# Population projections 2004-2050 <br> EU25 population rises until 2025, then falls <br> Working age population expected to decrease by 52 million by 2050 


#### Abstract

Over the next two decades the total population of the EU25 is expected to increase by more than 13 million inhabitants, from 456.8 million on 1 January 2004 to 470.1 million on 1 January 2025. Population growth in the EU25 until 2025 will be mainly due to net migration, since total deaths in the EU25 will outnumber total births from 2010. The effect of net migration will no longer outweigh the natural decrease after 2025 , when the population will start to decline gradually. The population will reach 449.8 million on 1 January 2050, that is a decrease of more than 20 million inhabitants compared to 2025 . Over the whole projection period the EU25 population will decrease by $1.5 \%$, resulting from a $0.4 \%$ increase for the EU15 and a $11.7 \%$ decrease for the ten new Member States.

The share of the population of working age (between 15 and 64) in the total population is expected to decrease strongly in the EU25, from $67.2 \%$ in 2004 to $56.7 \%$ in 2050, that is a fall of 52 million inhabitants of working age. The share of the population aged between 0 and 14 will also be reduced, from $16.4 \%$ in 2004 to $13.4 \%$ in 2050, while the proportion of elderly people (aged 65 and more) is expected to almost double over th is period, from $16.4 \%$ in 2004 to $29.9 \%$ in 2050.

This information on population projections ${ }^{1}$ in the EU25, Bulgaria and Romania, issued by Eurostat, the Statistical Office of the European Communities, has been derived from the analysis and extrapolation of demographic trends. Given the length of the projection period, results should be considered with caution.


## Largest declines in most of the new Member States

In 2004 the population is estimated to have decreased in seven Member States (the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland and Slovakia). By 2025 the population will decrease in another six; Italy (from 2013), Germany and Slovenia (both 2014), Portugal (2018), Greece (2020) and Spain (2022). By 2050, twenty Member States are expected to register a decline in their population; the previous thirteen plus Finland (from 2028), Austria (2029), Denmark (2032), the Netherlands (2036), Belgium (2037), the United Kingdom (2040) and France (2042). The population will still be increasing in Ireland, Cyprus, Luxembourg, Malta and Sweden.

Between 2004 and 2050, the largest declines are expected to be observed in most of the new Member States: Latvia ( $-19.2 \%$ ), Estonia ( $-16.6 \%$ ), Lithuania ( $-16.4 \%$ ), the Czech Republic ( $-12.9 \%$ ), Hungary and Slovakia (both $-11.9 \%$ ), and Poland ( $-11.8 \%$ ). Over the whole period, the strongest increases will be recorded in Luxembourg (+42.3\%), Ireland (+36.0\%), Cyprus (+33.5\%) and Malta (+27.1\%).

In absolute terms the largest population decreases are expected in Germany ( -7.9 million), followed by Italy ( -5.2 million) and Poland ( -4.5 million), while the highest rises are expected in France (+ 5.8 million), the United Kingdom ( +4.7 million) and Ireland ( +1.5 million).

## Number of adults and young people down by 67 million by 2050

The proportion of the population in working age (between 15 and 64) is expected to decline sharply in the long run. In the EU25 it will pass from $67.2 \%$ in 2004 to $56.7 \%$ in 2050, i.e. in absolute terms from 306.8 million in 2004 to 254.9 million in 2050. In 2050 the lowest shares of the population of working age will be observed in Spain ( $52.9 \%$ ), Italy ( $53.5 \%$ ), Portugal ( $55.0 \%$ ) and Greece ( $55.2 \%$ ) and the highest in Luxembourg ( $61.3 \%$ ), Malta ( $60.8 \%$ ) and the Netherlands ( $60.7 \%$ ).
The share of the EU25 population aged between 0 and 14 will decrease from $16.4 \%$ in 2004 to $13.4 \%$ in 2050. The largest decreases will be recorded in Cyprus (from 20.0\% to 13.3\%) and Ireland (from 20.9\% to 16.0\%). In 2050 the proportion of young people will range between $11.2 \%$ in Italy and $16.6 \%$ in Luxembourg.

