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PART 1

COMMISSION STAFF WORKING PAPER

[...]

Accompanying the

Seventh Progress Report on economic, social and territorial cohesion

{COM(2011) 776 final}

1. Population aged 30-34 with tertiary education, 2007-2010

This indicator shows the proportion of population aged 30-34 with tertiary education to the total population 30-34 of the same age group.

Why does this matter?

Educational attainment of the population is one of the most important factors of economic growth. People with tertiary education are more likely to get a job, have a higher income and have higher life expectancy. Increasing employment rate of tertiary educated people is also likely to have positive effects on productivity. Most of the increase in the share of the tertiary-educated working-age population comes from those under 35. Therefore, the Europe 2020 strategy has set the target for the share of population aged 30-34 with tertiary education at 40%. The EU share in 2010 was 34% . The national 2020 targets range between 60% (Ireland) and 26% (Italy).

How do the EU regions score?

As well as in the case of other educational attainment indicators, the share of tertiary educated aged 30-34 varies widely in Europe. Considering the average levels for the years 2007-2010, one region in five has reached the EU 2020 target. The top ten regions have shares significantly above the EU 2020 targets and are mostly capital regions or adjoin capital regions. The bottom ten are located in the Czech Republic, Romania, Portugal and Italy (see map 1.1). Other regions lagging behind the European target are located in Greece, Bulgaria, Hungary, Slovakia and Germany.

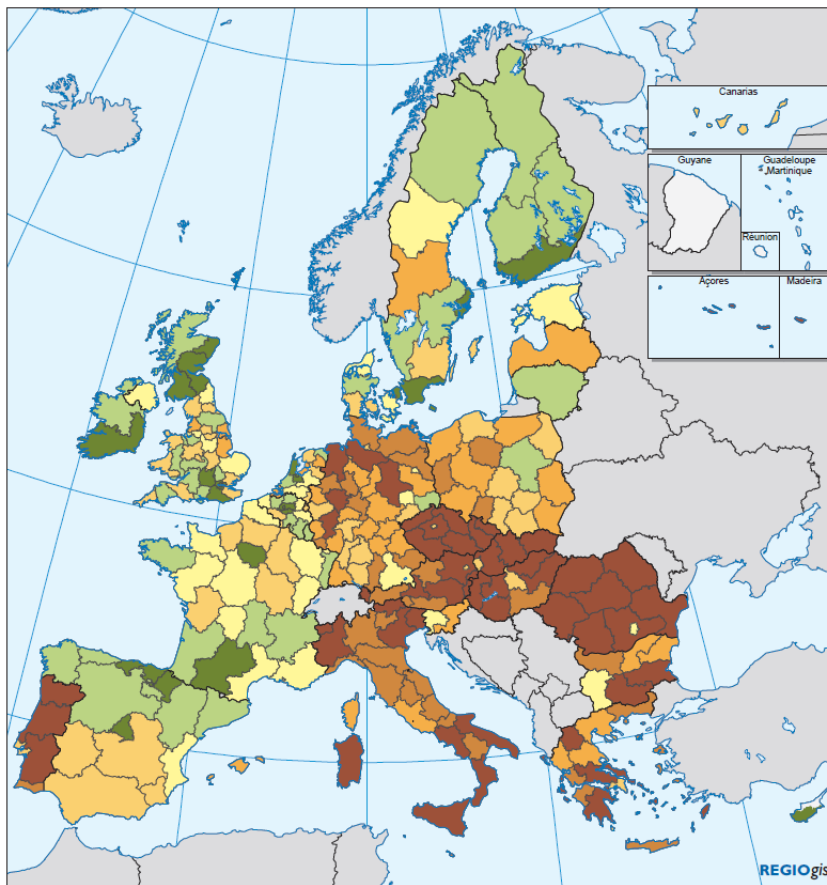
This table shows the ten regions with the highest share of population aged 30-34 with tertiary education - Average 2007-2010

MS	Region	tertiary education %
ES	País Vasco	60
UK	Inner London	59
DK	Hovedstaden	56
BE	Prov. Brabant Wallon	56
BE	Prov. Vlaams-Brabant	55
FR	Île de France	52
SE	Stockholm	51
NL	Utrecht	51
UK	North Eastern Scotland	51
ES	Comunidad de Madrid	49

This table shows the ten regions that are most distant from their national 2020 tertiary education target in percentage points

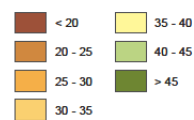
MS	Region	distance to national target, in pp
PT	Região Autónoma dos Açores	-29
SK	Západné Slovensko	-26
SK	Východné Slovensko	-25
CZ	Severozápad	-24
PL	Kujawsko-Pomorskie	-24
DE	Lüneburg	-23
PT	Alentejo	-23
FR	Corse	-23
DE	Sachsen-Anhalt	-23
PL	Opolskie	-23

The distance to the national target is particularly significant for Açores and for some regions located in Slovakia, the Czech Republic, Poland and Germany. Overall, only 25 regions across Europe have reached the national target in the 2007-2010 average, mainly in capital regions, in northern Spain and in south Finland and Sweden (see map 1.2).



