Structuring and communicating our knowledge

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The European Environment State and Outlook Report (SOER)

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 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	European briefings	Cross-country comparisons	Countries and regions
11 briefings	25 briefings	9 briefings	39+3 briefings

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The Synthesis report

- **Focus:** provides a strategic and integrated assessment, multidisciplinary, spans thematic issues and geographic scales and aims to support decision-making.
- **Based on:** EEA data, indicators and assessments complemented with other sources; and dedicated stakeholder workshops.
- **Format:** printed report in 31 language versions and online with links to underlying data, indicators and references.

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Assessment of Global Megatrends

THE EUROPEAN ENVIRONMENT
STATE AND OUTLOOK 2015

ASSESSMENT OF GLOBAL MEGATRENDS

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- **Focus:** assessment of 11 global megatrends
- **Based on:** thematic EEA information and non-EEA sources (non-European).
- **Format:** printed assessment and 11 online briefings with links to underlying data, indicators and references.

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European Briefings

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European briefings

Air pollution

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.

Context

Poor air quality adversely affects human health, the environment, and the climate. Both short-term and long-term exposure to air pollution harms health. This harm occurs either via direct exposure to air pollutants, or indirectly via pollutants transported through the air, deposited, and then accumulated in the food chain. Air pollution also harms ecosystems by contributing to eutrophication and acidification of water and soil, leading to loss of flora and fauna. Air pollution can also harm agricultural crops and forests causing yield losses. Furthermore, certain air pollutants affect the climate system by triggering positive or negative changes in global radiative forcing (see EEA 2015 briefing on the air and climate system).

Current European Union (EU) air pollution policy is underpinned by the 2005 Thematic Strategy on air pollution (TSAP).[1] This strategy established interim objectives for air quality and also established measures to ensure progress toward the goals of the 6th Environment Action Programme (6th EAP), which ran from 2002 to 2012. The 6th EAP's goal was to attain levels of air quality that do not give rise to significant negative impacts on, and risks to, human health and the environment. To move toward achieving the TSAP objectives, EU air legislation follows a two-track approach of implementing both local air quality standards and source-based mitigation controls. These source-based mitigation controls include binding national limits for emissions of the most important pollutants.

The main policy instruments on air pollution within the EU include the Ambient Air Quality Directives,[2][3][4] and the National Emission Ceilings (NEC) Directive,[5] which contains emission ceilings for 2010 and years thereafter. In addition, there is source-specific legislation addressing industrial emissions, road and off-road vehicle emissions, fuel quality standards etc. Emissions are also addressed internationally under the UNECE Convention on Long-range Transboundary Air Pollution.

At the local level, the EU requires air quality management plans to be implemented in areas where exceedances of air quality standards occur. These plans are required to bring concentrations of air pollutants to levels below the EU legislative limit and target values.

Key trends

Vehicles, industry, power plants, agriculture, households, and waste continue to Europe's air pollution. Emissions of the main air pollutants in Europe have declined in recent decades (Figure 1), resulting in generally improved air quality across the region. However, certain sectors have not followed this trend, and have seen emissions of some pollutants increase. For example, fine particulate matter ($PM_{2.5}$) emitted directly into the air from coal and biomass combustion in households and from commercial and institutional buildings, has risen in the EU by around 9% and

SOER 2015 > European briefings > Air pollution

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- **Focus:** 25 briefings that summarise state and trends in key environmental themes.
- **Based on:** EEA data, indicators and assessments complemented by other relevant European sources.
- **Format:** online briefings with links to underlying data, indicators and references.

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Cross-country comparisons


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Cross-country comparisons

Agriculture — organic farming

Reducing agriculture's environmental impacts requires a transition towards innovative, low-input systems. Organic production plays a role in increasing the efficiency of nutrient management and reducing pesticide use.

While there has been rapid development in recent years, in 2012 the total area under organic farming was still only 5.7% of total utilised agricultural area, with more than a 60-fold difference in the share of organic farming amongst countries.

Setting the scene

Agricultural production covers roughly half of Europe's land territory and is fundamental to food security. It is multifunctional, providing food, fibre and feed and playing a very important socio-economic role, particularly in rural communities. Europe has a high diversity of farming practices, growing conditions and agricultural ecosystems. Agriculture has substantial positive and negative impacts on soils, air and water quality, ecosystems and biodiversity, and landscape amenity value.

This SOER 2015 briefing on agriculture provides an overview of the status, trends and prospects of agriculture in Europe and its effect on the environment. This SOER 2015 cross-country comparison focuses on organic farming.

