# Annual report 2011 and Environmental statement 2012





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Luxembourg: Publications Office of the European Union, 2012

ISBN 978-92-9213-322-1 ISSN 1561-2120 doi:10.2800/52260

#### **Environmental production**

This publication is printed according to high environmental standards.

#### **Printed by Rosendahls-Schultz Grafisk**

- Environmental Management Certificate: DS/EN ISO 14001: 2004
   Quality Certificate: DS/EN ISO 9001: 2008
- EMAS Registration. Licence no. DK 000235
- Ecolabelling with the Nordic Swan, licence no. 541 176
- FSC Certificate licence code FSC C0688122

#### Paper

RePrint — FSC Certified 90 gsm. CyclusOffset 250 gsm.

Both paper qualities are recycled paper and have obtained the ecolabel Nordic Swan.

Printed in Denmark



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### Brief description of the EEA and its mission



The European Environment Agency (EEA) was formally established in 1990 by Council Regulation No 1210/90. This Regulation was subsequently amended by Council Regulation No 933/1999 and then again by Regulation No 1641/2003 of the European Parliament and the Council. In the interests of clarity and rationality the Regulation was codified by Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009. The decision to locate in Copenhagen was taken in 1993 and the EEA has been operational there since 1994.

#### **Our vision**

The EEA aims to be recognised as the world's leading body for the provision of timely, relevant and accessible European environmental data, information, knowledge and assessments.

#### Our mission is to:

 be the leading public body in Europe committed to providing environmental information to policymakers and the public, to support sustainable development, and to help achieve significant and measurable improvements in Europe's environment;

- assist the European Community institutions and EEA member countries to identify, frame, prepare and implement sound and effective environmental policy measures and legislation; and to monitor, evaluate and assess actual and expected progress in the implementation and results of such measures;
- establish and coordinate the European environment information and observation network (Eionet), based on the infrastructure for collection, analysis, assessment and management of data shared with the European Commission services, EEA member countries and international organisations, agreements and conventions.

#### Strategic objectives 2009-2013

Our strategic objectives are to:

 play a key role in the development and implementation of European environmental policies and related areas, especially the European Commission's Environment Action Programme;



- monitor the efficacy of environmental help ensure, through effective policies of the EU and EEA member, candidate and potential candidate countries;
- support the monitoring of the EU Sustainable Development Strategy (through facilitation of Sustainable Development Indicators) focusing on core environment-related issues;
- undertake integrated environmental assessments and analyses of the 6th Environment Action Programme, the EU Sustainable Development Strategy, environmental themes, future studies and early warnings linked to changes in societal and economic structures;
- provide access to more frequently updated information and, where possible, near-real-time data to improve the timeliness of environmental information through the Shared Environmental Information System (SEIS) and the Environmental Data Centres;
- · anticipate new ideas and thinking, especially about ecosystem services, resource use, technologies and behavioural changes;
- develop new web-based services for environmental educational needs;

communications and information services, the integration of environmental thinking into the mainstream of decision-making and the daily lives of European citizens.

#### **Cooperation across Europe**

The information provided by the EEA comes from a wide range of sources. The main source is Eionet, a partnership linking more than 350 institutions in EEA member and collaborating countries. These include organisations that together comprise the EEA's six European topic centres (ETCs) covering:

- Air Pollution and Climate Change Mitigation (ETC/ACM)
- Biological Diversity (ETC/BD)
- Climate Change Impacts, Vulnerability and Adaptation (ETC/ CCA)
- Inland, Coastal and Marine Waters (ETC/ICM)
- Spatial Information and Analysis (ETC/SIA)
- Sustainable Consumption and Production (ETC/SCP).

#### **Environmental management**

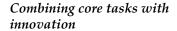
In 2004 the EEA developed an environmental management system to manage its own impacts on the external environment. This system was verified by external auditors for the first time in spring of 2005. The EEA was the first EU body to be registered under the EU Eco-Management and Audit Scheme (EMAS).

The EEA environmental management system covers the EEA premises, situated in two adjacent rented buildings in the centre of Copenhagen. The total area of the headquarters is 9 940 m<sup>2</sup>, of which 7 200 m<sup>2</sup> is situated at Kongens Nytorv 6, which EEA has occupied since it started its operation in Copenhagen in 1994, and 2 740 m<sup>2</sup> at Kongens Nytorv 8, which EEA has rented since 1 July 2010. In assessing the environmental impacts of the EEA activities, business travel paid for by the EEA has also been included for non-EEA staff, for example EEA Management Board members, Eionet partners, ETC representatives and external experts.

Further details on how the EEA manages its environmental impacts can be found in Chapter 9 of this annual report.

### Message from the Executive Director





In 2011 the EEA released a report, Revealing the costs of air pollution from industrial facilities in Europe. The report assessed the 'costs of harm to health and the environment' from air pollution caused by the 10 000 largest polluting facilities in Europe and concluded that these facilities cost citizens between EUR 102 and 169 billion in 2009.

Based on existing, publicly available data gathered under the European Pollutant Release and Transfer Register (E-PRTR), the report received over 800 published articles in the global press.

In this new report, the Agency brought together such disparate policies as the E-PRTR and the United Nations Economic Commission for Europe's Arhus Convention regarding access to information, public participation in decision-making and access to justice in environmental matters.

The E-PRTR register includes data on the main pollutant releases to air, water and land of about 28 000 industrial facilities across the European Union and EFTA countries. Every year, such data sets, developed by Member States are checked and reviewed by the EEA and our



European Topic Centres to assess their completeness and comparability.

This report is an example of how the work of the EEA has been defined by the improvement of core tasks through the use of innovative approaches to develop with the European Commission and member countries, unique products of immediate and lasting relevance to the citizens of Europe.

#### Adding value for citizens and experts

In 2011, the EEA progress report on *Eionet priority data flows* found that European countries have significantly improved their delivery of priority environmental data to the EEA since 2000.

About 80 % of all the environmental data and information that we gather at the EEA has a 'spatial' dimension. 'Spatial' (or 'geographic') information describes a location and properties of phenomena on the Earth's surface. Public authorities at all levels in Europe regularly manage and use geospatial information and by utilising this aspect we can map almost all of our data.

By recognising the value of this dimension of the data we can add significant value to the information and empower people across Europe to access and use information that is useful to them

In this context, the EEA's upgraded *Eye* on *Earth* global public environmental information service came of age in 2011, receiving widespread support and recognition around the world.

### SEIS – connecting people and information

Throughout 2011, from discussion on the economy to reflections on a 7th Environment Action Programme, from discussion on the role of forests to our need to quantify and value water, the central role of the European citizen was clear.

The Shared Environmental Information System, which gathers information once but makes it available as widely as possible for re-use, epitomises our approach and adds state of the art technology into the mix.

SEIS principles were endorsed as an internationally recognised model for information sharing at the 7th UN Environment for Europe Ministerial Conference in Astana, Kazakhstan. The Agency's pan-European Assessment of Assessment report, based on SEIS



principles, was a major input into the conference.

The EEA also provided significant support to the Global Monitoring for Environment and Security (GMES) programme. Through its GMES in-situ coordination project, EEA key achievements included the identification of in-situ data requirements for GMES services. Numerous partnerships and cooperation channels were also created with countries, organisations and networks, in order to secure the long-term sustainable provision of in-situ data.

In terms of biodiversity, 2011 was defined by continued activities around ecosystems and ecosystem accounting and the streamlining of information and experience gathered in 2010 — the International Year of Biodiversity.

The Biodiversity Information System for Europe is a single entry point for data and information on biodiversity in the EU. Bringing together facts and figures on biodiversity and ecosystem services, it links to related policies, environmental data centres, assessments and research findings from various sources. It is being developed to strengthen the knowledge base and support decision-making on biodiversity

As for the Green Economy, the EEA brought together many years of experience on the need for a fundamental rethinking of the foundations of our economics including new approaches to taxation and the need for natural capital accounts were key input to the European Commission's Roadmap to a Resource Efficient Europe.

By making a wide range of data available to as large and diverse a group as possible and by empowering people to interact and use it, the EEA has been able to increase the value of the data and at the same time reduce the cost by streamlining the collection and reuse of various data flows. People in different settings can now define their own level of engagement ranging from a Facebook reader to someone attending a ministerial conference. Ultimately, the EEA acts as a catalyst and a channel to ensure that our ecosystems and the people who depend upon them have a voice.

### Message from the Chairman of the Board





We live in a world that is becoming ever more interconnected. In many respects, this is a wonderful development, but unfortunately, our problems are also becoming more interconnected, both with each other and with the way we live our lives. This means that we can no longer treat these problems as isolated issues.

If we are to respond effectively to the challenges we face, we will need an integrated response that understands how these problems connect with each other, and how they connect with the fabric of our economy and society. This will require cooperation and partnership across many areas of expertise.

But we should not be pessimistic, because the very connectivity at the heart of the challenges we face can be part of the solution. Take the Green Economy as an example. It could be the solution to a variety of systemic problems, from economic instability to societal disenfranchisement to environmental degradation.

Greening our economy will require economists, sociologists, environmental scientists, politicians, farmers, business people and teachers — to name just a few — to all work together.

In short, people from all walks of life will need to reach across boundaries. Those of us working with one particular part of the jigsaw have a responsibility to open ourselves up to outside influences. We need to communicate our own experiences beyond the safe limits of our traditional circles.

#### Why should we share more?

Firstly, because we need to look at the whole picture, not just its parts, to develop proper responses. Think of climate change, for example. If there was one skill-set that could solve this problem, it would be simple. But climate change encompasses so many elements, that it must be dealt with on a variety of different levels, all of which are communicating with each other.

Secondly, history is no longer a good indicator of the future. Today's changes can be explosive, differing radically from anything we have seen before. We need to become more vigilant in detecting early warning signals in far away and unusual places. Many of these places might now be unconnected to the mainstream, but can quickly impinge on the lives of billions of people. If we are to assess the impact of global climate change, we therefore have to keep a close eye on everything from glaciers

melting in Greenland to the status of fish stocks in the high seas.

Thirdly, information and communication technologies are making it increasingly easy to share the information we gather. Web services and mobile applications have tremendous potential when harnessed by individuals, closed groups or entire online communities. Near-real-time information from ozone pollution levels in cities to the quality of local beaches can be made available instantly.

#### EEA is well placed

The EEA is well placed to help join all these dots, and communicate them in a comprehensive way. The Agency is flexible and dynamic, it is connected and it is open to new challenges and opportunities.

The Agency is a relatively small organisation, organised to work on specific but interconnected tasks. It can react quickly to new demands.

One such demand came from the growing awareness of the link between air pollution and climate change. Responding to this, in 2011, the Agency set about establishing a new workstream on 'Atmosphere:



Climate Air Interactions', which brings together air quality and climate change mitigation policies.

The development of mitigation and adaptation policies that do not take these linkages into consideration would not be effective. Indeed, the need for better policy integration and scientific clarification of air pollution and climate change interactions is one of the key tasks within this workstream at the Agency.

Another example is water, which is related to almost every aspect of life on Earth. Water policy must also take a myriad of external factors into consideration.

The Agency is well positioned to ensure that relevant information is available across thematic areas such as these so that systemic problems can be addressed in an integrated way.

#### The Agency is connected

As you read this, international satellites are orbiting Earth, capturing thousands of images on land use across Europe. Automatic sensors are monitoring our air. People are rolling up their sleeves too: scientists are testing our water, and school children and retired people are counting bird populations.

All of this is great! But much of the data gathered from these activities continues to be kept in separate silos. As we gather information from ever more diverse sources, there is a danger that we become overwhelmed; effective sharing of this information can even decline. Distance, culture, language and technologies can all lead to the underperformance and under-utilisation of information.

The EEA, through Eionet — the agency network across Europe — is addressing

the need to optimise sharing. Through daily contacts with the European Commission services and the European Parliament, and through involvement in international projects such as the Group on Earth Observations, the EEA and Eionet gather local and regional information, analyse it, and make the results available as widely as possible.

Crucially, the Agency has extensive expertise in communicating this information to ordinary people. The Agency thus unites and disseminates layers of information, and makes it available in a relevant manner as widely as possible.

In this way, the EEA acts as an invaluable interface between Brussels and the Member States, between the EU and other international organisations and ultimately between people.

### 1 Introduction



#### The EEA strategy 2009-2013

The EEA strategy 2009–2013 is the fourth multi-annual work programme. It builds on the successful delivery of our previous strategy, which established the Agency as a key provider of environmental data, information and knowledge in Europe.

The core objective of the current strategy is to continue to produce European, pan-European and regional environment-related data and indicator sets, integrated environmental assessments and thematic analyses in order to provide a sound decision basis for EU and member country environmental policy.

The new strategy builds upon the EU's 6th Environment Action Programme, projecting its four key priorities up to 2013, and addressing new initiatives and challenges as they emerge. It also helps define the multi-annual work programme, as required by the regulation establishing the EEA, defining priorities for EEA work in the period up to 2013.

#### The 2011 work programme

During 2011, in addition to regular, ongoing activities and specific work for the Hungarian and Polish EU presidencies, the EEA placed extra emphasis on four major areas dealt with briefly below:

- resource efficiency, the green economy and physical ecosystem accounting;
- climate change mitigation and adaptation;
- implementing new information and communication technology (ICT) to support environmental observation, monitoring, reporting and assessment;
- supporting environmental reporting within the European Neighbourhood Policy (ENP) and the Arctic.

## Resource efficiency, the green economy and physical ecosystem accounting

The 2011 work programme was developed around the related topics

of natural capital and ecosystem services (as expressed in the SOER 2010 Synthesis (¹)) as integrating concepts for many environmental and sectoral issues. Related topics included resource use and efficiency, policy integration and coherence, eco-innovation, green infrastructure, fiscal reforms, resource accounting, indicators and data.

During 2011, the EEA was well-positioned to contribute to the development of resource efficiency policy as a result of its continuing work on biodiversity, terrestrial, freshwater and marine ecosystems, sustainable consumption and production and sectoral indicators, waste and recycling industries, environmental externalities, ecological tax reform and environmental ecosystem accounting. The work in 2011 was undertaken in close cooperation with the Eurostat data centre and the newly formed unit on environmental accounts and climate change.

### Climate change mitigation and adaptation

Combating climate change remains at the top of the European Union policy

<sup>(1)</sup> The European environment — state and outlook 2010: synthesis, European Environment Agency State of the environment report, 2010.

agenda. The EU is therefore working actively for a global agreement to control climate change, taking domestic action to achieve substantial reductions of greenhouse gas emissions and developing a European strategy for adapting to climate change.

Throughout 2011, the EEA and the European environment information and observation network (Eionet), in close cooperation with European Commission services, continued to support the implementation of the Commission's white paper on adapting to climate change (2) and the preparation of its 2011 communication on mainstreaming adaptation and mitigation into EU policies together with the EU Adaptation Strategy.

#### The EEA contributed by:

- using established indicator sets, analysing the information and data available on climate change impacts, vulnerability and adaptation actions undertaken by Member State, regional and local authorities;
- further developing methods for regular indicator-based assessments and analysis of vulnerability for priority sectors and themes;
- supporting implementation of the EU clearinghouse on climate change impacts, vulnerability and adaptation, and hosting it from 2012 onwards — and upgrading the EEA data centre and thematic website accordingly;

- preparing extensively for the detailed review of greenhouse gas emission inventories due to occur in 2012 to support implementation of the EU's Effort Sharing Decision (³). This planning included development of formal 'review guidelines', presented to the EU Climate Change Committee by the EEA and the Directorate-General for Climate Action (DG CLIMA), and formally endorsed by Member States;
- supporting the Global Monitoring for Environment and Security (GMES) climate and emergency response services, and conducting a feasibility study for a ClimateWatch service on Eye on Earth.

The EEA also ensured coordination with stakeholders through its participation in the European Commission's Adaptation Steering Group, the Working Group on Knowledge Base, the Management Group for the Development of the Clearinghouse, the Inter-Service Group on Adaptation and the Intergovernmental Panel on Climate Change (IPCC) working group.

### Information and communication technology (ICT)

Changes in society and major advances in the information technology and communications industry have led to significantly increased expectations regarding the accessibility, interoperability and speed of delivery of information. As a result, implementation of new information

technology and communications systems to support environmental observation, monitoring, reporting and assessment were again key EEA objectives in 2011.

To meet the growing demand for environmental data and knowledge, the EEA has had to adapt its own systems and services rapidly. This experience has led to a significantly improved capability to deliver its information via a number of services and applications and across a range of platforms.

In 2011, the Agency extended its support to the GMES core services, particularly the in-situ components, Infrastructure for Spatial Information in Europe (Inspire) and SEIS, via a range of web services and applications. There was also additional emphasis on cloud computing, web and sensor web technology, mobile GIS applications and electronic publishing using a range of social media networks and online dissemination channels for different target groups.

# Supporting environmental reporting within the European Neighbourhood Policy and the Arctic

The Agency continued to support the establishment of SEIS to enable regular updating of state and outlook environmental reports, assessments and benchmarking within EEA cooperating countries, the European neighbourhood and adjacent regions

<sup>(2)</sup> White paper — Adapting to climate change: Towards a European framework for action, European Commission, Brussels, 1.4.2009 COM(2009) 147 final.

<sup>(3)</sup> Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, OJ L 140, 5.6.2009, p. 136–148.

including the Arctic. From 2010 onwards this included continuous updating of the EEA's own regular integrated environmental assessment of the state and outlook of Europe's environment.

Highlights in 2011 included the development of European Neighbourhood Programme projects commenced in 2010, the UNECE environment ministers meeting in Astana, continuing activities under Horizon 2020 and the Mediterranean Action Plan. Furthermore, the Arctic and Nordic Councils expressed a desire to establish a sustained environmental observation and monitoring capability, EU-Russia dialogue on the environment was revitalised and very positive bilateral technical agreements were concluded with the US and Canadian governments.

The EEA 2011 work programme involved a series of training workshops, country visits and technical exchanges. These aimed to build strong working relations in each country and establish agreements to provide near-real-time data flows on air quality, updated water quality estimates and the basis for a series of indicators on water availability, use and efficiency.

Links to European environmental policies and data sharing were also key to activities in the east and south. Eye on Earth was used as a key entry point to facilitate a highly cost-effective and rapid approach to streamlining environmental reporting throughout the region.

#### Achieving the annual goals

The goal at the EEA is to provide European decision-makers and citizens with access to timely and relevant information and knowledge, to provide a sound basis for environmental policies, to help answer citizens' questions about the environment in their daily lives, and to ensure that environmental thinking and education is brought into the mainstream of decision-making.

Again in 2011, the annual work programme was achieved as a result of continued cooperation with Eionet partners (national focal points, national reference centres and European topic centres), cooperating countries and a wide-range of partner institutions, including the European Commission's Directorates-General, government departments and agencies, international conventions and United Nations bodies,

the scientific technical and research communities, the private sector and civil society. This collaboration aimed to ensure the relevance and quality of EEA data, information and analysis.

This annual report for 2011 is organised according to the EEA annual management plan. However, the information services and communications sections, which appear together in the management plan, have been divided into two chapters in this report to aid readability.



### 2 Environmental themes



#### Air quality

#### Assessing air quality in Europe

The EEA's *Air quality in Europe* — 2011 report is the first in a series of annual assessments of air quality in Europe. Launched in November 2011 at the European Parliament in Brussels, it was well received by key EEA stakeholders and the media. The report provided an overview of Europe's air quality and reviewed progress towards meeting air quality requirements. It concluded that Europe's biggest challenge in improving air quality is to reduce the concentrations of airborne particulate matter, groundlevel ozone and nitrogen dioxide.

In 2011, the EEA also published the annual *Air pollution by ozone across Europe during summer 2010* report, which underlined the fact that ground-level ozone pollution remains an issue in Europe. As in previous years, exceedances of the EU long-term objective for the protection of human health from ozone were observed in every Member State. The EU target value allows a certain number of days in exceedance. Data from seventeen Member States and four other European countries indicated difficulties in meeting the objective.

The application of models under the European Union's Air Quality Directive: A technical reference guide found that there is a need to harmonise the way air quality models are applied. Produced in cooperation with the Joint Research Centre (JRC) and within the Forum for Air Quality Modelling in Europe (FAIRMODE) — an air quality modelling network organised by the JRC and the EEA — the report recommends the development of model evaluation protocols.

Two core EEA indicators: 'Exceedance of air quality limit values in urban areas' and 'Exposure of ecosystems to acidification, eutrophication and ozone' were updated and published on the EEA website. The EU structural indicators and urban audit indicators for air quality were also delivered to Eurostat for online publication.

#### Making air quality data available

The EEA actively contributed to the design of provisions governing reporting and exchange of air quality data under the air quality directives, which were adopted in December 2011. The Agency will play a key role in implementing the provisions, effective from January 2014.

EEA processed and checked data on national air quality, and information and data on air quality zones and agglomerations reported under the air quality directives, and made them available on the EEA website. Online maps show where air pollutant concentrations exceed the air quality standards set by EU legislation.

The 1 700 monitoring stations across all EEA member countries provide near-real-time ozone data to the EEA several times a day. Particulate matter  $(PM_{10})$  and  $NO_2$  near real-time data are now provided by 1 100–1 200 stations in 20 countries on an hourly basis and some near-real-time data exchange regarding carbon monoxide (CO), fine particles  $(PM_{2.5})$ , nitrogen oxides  $(NO_{\chi})$  and sulphur dioxide  $(SO_2)$  is also taking place.

#### EU air review

A comprehensive review of EU air policies was launched in June 2011 and will be completed by 2013. Two meetings between the Directorates-General for Environment (DG Environment) and Research and Innovation (DG RTD), the JRC and the EEA took place to coordinate the build-up of the knowledge base needed to support the review process. It was agreed to continue these coordination meetings throughout the review process. The EEA contributed to a stakeholder meeting on the review of EU air policies with results from its

work on air quality and air pollutant emissions.

#### Air quality networks

The 16th Eionet workshop on air quality management and assessment addressed data, reporting and assessment needs. Latest policy and reporting developments and key assessment findings were also discussed.

The fourth plenary meeting of FAIRMODE agreed a joint work programme for 2012 focussing on support to the EU air review process. The web portal enabling communication within the modelling and model user communities of FAIRMODE was updated.

#### Noise

The Environmental Noise Directive (4) requires EU Member States to assess exposure to noise from selected transport and industrial sources by means of noise mapping. These noise maps will be used to develop action plans to reduce population exposure where levels are high and also to protect areas of favourable sound quality. As such, Member States are required to deliver a series of data flows to the European Commission. The EEA has been receiving these data flows and conducting a quality check of the data. It has received data on:

 noise sources (agglomerations, major roads railways and airports);

- action plans;
- noise maps and related population exposure.

The EEA updated the Noise Observation and Information Service for Europe (NOISE) with the most recent data delivered by member countries.

#### Highlighting good practice

To mark International Noise Awareness Day on 25 April 2011, the EEA invited entries for the inaugural European Soundscape Award. Sixteen diverse, high quality submissions were received from 12 countries. In November, the award was presented to the Municipality of Wjichen and

### Improving quality of life and winning the European Soundscape Award 2011: the Graafseweg in Alverna

The EEA, in collaboration with the Noise Abatement Society of the United Kingdom, wants to raise awareness about the health impacts of noise and to reward European initiatives that can help reduce excessive noise. Any product, campaign, innovation or scheme offering a creative solution to the problem of noise can be considered for the new European Soundscape Award.

The award was presented for the first time on 8th November, 2011 to the Municipality of Wjichen and Gelderland in the Netherlands for the historic and sustainable solution for traffic noise reduction in Alverna. This combined innovative measures including traffic lane management and quiet asphalt to reduce noise levels as effectively as traditional but unattractive noise barriers. The project also realised improvements in air quality whilst retaining key features of the original Roman road.

The runner up award was presented to the Dutch Noise Abatement Society for the 'Electric Heroes — Go smart, go electric' campaign to encourage the uptake of electric scooters in The Hague and Zaanstad.



Source: EEA, 2011.

<sup>(4)</sup> Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise - Declaration by the Commission in the Conciliation Committee on the Directive relating to the assessment and management of environmental noise, OJ L 189, 18.7.2002, p. 12–25.

the Province of Gelderland for its innovative road management scheme in the town of Alverna, the Netherlands.