## More than 10\% of the population aged 80 or over in 2050

On the other hand, the proportion of elderly people (aged 65 and more) is expected to rise substantially throughout the whole projection period. In the EU25 it will increase from $16.4 \%$ in 2004 to $29.9 \%$ in 2050, or from 75.3 million in 2004 to 134.5 million in 2050. The largest shares of elderly people in 2050 are expected in Spain (35.6\%), Italy ( $35.3 \%$ ), and Greece ( $32.5 \%$ ), and the lowest in Luxembourg ( $22.1 \%$ ), the Netherlands ( $23.5 \%$ ) and Denmark (24.1\%).

The proportion of very old people (aged 80 and more) is expected to almost triple in the EU25, from 4.0\% in 2004 to $11.4 \%$ in 2050, with the highest proportions expected in Italy (14.1\%), Germany ( $13.6 \%$ ) and Spain ( $12.8 \%$ ).

As a consequence, the elderly dependency ratio ${ }^{2}$ in the EU25 will rise from $24.5 \%$ in 2004 to $52.8 \%$ in 2050, while the young dependency ratio ${ }^{3}$ would remain more or less constant throughout the projection period, passing from $24.4 \%$ in 2004 to $23.7 \%$ in 2050. The total dependency ratio ${ }^{4}$ in the EU25 would increase from $48.9 \%$ in 2004 to $76.5 \%$ in 2050 . This means that whereas in 2004 there was one inactive person (young or elderly) for every two persons of working age, in 2050 there would be three inactive persons for every four of working age.

1. The Eurostat set of population projections is just one among several scenarios of population evolution based on assumptions of fertility, mortality and migration. The current trend scenario does not take into account any future measures that could influence demographic trends and comprises four variants: the 'baseline' variant presented in this News Release, as well as 'high population', 'low population' and 'zero-migration' variants, all available on the Eurostat website. It should be noted that the assumptions adopted by Eurostat may differ from those adopted by National Statistical Institutes (for example, assumptions about migration levels in Italy and Slovenia). Therefore, the results published by Eurostat can be different from those published by Member States.
2. Population aged 65 and more as a percentage of population aged between 15 and 64 .
3. Population aged between 0 and 14 as a percentage of population aged between 15 and 64 .
4. Sum of young and elderly dependency ratios.
5. Data for France refer to metropolitan France.

