



Figures for the future:
20 years of sustainable development in Europe?

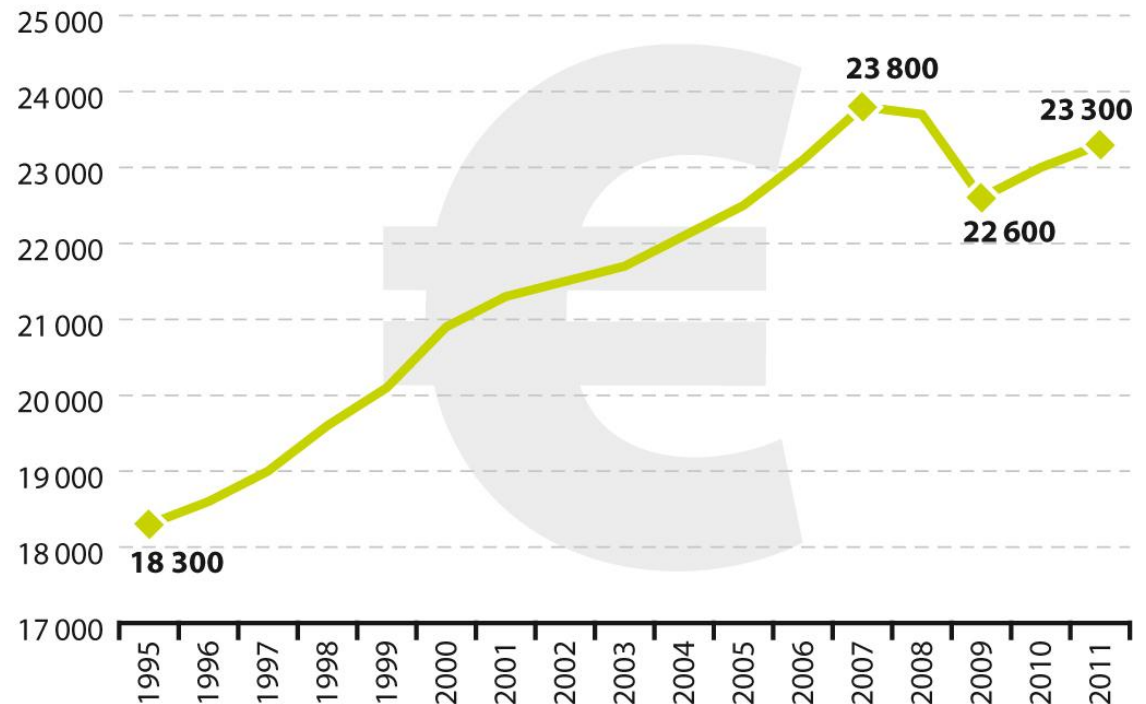
2

Growth, jobs and the crisis

2.1 Years of economic growth interrupted

- GDP grew fairly constantly in the EU until 2007
- After the 2008 'crash' the economy started to contract, shrinking 4.6 % in 2009
- Baltic states were hit hardest by the crisis

Real GDP per capita, EU-27
Euros (deflated)



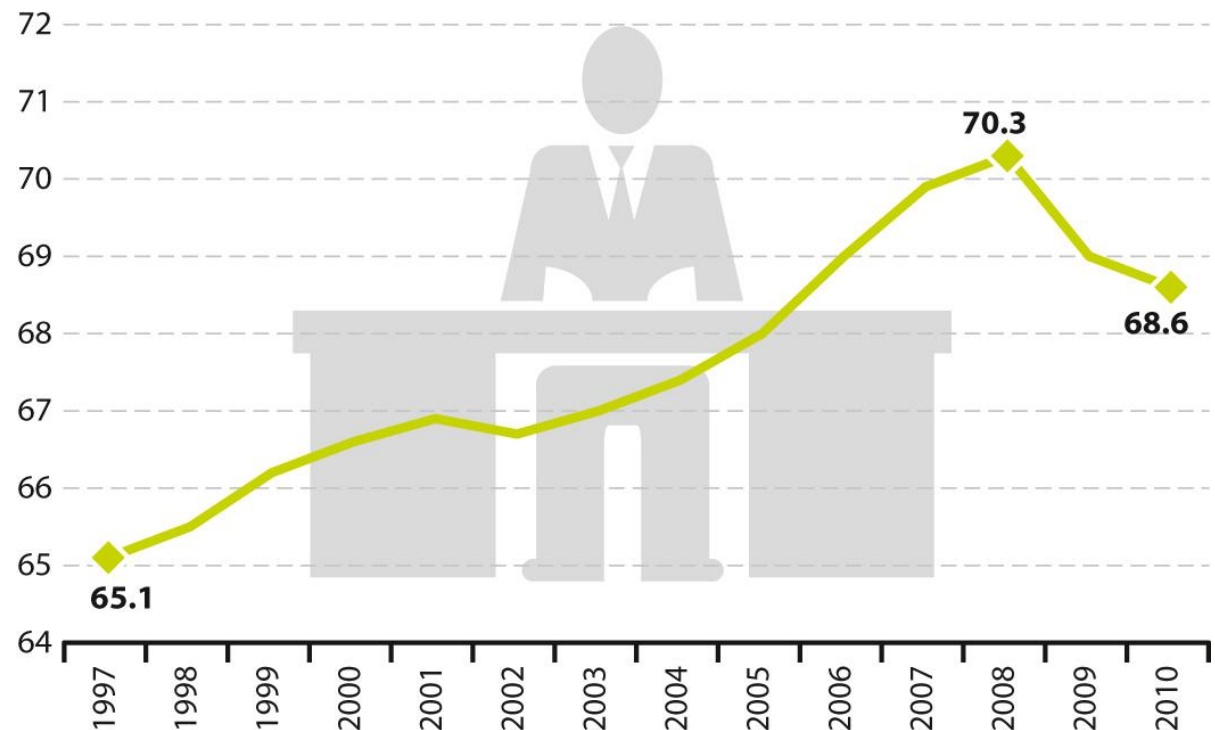
Source: Eurostat (online data code: [tsdec100](#))

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2.3 Employment rates tend to follow GDP growth

- Since 1997, employment in the EU has risen significantly
- The increase has been faster for women than for men
- The rise in female employment reflects growth in service industries

Total employment rate, EU-27
% of age group 20-64 years

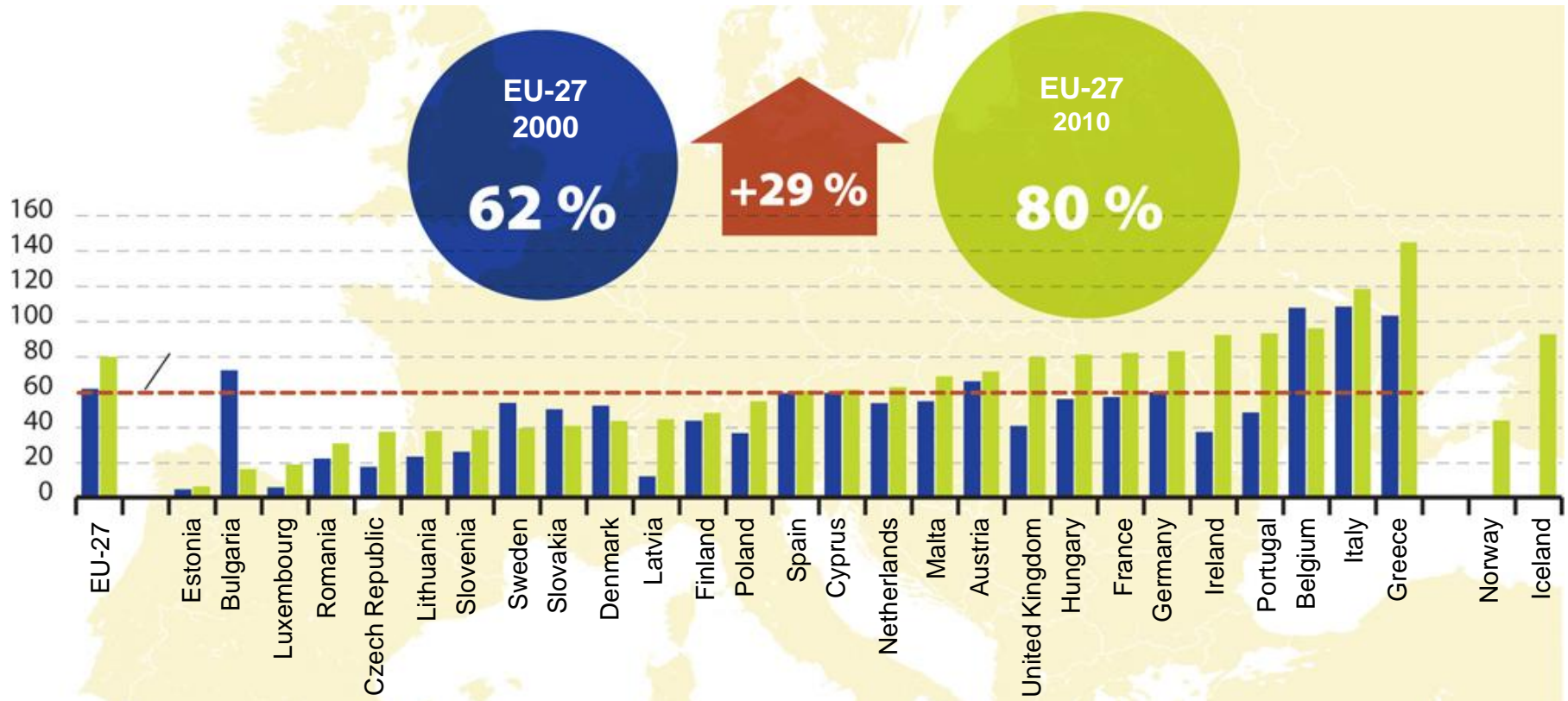


Source: Eurostat (online data code: [tsdec410](#))

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2.5 Country debt has tended to rise over the past 10 years

General government debt, by country
% of GDP (at current prices)



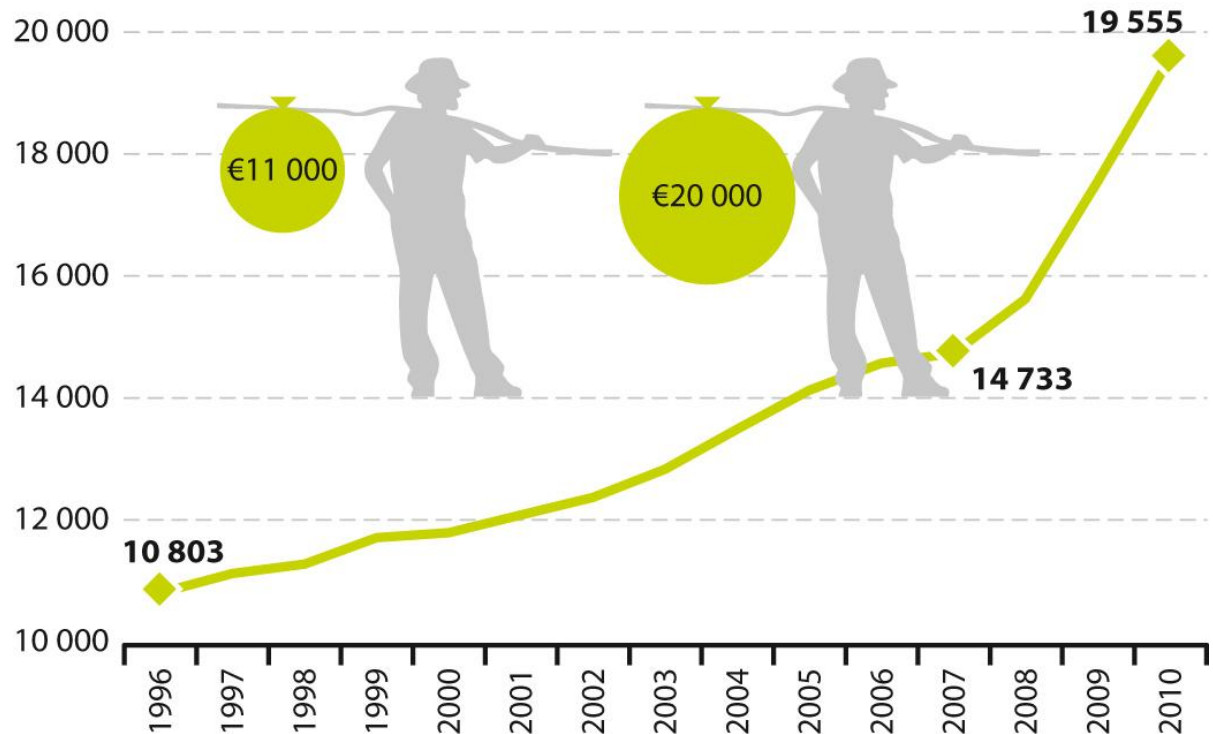
Source: Eurostat (online data code: [tsdde410](#))

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2.6 Government debt per person has also grown

- Public debt per person (in current prices) has almost doubled in the past 15 years, while the inflation rose by only 30 % during this period
- The sharp rise since 2007 reflects the effects of the economic crisis

General government debt, EU-27
Euros per person (at current prices)



Source: Eurostat (online data code: [tsdde410](#), [demo_gind](#))

