

THE EUROPEAN ENVIRONMENT STATE AND OUTLOOK 2015



SOER 2015

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The EEA is mandated in its governing regulation to publish a State of the Environment Report (SOER) every five years, to assess the European environment's state, trends and prospects.

- The suite of SOER 2015 products – 2 reports and 87 briefings – provide a baseline to assess where Europe is making progress against the 7th EAP objectives.
- The SOER 2015 synthesis report signals opportunities to recalibrate policies and knowledge in line with the 2050 vision.

SOER 2015 Synthesis report

SOER 2015 Assessment of global megatrends

Global megatrends

11 briefings

European briefings

25 briefings

Cross-country comparisons

9 briefings

Countries and regions

39+3 briefings

European briefings

03

Environmental themes

- Air pollution
- Biodiversity
- Climate change impacts and adaptation
- Forests
- Freshwater quality
- Land systems
- Marine environment
- Mitigating climate change
- Noise
- Soil
- Waste

Socio-economic dimensions

- Agriculture
- Consumption
- Energy
- Health and environment
- Industry
- Maritime activities
- Resource efficiency
- Tourism
- Transport

Systemic perspectives

- The air and climate system
- Green economy
- Hydrological systems and sustainable water management
- Natural capital and ecosystem services
- Urban systems



Cross-country comparisons

04

Agriculture – organic farming

Air pollution – emissions of selected pollutants

Biodiversity – protected areas

Energy – energy consumption and share of renewable energy

Freshwater quality – nutrients in rivers

Mitigating climate change – greenhouse gas emissions

Resource efficiency – material resource efficiency and productivity

Transport – passenger transport demand and modal split

Waste – municipal solid waste generation and management



Air pollution

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- Despite considerable improvements in past decades, air pollution is still responsible for more than 400 000 premature deaths in Europe each year. It also continues to damage vegetation and ecosystems.
- Continued improvements in air pollution levels are expected under current legislation, but beyond 2030 only slow progress is expected.
- Additional measures are needed if Europe is to achieve the long-term objective of air pollution levels that do not lead to unacceptable harm to human health and the environment.

Related content

[Air pollution & its ecosystem impacts](#)[Industrial pollution to air, soil and water](#)[Air pollution & related envi. health risks](#)[Urban systems and grey infrastructure](#)[Air pollution](#)

EU-28 emission trends for the main air pollutants

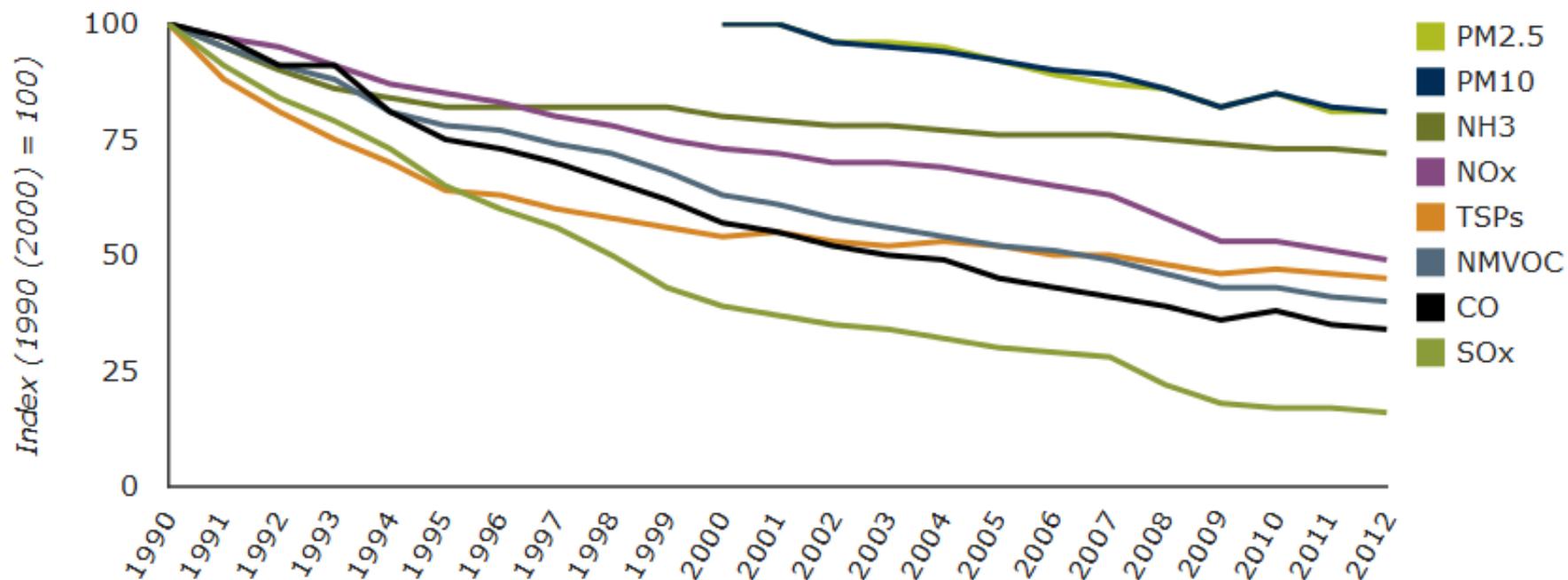
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Data sources: EEA. National emissions reported to the Convention on Long-range Transboundary Air Pollution (LRTAP Convention)