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Total population

|  | Population at 1 January (1000 inhabitants) |  |  |  | Percentage increase with respect to 1.1.2004 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004 | 2015 | 2025 | 2050 | 2015 | 2025 | 2050 |
| EU25 | 456815 | 467307 | 470057 | 449831 | 2.3 | 2.9 | -1.5 |
| EU15 | 382674 | 394727 | 398780 | 384356 | 3.1 | 4.2 | 0.4 |
| New Member States | 74141 | 72580 | 71278 | 65475 | -2.1 | -3.9 | -11.7 |
| Belgium | 10396 | 10674 | 10898 | 10906 | 2.7 | 4.8 | 4.9 |
| Czech Republic | 10212 | 10012 | 9812 | 8894 | -2.0 | -3.9 | -12.9 |
| Denmark | 5398 | 5498 | 5557 | 5430 | 1.9 | 2.9 | 0.6 |
| Germany | 82532 | 82864 | 82108 | 74642 | 0.4 | -0.5 | -9.6 |
| Estonia | 1351 | 1279 | 1224 | 1126 | -5.3 | -9.4 | -16.6 |
| Greece | 11041 | 11390 | 11394 | 10632 | 3.2 | 3.2 | -3.7 |
| Spain | 42345 | 45264 | 45556 | 42834 | 6.9 | 7.6 | 1.2 |
| France ${ }^{5}$ | 59901 | 62616 | 64392 | 65704 | 4.5 | 7.5 | 9.7 |
| Ireland | 4028 | 4555 | 4922 | 5478 | 13.1 | 22.2 | 36.0 |
| Italy | 57888 | 58630 | 57751 | 52709 | 1.3 | -0.2 | -8.9 |
| Cyprus | 730 | 828 | 897 | 975 | 13.3 | 22.8 | 33.5 |
| Latvia | 2319 | 2174 | 2068 | 1873 | -6.3 | -10.8 | -19.2 |
| Lithuania | 3446 | 3258 | 3134 | 2881 | -5.5 | -9.1 | -16.4 |
| Luxembourg | 452 | 499 | 544 | 643 | 10.4 | 20.5 | 42.3 |
| Hungary | 10117 | 9834 | 9588 | 8915 | -2.8 | -5.2 | -11.9 |
| Malta | 400 | 439 | 468 | 508 | 9.8 | 17.0 | 27.1 |
| Netherlands | 16258 | 16957 | 17429 | 17406 | 4.3 | 7.2 | 7.1 |
| Austria | 8114 | 8358 | 8501 | 8216 | 3.0 | 4.8 | 1.3 |
| Poland | 38191 | 37429 | 36836 | 33665 | -2.0 | -3.5 | -11.8 |
| Portugal | 10475 | 10762 | 10730 | 10009 | 2.7 | 2.4 | -4.4 |
| Slovenia | 1996 | 2019 | 2014 | 1901 | 1.1 | 0.9 | -4.8 |
| Slovakia | 5380 | 5309 | 5237 | 4738 | -1.3 | -2.7 | -11.9 |
| Finland | 5220 | 5354 | 5439 | 5217 | 2.6 | 4.2 | -0.1 |
| Sweden | 8976 | 9373 | 9769 | 10202 | 4.4 | 8.8 | 13.7 |
| United Kingdom | 59652 | 61934 | 63792 | 64330 | 3.8 | 6.9 | 7.8 |
| Bulgaria | 7801 | 7130 | 6465 | 5094 | -8.6 | -17.1 | -34.7 |
| Romania | 21711 | 20917 | 19746 | 17125 | -3.7 | -9.1 | -21.1 |