Organic farming aims to be a more environmentally sustainable form of agricultural production, combining best environmental practices, and emphasising biodiversity protection and the preservation of natural resources. It also emphasises high animal welfare standards and the avoidance of synthetic chemical inputs such as fertilisers and pesticides and genetically modified organisms (GMOs).

About the indicator

The indicator is defined as the share of total utilised agricultural area (UAA) occupied by organic farming (existing organically-farmed areas and areas in the process of conversion). Farming is only considered to be organic at the European Union (EU) level if it complies with Council Regulation (EC) No 834/2007, which provides a comprehensive framework for production of crops and livestock, labelling, processing and marketing of organic products, and the import of organic products into the EU.

This indicator is regularly published by Eurostat and provides information on the degree to which adoption of organic farming practices has been occurring in European countries. This indicator is also included in the Resource efficiency scoreboard for the assessment of progress towards the objectives and targets of the Europe 2020 flagship initiative on resource efficiency.

Policies, targets and progress

European agriculture has been supported for over 50 years under the Common Agricultural Policy (CAP), and while there are no policy targets for organic farming at European level, the recently adopted Action Plan[1] and legislative proposal[2] set out objectives for the development of organic production to 2020. The positive effects of organic farming on the environment will contribute to achieving a range of European[3] and national policy objectives.

SOER 2015 > Cross-country comparisons > Agriculture — organic farming

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- **Focus:** Indicator-based cross-country comparisons for 9 themes, with links to national level indicators and interpretation.
- **Based on:** EEA and Eurostat indicators.
- **Format:** Published as online briefings with links to underlying data, indicators and references.

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Countries and regions

SOER 2015

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Countries and regions

Black Sea region

Brief introduction

The Black Sea region has become an area of particular interest to the European Union (EU) not only due to the accession of Bulgaria and Romania but also because it is a transit area for oil and gas resources from Russia and the Caspian Sea. Due in part to its strategic importance, the area is also subject to political conflicts and tension as currently observed in Ukraine. The area covers two EU Member States, Romania and Bulgaria, and one candidate state, Turkey. It also includes the Russian Federation, as well as a number of countries covered by the European Neighbourhood Policy: Ukraine, Georgia, Moldova, Armenia and Azerbaijan.

The Black Sea has distinctive natural conditions, with over 90% of its deeper water volume consisting of anoxic water[1]. The interaction between the oxygen rich surface waters and the Black Sea's deeper areas tends to be limited. This leads to a layering structure being created which affects the diversity of the organisms within the Black Sea.

The Black Sea's catchment area is very large, with a total surface area of around 2 million km², five times the surface of the Black Sea itself. Some of Europe's longest and largest rivers flow into it including the Danube and the Dnieper. The population living around the Black Sea coast is unevenly distributed and includes over 12 million inhabitants in the metropolitan area of Istanbul; two large cities (Odessa (Ukraine) and Samsun (Turkey) each with 1.2 million inhabitants; and several smaller cities with 300 000 to 400 000 inhabitants each: Constanta (Romania), Trabzon (Turkey), Sochi (Russia), Varna (Bulgaria), Sevastopol (Ukraine) and Novorossiysk (Russia).

The Black Sea ecosystem has been the subject of intense scrutiny[2]. Changes to its ecosystem during the last 50 years clearly indicate its vulnerability to the anthropogenic effects. Marine resources in the Black Sea have declined due to over-fishing, unplanned development of coastal zones and intense maritime traffic. Meanwhile unique terrestrial ecosystems, such as those in the Caucasus region, the Danube Delta and the East Carpathians are also under threat[3].

The Black Sea Convention[4] (BSC) provides a regional cooperation framework to protect against pollution. It entered into force in 1994. Following the accession of Romania and Bulgaria to the EU, the Black Sea became the focus of various EU policies, both thematic (e.g. Fishery, Integrated Coastal Zone Management (ICZM), Marine Strategy Framework Directive (MSFD), Water Framework Directive (WFD), Habitat and Birds Directives) and horizontal such as Environment Impact Assessment/Strategic Environment Assessment (EIA / SEA), access to environment information, control of major-accident hazards involving dangerous substances (SEVESO)[5].

In 2009, an updated Black Sea Strategic Action Plan (BSSAP) for the Rehabilitation and Protection of the Black Sea[6] was adopted by all coastal countries. Based on an ecosystem approach and coherent with MSFD provisions, the plan aims to resolve transboundary environmental problems. It contains realistic targets, including legal and institutional reforms, as well as suggestions as to the necessary investments to solve the main environmental problems identified by the Black Sea Transboundary Diagnostic Analysis (BS TDA) report published in 2007.

