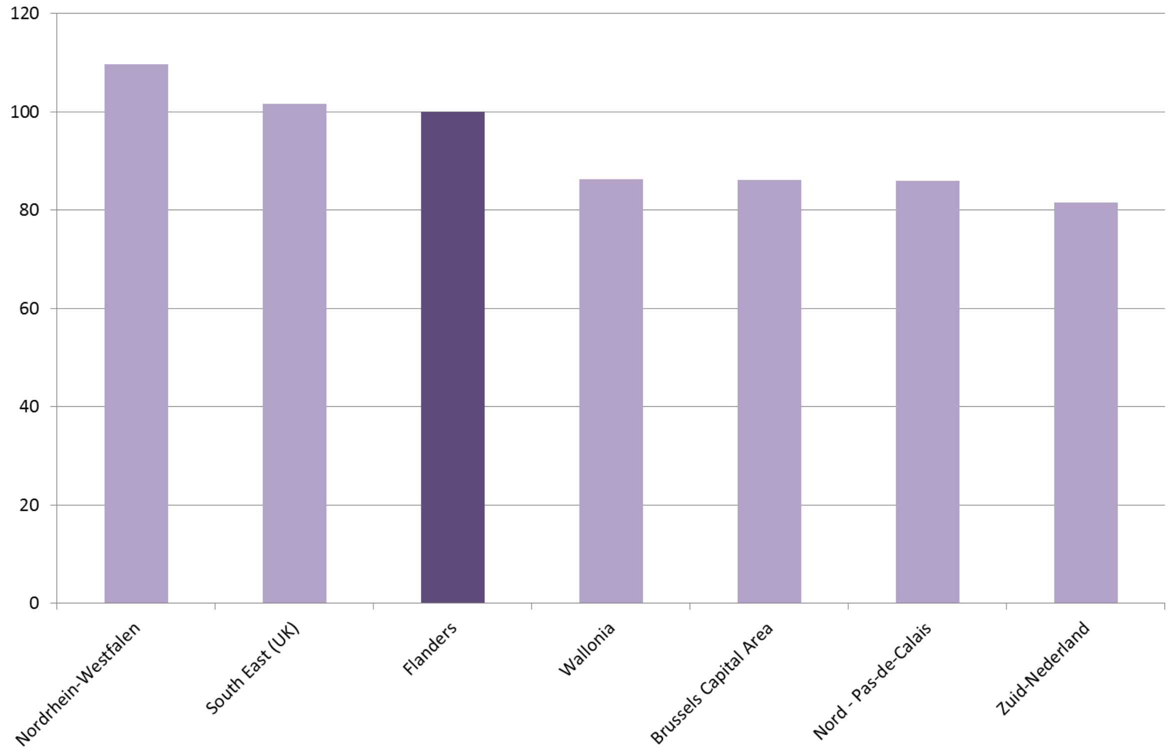
2.5. Income and poverty

Disposable income is an indicator of the welfare earned by the inhabitants of a country/region. They can possibly earn that income elsewhere, by means of commuting. As a result, the place of residence and the workplace can be in two different geographical locations. The **net disposable income** in Flanders is € 17,900 PPS per head (based on final consumption) in 2011. This puts Flanders in 8th position on the benchmark list. The former West-German regions have the highest income, together with the British South East. The lowest values are registered in Denmark and Zuid-Nederland. Since 2001, the position of Flanders has not changed much. A complete ranking of all 134 regions is not possible due to lacking data. However, there is evidence that the indicator is lower in the new EU member states. Since 2008 (start of the crisis), disposable income per inhabitant has grown by 1.8% in Flanders. This contrasts sharply with the decline in Greece and Latvia (-17.4 and -13.2%), two countries that have been severely hit by the 2009 crisis and its aftermath.

Among the countries surrounding us, income is, relatively speaking, highest in Luxembourg (€ 23,900 PPS), followed by Germany (€ 19,500 PPS). The Netherlands have the lowest income per head. France and Belgium as a whole also score lower than Flanders. Since the outbreak of the financial and economic crisis in 2008 and until 2011, the income indicator fell by 3.1% in the Netherlands. This contrasts with the 7.9% increase in Germany. The other neighbouring countries also reported an increase: France (+4.8%), Belgium (+1.7%) and Luxembourg (+0.9%).

Of the surrounding regions, Nordrhein-Westfalen has the highest income (€ 19,700 PPS per inhabitant), followed by the British South East and Flanders. The other Belgian Regions and Nord–Pas-de-Calais have the lowest income per head (graph 6).

Graph 6: Disposable income per inhabitant in Flanders and surrounding regions, 2011, indices (Flanders = 100)



Source: Eurostat, Research Centre of the Government of Flanders.

The average income does not provide any information about the distribution of wealth between the citizens, especially not about **poverty**. Unfortunately, quite a lot of data are lacking in this statistic.

Still, some people have an income that is too low compared to the median of their country. Those people are therefore at risk of poverty. In 2011, 9.8% of the Flemish people were at risk of poverty. A complete ranking of the benchmark regions can only be made for 2009. At that time Flanders scored 10.1%. Only Zuid-Nederland did better (9.6%). The two former GDR regions and the British benchmark areas have the worst scores (18-20%). Since 2003, (12.8%) this indicator has even gradually improved in Flanders.

In all the surrounding countries, as well as in Belgium, a higher share of the population is at risk of poverty. Of the surrounding regions only Zuid-Nederland performed better (see supra). The indicator is particularly high in the Brussels-Capital Region (33.7% in 2011).

2.6. Some elements of competitiveness

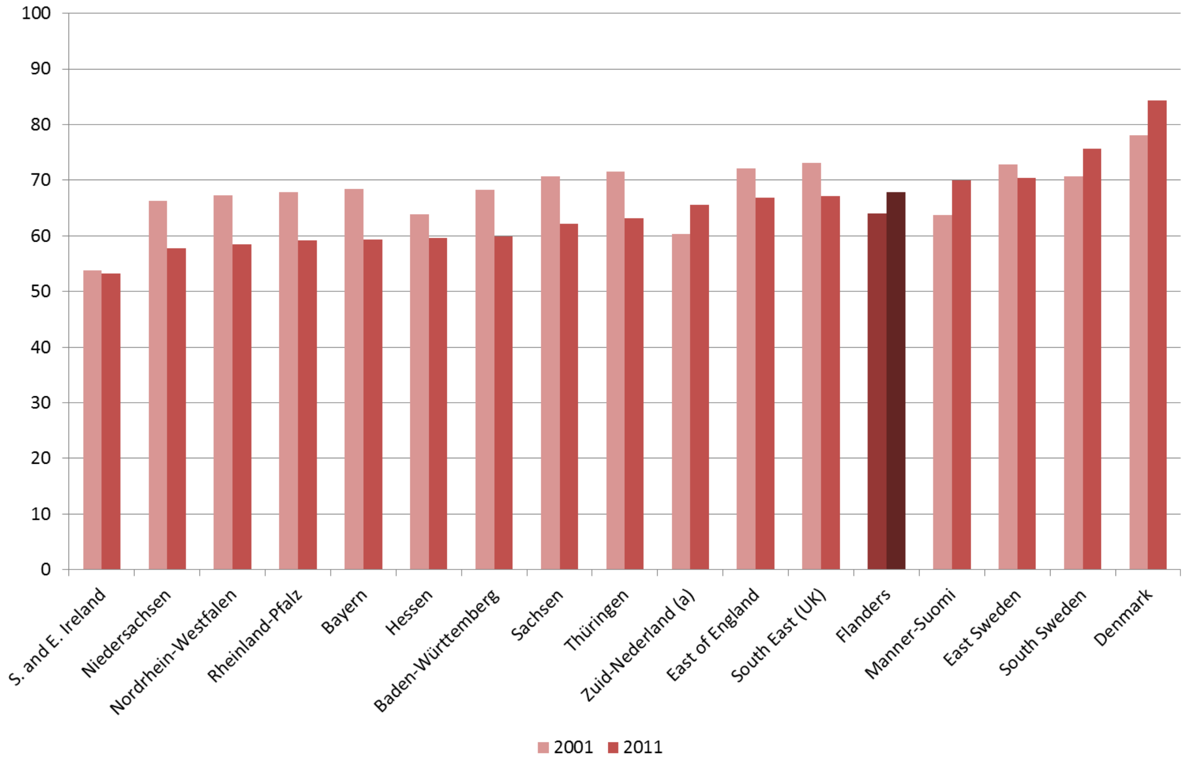
The **average wage cost per employee** equalled € 49,300 in 2011 in Flanders. This indicator contains an estimation of the earnings of independent workers according to the average wage per employee. A ranking is only possible for 2010 due to lacking observations. In 2010, Flanders ranked 15th among the benchmark regions. Only Denmark and Zuid-Nederland had a higher average wage cost. This indicator is especially low in Sachsen and Thüringen (roughly € 28,000). Furthermore, Niedersachsen and the East of England also score low. Despite this, Flanders already had the highest wage cost per employee of all the benchmark regions in 2001.
Within the broad ranking of all EU regions, Flanders ranked 125th in 2010. This position has barely evolved since 2001 (129th).

Of the surrounding countries, Belgium as a whole but also the Netherlands and Luxembourg are more costly with respect to labour. In comparison to the neighbouring regions, the average wage cost is especially higher in the Brussels-Capital Region (€ 58,000) and to a lesser extent – as mentioned before – in Zuid-Nederland. Nordrhein-Westfalen has the lowest value (€ 35,900).

The wage cost in itself is a more useful measure of competitiveness when related to GDP. This ratio is the **wage cost per unit of output**. Once again, the wage includes the estimated earnings of independent workers.
In 2011, earnings accounted for 68% of the gross domestic product in Flanders. In the 2010 ranking Flanders was 13th of the benchmark areas. Compared to this, all the Scandinavian regions score higher, especially Denmark (84%, graph 7). Southern and Eastern Ireland scores the lowest (53%). The former West-German benchmark regions also perform relatively well (60% or a bit less). Between 2001 and 2011 this indicator increased from 64% to 68% in Flanders. In 2001, Flanders was 5th, which means that its position has worsened over time. Almost all the German benchmark regions had a higher wage cost per unit of output than Flanders in 2001. Ten years later, this is the other way around. The evolution of the wage cost per unit of output is remarkable in Southern and Eastern Ireland. Until 2008, there was a gradual increase. In that year this region was in the upper half of the benchmark regions with the highest wage cost per unit GDP. Following the outbreak of the crisis, however, this indicator steadily decreased and was at its lowest level in 2011.
In comparison to all the EU regions, Flanders was 111th in 2011, which is worse than in 2001 (100th). This is above all owing to the improved situation in the German regions.

The wage cost per unit of output is higher in Flanders and Belgium (both 68% in 2010) than in the surrounding countries. With respect to the neighbouring regions, Wallonia scores the highest (72% in 2011). Flanders has the same score as Nord–Pas-de-Calais. The other regions in the vicinity have lower values, even the Brussels-Capital Region which had the highest average wage cost (see supra).

Graph 7: Wage cost per unit of output, Flanders and the benchmark regions, 2001 and 2011, in %



(a) data for 2010

Source: Eurostat, Research Centre of the Government of Flanders.

To **invest** is to believe in the future sales of products. Therefore, worn-out production capacity needs to be replaced or new capital goods (for example new machinery) need to be purchased. Investments thus contribute to the generation of GDP.
In 2011, Flanders had the second highest investment ratio (22.7%) of the benchmark areas (data for Southern & Eastern Ireland are lacking). This indicator is relatively low in the British benchmark areas. From a long-term perspective, Flanders has always belonged to the top of the regions with the highest investment ratios.

Investments are relatively lower in Belgium and the other countries in our neighbourhood, especially in Luxembourg (12.5% in 2011). Furthermore, Flanders has the highest investment ratio of the neighbouring regions (although no recent data are available for Nord–Pas-de-Calais). The indicator is relatively low in the British South East, the Brussels-Capital Region and Nordrhein-Westfalen (14-16%).

3. LABOUR MARKET

According to Eurostat data, the Flemish **employment rate**[3] is at 71.9% in 2013. This means that only Southern and Eastern Ireland scores lower (66.2%, putting Flanders in 16th position). The top regions are Baden-Württemberg, Bayern and South Sweden (all three 80.5%). More generally, the German, Swedish and British benchmark regions perform best. In 2001, Flanders was 14th. Since then the German regions have been more able to increase their employment rate, especially the two former GDR Länder. On the other hand, the financial economic crisis caused a decrease in the indicator for Southern and Eastern Ireland. As a result, it is now last on the benchmark list. The Flemish employment rate gradually increased until 2008. After that, the financial and euro crises both caused a small decrease in the indicator.
In the broader ranking of all EU regions Flanders was in 45th place in 2013. This ranking has improved since 2001 (58th), mainly because many Mediterranean regions were confronted with a decreasing employment rate over a period of ten years.

In Belgium as a whole and in France a lower proportion of the people aged between 20 and 64 are working (table 2, see below). Among the regions surrounding us, the employment rate is higher in the British South East (79.0%), Zuid-Nederland and Nordrhein-Westfalen (roughly 75%). The gap with the Brussels-Capital Region (56.8%) is remarkable. However, Wallonia and Nord–Pas-de-Calais are also performing poorly (62-63%).

In 2013, the **male employment rate** amounts to 76.8% in Flanders. Flanders is ranked 15th on the benchmark list, before Southern and Eastern Ireland and Manner Suomi. Between 2001 and 2013 there has been a decline in the Flemish male employment rate from 77.7% to 76.8%, due to the 2009 crisis and its aftermath. The **female employment rate** in Flanders amounts to 66.9% in 2013, which puts Flanders in 16th position among the benchmark regions, once again leaving only Southern and Eastern Ireland behind it. Contrary to the indicator for males, the female employment rate in Flanders increased from 58.6% in 2001 to 66.9% in 2013, mainly before the outbreak of the 2009 crisis.

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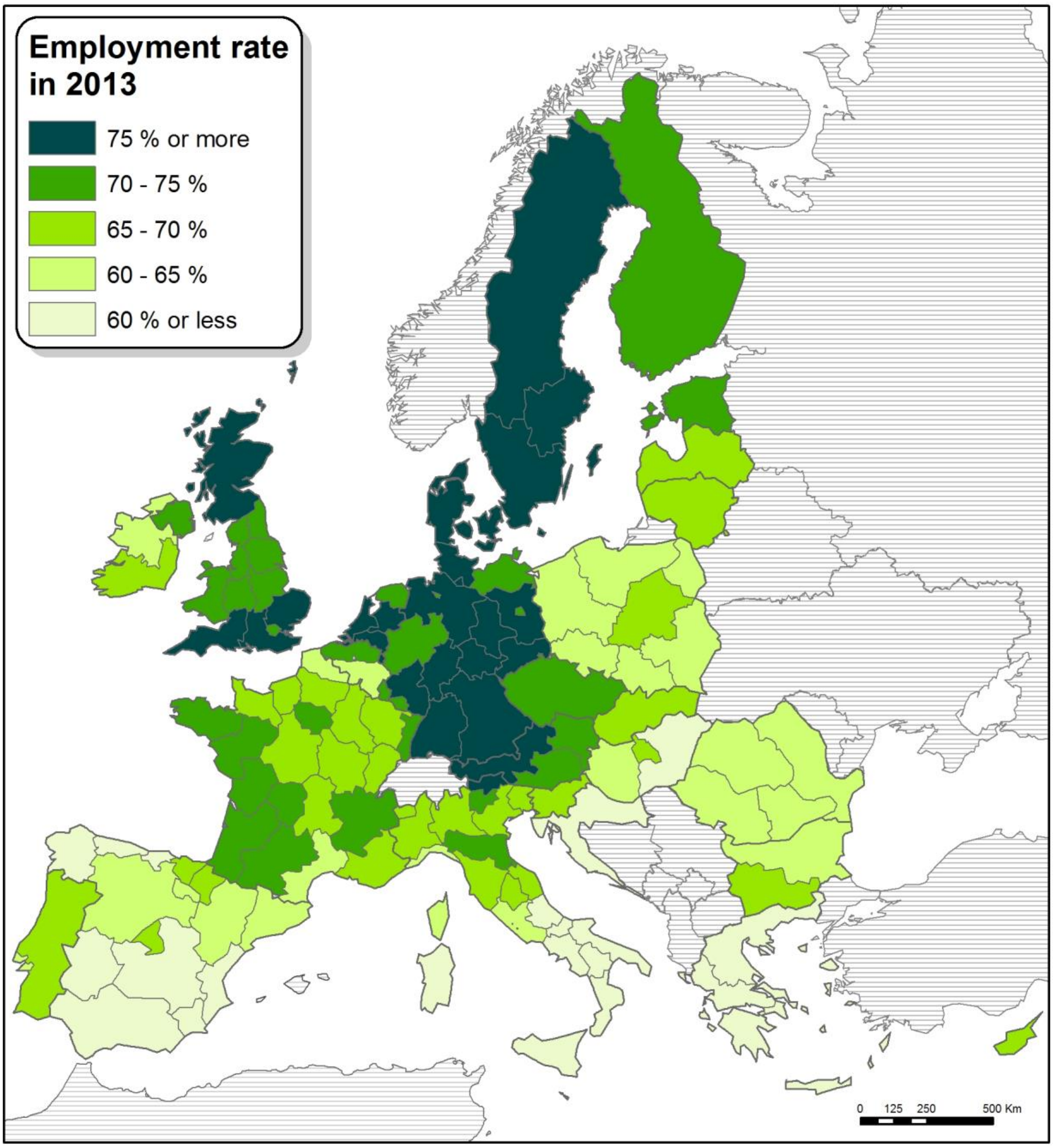
3 The number of workers living in a region as a % of the people of working age. In accordance with the Europe 2020 Strategy the latter comprises people aged 20 to 64.