Population structure - Main age groups

|  | Percentage aged 0-14 |  |  | Percentage aged 15-64 |  |  | Percentage aged 65+ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004 | 2025 | 2050 | 2004 | 2025 | 2050 | 2004 | 2025 | 2050 |
| EU25 | 16.4 | 14.4 | 13.4 | 67.2 | 63.0 | 56.7 | 16.4 | 22.6 | 29.9 |
| EU15 | 16.3 | 14.4 | 13.5 | 66.7 | 62.8 | 56.5 | 17.0 | 22.8 | 30.0 |
| New Member States | 16.7 | 14.4 | 13.2 | 69.7 | 64.5 | 57.7 | 13.6 | 21.1 | 29.1 |
| Belgium | 17.3 | 15.6 | 14.7 | 65.6 | 61.9 | 57.6 | 17.1 | 22.5 | 27.7 |
| Czech Republic | 15.2 | 13.5 | 12.6 | 70.8 | 64.1 | 56.5 | 14.0 | 22.4 | 30.9 |
| Denmark | 18.9 | 15.9 | 15.7 | 66.2 | 62.9 | 60.2 | 14.9 | 21.2 | 24.1 |
| Germany | 14.7 | 12.9 | 11.9 | 67.3 | 62.5 | 56.5 | 18.0 | 24.6 | 31.6 |
| Estonia | 16.0 | 16.2 | 14.8 | 67.9 | 63.9 | 59.6 | 16.1 | 19.9 | 25.6 |
| Greece | 14.5 | 13.3 | 12.3 | 67.7 | 63.9 | 55.2 | 17.8 | 22.8 | 32.5 |
| Spain | 14.5 | 12.8 | 11.5 | 68.6 | 65.2 | 52.9 | 16.9 | 22.0 | 35.6 |
| France ${ }^{5}$ | 18.6 | 16.7 | 15.8 | 65.1 | 60.9 | 57.0 | 16.3 | 22.4 | 27.2 |
| Ireland | 20.9 | 18.2 | 16.0 | 68.0 | 65.3 | 57.8 | 11.1 | 16.5 | 26.2 |
| Italy | 14.2 | 12.1 | 11.2 | 66.6 | 62.9 | 53.5 | 19.2 | 25.0 | 35.3 |
| Cyprus | 20.0 | 15.6 | 13.3 | 68.1 | 65.2 | 60.5 | 11.9 | 19.2 | 26.2 |
| Latvia | 15.4 | 16.2 | 14.8 | 68.4 | 64.1 | 59.1 | 16.2 | 19.7 | 26.1 |
| Lithuania | 17.7 | 15.1 | 13.7 | 67.3 | 65.7 | 59.6 | 15.0 | 19.2 | 26.7 |
| Luxembourg | 18.8 | 17.1 | 16.6 | 67.1 | 64.9 | 61.3 | 14.1 | 18.0 | 22.1 |
| Hungary | 15.9 | 14.3 | 13.8 | 68.6 | 63.7 | 58.1 | 15.5 | 22.0 | 28.1 |
| Malta | 18.2 | 15.6 | 14.5 | 68.7 | 63.1 | 60.8 | 13.1 | 21.3 | 24.7 |
| Netherlands | 18.5 | 16.1 | 15.8 | 67.6 | 63.3 | 60.7 | 13.9 | 20.6 | 23.5 |
| Austria | 16.3 | 13.8 | 12.3 | 68.2 | 64.1 | 57.3 | 15.5 | 22.1 | 30.4 |
| Poland | 17.2 | 14.6 | 13.0 | 69.8 | 64.3 | 57.6 | 13.0 | 21.1 | 29.4 |
| Portugal | 15.7 | 14.2 | 13.1 | 67.4 | 63.7 | 55.0 | 16.9 | 22.1 | 31.9 |
| Slovenia | 14.6 | 13.4 | 12.8 | 70.4 | 63.8 | 56.0 | 15.0 | 22.8 | 31.2 |
| Slovakia | 17.6 | 14.0 | 12.8 | 70.9 | 67.1 | 57.9 | 11.5 | 18.9 | 29.3 |
| Finland | 17.6 | 16.0 | 15.3 | 66.8 | 59.4 | 57.8 | 15.6 | 24.6 | 26.9 |
| Sweden | 17.8 | 17.1 | 16.3 | 65.0 | 60.7 | 59.4 | 17.2 | 22.2 | 24.3 |
| United Kingdom | 18.3 | 16.1 | 14.7 | 65.7 | 63.0 | 58.7 | 16.0 | 20.9 | 26.6 |
| Bulgaria | 14.2 | 11.7 | 11.5 | 68.7 | 64.5 | 55.0 | 17.1 | 23.8 | 33.5 |
| Romania | 16.4 | 14.1 | 12.5 | 69.1 | 66.9 | 57.9 | 14.5 | 19.0 | 29.6 |