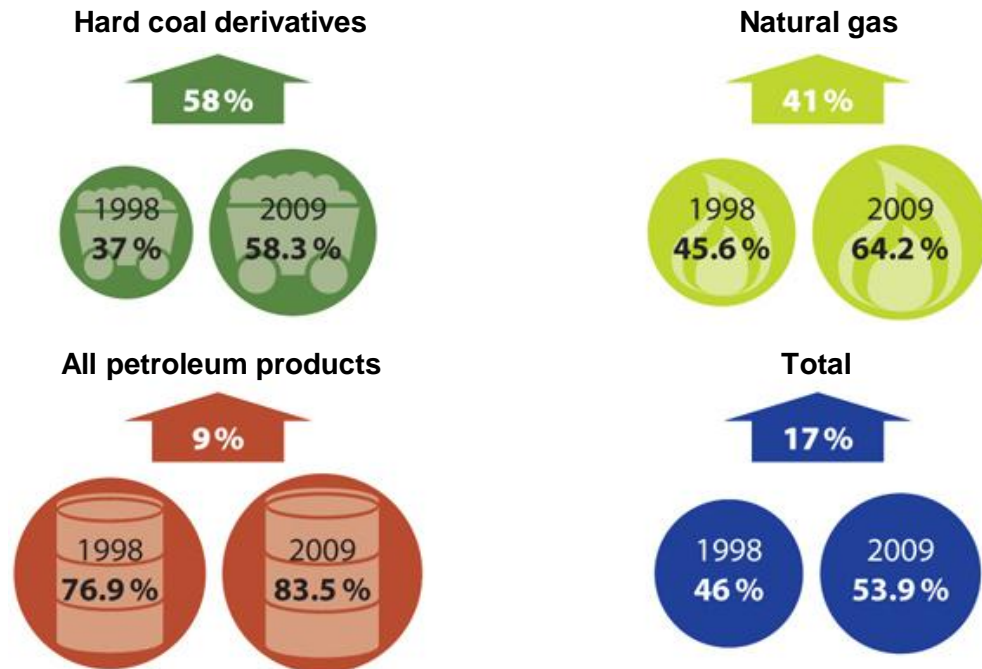
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**Energy: increasing consumption,
increasing dependence**

3.1 Depending on other countries for energy

- The EU's dependence on imported energy has risen constantly over the past decade
- Since 2004 more than 50 % of the energy used in the EU has been imported
- Dependence is highest for petroleum products such as crude oil
- About one third of crude oil and natural gas imports come from Russia

Energy dependence, EU-27



Note: 'Total' is not the average of the other three fuel categories shown. It also includes other energy sources, such as renewable energy or nuclear energy, which are treated as domestic sources

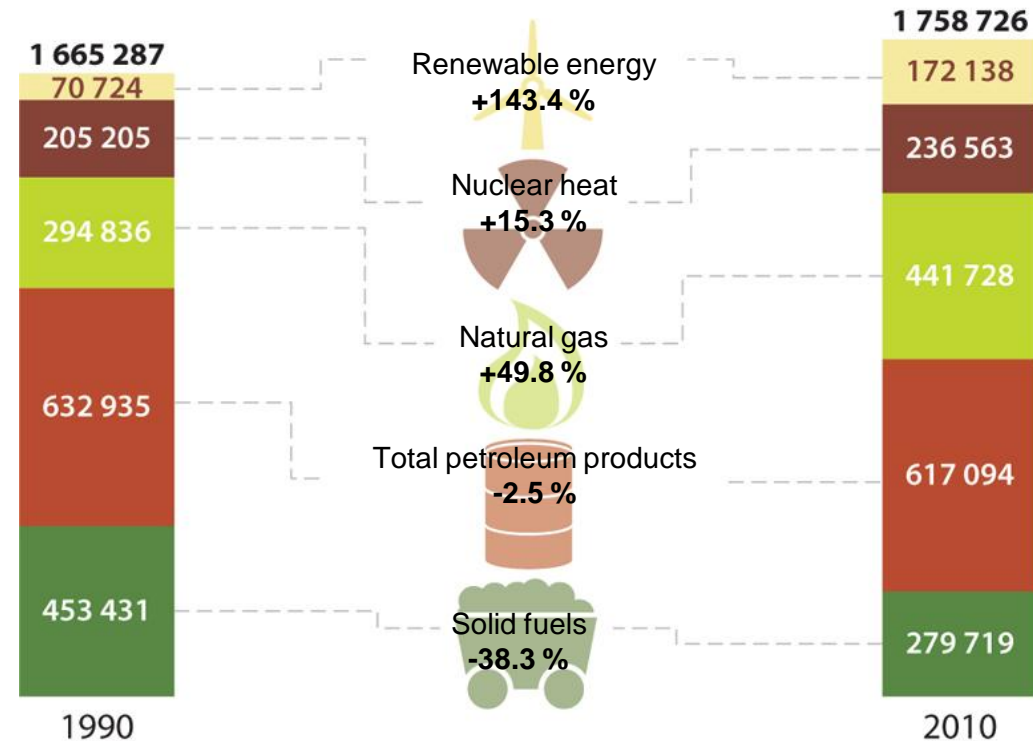
Source: Eurostat (online data code: [tsdcc310](#))

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3.3 Energy consumption increasing

- Energy consumption in the EU has grown by 6 % since 1990
- The EU's 'energy mix' has changed since 1990
- Use of solid fuels has fallen, while use of natural gas has grown by almost 50 %

Gross inland energy consumption, by fuel, EU-27
1 000 tonnes, oil equivalent



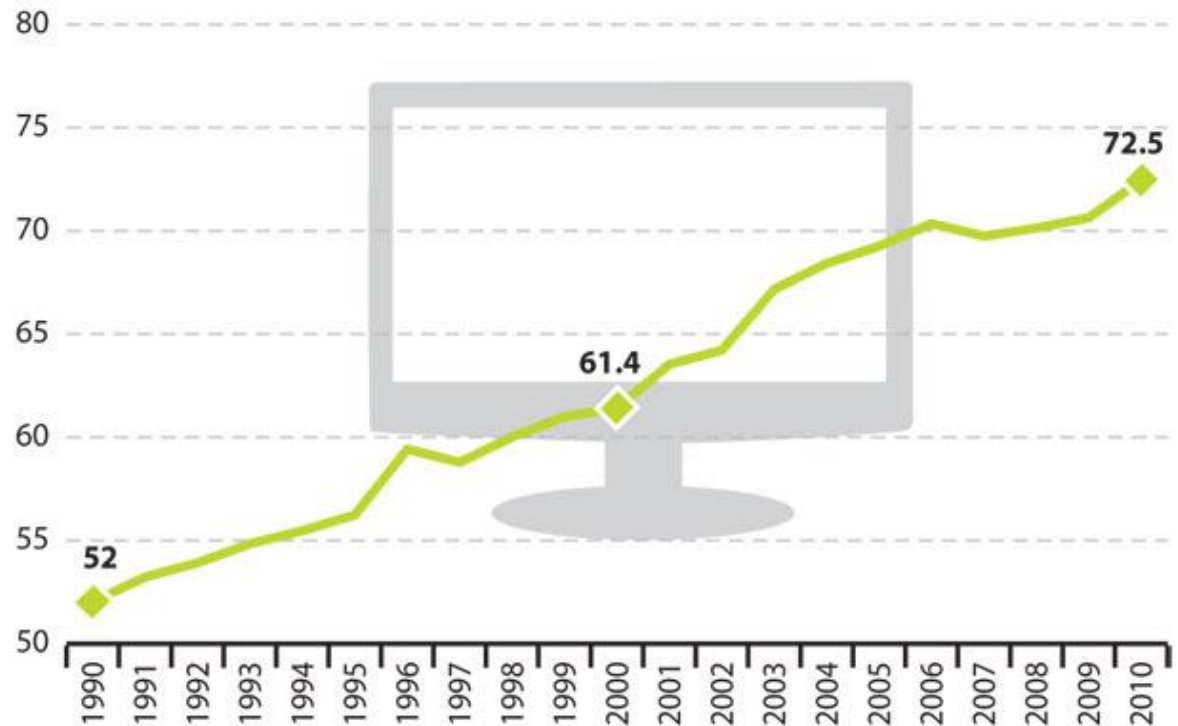
Source: Eurostat (online data code: [tsdcc320](#))

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3.7 Households using more and more electricity

- Electricity use by households has grown fairly constantly in the EU
- It has risen by about 40 % over the past 20 years
- The 'rebound effect' has offset technological improvements

Electricity consumption of households
Million tonnes of oil equivalent



Source: Eurostat (online data code: [tsdpc310](#))

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Role of transport in the economy

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4.2 Transport of goods and passengers in the EU

- Road is the most common method of transport in the EU
- Public transport accounts for less than 20 % of travel
- The share of road freight transport has grown since 2000 at the cost of rail

Modal split of passenger and freight transport, EU-27
% in total inland passenger-kilometre and freight tonne-kilometre



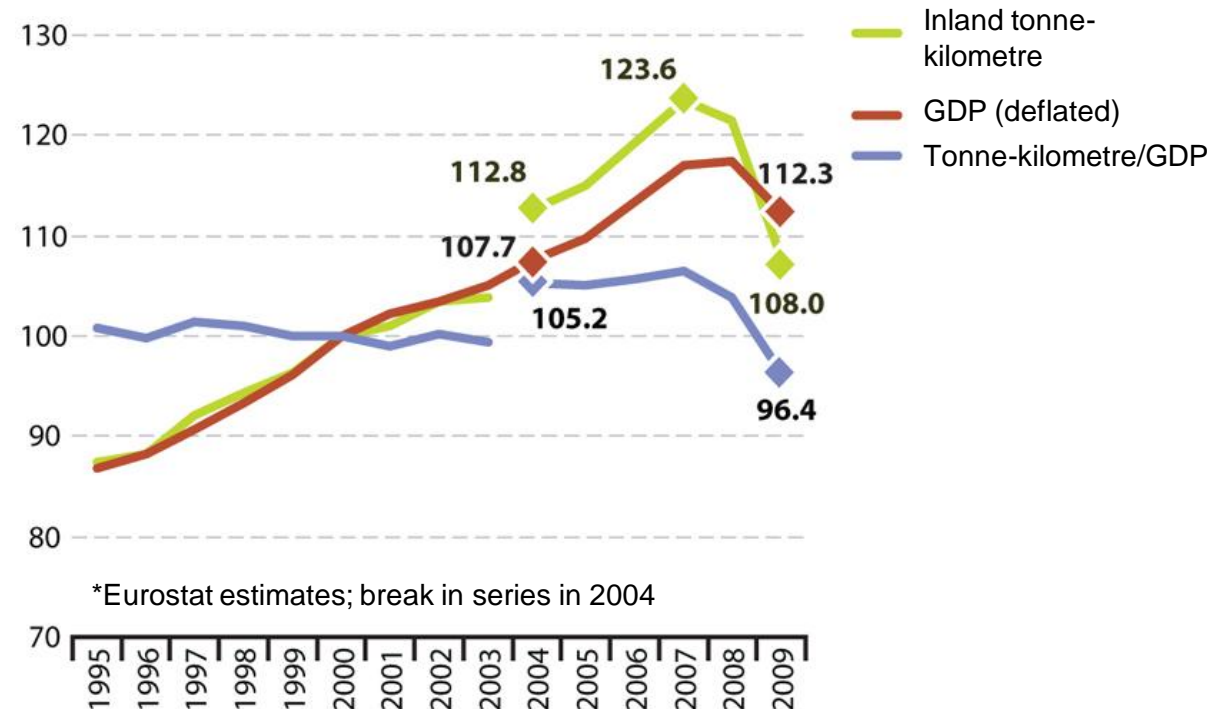
Source: Eurostat (online data code: [tsdtr210](#), [tsdtr220](#))

4.4 Transport volumes linked to economic growth

- Freight transport and economic growth are strongly linked
- No 'decoupling' between economic growth and the need for transport is visible

Volume of freight transport relative to GDP, EU-27*

Index 2000 = 100



*Eurostat estimates; break in series in 2004

Source: Eurostat (online data code: [tsdtr230](#), [nama_gdp_k](#))

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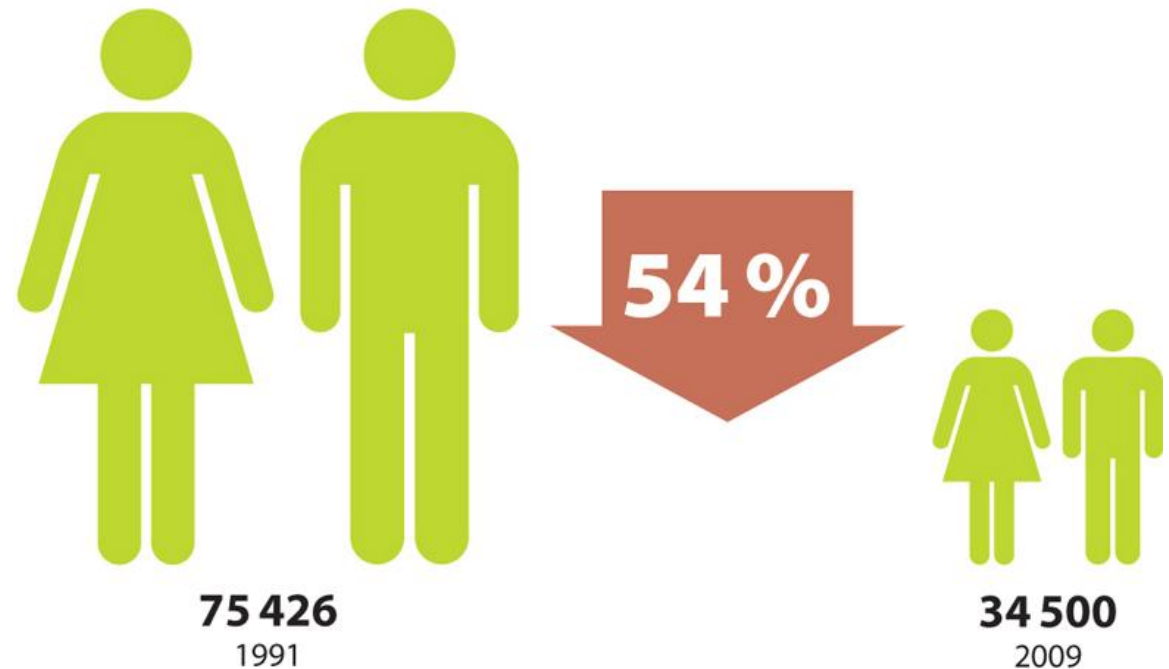
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Undesired impacts of transport