The fifth Eionet meeting of national reference centres (NRCs) for noise was held in October. Participants in the meeting discussed the latest data and policy developments and results

of the updated NOISE database were presented.

#### Citizen science for noise

In December the NoiseWatch service was launched on the Eye on Earth platform. It is a web tool enabling the public to become involved in

assessing noise in their environment. Ratings can be made using the website or a dedicated NoiseWatch mobile application, which is available to download for various mobile devices from the website: http://eea.europa.eu/mobile.

#### Air quality and noise

#### Published reports, papers and web content

- Noise Observation and Information Service for Europe (NOISE): a revised and updated database featuring data reported by EEA member countries pursuant to the Environmental Noise Directive (http://NOISE.eionet.europa.eu).
- NoiseWatch: a citizen science application for noise on the Eye on Earth platform (http://watch.eyeonearth.org/?SelectedWatch=Noise).
- Forum for air quality modelling in Europe (FAIRMODE) (http://fairmode.ew.eea.europa.eu).
- The application of models under the European Union's Air Quality Directive: A technical reference guide, EEA Technical report No 10/2011 (http://www.eea.europa.eu/publications/fairmode).
- Air quality in Europe 2011 report, EEA Technical report No 12/2011 (http://www.eea.europa.eu/publications/air-quality-in-europe-2011).
- Exceedance of air quality limit values in urban areas, EEA core set indicator, (http://www.eea.europa.eu/data-and-maps/indicators/exceedance-of-air-quality-limit-1/exceedance-of-air-quality-limit-2).
- Exposure of ecosystems to acidification, eutrophication and ozone, EEA core set indicator (http://www.eea.europa.eu/data-and-maps/indicators/exposure-of-ecosystems-to-acidification-2/exposure-of-ecosystems-to-acidification-1).
- AirBase the European Air quality database: annual update of the air quality monitoring information database hosted by EEA (www.eea.europa.eu/themes/air/airbase).
- Live map of ground-level ozone (www.eea.europa.eu/maps/ozone/welcome).
- AirWatch: an air quality application on the Eye on Earth platform (http://www.eyeonearth.org).
- Air pollution by ozone across Europe during summer 2010 Overview of exceedances of EC ozone threshold values for April-September 2010, EEA Technical report No 6/2011
   (http://www.eea.europa.eu/publications/air-pollution-by-ozone-across).
- Zones in relation to EU air quality thresholds, 2009 (http://www.eea.europa.eu/data-and-maps/data/zones-in-relation-to-eu-air-quality-thresholds-2).

#### Air quality and noise

- Meetings of the pilot group supporting drafting of implementing provisions for reporting, held in February, April,
   June, September and December 2011, Brussels, Belgium.
- EEA Expert Panel on Noise, March 2011, Copenhagen, Denmark, and November 2011, Barcelona, Spain.
- 16th and 17th meetings of National Air Quality Reference Laboratories (AQUILA), March and October 2011, JRC, Ispra, Italy.
- Convergence of Russian and EU Environmental Monitoring Meeting with the Russian Ministry of Natural Resources and Environment, April 2011, Moscow, Russia.
- Review of the thematic strategy on air pollution and the ambient air quality directive. Stakeholder and DG
   Environment, JRC, DG R&I and EEA joint work planning meetings, April, June and September 2011, Brussels,
   Belgium.
- Inaugural meeting of the Heads of EPA Network, Interest Group on Noise, April 2011, Zurich, Switzerland.
- A Future Noise Policy for Europe conference and European Environmental Bureau Noise Working Group meeting, May 2011, Brussels, Belgium.
- GMES Atmosphere Service, MACC (monitoring atmospheric composition and climate) Conference on Monitoring and Forecasting Atmospheric Composition, May 2011, Utrecht, the Netherlands.
- European Commission, DG Environment, meeting of the Regulatory Committee for Noise, May and September 2011, Brussels, Belgium.
- Fourth Annual Plenary of the EEA/JRC Forum for Air Quality Modelling in Europe (FAIRMODE), June 2011, Norrkøping, Sweden.
- European Commission, DG Environment, Ambient Air Quality Committee meeting, June and October 2011, Brussels, Belgium.
- 16th Annual Eionet workshop on air quality management and assessment, October 2011, Bordeaux, France.
- Fifth annual Eionet meeting on noise, October 2011, Copenhagen, Denmark.
- European Soundscape Award ceremony, November 2011, London, United Kingdom.
- Launch of *Air quality in Europe 2011 report* and panel discussion in the European Parliament, November 2011, Brussels, Belgium.
- · Keynote speech on air quality at EUROCITIES Environment Forum, December 2011, Antwerp, Belgium.
- Annual meeting of UNECE LRTAP Convention Executive Body, December 2011, Geneva, Switzerland.

#### Air pollutant emissions

In 2011 EEA continued its close and established cooperation with the Eionet and other key partners on data flows and assessments related to air pollutant emissions. The focus was on emissions covered by the National Emissions Ceilings Directive (5), the Convention on Long-range Transboundary Air Pollution (CLRTAP Convention) and the European Pollutant Release and Transfer Register (E-PRTR).

#### Assessment activities

Several EEA assessments of air pollutant emissions were published during the course of 2011. Revealing the costs of air pollution from industrial facilities in Europe presented an innovative method based on existing policy tools to assess the costs of damage to health and the environment caused by pollutants emitted from individual industrial facilities. Using the latest information from the E-PRTR, the report generated extensive media coverage and requests for interviews and input to national press publications.

A second assessment report, *Air* pollution impacts from carbon capture and storage (CCS), focused on the potential benefits and trade-offs from CCS for the main air pollutants, an area where scientific knowledge is rapidly

advancing. The report presented a life-cycle case study for 2050, showing the potential impacts on emissions of air pollutants if CCS were widely implemented in Europe.

A number of updated EEA air pollutant emission indicators were published on EEA's website, including three core EEA indicators (CSI 001 — emissions of acidifying substances, CSI 002 — emissions of ozone precursors, and CSI 003 — emissions of particulate matter and secondary particulate matter precursors) and six supporting factsheets.

#### Air pollutant inventory reports

The annual EEA technical report European Union emission inventory report 1990–2009 under the UNECE Convention on LRTAP was published in July. It was earlier submitted to the United Nations Economic Commission for Europe's (UNECE) by the European Commission as the official EU submission under the CLRTAP reporting requirements.

The annual *NEC Directive status report* 2010 analysed data received under the EU's National Emission Ceilings Directive. It also presented information on the progress made by Member States in reaching the 2010 ceilings set under the directive.

#### Industrial emissions

Annual updates of the E-PRTR datasets were published on the E-PRTR website (maintained by the EEA) and in the EEA data service. New highly resolved spatial emissions maps for certain diffuse sources of emissions (such as road transport and households), developed in cooperation with DG Environment and the JRC, were published for the first time on the E-PRTR website. E-PRTR information is now also disseminated through 'Eye on Earth' services. Moreover, the EEA provided active input in 2011 to the triennial data review under the EU's Large Combustion Plant Directive (6).

### Support to EU and international policy processes

The EEA provided support to DG Environment on emissions mitigation issues with respect to the on-going reviews of EU air legislation and the E-PRTR regulation (7). Discussions took place with DG Environment on the EEA's potential future role in implementing provisions of the Industrial Emission's Directive (8).

The annual joint air pollutant emission meeting between the Eionet and the UNECE Task Force on Emission Inventories and Projections (TFEIP) was held in Stockholm in May.

<sup>(5)</sup> Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants, OJ L 309, 27.11.2001, p. 22–30.

<sup>(6)</sup> Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants, OJ L 309, 27.11.2001, p. 1–21.

<sup>(7)</sup> Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC, OJ L 33, 4.2.2006, p. 1–17.

<sup>(8)</sup> Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control), OJ L 334, 17.12.2010, p. 17–119.

Hosted by the Swedish Ministry of the Environment, the annual meeting gathered around 130 experts. The EEA continued to support the work of the TFEIP through its role as co-chair of the joint meeting. Moreover, the EEA

actively supported the on-going revision transfer register activities, including of the UNECE Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone through the task force. The EEA also supported a number Development (OECD). of international pollutant release and

events held under the auspices of the UNECE and the Organisation for Economic Co-operation and

#### Air pollutant emissions

#### Published reports, papers and web content

- Revealing the costs of air pollution from industrial facilities in Europe, EEA Technical report No 15/2011 (http://www.eea.europa.eu/publications/cost-of-air-pollution).
- Air pollution impacts from carbon capture and storage (CCS), EEA Technical report No 14/2011 (http://www.eea.europa.eu/publications/carbon-capture-and-storage).
- European Union emission inventory report 1990-2009 under the UNECE Convention on Long-range Transboundary Air Pollution (LRTAP), EEA Technical report No 9/2011 (http://www.eea.europa.eu/publications/eu-emission-inventory-report-1990-2009).
- NEC Directive status report 2010, EEA Technical report No 3/2011 (http://www.eea.europa.eu/publications/nec-directive-status-report-2010).
- Updates to the EMEP EEA air pollutant emission inventory guidebook (http://www.eea.europa.eu/emep-eea-guidebook).
- Joint EMEP EEA inventory review 2011 report, CEIP technical report 1/2011 (http://www.ceip.at/review-process/review-2011).
- Updated EEA air pollutant emission indicator factsheets (http://www.eea.europa.eu/data-and-maps/indicators#c7=all&c5=air&c0=10&b\_start=0)
- European Pollutant Release and Transfer Register (E-PRTR) website (http://prtr.ec.europa.eu).
- Industrial Emissions Reporting Information System (IRIS) website (http://iris2.eionet.europa.eu).
- COPERT road transport emissions software brochure (http://www.eea.europa.eu/publications/copert-4-2014-estimating-emissions).

#### Air pollutant emissions

#### Workshops, meetings and events

- Joint meeting of the Eionet and the UNECE LRTAP Task Force on Emission Inventories and Projections (TFEIP), 2–3 May 2011, Stockholm, Sweden.
- COPERT 4 road transport emission software training workshop, 14–15 June and 20–21 October 2011, EEA, Copenhagen, Denmark.
- Joint EEA/EMEP emission inventory review meeting, 27 June-1 July 2011, EEA, Copenhagen, Denmark.
- E-PRTR Committee meetings, February and September 2011, Brussels, Belgium.
- Stakeholder Expert Group on the Review of the EU Air Policy, 6-7 June 2011, Brussels, Belgium.
- EU workshop on the Gothenburg protocol with a focus on flexibility mechanisms, 31 August 2011, Brussels, Belgium.
- EMEP steering body meeting, September 2011, Geneva, Switzerland.
- OECD Task Force on E-PRTR, 2–4 October 2011, Paris, France.
- EU ambient air quality committee meeting, 18 October 2011, Brussels, Belgium.
- TFEIP management committee meeting, 19 October 2011, Brussels, Belgium.
- UNECE capacity-building for ENP East region, 3–4 November 2011, Minsk, Belarus.
- EU Industrial Emissions Directive committee meeting, 20 November 2011, Brussels, Belgium.
- UNECE working group of the Parties of the PRTR Protocol, 27-29 November 2011, Geneva, Switzerland.

#### **Biodiversity**

2011 saw the adoption of the EU Biodiversity Strategy 2020. EEA responded by beginning work towards further assessments of ecosystems and by consolidating related knowledge bases, in particular the 2010 biodiversity baseline work. In this context, EEA is engaged in 'green infrastructure' activities led by DG Environment and is a member of the expert group on green infrastructure.

Discussions began on the new Common Implementation Framework of the EU 2020 Biodiversity Strategy. Following a request from DG Environment, EEA delivered a first analysis of the alignment of the Streamlining European Biodiversity Indicators (SEBI) indicator set with the 2020 biodiversity targets at the EU and global levels. In preparation for 2012 — and a possible extension of the SEBI2010 process up to 2020 — work was commissioned on invasive alien species, species indicators (bats), genetic

diversity indicators and high nature value forests. The publication of these reports will be considered for 2012.

In parallel, EEA conducted an evaluation of SEBI2010 achievements for the UN Convention on Biological Diversity (CBD) process and an important preparatory expert's workshop hosted by the UK's Department for Environment, Food and Rural Affairs (DEFRA), the United Nations Environment Programme's

World Conservation Monitoring Centre and the CBD secretariat. The evaluation provided clear guidance on the purpose and use of global, regional and national indicators to track progress towards the 2020 targets of the CBD Strategic Plan. It also listed suggested indicators, suitable metrics and methodologies, and existing or required data sources.

At the European level, EEA provided extensive input to several EU initiatives related to biodiversity and environmental indicators initiatives: streamlining European environmental indicators (led by Eurostat), sustainable development indicators (led by Eurostat), the Beyond GDP process; composite indicator development (led by DG Environment); a technical meeting discussing the ecological footprint; and a meeting on evaluating existing observation capabilities related to the 2020 headline targets adopted at

the tenth meeting of the Conference of the Parties to the CBD, held in Nagoya in October 2010.

To support EU biodiversity reporting process, EEA finalised reporting formats under the Habitats Directive (\*) and the Birds Directive (\*). Specifically, these comprised the Natura 2000 standard data form, the revised Article 17 format and the new Article 12 format, as well as work to assess Natura 2000's contribution to the conservation status of species and habitats.

A detailed work plan towards maintaining and updating the content of BISE was prepared and agreed with the European Commission. A draft Implementation Plan 2012–2015 was started in view of upgrading BISE the next version. For the IT component contract support was secured by DG Environment and EEA supported the drafting of terms of reference.

Developing potential cross-overs between GMES (Global Monitoring for Environment and Security) (e.g. a local component of GIO-LAND Biodiversity), NatureWatch Eye on Earth within the BISE was discussed and will be developed as these activities develop.

In the area of invasive alien species, around 20 experts shared with EEA their experiences and activities, and their views on the role of citizen science. They supported EEA in exploring the idea of designing a pilot exercise or tool for citizen participation in monitoring a small number (six to ten) invasive alien species. The EEA conducted meetings with European and Mediterranean Plant Protection Organization experts regarding invasive alien species priorities and on the planned work flow to prepare a report on applying a code of conduct for horticulture.

#### **Biodiversity**

- Eionet NRC biodiversity workshop, 24–25 October 2011, EEA, Copenhagen, Denmark
- Evaluation meeting (2020 headline targets) organised by the Group on Earth Observations Biodiversity Observation Network (GEO BON), March 2011, Wageningen, the Netherlands.
- Fifth UK Biodiversity Indicator Forum meeting, 8 March 2011, London, United Kingdom.
- International Expert Meeting in support of the Ad Hoc Technical Expert Group, June 2011, High Wycombe, United Kingdom.
- Coordination Meeting on Reporting Work, organised by the biodiversity ETC, 7 January 2011, Paris, France.
- Fifteenth Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) under the Convention on Biological Diversity (as part of the EU delegation), November 2011, Montreal, Canada.

<sup>(9)</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, OJ L 206, 22.07.1992, p. 7–50.

<sup>(10)</sup> Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, OJ L 103, 25.04.1979, p. 1-18.

### Climate change mitigation and greenhouse gas emissions

In 2011, the EEA undertook a wide variety of activities in the climate change mitigation area in close cooperation with external partners including Eionet, DG CLIMA, JRC, Eurostat, the European Maritime Safety Agency and the European aviation organisation.

### EU greenhouse gas emissions inventory report

The EEA compiled the annual EU greenhouse gas inventory under the United Nation Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The EEA was also responsible for implementing the quality assurance and control procedures under the EU greenhouse gas inventory system, to ensure consistent application of UNFCCC and IPCC guidelines.

The annual EU greenhouse gas emission inventory report and accompanying data was published in May. The EEA also received the UNFCCC review of the previous year's greenhouse gas inventory report which commended the EU for its implementation of the required quality assurance and control procedures and its transparency in ensuring the completeness of Member State inventories. EEA and ETC/ACM staff participated in the 2011 UNFCCC review process for Annex I Parties.

### Initial review under the EU Effort Sharing Decision

Throughout 2011, the EEA cooperated with Member States and DG CLIMA in planning for the initial EU review of emission inventories. This review,

scheduled for 2012, will support implementation of the EU Effort Sharing Decision (ESD).

The EEA prepared the *Guidelines for* the technical review of GHG inventories documenting the planned roles, responsibilities and timing for the ESD review process in 2012, which were also discussed with Member States. The guidelines were endorsed by the EU Climate Change Committee. Preparatory work for the initial review, for which the EEA will act as secretariat, continued throughout 2011.

## EEA preparations for new dataflows — F-gases and ozone-depleting substances

Substantial preparations took place in 2011 for the EEA to receive data flows related to fluorinated gases and ozone depleting substances in 2011. These included, for example, the development of Eionet's Reportnet system to allow for company-based reporting.

#### Assessment activities

A package of three reports, published before the meeting of the Environment Council in October, was the subject of a high level of media interest. The package comprised:

- The annual EEA report Tracking progress towards the Kyoto Protocol and 2020 targets in Europe, supporting the European Commission's report to the Council of the European Union and the European Parliament on EU progress towards achieving the Kyoto objectives.
- Approximated EU GHG inventory: Early estimates for 2010, presenting preliminary figures on 2010

- greenhouse gas emissions in the EU and for the first time early greenhouse gas (GHG) estimates at Member State level.
- Greenhouse gas emissions in Europe: a retrospective trend analysis for the period 1990–2008, presenting an analysis of the drivers of EU greenhouse gas emissions since 1990. It focused on the influence of EU-level policies on greenhouse gas emissions.

Additionally, the EEA report *End-user GHG emissions from energy*, published in December 2011, showed a new approach to presenting official data by reallocating GHG emissions from energy industries to end-users on the basis of final demand. The advanced approach highlights the importance of policies addressing certain sectors, such as the household sector, when related emissions from power plants and district heating are factored in.

### International policy support and outreach

Particular support was provided by EEA and ETC/ACM staff to Working Groups I (Annual inventories) and II (Implementation of the ESD, policies and measures and projections) of the Climate Change Committee.

A number of presentations at expert meetings highlighted the EEA's growing work in evaluating existing emission scenarios and their consistency in linking air quality and climate change mitigation policies. The need for better policy integration and scientific clarification of air pollution and climate change interactions was emphasised.

An EEA expert workshop in October 2011 focused on GMES and emission

inventories. It gathered experts on atmospheric modelling, emission inventories, and in-situ and satellite observations. The workshop established a series of recommendations for initiatives that will further improve the links between the GMES and the inventory communities. Finally, the EEA liaised with a number of Eionet countries concerning providing technical support and training to assist with national GHG inventory compilations and to address issues raised in the UNFCCC review process. This contribution from the EEA comprises an important part of the

overall EU effort to improve the quality of the greenhouse gas inventory data available across Europe.

#### Climate change mitigation and greenhouse gas emissions

#### Published reports, papers and web content

- Annual European Union greenhouse gas inventory 1990–2009 and inventory report 2011, EEA Technical report No 2/2011 (http://www.eea.europa.eu/publications/european-union-greenhouse-gas-inventory-2011).
- Greenhouse gas emission trends and projections in Europe 2011— Tracking progress towards Kyoto and 2020 targets, EEA Report No 4/2011 (http://www.eea.europa.eu/publications/ghg-trends-and-projections-2011).
- Approximated EU GHG inventory: early estimates for 2010, EEA Technical report No 11/2011 (http://www.eea.europa.eu/publications/approximated-eu-ghg-inventory-2010).
- *Greenhouse gas emissions in Europe: a retrospective trend analysis for the period 1990–2008*, EEA Report No 6/2011 (http://www.eea.europa.eu/publications/ghg-retrospective-trend-analysis-1990-2008).
- End-user GHG emissions from energy, EEA Technical report No 19/2011 (http://www.eea.europa.eu/publications/end-use-energy-emissions).
- *GMES Services and Emission Inventories workshop October 2011*, ETC/ACM technical paper 2011/13 (http://acm.eionet.europa.eu/reports/ETCACM\_TP\_2011\_13\_GMES-EI\_workshop).
- EEA CSI 006 *Production and consumption of ozone depleting substances* (http://www.eea.europa.eu/data-and-maps/indicators/production-and-consumption-of-ozone/production-and-consumption-of-ozone-3).

#### Climate change mitigation and greenhouse gas emissions

- GMES services and emission inventories, 10–11 October 2011, EEA, Copenhagen.
- EU Council Expert Group on Reporting, February 2011, Budapest, Hungary, and October 2011, Brussels, Belgium.
- EU Climate Change Committee set up under Council Decision No 280/2004/EC, 19 May 2011, Brussels, Belgium.
- Working Groups I, II and III of the EU Climate Change Committee set up under Council Decision No 280/2004/EC, January, February, March, May and September 2011. WHERE?
- EU climate policy and international maritime emissions workshop, 8-9 February 2011, Brussels, Belgium.
- Revision of UNFCCC reporting guidelines for national GHG inventories, 24–25 March 2011 and 8–10 November 2011, Bonn, Germany.
- MACC Conference on monitoring and forecasting atmospheric composition, 23–27 May 2011, Utrecht, the Netherlands.
- UNECE CLRTAP Task Force on Hemispheric Transport of Air Pollution, 6–8 June 2011, Arona, Italy.
- International Geosphere-Biosphere Programme workshop on tackling the air pollution and climate change challenge: a science-policy dialogue, 9–10 June 2011, Arona, Italy.
- European Climate Change Programme working group SHIPS, 22–23 June 2011, Brussels, Belgium.
- UNFCCC in-depth review of Annex I national greenhouse gas inventories, 4–11 September 2011, Bonn, Germany.
- IEA China workshop QA/QC procedures in the EU GHG inventory and national system, 19–20 September 2011, Paris, France.
- ACCENT network: Air quality and climate change: interactions and feedbacks, 13–16 September 2011, Urbino, Italy.
- IEA-IETA-EPRI annual workshop on greenhouse gas emissions trading, 30 September–4 October 2011, Paris, France,
- EU Committee on Ozone-Depleting Substances Regulation 1005/2009 on substances that deplete the ozone layer, 17 October 2011, Brussels, Belgium.
- Sixth International Symposium on non-CO2 Greenhouse Gases, 2–4 November 2011, Amsterdam, the Netherlands.
- Workshop on Member State efforts under the EU Effort Sharing Decision, November 2011, Brussels, Belgium.
- Seventeenth session of the Conference of the Parties to the UNFCCC (COP17), December 2011, Durban, South Africa.

#### **Freshwater**

In 2011, the EEA continued to support the development of European policies on freshwater by providing integrated assessments of water quality, quantity and use. The Agency also tracked progress and provided outlooks on progress towards policy targets and quality assurance schemes, supported by up-to-date and, where possible, near-real-time, data, indicators, models and analyses. A new European Topic Centre on Inland, Coastal and Marine Waters (ETC/ICM) was in place at the start of the year and commenced its activities successfully.

The EEA further developed the Water Information System for Europe (WISE) during 2011. Substantial strategic and operational input and steering was given to the WISE implementation plan, which was adopted at the EU Water Directors meeting in December. It is now the basis for developing WISE further in the period 2011–2015. The WISE online portal was already improved in March. Eye on Earth's WISE component — a front-end web service and tool for disseminating EEA information — was also launched at the Abu Dhabi Eye on Earth summit in December.

EEA contributed to the World Statistical Congress in Dublin in August 2011, which further supported the integration of water accounts and water-related statistics into a coherent information base on water.

Water was a central part of the EEA Assessment of Assessments (AoA), launched in Astana. The document provided a valuable overview of the status of water reporting in eastern and central Europe, with a focus on water management. It underlined the need for a focus on water governance in the green economy context.

EEA contributed to the European Commission's forthcoming 'Blueprint to safeguard Europe's water' with discussions on water economics and quantitative target setting. The work on water accounts is also closely aligned with the Commission's work on water resources management under the blueprint.

The EEA discussed water scarcity and drought with Member States as one element of the blueprint. In this context, the improvement of the relevant indicator — the water exploitation index — was discussed,

with a focus on improving calculations to specify regional differences more accurately.

Work also continued on preparing thematic assessments for the EEA's 2012 water report, *Towards efficient use of water resources in Europe*. The first assessment will be presented in March 2012 at the Sixth World Water Forum. Preparation and data analysis for the status and pressure analysis of Member State river basin management plans have been undertaken to support the 2012 water report.