1.1 Population aged 30-34 with a tertiary education, average 2007-10

% of population aged 30-34



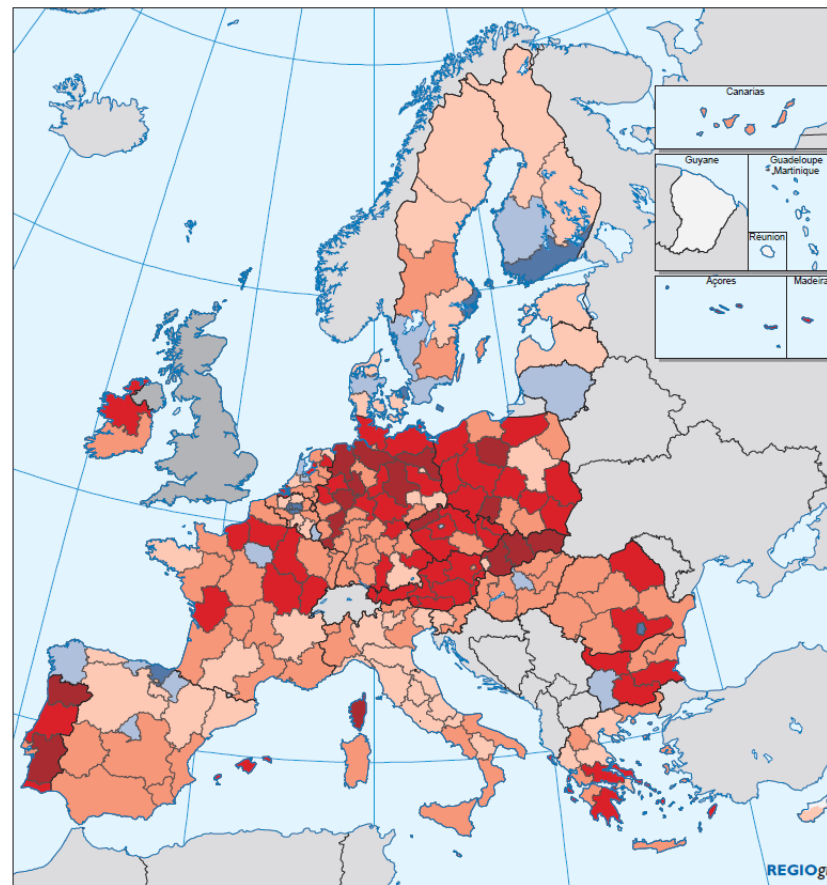
EU-27 = 31.8

The European 2020 target for the share of population aged 30-34 with a tertiary education is 40%.

Source: EUROSTAT

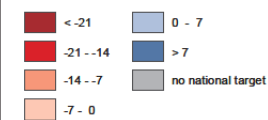


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**1.2 Population aged 30-34 with a tertiary education, average 2007-10
Distance to National 2020 target**

Percentage points difference



EU-27 = -8.3

Blue regions have reached the target.
Red regions haven't reached the target

Source: Eurostat, MS NRPs, DG REGIO calculations



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2. Early leavers from education and training, 2008-2010

The share of early leavers from education and training measures the number of people aged 18-24 with at most lower secondary education and not attending any further education or training, divided by the total population aged 18-24.

Why does this matter?

The reduction of early school leavers and the increase of educational attainment of the population are key targets of Europe 2020. These two strategies can provide vital support to Europe's employment and growth objectives. Education contributes to productivity of an individual and can lead to increases in employment, personal income and ones' overall life satisfaction. People without a complete secondary education are much more likely to be unemployed. The Europe 2020 target is to reduce the early leaving from education and training below 10% by 2020, while the 2008-2010 average is 14.5%. National targets for this strategy range between 4.5% (Poland) and 29% (Malta).

How do the EU regions score?

Regional differences in early school leaving are high. Considering a three-year average (2008-2010), the Europe 2020 target has been reached in 74 NUTS 2 regions, around one in four, requiring then a substantial effort in many regions to be achieved. Overall, the regions with the highest shares of early school leavers (above 30%) are located in Spain and Portugal. Also Malta is in the top ten regions in this indicator. Regions with high shares (between 20% and 30%) are also located in Greece, Italy, Bulgaria, Romania and United Kingdom (see map 2.1). In contrast, the lowest rates of early leavers from education and training are registered in particular in Slovakia, the Czech Republic and Poland.

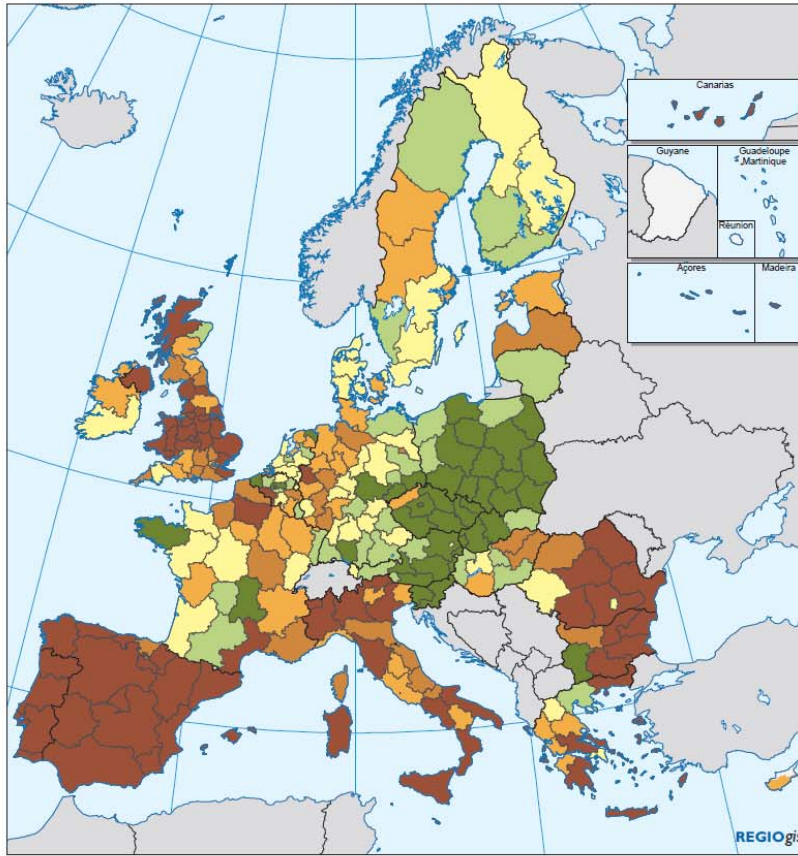
This table shows the ten regions with the lowest share of early leavers from education and training aged 18-24 - Average 2008-2010