Map 3: Employment rate in 2013



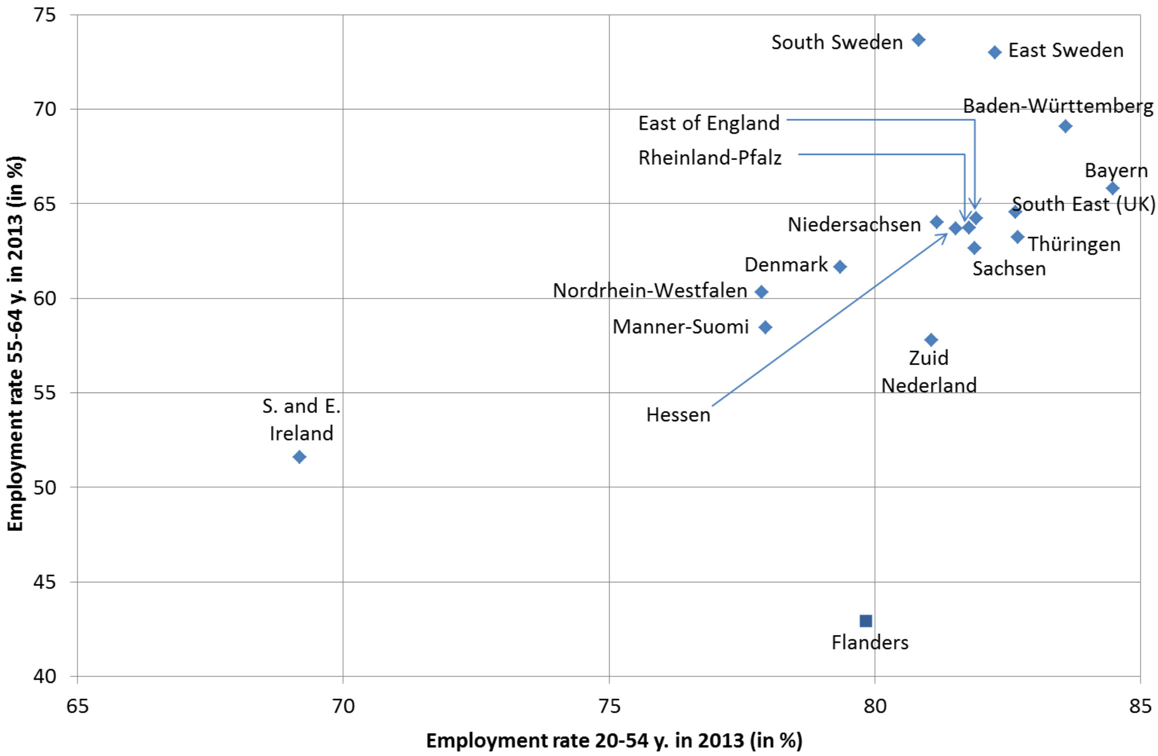
Source: Eurostat, Research Centre of the Government of Flanders.

A major reason for the rather low overall employment rate in Flanders is the group of **elderly people who are employed** (age category 55-64 years). With a rate of 42.9% in this age category Flanders performs worse than all the other benchmark regions (graph 8). Two Swedish regions (73-74%) are at the top. In the 60-70% range come the British, German and Danish areas. Since 2001, Flanders has been last in the benchmark ranking, although the elderly employment rate in Flanders increased from 25.0% in 2001 to 42.9% in 2013. This means that the other areas in the benchmark also made efforts to level up that indicator.
Still, in the ranking of all 134 EU regions Flanders was able to improve its position from 117th in 2001 to 91st in 2013, mainly by overtaking some Greek, Spanish, Romanian and Southern Italian regions.

Luxembourg and the whole of Belgium have a lower elderly employment rate. The other neighbouring countries do not, especially not Germany (63.5%) and the Netherlands (60.1%).

There is quite a remarkable spread of this indicator over the surrounding regions. The British South East (64.6%) and Nordrhein-Westfalen (60.3%) perform best. Nord–Pas-de-Calais and Wallonia do not reach the 40% threshold. The Brussels-Capital Region (43.6%) performs a bit better than Flanders.

Graph 8: Employment rate 20-54 years (%) and employment rate 55-64 years (%), Flanders and the benchmark regions, 2013



Source: Eurostat, Research Centre of the Government of Flanders.

Part-time employment accounts for 25.1% of total employment in Flanders in 2013. Most benchmark regions have a somewhat higher share, notably Zuid-Nederland (50.1%). On the other hand, part-time employment is rather low in Manner-Suomi (15.0%). Throughout the years, part-time employment has increased everywhere.

The share of part-time employment differs quite a lot in the different neighbouring countries. Whereas the Netherlands have a very high share (50.8%), this share is much smaller in France and Luxembourg (less than 20%). The same goes for the surrounding regions. There is a huge difference between Zuid-Nederland and Nord–Pas-de-Calais. The other regions fall somewhere in-between.

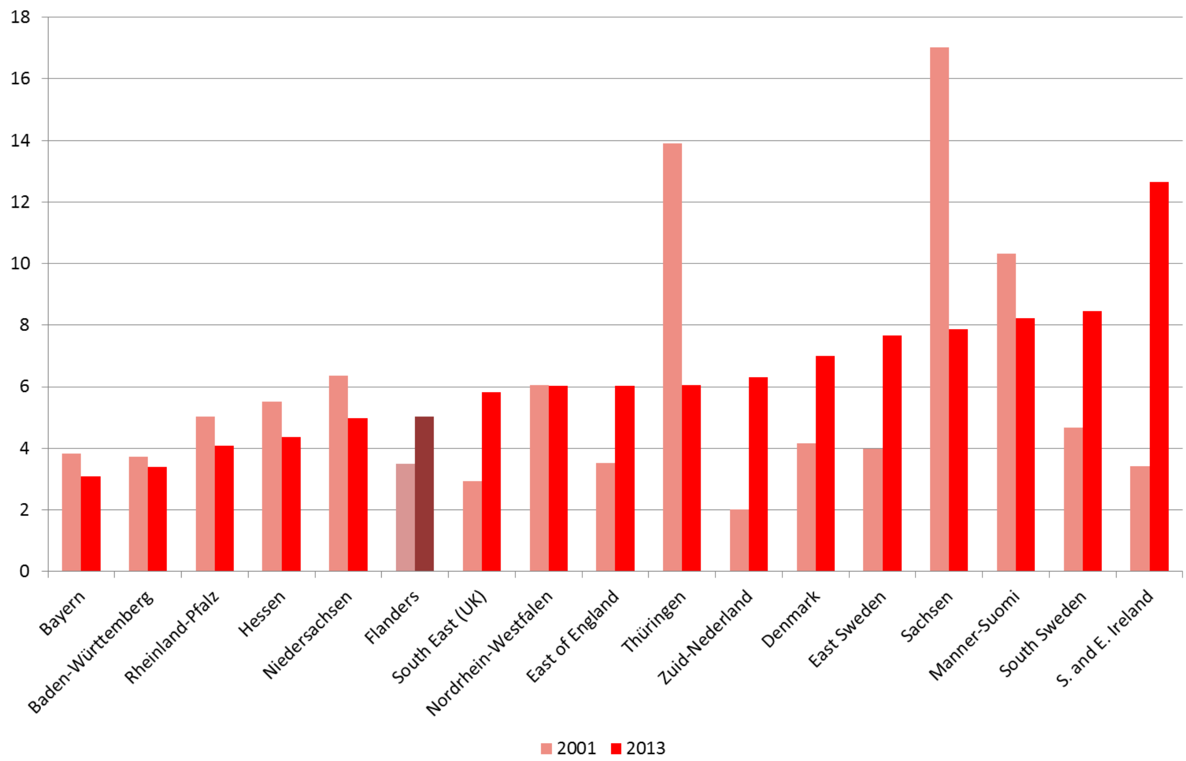
The **average number of usual weekly hours** in the (main) job amounts to 37.6 in Flanders in 2013. This is the highest number of all benchmark regions. Zuid-Nederland scores particularly low (30.0 hours). However, this is related to the high share of part-time work in that region. In 2001, the average number of hours was slightly higher in Flanders (38.1). Still, Flanders ranked 3rd at the time. When comparing all 134 EU regions, Flanders' performance is not all that prominent (49th), since the average number is higher in several regions of the Mediterranean area and in the new member states.

All the surrounding countries have a lower average number of weekly hours. In France, this number is only slightly lower (37.5). Flanders has the highest score with respect to the regions in its vicinity.

The Flemish **unemployment rate** amounts to 5.0% in 2013. This put Flanders in 6th position among the benchmark regions, preceded by five German Länder, of which Bayern (3.1%) and Baden-Württemberg (3.4%) have the lowest rates. Unemployment is particularly high in Southern and Eastern Ireland (12.6%). In 2001, the Flemish unemployment rate was 3.5%, which put Flanders in 4th place. The list of top regions was very different at the time: the British benchmark areas as well as Zuid-Nederland and Southern and Eastern Ireland had the lowest rates. Most German benchmark Länder scored mediocre in 2001. Sachsen (17.0%) and Thüringen (13.9%) even performed very poorly.
Flanders does well within the broad ranking of all 134 areas (11th in 2013).

Neither Belgium as a whole nor the neighbouring countries have a lower unemployment rate (table 2). With respect to the surrounding regions Flanders scores the lowest as well. The unemployment rate is particularly high in the Brussels-Capital Region (19.2%), Nord–Pas-de-Calais (14.7%) and Wallonia (11.3%).

Graph 9: Unemployment rate, Flanders and the benchmark regions, 2001 and 2013, in %



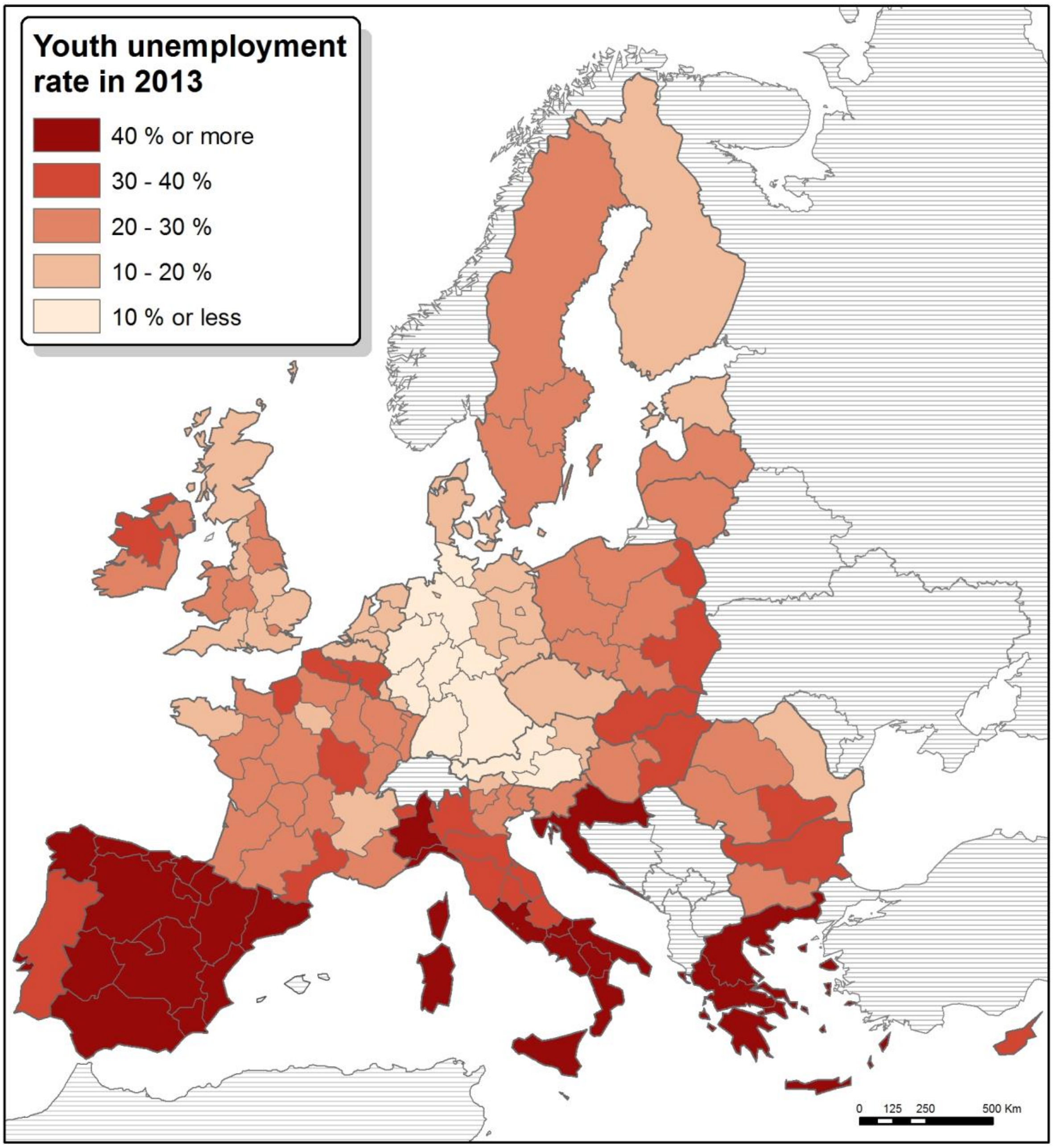
Source: Eurostat, Research Centre of the Government of Flanders

The **male unemployment rate** in Flanders totals 5.1% in 2013, which is slightly more than the **female unemployment rate** (5.0%). The best performing regions are once again the German ones.

The **youth unemployment rate** in Flanders amounts to 16.6% in 2013. In this context Flanders is ranked 11th on the list of benchmark areas, which is less good than for the overall indicator. The

lowest rates are recorded in the German Länder, Denmark and Zuid-Nederland. The highest youth unemployment rate is reported in Southern and Eastern Ireland (25.5%).The Swedish and Finnish regions also score well above 20%. In Flanders the rate increased by 3.8 percentage points from 2012 to 2013, which is the strongest increase of all benchmark regions. Furthermore, the indicator almost doubled in Flanders from 2001 to 2013. Flanders never excelled: in 2001, it was in 12th position. The evolution in Southern and Eastern Ireland is remarkable: in 2001 it was one of the better performing regions with 5.8%.
In the ranking of all 134 EU regions Flanders is 27th, which is well within the first quartile of best performing regions. The Spanish and Greek regions are hit the hardest.

Map 4: Youth unemployment rate in 2013



Source: Eurostat, Research Centre of the Government of Flanders.

In comparison with the countries surrounding us, Flanders performs less well: only France (24.9%) and Belgium (23.7%) have a higher youth unemployment rate. In the neighbouring regions youth unemployment is particularly high in the Brussels-Capital Region, Nord–Pas-de-Calais and Wallonia (30-40%). This contrasts sharply with Nordrhein-Westfalen and Zuid-Nederland (roughly 10%).

The **long-term unemployment rate** (longer than one year) is not particularly high in most benchmark regions. Flanders (1.6% in 2013) ranks 8th, but the difference with better performing regions is not big (1.1% both in Baden-Württemberg and Bayern). In Southern and Eastern Ireland, however, long-term unemployment is a bigger problem (7.5%). To a lesser extent this is also the case for the two former GDR areas on the benchmark list. This indicator has not changed much in Flanders since 2001, neither in absolute nor in relative terms.
In the ranking of all EU regions, Flanders occupies 12th place.

The long-term unemployment rate is higher in the whole of Belgium, as well as in the countries surrounding us. In comparison to the regions in the vicinity, Flanders has the lowest value, together with the British South East. Long-term unemployment is particularly higher in the Brussels-Capital Region (10.9%). To a lesser extent this is also the case for Nord–Pas-de-Calais (7.2%) and Wallonia (5.8%).

Table 2: Employment rate and unemployment rate, EU28, Flanders and the surrounding countries and regions, 2013, in %

Geographical area	Employment rate	Unemployment rate
EU28	68.3	10.8
Flanders	71.9	5.0
SURROUNDING COUNTRIES		
Belgium	67.2	8.4
Germany	77.1	5.3
France	69.1	10.3
Netherlands	76.5	6.7
Luxembourg	71.1	5.8
BENELUX	*72.7*	*7.3*
SURROUNDING REGIONS		
Wallonia	62.3	11.3
Brussels-Capital Region	56.8	19.2
Zuid-Nederland	75.8	6.3
Nordrhein-Westfalen	74.1	6.0
Nord-Pas-de-Calais	62.7	14.7
South East (UK)	79.0	5.8
INTERREGIONAL AREA	*72.4*	*7.2*

Source: Eurostat, Research Centre of the Government of Flanders.

4. INNOVATION

Five steps[4] can be distinguished In the innovation process, which reflect the different stages. In order to start innovation a region must have a well-educated workforce and workers must be able and willing to learn new techniques at work. This is an important prerequisite for the actual research and development. However, this can only be turned into welfare if the knowledge is implemented in products and services that can be sold. Entrepreneurship thus constitutes an essential part of the process. That is why a sufficient number of people must be working in knowledge-intensive or creative sectors. Finally, patents are the last step in the process: they ensure that the created knowledge will remain the property of the inventor for a sufficiently long period of time for him to be able to earn money from it.