The report *Hazardous substances in Europe's fresh and marine waters — an overview* was launched. It documents the sources, emissions, current status and impacts of hazardous substances in water, including effects on aquatic biota and human health. It also reviews legislation and associated measures.

Finally, a significant amount of work was put into finalising the water report of the UN Resource Panel, where the Executive Director of the EEA had responsibility as the lead author. The report will provide valuable input into future efforts on water resource management and water efficiency.

#### **Freshwater**

#### Published reports, papers and web content

- Quality of bathing water 2010 bathing season, EEA Report No 1/2011 (http://www.eea.europa.eu/publications/quality-of-bathing-water-2010).
- Hazardous substances in Europe's fresh and marine waters An overview, Technical report No 8/2011 (http://www.eea.europa.eu/publications/hazardous-substances-in-europes-fresh).
- Safe water and healthy water services in a changing environment, Technical report No 7/2011 (http://www.eea.europa.eu/publications/safe-water-and-healthy-water).
- Europe's environment An Assessment of Assessments, chapter on water and related ecosystems (http://www.eea.europa.eu/publications/europes-environment-aoa/chapter2.xhtml).

- UNEP/EEA joint report 'Measuring water in a green economy' writers meeting, 4–7 April 2011, EEA, Copenhagen, Denmark.
- Two meetings of the advisory group of the EEA 2012 state of water report, 27–28 April and 29 November 2011, EEA, Copenhagen, Denmark.
- Expert meeting on water efficiency, 16–17 June 2011, EEA, Copenhagen, Denmark.
- WISE technical group and GIS workshop, 19–21 September 2011, Ispra, Italy.
- Keynote presentation at Climate Change and Water Conference, 17–19 January 2011, Oulu, Finland.
- Keynote presentation at UNECE water convention sub-regional workshop on transboundary water cooperation in central and western Europe, 8–10 February 2011, Hungary.
- Keynote presentation at workshop on synergies and conflicts of European environmental directives, 10 June 2011, Uppsala, Sweden.
- Keynote presentation on urban water management at ICLEI conference on cities in Europe 2020, 13 September 2011, Brussels, Belgium.
- Presentation on the water section of the EEA AoA, 19–23 September 2011, Astana, Kazakhstan.
- Keynote presentation at the Bonn conference on the water-energy-food nexus, 17–18 November 2011, Bonn, Germany.
- EEA awarded cooperative partner in the European Water Stewardship Program, set up by the European Water partnership (EWP), launch event 24 November 2011, Brussels, Belgium.

#### Marine and maritime

EEA initiated a discussion among Commission Services on how the DG MARE led project of making marine data available in a distributed system (EMODNET) could be linked to the marine element of the Water Information System for Europe (WISE). It was agreed that EMODNET could partially be seen as serving this purpose, and initiatives will be taken to bring the two projects closer together.

The meeting forum Marine Knowledge 2020, which includes the EEA, DG Environment and the Directorates-General for Maritime Affairs and Fisheries (DG MARE), Enterprise and Industry (DG ENTR) and Research and Innovation (DG RTD) was initiated as a response to the need for wider collaboration on marine and maritime data issues.

A technical paper describing a coastal data platform was developed. To support the upcoming EEA 'State of Europe's coasts' report, copies of available data sets were collated in to a project database at ETC/SIA. Links to the EEA data service and metadata catalogue were established to transfer and document all data underpinning the report.

The EEA developed a first draft of the 'State of Europe's coasts' report and

submitted it to relevant experts for an initial review. It was well received and the report was improved through valuable comments and additional data sources.

Work on developing concepts for marine ecosystem assessments, coastal ecosystem accounting and marine and fish ecosystem accounting continued.

The EEA marine team also contributed to the state of water 2012 process with river basin management plan reports on the ecological and chemical status in river basin districts. Contributions were also provided to the reports on climate change impacts and vulnerability based on indicators relevant to the marine environment.

#### Marine and maritime

- Knowledge-based Sustainable Management for Europe's Seas (KnowSeas) Framework Project 3rd Scientific Workshop and Advisory Board meeting, November 2011, Helsinki, Finland.
- World Conference on Marine Biodiversity, October 2011, Aberdeen, United Kingdom.
- Support to Marine Strategy Framework Divertive implementation and DG Environment by participating in the Fifth Marine Strategy Coordination Group and the Sixth Working Group on Economic and Social Assessment meetings, November 2011, Brussels, Belgium.
- Participation in the International Council for the Exploration of the Sea expert workshop on developing indicators for fisheries in the context of the Marine Strategy Framework Directive, July 2011, Copenhagen, Denmark.
- Presentation of the draft 'State of Europe's coasts' report to the Commission services and a number of stakeholders at OURCOAST conference, 27–28 October 2011, Riga, Latvia.

### 3 Cross-cutting themes



#### Climate change impacts

During 2011 the EEA prepared an indicator-based report on climate change impacts, vulnerability and adaptation to be published in 2012 with contributions from the European Topic Centres for Climate Change Impacts, Vulnerability and Adaptation (ETC/CCA), Biodiversity (ETC/BD), Inland, Coastal and Marine Waters (ETC/ICM), the World Health Organization (WHO) Europe, the European Centre for Disease Prevention and Control and the JRC Institute for Environment and Sustainability.

A draft was discussed at a meeting held in November with an external advisory group consisting of representatives from the European Commission, the EEA Scientific Committee, international organisations and scientists. At the end of 2011 it was decided to prepare two separate reports and to publish these at the same time in 2012, one to focus on climate change impacts and vulnerability through indicators and the other focusing on adaptation actions (at the EU, national and sub-national levels).

Related to the indicator-based report, the EEA conducted an evaluation of all existing climate change impact indicators in its indicator management system as part of the overall EEA indicator evaluation process. A draft ETC/CCA technical paper on this evaluation was prepared, to be finalised in 2012.

An ETC/CCA technical paper on 'Development of a pilot climate data service on Eye on Earth was also finalised in December.

In April, the EEA participated in an expert group meeting organised by DG ENTR's GMES Bureau on a proposal for a possible GMES climate change service element, and commented on the draft proposal. EEA also participated in and presented user needs and EEA-related activities at the GMES climate change stakeholder meeting (Helsinki, 16–17 June).

Contributions were provided to two workshops, held at and organised by EEA and organised by EEA and the Scientific Committee, on climate change scenarios (1 March) and on identification, management and communication of uncertainty in assessments (3 October).

The core set indicator global and European temperature (CSI 012) was also updated and published in April.

#### **Climate change impacts**

#### Published reports, papers and web content

• Global and European temperature, updated core set indicator (CSI 012) (http://www.eea.europa.eu/data-and-maps/indicators/global-and-european-temperature/global-and-european-temperature-assessment-4).

- Joint EEA-Scientific Committee workshops on climate change scenarios (1 March 2011) and on identification, management and communication of uncertainty in assessments (3 October 2011), EEA, Copenhagen, Denmark.
- Hosting of a workshop of the Infrastructure for the European Network for Earth System Modelling (IS-ENES) project on bridging the gap between climate scenarios and the needs from impact modellers, 11–12 January 2011, EEA, Copenhagen, Denmark.
- Joint Programming Initiative on climate change second expert workshop, 24-25 January 2011, Vienna, Austria.
- External Advisory Board meeting of the European Reanalysis and Observations for Monitoring (EURO4M) project, 14–15 March 2011, Bucharest, Romania.
- European conference on applications of meteorology, 12–16 September 2011, Berlin, Germany.
- Atmospheric Circulation Reconstructions over the Earth/European Re-Analysis of Global Climate observations/EURO4M joint workshop, Royal Netherlands Meteorological Institute, 20–23 September 2011, De Bilt, the Netherlands.
- Expert meeting on vulnerability to climate change indices, Fondation pour les Etudes et Recherches sur le Développement International, 16 November 2011, Paris, France.

#### Adaptation and vulnerability

The EEA contributed to developing the European Climate Adaptation Platform (Climate-ADAPT), which contains information on observed and expected climate change, the vulnerability of regions and sectors at present and in the future, national and transnational adaptation strategies, case examples of adaptation and potential future adaptation options, tools that support adaptation planning and an overview of relevant EU policy processes.

Meetings included the management group coordinated by DG CLIMA and the climate change adaptation knowledge base working group.

EEA also collaborated with DG CLIMA in the request to EU-27 Member States and other EEA member countries to provide information on national approaches on climate change impacts, vulnerability and adaptation.

After review, the information submitted will be included in Climate-ADAPT in

early 2012, to be launched by the end of March 2012. EEA will be in charge of the management and maintenance of Climate-ADAPT in collaboration with the European Commission.

EEA also participated in the highlevel adaptation steering group, alongside stakeholders from countries, non-governmental organisation and other organisations.

EEA advised DG CLIMA on possible future reporting on climate change adaptation by Member States, within the context of the revision of the GHG Monitoring Mechanism Regulation. A draft regulation was published by DG CLIMA at the end of 2011.

A draft EEA report on cities and climate change vulnerability and adaptation was prepared during 2011.

The ETC/CCA technical paper *Methods* for assessing coastal vulnerability to climate change was finalised and made available on the ETC/CCA website. Climate change adaptation indicators for biodiversity,

another technical paper by the ETC/ACC, was also finalised and made available on the ETC/ACC website.

The EEA signed a memorandum of understanding with the Climate Change Observatory for the Pyrenees (CTP/OPCC). The fifth annual Eionet workshop on climate change impacts, vulnerability and adaptation was held in Copenhagen. EEA also participated in meetings of the EPA (Environmental Protection Agency) Interest group on climate change adaptation and DG CLIMA advisory groups for adaptation projects concerning cities and the impact assessment for the planned 2013 EU strategy on adaptation.

The EEA participated in the EU delegation at UNFCCC COP17 (Durban, South Africa), which ended with the 'Durban Platform for Enhanced Action' building on the decisions taken a year earlier at COP16.

#### **Adaptation and vulnerability**

#### Published reports, papers and web content

- Methods for assessing coastal vulnerability to climate change, ETC/CCA Technical Paper 1/2011 (http://cca.eionet.europa.eu/reports/1).
- Climate change adaptation indicators for biodiversity, ETC/ACM Technical Paper 2011/14 (http://acm.eionet.europa.eu/reports/ETCACM\_TP\_2011\_14\_CCadapt\_ind\_biodiv).

- Expert meeting on flood impacts data organised with CRED/EMDAT and the JRC, 19 May 2011, Louvain la Neuve, Belgium.
- Session organised at Resilient Cities conference by EEA together with ICLEI, 3-4 June 2011, Bonn, Germany.
- Expert meeting on methods for coastal vulnerability assessment, 8-9 June 2011, Copenhagen, Denmark.
- Workshop on science and data gaps in water-related EU projects, 12-15 January 2011, Riederalp, Switzerland.
- CIRCLE-2 (FP7 Eranet project) Mountain kick-off meeting, 2–3 February 2011, Chambéry, France.
- Workshop on economic costs of natural disasters, 10–11 February 2011, Venice, Italy.
- EPA Network interest group on adaptation, 18 March 2011, Budapest and 19–20 September 2011, Edinburgh, United Kingdom.
- CIRCLE-2 (FP7 Eranet project) External Advisory Board, 24 March 2011, Aix-en-Provence, France.
- Meeting of the Global Adaptation Institute and Workshop on the Global Adaptation Index, 2–3 May 2011,
   Washington DC, USA.
- CLIMSAVE (FP7 research project) stakeholders panel, 10–12 May 2011, Bruges, Belgium.
- UNISDR, Global platform on disaster risk reduction, 10–13 May 2011, Geneva, Switzerland.
- CIRCE (FP7 research project) final conference, 23–25 May 2011, Rome, Italy.
- CIRCLE2 (FP7 Eranet project) Advisory Group/Executive Group, 20 June 2011, Bologna, Italy.
- CLISP climate change adaptation by spatial planning in the alpine space, 8 September 2011, Vienna, Austria.
- ICLEI membership convention, sessions on resilient cities, 12-14 September 2011, Brussels, Belgium.
- Conference on climate change impact, flood protection and hydraulic engineering, Acqua-Alta, 11 October 2011, Hamburg, Germany.
- Workshop on 'How much solidarity in financing adaptation to climate change in Europe?', FP7 project RESPONSES, 14 October 2011, Brussels, Belgium.

#### Workshops, meetings and events (cont.)

- Conference on prevention and insurance of natural catastrophes, organised by the European Commission, 18 October 2011, Brussels, Belgium.
- CIRCLE-2 (FP7 Eranet project) workshop 'From national adaptation strategies to concrete adaptation actions',
   20–21 October 2011, Vienna, Austria.
- CIRCLE-2 (FP7 Eranet project) Joint initiative on climate uncertainties meeting, 24 October 2011, Lisbon, Portugal.
- Opportunities for development in the Western Balkans in the context of climate change impacts and water scarcity workshop, Organization for Security and Co-operation in Europe (OSCE) and the EEA, 24–26 October 2011, Belgrade, Serbia.
- Meeting of the Governing Board of the Joint Programming Initiative on Climate, 7–8 November 2011, Bologna, Italy.
- European Court of Auditors review of EEA work in the area of climate change impacts, vulnerability and adaptation, 24 November 2011, EEA, Copenhagen, Denmark.
- UNFCCC COP17, December 2011, Durban, South Africa.

#### **Ecosystem assessments**

#### Ecosystem accounts

The EEA provided substantial input and support to the global workshop to develop the second volume on ecosystem accounting for the revision of the United Nations System of Economic and Environmental Accounting in December, hosted by the UK Office for National Statistics. The UN plans to report on progress to the Rio 2012 conference and to produce a draft for consideration by the UN Statistical Commission in February 2013.

Work on the conceptual development of ecosystem accounts resulted in *An experimental framework for ecosystem capital accounting in Europe,* a technical report, which was widely disseminated to those responsible for relevant

processes such as The Economics of Ecosystems and Biodiversity (TEEB), Rio 2012 and Beyond GDP.

#### Ecosystem assessments

The Commission met with Member States in September to discuss Target 2 Action 5 of the Biodiversity Strategy (Mapping of ecosystems, their services and economic valuation). Following that meeting, work in this area is being developed in partnership primarily with ESTAT, DG Environment, JRC and the EEA (previously referred to as the 'Group of Four'), focusing on the division of labour for a European ecosystem assessment.

The EEA developed first internal ideas for a project plan for the European assessment together with plans to reorganise resources internally to meet the assessment challenge from 2012 onwards.

The EEA also developed work on reform options for the Common Agricultural Policy (CAP) in an ecosystems perspective. This included a discussion paper on the topic for the EEA Management Board and the organisation of an expert workshop to prepare an EEA publication. Consultants provided background documents as well as a final draft report as a basis for a potential EEA publication in the future.

#### Capacity-building

A big focus in 2011 was the development of an ecosystem assessment knowledge base for Europe. This is currently under review and will be made available next year on a website dedicated to 'Ecosystem assessments in Europe'. Technical preparations for this website were completed and the site will be made public in early 2012 as part of the

BISE website. In addition, EEA staff participated and contributed to several international and European meetings on ecosystem assessment, including the European Sub-Global Assessment Network annual meeting 2011 held in Bilbao in December under the auspices of the United Nations.

#### **Ecosystem assessments**

#### Published reports, papers and web content

• An experimental framework for ecosystem capital accounting in Europe, EEA Technical report No 13/2011 (http://www.eea.europa.eu/publications/an-experimental-framework-for-ecosystem).

- Expert meeting on ecosystem accounts, 5–7 December 2011, London, United Kingdom.
- ESTAT, DG Environment, JRC, EEA Biodiversity and press/peer presentation, 24 January 2011, Brussels, Belgium.
- Third Sub-Global Assessment Network annual meeting, 11–15 December 2011, Bilbao, Spain.
- Exchange on TEEB processes in European countries, 11–14 October 2011, Vilm, Germany.
- ESTAT, DG Environment, JRC, EEA Biodiversity meeting on ecosystem assessment, 20 December 2011, Brussels, Belgium.
- French Eionet, 22 March 2011, Orléans, France.

#### **Environment and health**

In 2011, work in the area of environment and health concentrated on:

- continuing work on environment and health assessments;
- maintaining and enhancing networking to further strengthen capacities;
- extending work on the environment, health and chemicals;
- initiating work towards an environment and health initiative in the Arctic region.

Work on environment and health assessments included providing input to a technical report, *Hazardous substances in Europe's fresh and marine waters* — *an overview* published in 2011. Work also continued on two reports to be finalised in 2012: the human health

chapter in the 'Climate change impacts, vulnerability and adaptation' report, and a joint EEA/JRC reference report on environment and health.

Networking continued within and beyond Eionet to further strengthen capacities. Activities included a successful NRC environment and health workshop focusing on developing an environment and health narrative and a broader framing of environment and health issues, and creating an Eionet forum for environment and health to facilitate information sharing.

Cooperation with external partners continued, including participation in relevant WHO Europe meetings, cooperation with relevant environment and health research projects (ERA-ENVHEALTH, COPHES), and continued cooperation within the Thematic Working Group on Human Health and Safety under the Inspire process.

Environment and health and chemicals work involved contributing to the technical report on hazardous substances in Europe's fresh and marine waters, supporting the DG Environment initiative to establish an EU Chemical Data Centre, and organising an expert workshop on emerging contaminants in Europe's waters in support of DG Environment and JRC work to establish a watch list of substances to be considered for inclusion in the list of priority substances under the Water Framework Directive (11).

Building on a cooperation agreement between the EEA and the Greenland government, the EEA has developed a draft discussion paper in collaboration with the Ministry of Health in Greenland, outlining potential activities to support efforts to minimise adverse effects of pollutants on human health and to reduce the influx of pollutants to Greenland's environment.

#### **Environment and health**

- Eionet meeting: NRC environment and health workshop, 7-8 November 2011, EEA, Copenhagen, Denmark.
- Expert workshop: Emerging contaminants in European waters, 5–6 December 2011, EEA, Copenhagen, Denmark.

<sup>(11)</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327, 22.12.2000, p. 1–73.

## Sustainable consumption and production (SCP), resource efficiency and waste

### Sustainable consumption and production

The 2011 Eionet workshop with NRCs on SCP, resources and waste was hosted by the government of Denmark in Copenhagen in October. Over 100 participants discussed green economy challenges from the perspectives of waste, SCP and resource efficiency. The workshop used a participatory format that enabled exchange of knowledge and experience among countries.

The EEA co-organised a joint workshop with the World Business Council on Sustainable Development (WBCSD) on 'Building a vision for sustainable consumption in 2050', which assembled stakeholders from business, governments and civil society to develop common visions for sustainable consumption. The next step in the EEA-WBCSD cooperation will be a 2012 workshop on new business models to meet the goals of sustainable consumption and lifestyles, which will feed into Rio+20 events in 2012.

The EEA also contributed to European Commission work on reviewing the Action Plan on Sustainable Consumption and Production and Sustainable Industrial Policies.

#### Resource efficiency

In 2011, the EEA made major investments to respond to resource efficiency's emergence as a key EU policy area, and to establish the EEA's role in this field. A comprehensive

survey was carried out to map out how member countries approach the topic, including which policies, instruments and approaches are adopted nationally under the heading 'resource efficiency.'

While this was done to support exchange of experience and good practice, a series of policy suggestions based on the analysis of 31 detailed country profiles were provided to the DG Environment Task Force responsible for drafting the EU resource efficiency roadmap. The results of the survey were also presented to the Council of Environment Ministers, to Commissioner Potočnik, to the environment committee of the European Parliament and to the EEA Management Board.

The EEA provided support to DG Environment throughout the year, ranging from supporting inter-service consultations and working groups on resource efficiency and indicators, to compiling key messages on EU use of material resources and resource efficiency (later published as an ETC paper). Regular dialogue was also maintained with the Polish EU Presidency around the topic of resource efficiency. This work involved significant support from Member States throughout 2011.

The Executive Director of EEA continued her role as an active member of the International Resource Panel, leading and contributing to the drafting of several Panel reports.

#### Waste

The EEA agreed with DG Environment to undertake a pilot project on waste implementation, focusing on waste implementation in member countries in 2012 and 2013.

EEA work on waste and green economy resulted in the publication of the report *Earnings, jobs and innovation: the role of recycling in a green economy* which shows the great potential of improved waste management to support a green economy.

The report *Waste opportunities* — *Past and future climate benefits from better municipal waste management in Europe* has been widely used in the Commission and by other policymakers to explain the importance of implementing waste policies.

The EEA cooperation agreement with Greenland has resulted in continuing dialogue with Greenland on waste and the production of a short film on waste in Greenland.

### Support to national, EU and global policy processes

The EEA cooperated with the Polish EU Presidency with respect to the Informal Council meeting of environment ministers, in particular by providing information and knowledge on resource efficiency policies in EEA countries. Support was also provided to the 2012 Danish Presidency, in particular by preparing analytical inputs for the discussions on green economy at the spring 2012 Informal Council of environment ministers.

The EEA participated in the work of the United Nations Commission on Sustainable Development (CSD), in particular in preparing the Rio+20 summit and focusing on concrete CSD outcomes on a potential future global framework of programmes on sustainable consumption and production and waste. The EEA joined an inter-service consultation on the preparations for Rio+20 and

was engaged in a dialogue with DG Environment on priority topics for the EU at Rio+20.

#### Sustainable consumption and production (SCP), resource efficiency and waste

#### Published reports and papers

- Waste opportunities Past and future climate benefits from better municipal waste management in Europe, EEA Report No 3/2011 (http://www.eea.europa.eu/publications/waste-opportunities-84-past-and).
- Resource efficiency in Europe Policies and approaches in 31 EEA member and cooperating countries, EEA Report No 5/2011 and 31 detailed country profiles (www.eea.europa.eu/resource-efficiency).
- Earnings, jobs and innovation: the role of recycling in a green economy, EEA Report No 8/2011 (http://www.eea.europa.eu/publications/earnings-jobs-and-innovation-the).
- Key messages on material resource use and efficiency in Europe, ETC/SCP paper.

#### EEA multimedia products (http://www.eea.europa.eu/multimedia)

- 'Mission Greenland for a cleaner future', EEA film on waste management in Greenland.
- 'Green economy, sustainable consumption and production and resource efficiency what does that mean?', EEA multimedia product.
- 'Which steps will bring us forward on the road to a Green economy?', EEA multimedia product.
- 'What are the benefits of a green economy, also for European competitiveness and job creation?', EEA multimedia product.
- 'What is the role of key stakeholders in moving towards a green economy?', EEA multimedia product.
- 'Green economy: what can you personally do to live sustainably?', EEA multimedia product.
- 'How can consumption behaviour be made more sustainable?', EEA multimedia product.

#### Workshops, meetings and events

- EEA/World Business Council on Sustainable Development (WBCSD) workshop on building a vision for sustainable consumption in 2050, 9 March 2011, Brussels, Belgium.
- Eionet workshop on green economy with NRCs on sustainable consumption and production and resources and NRCs on waste, 13–14 October 2011, Copenhagen, Denmark.
- EEA stakeholder workshop on critical metals recycling in waste from electronics and electrical equipment, 14 September 2011, Copenhagen, Denmark.

#### Land use

In 2011, the EEA published 36 land cover country analyses based on the latest Corine land cover (CLC) inventory. Each of the country reports provides graphs and maps that characterise land cover changes concisely. The annual land take in those 36 European countries was 111 788 ha in the period 2000–2006, with the increase in urban land coverage in Europe largely resulting from expansion of residential areas and construction sites.

EEA compiled a raster data set of built-up and non-built-up areas for the assessment of soil sealing, while the GMES Urban Atlas provides comparable land use and land cover data for more than 300 major cities in Europe. The city data are also displayed as maps in a viewer, which the EEA improved gradually during 2011 to include all major EU cities by the end of the year.

EEA developed a conceptual framework to analyse urban metabolism issues in Europe. It can describe the functionalities of and assess the environmental impacts of urban patterns and processes across Europe; show the inter-linkages and impacts among urban areas and between urban and rural areas; and identify drivers and successful response measures.

It contributed to a first attempt at assessing the environmental impact of urban areas and urbanisation processes from a resource efficiency perspective and identifying the role of different drivers at the European level. In parallel, at the invitation of DG REGIO, EEA contributed to an article for UN Habitat's *Cities of the world* report, with a focus on prosperity and green economy in urban settings.