Note: Parties to the Convention on Long-range Transboundary Air Pollution (LRTAP) are formally requested to report emissions of PM only for the year 2000 and onwards. Hence emission trends for these years only are shown. PM10: particulate matter with a diameter of 10 µm or less; PM2.5: particulate matter with a diameter of 2.5 µm or less; TSP: Total suspended particulate; NMVOC: Non-methane volatile organic compounds; NH3: ammonia; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulphur oxides.

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Air pollution & its ecosystem impacts

Industrial pollution to air, soil and water

Air pollution & related envi. health risks

Urban systems and grey infrastructure

Air pollution



Freshwater quality

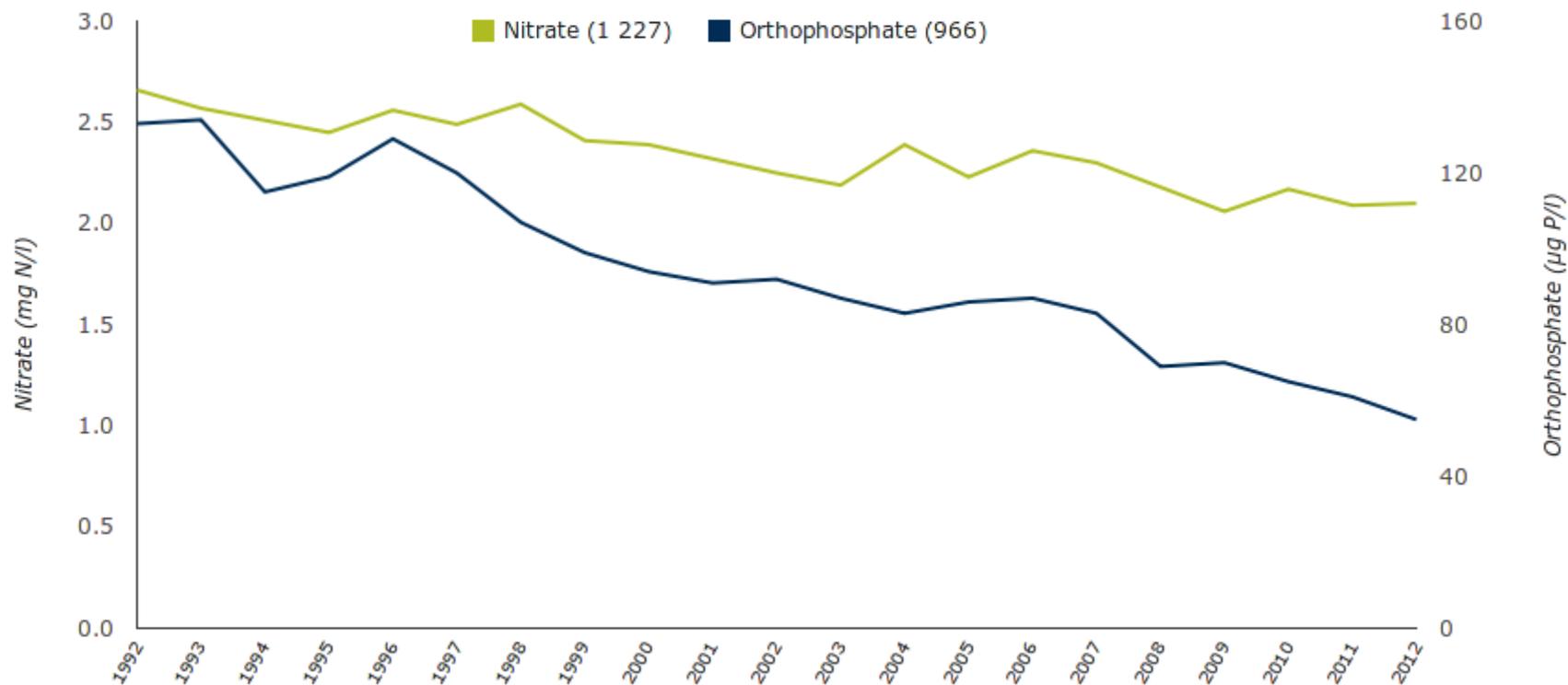
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- Much cleaner than 25 years ago, many water bodies are still affected by pollutants and/or altered habitats.
- In 2009, only 43 % showed a good/high ecological status; the expected 10 percentage point increase for 2015 (to 53%) constitutes only a modest improvement in aquatic ecosystem health.
- Water management should improve with the second round of river basin management plans in 2015-16 resulting in the realisation of more policy objectives through stringent, well-integrated implementation and public participation.