Indicators of population structure

|  | Young dependency ratio ${ }^{3}$ (\%) |  |  | Elderly dependency ratio ${ }^{2}$ (\%) |  |  | Total dependency ratio ${ }^{4}$ (\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004 | 2025 | 2050 | 2004 | 2025 | 2050 | 2004 | 2025 | 2050 |
| EU25 | 24.4 | 22.9 | 23.7 | 24.5 | 35.7 | 52.8 | 48.9 | 58.7 | 76.5 |
| EU15 | 24.5 | 23.0 | 23.9 | 25.5 | 36.3 | 53.2 | 50.0 | 59.3 | 77.1 |
| New Member States | 24.0 | 22.4 | 22.8 | 19.6 | 32.7 | 50.4 | 43.5 | 55.1 | 73.2 |
| Belgium | 26.4 | 25.2 | 25.4 | 26.1 | 36.5 | 48.1 | 52.5 | 61.7 | 73.5 |
| Czech Republic | 21.5 | 21.1 | 22.2 | 19.7 | 35.0 | 54.8 | 41.2 | 56.1 | 77.1 |
| Denmark | 28.5 | 25.3 | 26.0 | 22.5 | 33.8 | 40.0 | 51.0 | 59.1 | 66.0 |
| Germany | 21.9 | 20.7 | 21.1 | 26.8 | 39.3 | 55.8 | 48.7 | 60.0 | 76.9 |
| Estonia | 23.6 | 25.3 | 24.8 | 23.8 | 31.3 | 43.1 | 47.4 | 56.6 | 67.9 |
| Greece | 21.4 | 20.9 | 22.3 | 26.4 | 35.5 | 58.8 | 47.8 | 56.4 | 81.1 |
| Spain | 21.2 | 19.7 | 21.7 | 24.6 | 33.6 | 67.5 | 45.8 | 53.3 | 89.2 |
| France ${ }^{5}$ | 28.5 | 27.4 | 27.7 | 25.2 | 36.9 | 47.9 | 53.7 | 64.3 | 75.6 |
| Ireland | 30.7 | 27.9 | 27.7 | 16.4 | 25.2 | 45.3 | 47.1 | 53.0 | 73.0 |
| Italy | 21.3 | 19.3 | 21.0 | 28.9 | 39.7 | 66.0 | 50.2 | 59.0 | 86.9 |
| Cyprus | 29.4 | 24.0 | 22.0 | 17.5 | 29.3 | 43.2 | 46.9 | 53.3 | 65.2 |
| Latvia | 22.5 | 25.2 | 25.0 | 23.6 | 30.7 | 44.1 | 46.1 | 55.9 | 69.1 |
| Lithuania | 26.2 | 23.1 | 23.0 | 22.3 | 29.2 | 44.9 | 48.6 | 52.2 | 67.8 |
| Luxembourg | 28.0 | 26.4 | 27.1 | 21.0 | 27.7 | 36.1 | 49.0 | 54.1 | 63.3 |
| Hungary | 23.1 | 22.4 | 23.7 | 22.6 | 34.5 | 48.3 | 45.7 | 56.9 | 72.0 |
| Malta | 26.5 | 24.7 | 23.9 | 19.0 | 33.8 | 40.6 | 45.5 | 58.4 | 64.6 |
| Netherlands | 27.4 | 25.4 | 26.1 | 20.5 | 32.5 | 38.6 | 47.9 | 57.9 | 64.7 |
| Austria | 23.9 | 21.5 | 21.5 | 22.8 | 34.5 | 53.2 | 46.7 | 56.0 | 74.6 |
| Poland | 24.7 | 22.6 | 22.6 | 18.6 | 32.8 | 51.0 | 43.3 | 55.4 | 73.5 |
| Portugal | 23.3 | 22.3 | 23.8 | 24.9 | 34.7 | 58.1 | 48.3 | 57.0 | 81.9 |
| Slovenia | 20.8 | 21.1 | 22.9 | 21.4 | 35.8 | 55.6 | 42.1 | 56.9 | 78.5 |
| Slovakia | 24.8 | 20.9 | 22.2 | 16.3 | 28.1 | 50.6 | 41.0 | 49.0 | 72.9 |
| Finland | 26.4 | 27.0 | 26.4 | 23.3 | 41.4 | 46.7 | 49.7 | 68.3 | 73.1 |
| Sweden | 27.4 | 28.2 | 27.5 | 26.4 | 36.5 | 40.9 | 53.8 | 64.6 | 68.4 |
| United Kingdom | 27.8 | 25.5 | 25.0 | 24.3 | 33.2 | 45.3 | 52.1 | 58.7 | 70.3 |
| Bulgaria | 20.6 | 18.1 | 21.0 | 24.9 | 36.9 | 60.9 | 45.5 | 55.0 | 81.9 |
| Romania | 23.8 | 21.0 | 21.6 | 20.9 | 28.5 | 51.1 | 44.6 | 49.5 | 72.6 |