The EEA published a concept note on a data platform for spatial environmental thematic analysis and assessments, with the aim of integrating background data sets (e.g. regarding bedrock, soils, elevation, climate, groundwater systems, and micro-statistical land use data from the LUCAS survey) to support the processing of ecosystem accounts (biophysical structures and functions). Part of the implementation

focused on the most urgent data sets needed for the EU's forthcoming 'Blueprint to safeguard Europe's water' and the necessary water accounts. A technical report was developed (due for publication in 2012), which considers the links between water management in the EU — in particular the implementation of the Water Framework Directive — and territorial cohesion, in the perspective of spatial analysis and spatial planning. In parallel, the EEA and DG Environment are upgrading the water accounts modules and populating them with the new European Catchments and River Network System (Ecrins) groundwater features and individual water usage data.

To support policy discussions on green infrastructure, the EEA reviewed data availability for assessing the state, trends and potential of related indicators. EEA also published a technical report covering the concept and deliverability of green infrastructure, its integration into policy sectors and available monitoring systems for green infrastructure and territorial cohesion developments.

#### Land use

#### Published reports, papers and web content

• Green infrastructure and territorial cohesion developments, EEA Technical report No 18/2011 (http://www.eea.europa.eu/publications/green-infrastructure-and-territorial-cohesion).

#### **Agriculture and forests**

#### Agriculture

The EEA contributed to the agri-environment indicators exercise in accordance with a memorandum of understanding with the European Commission (DG Environment, JRC, DG AGRI and Eurostat). The EEA submitted updated indicators to support a Eurostat publication, expected in 2012. Results were made available for the Agriculture Council in support of a proposal for a legal act on farm level data partly re-using data already reported by countries in line with the EU requirements.

In this context, the EEA has been actively participating in the DireDate project primarily through participation in the seminar on farm data needed for agri-environmental reporting, and involvement in the EU agriculture and environment working party of the Standing Committee for Agricultural Statistics.

During 2011 EEA also initiated contacts to foster co-operation with the OECD and the Food and Agriculture Organization of the United Nations (FAO) in connection with the development of agri-environmental data, information and indicators.

High-nature value (HNV) farmland is another important topic. The EEA reinforced cooperation with the JRC

and DG AGRI in this area, engaging in a new updated mapping exercise.

The EEA finalised a draft HNV farmland map with the support of ETC/SIA. New GIS data was collected for this purpose and a country consultation was conducted. Towards the end of the year a draft report was prepared on 'Updated HNV farmland in Europe — an estimate of the distribution patterns on the basis of Corine land cover 2006 and biodiversity data', which will be published as an EEA technical report in 2012.

Using the framework contract on agriculture and forests, an inventory of stakeholder responses to the new post-2013 CAP scenarios was conducted and a draft report delivered with an initial identification of the most balanced scenario for the CAP post-2013 from an environmental perspective.

#### **Forests**

The main activities were related to the International Year of Forests and included an active follow-up of European and pan-European activities under the United Nations Economic Commission for Europe (UNECE) and, the FAO and the Ministerial Conference on the Protection of Forests in Europe (FOREST EUROPE). The focus was on framing discussions for a future scheme for monitoring the needs and options for forests in Europe.

The EEA also played a role in the International Year of Forests with presentations at several events including with a presentation on forests, climate change and human health at the European Parliament Intergroup on Biodiversity, Climate Change and Sustainable Development.

The EEA also prepared draft reports on forests in Europe and the western Balkans — the latter financed through the EU instrument for pre-accession assistance. Both reports were sent for country consultation at the end of the year and will be published in 2012.

A first meeting of the National Reference Centres for agriculture and forests fully dedicated to forests took place at the EEA in September.

At a more conceptual level, the EEA held discussions on forest functions and services and land use to support the continuing debate about models for a future monitoring scheme in Europe. These deliberations also supported the ecosystems assessment and ecosystems services debate while securing a continuous contribution to diverse EEA reporting activities, including the SEBI indicators process, on the impacts and role of forests in climate change adaptation. These developments also supported follow-up to the Commission Green paper process

#### **Agriculture and forests**

#### Published reports, papers and web content

- Forests, health and climate change, EEA Brochure (http://www.eea.europa.eu/publications/forests-health-and-climate-change).
- Europe's forests at a glance a breath of fresh air in a changing climate, EEA Brochure (http://www.eea.europa.eu/publications/europes-forests-at-a-glance).

#### Workshops, meetings and events

- NRC agriculture and forests, first forest meeting, 8-9 September 2011, EEA, Copenhagen, Denmark.
- EEA-WHO meeting on forests and health, 24 November 2011, EEA, Copenhagen, Denmark.
- Regional Forest Information week UNECE, March 2011, Geneva, Switzerland.
- Symposium on ecosystem and landscape level approaches to sustainability (CBD, FAO, IUCN), March 2011, Burgos, Spain.
- Forest Europe Ministerial Conference, June 2011, Oslo, Norway.
- European Parliament Inter-Group on biodiversity, climate change and sustainable development, September 2011, Brussels, Belgium.
- FAO European forestry committee and UNECE timber committee, October 2011, Antalya, Turkey.
- Coordination meeting on agri-environment indicators, January 2011, Brussels, Belgium.
- DireDate Seminar, March 2011, Luxembourg.
- ELN-FAB Steering Group Meeting, April 2011, Brussels, Belgium.
- HNVF Updating exercise, May 2011, Ispra, Italy.
- High-level conference on greening the CAP, June 2011, Warsaw, Poland.

#### **Energy and transport**

After a decade of reporting on integration of the environmental dimension into energy and transport policy it became clear that there is a need to revise the two reporting mechanisms. For transport this happened in 2011 while preparations have started for a similar process on energy in 2012.

#### Energy

The changing landscape of European energy policy — linked to concerns over security of supply, competitiveness and the increasing integration between energy and environmental policies — together with better European data availability has led the EEA to review its energy and environment monitoring mechanism.

The EEA produced a discussion paper, developed with Eionet and consisting of four case studies on national reporting mechanisms on energy and environment in selected EEA member countries. All of the countries reviewed in the case study are producing similar indicators to report to Eurostat or other international

processes (e.g. the International Energy Agency).

The EEA's monitoring mechanism on energy and environment can therefore now be adapted to have less emphasis on providing data to member countries and more emphasis on the analysis of specific trends. The results of the study are also being used as an input to the debate on the streamlining of EEA indicators.

Three papers on renewable energy were published in 2011 concerning:

- a methodology for estimating Europe's environmentally compatible potential for small-scale hydropower;
- issues related to the integration of renewable energy sources into the European electricity grid;
- an update of the report on national renewable energy action plans showing how EU Member States plan to achieve their renewable energy targets.

Additionally, input was provided for various other EEA products.

#### **Transport**

With the publication of the Commission White Paper on Transport in 2011, the EEA decided to modify the format of the transport and environment reporting mechanism (TERM). The white paper contains a number of quantitative environmental targets and the European Parliament's opinion on the white paper expressed the need for annual environmental reporting on progress towards them. It was agreed that a modified TERM was the perfect vehicle for this activity.

As a result, the TERM 2011 report, presented at the European Parliament's Committee on Transport and Tourism in November, acted as a baseline for these annual assessments.

2011 was also the first year for reporting under Directive 443/2009 on cars and CO<sub>2</sub>. The EEA analysed national reports and compiled EU-wide data on the average CO<sub>2</sub> emission of new passenger cars sold in Europe. A draft database was published in the summer and the final version made available in December. An accompanying note on the EEA website explained the process and drew preliminary conclusions on the trend.

#### **Energy and transport**

#### Published reports, papers and web content

- Small-scale hydropower: A methodology to estimate Europe's environmentally compatible potential, ETC technical paper (http://acm.eionet.europa.eu/reports/docs/ETCACC\_TP\_2010\_17\_small\_hydropower.pdf).
- Integration of electricity from renewable energy sources into European electricity grids, ETC technical paper (http://acm.eionet.europa.eu/reports/docs/ETCACC\_TP\_2010\_18\_REG\_Integration.pdf).
- National Renewable Energy Action Plans update 2011, contractor report (http://www.ecn.nl/units/ps/themes/renewable-energy/projects/nreap/reports).
- Laying the foundations for greener transport TERM 2011, EEA Report No 7/2011 (http://www.eea.europa.eu/publications/foundations-for-greener-transport).

#### Published reports, papers and web content (cont.)

- EEA web note on cars and CO<sub>2</sub> (http://www.eea.europa.eu/highlights/most-carmakers-must-further-improve).
- Reducing speed limits on motorways: how good is it for the environment?, EEA web note (http://www.eea.europa.eu/publications/foundations-for-greener-transport).

#### Workshops, meetings and events

- Eionet meeting on energy, 12–13 September 2011, EEA, Copenhagen, Denmark.
- Eionet meeting on transport, 12–13 September 2011, EEA, Copenhagen, Denmark.
- Danish Energy Agency working group on alternative fuels, throughout the year, Copenhagen, Denmark.
- Westminster Energy, Environment and Transport Forum keynote seminar, UK Renewable Energy Strategy,1 February 2011, London, United Kingdom.
- EV/PHEV study steering group meeting, 8 February 2011, DG CLIMA, Brussels, Belgium.
- Ch2oice.eu meeting on the environmental aspects of hydropower, 24–25 February 2011, Rome, Italy.
- Windspeed conference on offshore development in the North Sea, 15 March 2011, Brussels, Belgium.
- TERM steering group meeting, 7 April 2011, DG MOVE, Brussels, Belgium.
- Biomass to Power the role of biomass in the energy system, 13–14 April 2011, Vienna, Austria.
- First 'policy meets research' workshop, CORPUS Consortium, 4–8 May 2011, Szentendre, Hungary.
- Challenge Bibendum conference on sustainable transport, 17-20 May 2011, Berlin, Germany.
- AllEnergy conference, economic impacts of electricity generation, 18–19 May 2011, Aberdeen, United Kingdom.
- TransPORD project conference on emissions reduction scenarios, 27 September 2011, Brussels, Belgium.
- TERM steering group meeting, 7 October 2011, DG MOVE, Brussels, Belgium.
- European Conference of Supreme Auditing Institutions, annual conference on transport assessments, 11–12 October 2011, Stockholm, Sweden.
- La movilidad interurbana en el horizonte 2030, Fundacion Ideas, Catedra de Transporte Sostenibile, 14 October 2011, Madrid, Spain.
- Participation in the Euro-Mediterranean Energy Forum, 24–25 October 2011, Barcelona, Spain.
- TERM launch, European Parliament Committee on Transport, 9–10 November 2011, Brussels, Belgium.
- Centre for green transport, seminar on sustainable transport policy, 14–15 November 2011, Slagelse Denmark.
- Danish Engineering Society hearing on bioenergy, presentation on Scientific Committee opinion on bioenergy,
   28 November 2011, Copenhagen, Denmark.

### 4 Integrated environmental assessments



### Strengthening integrated environmental assessments

2011 work in the area of 'strengthening integrated environmental assessments' concentrated on:

- continuing reflections on and dissemination of the SOER process and its outcomes;
- establishing an EEA internal and cross-programme indicator mapping exercise;
- working towards a revived annual environmental indicator report and two specific cross-thematic environmental assessments.

Dissemination of SOER 2010 results required a strong investment, in particular in the first half of the year. In addition, SOER 2010 provided the basis for initial input into unfolding discussions on the successor to the 6th Environment Action Programme with the Danish EU Presidency 2012, the European Commission and the European Parliament.

The EEA undertook a first quality evaluation of all its indicators against eight criteria in order to assess their relevance to the technical, conceptual and political context. A concept was also developed for refreshing the EEA core set and exploring future indicator needs in relation to current policy priorities. This process will continue in 2012 with involvement of NFPs and the EEA Management Board.

The concept for the first annual environmental indicator report focused on the green economy theme. A first complete draft was finalised in November 2011 and shared with EEA stakeholders for a restricted consultation. Environmental assessments on the 'EU bioenergy potential in a resource efficiency perspective' and 'Economic sectors and the environment — an analysis of cross-linkages' were further developed but will only be published in 2012.

### Regional and global assessments

### Europe's Environment Assessment of Assessments

The Europe's Environment — Assessment of Assessments (AoA) report presented at the Astana ministerial conference in September 2011 was the result of a broad partnership between countries in the pan-European region, international organisations and donors, coordinated

by the Agency and the Ministry of Environment of Kazakhstan.

Throughout 2011, work in preparing the AoA was intense, with many experts and institutional partners involved in the process including the Steering Group for Environmental Assessments, the UNECE Committee for Environmental Policy, the EEA Management Board and NFP/Eionet meetings.

Building on the AoA methodology, the report is a critical review and assessment of over 1 200 environment-related publications released in the last five years, in particular focusing on water and related ecosystems and the green economy. At the sub-regional level the AoA is accompanied by four additional reports focusing on eastern Europe, Caucasus, central Asia and the Russian Federation. All the reports and information underpinning the analysis are stored in the AoA portal, a living environmental library expected to be developed further and, based on needs, possibly extended to cover other topics or applied at other scales (http://www. eea.europa.eu/themes/regions/paneuropean/virtual-library).

The findings of the AoA report fed into the 'Environment for Europe' process, a ministerial event every four years addressing environment issues of concern across 56 UNECE member countries.

The need to put in place a regular assessment process and gradually develop a SEIS-like system across the pan-European region were amongst the key recommendations of the AoA report and they were identified as key objectives for coming years by the Astana Ministerial Declaration adopted at the end of the summit.

#### Arctic

In 2011 EEA contributed to the development of an Arctic Resilience Report initiated by the Swedish chairmanship of the Arctic Council. The report, which supplements the planned Arctic Change Assessment, aims to assess the resilience of Arctic social-ecological systems, including the need for necessary transformational change. The EEA is a member of the Steering Committee for the report which is planned to be finalised by 2015.

#### **Decision support**

'Late lessons from early warnings' progressed further throughout 2011 with more chapters being finalised. Several difficulties with complex chapters, addressing themes such as climate change, genetically modified organisms, nanotechnologies, economics and law have been addressed.

A draft report on the effectiveness of environmental research dissemination was received in December with a final version scheduled for release in 2012. A report on how scientific evidence is used in complex areas such as eco-toxicology was finalised and sent for publication. The EEA also provided further support to various discussions across Europe on the health impacts of mobile phone use.

### Dissemination of research in areas of complexity

The project on evaluating evidence, transparency and uncertainty progressed via a new partnership with MISTRA and the Royal Swedish Academy of Sciences. Initial steps were taken to initiate an internal project on improving the handling of uncertainty in EEA assessment and reporting. Projects on long-term monitoring, GMOs and citizen science were also initiated with the Austrian environment agency.

The project on updating the EEA's 1999 report *Chemicals in Europe: low doses, high stakes* progressed with a decision to focus on green chemistry, biomimicry, and toxic use reduction.

The EEA material on mobile phones was updated and presented to a hearing on EMF in Council of Europe. EEA has been invited to the WHO IARC evaluation of EMF evidence in May 2012.

Progress continued on a update of the 1999 report *Children and environmental health*, in partnership with NGOs and the International Society of Doctors for the Environment. The EEA provided support to the European network of Scientists for Social and Environmental Responsibility, and with followed up on its report *Pharmaceuticals in the environment*, with Swedish and UK partners.

#### **Economics**

#### Green economy

During 2011, the EEA continued work towards developing the green economy concept further. A concept paper was drafted after in-house discussions and was then made available to the Commission and the Parliament. Core elements of the note were used in the European Commission's Resource Efficiency Roadmap.

The concept note was further revised in the light of the work to be carried out as part of the EEA's involvement in the green economy interest group of the Environmental Protection Agency (EPA) network.

In addition, the EEA held close consultations with the Government of Denmark (Ministry of Environment, Danish Environmental Protection Agency) concerning input for the Danish EU Presidency in the first quarter of 2012.

The draft EEA annual indicator report on green economy was circulated for review by Eionet, the Scientific Committee and EEA staff in November with more than 200 comments received by the deadline of 21 December.

Staff also worked with members of the EEA Scientific Committee on organising the Committee workshop on green economy held in October. Contributions were provided to the green economy chapter of the report *Europe's environment — An Assessment of Assessments* prepared for the 2011 'Environment for Europe' conference in Astana.

#### Ecological fiscal reform (EFR)

Throughout the year, exploratory talks and email exchanges with contacts in Greece, Italy, Spain and the United Kingdom were maintained to raise awareness of EFR at country level. Discussions with Italian government officials have been intensified throughout the year and an EFR awareness workshop was held — jointly organised with the Ministry of Economy and Finance — in Italy in December 2011. Ahead of the conference, a briefing note on illustrative potentials for environmental fiscal reform was

prepared by the EEA and served as a background document for the workshop.

The EEA also contributed substantially to a Euro-Asia workshop on carbon-energy taxation organised in London in November with speakers from both regions.

EEA representatives attended several conferences and workshops and gave presentations on environmental fiscal reforms in Europe and also globally, most recently in Australia on the potential for a carbon tax.

Draft reports on packaging taxation, waste taxes and resource taxation were drafted together with the ETC/SCP in 2011 and will be published in 2012.

#### Environmental externalities

Progress was made in finalising the report on transport air pollution costs. The external costs for air pollution have been split among vehicle categories relevant to the Eurovignette Directive. The final report will be published in the first half of 2012.

#### **Economics**

#### Published reports, papers and web content

- Environmental tax reform in Europe: implications for income distribution, EEA Technical report No 16/2011 (http://www.eea.europa.eu/publications/environmental-tax-reform-in-europe).
- Environmental tax reform in Europe: opportunities for eco-innovation, EEA Technical report No 17/2011 (http://www.eea.europa.eu/publications/environmental-tax-reform-opportunities).
- Environmental fiscal reform Illustrative potential in Italy, background paper for the EFR conference, Rome, Italy (http://www.dt.tesoro.it/export/sites/sitodt/modules/documenti\_it/eventi/eventi/EEA\_Briefing\_Note\_for\_ETR\_Workshop\_Rome\_finaldraft.pdf).

#### Workshops, meetings and events

- EEA special session on carbon energy pricing as part of the Annual Conference of the European Association of Environmental and Resource Economists, 29 June–2 July 2011, Rome, Italy.
- EEA, University College London and Kyoto University, Euro-Asia experts workshop on carbon energy tax and green fiscal reform in the context of a sustainable low carbon economy, 22–23 November 2011, London, United Kingdom.
- Ministry of Economy and Finance (Italy) and EEA conference on environmentally related taxes and fiscal reform,
   15 December 2011, Rome, Italy.

#### Strategic futures

The importance of future studies in strategic decision-making is becoming increasingly recognised as the complexity, increased risk and uncertainty of environmental problems are themselves becoming increasingly apparent.

In 2011, priority was given to the strengthening of cooperation with countries and organisations. Central to this was the consolidation of the National Reference Centres for forward-looking information and scenarios (NRC FLIS), increased cooperation with countries and organisations particularly with Baltic Stern international research network and the Organization for Security and Co-operation in Europe (OSCE).

Cooperation with Baltic Stern resulted in a common review of scenario studies and modelling related to the Baltic Sea, which will be published as a part of the EEA FLIS knowledge base. Existing scenarios will be used to develop scenarios with a focus on the environmental state of the Baltic Sea. The focus of the scenarios is to describe the different drivers behind eutrophication, their possible changes under different scenarios and possible ways of mitigation.

Cooperation with OSCE produced two regional scenario workshops:

 The western Balkans scenario workshop aimed to produce scenarios of water availability related to climate change impacts and to strengthen the Eionet network in the area of forward-looking information.

 The central Asia workshop, organised by OSCE and supported by German funding, aimed to produce scenarios and sample strategies on the climate -wateragriculture nexus in the region.

Revision and publication of the *Assessment of global megatrends* was completed as part of the continued SOER 2010 effort.

The catalogue of scenario studies, Knowledge base for forward-looking information and services, was published bringing together a review of available scenarios studies relevant to environmental assessment and decision-making at the European (or sub-European) scale. A brochure on FLIS forward-looking information and services was also published, describing the information system for forward looking activities designed to support long-term decision-making.

BLOSSOM — Bridging long-term scenario and strategy analysis: organisation and methods was also published. A cross-country analysis of the impacts and effectiveness of future studies in strategic environmental decision-making, including insights from 12 countries, it aimed to identify:

- a 'toolbox' of approaches to institutionalising long-term futures thinking in government;
- countries that have introduced approaches and tools, in order to highlight pioneers and see which

methods have become commonplace and which have not;

 commonalities and differences, and the factors that can explain the success or failure of efforts to embed a long-term perspective in policymaking.

#### Strategic futures

#### Published reports, papers and web content

- The European Environment state and outlook report 2010: assessment of global megatrends, EEA 2011 (http://www.eea.europa.eu/soer/europe-and-the-world/megatrends).
- Global Governance: the rise of non-state actors, EEA Technical report No 4/2011 (http://www.eea.europa.eu/publications/global-governance)
- BLOSSOM Bridging long-term scenario and strategy analysis: organisation and methods. A cross-country analysis, EEA Technical report No 5/2011 (http://www.eea.europa.eu/publications/blossom).
- Knowledge base for Forward-Looking Information and Services (FLIS), EEA Brochure (http://www.eea.europa.eu/publications/knowledge-base-for-forward-looking).
- Catalogue of scenario studies Knowledge base for Forward-Looking Information and Services, EEA Technical report No 1/2011 (http://www.eea.europa.eu/publications/catalogue-of-scenario-studies).
- Environmental scenarios introduction (http://www.eea.europa.eu/themes/scenarios).

#### Workshops, meetings and event

- Meetings of the Coordination Group for NRC FLIS, 23–24 June 2011, EEA, Copenhagen, Denmark and 26–27 September 2011, Cenia, Czech Environment Agency, Prague, Czech Republic.
- Annual meeting of NRC FLIS, 26–27 September 2011, Cenia, Czech Environment Agency, Prague, Czech Republic.

### 5 Information services



## **Shared Environmental Information System (SEIS)**

In 2011, the EEA continued to strengthen and facilitate the implementation of the principles and foundations of a Shared Environmental Information System (SEIS) under the motto 'Sharing is everything'.

A major EEA achievement for SEIS revolved around the seventh Environment for Europe Ministerial Conference held in Astana. For the conference, EEA produced the report Europe's environment — An assessment of assessments, which provided a comprehensive overview of available sources of environmental information across the pan-European region and was developed using SEIS principles.

The report also documented the benefits of a SEIS-based 'regular reporting process' for environmental assessment to streamline and improve existing information systems and processes. In response, through the Astana Ministerial Declaration, Ministers agreed to establish such a process and to develop SEIS across the region. This will serve multiple policy processes, including multilateral environmental agreements, and include capacity-building of countries in eastern and south-eastern Europe, the Caucasus and

central Asia to monitor and assess their environment.

The EEA and its partners were invited by ministers to develop an outline for how these actions could be performed. The EEA also hosted a side event which reinforced the role of SEIS as a key initiative in supporting the path to Rio+20, the global UN Conference on Sustainable Development to be held in Rio in June 2012.

During the prestigious Abu Dhabi Eye on Earth Summit in December, SEIS principles inspired the text of the Eye on Earth Summit Declaration, which aims to increase the global sharing of economic, environmental and social information, and was supported by numerous global, national and nongovernmental organisations. It will also feed into Rio+20, and supports Principle 10 of the earlier 1992 Rio Declaration which stated the importance of public authorities facilitating and encouraging public access to environmental information.

The EEA's activities at the summit included showcasing Eye on Earth as good practice for implementing SEIS. The EEA was also significantly involved in promoting the 'Global Network of Networks' (GNON) initiative based on SEIS principles, one of seven summit

'special initiatives' for delivering future results through concrete projects. GNON will build on EEA experiences with Eionet and foster linkages between Eionet and other regional and sub-regional networks and thematic networks in the future.

In 2011, EEA conducted country visits to 14 ENP countries. The goal was to explain the project, build up cooperation and discuss national priorities and needs from the project.

