



## Ageing population: projections 2010 - 2060 for the EU27

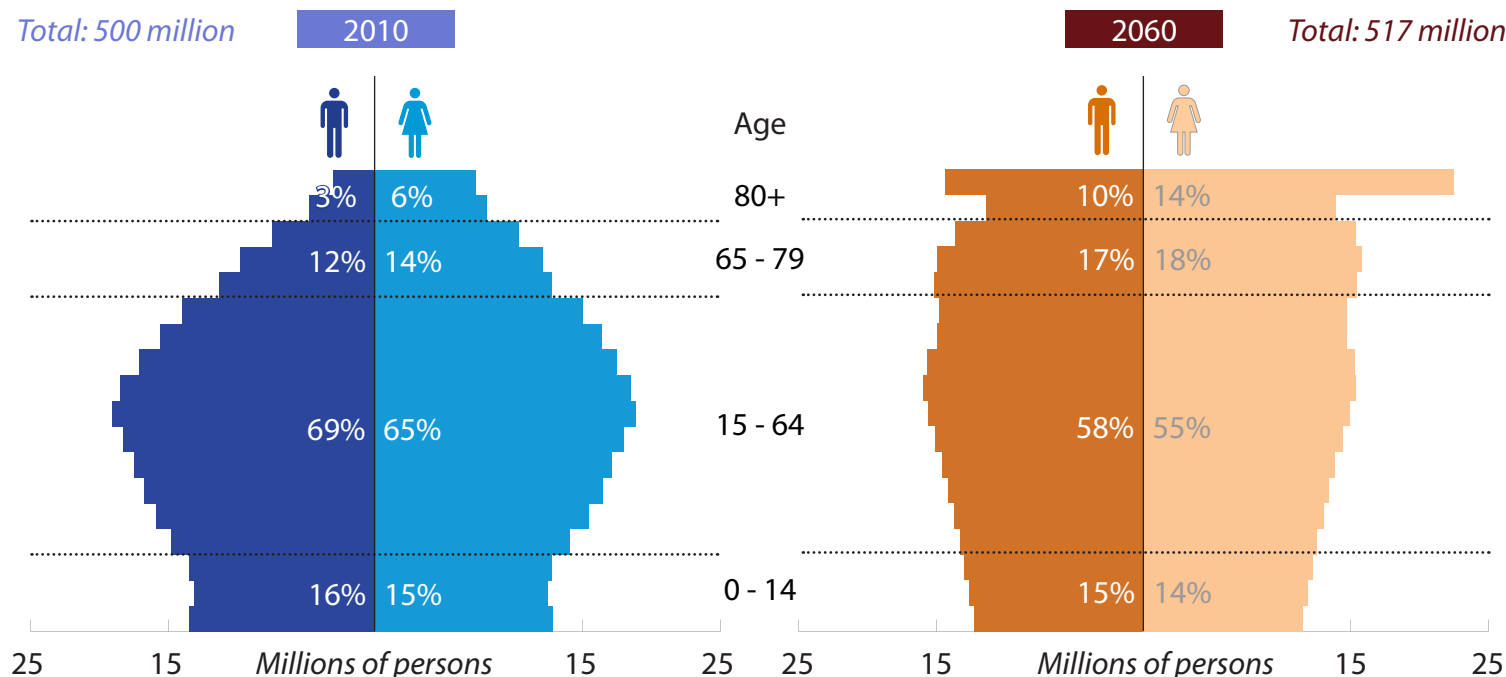
Ageing of the European Union (EU) population has a major impact on society and in terms of economics. A decreasing birth rate and an increase in life expectancy are expected to transform the shape of the EU's age pyramid and also raise the median age.

In the 50 years from 2010 to 2060, the population aged 65 or over as a proportion of the working age population (aged 15-64) will almost double, rising from one older person for every four workers to one for every two. Persons active in the labour force will face an increasing tax burden and higher social contributions in order to support their elders. Alternatively, older citizens will need to accept lower levels of support and services or a higher pension age.

This spotlight highlights the major changes projected to take place in the five decades from 2010. It looks at the age profile of the EU population and shows the expected evolution in life expectancy, median age and labour force in Member States. Finally it shows the implications of an ageing society on social expenditure on old-age pensions, healthcare and long-term care.