MS	Region	% of early school leavers
SK	Bratislavský kraj	2
CZ	Jihovýchod	3
CZ	Praha	3
SK	Západné Slovensko	3
PL	Małopolskie	3
PL	Podkarpackie	4
CZ	Střední Morava	4
PL	Świętokrzyskie	4
PL	Podlaskie	4
PL	Wielkopolskie	4

This table shows the ten regions that are most distant from their national 2020 early school leavers target in percentage points

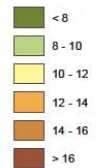
MS	Region	distance to national target, in pp
PT	Região Autónoma dos Açores	39
PT	Região Autónoma da Madeira	31
ES	Ciudad Autónoma de Ceuta	26
PT	Norte	25
ES	Illes Balears	25
PT	Algarve	23
ES	Región de Murcia	23
ES	Ciudad Autónoma de Melilla	23
ES	Andalucía	22
ES	Castilla-La Mancha	20

The distance to the national target is significant in regions of Spain and Portugal, as well as in Greece, Bulgaria and Southern Italy. Instead, several regions of Austria, Germany, Italy, the Czech Republic and Slovakia have already reached the national target (see map 2.2).



2.1 Early school leavers, Average 2008-10

% of population 18-24



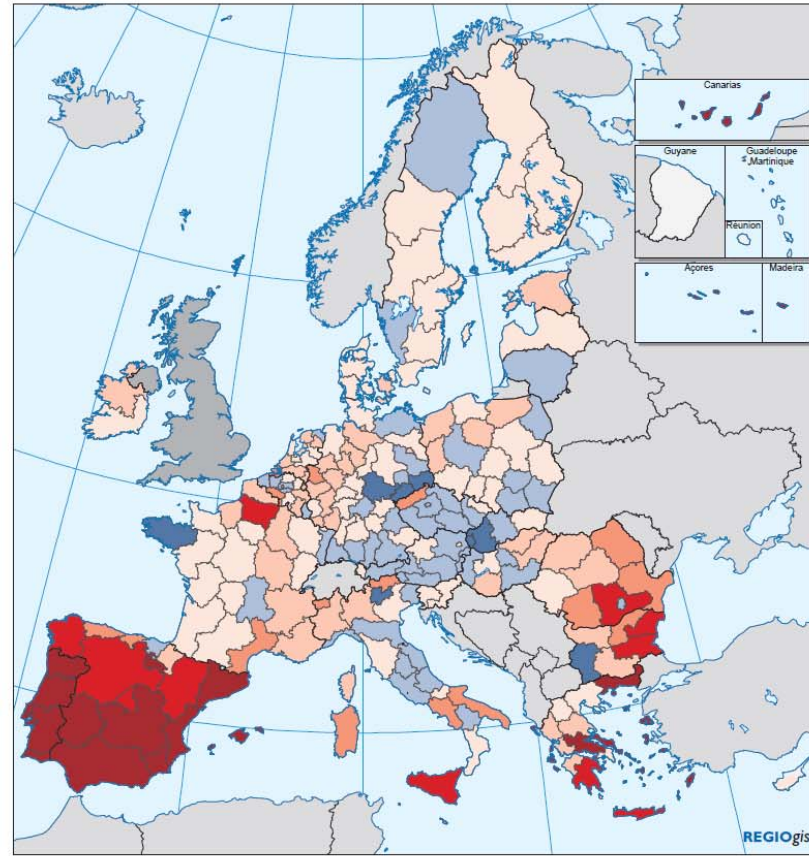
EU-27 = 14.5

The Europe 2020 target for early leavers from education and training aged 18-24 is 10%.

Source: Eurostat

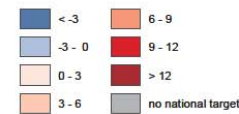


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**2.2 Early school leavers from education and training, aged 18-24 - Average 2008-10
Distance to National 2020 target**

Percentage points difference



EU-27= 4.5

Blue regions have reached the target
Red regions haven't reached the target

Source: Eurostat, MS NRPs, DG REGIO calculations



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3. General expenditure on R&D (GERD), 2008

This indicator measures the share of regional GDP invested in expenditure on research and development by both the private and the public sector.

Why does this matter?

GERD indicates the resources devoted by a region for the development of innovations and the transformation of new ideas into market opportunities through R&D. In general, the majority of activities related to R&D take place within the private sector but the public sector also plays a crucial role notably by supporting fundamental research. The Europe 2020 strategy includes the headline target of bringing GERD to 3% of GDP for the EU-27 by 2020. In 2008, the share was 1.9%. Member states, through their National Reform Programmes, set their targets between 0.5% (Cyprus) and 4% (Sweden) of their national GDP.

How do the EU regions score?

The performance on this dimension varies widely across European regions. A characteristic of GERD in developed countries is the geographical concentration in core areas, typically metropolitan and capital regions. In Europe, the regions with the highest GERD to GDP ratio are located in northern countries (Germany, UK, Sweden and Finland). The performance is also high in Austria and in capital regions such as Hovedstaden (Copenhagen), Madrid, Lisbon and Prague. At the other end of the spectrum, a series of regions mainly in Romania, Bulgaria, Greece and Poland have an expenditure on R&D below 0.5% of their GDP (see map 3.1).