#### Eye on Earth

2011 was a pivotal year for planning, developing and securing support and commitments for EEA's new Eye on Earth global public environmental information service. In July, the Executive Director gave a keynote speech to some 15 000 participants at the annual user conference of Esri, a US-based GIS mapping software developer. Her speech focused on how EEA and Europe are making information and communication technologies (ICTs) 'faster and wider', with more real-time data and citizen participation. Eye on Earth represents a prime example. Following the conference, Esri agreed to become a key partner for Eye on Earth, joining EEA and Microsoft.

Eye on Earth was officially launched and showcased by EEA and its partners during two events in December 2011. The first was at the COP17 climate change conference in Durban, South Africa. This included launching NoiseWatch which combines official data with 'crowd sourced' data from mobile applications. The second was during the Eye on Earth 2011 Summit in Abu Dhabi. The summit brought together policymakers and specialists to define key issues regarding data sharing and accessibility. The Environment Agency of Abu Dhabi hosted the event in partnership with UNEP. Here, the Eye on Earth service received widespread support and recognition, for example from UNEP and the US State Department. Both organisations, and many other contributors including national environment agencies and ministries, committed to making a wide range of data available. EEA was also involved in five working groups, the Framework Committee and the Executive Advisory Board.

Throughout November and December, EEA conducted a series of internal and external training sessions to inform staff and stakeholders (e.g. DG Environment) about the latest developments of sharing environmental data using the Eye on Earth service.

The EEA also made progress in developing NatureWatch, the Agency's pilot project for incorporating citizen science activities into its work. NatureWatch will allow citizens and citizen communities to upload observations of invasive alien and endangered species into Eye on Earth using web and mobile applications. In 2011, EEA agreements were made with five pilot partner countries, and final development of a mobile application was underway. In June, NatureWatch was a key component of an EEA conference on lay, local and traditional knowledge and citizen science.

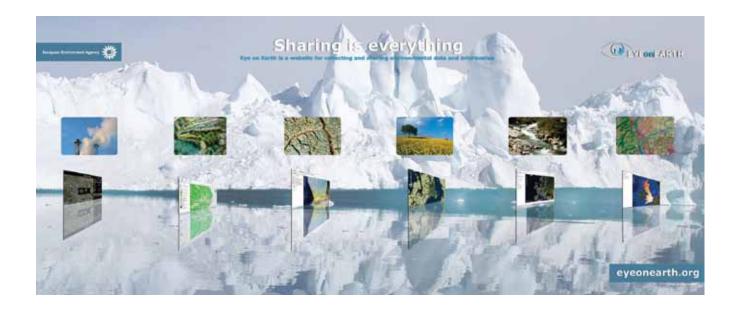
As part of the 'Environmental Atlas' movie series, a new movie was made

in Greenland about climate change and was launched at the Abu Dhabi Summit. Agreements were also made to screen the movies on television in the United Kingdom and on Alitalia flights.

#### **Inspire**

The EEA continued to act as the thematic working group facilitator for the Inspire working groups for preparing the Annex II and III data specifications on environmental monitoring facilities, human health and area management, management and restriction, regulation zones and reporting units.

Throughout 2011, EEA supported the consultation phase dedicated to the preparing Inspire data specifications. This included a June workshop with NRCs for environmental information systems and collecting and sending comments on behalf of the EEA.



The EEA was active at the annual Inspire Conference in Edinburgh in July, developing and delivering the draft Inspire data specifications version 2.0 and also organising a 'Bridging the gap' side event.

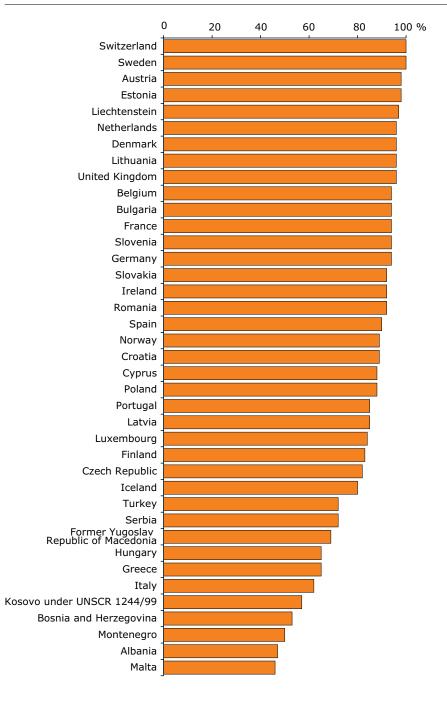
### Eionet priority data flows and reporting tools

The EEA, in cooperation with Eionet, has identified a set of priority data flows covering a variety of environmental themes. The quality of delivered country data, in particular timeliness and completeness, are continuously monitored and summarised in annual progress reports.

The priority data flows report tracks progress against agreed, stable, well-defined objectives in order to allow countries to focus their resources on putting regular reporting procedures in place. The objective of the progress reports is to encourage countries towards better performance through friendly competition, concentrating on praise for achievements rather than blame for failures. Countries that are having difficulties with specific data flows are encouraged to discuss their problems with the EEA.

Eionet priority data flows provide the data needed for regular EEA products. All 32 member countries of the EEA and seven cooperating western Balkan countries now participate in the priority data-flow exercise — a substantially broader geographical coverage than in other ranking exercises and a key added value of EEA/Eionet collaboration. The latest information can be found at: www.eionet.europa.eu/dataflows.

#### Performance in data delivery from the countries



**Note:** The monitoring cycle covers the period from May 2011 to April 2012.

**Source:** www.eionet.europa.eu/dataflows.

#### Eionet priority data flows

For the fifteenth report, progress was assessed in 13 traditional priority areas. The outcome shows that countries continue to improve their delivery of priority environmental data to EEA with the average score reaching 83 %, compared to 80 % last year. New elements in this year's data flow analysis are the participation of Kosovo under UNSCR 1244/99 for the first time (in selected data flow areas) and the inclusion of the European Pollutant Release and Transfer Register (E-PRTR) as a regular priority data flow. 28 out of 39 countries achieved a score of 80 % or above, of which a substantial number (18 countries) had a score of 90 % and above. However, room for improvement remains as 5 countries failed to achieve a score of 60 %.

#### **GMES/GEO**

The EEA was very active in supporting Europe's GMES programme. In addition to the its GMES in-situ coordination (GISC) and GMES Initial Operations (GIO) Land monitoring service, EEA established the Eionet GMES working group, consisting of 15 EEA national focal points, to shape the NFP role in making countries aware of using GMES services and ensuring concerted input. EEA and working group deliberations were regularly fed into discussions with key GMES bodies such as the GMES Bureau, Committee and User Forum. EEA also developed the quarterly *G-NEWSLETTER* to support awareness raising and a common understanding around GMES, primarily for NFPs and other stakeholder groups. The contributions of NFPs to this work was important throughout the year.

#### GMES In-Situ Coordination (GISC)

The coordination of the GMES in-situ component (GISC) has been a challenging element within the GMES programme. Sustainable delivery of data, based on the capacities of the existing information systems, that helps calibrate, validate and complement satellite data for GMES is fundamental to programme success. Toward this end, GISC aims to link data and service providers, and to implement the principles of SEIS and Inspire where possible.

In 2011, GISC identified and classified the in-situ data needed for creating and developing GMES products for four GMES services (atmosphere, land, emergency and marine). This was largely based on discussions with the services to clarify their needs. The resulting report became the baseline for negotiating with potential data providers. GISC produced a cost valuation of the GMES in-situ component which includes contributions from countries in making their existing infrastructures and capacities available. Based on these findings, GISC released its first proposal on approaches to secure a sustainable framework for access to in-situ data.

All of these achievements were the result of vigorous and continuous networking, establishing dialogue with individual countries and building partnerships with organisations and networks. Interactions focused on raising awareness, specifying expectations for in-situ data provision, identifying existing capacities, promoting cooperation and securing sustainable in-situ data.

In total in 2011, GISC visited seven countries (the Czech Republic, Denmark, Finland, France, Italy, Norway and the United Kingdom). A key finding was that countries have in-situ capacities that meet a large part of the in-situ requirements of the GMES services, and that these can be used for GMES. GISC also negotiated with numerous organisations and networks . Such exchanges resulted in, for example, the cooperation agreements with EuroGeoSurveys and EuroGeographics.

The identification of links between GMES in-situ requirements and Inspire data specifications was a repeated request during country visits. In response, GISC determined that there was a match of over 70 %. GISC closed 2011 with a selection of datasets that can serve as case studies or 'quick wins' — proof of concept of the proposed approaches to the integration of in-situ assets and networks into long-term sustainable frameworks for the GMES services.

#### GMES Initial Operations of Land Service (GIO Land)

In April, the draft delegation agreement for the GIO Land passed inter-service consultation in the European Commission. In May, the agreement was signed by the EEA and DG ENTR. Also in May, EEA organised a workshop with NRCs for land cover to discuss the implementation strategy and the potential participation of EEA member countries. Workshop results were reported by the EEA at the first GMES User Forum and to the GMES Committee.

GIO Land activities began with the production of five high resolution

layers (HRLs). The overall objective is seamless European coverage of high resolution land cover characteristics of five main land cover types (i.e. artificial surfaces, forest areas, agricultural areas, wetlands and water bodies) for the reference year 2012. A call for tender for framework contracts for HRL production was published and the results were announced in November. HRL production commenced at the end of 2011. The involvement of countries in producing HRLs, and the Corine land cover update is under way through the preparation of grant files.

#### Group on Earth Observations (GEO) and Global Earth Observation System of Systems (GEOSS)

The EEA prepared the way for discussions and participated in the Group of Earth Observations eighth plenary session (GEO VIII) in Istanbul in November. This included EEA proposals for a number of activities (e.g. advancing GEOSS data-sharing principles, and global environment information platforms) as contributions to the GEO Work Plan 2012–2015, which were accepted during the plenary.

During the event, EEA showcased the development of the Eye on Earth information service and offered it as a point of entry for GEOSS data. The EEA also described the Eionet network, and the development, consolidation and sustainability of in-situ monitoring solutions through the GISC project. EEA is now working with partners globally to help implement the new work plan, and is helping to steer the work through our participation in the infrastructure and societal benefits implementation boards and the datasharing working group.

#### **GMES/GEO**

#### Published reports, papers and web

- Eionet priority data flows progress report, May 2011–April 2012, EEA Corporate document, http://www.eea.europa.eu/publications/eionet-priority-data-flows-2012,
- Eye on Earth global public information service (http://www.eyeonearth.org).

#### Workshops, meetings and events

- Eionet NRC land cover workshop on GMES Initial Operation (GIO) land monitoring, 10–11 May 2011, EEA, Copenhagen, Denmark.
- Eionet NRC environmental information systems workshop, 16–17 June 2011, EEA, Copenhagen, Denmark.
- Seventh Environment for Europe ministerial conference, 21–23 September 2011, Astana, Kazakhstan.
- UNFCCC COP17, 28 November-9 December 2011, Durban, South Africa.
- 8th Plenary Session of the Group on Earth Observations (GEO-VIII), 16–17 November 2011, Istanbul, Turkey.
- Lay, local and traditional knowledge and citizen science, 27–28 June 2011, EEA, Copenhagen, Denmark.

### 6 Communications



### Communications in 2011 — Quick facts

- Responded to 321 media enquiries
- Delivered 23 articles
- Coordinated 83 interviews
- Wrote and uploaded 49 highlights
- Wrote and disseminated nine press releases
- Hosted 32 external visiting groups
- Responded to 1 217 public enquiries

Sharing information was a key theme running through all Agency work in 2011. The success of SEIS principles, the development of Eye on Earth and the arrival of social media at the Agency are just some examples of the importance given to the wide provision of timely, accurate information.

The EEA Communications Programme (COM) played a key role in developing tools, processes, networks, skills and working procedures to harness the

full potential of EEA messages and distribute them across traditional media and new communications channels.

The programme embraces the SEIS principle of defining messages once and adapting them for reuse across different platforms. The development of a social media strategy and the launch of dedicated EEA social media channels, particularly a Facebook page dedicated to spreading EEA messages, epitomises this approach.

#### Strategic communication

This shift from an approach based largely on classic assessments and reports, to one built around messages, requires extensive planning and COM continued to develop and strengthen planning tools throughout 2011 with a new Communications Planning team developed to complement the work of the existing weekly Launch Team.

Communications strategies were again an important part of communications efforts in particular around the European Water Year and a communication strategy on water was developed for 2012 in partnership with the European Commission. The EEA completed a reorganisation of

external support for all communication services, resulting in a number of new framework contracts for external communication.

#### Networking

Two key networking meetings — the annual NRCs for communications meeting and the Green Spider Network (GSN) meeting — were held back-to-back in November, with a joint afternoon on 16 November, at which almost 100 people participated. The feedback from meeting participants was positive. Both NRCs and GSN members have shown interest in maintaining regular links, especially regarding developing social media tools.

#### Internal communications project

A comprehensive internal communications project ran throughout 2011, responding to the needs of staff by engaging the organisation as a whole in considering the EEA's mission, values, roles and goals. It aimed to enhance cohesion and the capacity to work and learn together. Fourteen groups of staff participated in team-building sessions and specific projects, which included activities in partnership with the Danish Nature Agency.

#### Media and public relations

2011 was a busy year in terms of press and public relations work on a range of topics, products and events. The press office dealt with over 300 media enquiries in 2011 and the EEA media contact database was updated continuously. There was significant media interest in topics such as air pollution, climate change, transport and water quality.

Throughout 2011, 49 web highlights were researched and written for the front page of the EEA homepage. Nine press releases were researched, written and distributed for strategically important activities and reports. On average, EEA's press releases are distributed to 10 000 media outlets. All highlights and press releases are automatically distributed to 30 000 subscribers via an email notification service.

The EEA also continued to develop and implement comprehensive media monitoring activities. At the beginning of the year, a media monitoring report for SOER 2010 was developed and made available to staff. Similar media monitoring reports were developed for key reports throughout the year.

Several internal video shoots and interviews were developed, such as

the Volvo Prize video and Intel green energy. The press office also compiled briefings for the Executive Director on topics such as COP17, biofuels, aviation emissions, resource efficiency, agriculture and environmental issues linked to the financial crisis. During the year, 32 external groups visiting the EEA were facilitated. There was a noticeable increase in requests received from non-European groups, many from Asia.



**Photo:** Environment Commissioner Janez Potočnik and Danish Environment Minister Karen Ellemann harvesting the first batch of honey on the roof of the EEA.

#### Media coverage 2011

In 2011 the press office coordinated interviews with a range of media. Examples of coverage included but were not restricted to: Financial Times, RTE radio (Ireland), Reuters, Cyprus Broadcasting Corporation, The National (UAE), Euronews, Radio Exterior de Espana, Associated Press, Athens International Radio, Radio France International, The Guardian (United Kingdom), El Pais (Spain), DR1 radio news (Denmark), EFE (Spain), Berlingske (Denmark), Dagbladet Information (Denmark), Der Tagesspiegel (Germany), ENDS Daily, Bloomberg and many more. Most of these interviews were pitched to the journalists proactively.

#### Creating a buzz around Copenhagen

From May 2011 the EEA made the heart of Copenhagen buzz with life, when 120 000 bees moved into their new home in an apiary on the roof of the Agency.

Bees are key to pollination and biodiversity but bee populations are decreasing alarmingly across the globe. Bees face a number of serious problems, from pesticides to mites and disease to a weakened genetic make-up. Experiments in introducing bees to the urban environment have been very successful.

The EEA partnered with Københavns Bybi Forening (http://bybi.dk) on the bee project. 'Bybi' is a prize-winning and ground-breaking social enterprise that is bringing millions of bees to the city. In addition to its environmental value, the project provides new opportunities for disadvantaged people who can be trained to look after the bees around Copenhagen. Bybi also aims to educate residents and businesses about the opportunities to contribute to a greener, more colourful and sweeter city.

On 23 June 2011, the Agency's bees received special honours when Commissioner Janez Potočnik and Danish Environment Minister Karen Ellemann joined Executive Director Jacqueline McGlade in harvesting the first batch of honey.

On Culture Night in October, the EEA welcomed Copenhagen kids and their family on a fantastic journey to the city of bees. The whole event focused on forests and bees and the EEA welcomed more than 7 000 visitors that day. For one night the European Environment Agency was transformed into a thrilling space for kids to explore, taste, listen and dance their way to a greater understanding of bees and their role in nature. The activities took place as part of Bybi's Bees for Kids Project, which the European Environment Agency has helped pilot in 2011.

In October 2011, the EEA also premiered the short film 'CityBees' about the collaboration with Bybi and the positive benefits of keeping bees in the city. 'CityBees' can be viewed at http://vimeo.com/30085046.

#### Bee facts:

- 120 000 bees live of the roof of the EEA.
- In total, the Agency helped bring 3 000 000 new bees to the city in 2011.
- The bees produced 84 kilos of honey.
- 20 visits from Bybi's assistant beekeepers ensured the welfare of the Agency's bees.
- In total, the European Environment Agency helped secure 1 959 hours of training for Bybi's assistant beekeepers.
- From their rooftop apiary, the Agency's bees made over 370 272 000 visits to flowers in the heart of Copenhagen.
- For each kilo of honey the bees produced, they flew 144 000 kilometres more than three times around the world!
- News about the bee project was featured in 18 national media, eight international news outlets and seven local papers, as well as seven radio shows and four television features.
- Bybi's staff and volunteers have been involved in 38 events during the season, including 20 tours, 13 presentations and six festivals.
- As a result of Bybi's cooperation with the EEA and other organisations, Bybi has won Copenhagen's Environment Prize.

Anna Gasquet, Communications programme, EEA.

#### **Public outreach and Signals**

In April, the Agency had two beehives set up on its roof in collaboration with Bybi to raise awareness about the decline in bee populations, urban beekeeping and the essential role of bees in providing key ecosystem services (see box).

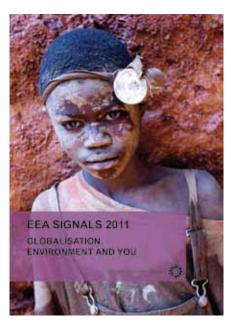
The annual Culture Night in Copenhagen took place on 14 October and again the Agency threw open its doors to the general public, receiving almost 7 000 visitors during the course of the evening. For the event, the main entrance to the Agency was decorated (recycled from earlier sets) as a bee hive. Activities for all ages were on offer around two themes: forests and bees.

A number of communications products, including two flyers on forests, a bee story and a quiz, were also prepared and translated into Danish for the event. Planning for Culture Night 2012 was kicked off with the joint themes of water and bats.

A project to green the EEA courtyard and to mark the International year of forests was developed for the, which was inaugurated in June with a series of events around the Commissioner's visit to the Agency on 23 June, the Citizen Science Conference and the documentary screening of 'Queen of the sun' in collaboration with the Danish Cinemateket on 28 June.

Signals 2010 continued to be circulated globally. Existing networks such as Eionet and Europe Direct were consolidated and new networks, such as the Foundation for Environmental Education were introduced to Signals and possible partnerships discussed.

Signals 2011 was finalised, edited, approved and sent to translation in preparation for a May launch in New York at an event associated with the United Nations Convention on Sustainable Development. Signals was also launched in Hungary as part of that country's EU Presidency. In addition, copies of Signals 2010 and 2011 were widely disseminated to secondary schools in selected countries for educational purposes.



#### Public enquiry service 2011

Public enquiries underwent a dramatic change in 2011 as the EEA moved from emailed enquiries to an online forum, which enables any visitor to see previous questions and their answers. The forum was launched in May and has functioned smoothly. The public can pose questions by telephone, by filling the enquiry form or submitting it to the forum. The EEA has also promoted the forum among EEA expert personnel and encouraged them to answer questions

directly. The EEA will continue to promote the use of the forum and continuously improve its accessibility.

#### Multimedia

The new EEA corporate video was finalised in all languages (including Russian) and a web version produced and delivered to the EEA. At the Astana conference, 250 copies were distributed and it was also displayed on a screen. Atlas movies were also broadcast on Alitalia flights.

New opportunities for sharing and make our audio-visual and multimedia products visible are continuously being explored with other European institutions, NGOs and organisations.

#### Web content

#### Website redesign

In November, much of the EEA website was 'migrated' to a new content management system. The migration also provided the momentum for an update of the structure and content of thematic webpages, which included a major internal effort across the Agency.

#### Social media

The Agency launched its social media project in 2011. In addition to more traditional communication content aligned with highlights, press releases and reports, the EEA carried out event-based social media activities around Green Week both on Twitter and Facebook. In the first months of its existence, the Agency reached new audience that were inaccessible via the conventional communication channels.

By the end of 2011, the EEA had 3 100 Facebook fans and 2 865 Twitter followers. The social media team experimented with different kinds of content to see the responsiveness of followers, such as data sets and maps. A very successful social media promotion took place in connection with the *Revealing the cost of air pollution* report. The map prepared for that report was and is one of the most 'shared' items of social media generated by the Agency.

The social media team liaised with the contractor for an initial evaluation of EEA social media activities and recommendations for next steps. The resulting report was made available before the end of the year and includes many recommendations ranging from low-resource-intensive actions to more demanding activities.

#### Editing, speech writing, briefings

New editing procedures and contracts were established in 2011. COM continued to develop and structure effective management of editing tasks across the Agency, based on a comprehensive document management system. Relations with key external editors were developed and strengthened significantly, and effective procedures introduced earlier in the year were further refined.

In terms of speeches a set of new procedures were also established to streamline the production of speeches and to allow messages be used elsewhere such as social media pages. A 'speech overview' was also established and has become a key co-ordination tool particularly between COM and the Executive Director's office.

Commissioner's Briefings were developed in key areas for the visit of members of the ENVI Committee of the European Parliament in September and this exercise added momentum to a review of the all briefings ahead of a comprehensive update in 2012. Country-specific briefings —requested by the European Parliament and other stakeholders — were also developed.

#### Marketing and dissemination

Numerous dissemination requests were dealt with in 2011, including requests for SOER 2010 and other products in connection with launch events, conferences and follow-up of NFP requirements.

COM ensured continuous coordination of EEA publication stocks at the Publications Office in Luxemburg and visibility of EEA products on the EU bookshop. A number of copyrights requests were addressed, mostly relating to use of material from EEA reports or the data centre in third party publications. A secondary school project in Sweden organised by the Swedish NFP and the EEA has resulted in the widespread dissemination of Signals 2011 to schools in that country.

In addition, a dissemination project was initiated with an external contractor to establish targeted lists for both printed and electronic dissemination of future EEA outputs. Staff from COM and the production team in 'Operational services' attended the annual workshop for Agencies organised by the Publications Office in Luxembourg to further streamline relations and work flows.

#### **Exhibitions**

The EEA continued to have a presence at key exhibitions throughout 2011. For example, the Agency shared a large exhibition stand with the other EU agencies at the European Parliament in January, an event which aimed to inform MEPs and Parliament staff of the work of the agencies.

In late-May the Agency took part in the exhibition component of Green Week, which had sustainable consumption as its theme. Furthermore, the EEA had a large stand at the ESRI conference in San Diego in July.

The Agency also had a large manned exhibition stand at the UNECE ministerial conference in Astana, Kazakhstan in late September, together with UNEP, UNDP and ENVSEC, for which posters and merchandise were produced. The stand area attracted a considerable number of visitors and was also used extensively as a working space during the conference.

#### **Institutional relations**

2011 was another busy and mutually rewarding year in terms of cooperation between the EEA and the main EU institutions.

#### **European Commission**

Commissioner Potočnik visited the Agency in June. He delivered an important speech at the Management Board meeting on the main challenges for European environment policies and the future role of the Agency in addressing them. The Commissioner mentioned that he would welcome

the Agency stepping up its work on resource efficiency indicators and also that the Agency should help the Commission and Member States to better understand the implementation of environment policies.

The Executive Director met Climate Action Commissioner, Connie Hedegaard as well as Industry and Entrepreneurship Commissioner, Antonio Tajani and Maritime Affairs and Fisheries Commissioner, Maria Damanaki in 2011. EEA also coordinated the launch of various reports with the Commission. For example at the launch of the *European bathing water quality in 2010* report, the EEA and DG Environment issued a joint press release, and the Executive Director presented the findings in a joint press conference with the Commissioner.