### 1. EU27 population by age and sex

Data source: Eurostat (demo\_pjangroup, proj\_10c2150p) and UN



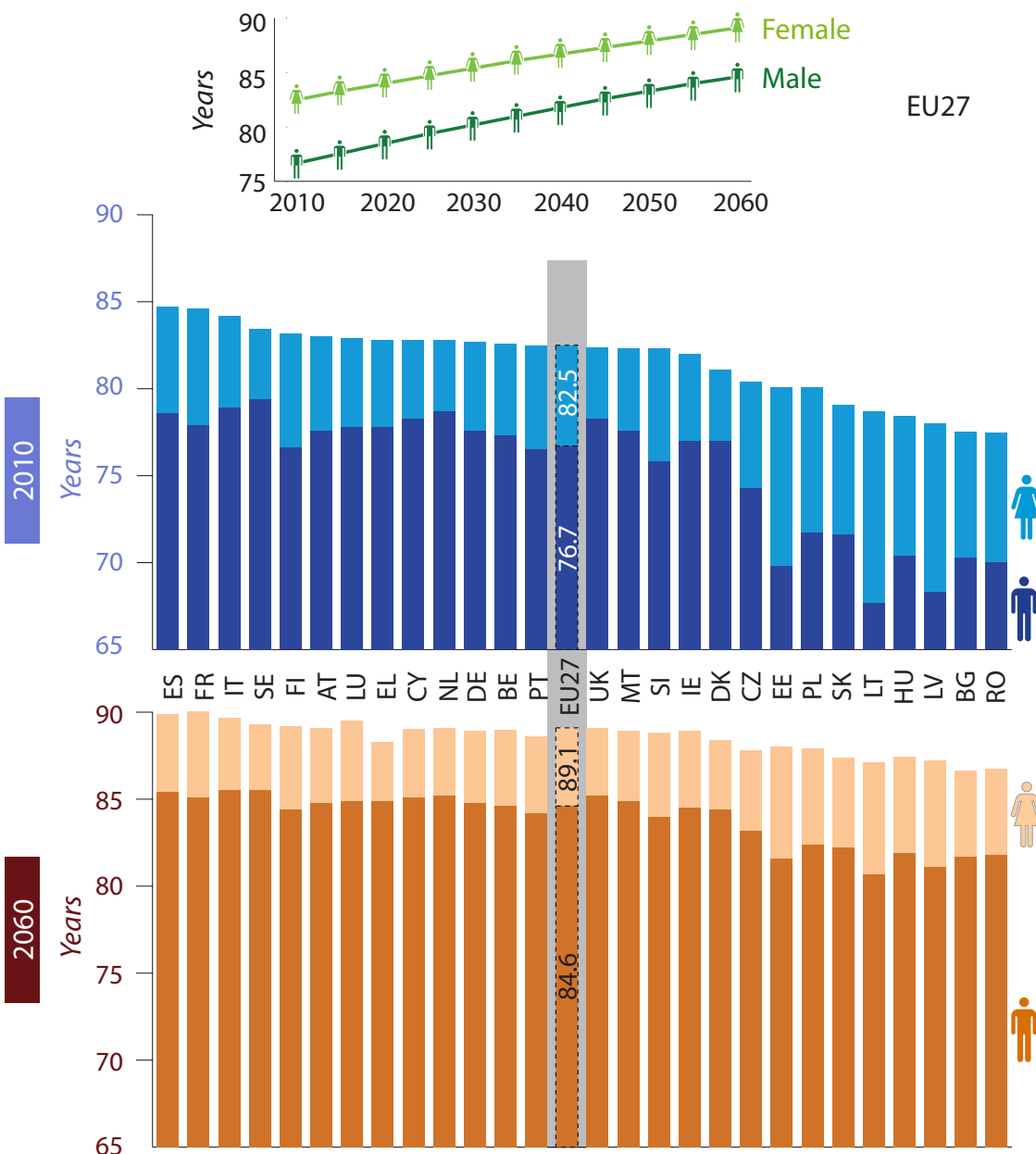
Population	EU27		China		Japan		India		Russia		USA	
	2010	2060	2010	2060	2010	2060	2010	2060	2010	2060	2010	2060
80+	5%	12%	1%	7%	6%	19%	1%	3%	3%	5%	4%	8%
65 - 79	13%	18%	7%	21%	17%	18%	4%	12%	10%	17%	9%	15%
15 - 64	67%	56%	74%	57%	64%	50%	65%	66%	72%	61%	67%	60%
0 - 14	16%	14%	18%	15%	13%	13%	30%	18%	15%	17%	20%	18%
Total (million)	500	517	1 360	1 313	127	103	1 206	1 644	144	115	312	418