The key transboundary challenges of the Black Sea region are as follows:

- eutrophication / nutrient enrichment;
- changes in marine living resources;
- chemical pollution (including oil); and
- biodiversity / habitat changes, including the introduction of alien species.

SOER 2015 > Countries and regions > Black Sea region

1

- **Focus:** Summaries of national state of environment reports for each of the 39 countries involved in Eionet; plus 3 regional briefings drafted by the EEA.
- **Based on:** National state of environment reports and national datasets and indicators.
- **Format:** online briefings with links to underlying data, indicators and references; and SERIS (State of Environment Reporting Information System).

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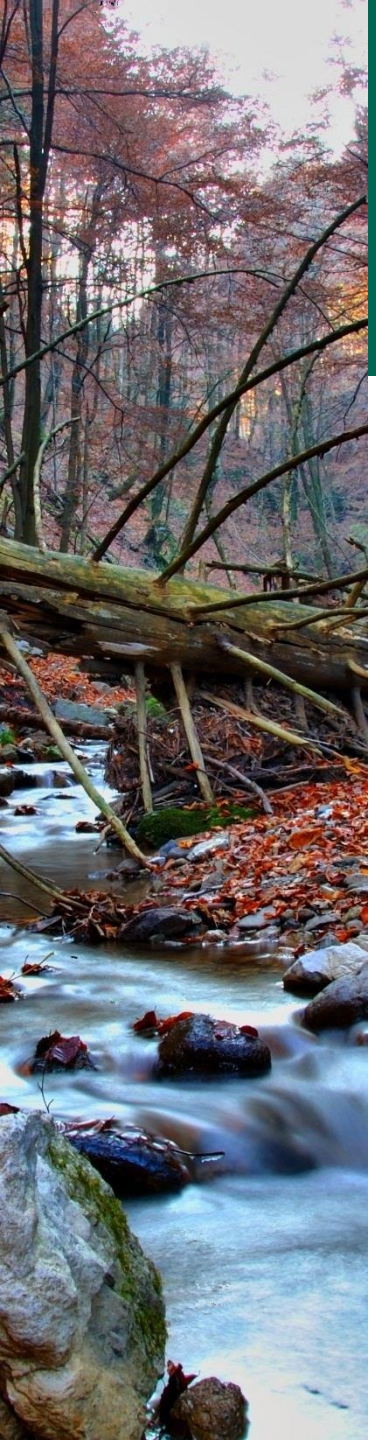

Contribute to a societal debate on the prospects for ensuring and maintaining a healthy environment:

- Primarily web-based products with visual user experience
- Language of movement, empowerment and potential - in media, social media and events as the Launch in Brussels on 3 March 2015
- Intense outreach through media, social media and direct dissemination
- Engagement of the EEA member countries in Eionet - a year of dialogue on Europe's environment throughout 2015