Regular meetings took place at the Directorates-General for Enterprise (DG ENTR), Development and Cooperation — EuropeAid (DG DEVCO), Research and Innovation (DG RDT), Health and Consumers (DG SANCO), Maritime Affairs and Fisheries (DG MARE), Agriculture and Rural Development (DG AGRI), Regional Policy (DG REGIO) and Mobility and Transport (DG MOVE). As every year, the EEA met DG Environment, DG CLIMA, Eurostat and JRC on environmental data centres, reflecting the priority given to robust environmental data. In addition, the Executive Director was present as a key speaker at Green Week.



**Photo:** Jacqueline McGlade with Members of the European Parliament (ENVI Committee) and Members of National Parliaments. at inter-parliamentary event on Climate Change, 19 April 2011, Brussels.

#### European Parliament

Close cooperation with the European Parliament was another priority as in previous years. The EEA provided its expertise to a number of processes and reports such as the assessment of the 6th European Environmental programme; the resource efficiency roadmap; the biodiversity strategy; and future financing of GMES after 2014.

A European Parliament delegation (comprising 14 participants), led by MEP Gerben-Jan Gerbrandy (EEA's focal point in the European Parliament's ENVI Committee) paid an official visit to the EEA in September. MEPs were also invited to send their contributions regarding the EEA's draft 2012 management plan.

The Executive Director of the EEA gave speeches at various workshops organised at the European Parliament

notably on items related to the green economy, maritime issues, space policy, the Arctic Futures Symposium, and forests in the context of 2011 International Year of Forests.

The Executive Director participated in the European Parliament's hearing on climate change with representatives of national parliaments and presented the EEA's results under the transport and environment reporting mechanism (TERM) to the Committee on Transports and Tourism.

The EEA continued to provide information to the European Parliament, such as briefings for Parliament delegations on issues related to the environment.

The European Parliament and the European Commission representatives to the EEA Management Board

continued to act as a bridge between the three bodies in 2011.

#### Council of the European Union

The EEA cooperated with the Hungarian and Polish Presidencies by participating in the Informal Environment Councils. Contacts were also established with the Danish Presidency.

#### Committee of the Regions and European Economic and Social Committee

The EEA contributed to the on-going efforts of the Committee of the Regions and the European Economic and Social Committee in preparing for Rio+20, particularly with regard to the green economy and new international environmental governance.

### 7 EEA governance and partnerships



# Governance and country network support

### National focal point and Eionet coordination

Eionet is a partnership network of the EEA and its member and cooperating countries. It consists of experts in national organisations working with environmental information. The national focal points (NFPs) are the main contact between the EEA and the countries via Eionet. They are supported in this role by National Reference Centres (NRCs) on a wide range of topics.

Eionet also includes European topic centres (ETCs) working under framework partnership agreements with the EEA but remaining within their own organisations in close contact with NFPs and relevant NRCs. Following a review of activities covered by three ETCs in 2009–2010 the EEA Management Board designated four new ETCs — on air pollution and climate change mitigation; climate change adaptation; inland, coastal and marine waters; and spatial information and assessment — to continue thematic work from January 2011.

The main focus of NFP-Eionet group meetings in 2011 was reviewing

Eionet, in particular the organisation of NFP-Eionet meetings and the NRC workshop; reflecting on SOER 2010; and developing the next round through to SOER 2015. The third NFP-Eionet meeting in 2011 was hosted in the Czech Republic with back-to-back NRC workshops on state-of-environment reporting and forward-looking information and services.

SOER 2010 launches with the participation of EEA staff and Eionet partners took place in Bulgaria, Germany, Greece, Finland, Lithuania, Poland, Portugal, Slovakia, Sweden and Turkey during 2011.

Activities with western Balkan countries continued in 2011 with full participation in Eionet meetings and regional workshops organised by ETCs on air pollution and climate change mitigation; biodiversity; inland, coastal and marine waters; and sustainable consumption and production. The meetings focused on reviewing and developing work with the western Balkan countries and developing a western Balkans indicator report (to be published in 2012). A final workshop in Montenegro reviewed progress and discuss priorities for the next phase of work in 2012–2013. In addition, the EEA made country visits to Kosovo (under UNSCR 1244/99) and Serbia.

### Management Board and Scientific Committee

Three meetings of the Bureau, the Management Board and the Scientific Committee were held as planned in 2011. In addition, the Management Board's regular seminar with the Directors Meeting on Environmental Statistics and Accounts (Dimesa) was held on 22 June, back-to-back with the annual Management Board seminar and meeting. EU Environment Commissioner Janez Potočnik addressed the Board meeting in June, followed by discussion with Board members.

The Dimesa-Board seminar addressed the EU's Europe 2020 strategy, resource efficiency and the role of environmental data, indicators and accounts. The Board seminar addressed the role of EEA and future strategy. Both seminars identified key discussions for 2012, specifically the resource efficiency road map, the indicator review and the role of the EEA in view of the new EEA strategy 2014–2018).

In addition to several regular and particular administrative, management and budgetary items, the Board considered a range of strategic issues during 2011, including:

- development of the EEA five-year evaluation;
- priorities for the annual management plan 2012 and its formal adoption in late-2012;
- continued development of SEIS, Inspire, GMES, GEOSS and the 'Group of Four+' (which underpins cooperation between DG Environment, EEA, Eurostat, JRC and DG CLIMA);
- the delegation agreement with the European Commission on coordinating the technical implementation of the operational GMES land service.

The Scientific Committee continued its work covering a range of environmental topics of priority to the EEA, reviewing major products (the follow-up to SOER 2010, indicators and the green economy, and the priorities for the 2012 Annual Management Plan) and working jointly with EEA staff in their areas of expertise. In addition, the Scientific Committee published an 'Opinion on greenhouse gas accounting in relation to bioenergy'. The Committee also held three seminars in 2011 as planned, addressing:

- climate scenarios, impacts and uncertainty;
- architectural development on the Copenhagen waterfront;
- the green economy and green growth.

The European Parliament and the European Commission representatives on the EEA Management Board continued to act as a bridge between the three bodies throughout 2011.

#### Extension of SEIS to neighbourhood countries

In 2011 the ENPI-SEIS project moved from inception to implementation with continuing dialogue and closer cooperation with the ENPI countries.

Fourteen fact finding visits were made: seven in the south (Algeria, Egypt, Israel, Jordan, Lebanon, the Palestinian Authority and Tunisia) (12); and seven in the east (Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, the Russian Federation and Ukraine).

Following the visits, country reports were prepared by the NFPs jointly with the contractors. Once finalised and endorsed within the country, these reports were published on the project portal and provide the basis for shaping further work to support the countries in data management, information systems, indicator development, assessments and other regional activities, through workshops, training sessions, study tours and expert visits.

The second Horizon 2020 review, monitoring and research sub-group meeting was held in March 2011 at the EEA. The meeting was attended by over 40 participants from the ENP South countries (including project NFPs), relevant projects and

international organisations such as the UNEP Mediterranean Action Plan (UNEP/MAP), the Euro-Mediterranean Information System on know-how in the water sector (EMWIS) and the Center for Environment and Development for the Arab Region and Europe (CEDARE). Participants reviewed the outcome of the country visits and the resulting draft work plan and drew up a number of practical steps to support further implementation of SEIS within the region. These included developing pilots in the three Horizon 2020 priority areas and designing regular reporting process to monitor environmental progress in depolluting the Mediterranean by 2020.

The EEA has regular interaction with the other two Horizon 2020 components — addressing capacity-building and pollution reduction — as well as with other regional projects to identify synergies and joint activities in the countries. In particular, dialogue continued with UNEP/MAP on how to develop cooperation in implementing Horizon 2020 through a joint work programme.

Horizon 2020 provided funding to UNECE for organising and supporting participation of the ENP East countries and the Russian Federation in two meetings of the UNECE Joint Intersectoral Task Force (JTF) on Environmental Indicators as part of the indicator development process for ENP East. The JTF meetings took place in July and October, the latter one back-to-back with the meeting of the Working Group on Environmental Monitoring and Assessment, which followed up on the Astana conference. The support to the

<sup>(12)</sup> Morocco was visited in 2010 and relations with Syria were put on hold due to the civil disturbances there.

JTF as part of the ENP East indicator work proved very valuable and Horizon 2020 will continue to support JTF activities in 2012.

The annual ENPI-SEIS project steering committee meeting took place in November at the EEA. The meeting was attended by representatives of 13 of the countries (representatives of Lebanon and Belarus were not able to attend), DG Environment, DG DEVCO, UNEP/MAP, UNECE, four Regional Environmental Centers (RECs) and other international partners. During the meeting participants reviewed the latest SEIS developments and activities undertaken in 2011, and provided feedback on the process of organising country visits and their impact at national level. Activities and proposals for the work plan in 2012 were also discussed.

A 'SEIS cookbook' is one of the key deliverables of the project and a draft cookbook was presented at the SEIS side event in Astana and discussed with the participants at the November steering committee meeting. The 'cookbook' will be a living document (in electronic format), relevant to all Eionet and neighbouring countries, translated into different languages, and regularly updated with new examples as technology develops and new systems are introduced to support sharing of environmental information.

#### **EPA** network

The EPA network is an informal grouping of heads of national environmental protection agencies and similar bodies from across Europe, which facilitates the exchange of views

and experiences on issues of common interest to organisations involved in the day-to-day implementation of environment policy.

The network's new secretary, based at EEA, started in February 2011 with the task of coordinating its work and preparing for the plenary meetings under the leadership of the troika. The biannual plenary meetings in 2011 were held in Malta in March and in the Netherlands in October.

The secretary also supports the EPA network interest groups, which focus on specific topics of interest to members. This year the first interest group meetings on the topics of noise abatement and green economy took place.

The network continued to engage in discussions on the EU environment action programmes. A response was provided to the public consultation on the evaluation of the 6th Environment Action Programme and there has been dialogue with the European Commission about a network contribution to a possible 7th Environment Action Programme.

The secretary completed an evaluation of the work of the interest groups and an updated survey of the roles and responsibilities of the network members, highlighting the variety of tasks of members.

The network website (http://epanet. ew.eea.europa.eu/) was substantially revised and simplified in 2011. Public pages with information about membership, reports and plenary outcomes and the member's pages with internal documents and interest group pages were updated. Since the update, the number of requests for information from the public increased.

'Network update' — an email newsletter to communicate details on specific meetings and events to members — was initiated in 2011. The circulation has steadily grown since its initiation and there have been a number of enquiries from individuals interested in replicating the format.

The EEA continued to provide substantial inputs to the work of various interest groups, in particular in the areas of resource efficiency, green economy, noise and climate change adaptation. Support was also provided to the planning and chairing of meetings.

### European and international cooperation and networks

#### Arctic

The EEA is continuously trying to raise the awareness in Europe about the Arctic environment. Europe leaves a footprint in the Arctic but, equally, what happens in the Arctic influences Europe's environment. Five of the EEA member countries are Arctic and a further six are permanent observers in the Arctic Council. EEA therefore has a responsibility to ensure that there is a good understanding among Europeans of the environmental changes occurring in the Arctic, their underlying causes and the policy changes needed to address them.

As a consequence of the cooperation agreement signed with Greenland, in 2011 the EEA addressed waste management issues in Greenland by:

- providing input to discussions in the national parliament's Committee for Construction and Environment;
- producing a short film on waste management;
- assisting the authorities in their continuing technical discussions on handling hazardous waste, waste separation and alternatives to new waste incinerators.

In 2011, the EEA held meetings at ministerial level with Greenland with regard to initiating a joint environment and health initiative. The EEA also contributed to work on establishing an International Polar Decade as the natural successor to the recently concluded International Polar Year. The work is spearheaded by the Russian Arctic and Antarctic Research Institute and the World Meteorological Organisation.

The EEA continued to support the EU-Russian Federation Environmental Dialogue and Partnership for Modernisation in the Area of Convergence of Environmental Protection Systems, which includes the Arctic region, and in particular with regard to agreeing on an memorandum of understanding on sharing air quality data.

EEA participates regularly in the European Commission's Arctic Inter-Service Group meetings. Here the focus in 2011 was on developing a report on progress in Arctic activities in the EU since 2008, as requested by the European Council (2009). In addition

discussions addressed the development As a basis for the meeting, a survey of an EU Arctic policy. was conducted with the intention of

The EEA continued to be active in the work of the Arctic Council, both as part of the EU delegation to the Senior Arctic Officials meetings but also by contributing to working group meetings.

In 2011 EEA became a member of the Advisory Board that guides the Steering Committee for the Arctic Spatial Data Infrastructure (ASDI) initiative under the auspices of the Arctic Council. ASDI is a pan-Arctic cooperative initiative based on input from the national mapping organisations of the eight Arctic states. It will provide access to reliable spatially related information over the entire Arctic region, which will facilitate monitoring and decision-making. EEA will support the initiative by helping to ensure a proper communications platform, easily accessible to the user community and the general public.

# Thematic networks for environmental management in organisations

The new EMAS outreach project started building a European-wide network to help spread a systematic approach to environmental management in government organisations. This consists of national contact points for environmental management appointed either by national focal points or invited directly by the EEA. The network held its first meeting on 1 September 2011 at the EEA.

As a basis for the meeting, a survey was conducted with the intention of creating an overview of the current situation in the countries.

The network sees the financial crisis as an opportunity to spread understanding of how mainstreaming the environment in organisational management systems can be a tool for cost savings and raising the profile of the public sector. This has recently been demonstrated in Finland by the Ministry of Finance and the tax administration. The Ministry cooperated closely with WWF in implementing an environmental management system. The Finnish approach needs to be studied closer to find out whether it can be replicated in other countries. The EEA's increasing contacts with civil society organisations and environmental NGOs will contribute to creating long-term coordinated cooperation and synergy gains.

The EEA also continued its efforts to green other EU agencies. During the year it organised 'Greening days' at European Centre for Disease prevention and Control (ECDC) in Stockholm, at the European Railway Agency in Valenciennes and at European Chemicals Agency in Helsinki. These events led to the creation of green groups which have been supported with advice and various materials. The EEA has maintained close contact and shared experience interested staff in other European agencies and institutions, which since 2006 have been organised in the Interagency Greening Network.

### 8 EEA internal management and administration



During the past five years, the number of EEA staff has increased substantially. This reality has expanded demands for good internal communication. 'Come and communicate' sessions were introduced in 2007. Since then, they have become a highly appreciated forum, enabling staff exchange ideas and discuss issues with colleagues from across the Agency.

In 2011 a learning and development framework was developed to provide the training policy of the EEA with a complementary perspective. The ambition is to provide a strategic framework for each year's training activities, and hence make training a cooperative matter rather than something that only concerns the individual. Using social media, the EEA is seeking to institutionalise organisational learning and integrate learning communities into the very heart of everyday working life. 2011 marked the beginning of this challenging but rewarding journey.

#### **Quality management**

### Quality management and effectiveness evaluation

The EEA Quality Management System (QMS), developed in 2007–2008, commenced operation on 1 January 2009. The system was audited by the European Commission's Internal Audit Service (IAS) in the first half of 2011. IAS came to the conclusion that 'The QMS in EEA can be considered as best practice for regulatory agencies due to the high level of involvement of staff, the strong focus on continual improvement and the effectiveness of the system.'

#### Evaluating the EEA's impact

Responding to the 2008 Technopolis evaluation, the EEA Management Board adopted an opinion on the evaluation in March 2009. The Chairman then sent the evaluation report and the Management Board opinion to the Chairman of the ENVI Committee of the European

Parliament, to the Secretary General of the European Commission, to the Director-General of DG Environment and to the Secretary General of the Council of the European Union.

In his cover letter to the EU institutions, the Chairman highlighted the fact that the main recommendations of the consultants referred to management issues in the areas of prioritisation of resources, governance, strengthening the client perspective, internal communication and staff development. The letter confirmed that these recommendations were addressed by EEA management in the preparation of the EEA's multiannual work programme 2009–2013 and through a reorganisation of the Agency.

The next independent, external evaluation of the EEA's achievements will be carried out in 2012 and finalised in 2013. Internally, the evaluation of the effectiveness of the Agency's products and services will become an integrated part of the EEA QMS.



#### EEA balanced scorecard 2011

The balanced scorecard offers a wide-ranging view on strategy accomplishment. It achieves this first and foremost by operating with multiple approaches to uncover effectiveness and secondly by integrating content-oriented performance indicators with more quantifiable aspects of efficiency.

The EEA balanced scorecard, as presented in Annex J, shows strategic indicators of EEA performance at a highly aggregated level. These indicators derive from a wide range of metrics measuring performance and influence the four different perspectives of the balanced scorecard.

The top level of the EEA balanced scorecard attempts to give an easy overview of how the organisation is performing and directs attention to areas where performance is below the desired level. Indicators at this level are displayed as achievements according

to set targets — easily conveying proximity to the target.

The metrics chosen are a blend between performance and process indicators trying to capture the complexity that is required when describing progress in strategy. The relationship between resources, business process and client perspectives should be seen as an attempt to unfold the entire 'value chain' of EEA. Each perspective should not be considered in isolation as that can easily lead to sub-optimisation — where one perspective is improving at the expense of another. Global optimisation is always the primary goal.

Supplementing these three perspectives is the 'learning and growth' perspective, which seeks to describe the state of development of the organisation and its staff.

Some indicators shown here do not have a very long history and comparative benchmarks therefore do not always exist. They are included to give a comprehensive overview and to help establish a baseline that will serve as a benchmark for the years to come. In 2010 and 2011 especially the indicators in the client perspective were changed in an attempt to reflect the 'ideal' client behaviour when visiting the EEA website. The business process perspective has also undergone some modifications as the categorisation of EEA products was updated during 2011 to better reflect the multitude of products. This became pertinent as the use of new technologies to a higher degree than ever before has changed the way in which the EEA delivers its products to clients and stakeholders.

The EEA balanced scorecard does not try to be the answer to all the challenges in running an organisation like the EEA. It will, however, serve as a powerful tool to assess the achievement rate of the set objectives, to manage more effectively and to communicate progress to stakeholders.

### 9 Running an EMAS-registered environmental management system



#### **Environmental statement 2012**

### Environmental management system

The EEA's environmental management system was registered under the European *Eco Management and Audit Scheme* (EMAS) in 2005. In compliance with the EMAS regulation, the Agency publishes a yearly environmental statement, which is since 2009 incorporated into the Agency's Annual Report.

## **Environmental impacts of the Agency's activities**

The Agency's activities have both direct and indirect impacts on the environment, locally and globally. The Agency routinely monitors its consumption of electricity, energy for heating, water and paper, the generation of waste as well as the CO<sub>2</sub> emissions from flights related to the Agency's activities. The Agency also regularly evaluates its activities in order to optimise and improve outputs while limiting the use of resources and minimising negative impacts on the environment.

### Environmental management structure

The EEA's environmental management system is an integral part of the Agency's management plan system and is designed to make environmental responsibilities clear to employees. Staff is encouraged to actively engage in environmental improvements projects. New employees receive a 30 minutes introduction to the environmental management system and several activities are designed to remind members of staff of the EMAS priorities. Additional EMAS-related information flows through the line management system.

The environmental management system is documented in a handbook on the Agency's intranet, explaining who is responsible for doing what, when and how.

In 2009, the EMAS Regulation was revised. The updated Regulation, (EC) No 1221/2009 of the European Parliament and of the Council entered into force on 11 January 2010 and is commonly known as EMAS III. In accordance with the requirements of the revised Regulation, the list of legal requirements applying to the EEA was updated as well as the environmental reporting focusing on the newly defined

core indicators in the following key environmental areas: energy efficiency, material efficiency, water, waste, biodiversity and emissions.

### Environmental performance in 2011

#### Raising environmental awareness

In-house awareness-raising is an on-going activity and takes many forms, including intranet announcements and notifications at strategic places around the Agency premises.

The Agency also continues to assist other EU bodies in relation to raising awareness of their environmental impacts. The greening network, created by EEA in 2006, now consists of 16 member organisations. The fifth Interagency greening network meeting was successfully held at the Europol in the Hague on 17 and 18 October 2011. EEA's EMAS expert gave presentations on EMAS activities of the EEA.

For the fifth time, EEA participated in the European EMAS award created by the DG Environment of the European Commission. The theme of the 2011 competition was 'Stakeholder involvement, including employee involvement, leading to continuous improvement'. At the Awards ceremony held in Cracow in November, the EEA received a Nominee award in the category of large organisations from the public sector.

#### Running the EEA offices

Most of the environmental impacts of running the EEA offices in Copenhagen derive from consumption of electricity, district heating and water and the generation of waste, waste water and nuisances like noise and smell. The last two, however, are not addressed directly in EEA environmental policy as these impacts are considered to be less significant than the others.

Waste water is generated through normal office activities related to sanitation, catering and cleaning. All waste water is discharged to the public sewer and the Agency is making efforts to minimise water consumption. Cleaning and catering services are purchased according to the Agency's green procurement policy.

The Agency's performance is described area by area on the following pages. The calculation of performance indicators per staff member is based on the following number of Full Time Employees (FTE).

The size of the office space included in the calculations is 7 200 m<sup>2</sup>.

Biodiversity (land use (13) indicator (14): 1 604 m<sup>2</sup>.

#### EEA ENVIRONMENT POLICY



The European Environment Agency recognises that it has a special responsibility, as the only European Union body dedicated exclusively to providing information for protecting the environment, to show leadership in its own environmental management and performance.

On the positive side, the Agency believes that the information it provides has an important beneficial impact on Europe's environment by giving policymakers a sound basis for action and raising public awareness to protect the environment. The Agency is developing systems to assure the quality of its outputs and to evaluate their effectiveness in environmental terms.

However, like other organisations, the EEA also consumes natural resources and pollutes the environment through its operations. Therefore, the Agency is committed:

#### Our commitments

- >> to minimising the environmental impact of its everyday work, e.g. using recycled paper and printing on both sides.
- >> to continuously improving its environmental performance, e.g. meeting increasingly demanding in-house energy efficiency targets.
- >> to complying with all environmentally relevant legislation in its host country.

This will be done while taking into account the need to safeguard the occupational health and safety of those working at the

The Agency recognises the need to give priority to minimising the environmental impacts of running of EEA offices; procurement;

These will be reviewed as part of the annual review and preparation of annual management plan. The EEA will keep other areas under review and give priority to minimising their impacts as and when the need arises.

Regarding travel by Agency employees to and from the workplace, the EEA's policy is to encourage walking, cycling and the use of public transport

The EEA environment policy covers Agency staff as well as all non-EEA personnel working on a regular basis at the Agency's premises in Copenhagen, such as consultants and catering contractors

February 2007

LINGO Prof. Jacqueline McGlade

European Environment Agency



<sup>(13)</sup> i.e. the 'use of land', expressed in m<sup>2</sup> of built-up area.

<sup>(14)</sup> Introduced as a core indicator in the new EMAS III Regulation, Annex IV, section C, point 2 (a) (v).

#### Full Time Employees 2004-2011

Year	Full Time Employees (FTE)
2004	120
2005	120
2006	135
2007	140
2008	140
2009	144
2010	153
2011	171

#### **Our targets**

#### Electricity

The environmental impacts of EEA consumption of electricity stem from the power generation of Dong Energy. The EEA contract with Dong Energy states that all purchased electricity must come from renewable sources.

EEA has lowered its electricity consumption per Full Time Employee every year since introducing the environmental management system. The consumption is still higher than the average for Danish office buildings (57 kWh/ m²/year (¹⁵). The main reason is that EEA is a computing intensive organisation with a large server park and big data storage facility. In addition, because of the flooding in July, there was a higher consumption of electricity due to use of electric fans to dry the flooded premises.

#### Heating

The steam used by EEA for heating its premises comes from the district heating

provided by Københavns Energi. In 2011 we observed a drop in heating energy consumed by FTE of about 21 %.

As reported for 2010, that year had exceptionally cold spring and winter months, which pushed the consumption of heating energy to the higher levels than what was reported in the previous years (2005–2009). The 2011 consumption is more in line with that trend.

A systematic check to ensure that all radiators were functioning in the house was undertaken at the beginning of the year. This has led to a more efficient heating of the work premises.

#### Water

EEA consumption of water in 2011 is down compared to 2010, which was the year of the façade project that required watering of the plants and thus additional usage of water.