[Further information on page 5](#)



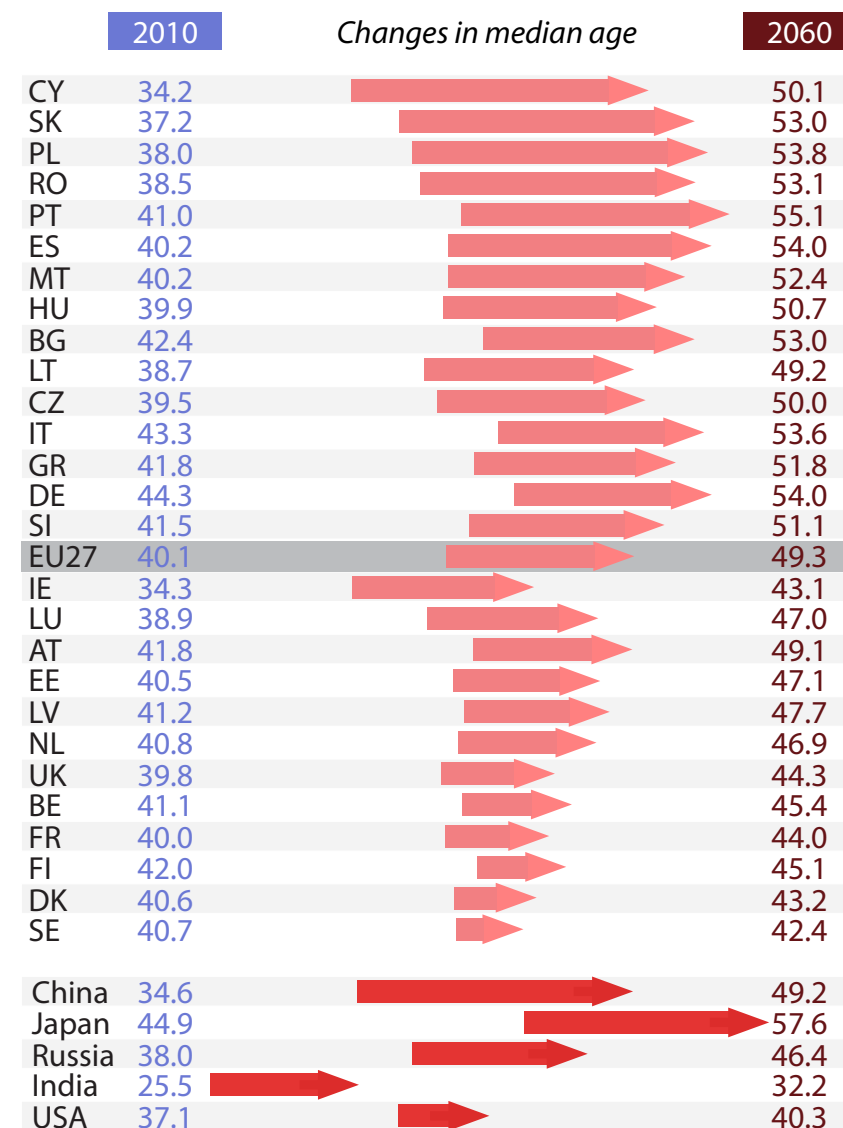
## 2. EU27 life expectancy at birth

Data source: EC



## 3. Median age (years)

Data source: UN

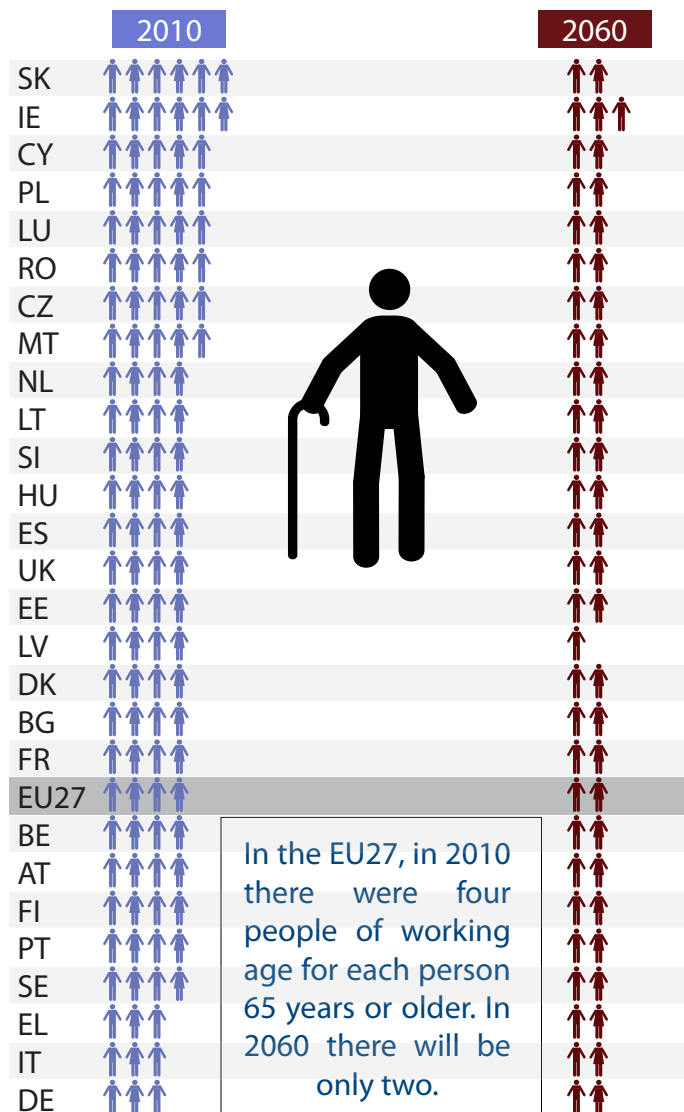