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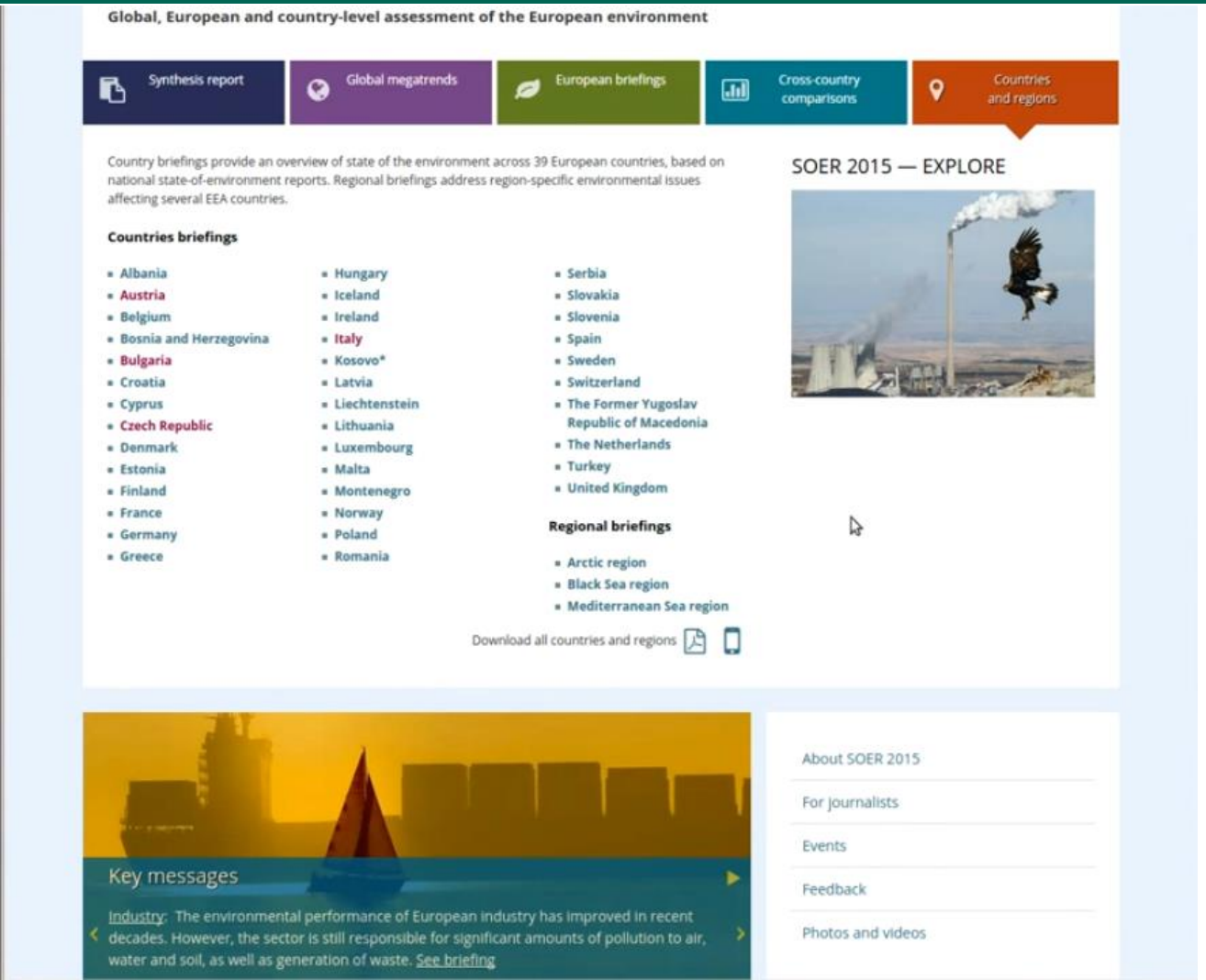
Primarily web-based visual user experience



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Language of movement, empowerment and potential

Europe's environment - good news and bad

Air pollution will kill thousands in Europe, EEA warns

Europa debe "hacer más" para lograr los objetivos ambientales de 2050

Key messages picked up by media:

- **Europe needs to do more to reach the EU 2050 environmental goals.**
- **Europe needs radical shift in policies, lifestyle and technologies to achieve long-term target of living well within the limits of the planet.**

Luftverschmutzung: 430.000 Europäer sterben jährlich an Feinstaub

Europe shouldn't be afraid of leading the world on environmental regulation

Biodiversité, état des sols, pollution : l'environnement se dégrade en Europe

Europe Unlikely to Meet Climate Goal, Study Finds

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Intense outreach through media, social media and direct dissemination

9,540
RE-TWEETS

493,060
REACHED

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Engagement of the Eionet - a year of dialogue on Europe's environment throughout 2015