5.1 Fewer road fatalities

- Road transport deaths have fallen by 2 300 per year on average since 1991
- More than 60 % of deaths take place on rural roads and another 30 % in built-up areas
- Cars account for 60 % of deaths on rural roads and motorways

People killed in road accidents, EU-27
Number of people killed



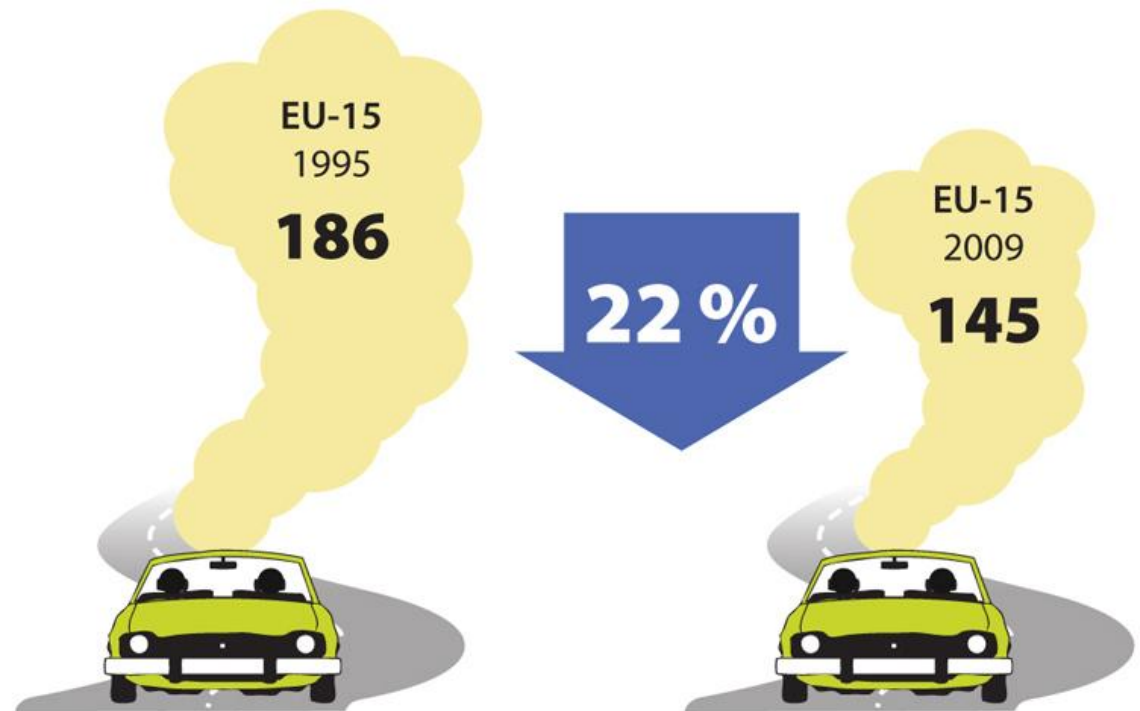
Source: European Commission ([CARE database](#)), Eurostat (online data code: [tsdtr420](#))

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5.2 New cars emitting less carbon dioxide

- CO₂ emissions per kilometre from new passenger cars have been falling since 1995
- A switch from petrol to diesel and fuel-saving technologies have been the main drivers of this reduction

Average carbon dioxide emissions from new passenger cars
Grams of CO₂ per kilometre



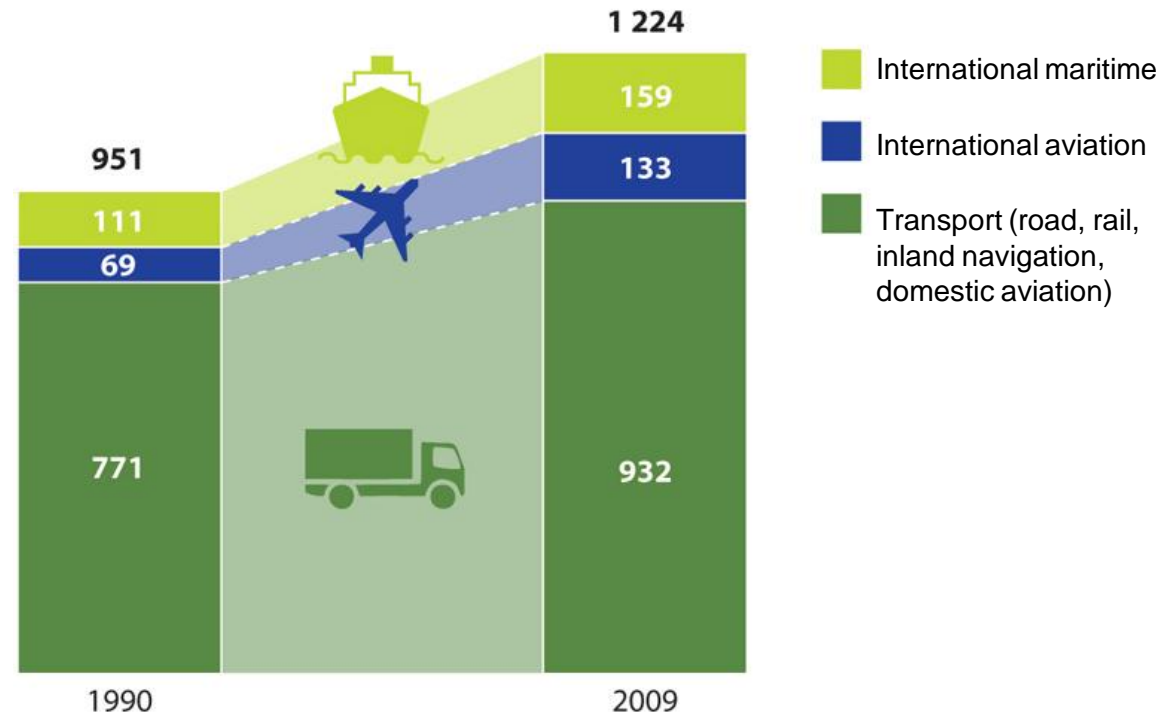
Source: Eurostat (online data code: [tsdtr450](#))

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5.3 More greenhouse gas emissions from transport

- Growth in car numbers and transport volumes has driven the rise in greenhouse gas emissions from transport
- Transport is the only sector in the EU emitting more greenhouse gas today than in 1990
- Emissions from international air and maritime transport have grown the fastest

Greenhouse gas emissions from transport, EU-27
Million tonnes of CO₂ equivalent



Source: European Environment Agency, Eurostat (online data code: [tsdtr410](#))

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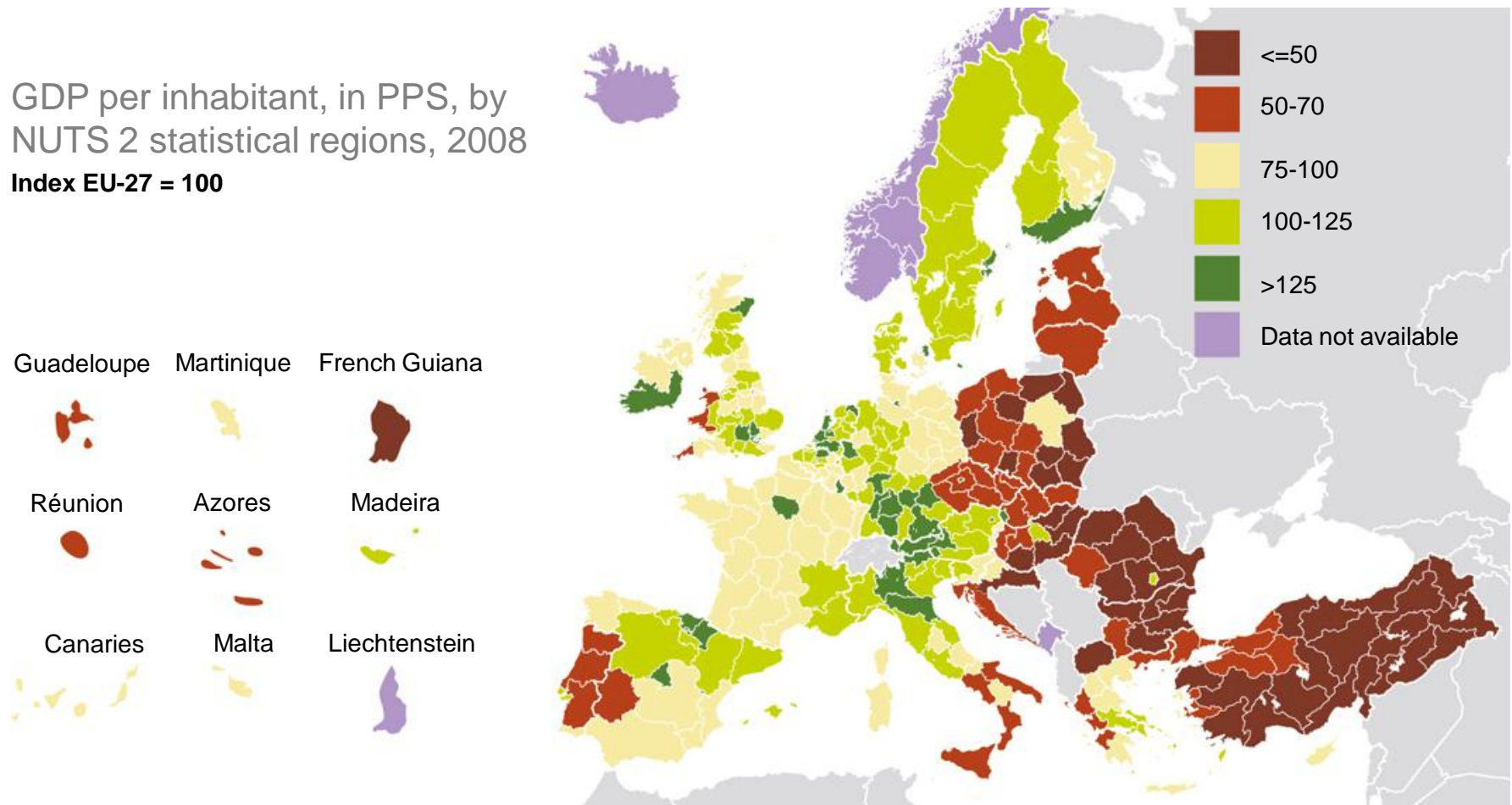
6

Regional disparities

6.2 GDP per person by region

GDP per inhabitant, in PPS, by
NUTS 2 statistical regions, 2008

Index EU-27 = 100



Source: Eurostat (online data code: [nama_r_e2gdp](#))

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6.3 Change in GDP per person by region