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## 4. Old-age dependency ratio (65+/(15-64)) Data source: EC

Number of people of working age for each person 65 years or older

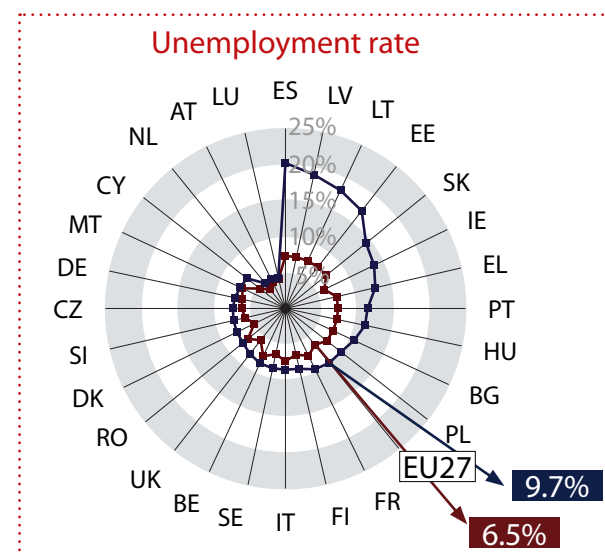
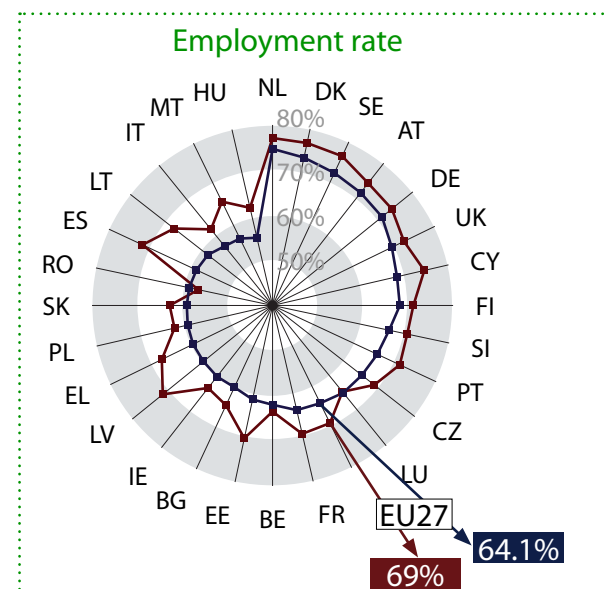