This table shows the ten regions with the highest R&D as a % of GDP in 2008

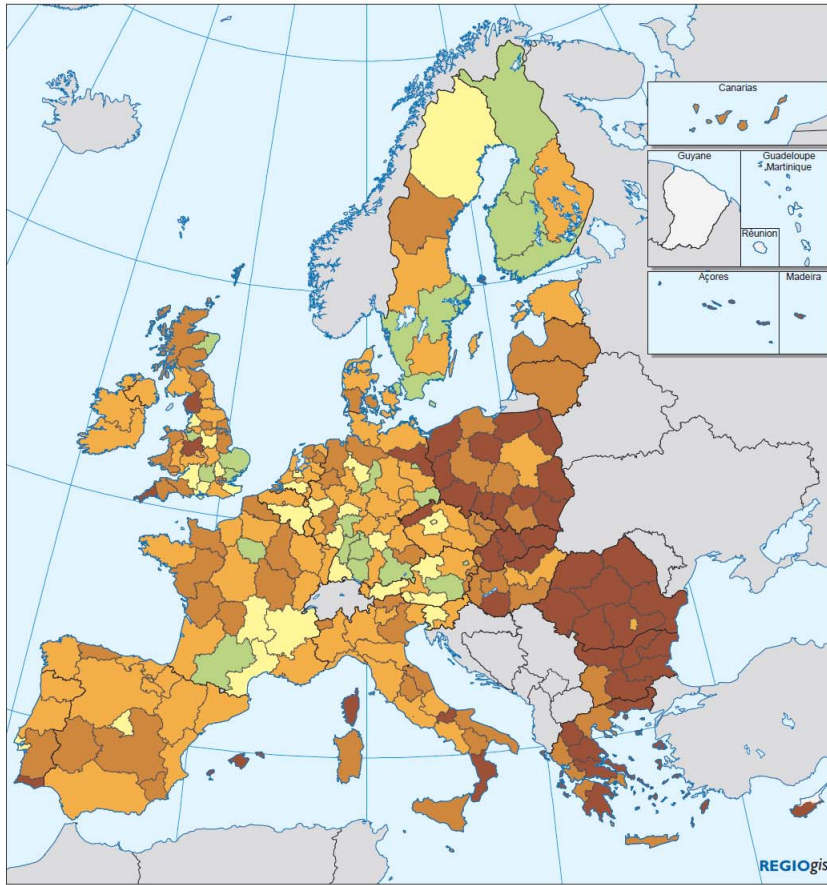
MS	Region	GERD as % of GDP
DE	Braunschweig	6.7
UK	East Anglia	5.9
FI	Pohjois-Suomi	5.9
DE	Stuttgart	5.8
UK	Cheshire	5.7
DK	Hovedstaden	5.1
SE	Sydsverige	4.8
DE	Oberbayern	4.3
FR	Midi-Pyrénées	4.2
DE	Dresden	4.1

Note: AT,BE,DE,DK,IE,IT,NL,SE: 2007, EL 2005 and FR 2004

This table shows the ten regions that are the most distant from their national 2020 R&D target in percentage points		
MS	Region	distant to national target, in pp
FI	Åland	-3.8
SE	Mellersta Norrland	-3.2
AT	Burgenland (A)	-3.1
SE	Småland med öarna	-2.9
ES	Ciudad Autónoma de Ceuta	-2.9
FR	Corse	-2.8
ES	Ciudad Autónoma de Melilla	-2.7
SE	Norra Mellansverige	-2.7
AT	Salzburg	-2.7
DE	Brandenburg - Nordost	-2.7

Note: AT,BE,DE,DK,IE,IT,NL,SE: 2007, EL 2005 and FR 2004

Only 16 regions across Europe have reached the national targets set by 2020, including some capital regions like Ile de France, Berlin, Stockholm and Lazio (see map 3.2). The distance to the EU 2020 national targets is significant in a number of regions located in Spain and Portugal but also in countries performing well in this indicator (Germany, France, Austria and Sweden), showing that a significant effort is required also in the most developed areas of Europe in order to reach the national targets.



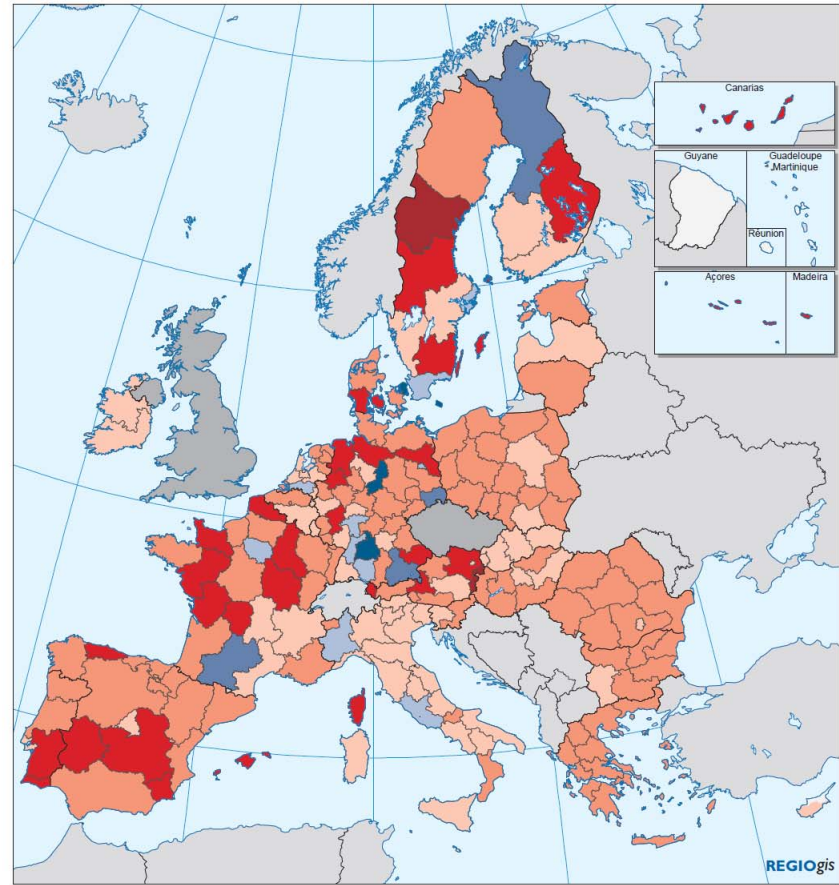
3.1 Total expenditure on R&D, 2008

% of regional GDP



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3.2 Total expenditure on R&D, 2008 - Distance to National 2020 target

Percentage points difference



0 500 Km

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4. Patent applications per 10 million inhabitants, 2006-2007

Patent applications per 10 million inhabitants is calculated by dividing the total number of patent applications to the EPO in a metro region by the total population of the metro region multiplied by 10 million. A metro region¹ represents an urban agglomeration of at least 250 000 inhabitants and consists of one or more NUTS 3 regions.