Change of GDP per inhabitant,
in PPS, by NUTS 2 statistical
regions, 2000-2008

Percentage points of the average EU-27

Guadeloupe Martinique French Guiana

Réunion

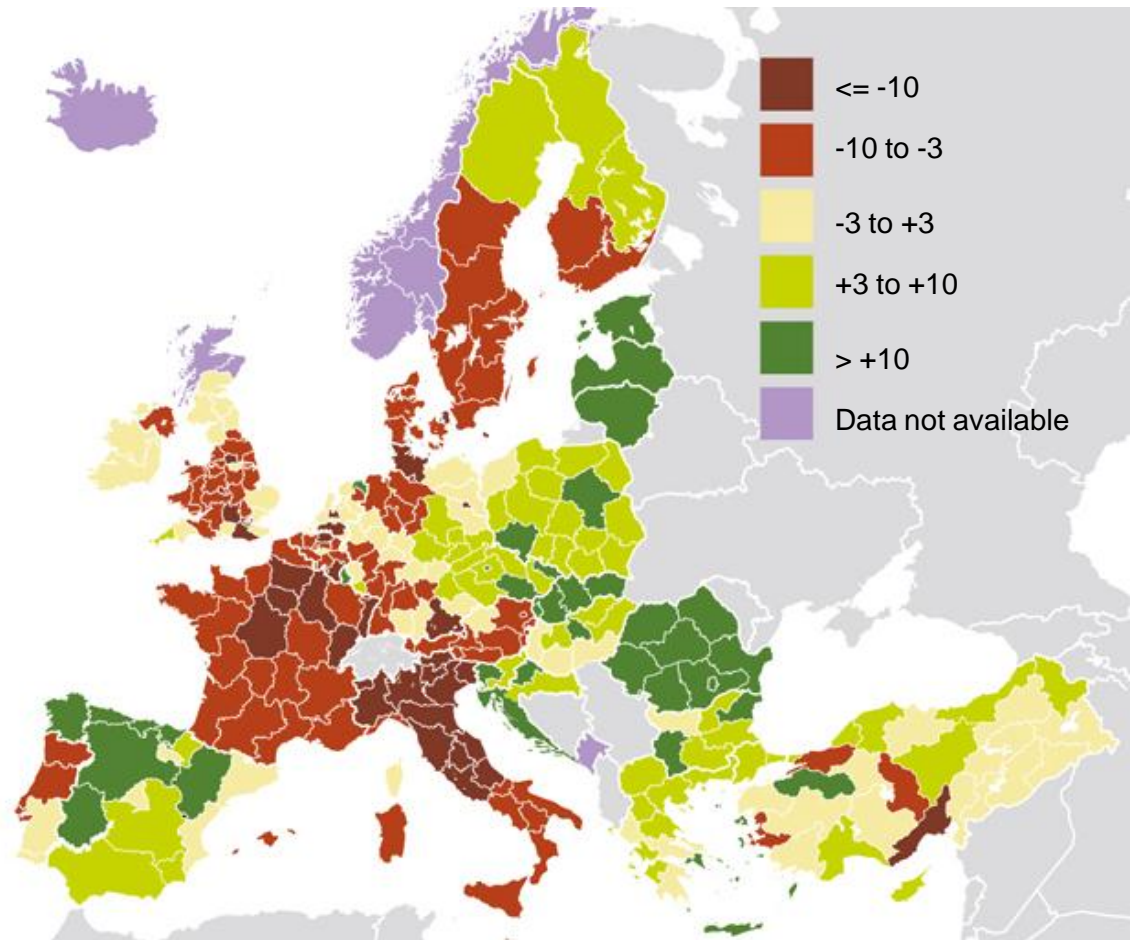
Azores

Madeira

Canaries

Malta

Liechtenstein

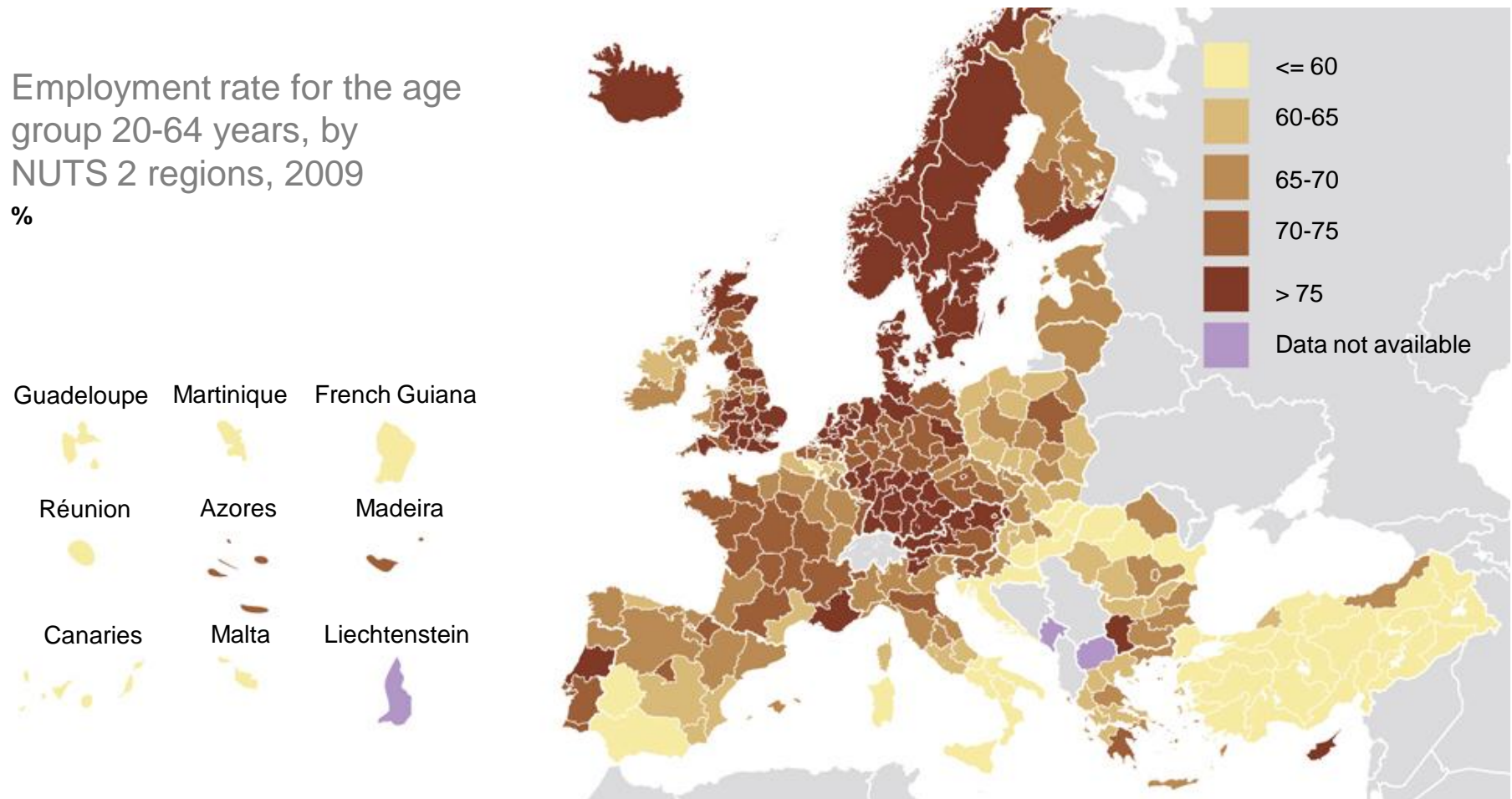


Source: Eurostat (online data code: [nama_r_e2gdp](#))

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6.5 Employment rate by region

Employment rate for the age group 20-64 years, by NUTS 2 regions, 2009
%



Source: Eurostat (online data code: [lfst_r_lfe2emppt](#))

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Poverty and social exclusion in Europe

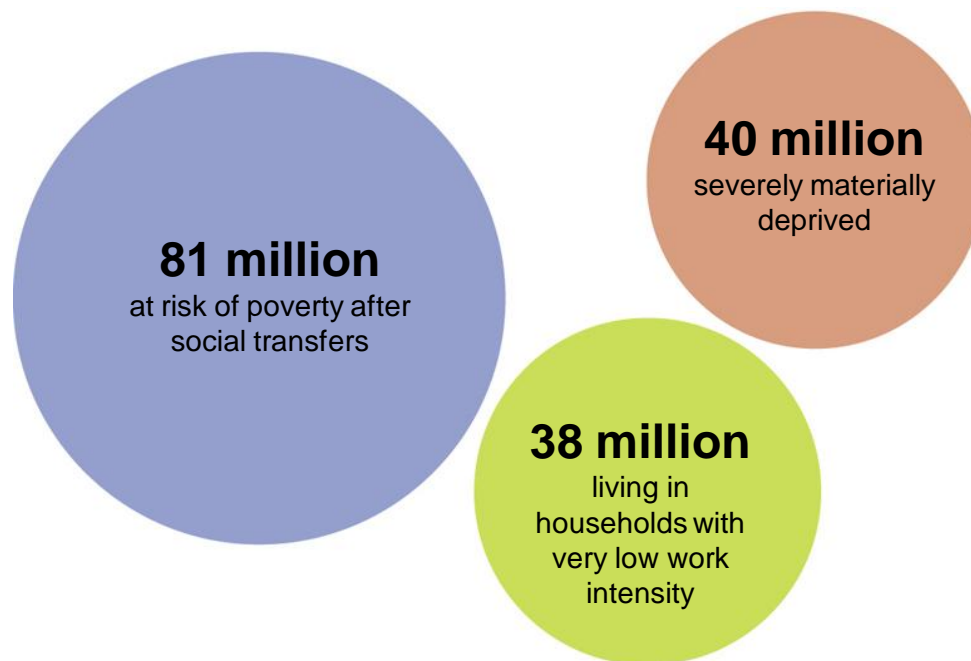
7

7.1 Dimensions of poverty

- Monetary poverty, material deprivation and lack of access to jobs are the key dimensions of poverty in the EU
- Almost 81 million EU citizens live in monetary poverty
- Some 40 million are regarded as severely materially deprived. About 38 million are living in households where the adults work much less than they could

People at risk of poverty or social exclusion, 2010

Number of people



Source: Eurostat (online data code: [tsdsc100](#), [tsdsc270](#), [tscsc280](#), [tsdsc310](#), [tsdsc350](#), [ilc_pees01](#))

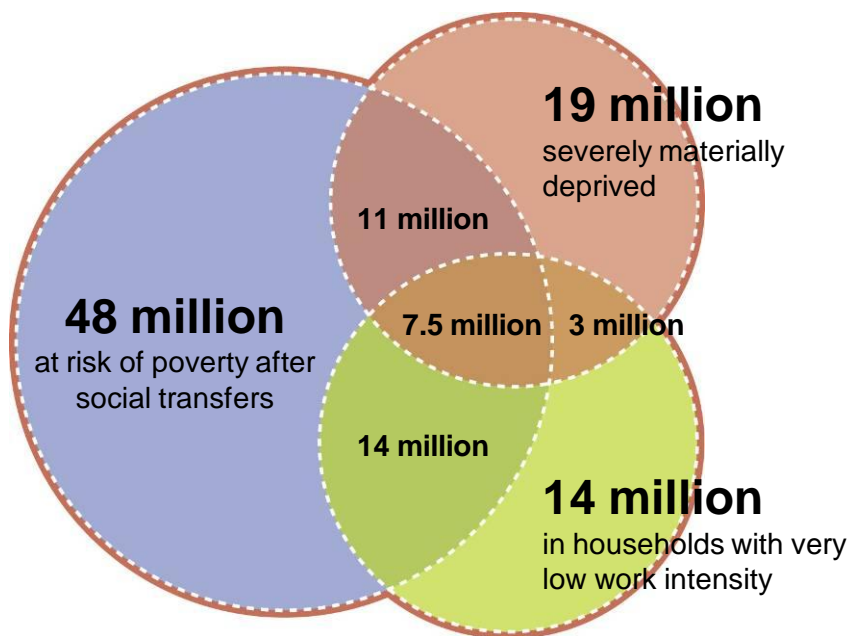
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7.1 Dimensions of poverty

- 116 million people in the EU were at risk of poverty or social exclusion in 2010
- People can be affected by more than one dimension of poverty at the same time
- Some 80 million people were affected by one dimension of poverty, 28 million by two dimensions and almost 8 million by all three dimensions at the same time

People at risk of poverty or social exclusion, 2010

Number of people



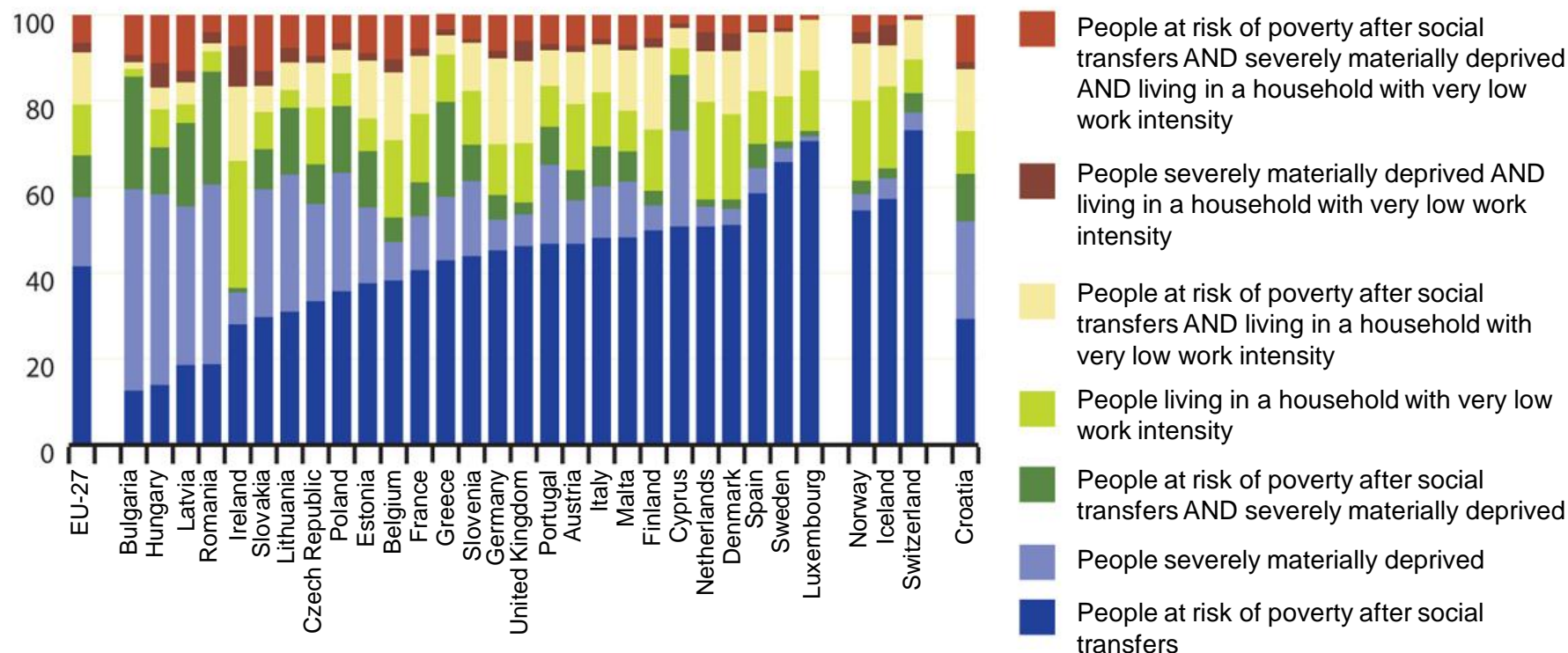
Source: Eurostat (online data code: [tsdsc100](#), [tsdsc270](#), [tscsc280](#), [tsdsc310](#), [tsdsc350](#), [ilc_pees01](#))

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7.6 Poverty and social exclusion differ across Europe