Related content

Water pollution
& related envi.
health risksEcol. status of
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bodiesUrban systems
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and nutrient
loadingChemicals &
related envi.
health risksClimate change
impacts on
ecosystemsWater use and
water stressIndustrial
pollution to air,
soil and waterFreshwater
quality

Changes in water quality variables during the last two decades



Source: Waterbase - Rivers provided by European Environment Agency (EEA)

Related content

- Water pollution & related envi. health risks
- Urban systems and grey infrastructure
- Chemicals & related envi. health risks
- Water use and water stress
- Freshwater quality
- Ecol. status of freshwater bodies
- Water quality and nutrient loading
- Climate change impacts on ecosystems
- Industrial pollution to air, soil and water

Energy

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- The EU's energy intensity decreased between 1990 and 2012 while renewables increased strongly.
- Latest data confirm that the EU is on track towards its 2020 energy targets: increasing renewables to 20 % of energy use and reducing primary energy consumption by 20 % at EU-level.
- The EU has adopted two new energy targets: increasing renewables to minimum 27 % of EU energy use and improving energy efficiency by a minimum of 27 % by 2030.
- Further efforts beyond currently implemented policies are needed to keep the EU on track towards the objective of decarbonising the European energy system by 2050.

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Trends in energy intensity, gross domestic product and gross inland energy consumption

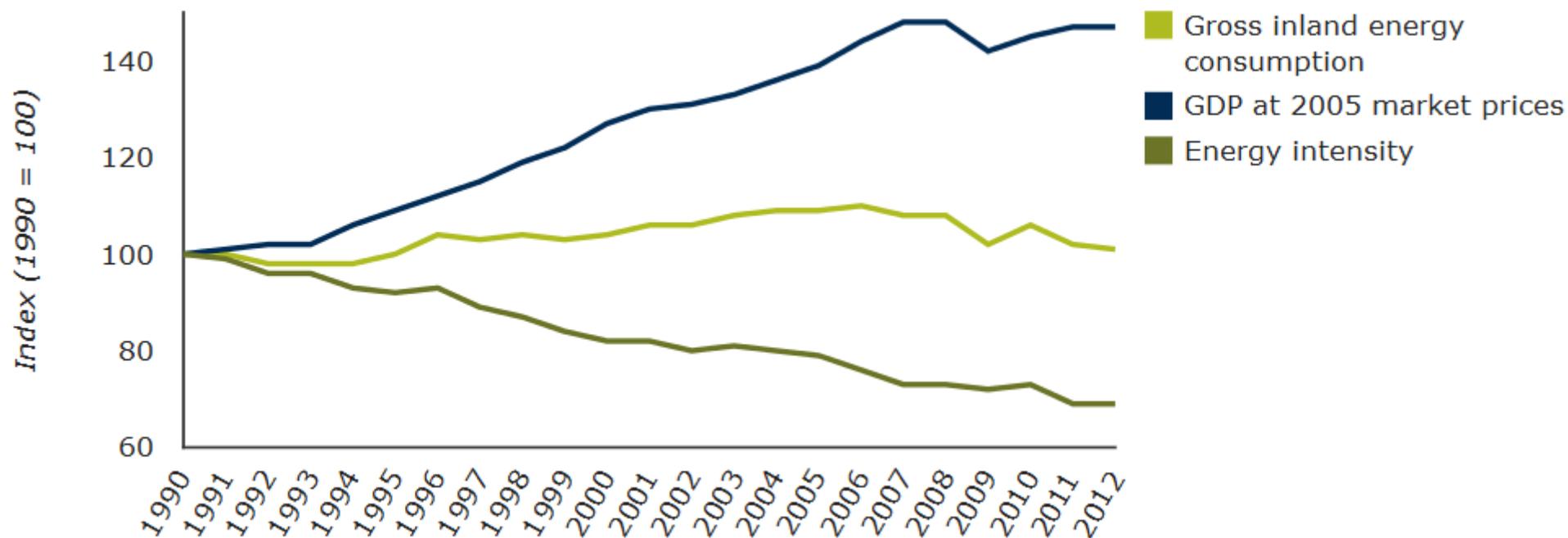
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Note: Some estimates have been necessary for computing the EU-28 GDP index in 1990.

Data sources: The World Bank. World Development Indicators database; Eurostat. Gross inland energy consumption; EEA – Indicator ENER017

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Contribution of renewable energy sources to gross inland energy consumption