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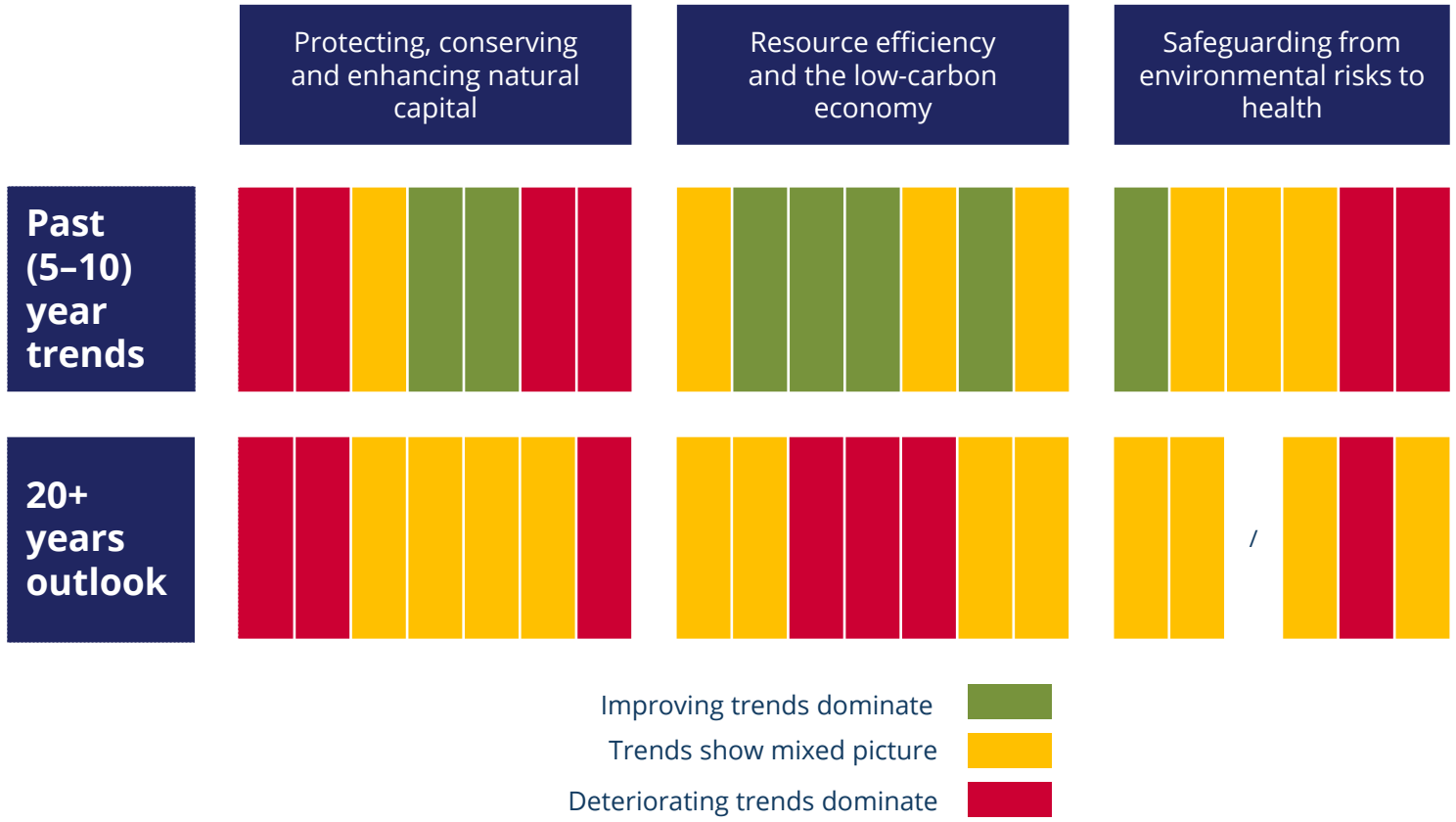
Key findings: efficiency improvements have not secured long-term resilience



- Source: EEA. SOER 2015 Synthesis report.

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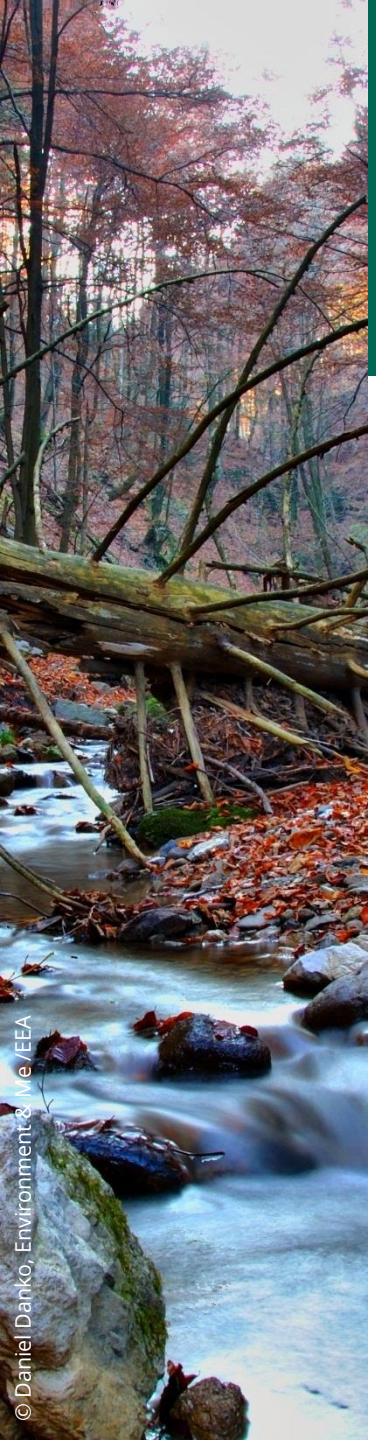

Key messages from SOER 2015

- **Policies** have delivered substantial benefits for the environment, economy and people's well-being; major challenges remain
- Europe faces persistent and emerging challenges linked to production and consumption **systems**, and the rapidly changing **global** context
- Achieving the 2050 vision requires system **transitions**, driven by more ambitious actions on policy, knowledge, investments and innovation
- Doing so presents major **opportunities** to boost Europe's economy and employment and put Europe at the frontier of science and innovation

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