## 5. Labour force (15-64) Data source: EC

In 1 000s

	2010		2060
MT	174	↓	152
LU	235	↑	288
CY	413	↑	511
EE	672	↓	487
SI	1 022	↓	842
LV	1 138	↓	672
LT	1 624	↓	1 072
IE	2 088	↑	2 650
SK	2 710	↓	1 872
DK	2 884	↓	2 863
BG	3 476	↓	2 079
AT	4 254	↓	3 942
HU	4 285	↓	3 288
SE	4 832	↑	5 375
BE	4 853	↑	5 362
EL	5 151	↓	4 521
CZ	5 204	↓	4 264
PT	5 270	↓	4 397
NL	8 714	↓	7 806
RO	9 563	↓	5 632
PL	17 923	↓	11 694
ES	23 014	↓	22 599
IT	24 718	↓	24 161
FR	29 616	↑	31 413
UK	30 976	↑	35 359
DE	41 306	↓	28 572
<b>EU27</b>	<b>238 763</b>	<b>↓</b>	<b>214 366</b>

## 6. Employment and unemployment rate (15-64) Data source: EC



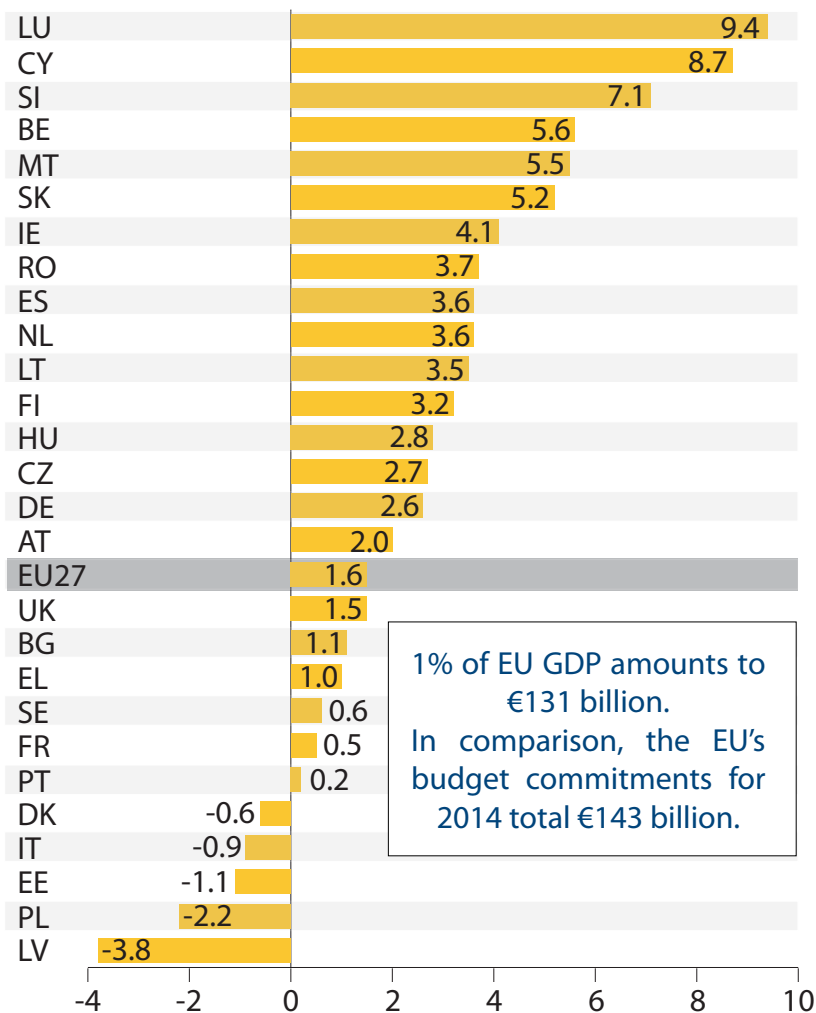
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## 7. Public pension expenditure