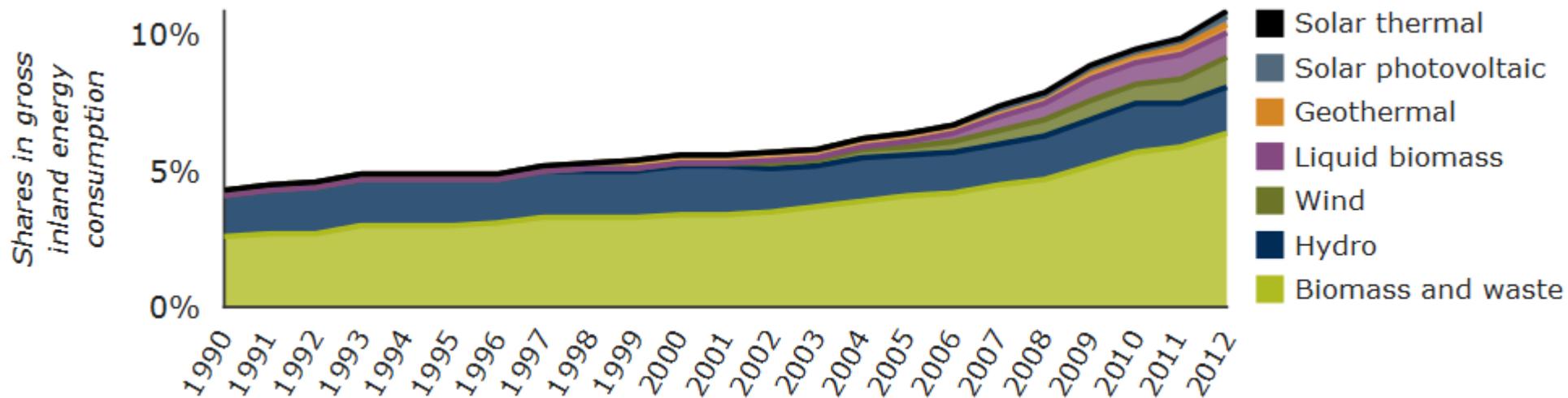
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Geographical scope: EU-28. Data sources: Eurostat. Supply, transformation, consumption - all products - annual data (nrg_100a); Eurostat. Supply, transformation, consumption - renewable energies - annual data (nrg_107a); EEA – Indicator ENER029

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Gross inland energy consumption by fuel

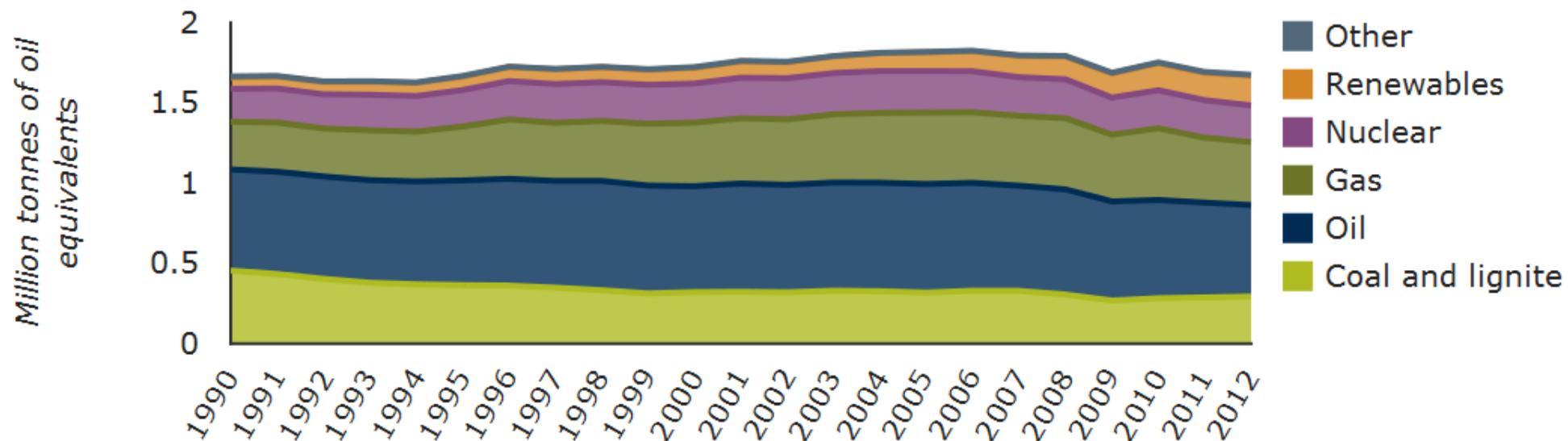
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Note: "Other" category includes industrial waste and net electricity imports.

Data sources: Eurostat. Supply, transformation, consumption - all products - annual data; Eurostat. Supply, transformation, consumption - wastes (non-renewable) - annual data

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Mitigating climate change — greenhouse gas emissions