#### Paper

Due to the nature of the Agency's operations, with dissemination of information in the form of written reports, the Agency's consumption of paper per FTE is high compared to many other offices. The use of paper can fluctuate very much between years, depending on the type and number of reports published in-house (Technical reports are printed on-demand in-house while the main series of EEA reports is printed externally). The Agency aims to increase its focus on various forms of electronic outputs to further reduce the paper consumption.

#### Waste

EEA sorted waste in 2011 fall into the following fractions: glass, electronic, organic, paper, cardboard as well as other household waste. Compared to 2010, the amount of all types of waste has decreased.

Due to a new waste collecting service that started in April 2011, the weighing of the organic waste did not take place for the remainder of the year. As a result, we only have data for the first three months of the year which makes it impossible to make a direct comparison with the previous years' organic waste statistics

The household waste takes up a large portion of the total waste the EEA generates with its activities. A working group that was set-up to look into this issue ran a pilot project and came up with recommendations on how to improve the Agency's waste management system by improving the sorting of waste practices. The implementation was on-going by the end of 2011.

#### CO, emissions

Emissions related to air travel that is booked by the EEA travel agent Seneca are routinely reported. The Agency became a front-runner in terms of limiting carbon footprint related to business travel by introducing a carbon offsetting scheme in 2006. Through this scheme, managed by Seneca, the Agency now compensates for its travel related CO<sub>2</sub> emissions by supporting an energy efficiency project in Africa:

<sup>(15)</sup> According to Sparel.dk: http://application.sparel.dk/ElWebUI/El/index.aspx, consulted on 28 February 2012.

http://www.co2balance.com/project-portfolio/project/great-accra-improved-cook-stoves-microscale-gs/.

Since 2010, the Agency has introduced a distinction between  $\mathrm{CO}_2$  emissions due to staff related travel (missions, training, as well as the travel for recruitment interviews), and  $\mathrm{CO}_2$  emissions caused by travel of our meeting participants. In the latter case, we have noted that more and more participants coming to our meetings book their related flights through our travel agent, thus allowing us to record and offset the corresponding  $\mathrm{CO}_2$  emissions. At present, approximately 90% of all travel related to attendance of EEA meetings is booked through Seneca.

The upward change in 2011 travel data reflects EEA's increased activities and number of partnerships with organisations placed outside of Europe. This has resulted in a number of transcontinental travel. In addition, there is often a lack of availability of direct flights to required destinations (flights broken down in several legs mean more take-offs and landings and thus a bigger fuel consumption).

Regarding staff travelling for training purposes, our new training coordinator has developed a more environmental friendly programme including an increase in the selection of in-house training made available for staff, access to the e-learning courses from the European Commission and the introduction of a new training concept.

#### Procurement

Building environmental considerations into procurement is a standard practice at EEA. Our green procurement cycle includes an 'environmental impact

statement' in the initial proposal for procurement, as well as specific, robust environmental criteria and 'environmental considerations' in the tender specifications.

#### Improvement projects: Sensors measuring air quality

The purpose of the EMAS sensor project was to demonstrate how sensors could be used in the Agency and to explore the air quality in certain part of its premises. Our focus was on air quality such as ozone, NO<sub>2</sub>, CO, CO<sub>2</sub> etc. The project was kicked off at the end January 2011. The project involved some software and hardware development as the project was based on a sensor kit called Waspmote from Libelium.com. Sensors were tested in different meeting rooms (1.3.1, 2.3.1) and offices (1.9, 8.1.30, 8.1.22 and 8.1.23). The readings were made available at: http://discomap. eea.europa.eu/report/testproject/ sensorobservations. Due to calibration issues, the sensors were at the end of 2011 taken off-line but the project will continue in 2012. Further investigation is needed about how to improve the monitoring based on the sensors used.

### External environmental management activities

Based on EEA's EMAS experience over the past six years the Agency started developing a network of environmental organisations belonging to Eionet to promote more resource-efficient and greener public administrations. The vision is to help public authorities in adopting a systematic approach to managing their impacts on the external environment through networking, exchange of good practices, training and capacity building. So far ten countries have nominated their contact points to this network and we have created a forum in Circa for this group. A survey was launched at the beginning of March to get an overview of the current situation with environmental management systems in the participating countries. The network held its first meeting on in September 2011 at the EEA.

The network has identified the finance ministries in the countries as the most interesting stakeholders. For that reason EEA conducted a fact-finding mission in Finland with support from Finnish environmental authorities and received an invitation to help promote environmental management to the Finnish public administration at an event organised in January 2012 by the Ministry of Finance who are following the lead in promoting environmental management.

The Finnish Ministry uses the WWF-Finland created environmental management system called Green Office, because it is lighter and easier to operate than EMAS or ISO14001. This system has some fundamental weaknesses in comparison with the other two, such as the lack of consideration for indirect environmental impacts and absence of management review. However, the close cooperation between the public administration and NGOs is an interesting phenomenon that might optimise use of resources and knowledge also in other countries, in which this is not practiced.

#### Consumption of electricity 2005-2011

	2005	2006	2007	2008	2009 (*)	2010 (*)	2011 (*)
In total kWh	715 320	796 858	768 424	724 110	735 669	683 004	735 148
kWh/FTE/year	5961	5902	5516	5172	5108	4464	4 299
kWh/m²/year	99	111	107	101	102	95	102

Note: \* 100 % renewable energy.

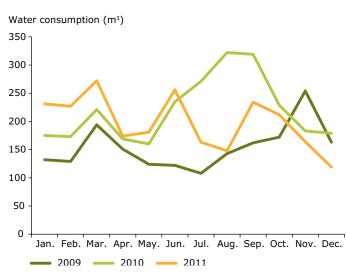
#### Consumption of heating energy 2005-2011

	2005	2006	2007	2008	2009	2010	2011
m³	826	876	907	944	902	1 092	969
kWh (8)	578 200	613 000	634 900	661 000	631 591	764 400	678 300
kWh/FTE	4 818	4 540	4 535	4 721	4 386	4 996	3 967
kWh/m²/year	80.3	85.1	88.2	91.8	87.72	106	94

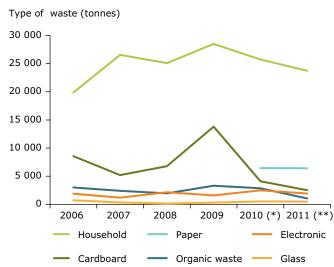
#### Consumption of water 2005-2011

	2005	2006	2007	2008	2009	2010	2011
m³	1 456	1 581	1 545	1 564	1 854	2 636	2 381
m³/FTE	12/1	11.7	11.0	11.2	12.8	17.2	13.9
l/m²/year	202	201	215	217	257	366	331

#### Comparison of the monthly water consumption



#### Types of waste



Note:

- 2010 was the first year where cardboard waste was separated.
- \*\* Data series covers January to March 2011 only. The weighing of organic waste is currently suspended.

#### Consumption of paper 2004-2010

	2005	2006	2007	2008	2009	2010	2011
Number of sheets printed in-house	1 378 000	1 534 265	725 500	1 583 000	549 000	906 500	134 500
In-house sheets per FTE equivalent	11 483	11 365	5 182	11 307	3 812	5 925	787
Number of pages in published reports *		9 944 120	14 047 732	6 651 600	6 309 400	9 844 500	10 674 600

Note: \* Sum of pages per report times printrun.

#### Generation of waste 2006-2011 (tonnes)

	2006	2007	2008	2009	2010 (*)	2011
Household	19 870	26 570	25 090	28 500	25 730	23 735
Cardboard	8 540	5 185	6 765	13 790	4 100	2 510
Paper					6 430	6 400
Organic waste	3 000	2 400	1 930	3 300	2 850	1 050 (**)
Electronic	1 900	1 170	2 150	1 570	2 492	1 904
Glass	690	335	150	320	510	470
Total	34 000	35 660	36 085	47 480	42 112	36 069
Total/FTE	247	255	258	330	275	211

Note:

#### CO, emissions 2006-2011 (tonnes)

found to be incorrect.

	2006	2007	2008	2009	2010	2011
CO <sub>2</sub> emissions for staff missions, tonnes	673.4	447.4	526.0	600.0 -	307.8 (*)	351.0
CO <sub>2</sub> emissions for meeting participants, tonnes	073.4	447.4	320.0	0.00	227.1 (*)	301.4

Note: Due to changing travel agent in 2007, the numbers from 2006–2007 are not quite comparable to the numbers from 2008–2009. (\*) The corresponding figures in the Environmental statement 2011 (286.7 tonnes and 144.6 tonnes, respectively) have been

<sup>\* 2010</sup> was the first year where cardboard waste was separated \*\* Data series covers January to March 2011 only. The weighing of organic waste is currently suspended.

#### **Environmental targets**

Activity source of impact (environmental aspect)									
Running the offices									
1.	Central computing and data storage by servers in KN6	0-growth in 2009–2011 (base year 2008)	2008: 232 615 KWh 2011: 239 622 KWh + 3.0 % (2009–2011 + 3.2 %)						
2.	Cooling in server room in KN6	0-growth in 2009–2011 (base year 2008)	2008: 75 531 KWh 2011: 87 228 KWh + 15.5 % (2009–2011 + 6.7 %)						
3.	Staff-related' use of electricity in offices and meeting rooms (PCs, printers, copying machines, faxes, lights etc.)	3 % reduction in 2009–2011 (out of absolute consumption in 2008)	2008: 486 783 KWh 2011: 413 339 KWh - 15.1 % (2009-2011 - 8.0 %)						
4.	Building space heating	3 % reduction of heating energy in 2011 (out of absolute consumption figure in 2010)	2010: 1 092 m <sup>3</sup> 2011: 969 m <sup>3</sup> -11.3 %						
		Offsetting of emissions caused by the production of heating energy							
5.	Printing documents and emails	0-growth in 2011 (compared with 2010)	2010: 906 500 (A4 pages) 2011: 134 500 (A4 pages) - 85.2 %						
6.	Printing publications at external printers	0-growth in 2011 (compared with 2010)	2010: 9 844 500 2011:10 674 600 + 8.4 %						
7.	Consumption of food products (canteen) and production of waste	Internal audit report on the greening the canteen project.	This audit was postponed until 2013. This area was last audited in 2010.						
8.	Production of household waste	Improvement of the waste sorting system in-house	Proposals for improvements presented.						
Bus	siness travel								
9.	Staff going on missions and training, and recruitment related travel	CO <sub>2</sub> tonnes 0 growth in 2011 (base year 2010)	2010: 307.8 tonnes (*) 2011: 351.0 tonnes + 14.0 %						
10.	External participants coming to EEA-organised meetings by plane	CO <sub>2</sub> tonnes 0 growth in 2011 (base year 2010)	2010: 227.1 tonnes (*) 2011: 301.4 tonnes + 32.7 %						
Pro	curement								
Pro	curement and use of:								
11.	Furniture	All furniture to be purchased against best available environmental criteria.	Best available environmental criteria, as specified in the existing framework contract						
12.	IT equipment	New directives from the EU identifying new certifications are taken into account	for procurement of furniture, were taken int account for all purchases of furniture.						
13.	Office supplies	-							

**Note:** \* The figure for 2010 reported in the Environmental statement 2011 was incorrect.

#### **Environmental targets (cont.)**

Activity source of impact (environmental aspect)	Target set for 2011	Performance in 2011
Information products and services		
14. Green communication/	Communication plan progress report	Internal communication activities:
awareness-raising activities		(1) launch of environmental posters was postponed due to lack of resources.
		(2) SMT was informed about the EMAS communication activities according to plan.
		(3) The award for the best EMAS idea will be picked and announced before summer break 2012 because the Eye on Earth Summit coincided with the timing of the usual award procedures in December.
		(4) Announcement of green signature was postponed due to competing activities.
		(5) Many planned announcements were made to promote EMAS, including: EMAS refresher, swap library, water fountain in canteen, internal auditors recruitment, car-sharing initiative; EMAS ideas register and posters were postponed.
		External communication carried out as planned.
Environmental economic and social imp	act	
15. All EEA activities	Final list of sustainability indicators and draft of a sustainability policy by the end of the year	The list of sustainability indicators finalised. The working group concluded that our environmental policy along with the food policy should constitute our sustainability policy.
Internal Environment		
16. Environment in building KN6 and KN8: using sensors to monitor in-house air quality.	Demonstration of the first test phase in May	The project will continue in 2012

The environmental report has been verified by Bureau Veritas Certification Denmark A/S, DANAK accredited no 6002, on 11 May 2012

### Annex A Certificate of EMAS registration

### Certifikat for EMAS-registrering

Certificate of EMAS-Registration



#### **European Environment Agency**

Kongens Nytorv 6 DK-1050-København K

Registreringsnummer Registration Number **DK-000244** 

Registreret første gang Date of first registration 05-04-2005

Certifikatet er gyldigt indtil This certificate is valid until 01-08-2013

Udstedelsesdato Date of issue 21-05-2012

Denne organisation har indført et miljøledelsessystem, og udarbejdet en miljøredegørelse i henhold til forordning (EF) nr. 1221/2009 med det formål at fremme en løbende forbedring af organisationens miljøindsats og resultater, og informere offentligheden herom. Miljøledelsessystemet og miljøredegørelsen er verificeret af en uafhængig tredjepart.

This organisation has established an environmental management system and prepared an environmental statement according to Regulation (EC) No. 1221/2009 to promote the continual improvement of environmental performance and to inform the public hereof. The environmental management system and the environmental statement are verified by an independent third party.

Lars Hindkjær Direktør

Director-General

Miljøstyrelsen Miljøministeriet

### Annex B Statement on financial position

Table B.1 Income 2007-2011 (million EUR)

	2007	2008	2009	2010	2011
EU subventions	29.0	31.7	34.6	35.3	36.0
EFTA contribution	0.6	0.7	0.8	0.9	0.8
New EEA member countries' contributions	4.2	4.3	4.4	4.4	4.4
Miscellaneous revenues	1.3	0.4	0.1	10.0	21.0
Total	35.1	37.1	39.9	50.6	62.2

Note: As the figures above are rounded, the sum of the individual figures may differ slightly from the total.

Table B.2 Expenditure (E) 200-2010 and budget (B) 2011 (million EUR)

	2007 E	2008 E	2009 E	2010 E	2011 B
Staff and administration	21.1	22.7	24.0	30.3	28.1
Operational expenditure	14.0	14.4	15.9	20.3	34.1
Total	35.1	37.1	39.9	50.6	62.2

Table B.3 Operational expenditure and related staff allocations (FTE) for 2011 by programme area and project group

		EUR 1 000		Full ti	ime employees	(FTE)
Strategic action non-resource lines	Core funds	Other sources *	Total	Core	Other sources	Total
1 Environmental themes	156	164	320	17.5		17.5
2 Cross-cutting themes	502	68	570	20.3	0.1	20.3
3 Integrated environmental assessments	360	121	481	9.7	0.6	10.3
4 Information services and communications	1 229	1 862	3 091	32.9	5.0	37.9
5 EEA Governance and partnerships		225	225	10.4	3.9	14.83
6 EEA internal management and administration				61.4	1.5	62.9
Subtotal	2 247	2 440	4 687	152.2	11,1	163.3
Resource lines:						
ETCs	7 416		7 416			
Communication	630		630			
IT infrastructure	2 923		2 923			
Meetings	923	489	1 412			
Translations	356	13	369			
Subtotal	12 248	502	12 750	152.2	11.1	163.3
Total	14 495	2 942	17 437			

**Note:** FTE: Excluding 'leave and absences of staff'.

<sup>\*</sup> Other sources consist of ENPI, IPA, GISC, AoA, GIO and IPA2.

Table B.4 Breakdown of committed funds for ETCs (in 1 000 EUR) — core funds only

		ETC/ACM Air pollution and Climate Change Mitigation	ETC/ICM Inland, Coastal and Marine Waters	ETC/BD Biodiversity	ETC/SIA Spatial Information and Analysis	ETC/SCP Sustainable Consumption and Production	ETC/CVA Climate Change Vulnerability and Adaptation	Total allocation
1	Environmental themes	1 960	1 023	1 009	0	0	0	3 992
2	Cross-cutting themes	31	302	0	1 157	977	469	2 936
3	Integrated environmental assessments	0	0	0	0	0	0	0
4	Information services and communications	0	0	0	0	0	0	0
5	EEA governance and partnerships	0	0	0	0	0	0	0
6	EEA internal management and administration	0	145	116	143	146	66	616
To	tal	1 991	1 470	1 125	1 300	1 123	535	7 544

## Annex C Status on human resources

Status on human resources — officials, temporary agents, contract agents and national experts

Table C.1 Staff development, 2007-2011

Category	2007	2008	2009	2010	2011
AD	51	53	57	59	62
AST	60	63	64	66	70
National experts	21	21	20	21	24
Contract agents	34	30	36	55	58
Total	166	167	177	201	214

Table C.2 Staff by category and nationality on 31 December 2011

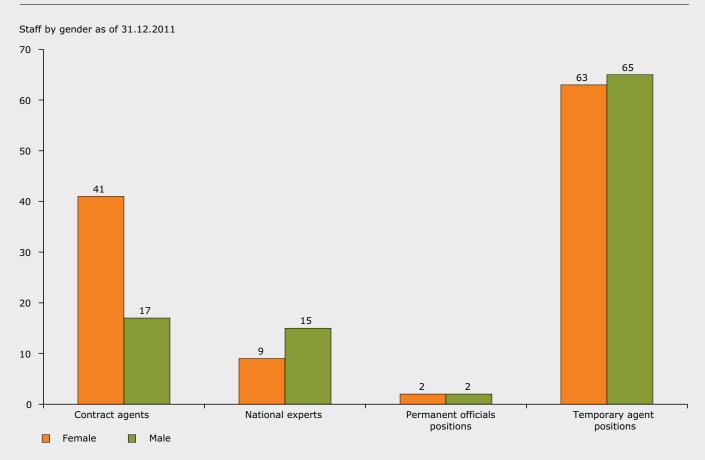
	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Iceland	Ireland	Italy	Latvia	Lithuania	Malta	Norway	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	The Netherlands	Turkey	United Kingdom	Switzerland	Total
AD		4				7	1	1	7	11	2		1	2	1					1	3	2	1	1	1	3	3		10		62
AST		2	2			30		3	4	3				2	4	1		1			1		1	1	5	6	1		2	1	70
National experts						2			3	2		1		1	3					1		1	1		3			3	3		24
Contract agents		2				13		1	4	6		3		1	7	3	2			3	3	2		1	3	1			3		58
Total		8	2			52	1	5	18	22	2	4	1	6	15	4	2	1		5	7	5	3	3	12	10	4	3	18	1	214

Table C.3 EEA promotions in 2011

Category AD	AD	AD	AD	AD	AD	AD	AD	AD	AD	AD	Total
	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	AD
Number of staff promoted		3		1	1	2	3				10
Category AST	AST	AST	AST	AST	AST	AST	AST	AST	AST	AST	Total
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	AST
Number of staff	1		4	1	1	2	1		1		11

Note: Grading reflects the situation after the new staff regulation. Officials and temporary agents only.

Figure C.1 Staff by gender on 31 December 2011



# Annex D Members of the EEA Management Board

Austria	Elisabeth Freytag (Vice-Chair, Bureau member)	Federal Ministry of Agriculture, Forestry, Environment and Water Management			
Belgium	Philippe D'Hondt Head of Air, Environment and Communication Department	Flemish Environment Agency			
Bulgaria	Vanya Grigorova Executive Director	Executive Environment Agency			
Cyprus	Charalambos Hajipakkos	Ministry of Agriculture, Natural Resources and Environment			
Czech Republic	Veronika Hunt Šafránková Deputy Minister-Director General	Ministry of Environment			
Denmark	Helle Pilsgaard Director General	Danish Nature Agency			
Estonia	Allan Gromov Deputy Secretary General	Ministry of Environment			
Finland	Laura Höijer Research Director	Ministry of the Environment			
France					
Germany	Karsten Sach ( <i>Chair, Bureau member</i> ) Deputy Director-General Directorate for International Cooperation	Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit			
	Julia Werner (Alternate)				
Greece	Maria Peppa Head of Department — Department of International Relations and EU Affairs	Ministry of Environment, Energy and Climate Change			
Hungary	Erzsébet Gergely ( <i>Vice-Chair, Bureau member</i> ) Head of Department	National Institute for Environment			
Iceland	Hugi Ólafsson Director, Office of International Affairs and Policy	Ministry of Environment			
Ireland	John McCarthy Assistant Secretary General	Department of the Environment, Heritage and Local Government			
Italy	Corrado Clini Director General	Sustainable Development and International Global Environment Ministero dell'Ambiente			
Latvia	Andris Eglājs Deputy State Secretary	Ministry of Environment			
Liechtenstein	Felix Näscher Director General	Ministry for the Environment Department of Forests, Nature and Landscape			
Lithuania	Aleksandras Spruogis Undersecretary	Ministry of Environment			
Luxembourg	Eric de Brabanter	Département de l'Environnement Ministère du Développement durable et des Infrastructures			
Malta	Petra Bianchi Director of Environment	Environment Protection Directorate			
Netherlands	Kees Plug Director, Environmental Quality and Sustainable Production	Ministry of Infrastructure and Environment			

Norway	Ellen Hambro Director	Climate and Pollution Agency
Poland	Andrzej Jagusiewicz ( <i>Vice-Chair. Bureau member</i> ) Chief Inspector	Chief Inspectorate for Environmental Protection
Portugal	Mário Grácio Director General	Agência Portuguesa do Ambiente
Romania	Gabriel Abos State Secretary	National Environment Agency
Slovak Republic	Daniel Schmidtmayer Director General	Slovak Environmental Agency
Slovenia	Silvo Žlebir Director General	Environmental Agency of the Republic of Slovenia
Spain	Jesús Huertas García Director General de Calidad y Evaluación Ambiental	Ministerio de Agricultura, Alimentación y Medio Ambiente
Sweden	Maria Ågren Executive Director	Swedish Environmental Protection Agency
Switzerland	Bruno Oberle Director	Federal Office for the Environment (FOEN)
Turkey	Ercan Tiraş Undersecretary of State	Ministry of Environment and Urbanisation
United Kingdom	John Robbs Chief Statistician Head of Environment Statistics Services	Department for Environment, Food and Rural Affairs (Defra)
European Commission	Robin Miège Director	DG Environment, DG ENV F
European Commission	Manuela Soares Director	DG RTD, Directorate Environment
Designated by the European Parliament	Michael Scoullos ( <i>Bureau member</i> ) Professor, Director of Environmental Chemistry Laboratory	MIO-ECSDE University of Athens
<b>EEA Scientific Committee (Chairman)</b> <i>Guest</i>	Detlef F. Sprinz	PIK-Potsdam Institute for Climate Impact Research
European Commission Guest	Artur Runge Metzger Director	DG Climate Action

# Annex E Members of the EEA Scientific Committee

Prof. Pierluigi Cocco	Department of Public Health, Occupational Health Section, University of Cagliari, Italy
Dr Yves Desaubies (Vice-Chair)	Mersea Conseil, Scientific and Technical Consultant, Plouzané, France
Prof. Mogens Henze	Department of Environmental Engineering, Technical University of Denmark, Denmark
Dr Ole Hertel	Department of Atmospheric Environment National Environmental Research Institute University of Århus, Denmark
Prof. Richard K Johnson	Department of Aquatic Sciences and Assessment, Swedish University of Agricultural Sciences, Uppsala, Sweden
Dr Ulrike Kastrup	focusTerra — Earth Sci Res & Information Centre ETH Zurich Department of Earth Sciences Zurich, Switzerland
Prof. Eckart Lange	Department of Landscape, The University of Sheffield, United Kingdom
Dr Owen McIntyre	Faculty of Law, University College Cork, National University of Ireland, Ireland
Prof. Peter Novak	Energotech Engineering, Ljubljana, Slovenia
Dr Jouni Paavola	Sustainability Research Institute, School of Earth and Environment, University of Leeds, United Kingdom
Dr Nadia Pinardi	Instituto Nazionale di Geofisica e Vulcanologia, Bologna, Italy
Prof. Anette Reenberg	Department of Geography and Geology, University of Copenhagen, Denmark
Prof. Detlef F. Sprinz ( <i>Chair</i> )	PIK-Potsdam Institute for Climate Impact Research, Potsdam, Germany
Dr Sybille van den Hove (Vice-Chair)	Median SCP, Barcelona, Spain
Prof. Peter Wadhams	Department of Applied Mathematics and Theoretical Physics (DAMTP), University of Cambridge, Centre for Mathematical Sciences, Cambridge, United Kingdom