People at risk of poverty or social exclusion, 2010

% of population

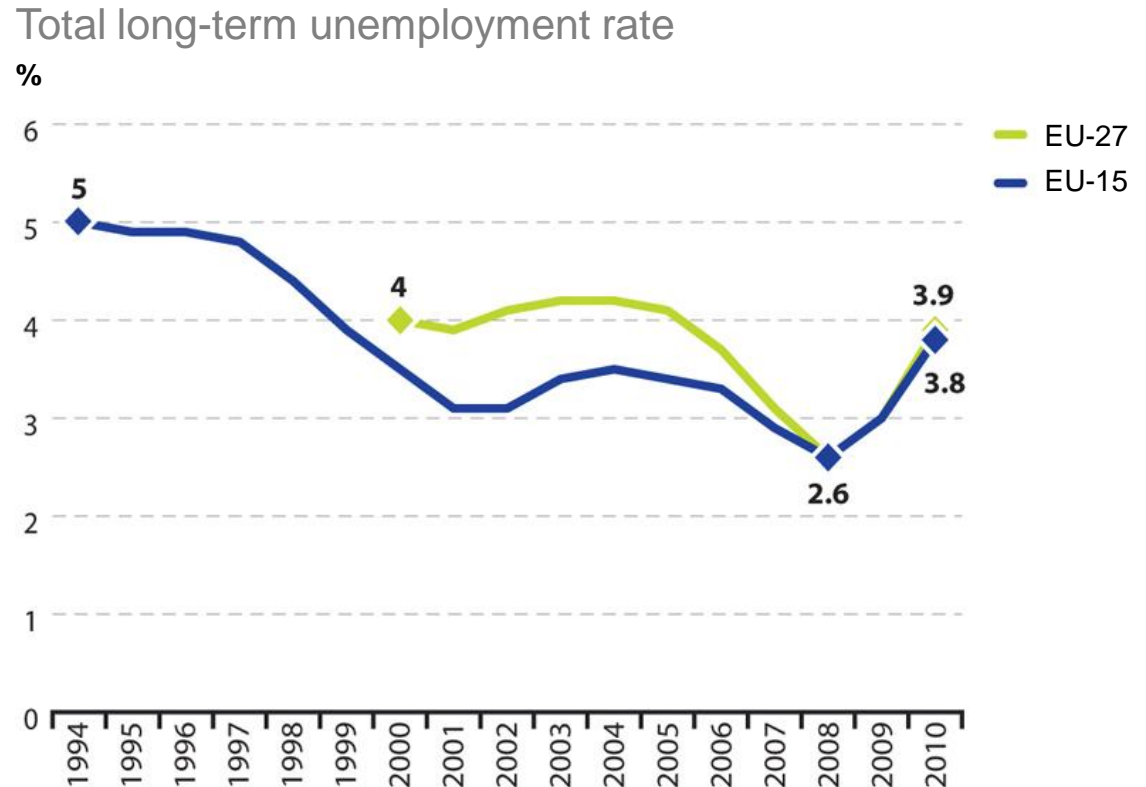


Source: Eurostat (online data code: [ilc_pees01](#))

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7.7 Long-term unemployment trends

- People unemployed for more than a year are considered long-term unemployed
- From 1994 to 2008 long-term unemployment has shown a falling trend in the EU
- People who lost their jobs at the onset of the crisis will increasingly join the ranks of the long-term unemployed



Source: Eurostat (online data code: [tsdsc330](#))

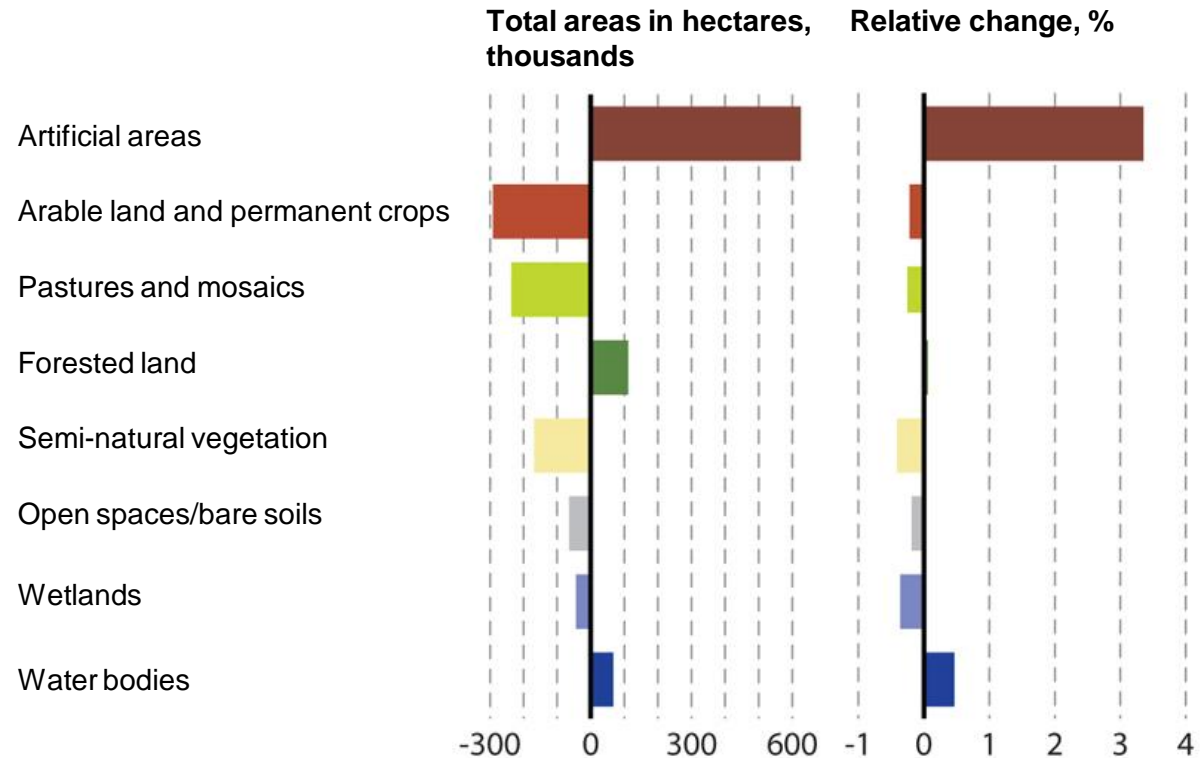
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How we are pushing back nature

9.3 How land cover has changed

- 630 000 hectares of land were converted into artificial surfaces between 2000 and 2006
- Growth in building sites and road and rail networks was the main driver behind this change
- Agricultural land is shrinking, while forests are expanding continuously

Net land-cover changes 2000-2006 in Europe



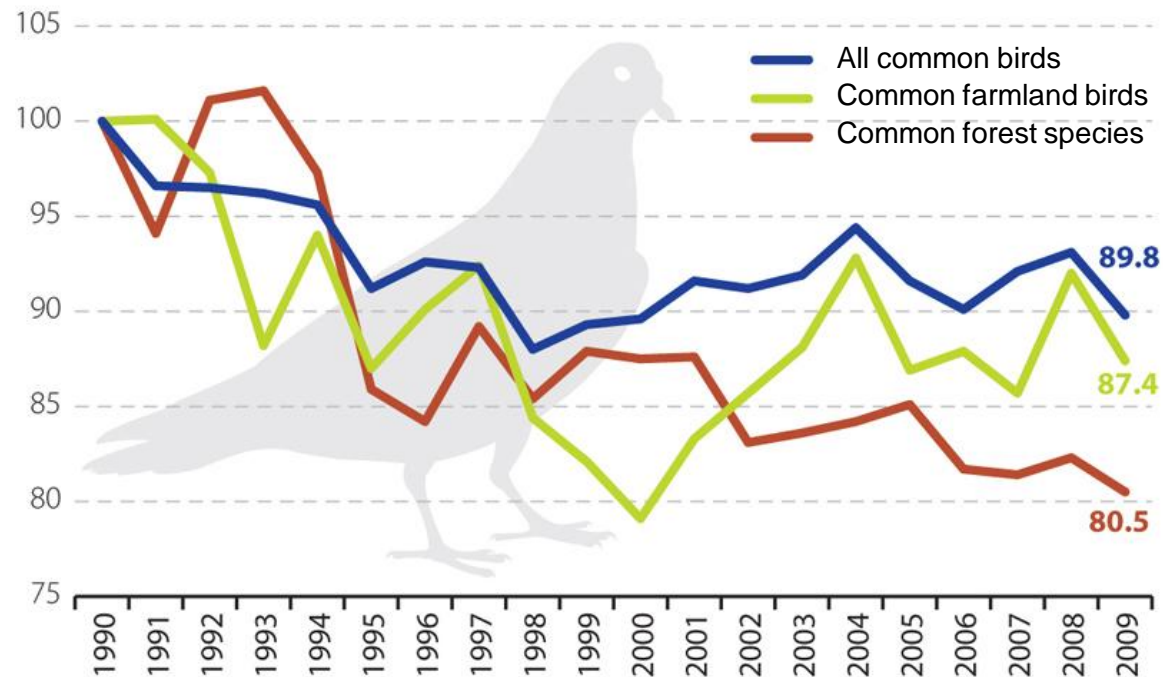
Source: European Environment Agency

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9.4 Changes in bird numbers

- Bird populations fluctuate naturally from year to year
- But the longer-term trend shows a decline in biodiversity
- The decline was particularly strong for farmland birds due to agricultural intensification

Common bird index, EU
Index 1990 = 100



Source: Eurostat (online data code: [tsdnr100](#))

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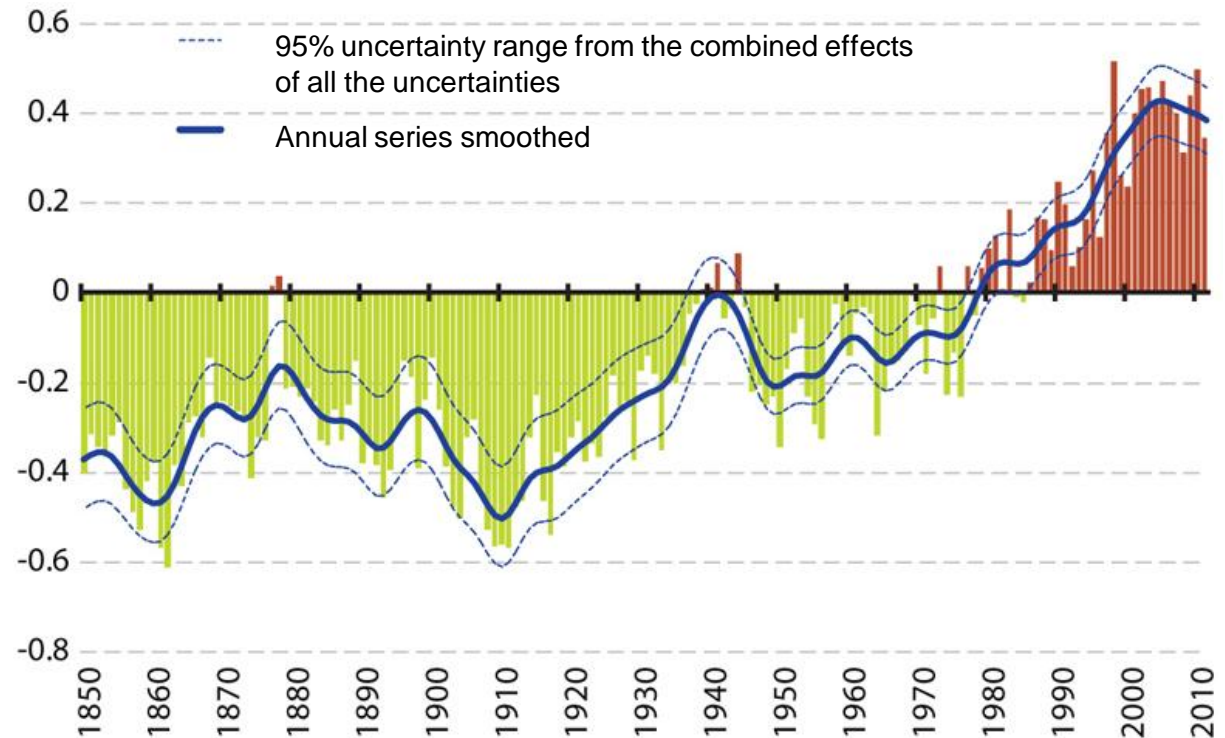
Global climate change

10

10.1 A warming planet

- Global warming is undeniable
- The decade from 2001-2010 has been the warmest ten-year period ever recorded
- Warming is greater over the northern hemisphere where most of the Earth's land area is located

Global annual mean temperature deviation
Temperature deviation in ° C, compared with 1961-90 average



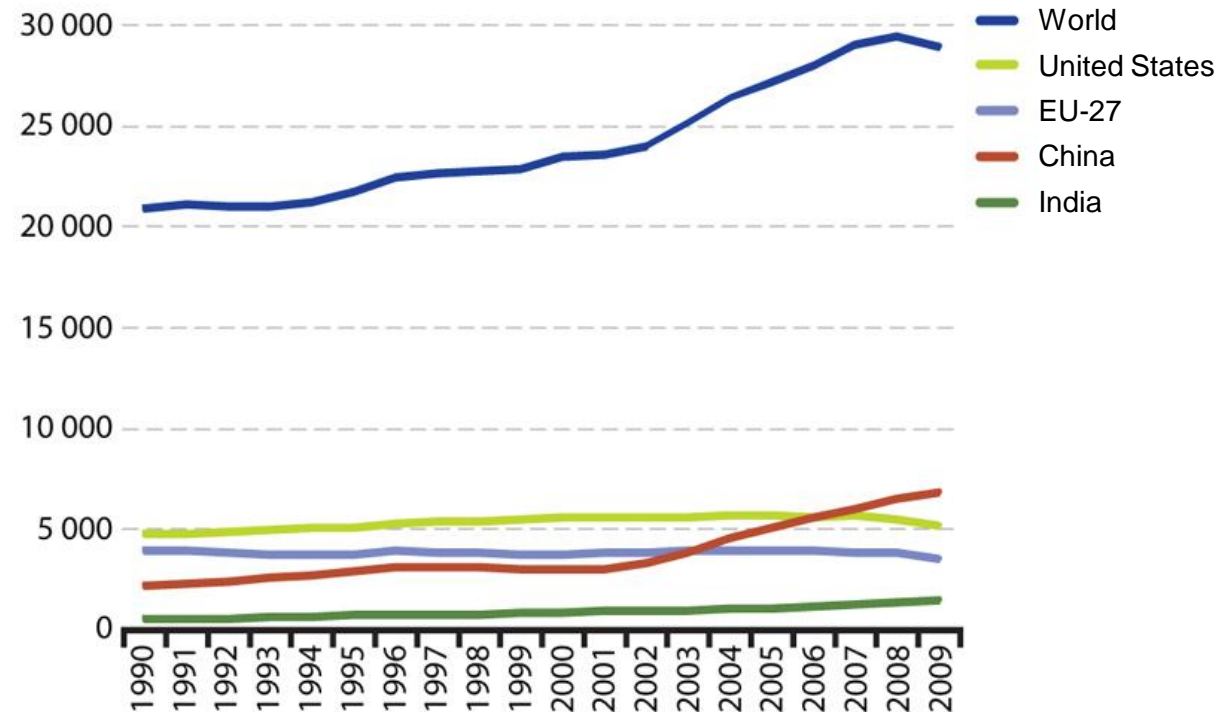
Source: Climatic Research Unit, University of East Anglia and the UK Met Office Hadley Centre