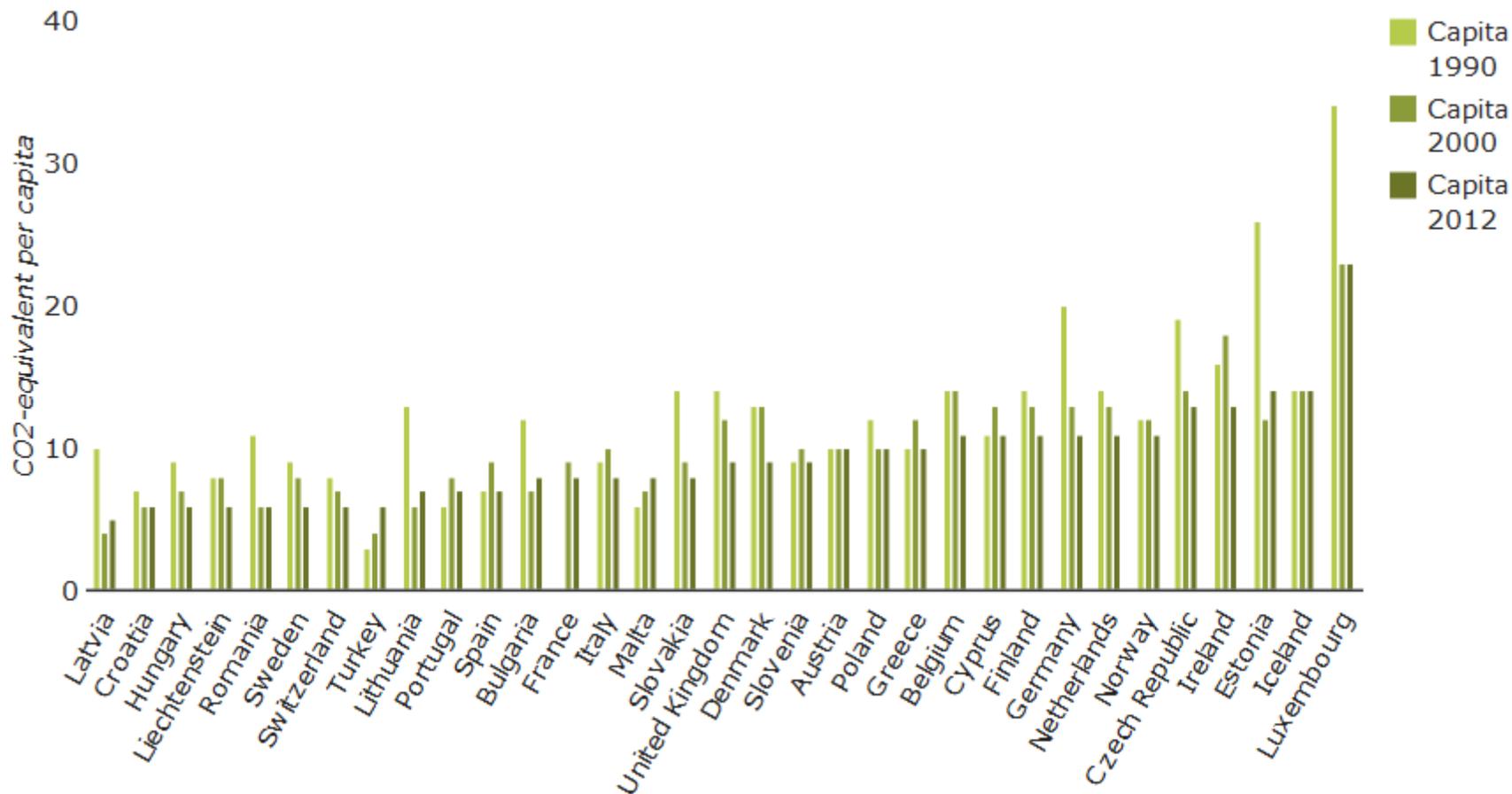
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- Almost all European countries with an individual greenhouse gas limitation or reduction target under the Kyoto Protocol are on track towards achieving their targets.
- The majority of European Union member states expect to meet their individual emission targets for the non-trading sectors under the Effort Sharing Decision.
- However, for 14 countries, additional measures are needed to bring emissions below the annual targets from 2013 to 2020.

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Greenhouse gas emissions per capita in EEA countries (1990, 2000 and 2012)



Data sources: EEA. National emissions reported to the UNFCCC and to the EU Greenhouse Gas Monitoring Mechanism; Eurostat. Population on 1 January by age and sex.

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Biodiversity — protected areas