Why does this matter?

Patents, by protecting new inventions, ensure that inventors can get a return on their investment someone wants to use their invention. Patents can promote more innovation, competitiveness and economic growth. Patent applications per inhabitant give an indication of which metro regions operate close to the knowledge frontier.

How do the EU metro regions score?

Patent applications are the most concentrated issue discussed in this report. Patent application rates differ between the metro regions by a factor of more than 1 000 (hence the logarithmic axis in the graph). Even application rates between the country with highest rate (Sweden with 2 889) and with the lowest rate (Romania with 12) differ by a factor of 240.

This table shows the ten metro regions with the highest patent applications per 10 million inhabitants

MS	Metro region	Patent applications per 10 million inhabitants, 2006-2007
NL	Eindhoven	18,003
FI	Tampere	11,632
DE	Stuttgart	7,405
DE	München	7,180
DE	Mannheim	6,502
DE	Regensburg	6,486
DE	Heidelberg	6,063
DE	Nürnberg	5,972
DE	Reutlingen	5,777
DE	Ulm	5,394

Note: Cambridge is not a metro region but scores 5,627

In all Member States, the average metro region outperforms the average non-metro regions, with the exception of the UK².

This table shows the ten metro regions with the lowest patent applications per 10 million inhabitants

MS	Metro region	Patent applications per 10 million inhabitants, 2006-2007
PL	Kalisz	18
PL	Wloclawek	18
RO	Galați	16
BG	Plovdiv	14
PL	Opole	12
RO	Brasov	12
PL	Olsztyn	9
RO	Craiova	7
RO	Cluj-Napoca	5
RO	Constanța	0

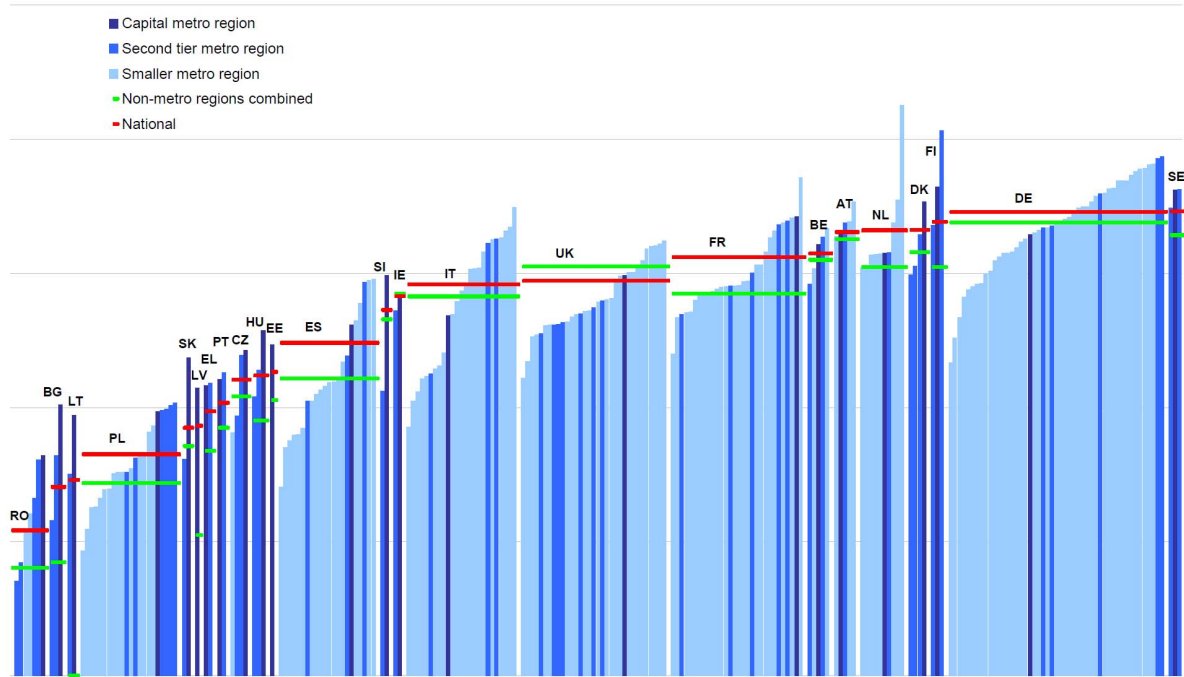
The top ten metro regions are not capital regions. They tend to be second tier and smaller metro regions with a highly specialised industry or cluster and/or university. The differences between metro regions within a country are also large, with a few scoring far above the national rate and many scoring below the national and even non-metro rate. In several MS, a second tier or smaller metro region outperforms the capital metro region (see graph).

The ten metro regions with the lowest patent application per 10 million inhabitants are second tier and smaller metro regions located in Poland, Romania and Bulgaria.

¹ The capital metro region contains the national capital. The second tier consists of the bigger metro regions just below the capital in the national urban hierarchy. Remaining metro regions are 'smaller'. For more information on metro regions see Regional Focus 01/2011 by Dijkstra L. and Poelman H.

² In the UK, Cambridge and Oxford, both too small to be considered as a metro region, have such a high number of patent applications per inhabitants (5 627 and 3 369 resp.) that they raise the average performance of UK non-metro regions above that of the UK metro regions.

4.1 Patent applications to the EPO, average 2006-2007



Source: Eurostat

5. Green House Gas emissions 2005-2009

Change in GHG emissions outside the Emissions Trading Scheme and distance to national 2020 targets (national)

Why does this matter?