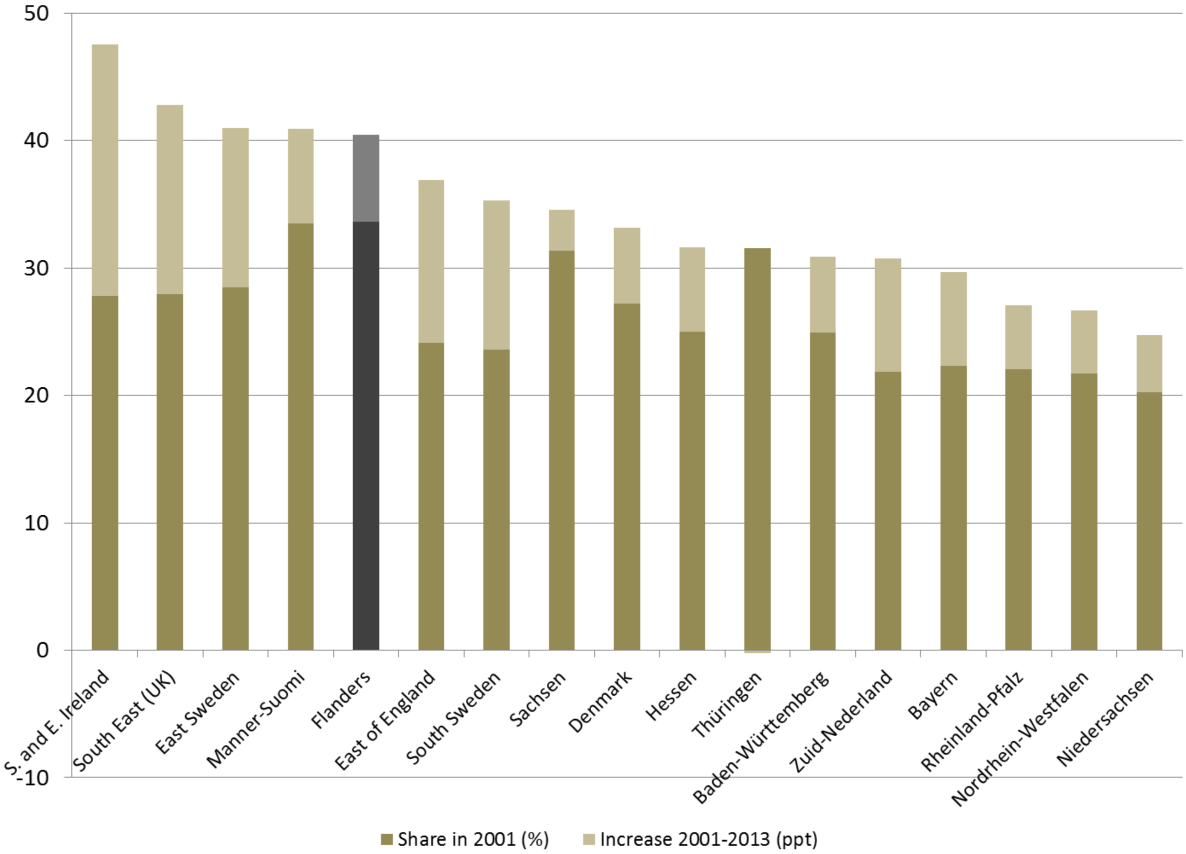
4.1. Prerequisites to innovation

Flanders has a **well-educated workforce**, which is a direct result of its well-developed education system. In 2013, 40.5% of the (residing) workforce had had tertiary education. This puts Flanders in 5th position on the benchmark list. Southern and Eastern Ireland is the top region in this respect (47.5%). Furthermore, the British South East, East Sweden and Manner Suomi all score above the 40% threshold and higher than Flanders. The lowest shares are found in the German Länder and Zuid-Nederland, with Niedersachsen at the bottom (24.7%). Throughout the years the share of the tertiary-educated workforce increased in Flanders (graph 10). It was 33.6% in 2001. At the time Flanders ranked 1st. With the exception of the German and Danish regions, all other areas have indeed increased their share more strongly than Flanders since 2001, especially Southern and Eastern Ireland (+19.8 percentage points).
In the ranking of all the European regions Flanders ranked 22nd in 2013, which is quite good. Still, it performed better in 2001 (8th). Some Spanish regions, Ireland and the Greek Attiki in particular have overtaken Flanders.

Of the countries surrounding us, Luxembourg and Belgium have a somewhat higher value for the education indicator. Germany scores rather low (29.3%). As far as the neighbouring regions are concerned, the Brussels-Capital Region has the highest share of tertiary-educated workers (51.9%). The British South East also scores well (42.8%), together with Flanders. Wallonia (39.8%) and Nord–Pas-de-Calais are close behind. There is a gap with Zuid-Nederland (30.4%) and Nordrhein-Westfalen (26.6%).

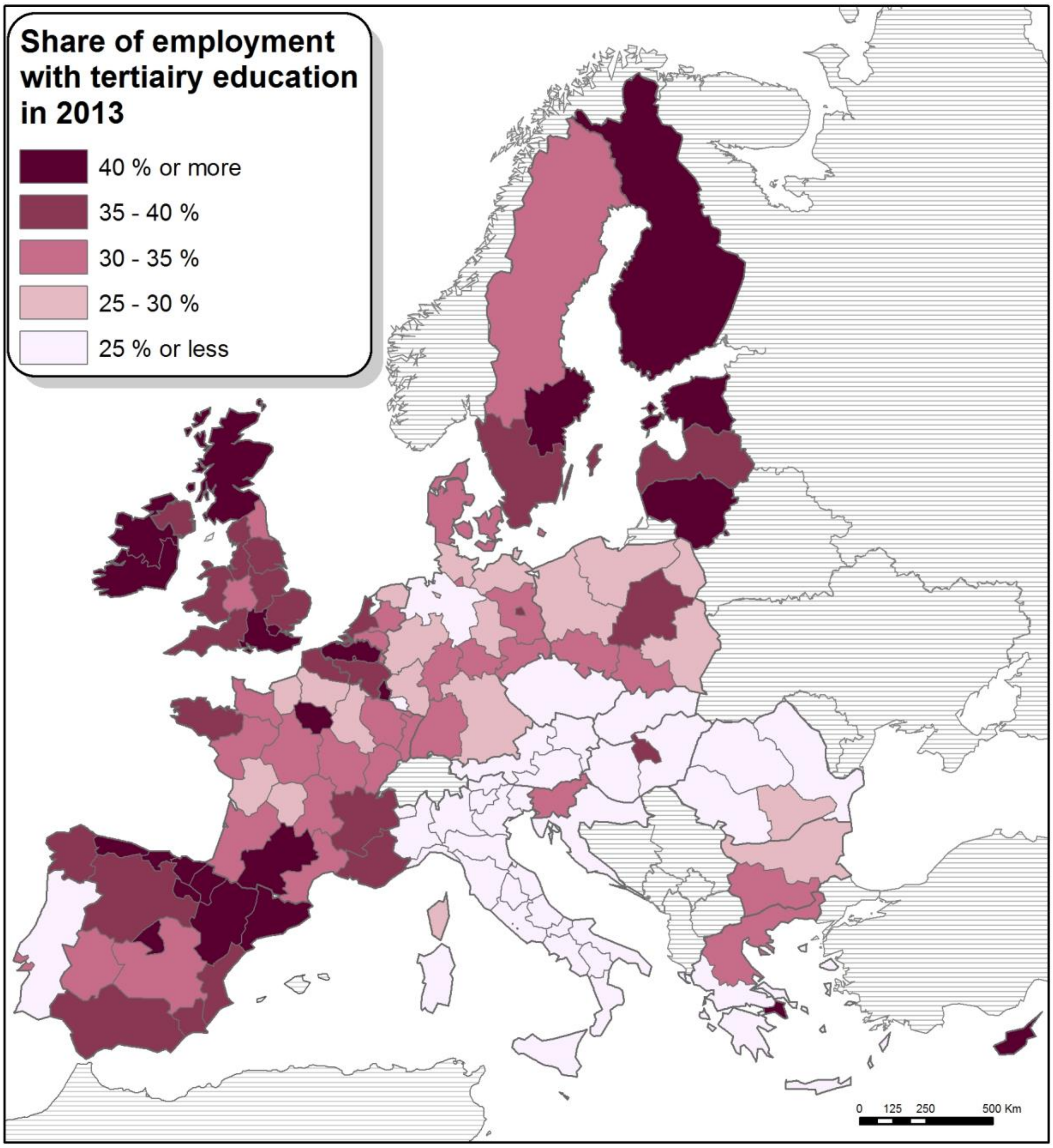
4 Inspiration was found in the European Innovation Scoreboard and the reports on economic and social cohesion of the European Commission.

Graph 10: Share of the workforce with tertiary education in 2001 (%) and increase over 2001-2013 period (percentage points), Flanders and the benchmark regions



Source: Eurostat, Research Centre of the Government of Flanders.

Map 5: Share of employment with tertiary education in 2013



Source: Eurostat, Research Centre of the Government of Flanders.

Flanders performs more poorly in terms of **lifelong learning**. In 2013, 7.1% of the adult population participates in lifelong learning. Together with Niedersachsen and Nordrhein-Westfalen Flanders has the lowest share. Lifelong learning is clearly more widespread in the Scandinavian benchmark areas, with a quarter to almost one third of the adult population participating in it. In second place come Zuid-Nederland and the British regions (15-20%). The German Länder, as well as Southern and Eastern Ireland, all score lower than 10%. In 2002, Flanders was 9th, before most German regions.

With respect to all 134 EU regions Flanders occupies 85th place, which is well within the bottom half. This is a clear deterioration compared to 2002 (33rd).

Belgium as a whole has a somewhat lower value (6.7%). The other surrounding countries have a higher share, especially France, the Netherlands and Luxembourg. With the exception of

Wallonia (5.3%) and Nordrhein-Westfalen (equal to Flanders), all neighbouring regions participate more in lifelong learning than Flanders.

4.2. Creation of knowledge

The Flemish Centre for Research and Development Monitoring calculated Flanders' total **expenditures for research and development (R&D)** at 2.42% of GDP in 2012, of which 1.62 ppt came from the private sector (business) and 0.80 ppt from the public sector (government, higher education and non-profit).

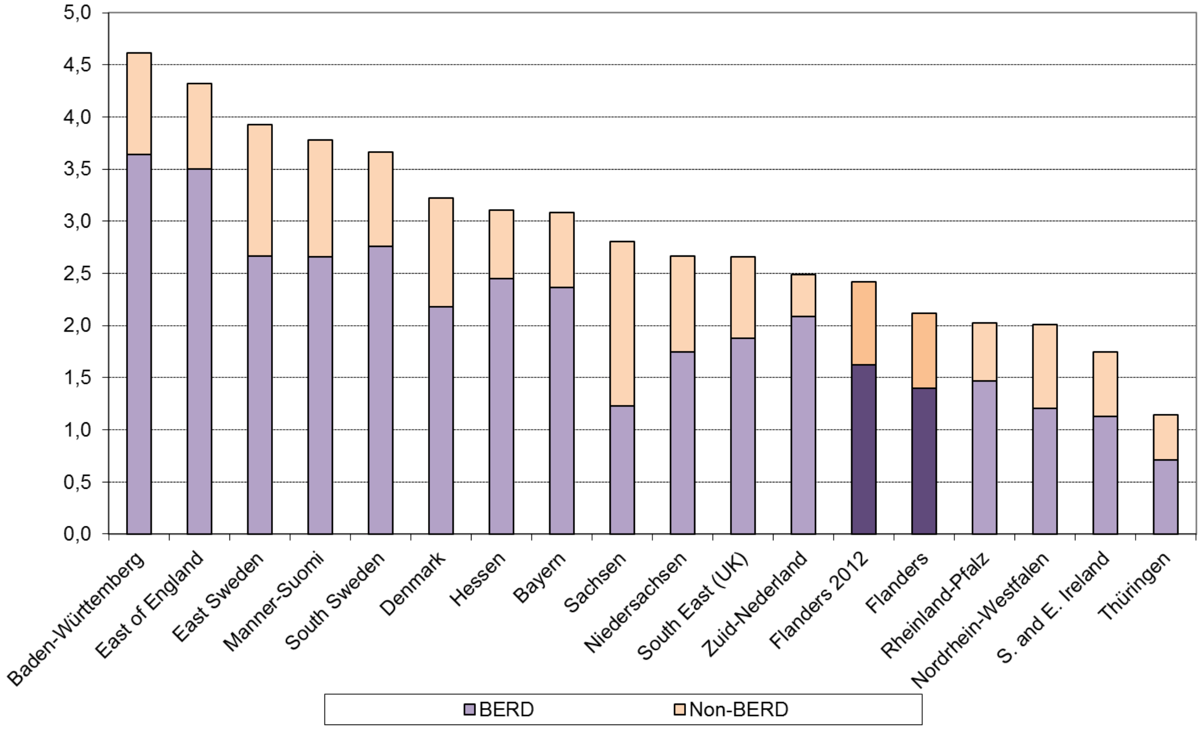
According to Eurostat data for 2011, Flanders was 13th among the benchmark regions. This may seem rather mediocre, but R&D expenditures play an important role in the benchmark exercise: regions are chosen as benchmark areas because they score highly on innovation variables. Baden-Württemberg is the top region (4.62%), closely followed by the East of England (4.32%). Eight of the seventeen benchmark regions have a ratio of more than 3%. Thüringen scores the lowest (1.14%). Together with Southern and Eastern Ireland it is below the 2% threshold. Nowadays, Flemish R&D expenditures are a bit higher than in the early 2000s. In 2006 and 2007 there was a dip, when the indicator dropped below the 2% threshold. Since then there has been an increase again. In 2001, Flanders ranked 12th. One year later and up until the last figure for 2011 it has been in 13th place. Thüringen was also last in 2001 (barely 0.25%). Nevertheless, it has recorded the strongest increase since.
Compared to all EU areas, Flanders ranked 29th in 2011, which is within the first quartile of best performing regions. Apart from many German Länder and Scandinavian regions, Austria, some French, British and Dutch regions, as well as Wallonia performed better in 2011. Estonia, Lisbon and Slovenia are three regions that reported a rapid increase in their R&D percentage over the past years to a level which was higher than that of Flanders in 2011.

Of the countries in Flanders' vicinity, Germany (2.80%) and France (2.24%) had a higher R&D intensity in 2011. In comparison to the neighbouring regions, the British South East, Zuid-Nederland and, to a lesser extent, Wallonia score higher than Flanders, albeit less than 3%. This indicator is relatively low in Nord–Pas-de-Calais (0.82%).

Research and development can be financed by the business sector (business expenditures on research and development or BERD), the government, higher education institutions or the not-for-profit sector. The last three sources are called non-BERD.
In Flanders, 66.3% of R&D expenditures stemmed from BERD and 33.7% from non-BERD in 2011. In most other benchmark regions, the BERD share is higher, notably in Zuid-Nederland (83.9%) and East of England (80.9%). Sachsen is the only benchmark area with a larger non-BERD share (56.4%).

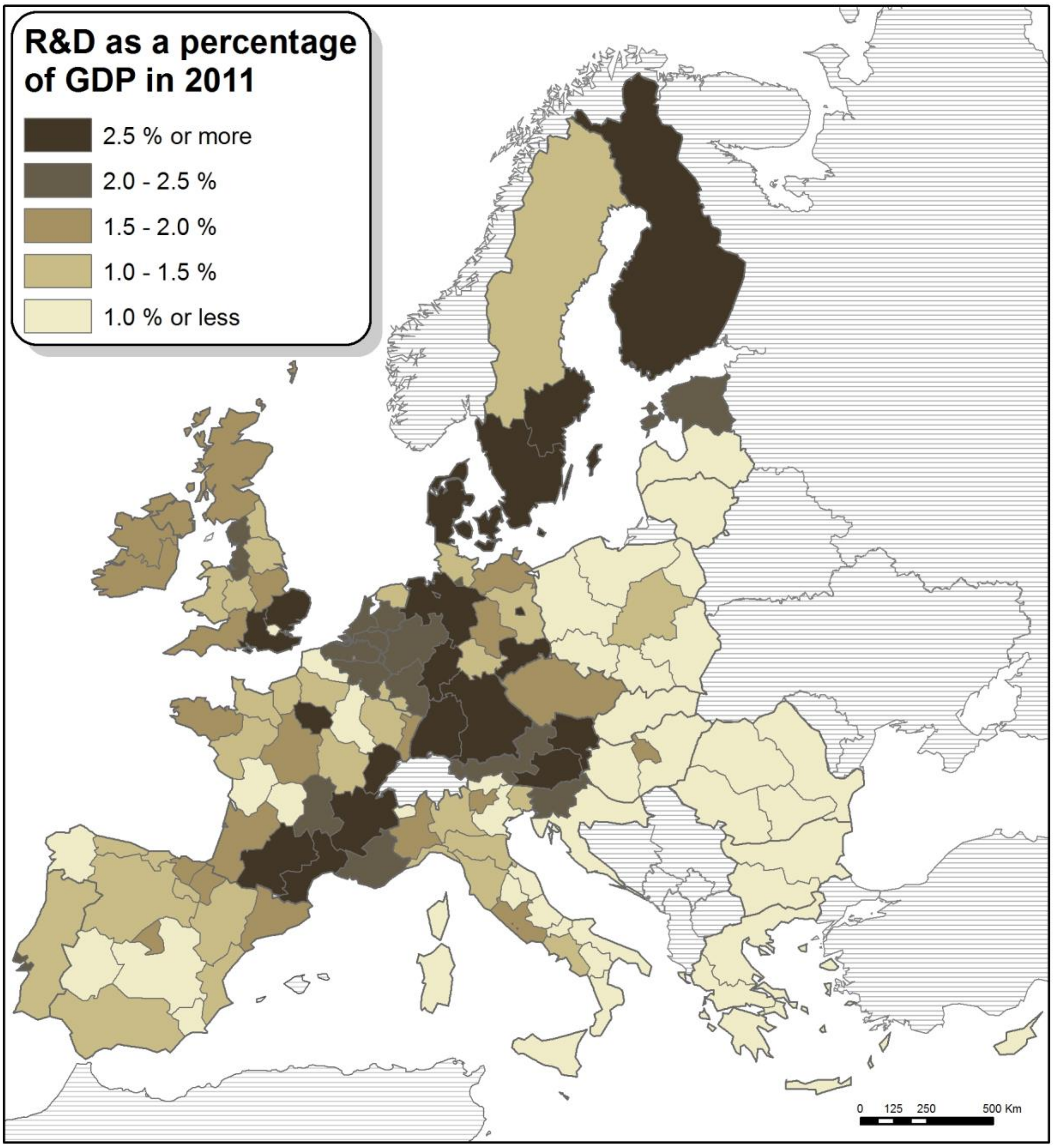
In all the surrounding countries as well BERD is de dominant financing factor of R&D, albeit it less so in the Netherlands as a whole (52.2%). The same goes for the neighbouring regions. Yet, in Nord–Pas-de-Calais (50.9%) and the Brussels-Capital Region (52.1%) the BERD share barely surpasses the non-BERD share.