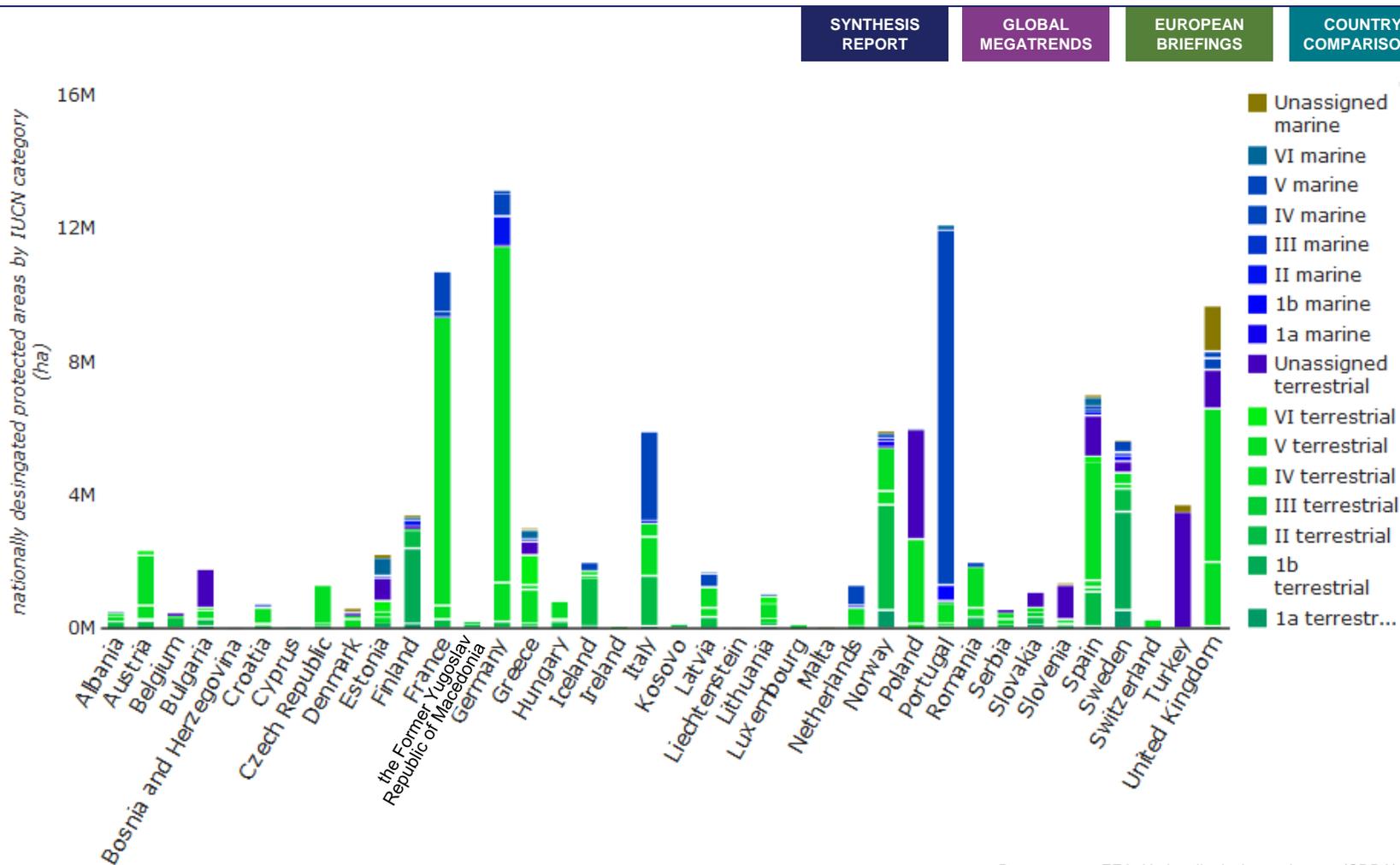
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- The total area of designated protected areas currently covers about 21 % of terrestrial territory and inland waters, although further expansion of the marine network is required to meet targets.
- Designation of protected areas is not a guarantee of biodiversity protection.
- Effective biodiversity conservation within protected areas also requires management with a focus on species, habitats and ecosystems; measures to tackle the causes of biodiversity loss; and coherent networks of protected areas.

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freshwater
biodiversity](#)[Climate change
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Nationally designated protected areas by IUCN category in 38 European countries



Data sources: EEA. Nationally designated areas (CDDA); EEA – Indicator SEBI007

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Climate change impacts on ecosystems

Biodiversity



Transport — passenger transport demand and modal split

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- There was an increase in passenger transport demand between 2005 and 2012, although overall it has been stable in recent years.
- However, national trends varied significantly, with demand increasing in 23 countries and decreasing in 10.
- In 2012, the car was the dominant mode of transport in all countries.
- Car passenger transport has generally decreased in the last three years (2009 to 2012) with a significant drop in some countries.

Transport
demand & envi.
impacts

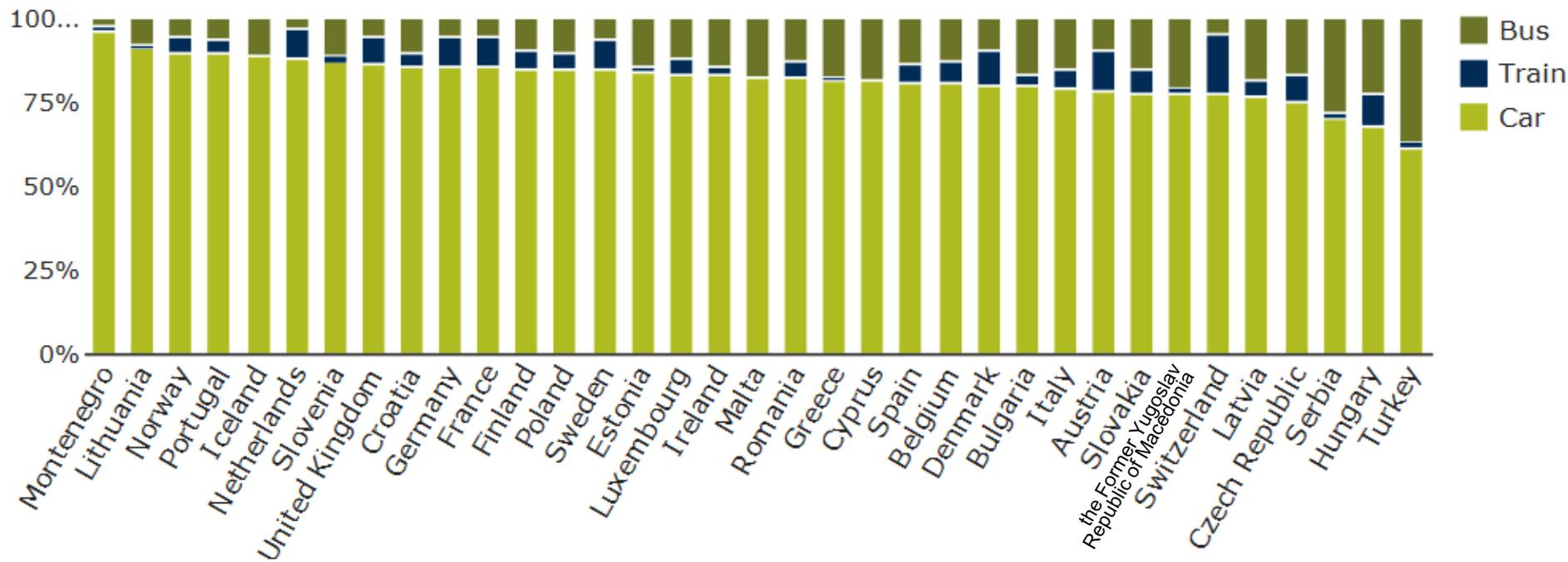
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Transport