This indicator shows trends in total man-made emissions of greenhouse gases by sectors included in the so-called 'Effort Sharing Decision'. The EU as a whole is committed to achieving at least a 20% reduction of its greenhouse gas emissions by 2020 compared to 1990. This objective implies a 21 % reduction in emissions from sectors covered by the EU emission trading scheme (ETS) compared to 2005 by 2020; and a reduction of 10 % in emissions for sectors outside the EU ETS. To achieve this 10% overall target each Member State has agreed country-specific greenhouse gas emission reduction or limits for 2020 compared to 2005 from sectors included in the 'Effort Sharing Decision': transport, buildings, agriculture and waste.

This table shows the five countries with the highest GHG emissions reduction outside ETS in 2009	
MS	Change in GHG emissions, 2005-2009 (%)
UK	-18.2
HU	-16.9
SK	-12.3
IT	-12.2
SE	-11.8

How do the EU Member States score?

The reduction of GHG emissions in sectors included in the Effort Sharing Mechanism has been very high in some Member States. In ~~the United Kingdom~~ Hungary, emissions were reduced by ~~18.2~~ 14.5% while in ~~Hungary~~ the United Kingdom, they fell by almost ~~17~~ 12%. For most new Member States, the decrease is more modest which reflects the very high level of economic growth these countries have experienced. Emissions even increased in some countries, like for instance in Malta (+1.4%) or Poland (+0.3%). On the contrary, emissions increased in a number of countries, like for instance in Lithuania (+11.3%) or Slovenia (+8.1%). Most of them are new Member States and this increase is directly related to the very high level of economic growth these countries have experienced.

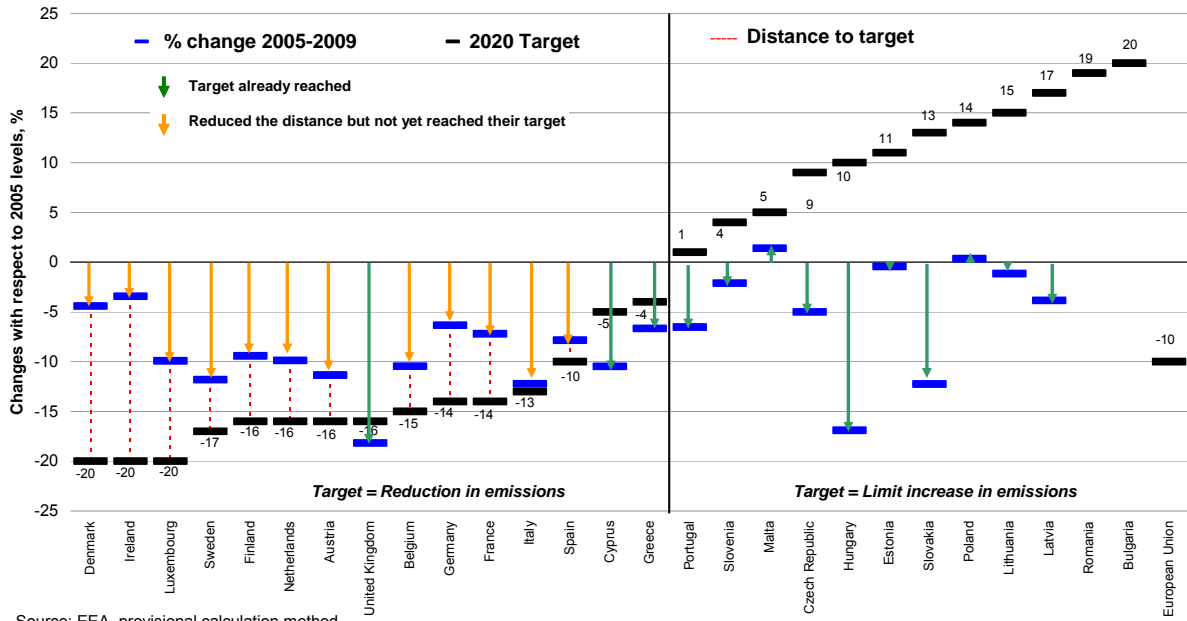
The distance to the target to which Member States have committed also strongly varies from one country to the other. A number of countries are way ahead of their target, like for instance Hungary and Slovakia which commit to limit their emissions to no more than 10% and 13% respectively and where emissions actually decreased significantly.

This table shows the five countries that are most distant to their national target in 2009	
MS	Distance to target, percentage point
IE	16.6
DK	15.6
LU	10.1
DE	7.7
FR	6.8

In other countries, the target for emission reduction is not yet reached but the emissions have started to reduce, like for instance in Sweden where the target was set to a reduction of 17% and emissions decreased by ~~11.89~~ 2% compared to levels of 2005. ~~In a few countries, namely Ireland and Slovenia, the distance to target has increased in time. Ireland committed to reduce emissions by 20% but they increased by 1.5% while Slovenia committed to limit the increase in emissions to 4.0% but increased them by 4.1%. Among the Member States which have not reached their target, the distance to target is the highest in Ireland, Denmark and Luxemburg~~ Ireland and in Denmark. It is the lowest in Italy, Spain and Belgium ~~the UK and in Belgium~~ where additional reduction of ~~0.7%, 2.2% and 4.5%~~ 4.1% and 5.3% are required to meet the objectives.

The share of GHG emissions outside ETS was based on data on the total emissions and emissions within ETS from the European Environmental Agency.

Change in greenhouse gas emissions outside the Emmissions Trading Scheme, 2005-2009 and Europe 2020 targets



Source: EEA, provisional calculation method

6. Renewable energy 2008

Consumption of renewable energy and distance to national 2020 targets (national).

Why does this matter?

This indicator shows the share of renewable energy in gross final energy consumption of Member States. Sources of renewable energy are wind power, solar power (thermal, photovoltaic and concentrated), hydro-electric power, tidal power, geothermal energy and biomass. They constitute alternatives to fossil fuels and their hence contribute to reducing greenhouse gas emissions as well as diversifying the EU energy supply.

Renewable energy is also a sector which offers interesting perspective for the development of new technologies and of new employment opportunities. The EU Directive on renewable energy has set targets for all Member States, such that the EU should reach a 20% share of energy from renewable sources by 2020 and a 10% share of renewable energy specifically in the transport sector. The share of renewable energy consumption in the EU in 2008 was 10%.