Graph 11: R&D expenditures, Flanders and the benchmark regions, 2011, as a % of GDP



Source: Eurostat, Research Centre of the Government of Flanders.

Map 6: R&D as a percentage of GDP in 2011



Source: Eurostat, Research Centre of the Government of Flanders.

4.3. Innovation and entrepreneurship

In 2013, the European Commission developed a new index to measure entrepreneurship on a regional scale (Szerb et al, 2013). According to the Commission there is a shift from a 'managed' economy towards an 'entrepreneurial' economy. This is revealed by the growing importance of knowledge as a production factor, the role of individuals rather than large firms in the creation of knowledge, the significance of new and small firms in the renewal of the economic structure and the need for a much broader entrepreneurship policy complementing a traditional industrial policy.

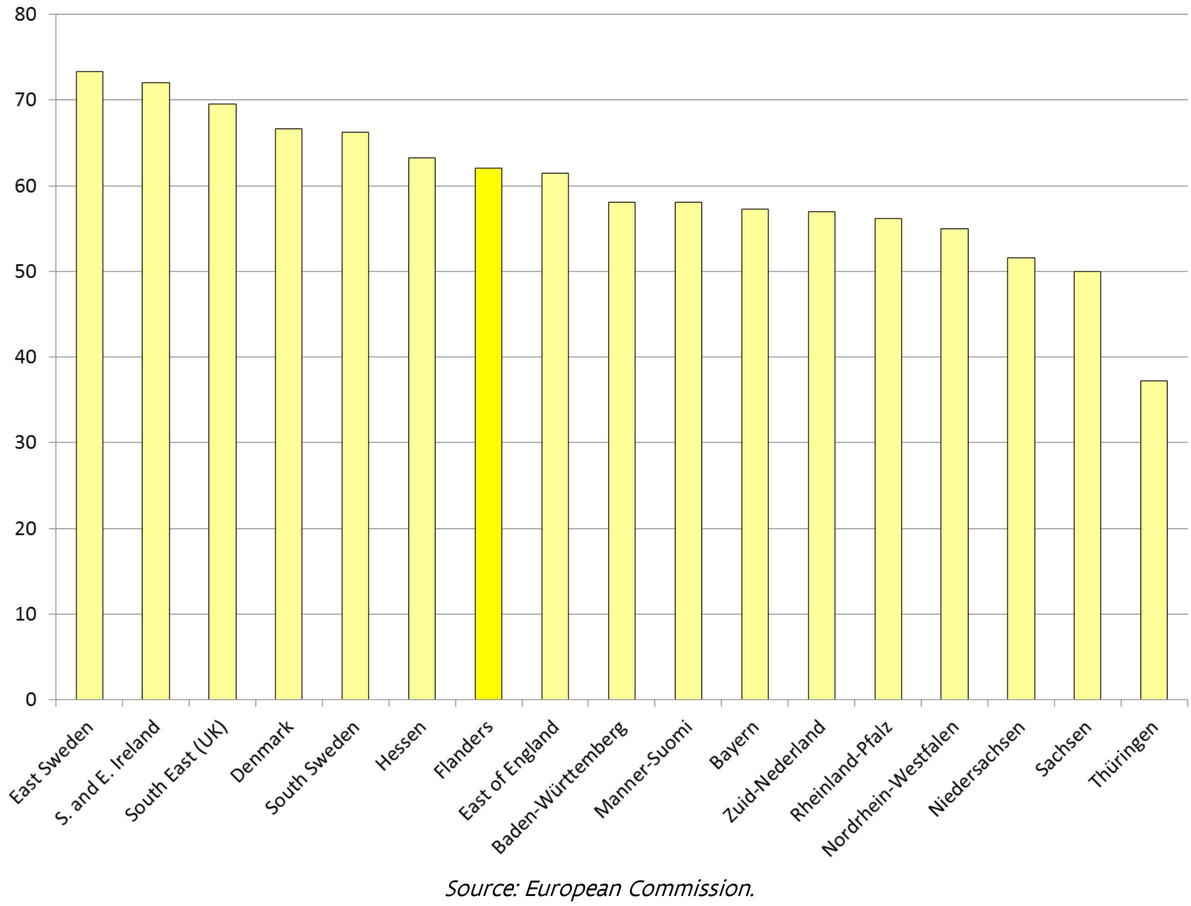
The composite index of the European Commission treats entrepreneurship as a systemic phenomenon. It thus incorporates entrepreneurial actions of individuals as well as the country and/or regional context. The variables pertaining to the individual are based on pooled data from the Global Entrepreneurship Monitor (GEM) from the period 2007-2011. The institutional

variables, on a country and regional level, are from different sources, like Eurostat, the United Nations, the World Bank, the OECD, etc.
The final index, or **regional entrepreneurship and development index (REDI),** consists of different individual and institutional variables ranged according to three pillars:
entrepreneurial attitudes (cultural support, opportunity perception, skills…),
entrepreneurial abilities (human capital, technology adoption,….),
entrepreneurial aspirations (financing, product and process innovation,….).
The different variables of the REDI are normalised with a maximum of 100%.

The REDI for Flanders amounts to 62.1%. This puts Flanders in 7th place among the benchmark regions. East Sweden and Southern and Eastern Ireland are the top regions (70-75%). Eight of the seventeen regions score higher than 60% (including Flanders) and – with the exception of Thüringen (37.2%) – none of the areas in the benchmark have a REDI lower than 50%.
A broad ranking cannot be established due to some lacking data. Nevertheless, capital areas seem to have the highest REDI scores. This indicator is quite low in many Mediterranean and Eastern European areas.

Country data are also lacking. Of the surrounding regions, the British South East (69.5%) and the Brussels-Capital Region (64.9%) have the highest entrepreneurship and development index, followed by Flanders. Nord–Pas-de-Calais brings up the rear (48.8%).

Graph 12: Regional Entrepreneurship and Development Index (REDI), Flanders and the benchmark regions, 2007-2011, in %



Source: European Commission.

4.4. Application of innovation

For an economy to be innovative, a sufficient number of **people must be working in knowledge-intensive companies or branches**. These are characterised by a high R&D percentage with respect to turnover. It concerns companies in the medium-high-tech or high-tech industry or high-tech services (e.g. construction of telecommunication equipment, chemistry, computers, electrical appliances, research,…). From 2008 onwards, the definition has started to use the new NACE_2008 classification of branches. A comparison in time will therefore begin in 2008.

In 2013, 8.9% of the Flemish workforce works in **knowledge-intensive branches**[5]. This puts Flanders in 13th position on the benchmark list (graph 13). The eight German Länder in the comparison all belong to the top, with Baden-Württemberg (18.7%) and Bayern (15.5%) performing best. Zuid-Nederland has the lowest share (6.9%). Most regions had a higher percentage in 2008. At that time, Flanders ranked 12th with 9.7%.
Compared to all 134 EU regions, Flanders was in 40th place in 2013, well within the second quartile. Many German Länder, as well as regions in the Czech Republic, Hungary, Slovenia, Slovakia and some Spanish and Italian regions have the highest share of people working in knowledge-intensive branches. Since 2008, Flanders has lost some terrain (31st at the time).

Of the surrounding countries, Germany has the highest score (12.1%). The other countries have a lower share than Flanders, especially Luxembourg (4.6%). Of the neighbouring regions Nordrhein-Westfalen has the highest share (10.6%), followed by Flanders and the British South East (both 8.9%). Nord–Pas-de-Calais lags behind (5.3%).

Flanders performs relatively better in the subcategory of **medium-high-tech and high-tech industry**, occupying 9th place with 5.5% in 2013. The German Länder take the lead, even more clearly than in the broader category of knowledge-intensive branches, whereas East Sweden and the British South East are found at the bottom. The (medium)-HT industrial share of Flanders is diminishing; it was 9.7% in 2008. Still, this is also the case in most other benchmark areas.
As far as the surrounding countries and regions are concerned, Germany and Nordrhein-Westfalen have the highest share in (medium)-high-tech industry.

Flanders ranks 8th in terms of **knowledge-intensive services** (13.4% in 2013), which comprise high-tech, market and financial services. The top ranking consists of East Sweden (20.9%), the British South East (18.7%) and Southern and Eastern Ireland (17.8%). The German regions perform more poorly, with the exception of Hessen (15.5%). Thüringen (7.2%) and Sachsen (9.4%) have the lowest shares.
Among the neighbouring countries, the high share of Luxembourg is striking (24.9%).

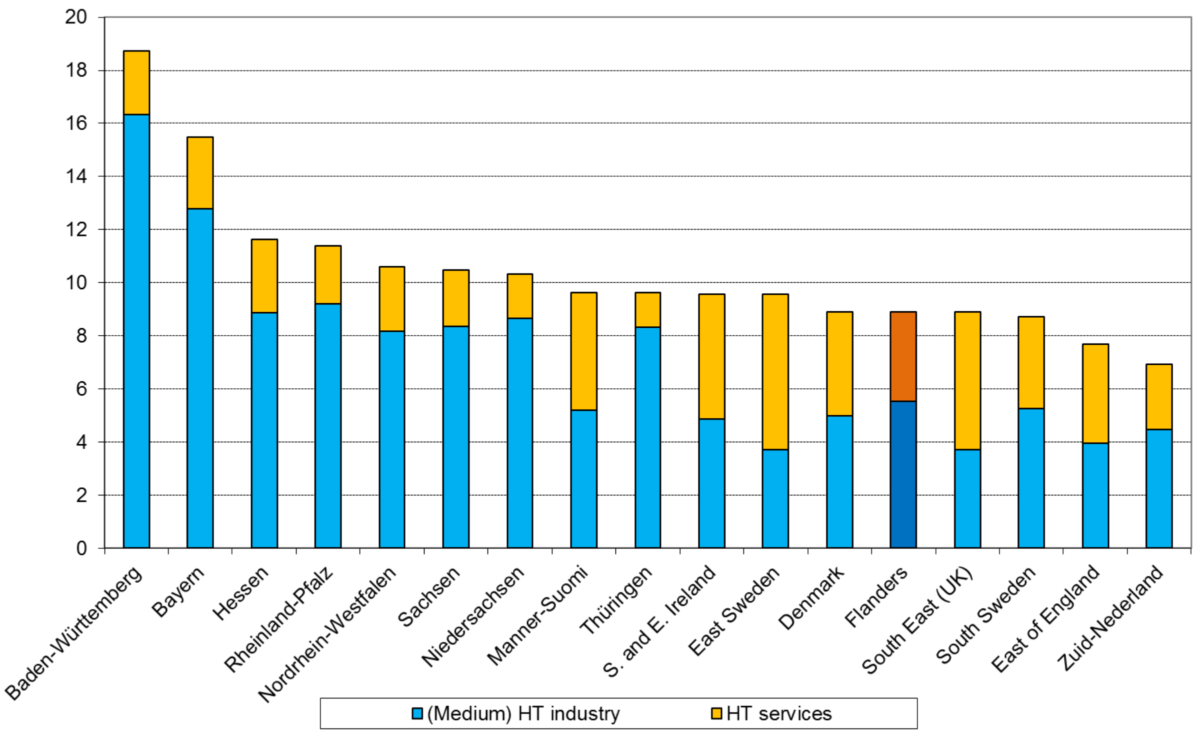
- In the subsector of **high-tech services** Flanders was in 8th place in 2013 (3.4%). East Sweden (5.8%) and the British South East (5.2%) are specialised in this area, whereas Thüringen (1.3%) and Niedersachsen (1.6%) are not. Flanders' share has increased (2.9% in 2008), but so has that of the other regions. Flanders' position has thus not changed much since 2008.
- **Knowledge-intensive market services** account for 6.6% of the Flemish workforce. This puts Flanders in 9th place. This category is clearly more represented in East Sweden (12.1%). Furthermore, the other British and Swedish areas, as well as Zuid-Nederland, have a relatively high share (8-9%). Most German regions are not specialised in this area.

[5] These are the medium high-tech industry, the high-tech industry and the high-tech services.

Flanders has been able to increase its share of knowledge-intensive market services since 2008 (5.5%) and has consequently improved its ranking (12th in 2008).

- Finally, as far as **financial services** are concerned, Flanders is also somewhat in the middle of the list (3.4% in 2013, or 7th place). The top regions are Southern and Eastern Ireland (5.5%) and Hessen (5.4%). The latter is owing to the presence of Frankfurt (ECB). South Sweden, Manner Suomi and Thüringen have the lowest shares (less than 2%). Flanders' share has decreased slightly over time (3.9% in 2008, which was 5th place at the time). The result for Luxembourg (12.4% in 2013) is also worth mentioning.

Graph 13: Share of knowledge-intensive workers, Flanders and the benchmark regions, 2013, in %



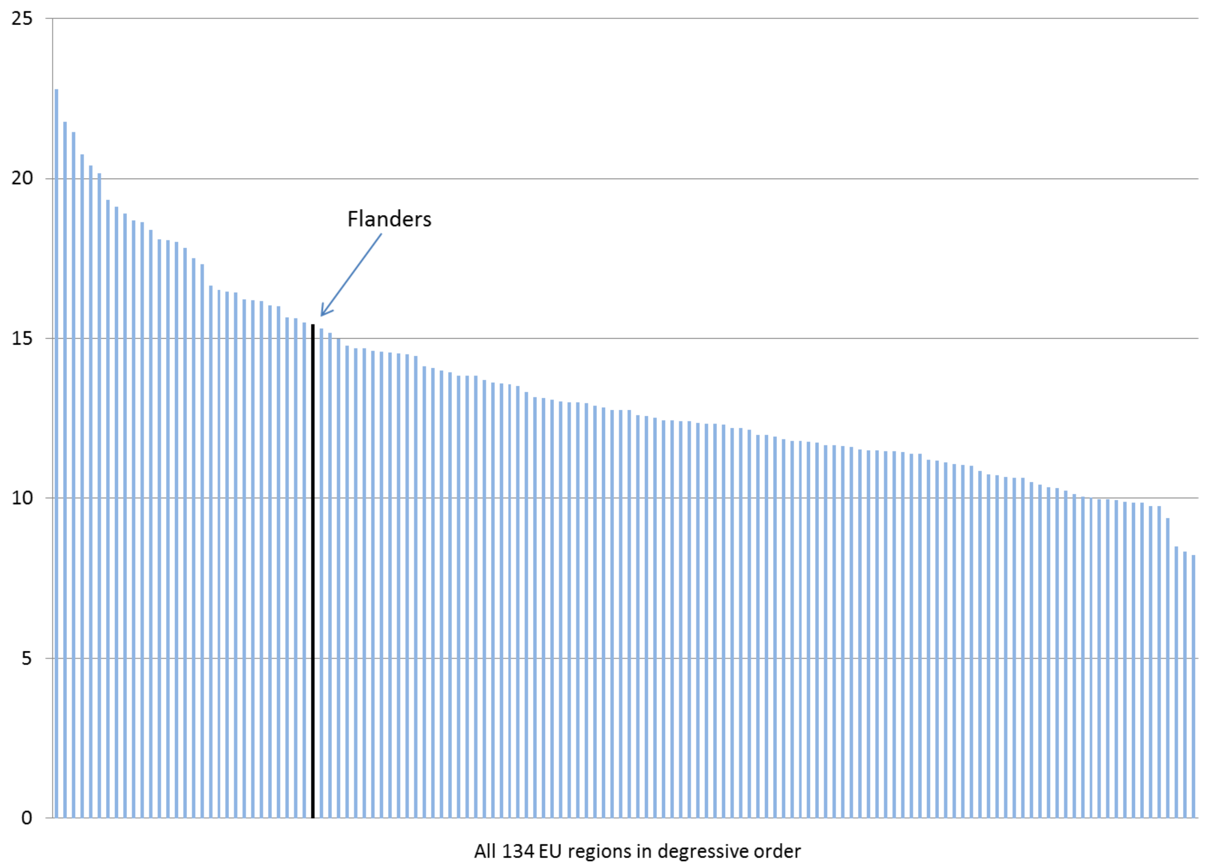
Source: Eurostat, Research Centre of the Government of Flanders.

Creative industries are important for regions that aspire further economic development beyond the limits of efficiency enhancement.
As indicated earlier, an economy needs entrepreneurs and workers who develop ideas and who turn them into practical appliances. In this context particular attention is to be devoted to the work of material designers and non-material work, as produced by artists.
From this edition of Flanders Outlook onwards, the definition of creative industries has been refined (Falk, 2011, 18). It now takes into account physical science professionals, health and life science professionals, teaching professionals, librarians & archivists, social science professionals, creative and performing artists, artistic and sport professionals, fashion models,....