Data source: EC

Change in percentage points (p.p.) of GDP 2010 - 2060

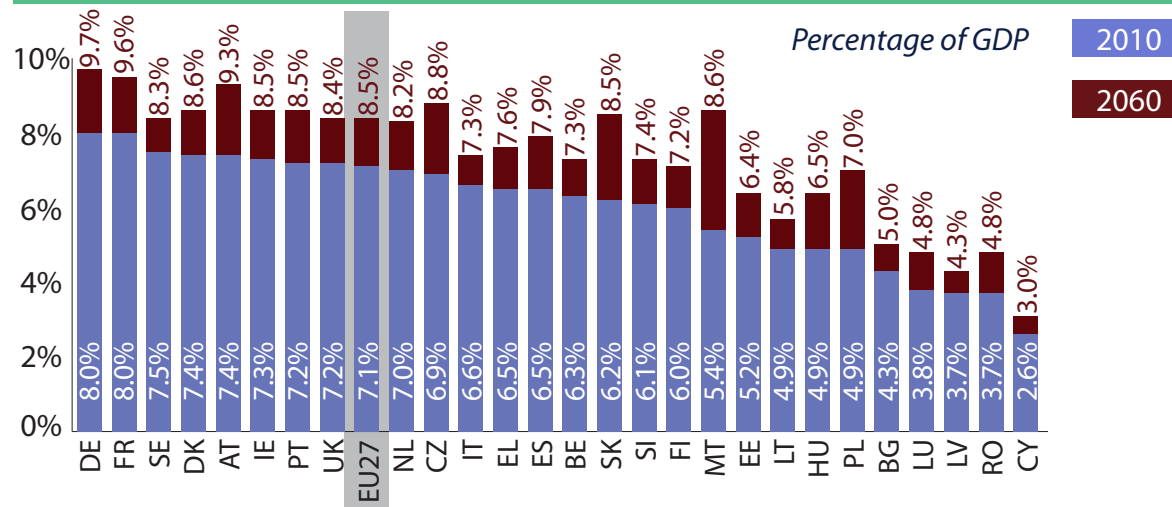


1% of EU GDP amounts to €131 billion.  
In comparison, the EU's budget commitments for 2014 total €143 billion.

In the EU27, public pension expenditure is forecast to increase by 1.6 p.p. from 11.3% to 12.9% of GDP.

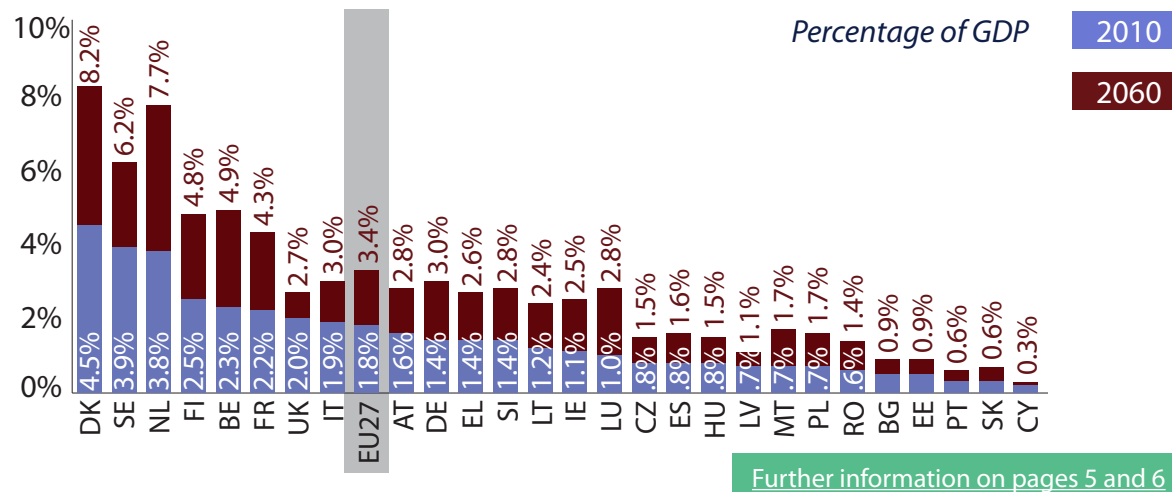
## 8. Public expenditure on healthcare

Data source: EC



## 9. Public expenditure on long-term care

Data source: EC



Further information on pages 5 and 6

## Notes

**Country codes:** Austria (AT), Belgium (BE), Bulgaria (BG), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (EL), Hungary (HU), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Poland (PL), Portugal (PT), Romania (RO), Slovakia (SK), Slovenia (SI), Spain (ES), Sweden (SE), United Kingdom (UK), European Union (EU27). **Extraction date:** data were extracted in November 2013. At the moment of preparation data were available only for the EU27.