Modal split of passenger transport in 35 European countries in 2012



Data sources: Eurostat. Passenger transport modal split; EC. Statistical pocketbook 2014 Full version pdf

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- Noise pollution
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Waste — municipal solid waste generation

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- Generation of municipal waste per capita has declined slightly from 2004 to 2012, but it is clearly better managed now than ten years ago.
- The number of countries recycling and composting more than 30 % of municipal waste increased from 11 to 17 out of 34, and those landfilling more than 75 % of their municipal waste declined from 11 to 8.
- The large differences in performance indicate room for further improvement and actions to meet the 2020 target to recycle 50 % of municipal waste.

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Municipal waste generated per capita in 36 European countries (2004 to 2012)

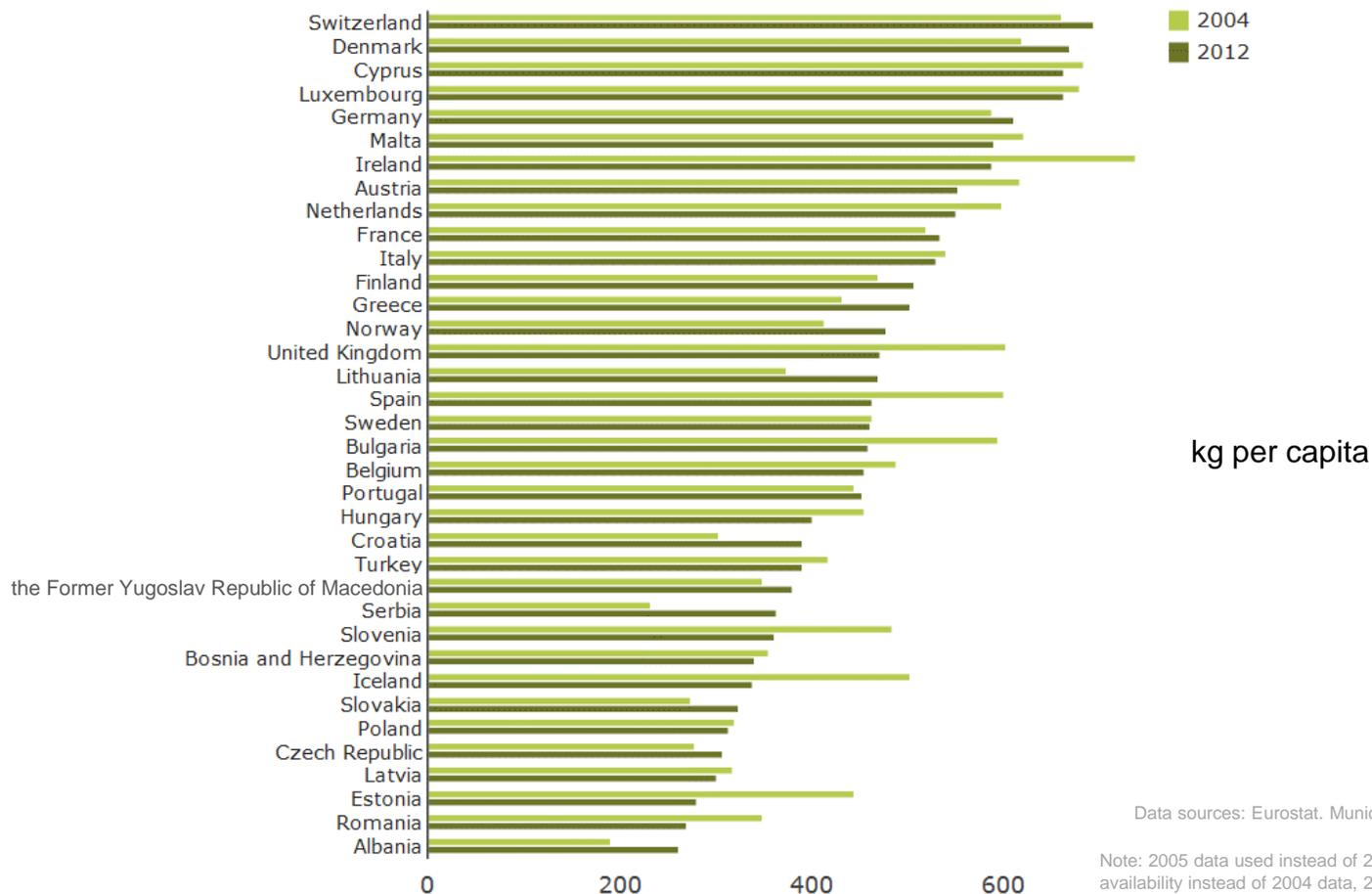
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Data sources: Eurostat. Municipality waste statistics; Eurostat. Demography national data population. Population on 1 January by age and sex.