In 2013, 15.4% of the Flemish labour force is thus working in creative industries (new definition). Flanders ranks 8th on the benchmark list. The highest ratios are found in the Scandinavian and British areas, with East Sweden at the top (21.4%). The German Länder and Zuid-Nederland are behind with data in the range of 11-14%. In 2011, the nomenclature of professions was updated. As a consequence, a comparison with previous years is not straightforward.
In the broader raking of all EU regions, Flanders is in 31st (graph 14) position. Capital areas usually score best.

Flanders' performance is mediocre in comparison to its neighbouring countries. Luxembourg, the whole of Belgium and the Netherlands have higher values, contrary to France and Germany. With respect to the surrounding regions, the Brussels-Capital Region has the highest percentage of workers in creative industries (20.4%), followed by Wallonia (18.9%) and the British South East (18.4%). Nordrhein-Westfalen has the lowest (13.1%) percentage. Finally, Nord–Pas-de-Calais and Zuid-Nederland also have quite low percentages (14-15%).

Graph 14: Ranking of all 134 EU regions according to employment in creative industries and position of Flanders in 2013 (%)



Source: Eurostat, Research Centre of the Government of Flanders.

4.5. Intellectual property

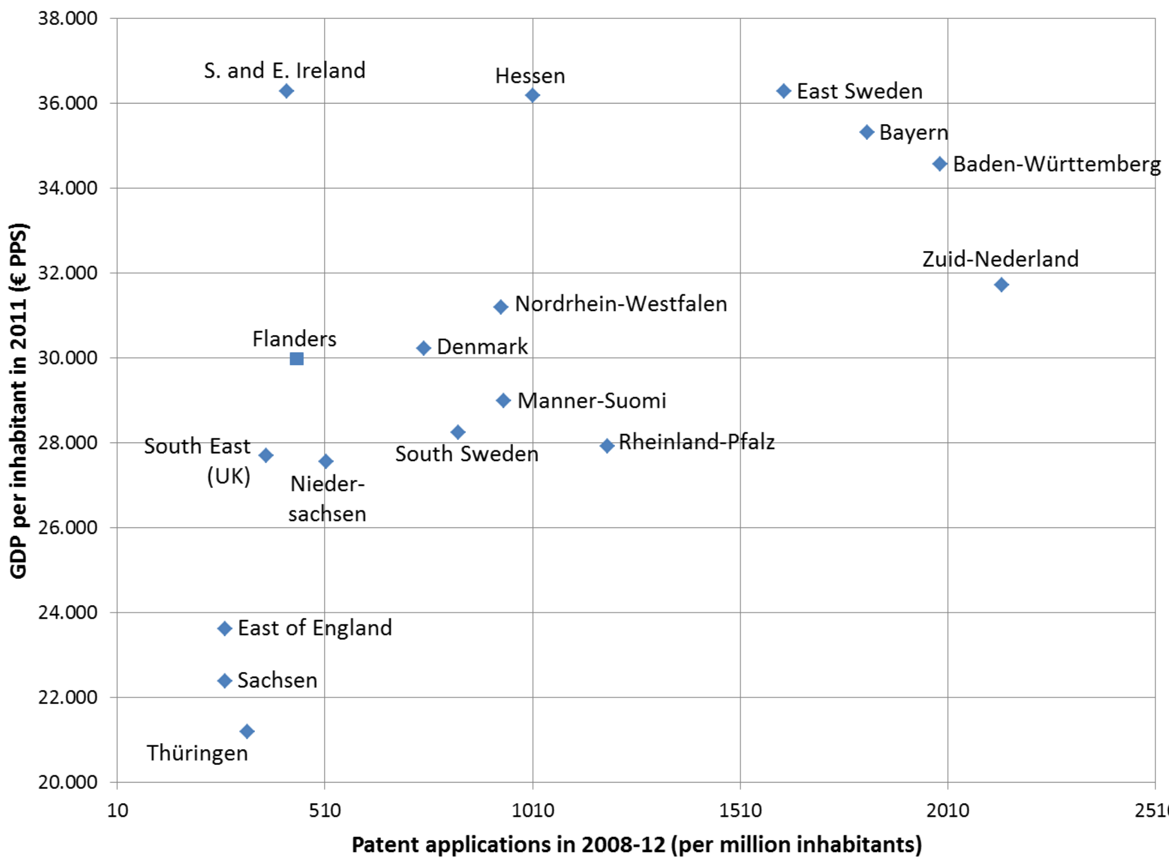
The final step in the innovation process is the **patent application**. Technology and knowledge creation are conducive to economic growth and welfare (graph 15). However, not all research results in a patent application. Therefore, caution is to be exercised when interpreting these data. The data used in the analysis pertain to the period 2008-2012.

According to the Flemish Centre for Research and Development Monitoring Flanders counts 443 patent applications per million inhabitants over the period 2008-2012. This puts Flanders in 12th position among the benchmark regions. The top region is Zuid-Nederland (2.140), followed by Baden-Württemberg (1.991), Bayern (1.815) and East Sweden (1.616). The lowest numbers of patent applications are recorded in Sachsen and Thüringen (271 and 322) and in the British benchmark areas, East of England and South East (269 and 370). Southern and Eastern Ireland (418) lags just behind Flanders.

In the list of all 134 EU regions, Flanders is ranked 26th, which is well within the first quarter of best performing regions.

Flanders has fewer patent applications than Belgium as a whole and all the neighbouring countries. In comparison to the surrounding regions, the good performance of Zuid-Nederland is striking (see before). The Brussels-Capital Region (1.199) and Nordrhein-Westfalen (934) are also performing well. The number of patent applications is relatively low in Nord–Pas-de-Calais (106) and Wallonia (289).

Graph 15: GDP per inhabitant in 2011 (euro PPS) and number of patent applications in 2008-2012 (per million inhabitants), Flanders and the benchmark regions



Source: Eurostat, Centre for Research and Development Monitoring, Research Centre of the Government of Flanders.

5. TOPIC: DETERMINATION OF A NEW SET OF BENCHMARK REGIONS

5.1. Introduction

Flanders Outlook aims to monitor the process implemented by Flanders to reach the top of the European regions. To that end, the Research Centre of the Government of Flanders carries out a benchmark of Flanders with respect to other European regions. These are 134 areas of the NUTS1 or NUTS2 territorial classification, depending on the scale of the region concerned.

First of all, it should be defined what is to be understood by “top regions”. The three stages of economic development serve as the basis for this:

- Factor-driven growth: growth is realised through the mere implementation of the production factors “labour” and “capital”.
- Efficiency-driven growth: once the production factor resource has been more or less depleted, surplus returns can be realised through efficient ways of production.
- Innovation-driven growth: even efficiency cannot be enhanced indefinitely. Further growth is made possible at this stage through innovative appliances and creativity.

Flanders is a well-developed region and belongs to the category of innovation-driven regions. Therefore, the benchmark regions are chosen on the basis of their even bigger innovative potential. This will be done using certain indicators that are representative of innovation or, more precisely, of the stage of innovation-driven growth.
Capital regions need be considered in a distinctive way as they generally score high on the innovative indicators. This is due to their specific economic structure (head offices of large companies, business services, administrative services,...).

The exercise of determining the benchmark regions is done once every five years (coinciding with the installation of a new government of Flanders) and therefore requires updating now.

5.2. Method

Up till now, the method of principal components was used to determine the benchmark regions. In doing so, a linear combination of two main components of a set of innovative indicators served as an index by which the innovative score of each region was calculated.

From the current edition onwards, the benchmarking will be based on the “Regional Innovation Scoreboard” (RIS) of the European Commission (Porras & Jerzyniak, 2014). The recent version of this RIS has been published in 2014. Previous editions were issued in 2002, 2003, 2006, 2009 and 2012.

The RIS derives from the Innovation Union Scoreboard, which describes the **innovation performance of EU countries**. The key measure on the country level is the Summary Innovation Index. This index includes indicators on the level of innovation enablers (human resources, scientific publications, public R&D,...), business activities (private R&D, innovating SMEs, patents,...) and innovation outputs (product & process innovation, employment in knowledge-intensive sectors,...).

The Commission recognises the need to study innovation on a **regional level**. Indeed, according to economic literature, innovation is not distributed uniformly between regions. It tends to be spatially concentrated over time. Even regions with a similar innovation capacity have different growth patterns (Porras & Jerzyniak, 2014, 7).

Prior to the selection of RIS indicators, analyses have been carried out concerning the impact of potential drivers of regional innovation. It has been found that regions where people have a stronger positive attitude to new things and ideas have more favourable conditions for entrepreneurship as well as for innovation. Furthermore, it appears that a well-developed system of public support is conducive to innovation in a region. Finally, a shortage of finances is an important hindrance to innovation (Porras & Jerzyniak, 2014, 5).

The RIS has been applied to regions on the NUTS 1 or NUTS 2 level, depending on the availability of data on the particular level within the countries. In case RIS results are on a NUTS 1 level and Flanders Outlook is on a NUTS 2 level, the respective NUTS 1 data would be used for each NUTS 2 concerned (in practice, this never occurred since no such case was labelled as innovation leader, see below). In case RIS results are too detailed (available on a NUTS 2 level, whereas Flanders Outlook uses NUTS 1), the majority of the NUTS 2 areas (on the basis of population numbers) with a particular innovation label determines the classification of the encompassing NUTS 1 region. This was the case for regions in Denmark, the Netherlands, Finland and Sweden.

The RIS is based on the following underlying indicators (Porras & Jerzyniak, 2014, 13):

- Population having completed tertiary education.
- Employment in medium high-tech, high-tech industry or knowledge-intensive services.
- EPO patent applications.
- Business R&D expenditures.
- Public R&D expenditures.
- Product or process innovators.
- Innovative SMEs collaborating with others.
- Marketing or organisational innovators.
- SMEs innovating in-house.
- Non-R&D innovation expenditures.
- Sales of new-to-market and new-to-firm innovations.

The sources used are Eurostat (first five indicators) and the Community Innovation Survey (last six indicators).

In order to compile the RIS, these aforementioned indicators have been normalised so that they are comparable with each other. The RIS is an unweighted average then.

The regions are classified into **four groups** according to their score:

- Leaders have a score of 120% or more with respect to the EU average (= 100%).
- Followers score 90% - 120 %.
- Moderate innovators realise a score between 50% - 90%.
- Modest innovators have a result below 50% of the EU average.

According to this methodology, Flanders is a “follower” in the RIS 2014. However, it is worth mentioning that in earlier editions, Flanders sometimes belonged to the group of leaders (RIS 2004, RIS 2008). The regions that are labelled “**leaders**” are the **benchmark regions** in this Flanders Outlook study (taking into account the necessary conversion of NUTS 2 to NUTS 1 results in some cases, see earlier). There is one exception, however: (capital) city regions are not included (see earlier).

5.3. Results

The list of benchmark regions that will be applied in the current and future editions of Flanders Outlook is:

- Denmark
- Baden-Württemberg
- Bayern
- Hessen
- Niedersachsen
- Nordrhein-Westfalen
- Rheinland-Pfalz
- Sachsen
- Thüringen
- Southern and Eastern Ireland
- Zuid-Nederland
- Manner Suomi (Finland)
- East Sweden
- South Sweden
- East of England
- South-East (UK)

6. CONCLUSION

The list of benchmark regions has been updated in the present edition. This time, 16 regions have been labelled “benchmark region” for Flanders. They are located in Germany, the United Kingdom, the Netherlands, Ireland and the Scandinavian countries.

Flanders enjoys a high level of prosperity. Its GDP amounts to € 33,000 PPS per inhabitant in 2013 (adjusted for commuters). Flanders occupies 6th place on the benchmark ranking. Its position has not changed much over the past decade, which is owing to the fact that the financial and economic crisis has had a comparatively less severe impact on the Flemish economy. Flanders’ performance is the result of a high labour productivity: only two benchmark regions perform better on this indicator. However, Flanders does not excel on the other two factors that are important for the creation of GDP: neither the number of jobs in relation to the population of working age, nor the share of the population of working age are particular assets for Flanders. The net disposable income amounts to € 17,900 PPS per inhabitant in Flanders in 2011. This puts Flanders in 8th position among the benchmark regions, a position which has not changed much over the past years. The former West-German regions and the British South-East score best. Still, Flanders performs relatively well in terms of poverty: only Zuid-Nederland has a lower share of people at risk of poverty.

Real average economic growth was mediocre in Flanders during the 2008-2013 period (+0.4%). This was solely the result of an employment increase. Real labour productivity declined, due to the crisis years. Among the benchmark regions, Bayern and East Sweden had a particularly higher economic growth, because their labour productivity actually contributed to growth.

In comparison to the benchmark regions, Flanders is specialised in ‘administration and business services’ and, to a lesser extent, in ‘trade, transport, hotels and restaurants’ and ‘construction’.

The wage cost per unit of output is rather high in Flanders compared to the benchmark regions. Moreover, its position has worsened over time, due to the improvement of the German areas. On the other hand, the investment ratio is traditionally high in Flanders (22.7% in 2011).

The Flemish employment rate is rather low (71.9% in 2013 or 16th place on the benchmark list). This is mainly because of a low rate in the 55-64 age category. Over time the Flemish employment rate has increased, both in general terms, and in the 55-64 age category. Because other countries also made an effort, Flanders’ position has not changed much.

Flanders scores relatively well in terms of the unemployment rate. It is ranked 6th (5.0%) among the benchmark regions in 2013, which is due to the good performance of many German Länder. Indeed, in the ranking of all 134 EU regions, Flanders is in 11th place. However, the youth unemployment rate is higher in Flanders, both in absolute and in relative terms (16.6%, putting Flanders in 11th place on the benchmark list).

Flanders has particular strengths and weaknesses in the innovation chain.
It has a well-educated workforce. Just over 40% of the workers have had tertiary education. However, other regions are catching up. In 2001, Flanders ranked 1st among the benchmark region, whereas in 2013 it occupies 5th place. Flanders scores less well on lifelong learning. It currently belongs to the worst performing areas on the benchmark list.

Once the workforce is available, knowledge must be created. Flanders had an R&D percentage of 2.42% in 2012, two-thirds of which stem from the private sector. Most benchmark regions score higher. However, one has to take into account that variables like R&D were of basic importance to designate the top regions.

Innovation efforts must be turned into market value. Entrepreneurs are a necessary chain in this process. The new REDI of the European Commission measures entrepreneurship on a regional level, seeing it as a systemic phenomenon: individual actions as well as the regional / national context are important. Flanders belongs to the better half of benchmark regions on the REDI, but it is not at the top (whereas East Sweden and Southern and Eastern Ireland are).

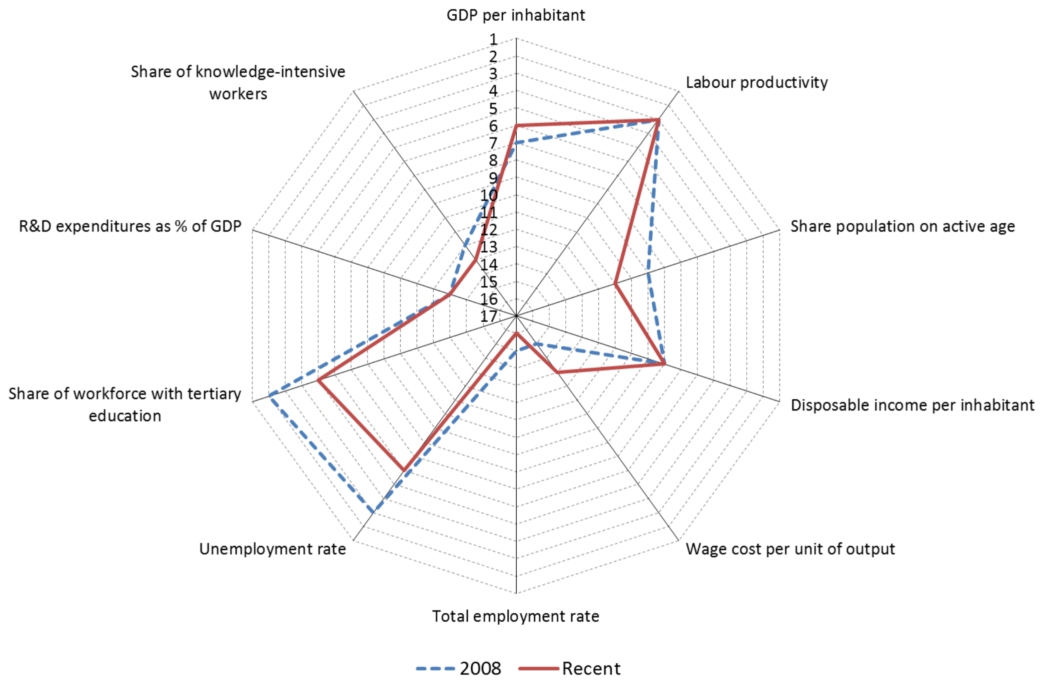
In an innovative economy a sufficient number of people must be working in knowledge-intensive branches. The relevant share of the Flemish workforce amounted to 8.9% in 2013. It ranks 13th on the benchmark list and is preceded by all the German areas in this comparison. Flanders performs relatively better on the industry component of that indicator (9th). As far as the high tech services are concerned, East Sweden and the British South East are specialised in this area. In addition to innovation, creativity is an important driver of welfare in a well-developed economy. Flanders ranks 8th on the benchmark list according to a new creativity definition. The Scandinavian and British regions are at the top in this respect.