How do the EU Member States score?

The share of renewable energy in gross final energy consumption is already high in some Member States. It accounts for more than 44% of energy consumption in Sweden and more than 30% in Finland. On the contrary, it is extremely low in other countries like for instance Malta, Luxemburg or the United Kingdom where renewable energy represents respectively 0.2%, 2.1% and 2.2% of gross final energy consumption.

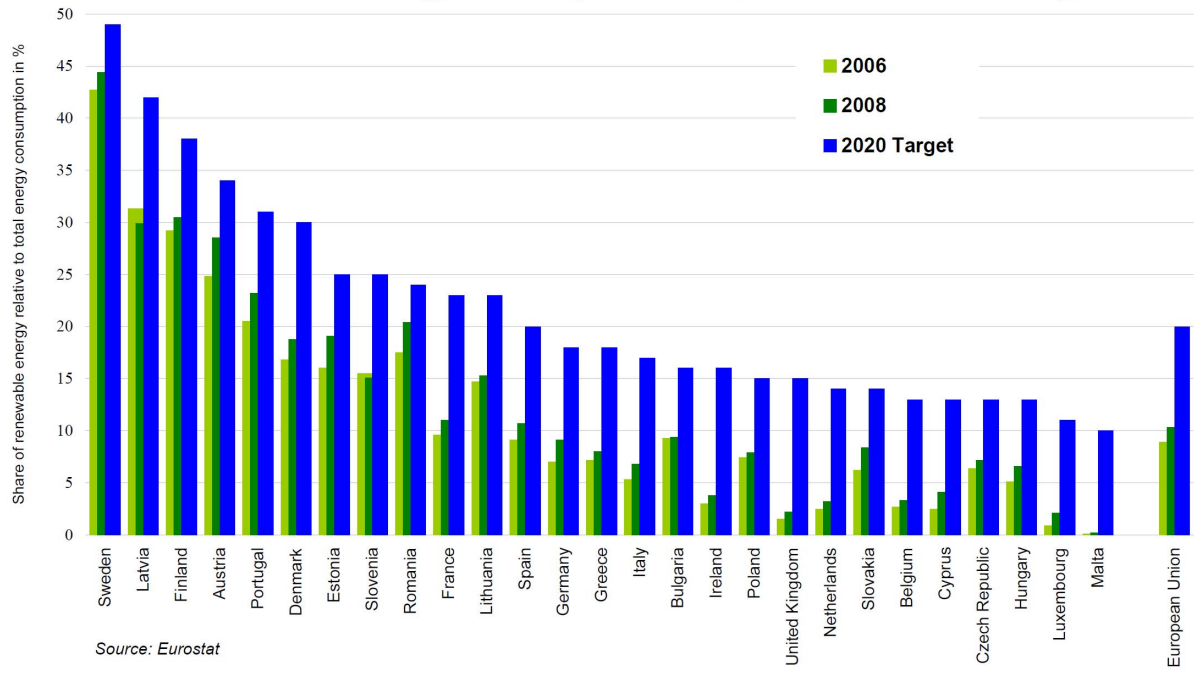
This table shows the five countries with the highest share of renewable energy in gross final energy consumption in 2008	
MS	Share of renewable energy in gross final energy consumption, 2008 (%)
SE	44.4
FI	30.5
LV	29.9
AT	28.5
PT	23.2

However, it is generally in the Member States where the use of renewables is particularly low that it is also growing the fastest. For instance, between 2006 and 2008, the share of renewable energy in gross final energy consumption has grown by 133% in Luxemburg, by 100% in Malta and 64% in Cyprus. The growth in the share of renewables in consumption is above 20% in all Member States where it is currently lower than 5%.

This table shows the five countries that are most distant to their national target in 2008	
MS	Distance to target, percentage point
UK	12.8
IE	12.2
LV	12.1
FR	12.0
DK	11.2

The situation of Member States also widely varies regarding the distance to the target they have committed. Some countries like the United Kingdom, Ireland, Latvia or France must increase the use of renewables by more than 12 percentage points to reach their targets. Other countries are already close to their 2020 objective, like for instance Romania, Sweden or Austria which must respectively add another 3.6, 4.6 and 5.5 percentage points of renewables into final energy consumption for reaching their targets.

6.1 Renewable energy consumption, 2006, 2008 and the 2020 targets



7. Employment rate age group 20-64, 2010

The employment rate divides the number of persons aged 20 to 64 in employment by the total population of the same age group. The indicator is based on the EU Labour Force Survey.

Why does this matter?

The Europe 2020 strategy aims to increase the employment rate of people aged 20 to 64 to 75% by 2020. In the EU, the rate was 69% in 2010. Increasing the employment rate will help to reduce poverty and exclusion. It will also help to address the cost of ageing, in particular in countries with a pay-as-you-go pension system. To sustainably increase the employment rate, the EU will have to become more globally competitive. Investments in human capital and innovation in the broad sense, connections and the business environment can all contribute to this goal. National 2020 targets stated in the national reform programmes vary from 62.9% in Malta to 80% in Sweden and Denmark.

How do the EU regions score?

The convergence regions have the lowest employment rate at 63%, the transition regions score slightly better at 64%. The competitiveness regions have higher rate of 72%. To reach the target of 75% in 2020, the convergence regions need more than 5 million jobs, transition regions need 2.5 million and competitiveness regions need 12 million jobs.

The ten regions with the highest employment rate are all from the Northwest of the EU. Their employment rates are unlikely to increase much more. In particular, the Netherlands, Sweden, Denmark, Germany and the UK have reached high levels of employment.

Most countries show stark regional differences, underlining the regional nature of labour markets and the relatively low labour mobility within the EU.