Note: 2005 data used instead of 2004 for Poland due to changes in methodology. Due to data availability instead of 2004 data, 2008 data were used for Bosnia and Herzegovina; 2006 data used for Serbia; and 2008 data used for the Former Yugoslav Republic of Macedonia..

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Municipal waste recycling in 35 European countries (2004 and 2012)

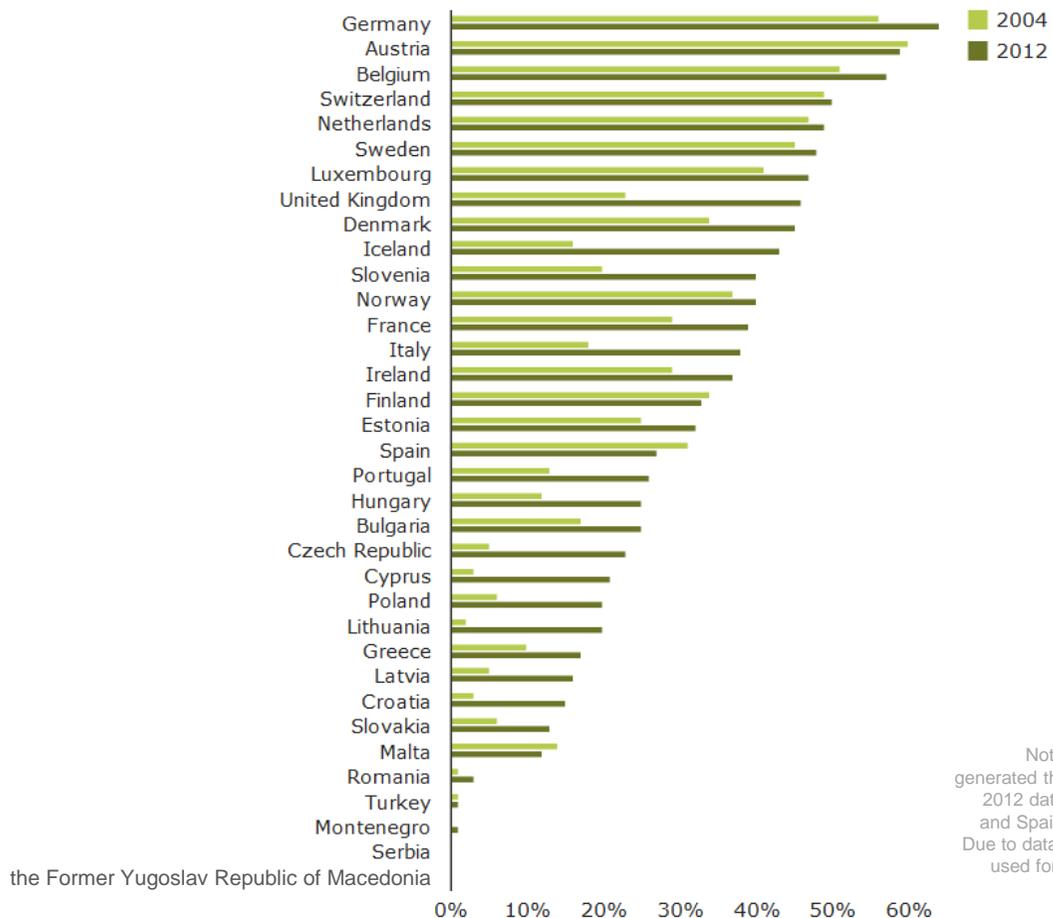
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Note: Note: The recycling rate is calculated as the percentage of municipal waste generated that is recycled and composted. Changes in reporting methodology means that 2012 data are not fully comparable with 2004 data for Austria, Cyprus, Malta, Slovakia and Spain. 2005 data used instead of 2004 for Poland due to changes in methodology. Due to data availability instead of 2004 data, 2003 data were used for Iceland; 2007 data used for Croatia; and 2006 data used for Serbia. For the former Yugoslav Republic of Macedonia, 2008 data were used for 2004, and 2011 used for 2012.

Data sources: Eurostat. Municipality waste statistics

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