Patents are the final step in the innovative chain, even though not all research results in a patent application. With 443 patent applications per million inhabitants in the period 2008-2012 Flanders ranks 12th on the benchmark list. There are quite big differences between the regions. This indicator is almost eight times higher in Zuid-Nederland than in Sachsen.

This topic explains in greater detail how the new set of benchmark regions was chosen.

Graph 16 summarises the position of Flanders on the main indicators.

Graph 16: Position of Flanders on the main indicators of Flanders Outlook, 2008 and most recent figure, ranking on 17 benchmark regions (Flanders included) from best (1st) to worst (17th)



Source: Eurostat, Research Centre of the Government of Flanders.

REFERENCES

Falk, R. (coordinator) (2011). *Innovation and competitiveness of the creative industries*. Vienna: Österreichisches Institut für Wirtschaftsforschung.

Porras, B. G. & Jerzyniak, T. (2014). *Regional Innovation Scoreboard 2014*. Brussels: European Commission. DG Entreprise and Industry.

Szerb, L., Acs, Z., Autio, E., Ortega-Argiles, R. & Komlosi, E. (2013). *REDI: the regional entrepreneurship and development index – measuring regional entrepreneurship*. Brussels: European Commission. DG Urban and Regional Policy

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Annex: Key indicators for Flanders and the benchmark regions

	Population	Population density (inhabitants/ km²)	Employment rate 20-64 y (in %)	Employment rate 55-64 y (in %)	Unemployment rate (in %)	Long term-unemployment rate (in %)	Youth unemployment rate (in %)
	1/01/2012	1/01/2012	2013	2013	2013	2013	2013
EU28	505.868.349	113	68,3	50,1	10,8	5,1	23,4
EU15	400.080.282	121	69,2	52,3	11,0	5,2	22,8
BE - Belgium	11.094.850	363	67,2	41,7	8,4	3,9	23,7
BG - Bulgaria	7.327.224	66	63,5	47,4	12,9	7,4	28,4
CZ - Czech Republic	10.505.445	133	72,5	51,6	7,0	3,0	19,0
DK - Denmark	5.580.516	130	75,6	61,7	7,0	1,8	13,1
DE - Germany	81.843.743	229	77,1	63,5	5,3	2,4	7,9
EE - Estonia	1.325.217	29	73,3	62,6	8,6	3,8	18,7
IE - Ireland	4.582.707	66	65,5	51,3	13,0	7,8	26,8
EL - Greece	11.123.034	84	53,2	35,6	27,3	18,4	58,3
ES - Spain	46.818.219	93	58,2	43,4	26,4	13,1	55,7
FR - France	65.297.023	103	69,1	45,6	10,3	4,4	24,9
HR - Croatia	4.275.984	49	53,9	36,5	17,1	10,9	49,7
IT - Italy	59.394.207	197	59,8	42,7	12,2	6,9	40,0
CY - Cyprus	862.011	93	67,2	49,6	15,9	6,1	39,0
LV - Latvia	2.044.813	32	69,7	54,8	11,9	5,7	23,2
LT - Lithuania	3.003.641	46	69,9	53,4	11,8	5,1	21,9
LU - Luxembourg	524.853	203	71,1	40,6	5,8	1,8	15,3
HU - Hungary	9.931.925	107	63,2	38,5	10,2	5,0	27,2
MT - Malta	417.546	1.321	64,8	36,2	6,4	2,9	12,8
NL - Netherlands	16.730.348	403	76,5	60,1	6,7	2,4	11,0
AT - Austria	8.408.121	100	75,5	44,9	4,9	1,2	9,2
PL - Poland	38.538.447	123	64,9	40,6	10,3	4,4	27,3
PT - Portugal	10.542.398	114	65,6	46,7	16,3	9,1	37,7
RO - Romania	20.095.996	84	63,9	41,5	7,3	3,4	23,6
SI - Slovenia	2.055.496	101	67,2	33,5	10,1	5,2	21,6
SK - Slovakia	5.404.322	110	65,0	44,0	14,2	10,0	33,7
FI - Finland	5.401.267	16	73,3	58,5	8,2	1,7	19,9
SE - Sweden	9.482.855	22	79,8	73,6	8,1	1,4	23,5
UK - United Kingdom	63.256.141	255	74,9	59,8	7,5	2,7	20,5
BE1 - Brussels Hoofdstedelijk Gewest	1.159.448	7.202	56,8	43,6	19,2	10,9	39,9
BE2 - Vlaams Gewest	6.372.575	471	71,9	42,9	5,0	1,6	16,6
BE3 - Région wallonne	3.562.827	212	62,3	39,1	11,3	5,8	32,8
BG3 - Severna i yugoiztochna Bulgaria	3.724.884	55	60,1	43,7	14,8	8,6	31,3
BG4 - Yugozapadna i yuzhna tsentralna Bulgaria	3.602.340	85	66,9	51,4	11,2	6,3	25,6
CZ0 - Ceská republika	10.505.445	133	72,5	51,6	7,0	3,0	19,0

DK0 - Danmark	5.580.516	130	75,6	61,7	7,0	1,8	13,1
DE1 - Baden-Württemberg	10.786.227	302	80,5	69,1	3,4	1,1	5,4
DE2 - Bayern	12.595.891	179	80,5	65,8	3,1	1,1	4,9
DE3 - Berlin	3.501.872	3.927	71,7	59,2	10,6	5,1	14,4
DE4 - Brandenburg	2.495.635	85	77,7	62,8	7,4	3,9	11,2
DE5 - Bremen	661.301	1.578	71,4	64,7	7,2	2,6	16,9
DE6 - Hamburg	1.798.836	2.382	77,1	63,6	4,8	2,3	7,4
DE7 - Hessen	6.092.126	289	77,7	63,7	4,4	1,6	8,2
DE8 - Mecklenburg-Vorpommern	1.634.734	70	73,1	57,1	10,1	5,4	10,7
DE9 - Niedersachsen	7.913.502	166	77,4	64,0	5,0	2,1	8,0
DEA - Nordrhein-Westfalen	17.841.956	523	74,1	60,3	6,0	2,7	9,4
DEB - Rheinland-Pfalz	3.999.117	201	77,6	63,7	4,1	1,5	8,1
DEC - Saarland	1.013.352	394	73,2	59,2	6,2	2,6	12,4
DED - Sachsen	4.137.051	225	77,1	62,7	7,9	4,3	10,3
DEE - Sachsen-Anhalt	2.313.280	113	75,9	61,8	9,0	5,2	11,2
DEF - Schleswig-Holstein	2.837.641	180	77,7	64,9	5,0	2,2	7,3
DEG - Thüringen	2.221.222	137	77,7	63,2	6,0	3,1	8,8
EE0 - Eesti	1.325.217	29	73,3	62,6	8,6	3,8	18,7
IE01 - Border, Midland and Western	1.236.529	37	63,6	50,6	14,2	8,8	30,3
IE02 - Southern and Eastern	3.346.178	92	66,2	51,6	12,6	7,5	25,5
EL1 - Voreia Ellada	3.576.520	63	51,1	35,7	28,6	19,5	61,0
EL2 - Kentriki Ellada	2.405.522	45	54,3	40,6	25,8	17,7	59,0
EL3 - Attiki	3.961.122	1.040	53,1	31,6	28,2	19,5	60,6
EL4 - Nisia Aigaiou, Kriti	1.179.870	68	57,7	39,3	22,9	12,3	42,9
ES11 - Galicia	2.771.916	94	59,6	43,9	22,1	11,1	50,1
ES12 - Principado de Asturias	1.074.308	101	55,3	40,9	24,0	13,0	54,7
ES13 - Cantabria	592.383	111	59,6	43,4	20,6	10,2	52,3
ES21 - País Vasco	2.184.696	302	65,6	46,6	15,8	7,7	46,3
ES22 - Comunidad Foral de Navarra	640.014	62	65,4	52,3	18,1	7,1	48,3
ES23 - La Rioja	320.951	64	63,5	49,2	19,9	8,5	48,3
ES24 - Aragón	1.343.807	28	63,1	46,5	21,3	9,8	51,1
ES30 - Comunidad de Madrid	6.425.522	800	65,6	49,2	20,2	10,2	48,9
ES41 - Castilla y León	2.537.685	27	60,6	45,9	21,7	10,5	49,6
ES42 - Castilla-la Mancha	2.105.935	27	54,8	40,0	30,1	16,5	61,6
ES43 - Extremadura	1.104.336	27	50,5	35,7	33,7	15,2	61,6
ES51 - Cataluña	7.514.991	234	63,2	47,5	23,4	12,3	50,7
ES52 - Comunidad Valenciana	5.009.650	215	56,3	41,3	28,6	14,1	56,7
ES61 - Andalucía	8.377.810	96	48,7	34,1	36,3	17,5	66,1
ES62 - Región de Murcia	1.461.925	129	55,6	42,5	29,4	13,3	53,7
FR10 - Île de France	11.916.978	992	72,5	55,2	8,9	3,6	18,4
FR21 - Champagne-Ardenne	1.335.220	52	66,4	44,0	10,4	3,9	29,6
FR22 - Picardie	1.921.946	99	65,1	44,1	11,4	5,2	29,3
FR23 - Haute-Normandie	1.844.097	150	66,8	41,5	11,6	5,5	30,8
FR24 - Centre (FR)	2.565.393	66	68,6	40,7	10,6	4,3	22,0
FR25 - Basse-Normandie	1.478.057	84	69,3	41,8	9,1	3,3	25,8
FR26 - Bourgogne	1.643.546	52	69,0	40,7	10,5	4,2	30,1
FR30 - Nord - Pas-de-Calais	4.048.230	326	62,7	37,9	14,7	7,2	34,7
FR41 - Lorraine	2.351.157	100	65,2	44,6	12,2	5,1	27,5
FR42 - Alsace	1.857.115	224	70,7	46,0	9,7	4,0	28,2
FR43 - Franche-Comté	1.175.859	73	68,9	44,5	9,5	3,8	22,5
FR51 - Pays de la Loire	3.630.780	113	72,1	43,3	8,8	3,2	20,7
FR52 - Bretagne	3.239.659	119	72,6	42,9	8,0	2,7	19,2
FR53 - Poitou-Charentes	1.785.431	69	70,4	45,2	9,9	3,9	26,4
FR61 - Aquitaine	3.279.992	79	70,4	46,3	8,9	3,0	21,8
FR62 - Midi-Pyrénées	2.925.533	65	72,9	49,1	8,6	3,1	20,4

FR63 - Limousin	741.117	44	71,3	45,6	6,9	3,3	21,5
FR71 - Rhône-Alpes	6.339.521	145	72,3	46,8	8,4	2,9	19,5
FR72 - Auvergne	1.353.522	52	69,0	39,6	8,9	3,4	24,0
FR81 - Languedoc-Roussillon	2.699.498	99	61,7	38,2	12,9	5,9	36,4
FR82 - Provence-Alpes-Côte d'Azur	4.927.578	157	67,9	47,2	10,8	4,4	24,6
FR83 - Corse	318.316	37	63,6	40,3	12,4	14,6	40,4
HR0 - Hrvatska	4.275.984	49	53,9	36,5	17,1	10,9	49,7
ITC1 - Piemonte	4.357.663	172	66,5	42,6	10,6	5,8	40,2
ITC2 - Valle d'Aosta/Vallée d'Aoste	126.620	39	69,8	45,8	8,4	2,8	32,1
ITC3 - Liguria	1.567.339	289	64,8	47,5	9,9	5,0	42,0
ITC4 - Lombardia	9.700.881	407	69,3	44,9	8,1	4,1	30,8
ITH1 - Provincia Autonoma di Bolzano	504.708	68	76,6	52,4	4,4	1,2	12,3
ITH2 - Provincia Autonoma di Trento	524.877	85	70,5	47,5	6,6	2,2	23,6
ITH3 - Veneto	4.853.657	264	67,8	42,6	7,6	3,8	25,3
ITH4 - Friuli-Venezia Giulia	1.217.780	155	67,0	42,7	7,7	3,4	24,4
ITH5 - Emilia-Romagna	4.341.240	193	70,6	48,6	8,5	3,8	33,3
ITI1 - Toscana	3.667.780	160	68,0	47,3	8,7	4,0	33,3
ITI2 - Umbria	883.215	104	65,2	47,2	10,4	4,9	36,6
ITI3 - Marche	1.540.688	164	65,3	47,2	11,1	5,6	36,0
ITI4 - Lazio	5.500.022	319	61,2	45,9	12,3	7,0	45,9
ITF1 - Abruzzo	1.306.416	121	58,8	43,8	11,4	6,6	37,6
ITF2 - Molise	313.145	71	51,0	38,4	15,8	9,5	49,4
ITF3 - Campania	5.764.424	424	43,4	37,7	21,5	14,4	51,7
ITF4 - Puglia	4.050.072	209	45,9	34,2	19,8	11,5	49,7
ITF5 - Basilicata	577.562	58	49,9	42,5	15,2	9,7	54,9
ITF6 - Calabria	1.958.418	130	42,3	38,4	22,2	14,4	56,3
ITG1 - Sicilia	4.999.854	194	42,8	35,4	21,0	13,6	53,8
ITG2 - Sardegna	1.637.846	68	51,7	40,3	17,5	9,8	54,1
CY0 - Kypros	862.011	93	67,2	49,6	15,9	6,1	39,0
LV0 - Latvija	2.044.813	32	69,7	54,8	11,9	5,7	23,2
LT0 - Lietuva	3.003.641	46	69,9	53,4	11,8	5,1	21,9
LU0 - Luxembourg	524.853	203	71,1	40,6	5,8	1,8	15,3
HU1 - Közép-Magyarország	2.940.818	425	67,4	43,6	8,7	4,8	25,9
HU2 - Dunántúl	2.995.203	82	64,5	38,4	8,6	3,7	22,0
HU3 - Alföld és Észak	3.995.904	81	58,9	35,0	12,9	6,1	31,9
MT0 - Malta	417.546	1.321	64,8	36,2	6,4	2,9	12,8
NL1 - Noord-Nederland	1.718.896	151	74,9	58,4	7,3	2,5	11,8
NL2 - Oost-Nederland	3.543.938	323	77,3	61,6	6,6	2,3	11,4
NL3 - West-Nederland	7.880.753	663	76,7	60,9	6,8	2,5	10,9
NL4 - Zuid-Nederland	3.586.761	492	75,8	57,8	6,3	2,1	10,4
AT1 - Ostösterreich	3.617.321	154	73,8	44,7	6,4	1,7	12,1
AT2 - Südösterreich	1.764.723	68	74,5	43,4	4,4	1,1	8,8
AT3 - Westösterreich	3.026.077	88	78,1	46,0	3,5	0,6	6,4
PL1 - Region Centralny	7.819.285	145	69,3	46,0	9,1	3,8	21,0
PL2 - Region Poludniowy	7.973.153	290	63,2	36,0	10,2	4,6	27,9
PL3 - Region Wschodni	6.779.642	91	64,3	42,5	12,0	5,1	34,3
PL4 - Region Pólnocno-Zachodni	6.201.374	93	64,8	39,5	9,3	3,9	25,0
PL5 - Region Poludniowo-Zachodni	3.930.527	134	63,0	39,2	10,8	4,4	27,9
PL6 - Region Pólnocny	5.834.466	97	62,5	39,1	11,2	4,7	29,2
PT17 - Lisboa	2.827.050	942	65,0	44,8	18,5	10,6	45,5
ptx Rest van Portugal - vasteland	7.203.918	84	66,1	47,4	15,3	8,5	34,4
RO1 - Macroregiunea unu	4.959.455	73	62,7	38,1	6,6	3,3	23,6
RO2 - Macroregiunea doi	5.833.153	80	65,0	45,7	6,7	3,3	18,7
RO3 - Macroregiunea trei	5.407.944	149	64,2	38,0	9,0	3,3	30,5
RO4 - Macroregiunea patru	3.895.444	64	63,2	44,0	6,8	3,7	23,5

SI0 - Slovenija	2.055.496	101	67,2	33,5	10,1	5,2	21,6
SK0 - Slovensko	5.404.322	110	65,0	44,0	14,2	10,0	33,7
FI1 - Manner-Suomi	5.372.913	16	73,3	58,4	8,2	1,7	20,0
SE1 - Östra Sverige	3.669.570	76	80,5	73,0	7,7	1,4	21,7
SE2 - Södra Sverige	4.111.188	51	79,3	73,6	8,5	1,6	24,8
SE3 - Norra Sverige	1.702.097	5	79,1	74,5	8,0	1,2	24,3
UKC - North East (UK)	2.618.012	302	70,3	53,1	10,1	3,9	26,3
UKD - North West (UK)	7.033.454	471	72,0	54,4	8,1	2,9	19,2
UKE - Yorkshire and The Humber	5.336.192	343	74,0	58,7	8,8	3,6	22,8
UKF - East Midlands (UK)	4.545.216	287	74,5	58,3	7,3	2,5	18,2
UKG - West Midlands (UK)	5.564.350	428	72,7	58,6	9,1	3,9	24,7
UKH - East of England	5.907.790	302	78,3	64,2	6,0	2,0	17,5
UKI - London	8.136.284	5.102	74,2	61,1	8,4	2,9	24,7
UKJ - South East (UK)	8.665.938	447	79,0	64,6	5,8	1,6	17,7
UKK - South West (UK)	5.330.841	219	77,2	63,8	6,2	1,9	17,5
UKL - Wales	3.034.975	143	73,3	56,0	7,7	2,8	21,2
UKM - Scotland	5.268.247	66	75,1	59,7	7,1	2,6	19,2
UKN - Northern Ireland (UK)	1.814.842	128	71,4	54,5	7,6	4,0	22,2