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10.2 Global CO₂ emissions continuing to rise

- Global CO₂ emissions have grown by almost 40 % since 1990
- In 2007 China overtook the United States as the biggest emitter
- Electricity and heat generation are responsible for the major part of global CO₂ emissions

Global CO₂ emissions from fuel combustion
Million tonnes of CO₂



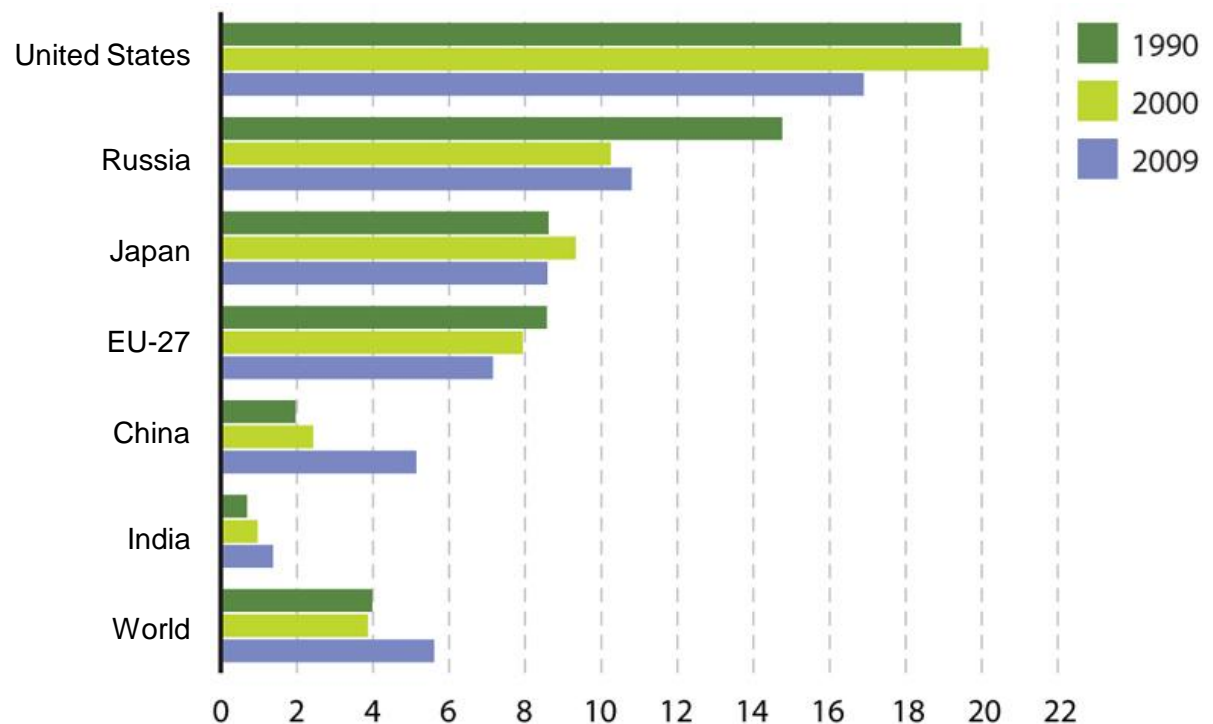
Source: International Energy Agency

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10.4 CO₂ emissions per person

- CO₂ emissions per person have fallen in the USA, Russia and the EU
- Emissions per person have grown in China and India, but their levels are still well below those of industrialised countries
- Since 2007, China's CO₂ emissions have been above the global average of 4.3 tonnes per person

Global CO₂ emissions per person from fuel combustion
Tonnes per person



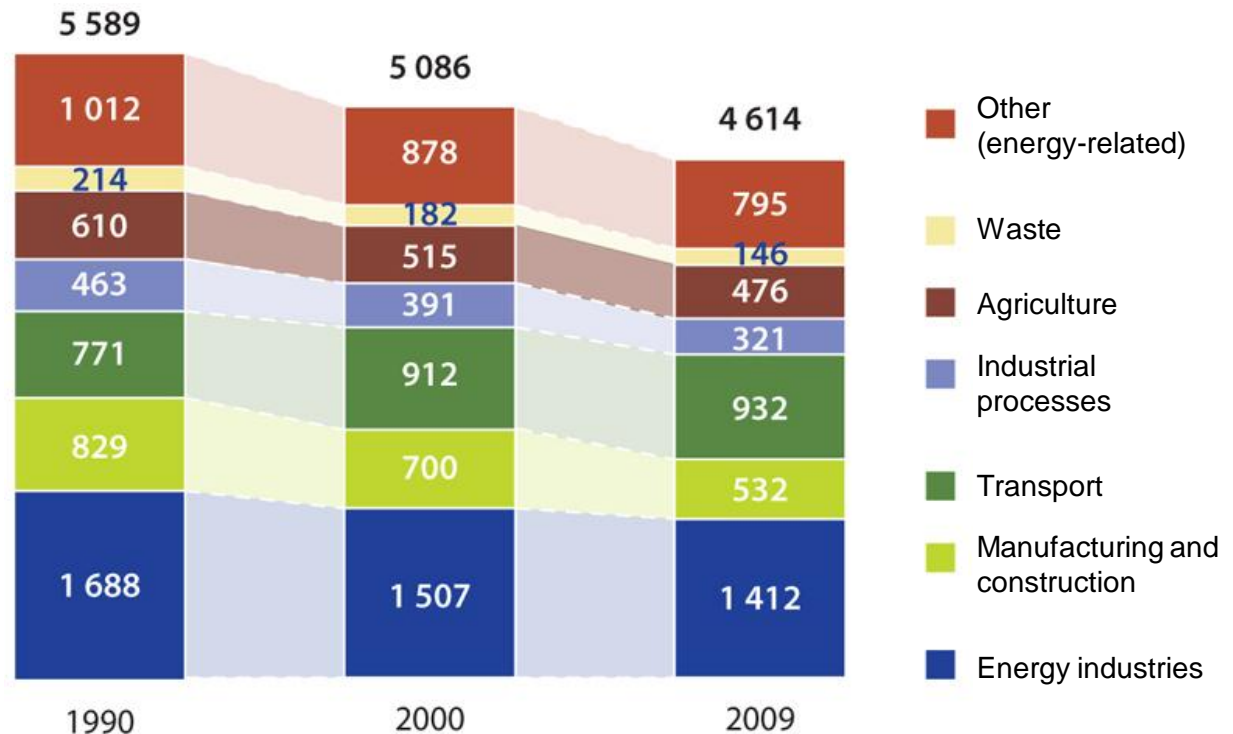
Source: International Energy Agency

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10.5 Transport emissions on the rise while others fall

- Greenhouse gas emissions in the EU have fallen by more than 17 % since 1990
- There has been a sharp drop in 2009 because of the economic crisis
- The reasons for the longer-term decline include more efficient use of energy and a switch to low-carbon fuels

Greenhouse gas emissions by sector, EU-27
Million tonnes CO₂ equivalent



Source: European Environment Agency (online data code: [tsdcc210](#))

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Europe in a globalised world

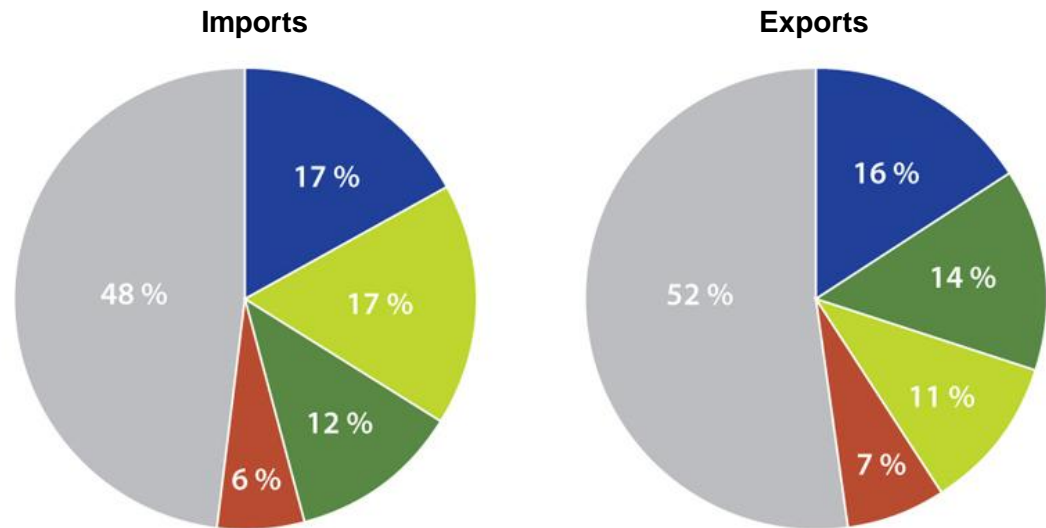
11

11.1 Europe has the largest share of global trade

- The EU is the biggest importer and exporter of goods in the world
- Together, the EU, the USA, China and Japan were responsible for about half of world trade in 2010
- China has become a major global trader in recent years, overtaking the USA as the second biggest exporter in 2007

Share of world imports and exports, 2010
%

■ EU-27 ■ United States ■ China (excluding Hong Kong) ■ Japan ■ Others

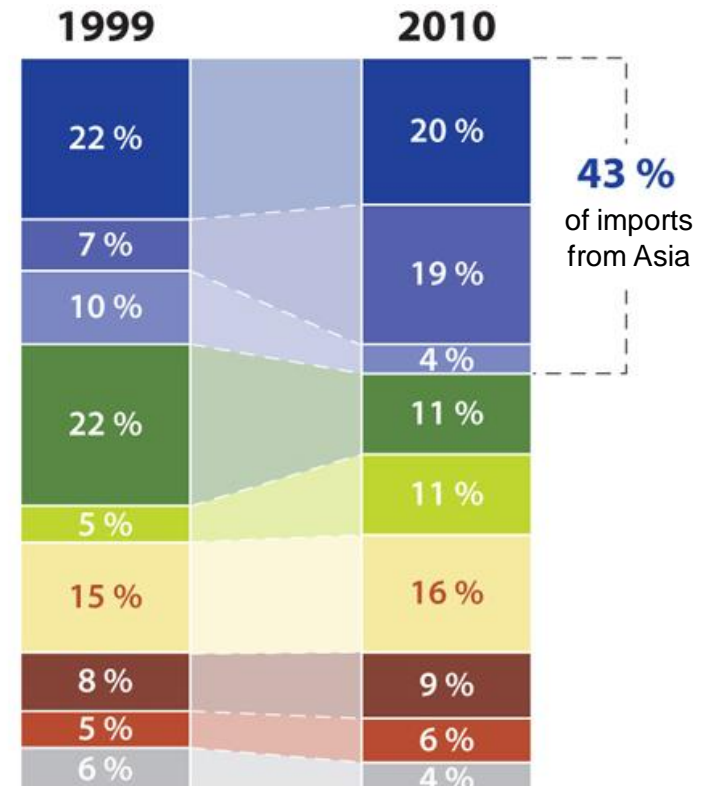


Source: Eurostat (online data code: [ext_lt_introle](#))

11.2 China becoming a major trading partner

- The relative importance of the USA as a trade partner for the EU has declined in recent years
- EU trade with China has more than quadrupled since 1999
- Most imports into the EU come from Asia, while shares for Africa and Latin America remain low

Extra-EU imports, by partner
%



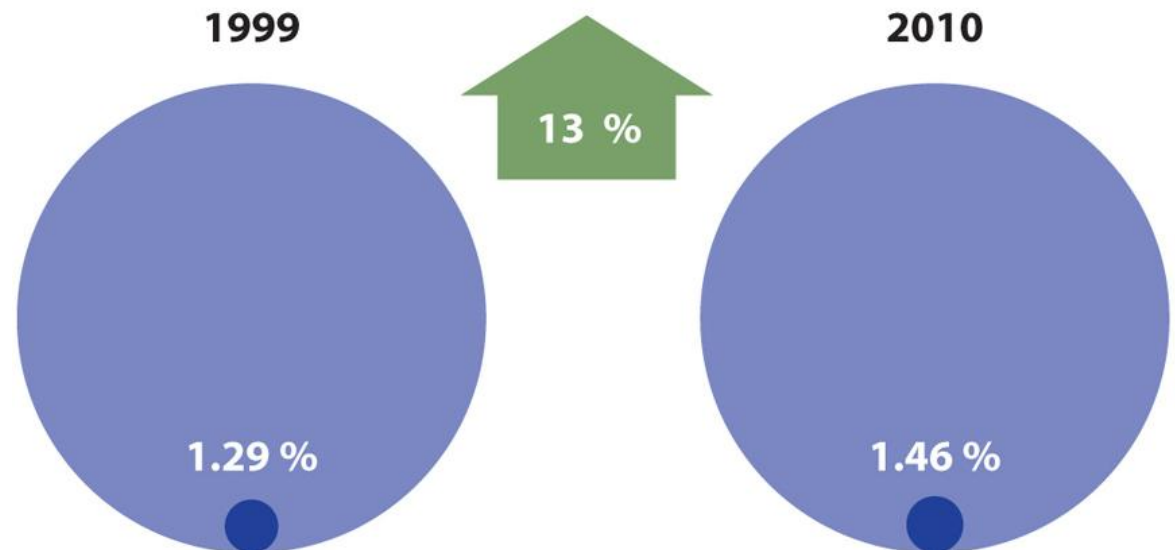
Source: Eurostat (online data code: [ext_lt_maineu](#))