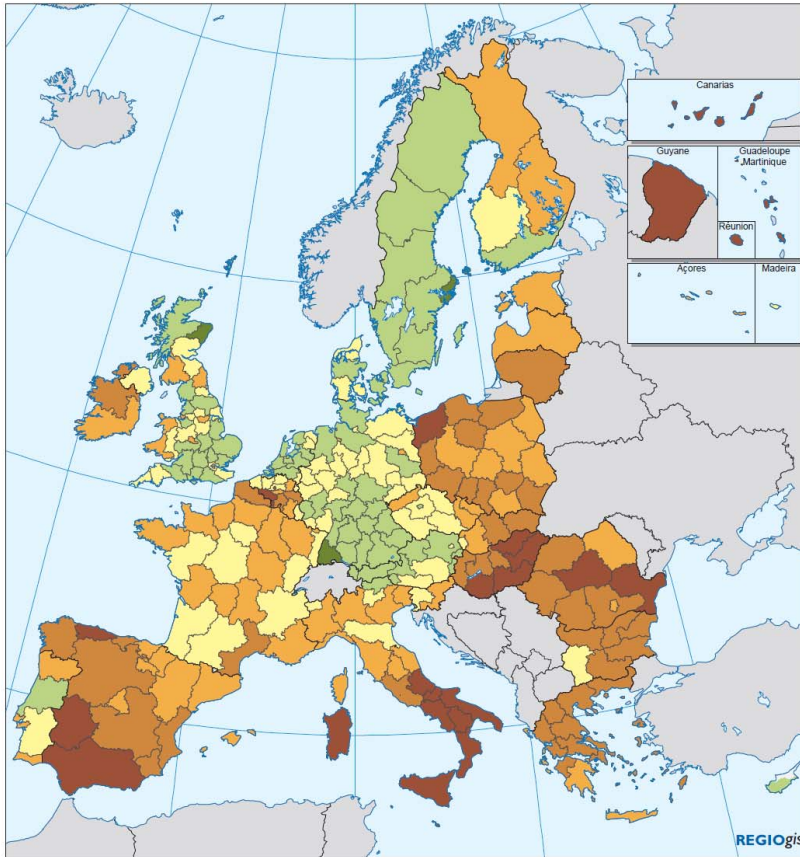
The regions with employment rates below 60% are almost all southern, eastern or outermost regions (see map 7.1). But

This table shows the ten regions which are the most distant to their national 2020 employment rate target in 2010 in percentage points		
MS	Region	Distance to national 2020 employment target in pp
FR	Réunion	-25
IT	Campania	-24
ES	Ciudad Autónoma de Ceuta	-23
ES	Ciudad Autónoma de Melilla	-23
FR	Guyane	-22
IT	Calabria	-22
IT	Sicilia	-21
HU	Észak-Magyarország	-21
HU	Észak-Alföld	-21
FR	Guadeloupe	-20

some regions in the North-West score low too, for example West Wales and the Valleys in the UK, Border, Midland and Western in Ireland or Hainaut and Brussels in Belgium.

The ten regions most distant to their national target are three of the four French outermost regions, three southern Italian regions, two Hungarian regions and the Spanish enclaves Melilla and Ceuta. The UK has opted not to select a national employment target for 2020.

This table shows the ten regions with the highest employment rate in 2010		
MS	Region	Employment rate age group 20-64 in %, 2010
FI	Åland	83.6
SE	Stockholm	81.7
DE	Freiburg	80.2
UK	North Eastern Scotland	80.1
NL	Utrecht	79.7
DE	Schwaben	79.5
SE	Småland med öarna	79.5
UK	Berkshire, Buckinghamshire and Oxfordshire	79.4
SE	Västsverige	79.1
DE	Oberbayern	79.0



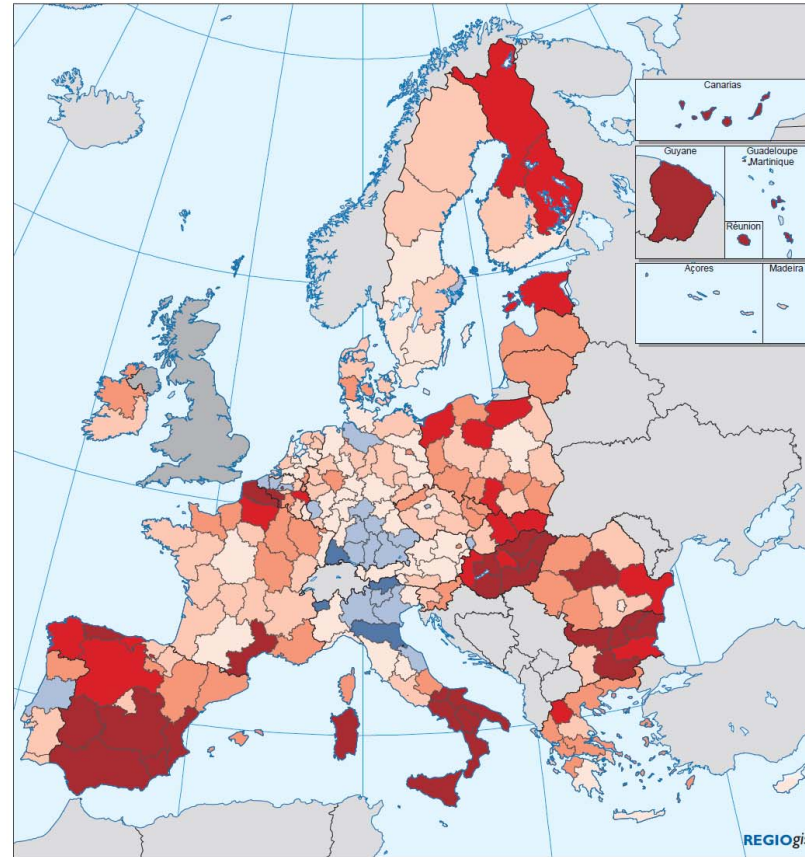
7.1 Employment rate, (ages 20-64), 2010

% of population aged 20-64



0 500 Km

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7.2 Employment rate, (ages 20-64), 2010 - Distance to National 2020 target

Percentage points difference



0 500 Km

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