	GDP per head (in € PPS)	Labour productivity (in € PPS per worker)	Number of workers / people 15-64 y (in %)	Share of people 15-64 y (in %)	Disposable income per head (in € PPS based on final consumption)	At risk poverty rate (% of total population)	Unit labour cost (wage cost / GDP)
	2011	2011	2011	2011	2011	2013	2011
EU28	25.045	56.996	66,1	66,5	n.d.	n.d.	n.d.
EU15	27.504	62.050	67,4	65,8	16.694	n.d.	n.d.
BE - Belgium	29.968	72.845	62,5	65,8	16.876	n.d.	0,69
BG - Bulgaria	11.677	24.344	70,5	68,0	6.201	21,0	0,23
CZ - Czech Republic	20.345	42.225	69,3	69,5	10.249	8,6	0,38
DK - Denmark	31.465	62.488	77,3	65,1	13.850	12,3	0,81
DE - Germany	30.825	61.254	76,2	66,1	19.540	16,1	0,59
EE - Estonia	17.371	39.496	65,8	66,8	7.720	18,6	0,35
IE - Ireland	32.304	79.944	60,4	66,8	14.947	n.d.	0,56
EL - Greece	20.025	50.887	60,1	65,5	12.908	n.d.	0,04
ES - Spain	24.162	60.102	59,0	68,1	14.486	20,4	0,53
FR - France	27.354	66.360	63,9	64,5	17.825	13,7	n.d.
HR - Croatia	14.828	46.838	47,8	66,3	n.d.	n.d.	n.d.
IT - Italy	25.477	62.534	63,0	64,6	16.047	19,1	0,56
CY - Cyprus	23.623	51.187	65,4	70,6	n.d.	15,3	n.d.
LV - Latvia	15.032	36.134	61,8	67,3	5.064	19,4	0,30
LT - Lithuania	16.929	40.949	61,6	67,1	9.897	20,6	0,27
LU - Luxembourg	66.838	93.678	103,8	68,7	23.866	n.d.	0,61
HU - Hungary	16.859	41.106	59,8	68,6	8.615	14,3	2,56
MT - Malta	21.485	49.409	63,0	69,0	n.d.	15,7	0,38
NL - Netherlands	32.456	80.229	60,6	66,7	14.611	10,4	n.d.
AT - Austria	32.193	62.944	75,7	67,5	19.676	14,4	0,65
PL - Poland	16.359	39.314	58,4	71,2	9.813	17,3	0,27
PT - Portugal	19.429	42.193	69,7	66,0	12.096	18,7	0,48
RO - Romania	12.141	28.588	63,4	67,0	5.450	22,4	2,49
SI - Slovenia	21.179	45.915	66,8	69,1	12.388	14,5	0,53
SK - Slovakia	18.902	46.207	56,9	71,9	10.532	12,8	0,30
FI - Finland	29.048	62.121	71,2	65,7	15.497	11,8	0,70
SE - Sweden	31.414	64.618	75,1	64,7	16.203	14,8	0,72
UK - United Kingdom	26.332	57.012	70,4	65,6	16.138	15,9	0,67
DATA CORRECTED FOR COMMUTING LABOUR							
BE1 - Brussels Hoofdstedelijk Gewest	32.558	73.988	67,3	-	-	-	-
BE2 - Vlaams Gewest	25.127	65.902	57,9	-	-	-	-
BE3 - Région wallonne	30.421	88.519	50,9	-	-	-	-
REGULAR DATA							
BE1 - Brussels Hoofdstedelijk Gewest	54.583	90.507	89,4	67,5	15.434	n.d.	0,66
BE2 - Vlaams Gewest	29.987	72.550	63,2	65,4	17.916	n.d.	0,68
BE3 - Région wallonne	21.911	63.485	52,4	65,8	15.456	n.d.	0,72

BG3 - Severna i yugoiztochna Bulgaria	8.595	20.158	63,7	66,9	5.616	24,1	0,25
BG4 - Yugozapadna i yuzhna tsentralna Bulgaria	14.871	27.805	77,3	69,2	6.808	17,7	0,22
CZ0 - Ceská republika	20.345	42.225	69,3	69,5	10.249	8,6	0,38
DK0 - Danmark	30.221	60.103	77,2	65,1	13.850	12,3	0,84
DE1 - Baden-Württemberg	34.571	64.920	80,1	66,5	21.254	n.d.	0,60
DE2 - Bayern	35.310	64.927	81,6	66,7	21.649	n.d.	0,59
DE3 - Berlin	28.255	57.389	71,7	68,7	16.588	n.d.	0,63
DE4 - Brandenburg	21.974	51.269	65,1	65,9	17.039	n.d.	0,58
DE5 - Bremen	39.661	64.051	93,7	66,1	19.912	n.d.	0,58
DE6 - Hamburg	50.699	79.485	93,2	68,4	20.894	n.d.	0,54
DE7 - Hessen	36.182	68.875	79,1	66,4	20.046	n.d.	0,60
DE8 - Mecklenburg-Vorpommern	21.058	47.175	67,1	66,5	15.992	n.d.	0,60
DE9 - Niedersachsen	27.556	57.903	73,0	65,2	18.608	n.d.	0,58
DEA - Nordrhein-Westfalen	31.191	63.082	75,0	66,0	19.661	n.d.	0,59
DEB - Rheinland-Pfalz	27.935	58.541	72,3	66,0	20.303	n.d.	0,59
DEC - Saarland	30.170	59.376	76,8	66,1	18.388	n.d.	0,60
DED - Sachsen	22.389	47.247	74,3	63,8	16.880	n.d.	0,62
DEE - Sachsen-Anhalt	21.540	49.463	67,1	64,9	16.331	n.d.	0,58
DEF - Schleswig-Holstein	25.853	56.240	71,3	64,5	19.539	n.d.	0,57
DEG - Thüringen	21.201	45.580	70,8	65,7	16.608	n.d.	0,63
EE0 - Eesti	17.371	39.496	65,8	66,8	7.720	18,6	n.d.
IE01 - Border, Midland and Western	21.537	59.150	55,8	65,3	13.823	n.d.	0,67
IE02 - Southern and Eastern	36.292	86.638	62,1	67,4	15.363	n.d.	0,53
EL1 - Voreia Ellada	15.609	41.887	57,7	64,6	11.812	n.d.	0,05
EL2 - Kentriki Ellada	15.924	40.682	61,6	63,5	11.464	n.d.	0,05
EL3 - Attiki	26.477	64.364	61,4	67,0	14.938	n.d.	0,03
EL4 - Nisia Aigaiou, Kriti	19.562	48.963	59,4	67,3	12.160	n.d.	0,04
ES11 - Galicia	21.826	56.255	58,5	66,3	13.761	17,2	0,52
ES12 - Principado de Asturias	22.732	61.096	55,1	67,5	15.315	14,1	0,53
ES13 - Cantabria	23.495	61.229	55,9	68,6	14.649	17,8	0,51
ES21 - País Vasco	32.401	71.060	67,6	67,5	19.463	10,5	0,51
ES22 - Comunidad Foral de Navarra	31.035	64.923	70,9	67,4	18.643	9,9	0,53
ES23 - La Rioja	27.231	62.981	64,0	67,5	15.644	19,3	0,49
ES24 - Aragón	27.009	62.087	65,2	66,7	16.150	16,1	0,52
ES30 - Comunidad de Madrid	31.502	64.726	70,5	69,0	17.479	13,4	0,55
ES41 - Castilla y León	23.738	59.063	61,0	65,9	14.760	17,5	0,51
ES42 - Castilla-la Mancha	19.315	54.614	52,1	67,8	12.133	31,3	0,54
ES43 - Extremadura	16.689	50.050	49,7	67,1	11.129	30,9	0,55
ES51 - Cataluña	28.278	62.626	66,3	68,1	16.557	13,9	0,53
ES52 - Comunidad Valenciana	21.158	58.334	53,4	67,9	12.856	23,6	0,51
ES61 - Andalucía	18.255	54.684	48,6	68,7	11.577	29,1	0,53
ES62 - Región de Murcia	19.684	53.133	54,5	68,0	11.761	26,8	0,52
FR10 - Île de France	45.615	90.185	75,1	67,3	21.602	n.d.	n.d.
FR21 - Champagne-Ardenne	23.197	58.229	61,7	64,6	16.806	n.d.	n.d.
FR22 - Picardie	20.818	59.645	53,8	64,9	16.882	n.d.	n.d.
FR23 - Haute-Normandie	23.921	62.317	59,6	64,4	17.231	n.d.	n.d.
FR24 - Centre (FR)	22.796	58.129	62,4	62,9	17.866	n.d.	n.d.
FR25 - Basse-Normandie	21.164	54.090	62,3	62,8	17.198	n.d.	n.d.
FR26 - Bourgogne	22.642	57.507	62,9	62,6	17.653	n.d.	n.d.
FR30 - Nord - Pas-de-Calais	22.076	58.874	57,4	65,3	15.409	n.d.	n.d.
FR41 - Lorraine	20.891	57.996	55,0	65,5	16.390	n.d.	n.d.
FR42 - Alsace	25.410	61.514	62,3	66,3	17.427	n.d.	n.d.
FR43 - Franche-Comté	21.606	56.919	59,6	63,7	17.021	n.d.	n.d.
FR51 - Pays de la Loire	24.126	58.309	65,4	63,3	17.108	n.d.	n.d.
FR52 - Bretagne	22.327	55.697	63,8	62,9	17.163	n.d.	n.d.

FR53 - Poitou-Charentes	21.761	56.101	62,4	62,2	17.100	n.d.	n.d.
FR61 - Aquitaine	23.856	59.566	63,1	63,4	17.424	n.d.	n.d.
FR62 - Midi-Pyrénées	23.751	58.047	64,2	63,7	17.291	n.d.	n.d.
FR63 - Limousin	20.672	54.276	62,0	61,4	17.329	n.d.	n.d.
FR71 - Rhône-Alpes	27.258	63.913	66,1	64,5	18.047	n.d.	n.d.
FR72 - Auvergne	21.873	55.994	61,8	63,2	17.607	n.d.	n.d.
FR81 - Languedoc-Roussillon	21.020	58.619	56,9	63,0	16.181	n.d.	n.d.
FR82 - Provence-Alpes-Côte d'Azur	26.070	64.390	64,4	62,9	17.714	n.d.	n.d.
FR83 - Corse	22.859	58.935	60,1	64,5	16.398	n.d.	n.d.
HR0 - Hrvatska	14.828	46.838	47,8	66,3	n.d.	n.d.	0,36
ITC1 - Piemonte	27.647	61.127	71,6	63,1	18.153	11,6	0,58
ITC2 - Valle d'Aosta/Vallée d'Aoste	32.965	70.132	73,1	64,3	19.782	7,5	0,54
ITC3 - Liguria	26.655	64.177	68,6	60,6	17.882	16,7	0,56
ITC4 - Lombardia	33.153	71.687	71,9	64,4	19.145	8,4	0,54
ITH1 - Provincia Autonoma di Bolzano	36.939	70.649	80,5	65,0	20.606	8,9	0,55
ITH2 - Provincia Autonoma di Trento	30.510	67.107	70,4	64,6	17.776	11,3	0,55
ITH3 - Veneto	29.584	62.868	72,6	64,8	17.918	10,5	0,57
ITH4 - Friuli-Venezia Giulia	29.009	62.498	73,4	63,2	18.463	10,1	0,58
ITH5 - Emilia-Romagna	31.400	64.661	76,8	63,2	19.366	10,8	0,56
ITI1 - Toscana	27.631	61.863	71,1	62,9	17.274	11,5	0,56
ITI2 - Umbria	23.221	54.663	67,7	62,8	16.266	15,0	0,58
ITI3 - Marche	25.532	55.085	73,1	63,4	16.797	12,6	0,59
ITI4 - Lazio	29.314	66.610	68,2	64,5	17.312	18,5	0,56
ITF1 - Abruzzo	21.910	58.006	58,5	64,6	13.755	19,2	0,59
ITF2 - Molise	19.656	53.842	56,3	64,9	13.472	30,6	0,58
ITF3 - Campania	15.710	54.623	42,9	67,0	11.209	36,8	0,58
ITF4 - Puglia	16.747	53.492	47,3	66,2	12.250	28,5	0,60
ITF5 - Basilicata	17.920	52.349	52,0	65,8	12.406	33,6	0,58
ITF6 - Calabria	16.092	51.746	47,1	66,0	11.504	32,0	0,56
ITG1 - Sicilia	16.275	55.972	44,1	65,9	11.416	41,1	0,58
ITG2 - Sardegna	19.327	52.990	54,3	67,2	13.148	20,0	0,58
CY0 - Kypros	23.623	51.187	65,4	70,6	n.d.	15,3	n.d.
LV0 - Latvija	15.010	36.082	61,8	67,3	5.064	19,4	0,30
LT0 - Lietuva	16.929	40.949	61,6	67,1	9.897	20,6	0,27
LU0 - Luxembourg	66.838	93.678	103,8	68,7	23.866	n.d.	0,61
HU1 - Közép-Magyarország	27.560	47.374	85,4	68,2	10.623	10,6	1,63
HU2 - Dunántúl	14.472	38.409	54,6	69,0	8.292	11,9	3,90
HU3 - Alföld és Észak	10.650	34.712	44,8	68,5	7.354	18,9	5,19
MT0 - Malta	21.440	49.305	63,0	69,0	n.d.	15,7	0,37
NL1 - Noord-Nederland	32.383	92.018	53,6	65,6	12.643	11,6	n.d.
NL2 - Oost-Nederland	27.225	71.045	58,0	66,1	13.826	9,7	n.d.
NL3 - West-Nederland	34.500	81.521	62,9	67,3	15.351	11,0	n.d.
NL4 - Zuid-Nederland	31.713	77.657	61,4	66,5	14.623	9,3	n.d.
AT1 - Ostösterreich	33.042	66.633	73,4	67,5	20.033	0,0	0,65
AT2 - Südösterreich	27.827	55.653	74,5	67,1	19.064	0,0	0,70
AT3 - Westösterreich	33.693	62.801	79,2	67,8	19.605	0,0	0,63
PL1 - Region Centralny	22.962	47.513	68,8	70,3	12.019	16,2	0,27
PL2 - Region Poludniowy	16.157	39.021	58,2	71,1	10.235	14,8	0,28
PL3 - Region Wschodni	11.406	26.211	61,8	70,5	7.842	22,2	0,32
PL4 - Region Pólnocno-Zachodni	15.555	40.395	53,4	72,2	9.720	17,7	0,26
PL5 - Region Poludniowo-Zachodni	17.137	45.642	51,9	72,4	9.599	14,1	0,25
PL6 - Region Pólnocny	13.880	37.806	51,2	71,7	8.814	17,9	0,26
PT17 - Lisboa	26.987	53.310	76,9	65,8	15.588	n.d.	0,46
ptx Rest van Portugal - vasteland	16.356	36.762	67,5	65,9	10.722	0,0	0,49
RO1 - Macroregiunea unu	10.899	27.295	59,0	67,7	4.896	15,9	0,22

RO2 - Macroregiunea doi	8.346	19.247	67,5	64,2	4.616	32,9	0,29
RO3 - Macroregiunea trei	18.439	43.489	61,3	69,2	7.050	14,8	0,22
RO4 - Macroregiunea patru	11.227	25.299	65,7	67,6	5.330	26,7	0,27
SI0 - Slovenija	21.179	45.915	66,8	69,1	12.388	14,5	0,53
SK0 - Slovensko	18.902	46.207	56,9	71,9	10.532	12,8	0,30
FI1 - Manner-Suomi	29.006	62.177	71,0	65,7	15.477	11,8	0,70
SE1 - Östra Sverige	36.289	70.691	78,1	65,7	17.311	12,9	0,70
SE2 - Södra Sverige	28.250	59.361	73,9	64,4	15.721	15,9	0,76
SE3 - Norra Sverige	28.540	63.134	71,5	63,2	14.989	16,1	0,70
UKC - North East (UK)	19.152	44.286	65,4	66,1	13.719	n.d.	0,69
UKD - North West (UK)	22.242	50.045	67,8	65,6	14.564	n.d.	0,68
UKE - Yorkshire and The Humber	21.109	46.454	68,7	66,1	13.972	n.d.	0,70
UKF - East Midlands (UK)	21.451	46.015	71,2	65,5	14.652	n.d.	0,71
UKG - West Midlands (UK)	21.415	49.368	67,3	64,5	14.391	n.d.	0,71
UKH - East of England	23.622	48.650	75,2	64,6	16.776	n.d.	0,67
UKI - London	46.086	97.149	67,9	69,9	20.502	n.d.	0,68
UKJ - South East (UK)	27.703	57.041	75,0	64,8	18.207	n.d.	0,67
UKK - South West (UK)	22.994	48.788	74,0	63,7	16.154	n.d.	0,69
UKL - Wales	18.691	43.288	67,3	64,2	14.214	n.d.	0,71
UKM - Scotland	24.539	52.641	69,8	66,8	15.790	n.d.	0,67
UKN - Northern Ireland (UK)	19.545	45.123	66,2	65,4	14.066	n.d.	0,68