## Annex F EEA national focal points

Albania	Etleva Canaj	Agency of Environment and Forestry
Austria	Johannes Mayer	Umweltbundesamt (UBA)/Federal Environment Agency
Belgium	Jan Voet	Intergewestelijke Cel voor Leefmilieu (IRCEL)
Bosnia-Herzegovina	Mehmed Cero	Federal Ministry for Physical Planning and Environment
Bulgaria	Camellia Dikova	Executive Environment Agency (BEEA)
Croatia	Jasna Butuči	Croatian Environment Agency (CEA)
Cyprus	Christina Pantazi	Ministry of Agriculture, Natural Resources and Environment
Czech Republic	Jiří Hradec	Czech Environmental Information Agency (CENIA)
Denmark	Esben Tind	Danish Ministry of the Environment Agency for Spatial and Environmental Planning
Estonia	Leo Saare	Estonian Environment Information Centre (EEIC)
Finland	Tapani Säynätkari	Finnish Environment Institute (SYKE)
France	Jacques Thorette	Ministère de l'Écologie, du Développement durable, des Transports et du Logemen
Germany	Christina Pykonen	Umweltbundesamt/Federal Environment Agency
Greece	Dimitris Meimaris	Ministry for the Environment, Energy and Climate Change
Hungary	Gabriella Pajna	Ministry of Rural Development
Iceland	Gunnar Jónsson	Environment Agency of Iceland
Ireland	Micheál Lehane	Environmental Protection Agency
Italy	Claudio Maricchiolo	Istituto Superiore per la Protezione e Ricerca Ambientale (ISPRA)/Institute for Environmental Protection and Research
Kosovo under UN SCR 1244/99	Rifat Morina	Environmental Protection Agency
Latvia	Vita Slanke	Latvian Environment, Geology and Meteorology Agency
Liechtenstein	Roland Jehle	National Office for Forests, Nature and Land Managemen
Lithuania	Aldona Margerienė	Environmental Protection Agency (EPA)
Luxembourg	Eric De Brabanter	Ministère du Développement durable et des Infrastructures
Former Yugoslav Republic of Macedonia	Svetlana Gjorgjeva	Ministry of Environment and Physical Planning, Environmental information Center
Malta	Saviour Formosa	Malta Environment and Planning Authority
Montenegro	Dragan Asanovic	Ministry of Tourism and Environment
Netherlands	Kees Schotten, Hiddo Huitzing	Netherlands Environmental Assessment Agency
Norway	Rebekka Borsch	Climate and Pollution Agency
Poland	Lucyna Dygas-Ciołkowska	Chief Inspectorate for Environmental Protection
Portugal	Regina Vilão	Agência Portuguesa do Ambiente
Romania	Gabriela Vasiliu-Isac	Ministry of Environment and Forestry

Serbia	Dejan Lekic	Serbian Environmental Protection Agency (SEPA)
Slovak Republic	Katarina Koskova	Slovak Environmental Agency
Slovenia	Jelko Urbančič	Environment Agency of the Republic of Slovenia
Spain	Marta Muñoz Cuesta	Ministerio de Agricultura, Alimentación y Medio Ambiente
Sweden	Ninni Borén	Swedish Environmental Protection Agency
Switzerland	Nicolas Perritaz, Raphael Zürcher	Federal Office for the Environment (FOEN)
Turkey	A. Çaðatay Dikmen	Ministry of Environment and Urbanisation
United Kingdom	Christine Holleran	Department for Environment, Food and Rural Affairs (DEFRA)
European Commission	Pascal Le Grand	DG Environment
European Commission	Paul C. Smits	Institute for Environment and Sustainability, Joint Research Centre
European Commission	Christian Heidorn	Eurostat

# Annex G EEA European topic centres — Consortium leaders and partners

#### As of 31 December 2011

ETC manager/	Mr Paul Ruyssenaars
Consortium coordinator:	Rijksinstituut voor Volksgezondheid en Milieu (RIVM)/(The National Institute for Public Health and the Environment) Bilthoven, the Netherlands
Partners:	- AEA Technology PLC, United Kingdom
	- Czech Hydrometeorological Institute (CHMI), Czech Republic
	- EMISIA S.A., Greece
	<ul> <li>Instituto de Diagnóstico Ambiental y Estudios des Agua (IDAEA-CSIC)/(Institute of Environmental Assessment and Water Research), Spain</li> </ul>
	- Institut National de l'Environnement Industriel et des Risques (INERIS), France
	- Norsk Institutt for Luftforskning (NILU)/(Norwegian Institute for Air Research), Norway
	- Öko Institut e.V. (ÖKO), Germany
	<ul> <li>Planbureau voor de Leefomgeving (PBL)/(Netherlands Environmental Assessment Agency), the Netherlands</li> </ul>
	- Umweltbundesamt GmbH (UBA-Vienna), Austria
European Topic Centre o	n Biological Diversity (ETC/BD)
ETC manager/	n Biological Diversity (ETC/BD)  Ms Dominique Richard
ETC manager/	
ETC manager/ Consortium coordinator:	Ms Dominique Richard
ETC manager/ Consortium coordinator:	Ms Dominique Richard  Muséum national d'histoire naturelle (MNHN)/(National Museum of Natural History) Paris, France  - Agency for Nature Conservation and Landscape Protection of the Czech Republic (AOPK), Czech
ETC manager/ Consortium coordinator:	Ms Dominique Richard  Muséum national d'histoire naturelle (MNHN)/(National Museum of Natural History) Paris, France  - Agency for Nature Conservation and Landscape Protection of the Czech Republic (AOPK), Czech Republic
European Topic Centre of ETC manager/ Consortium coordinator: Partners:	Ms Dominique Richard  Muséum national d'histoire naturelle (MNHN)/(National Museum of Natural History) Paris, France  - Agency for Nature Conservation and Landscape Protection of the Czech Republic (AOPK), Czech Republic  - Environmental Protection Agency for Special Areas (EPASA), Turkey

Joint Nature Conservation Committee (JNCC), United KingdomSwedish University of Agricultural Sciences (SLU), Sweden

- Umweltbundesamt GmbH (UBA-Vienna), Austria

ETC manager/	Dr Sergio Castellari
Consortium coordinator:	Centro Euro-Mediterraneo per i Cambiamenti Climatici S.c.a.r.l. (CMCC)/(Euro-Mediterranean Centre for Climate Change) Lecce, Italy
Partners:	– Aarhus Universitet — Danmarks Miljøundersøgelser (AU-NERI), Denmark
	- Fundação da Faculdade de Ciências da Universidade de Lisboa (FFCUL), Portugal
	- Helmholtz-Zentrum für Umweltforschung GmbH (UFZ), Germany
	- Institute within the legal entity Stichting Dienst Landbouwkundig Onderzoek (Alterra), the Netherlands
	- Suomen Ympäristökeskus (SYKE)/(Finnish Environment Institute), Finland
	- The Meteorological Office (MO), United Kingdom
	- Thetis S.p.A., Italy
	- Universidad Politecnica de Madrid (UPM), Spain
	- Univerzita Karlova v Praze (CUNI), Czech Republic
European Topic Centre o	n Inland, Coastal and Marine Waters (ETC/ICM)
ETC manager/	Dr Anita Künitzer
Consortium coordinator:	Česká informační agentura životního prostředí (CENIA)/(Czech Environmental Information Agency) Prague, Czech Republic
Partners:	- Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Germany
	- DHI Denmark, Denmark
	<ul> <li>Ecologic Institute gemeinnützige GmbH/(Institute for International and European environmental policy Germany</li> </ul>
	- Environmental and Water Management Research Institute (VITUKI), Hungary
	- Hellenic Centre for Marine Research (HCMR), Greece
	- Indra Espacio S.A., Spain
	- Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER), France
	- Inštitut za vode Republike Slovenije (IWRS)/(Institute for Water of the Republic of Slovenia), Slovenia
	- The International Council for the Exploration of the Sea (ICES), Denmark
	– Istituto Nazionale di Geofisica e Vulcanologia (INGV), Italy
	- National Technical University of Athens (NTUA), Greece
	- Natural Environment Research Council (NERC — CEH), United Kingdom
	- Norsk Institutt for Vannforskning (NIVA), Norway
	<ul> <li>Sir Alister Hardy Foundation for Ocean Science (SAHFOS), United Kingdom</li> </ul>
	<ul> <li>Sir Alister Hardy Foundation for Ocean Science (SAHFOS), United Kingdom</li> <li>Stichting Deltares, the Netherlands</li> </ul>

ETC manager/	Ms Birgit Munck-Kampmann
Consortium coordinator:	Copenhagen Resource Institute (CRI)
	Copenhagen, Denmark
Partners:	– Environment Agency for England and Wales, United Kingdom
	<ul> <li>CERIS-CNR / (Institute of Economic Research on Firms and Growth of the National Research Council), Italy</li> </ul>
	- International Institute for Industrial Environmental Economics at Lund University (IIIEE), Sweden
	- Regional Environmental Centre for Central and Eastern Europe (REC), Hungary
	- Umweltsbundesamt (UBA-D) / (Federal Environment Agency Dessau), Germany
	<ul> <li>UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production (CSCP), Germany</li> </ul>
	- Wuppertal Institute for Climate, Environment and Energy, Germany
Consortium coordinator:	Universidad de Málaga (UMA) Malaga, Spain
Partners:	- ATLETRRA, the Netherlands
	- Con terra GmbH, Germany
	<ul> <li>Consejería de Medio Ambiente de la Junta de Andalucía (REDIAM)/(Regional Ministry of Environment the Government of Andalusia), Spain</li> </ul>
	<ul> <li>Danmarks Miljøundersøgelser/Aarhus Universitet (DMU)/(National Environmental Research Institute/ Aarhus University) (NERI), Denmark</li> </ul>
	- Földmérési és Távérzékelési Intézet (FÖMI)/(Institute of geodesy, cartography and remote sensing),
	Hungary
	Hungary
	Hungary  - Geoville Environmental Services S.a.r.l., Luxembourg and Austria
	Hungary  - Geoville Environmental Services S.a.r.l., Luxembourg and Austria  - GISAT s.r.o., Czech Republic
	Hungary  Geoville Environmental Services S.a.r.l., Luxembourg and Austria  GISAT s.r.o., Czech Republic  IGN France International SA (IGN FI), France  Institutul National de Cercetare si Dezvoltare Delta Dunarii — Tulcea (DDNI)/(The Danube Delta
	<ul> <li>Hungary</li> <li>Geoville Environmental Services S.a.r.l., Luxembourg and Austria</li> <li>GISAT s.r.o., Czech Republic</li> <li>IGN France International SA (IGN FI), France</li> <li>Institutul National de Cercetare si Dezvoltare Delta Dunarii — Tulcea (DDNI)/(The Danube Delta National Institute), Romania</li> </ul>
	<ul> <li>Hungary</li> <li>Geoville Environmental Services S.a.r.l., Luxembourg and Austria</li> <li>GISAT s.r.o., Czech Republic</li> <li>IGN France International SA (IGN FI), France</li> <li>Institutul National de Cercetare si Dezvoltare Delta Dunarii — Tulcea (DDNI)/(The Danube Delta National Institute), Romania</li> <li>Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Italy</li> </ul>
	<ul> <li>Hungary</li> <li>Geoville Environmental Services S.a.r.l., Luxembourg and Austria</li> <li>GISAT s.r.o., Czech Republic</li> <li>IGN France International SA (IGN FI), France</li> <li>Institutul National de Cercetare si Dezvoltare Delta Dunarii — Tulcea (DDNI)/(The Danube Delta National Institute), Romania</li> <li>Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Italy</li> <li>Perth College (UHI), United Kingdom</li> </ul>
	<ul> <li>Hungary</li> <li>Geoville Environmental Services S.a.r.l., Luxembourg and Austria</li> <li>GISAT s.r.o., Czech Republic</li> <li>IGN France International SA (IGN FI), France</li> <li>Institutul National de Cercetare si Dezvoltare Delta Dunarii — Tulcea (DDNI)/(The Danube Delta National Institute), Romania</li> <li>Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Italy</li> <li>Perth College (UHI), United Kingdom</li> <li>Société de Calcul Mathématique SA (SCM), France</li> </ul>
	<ul> <li>Hungary</li> <li>Geoville Environmental Services S.a.r.l., Luxembourg and Austria</li> <li>GISAT s.r.o., Czech Republic</li> <li>IGN France International SA (IGN FI), France</li> <li>Institutul National de Cercetare si Dezvoltare Delta Dunarii — Tulcea (DDNI)/(The Danube Delta National Institute), Romania</li> <li>Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Italy</li> <li>Perth College (UHI), United Kingdom</li> <li>Société de Calcul Mathématique SA (SCM), France</li> <li>Umweltbundesamt GmbH (UBA-Vienna), Austria</li> </ul>
	<ul> <li>Hungary</li> <li>Geoville Environmental Services S.a.r.l., Luxembourg and Austria</li> <li>GISAT s.r.o., Czech Republic</li> <li>IGN France International SA (IGN FI), France</li> <li>Institutul National de Cercetare si Dezvoltare Delta Dunarii — Tulcea (DDNI)/(The Danube Delta National Institute), Romania</li> <li>Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Italy</li> <li>Perth College (UHI), United Kingdom</li> <li>Société de Calcul Mathématique SA (SCM), France</li> <li>Umweltbundesamt GmbH (UBA-Vienna), Austria</li> <li>Universitat Autònoma de Barcelona (UAB), Spain</li> </ul>

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Carlotta FUENTES	Secretary — EDO programme support
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Ulrike HOFFMANN	Secretary — EDO support
Svetlana MAENCHEN	Secretary — International cooperation
Giovanna NOCCO	Secretary — EDO programme support
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	Head of group  Project officer — Internal communication and public enquiries
Gülcin KARADENIZ	
Gülcin KARADENIZ Nha-Yong AU	Project officer — Internal communication and public enquiries
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### Annex I List of acronyms and abbreviations

AoA Assessment of Assessments

ASDI Arctic Spatial Data Infrastructure

BISE Biodiversity Information System for Europe

CAP Common Agricultural Policy

CBD Convention on Biological Diversity

CSI Core set of indicators

CCS Carbon Capture Storage

CEDARE Center for Environment and Development for the Arab Region and Europe

CLC Corine land cover (see Corine below)

CLRTAP Convention on Long-Range Transboundary Air Pollution

CO Carbon monoxide
CO<sub>2</sub> Carbon dioxide

COM EEA Communications Programme

COPERT4 Software that allows calculations of air pollutant and greenhouse gas emissions from road transport

Corine Coordination of information on the environment

DG AGRI The European Commission's Directorate-General for Agriculture and Rural Development

DG CLIMA The European Commission's Directorate-General for Climate Action

DG DEVCO The European Commission's Directorate-General for Development and Cooperation — EuropeAid

DG ENTR The European Commission's Directorate-General for Enterprise and Industry

DG ENV/Environment The European Commission's Directorate-General for Environment

DG MARE The European Commission's Directorate-General for Maritime Affairs and Fisheries

DG MOVE The European Commission's Directorate-General for Mobility and Transport

DG REGIO The European Commission's Directorate-General for Regional Policy

DG RTD The European Commission's Directorate-General for Research and Innovation

DG SANCO The European Commission's Directorate-General for Health and Consumers

Dimesa Directors Meeting of Environmental Statistics and Accounts

Ecrins European Catchments and River Network System

EEA European Environment Agency

EFR Ecological fiscal reform

Eionet European environment information and observation network

EMAS EU Eco-Management and Audit Scheme

EMEP European Monitoring and Evaluation Programme

EMF Electromagnetic fields

EMODNET European maritime observation and data network

EMWIS Euro-Mediterranean Information System on know-how in the water sector

ENP European Neighbourhood Policy

ENPI European Neighbourhood Partnership Instrument

ENVI Committee European Parliament Committee on Environment, Public Health and Food Safety

ENVSEC Environment and Security Initiative

EPA Environmental Protection Agency

E-PRTR European Pollutant Release and Transfer Register

ESD Effort Sharing Decision

ETC European topic centre

ETC/ACM ETC on Air Pollution and Climate Change Mitigation

ETC/BD ETC on Biological Diversity

ETC/CCA ETC on Climate Change Impacts, Vulnerability and Adaptations

ETC/ICM ETC on Inland, Coastal and Marine Waters

ETC/SCP ETC on Sustainable Consumption and Production

ETC/SIA ETC on Spatial Information and Analysis

EU European Union

Eurostat Statistical Office of the European Union

FAIRMODE Forum for air quality modelling in Europe

FAO Food and Agriculture Organization (of the United Nations)

FLIS Forward-looking information and services

FTE Full-time equivalent

GDP Gross domestic product

GEO Group on Earth Observations

GEOSS Global Earth Observation System of Systems

GHG Greenhouse gas

GIO GMES Initial Operations

GIS Geographical Information System

GISC GMES in-situ coordination

GMES Global Monitoring for Environment and Security

GMO Genetically modified organism

GNON Global Network of Networks

GSN Green Spider Network

HNV High-nature value

Horizon 2020 International initiative to tackle pollution in the Mediterranean by 2020

HRL High resolution layers

IAS The European Commission's Internal Audit Service

ICLEI Local governments for sustainability

ICT Information and communication technology

Inspire Infrastructure for spatial information in Europe

IPCC Intergovernmental Panel on Climate Change

IUCN International Union for Conservation of Nature

JRC Joint Research Centre of the European Commission

JTF Joint Intersectoral Task Force (UNECE)

LRTAP Long-Range Transboundary Air Pollution

LUCAS Land Use Cover Area Frame Statistical Survey

MACC Monitoring Atmospheric Composition and Climate

MEP Member of the European Parliament

NEC National Emissions Ceiling

NFP National focal point

NGO Non-Governmental Organisation

NO<sub>2</sub> Nitrogen dioxide

NOISE Noise Observation and Information Service for Europe

NO<sub>x</sub> Nitrogen oxide

NRC National Reference Centre

OECD Organisation for Economic Co-operation and Development

OSCE Organisation for Security and Co-operation in Europe

PM<sub>10</sub> Particulate matter with a diameter equal to or less than 10 micrometres

PM<sub>2.5</sub> Particulate matter with a diameter equal to or less than 2.5 micrometres

QMS Quality Management System

REC Regional Environmental Center

RIO+20 United Nations Conference on Sustainable Development

SCP Sustainable consumption and production

SEBI Streamlining European Biodiversity Indicators

SEEA Strategy for integrated Environmental and Economic Accounting

SEIS Shared Environmental Information System

SO<sub>2</sub> Sulphur dioxide

SOER State and Outlook of Environment report

TEEB Economics of Ecosystems and Biodiversity

TERM Transport and environment reporting mechanism

TRAN European Parliament's Committee on Transport and Tourism

TFEIP Task Force on Emission Inventories and Projections

UN United Nations

UN CSD United Nations Commission on Sustainable Development

UN-SEEA United Nations System of Economic and Environmental Accounting

UNDP United Nations Development Programme

UNECE United Nations Economic Commission for Europe

UNEP United Nations Environment Programme

UNEP/MAP United Nations Mediterranean Action Plan

UNFCCC United Nations Framework Convention on Climate Change

WBCSD World Business Council on Sustainable Development

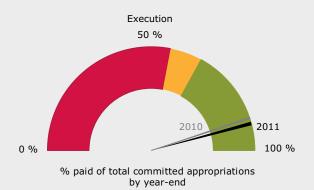
WHO World Health Organization

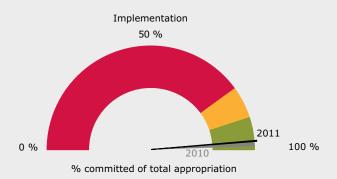
WISE Water Information System for Europe

WWF World Wide Fund for Nature

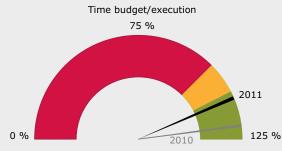
### Annex J Balanced scorecard

### Resource perspective Budget





#### Sound financial management

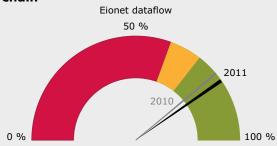


% time registred time against time budgetted



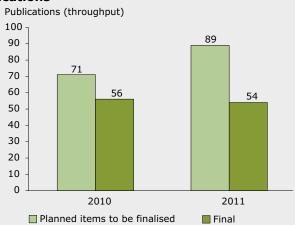
% transferred of total appropriations

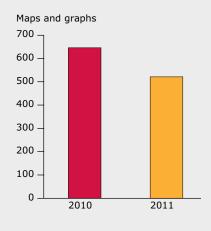
#### Business perspective Supply chain

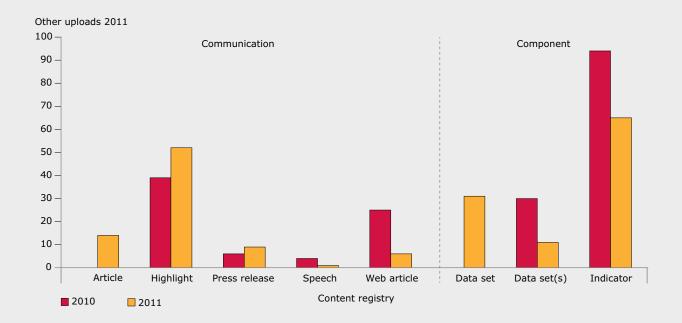


% of Eionet dataflow updated (38 countries)

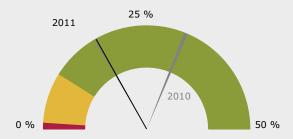
#### **Publications**



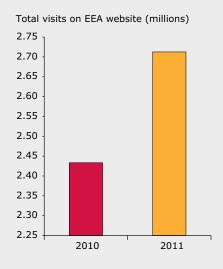




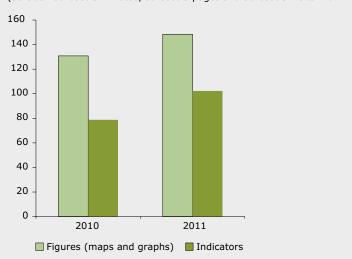
#### **Client perspective Relevance**



% increase of page views of engaged visitors

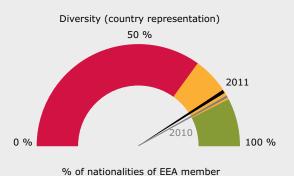


Page views of engaged visitors visit (thousands) (duration at least 3 minutes, at least 3 pages and at least 3 visits within 2 weeks)

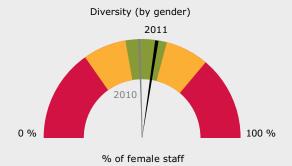


### Learning and growth perspective Work force

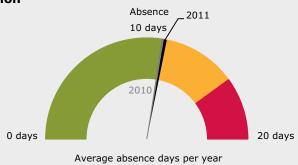


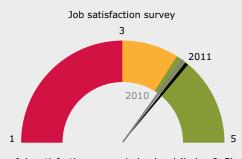


countries represented at EEA



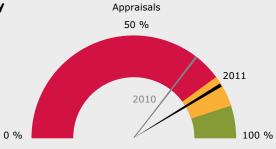
#### Learning and growth perspective Motivation



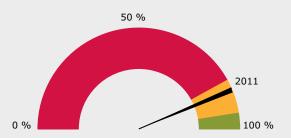


Job satisfaction survey index level (index 0–5) (5 = maximum)

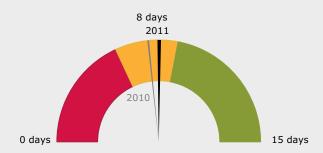
### Capability



% of appraisals for past year



% of CDC plans finalised for succeeding year



Development of competencies (days registered)

#### European Environment Agency

## Annual report 2011 and Environmental statement 2012

 $2012 - 100 \text{ pp.} - 21 \times 29.7 \text{ cm}$ 

ISBN 978-92-9213-322-1 ISSN 1561-2120 doi:10.2800/52260



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