11.5 Imports from least developed countries still low

- Least-developed countries host about 12 % of the world's population but account for less than 2 % of the world's GDP and about 1 % of global trade in goods
- In 2010, out of total EU imports worth 1 500 billion euros only 22 billion euros worth came from LDCs

Share of imports from least-developed countries in total extra-EU imports, EU-27

%



Source: Eurostat (online data code: [tsdgp210](#), [tet00038](#))

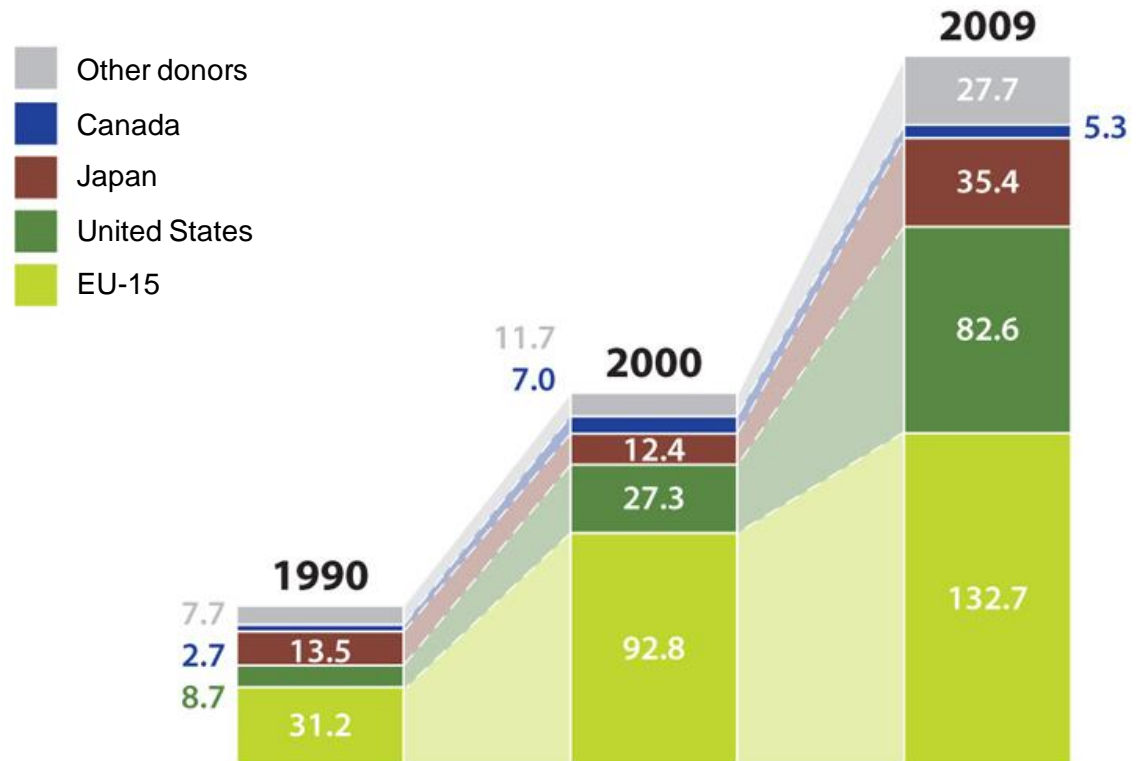
**Is Europe living up to its
international commitments?**

12

12.2 The EU is the world's biggest donor...

- The EU is the biggest donor of financial support to developing countries
- Since 1990, all donors have increased their funding for developing countries
- In 2009 total financing for developing countries was 4.5 times higher than in 1990

Financing for developing countries, by donor
Billion euros (at current prices)



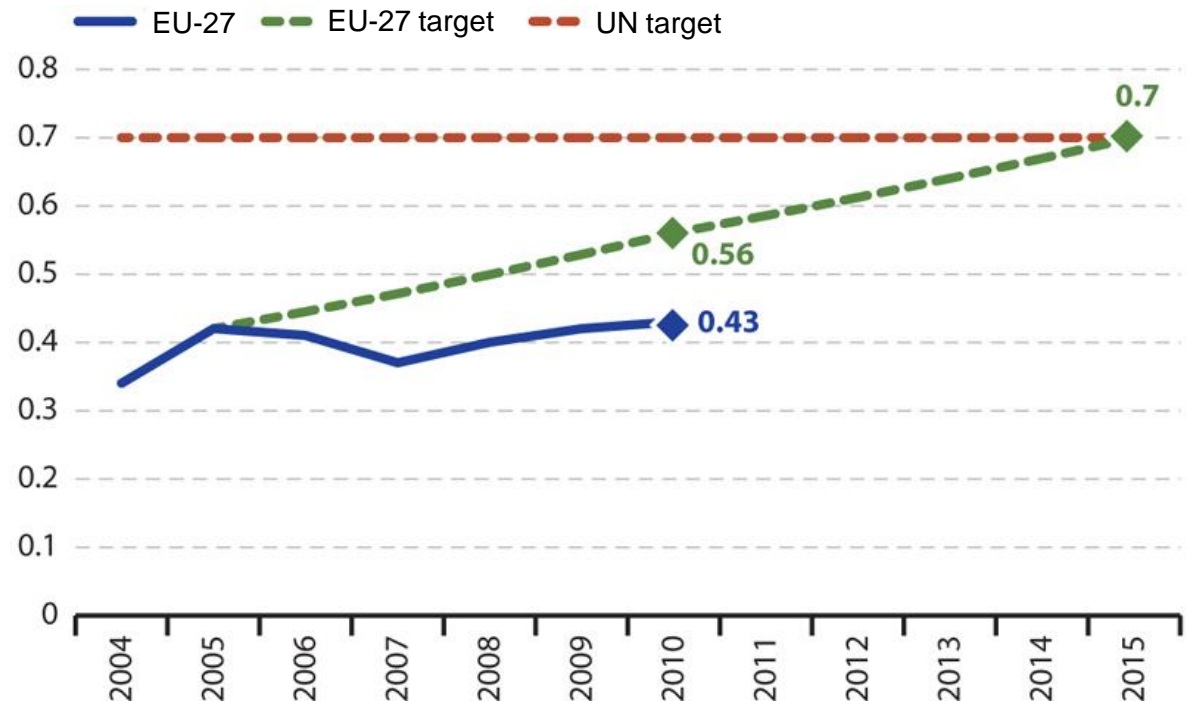
Source: OECD, Eurostat (online data code: [tsdgp310](#))

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12.3 ... but there is still some way to go

- The EU has committed to achieving the UN target of spending 0.7 % of its GNI on ODA in 2015, with an intermediate target of 0.56 % for 2010
- However, the 2010 target has not been met
- Five European countries have exceeded the UN target of 0.7 % of GNI in 2010

Official development assistance (ODA), EU-27
% of gross national income (at current prices)



Source: OECD, Eurostat (online data code: [tsdgp100](#))

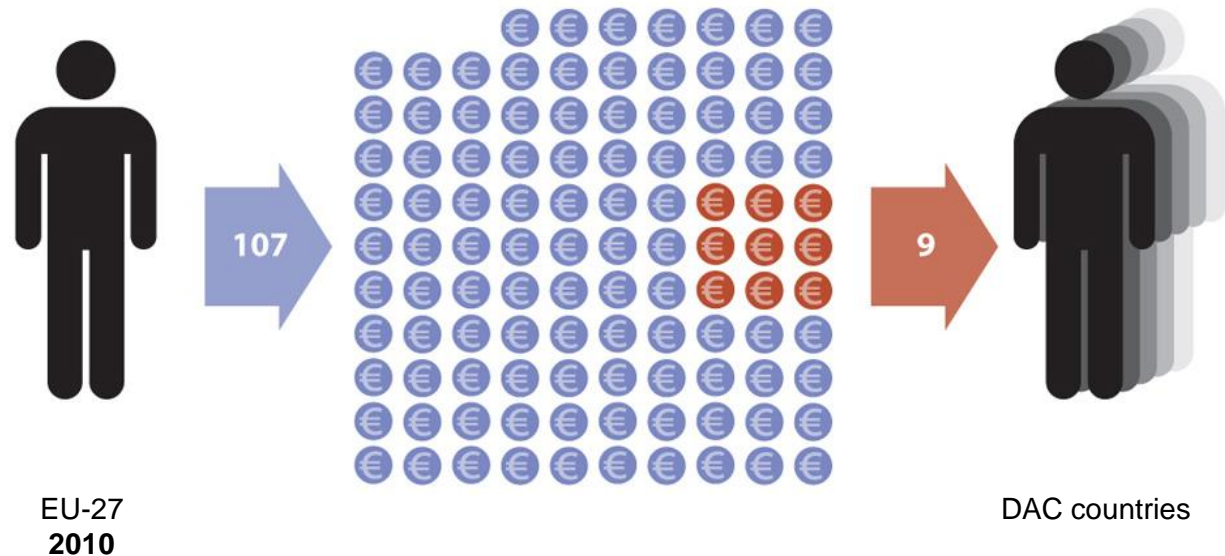
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12.7 The donor-recipient gap

- ODA from the EU amounted to 107 euros per EU citizen
- However, due to their larger populations, recipient countries only received about nine euros per person
- The growth of the EU contribution of ODA per person since 2005 is not reflected in higher per person amounts in developing countries

Official development assistance per capita in donor and recipient countries

Euros per person (at current prices)



Source: OECD, Eurostat (online data code: [tsdgp520](#))

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**Fewer and fewer children in
our ageing society**

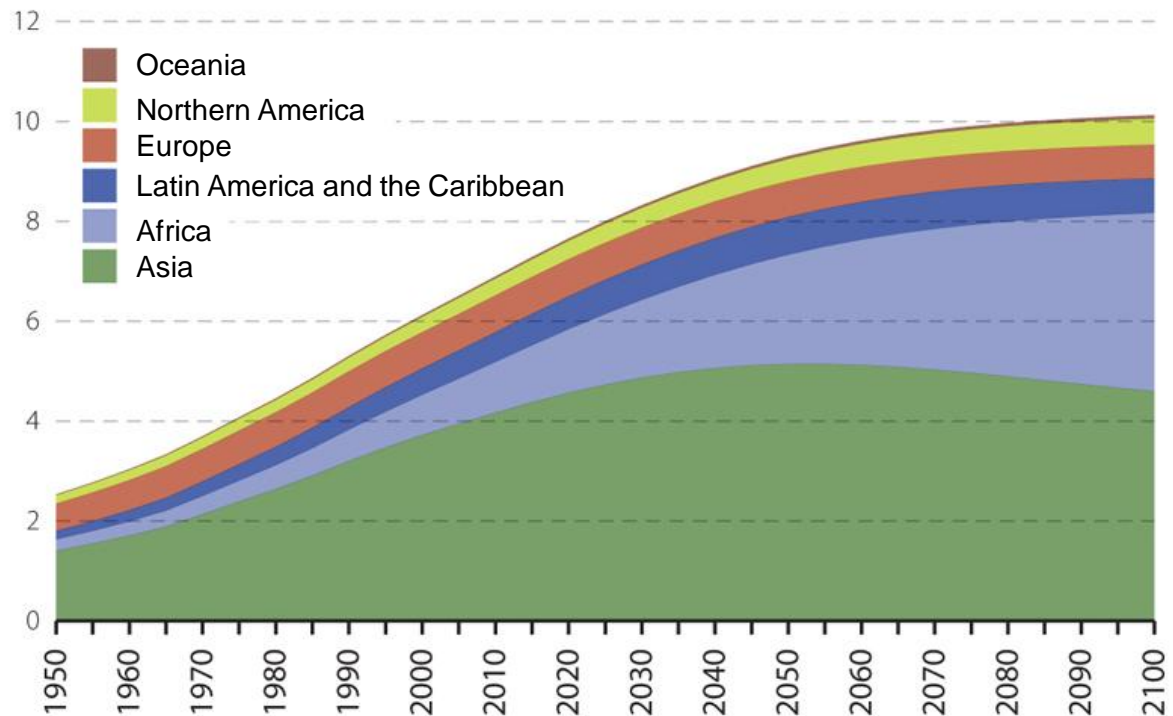
13

13.1 Global population continues to grow

- Earth's total population is expected to quadruple by 2100 compared with 1950, going beyond 10 billion people by about 2080
- Most of the world's population growth has taken place or is expected to take place in Asia and Africa
- Europe's population in 2100 will only be about 20 % larger than it was in 1950