## Further information

### 1. EU27 population by age and sex

The two pyramid graphs represent the EU27 female and male population for the years 2010 and 2060. The percentage is the share that each age group (0-14, 15-64, 65-79 and 80+) represents of the total female and male population. Data source for the EU27 is Eurostat and in the [metadata document](#) under “Statistical concepts and definitions” is the explanation of how Eurostat made the forecast for 2060.

EU27 total population is reported in the table underneath. Other countries are reported for comparison purposes, using data from the United Nations (UN). For an explanation of the basis for the UN projection, see page 2 of this [metadata document](#).

### 2. EU27 life expectancy at birth

The graphs represent life expectancy at birth for the EU27 and individual Member States (MS). The line chart represents the change in life expectancy both for men and women in the period 2010-2060 for the EU27. The two bar charts show data for MS and EU27 for the year 2010 (blue chart) and 2060 (orange chart). The source of these data is a [document from the European Commission](#) (EC). An explanation of the life expectancy projection for 2060 is given in the document at pages 25 and 47.

### 3. Median age (years)

The graph shows the changes in median age from 2010 to 2060 for MS. Data for the EU27 represent the average of the 27 MS as calculated by the author. Median age is the age that divides a population into two numerically equal groups; this means that half the people are younger than this age and half are older. The estimate for 2060 is based on the “Constant-fertility” assumption, for which an explanation can be found at page 35 of the following [UN document](#). Some other major countries are also presented for comparison.

### 4. Old-age dependency ratio (65+/(15-64))

The graph represents the demographic old-age dependency ratio, or the ratio of people aged 65 or above relative to those aged 15-64. This indicator shows how many working-age people there are for every person aged over 65 years, that is how many people are needed to finance one old-age pensioner. In other words, in the EU27 for every person aged over 65 we have four working-age people in 2010 (the index is 26%) and two in 2060 (index is 52.5%).

### 5. Labour force (15-64)

The table shows the number of people aged 15-64 that make up the labour force for the years 2010 and 2060. The labour force, also called the active population, is the part of the population aged 15-64 that is employed or unemployed. The arrows in the middle show the direction of change in this value for each MS.

### 6. Employment and unemployment rate (15-64)

The two radar charts show the employment and unemployment rate for the 27 MS and EU in 2010 and 2060. Employed persons comprise persons aged 15-64 years who during a reference week worked for at least one hour for pay or profit or family gain or were temporarily absent. Unemployed persons comprise persons aged 15-64 years old who were not employed, were currently available for work and were actively seeking work. Projections for the 2060 rates have been made by the EC based on trends in employment patterns of women, older workers and young people. Further information on the 2060 rates and what influences the changes can be found in the [EC document](#) at page 63.

### 7. Public pension expenditure

The graph gives the change in percentage points (p.p.) of public pension expenditure expressed as a percentage of GDP. “Public pensions are those



schemes that are statutory and that the general government sector administers. Public pension schemes affect public finances as they are considered to belong to the general government sector in the national account system". More explanation of the pension projection is provided in the [EC document](#) at page 88.

For example, the EU27 is facing an increase of 1.6 p.p. in spending on public pensions as a share of GDP; that means expenditure will rise from 11.3% of GDP in 2010 to 12.9% in 2060.

The calculation of 1% of GDP is based on 2013 [Eurostat data](#). EU budget data come from the adopted [2014 budget](#).

## 8. Public expenditure on healthcare

The clustered bar chart shows public expenditure in terms of GDP for the year 2010 (blue) and 2060 (red). For example, in the EU27 public expenditure on healthcare is at 7.1% of GDP in 2010; it will increase by 1.4 p.p. by 2060, reaching a level of 8.5% of GDP.

For an explanation of how this change has been calculated see page 157 of the [EC document](#).

## 9. Public expenditure on long-term care

Long-term care refers to services or assistance on a daily basis over a period of time for people who are not independent. The services may include supported living arrangements or care in a nursing home or at home.

The graph shows the value of this expenditure in terms of GDP for the year 2010 (blue bar) and 2060 (red bar). For an explanation on how the projection has been arrived at, see page 195 of the [EC document](#).

The following table gives the values for expenditure on long-term care for the countries not shown in the graph:

	BG	EE	PT	SK	CY
2010	0.5%	0.5%	0.3%	0.3%	0.2%