	Share of highly-educated workers (in %)	Share of adult population involved in lifelong learning (in %)	Total R&D expenditures / GDP (in %)	Business R&D expenditures / GDP (in %)	Government R&D expenditures / GDP (in %)	Regional Entrepreneurship and Development Index – REDI (in %)	Share of workers in knowledge-intensive sectors (in %)	Share of workers in creative sectors – new definition (in %)
	2013	2013	2011	2011	2011	2007-2011	2013	2013
EU28	31,8	10,5	1,93	1,19	0,26	n.d.	8,4	13,9
EU15	33,1	12,2	2,08	1,30	0,26	n.d.	8,4	14,5
BE - Belgium	41,3	6,7	2,02	1,36	0,18	n.d.	8,0	16,9
BG - Bulgaria	30,2	1,7	0,57	0,30	0,20	n.d.	6,5	10,1
CZ - Czech Republic	22,3	9,7	1,83	1,10	0,32	n.d.	13,8	11,0
DK - Denmark	33,2	31,4	3,09	2,09	0,07	n.d.	8,9	20,2
DE - Germany	29,3	7,8	2,80	1,87	0,41	n.d.	12,1	13,8
EE - Estonia	40,1	12,6	2,31	1,45	0,19	n.d.	6,9	13,8
IE - Ireland	45,6	7,3	1,70	1,15	0,08	n.d.	9,5	15,3
EL - Greece	33,4	2,9	0,60	0,17	0,12	n.d.	3,2	15,0
ES - Spain	41,2	11,1	1,36	0,71	0,27	n.d.	6,8	13,9
FR - France	36,5	17,7	2,24	1,42	0,32	n.d.	7,1	13,8
HR - Croatia	24,3	2,4	0,76	0,34	0,21	n.d.	5,8	12,3
IT - Italy	19,7	6,2	1,23	0,67	0,17	n.d.	8,4	11,5
CY - Cyprus	43,2	6,9	0,48	0,08	0,08	n.d.	3,2	13,0
LV - Latvia	35,2	6,5	0,68	0,19	0,16	n.d.	4,5	12,0
LT - Lithuania	41,0	5,7	0,90	0,23	0,18	n.d.	3,7	12,5
LU - Luxembourg	43,9	14,4	1,46	1,00	0,28	n.d.	4,6	22,8
HU - Hungary	26,5	3,0	1,18	0,74	0,19	n.d.	11,3	13,2
MT - Malta	24,6	7,5	0,73	0,48	0,02	n.d.	7,9	12,9
NL - Netherlands	33,7	17,4	2,07	1,08	0,22	n.d.	5,8	16,5
AT - Austria	21,2	13,9	2,77	1,88	0,15	n.d.	8,5	13,2
PL - Poland	31,1	4,3	0,76	0,23	0,26	n.d.	7,1	12,2
PT - Portugal	21,3	9,8	1,51	0,69	0,11	n.d.	4,9	12,9
RO - Romania	18,4	2,0	0,49	0,18	0,20	n.d.	6,3	10,4
SI - Slovenia	31,6	12,4	2,45	1,81	0,35	n.d.	11,4	16,5
SK - Slovakia	22,2	2,9	0,66	0,25	0,18	n.d.	12,1	9,8
FI - Finland	40,9	24,9	3,75	2,64	0,33	n.d.	9,6	19,1
SE - Sweden	36,7	28,1	3,42	2,37	0,15	n.d.	8,6	19,1
UK - United Kingdom	40,7	16,1	1,84	1,13	0,17	n.d.	7,2	16,7
BE1 - Brussels Hoofdstedelijk Gewest	51,9	8,8	1,54	0,80	0,18	64,9	7,0	20,4
BE2 - Vlaams Gewest	40,5	7,1	2,11	1,40	0,25	62,1	8,9	15,4
BE3 - Région wallonne	39,8	5,3	2,23	1,71	0,05	60,1	6,5	18,9
BG3 - Severna i yugoiztochna Bulgaria	26,9	1,1	0,18	0,08	0,07	n.d.	5,5	8,5
BG4 - Yugozapadna i yuzhna tsentralna Bulgaria	33,2	2,3	0,80	0,43	0,28	n.d.	7,4	11,5
CZ0 - Ceská republika	22,3	9,7	1,83	1,10	0,32	37,0	13,8	11,0

DK0 - Danmark	33,2	31,4	3,22	2,18	0,07	66,7	8,9	20,2
DE1 - Baden-Württemberg	30,9	8,7	4,62	3,64	0,42	58,1	18,7	14,8
DE2 - Bayern	29,7	7,3	3,09	2,36	0,29	57,3	15,5	13,8
DE3 - Berlin	39,8	10,3	3,57	1,45	1,21	67,2	9,6	21,8
DE4 - Brandenburg	31,7	6,4	1,43	0,35	0,78	48,5	6,2	11,5
DE5 - Bremen	28,0	9,5	2,64	0,97	0,96	48,4	9,0	16,4
DE6 - Hamburg	32,7	10,1	2,23	1,23	0,45	54,3	9,7	18,6
DE7 - Hessen	31,6	9,2	3,11	2,45	0,23	63,3	11,6	14,5
DE8 - Mecklenburg-Vorpommern	28,3	6,6	1,88	0,59	0,80	35,6	5,9	9,9
DE9 - Niedersachsen	24,7	7,1	2,67	1,74	0,39	51,6	10,3	12,8
DEA - Nordrhein-Westfalen	26,6	7,1	2,01	1,20	0,30	55,0	10,6	13,1
DEB - Rheinland-Pfalz	27,0	7,8	2,02	1,47	0,17	56,2	11,4	12,8
DEC - Saarland	23,9	6,8	1,23	0,49	0,41	54,9	9,6	11,5
DED - Sachsen	34,5	8,7	2,81	1,23	0,86	50,0	10,5	13,2
DEE - Sachsen-Anhalt	27,8	7,0	1,93	0,86	0,52	41,3	6,9	10,6
DEF - Schleswig-Holstein	25,1	7,3	1,41	0,68	0,34	43,6	7,7	12,4
DEG - Thüringen	31,3	8,4	1,14	0,71	0,09	37,2	9,6	11,1
EE0 - Eesti	40,1	12,6	2,31	1,45	0,19	45,9	6,9	13,8
IE01 - Border, Midland and Western	40,0	6,0	1,80	1,28	0,08	63,4	9,1	14,5
IE02 - Southern and Eastern	47,5	7,7	1,75	1,13	0,07	72,0	9,6	15,5
EL1 - Voreia Ellada	30,1	2,6	0,46	0,06	0,07	22,7	2,0	14,6
EL2 - Kentriki Ellada	23,7	1,2	0,42	0,06	0,03	19,5	1,6	12,0
EL3 - Attiki	44,2	4,4	0,73	0,30	0,17	31,3	5,4	18,1
EL4 - Nisia Aigaiou, Kriti	24,4	2,2	0,58	0,02	0,22	21,4	1,6	11,7
ES11 - Galicia	38,9	10,2	0,93	0,42	0,14	36,9	5,7	13,0
ES12 - Principado de Asturias	46,3	9,6	1,03	0,43	0,16	42,3	4,4	15,2
ES13 - Cantabria	43,8	10,3	1,21	0,39	0,22	36,5	5,5	13,5
ES21 - País Vasco	54,5	13,4	1,97	1,50	0,11	45,6	11,6	16,5
ES22 - Comunidad Foral de Navarra	46,6	13,0	1,97	1,38	0,15	39,0	12,6	12,5
ES23 - La Rioja	41,1	12,5	1,04	0,52	0,30	37,6	4,2	12,2
ES24 - Aragón	40,5	12,3	1,10	0,63	0,22	32,6	8,8	12,6
ES30 - Comunidad de Madrid	52,2	13,3	2,00	1,10	0,53	54,7	12,0	18,7
ES41 - Castilla y León	39,8	11,5	1,07	0,58	0,11	36,8	6,2	12,8
ES42 - Castilla-la Mancha	33,0	10,5	0,67	0,36	0,09	32,1	4,4	11,1
ES43 - Extremadura	33,1	10,1	0,87	0,17	0,27	30,3	2,1	12,6
ES51 - Cataluña	41,5	9,3	1,62	0,93	0,31	42,3	8,9	14,6
ES52 - Comunidad Valenciana	37,7	12,9	1,06	0,43	0,14	38,1	5,4	11,8
ES61 - Andalucía	35,7	9,9	1,19	0,43	0,26	37,1	3,5	12,4
ES62 - Región de Murcia	35,5	11,6	0,92	0,36	0,17	36,7	2,3	12,2
FR10 - Île de France	46,0	16,1	2,90	1,94	0,38	79,2	9,2	17,8
FR21 - Champagne-Ardenne	28,9	16,1	0,81	0,59	0,01	50,9	4,2	10,7
FR22 - Picardie	25,8	12,1	1,23	1,02	0,05	50,9	8,1	10,3
FR23 - Haute-Normandie	29,9	18,0	1,43	1,20	0,02	50,9	8,9	12,8
FR24 - Centre (FR)	31,4	18,6	1,66	1,26	0,15	50,9	6,7	11,4
FR25 - Basse-Normandie	30,2	15,2	1,11	0,74	0,07	50,9	6,5	11,8
FR26 - Bourgogne	31,6	17,9	1,05	0,71	0,07	50,9	5,7	10,0
FR30 - Nord - Pas-de-Calais	37,2	17,3	0,82	0,42	0,05	48,8	5,3	14,7
FR41 - Lorraine	33,6	15,4	1,33	0,58	0,14	49,7	6,6	11,7
FR42 - Alsace	33,0	19,1	1,68	0,93	0,03	49,7	11,4	12,3
FR43 - Franche-Comté	30,4	17,2	2,92	2,63	0,01	49,7	8,5	11,9
FR51 - Pays de la Loire	31,7	20,3	1,21	0,84	0,10	51,8	5,5	11,7
FR52 - Bretagne	36,6	20,6	1,87	1,20	0,25	51,8	5,4	13,6
FR53 - Poitou-Charentes	26,1	13,5	0,89	0,52	0,05	51,8	6,3	10,0
FR61 - Aquitaine	32,7	17,2	1,54	1,03	0,09	58,9	6,4	12,4
FR62 - Midi-Pyrénées	43,2	21,7	4,44	3,32	0,48	58,9	9,5	16,2

FR63 - Limousin	30,0	18,6	0,98	0,61	0,01	58,9	2,0	9,8
FR71 - Rhône-Alpes	38,2	21,4	2,73	1,85	0,29	64,2	9,4	14,0
FR72 - Auvergne	31,9	18,0	2,05	1,55	0,18	64,2	5,6	10,4
FR81 - Languedoc-Roussillon	34,8	17,1	2,79	0,94	1,04	59,4	2,6	13,8
FR82 - Provence-Alpes-Côte d'Azur	37,8	16,5	2,00	1,08	0,45	59,4	6,5	13,6
FR83 - Corse	29,2	8,4	0,29	0,08	0,07	59,4	0,7	8,3
HR0 - Hrvatska	24,3	2,4	0,76	0,34	0,21	30,6	5,8	12,3
ITC1 - Piemonte	18,5	6,0	1,78	1,36	0,08	40,4	13,3	11,2
ITC2 - Valle d'Aosta/Vallée d'Aoste	17,9	6,0	0,59	0,42	0,03	40,4	1,8	11,8
ITC3 - Liguria	23,3	6,3	1,44	0,84	0,25	40,4	6,7	12,3
ITC4 - Lombardia	19,8	6,6	1,29	0,89	0,07	40,4	12,3	11,4
ITH1 - Provincia Autonoma di Bolzano	15,5	10,7	0,53	0,35	0,13	36,1	5,3	11,5
ITH2 - Provincia Autonoma di Trento	18,3	9,2	1,96	0,95	0,55	36,1	6,5	12,1
ITH3 - Veneto	16,9	5,6	1,00	0,65	0,08	36,1	9,4	9,4
ITH4 - Friuli-Venezia Giulia	19,2	6,9	1,38	0,77	0,15	36,1	9,4	10,1
ITH5 - Emilia-Romagna	19,8	6,6	1,39	0,89	0,12	36,1	10,8	10,7
ITI1 - Toscana	18,5	6,8	1,19	0,54	0,14	36,9	5,7	10,8
ITI2 - Umbria	21,4	8,4	0,88	0,25	0,06	36,9	7,0	10,2
ITI3 - Marche	19,9	7,1	0,74	0,36	0,03	36,9	8,0	9,9
ITI4 - Lazio	24,1	7,0	1,72	0,58	0,69	36,9	7,9	13,3
ITF1 - Abruzzo	19,7	6,5	0,88	0,36	0,11	27,3	6,7	11,6
ITF2 - Molise	18,7	5,9	0,50	0,05	0,08	27,3	8,1	10,3
ITF3 - Campania	20,6	5,1	1,22	0,47	0,14	27,3	5,6	13,7
ITF4 - Puglia	17,9	4,8	0,76	0,19	0,12	27,3	3,8	10,7
ITF5 - Basilicata	19,0	5,7	0,69	0,14	0,31	27,3	7,2	11,4
ITF6 - Calabria	19,5	5,4	0,46	0,03	0,05	27,3	1,9	12,4
ITG1 - Sicilia	19,1	4,4	0,82	0,23	0,10	27,6	2,7	13,0
ITG2 - Sardegna	17,3	7,4	0,67	0,05	0,12	27,6	2,5	11,0
CY0 - Kypros	43,2	6,9	0,48	0,08	0,08	n.d.	3,2	13,0
LV0 - Latvija	35,2	6,5	0,68	0,19	0,16	33,8	4,5	12,0
LT0 - Lietuva	41,0	5,7	0,90	0,23	0,18	35,2	3,7	12,5
LU0 - Luxembourg	43,9	14,4	1,46	1,00	0,28	n.d.	4,6	22,8
HU1 - Közép-Magyarország	36,8	4,2	1,58	1,04	0,31	31,4	11,6	19,3
HU2 - Dunántúl	21,0	2,2	0,58	0,36	0,04	22,4	13,1	10,5
HU3 - Alföld és Észak	22,0	2,8	0,94	0,54	0,09	21,6	9,5	10,0
MT0 - Malta	24,6	7,5	0,73	0,49	0,02	n.d.	7,9	12,9
NL1 - Noord-Nederland	29,5	17,0	1,29	0,54	0,04	51,1	5,1	14,5
NL2 - Oost-Nederland	31,2	17,0	2,11	1,04	0,35	56,5	5,7	16,2
NL3 - West-Nederland	37,0	18,6	2,08	0,80	0,30	64,4	5,5	18,0
NL4 - Zuid-Nederland	30,7	15,4	2,49	2,09	0,04	57,0	6,9	14,1
AT1 - Ostösterreich	25,0	15,1	2,93	1,79	0,22	60,7	8,4	15,6
AT2 - Südösterreich	18,1	12,9	3,51	2,52	0,16	52,0	8,2	11,6
AT3 - Westösterreich	18,6	13,1	2,22	1,69	0,06	50,3	8,7	11,5
PL1 - Region Centralny	35,7	5,4	1,23	0,34	0,60	36,1	7,4	13,9
PL2 - Region Poludniowy	31,0	4,6	0,69	0,19	0,22	34,1	8,5	13,1
PL3 - Region Wschodni	29,3	3,7	0,68	0,27	0,08	29,2	4,8	10,7
PL4 - Region Pólnocno-Zachodni	28,0	3,4	0,48	0,11	0,13	32,3	6,7	9,9
PL5 - Region Poludniowo-Zachodni	30,8	3,8	0,46	0,17	0,06	36,1	10,1	13,0
PL6 - Region Pólnocny	29,3	4,4	0,49	0,19	0,08	33,2	6,2	11,9
PT17 - Lisboa	30,8	11,3	2,21	1,11	0,19	44,6	6,7	17,3
ptx Rest van Portugal - vasteland	18,0	8,4	1,18	0,49	0,07	28,8	4,5	11,2
RO1 - Macroregiunea unu	18,2	1,2	0,28	0,10	0,03	19,4	5,8	9,9
RO2 - Macroregiunea doi	13,7	3,5	0,26	0,09	0,06	18,4	2,9	8,2
RO3 - Macroregiunea trei	25,5	1,9	0,85	0,32	0,33	22,1	8,5	13,6
RO4 - Macroregiunea patru	16,6	0,9	0,19	0,03	0,08	19,7	9,6	10,0

SI0 - Slovenija	31,6	12,4	2,45	1,81	0,35	48,1	11,4	16,5
SK0 - Slovensko	22,2	2,9	0,66	0,25	0,18	14,0	12,1	9,8
FI1 - Manner-Suomi	40,9	24,9	3,78	2,66	0,31	58,0	9,6	19,1
SE1 - Östra Sverige	41,0	29,9	3,93	2,66	0,22	73,3	9,6	21,4
SE2 - Södra Sverige	35,3	28,5	3,67	2,76	0,09	66,2	8,7	18,1
SE3 - Norra Sverige	30,4	22,9	1,46	0,65	0,10	57,8	6,1	16,0
UKC - North East (UK)	33,3	15,0	1,32	0,78	0,00	48,9	7,6	14,1
UKD - North West (UK)	37,0	14,9	2,20	1,64	0,07	59,0	7,2	15,3
UKE - Yorkshire and The Humber	35,4	16,2	1,07	0,50	0,06	56,4	4,9	15,0
UKF - East Midlands (UK)	35,3	16,9	1,78	1,27	0,11	55,3	7,8	14,6
UKG - West Midlands (UK)	34,5	13,9	1,26	0,92	0,00	58,6	8,9	14,7
UKH - East of England	36,9	16,6	4,32	3,50	0,33	61,5	7,7	17,5
UKI - London	57,6	18,5	0,99	0,31	0,10	79,9	7,0	20,8
UKJ - South East (UK)	42,8	17,3	2,66	1,88	0,35	69,5	8,9	18,4
UKK - South West (UK)	37,7	16,1	1,94	1,29	0,38	60,7	7,9	16,2
UKL - Wales	37,0	16,3	1,38	0,71	0,05	54,7	6,3	15,6
UKM - Scotland	45,4	15,5	1,72	0,62	0,27	59,0	4,6	16,6
UKN - Northern Ireland (UK)	35,4	10,1	1,64	1,05	0,06	58,0	5,3	16,0