Global population growth and projections

Million people



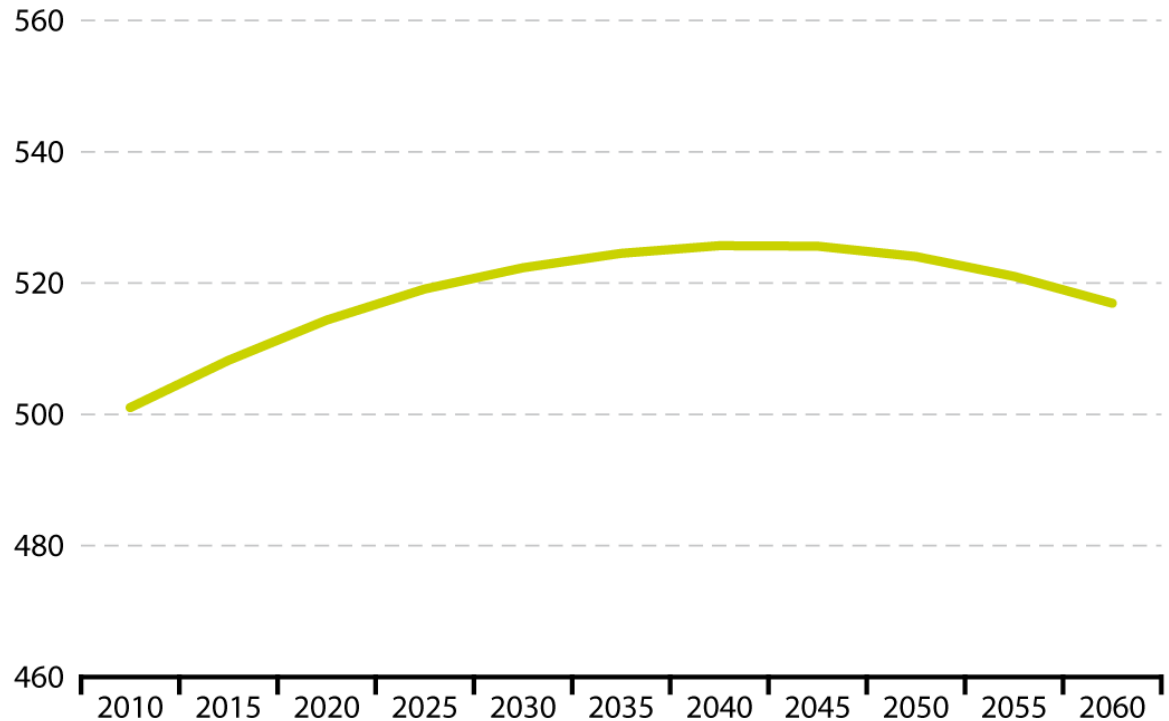
Source: [Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2010 Revision](#)

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13.7 EU's population expected to peak in 2040

- Population growth in the EU will not be continuous
- The EU's population is expected to rise until 2040 and then gradually fall to 517 million in 2060
- This is because from 2035 net migration would no longer counterbalance the natural decline that is expected to start in 2015

Projected population change, EU-27
Million people

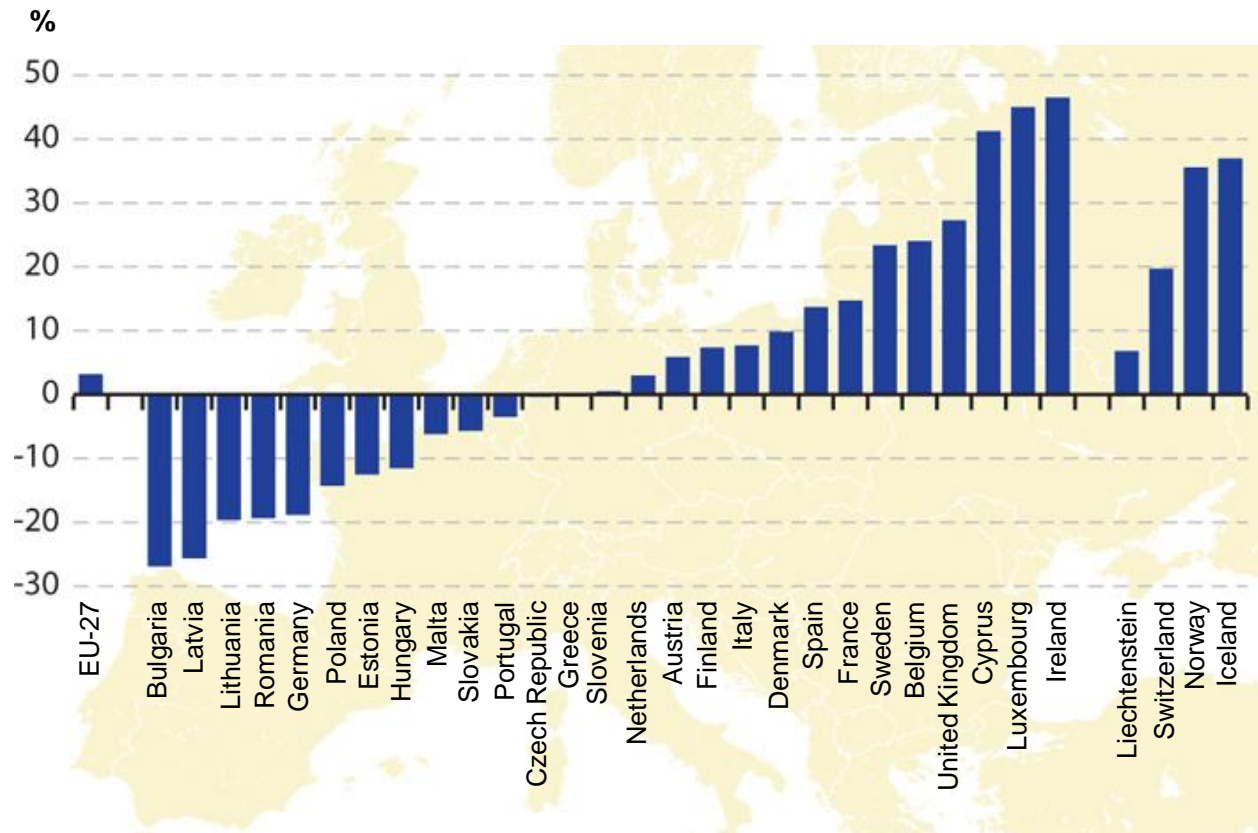


Source: Eurostat (online data code: [tps00002](#))

13.6 The changing face of Europe's population

- By 2060, the EU's population is expected to grow by about 15 million people, or 3 %
- About half of the Member States – most in Eastern Europe – may experience a shrinking population

Projected population change 2010-2060, by country

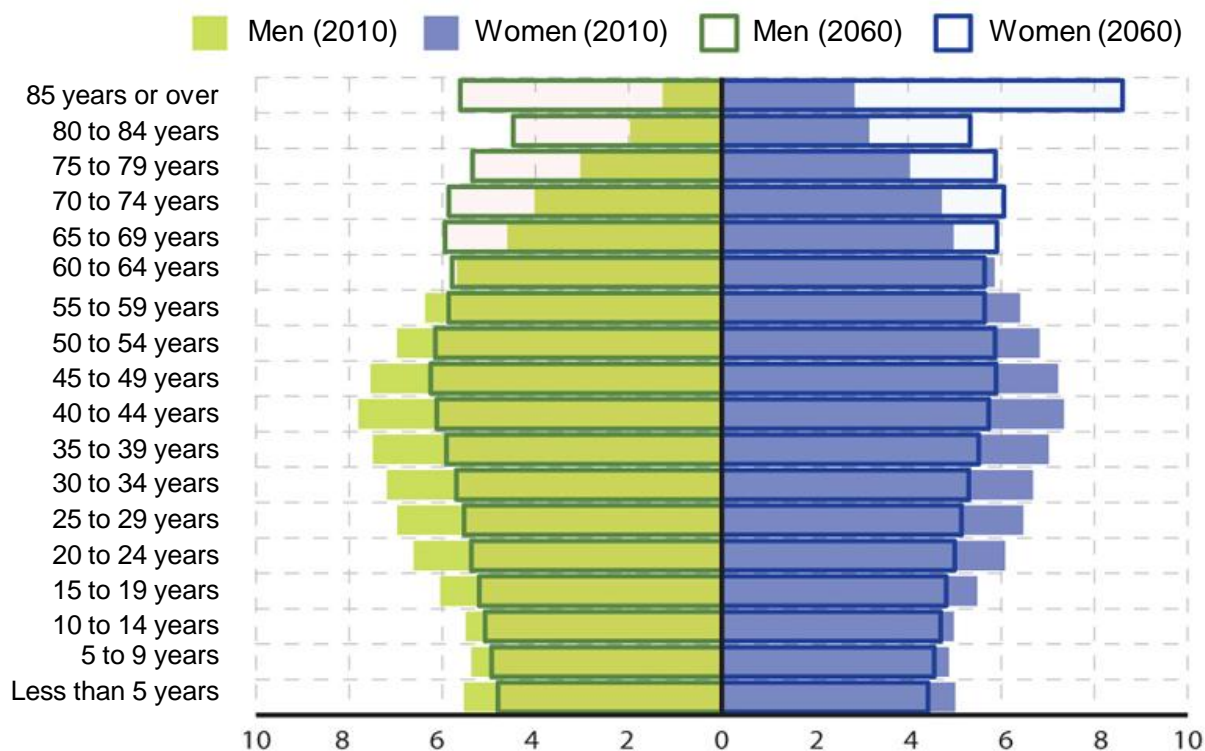


Source: Eurostat (online data code: [tps00002](#))

13.8 An ageing population

- The EU population will grow older because people live longer and births are declining
- The median age of the EU's population is expected to rise from 41 years in 2010 to 48 years in 2060
- By 2060 people aged 65 or older will account for about 30 % of the EU's population

Population structure, by age group and gender, EU-27
% of total population



Source: Eurostat (online data code: [demo_pjangroup](#), [proj_10c2150p](#))

Is green growth a solution?

14

14.5 Productivity and efficiency appear to be improving...

- Resource productivity has risen since 2000. This means more euros were created from the same amount of materials
- At the same time, the amount of energy needed for economic activities has reduced. Less greenhouse gases have also been emitted per euro
- However, these simple ratios do not tell the full story

Changes in resource production and energy intensity, EU-27

Resource productivity
Euros per kilogram



Energy intensity of economy
Kilogram of oil equivalent per 1 000 euros



Energy intensity of transport
Kilogram oil equivalent per 1 000 euros



GHG emissions intensity of economy
Kilogram CO₂ equivalent per 1 000 euros



Source: Eurostat (online data code: [tsdpc100](#), [tsdec360](#), [tsdtr250](#), [tsdcc210](#), [nama_gdp_k](#))

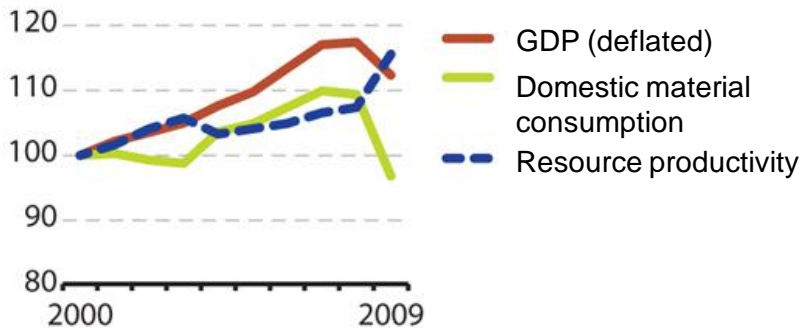
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14.6 ... but not so promising when compared with GDP

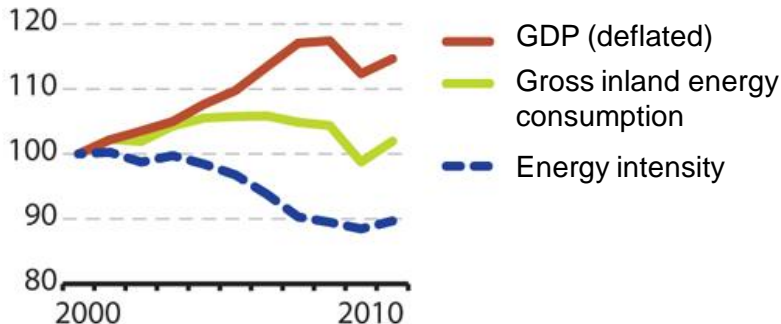
Resource productivity and energy efficiency

Index 2000 = 100

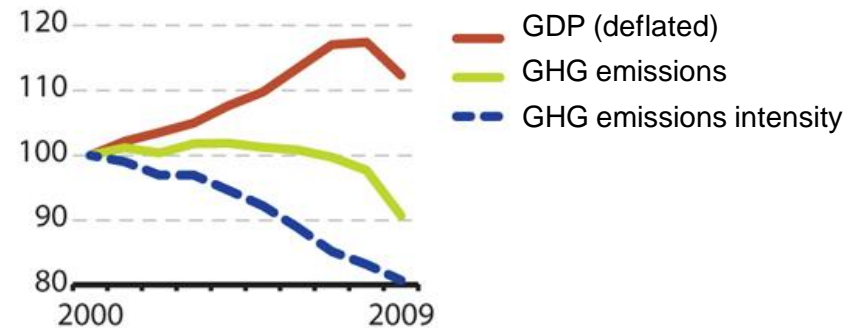
Resource productivity



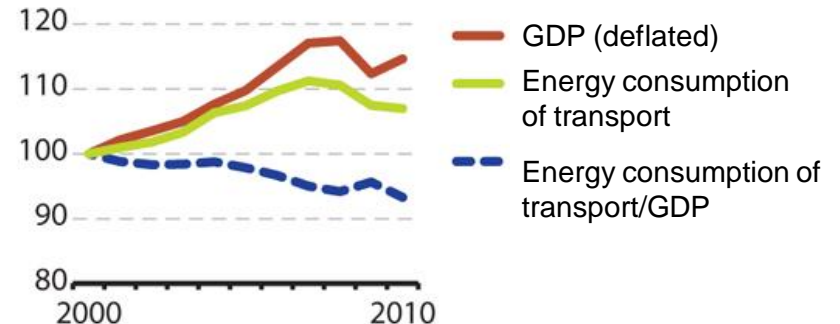
Energy intensity



GHG emissions intensity



Energy efficiency of transport



Source: Eurostat (online data code: [tsdpc100](#), [tsdpc230](#), [nama_gdp_k](#), [tsdec360](#), [tsdcc320](#), [tsdtr100](#), [tsdtr250](#), [sdcc210](#))

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Thank you!

Eurostat webpages on “Rio+20” featuring

- “Figures for the future” publication (PDF)
- Anne’s presentation (PPT)
- Four videos about green growth, green economy, and poverty

<http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/rio20>