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Evaluation of the European Environment Agency

Final Appendices

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Main theme	Sub-theme	Planned activities	Main outputs
Information systems and networks	Core set of indicators	• In the first year of the strategy, the Agency will consolidate the core set of indicators and associated data flows from countries. • This information will then be used by the EEA and Eionet to track progress at the European level against policy objectives and targets, • To benchmark countries' environmental performance, using comparable data and consistent methodologies.	• Eionet priority data flows — Seventh progress report to the Management Board • Eionet priority data flows — Eighth progress report to the Management Board. • Eionet priority data flows — tenth progress report to the Management Board. • Ozone web. • The thematic accuracy of CORINE land cover 2000 — assessment using LUCAS. EEA Technical report No 7/2006. • Eionet priority data flows — tenth progress report to the Management Board. • Ozone web. http://www.eea.europa.eu/maps/ozone/map/. • The thematic accuracy of CORINE land cover 2000 — assessment using LUCAS. EEA Technical report No 7/2006. • Eionet priority data flows, June 2006–April 2007 (Tenth progress report). EEA corporate document No 3/2007. • Eionet priority data flows — latest information: http://www.eionet.europa.eu/dataflows • WISE (Water Information System for Europe)

Main theme	Sub-theme	Planned activities	Main outputs
	Streamlining the system	• The network will be extended to include capacities needed for the new type of products and services to be developed in the five-year period, for example in the area of sustainable development. • The Agency will provide assessments of countries' performance on delivery and data quality through its Eionet priority data flows report. • The Agency will enhance the linkages to external organisations associated with data flows (including spatial data) and indicators, especially with OECD, Eurostat and JRC, benefiting especially from the global monitoring for environment and security (GMES) initiative. • The electronic tools and infrastructure and review of business processes under the Reportnet umbrella will continue to be developed using Commission and EEA funding in order to make information flows more efficient, transparent and available for many purposes. • The EEA data warehouse will underpin the core set of indicators and provide a setting for cross-sectoral analyses. Interactive tools enabling users to analyse environmental data, produce indicator-based assessments for their own purposes and refer to best practice will be implemented.	• Work is ongoing across these activities. The NFP/Eionet Group have continued to contribute to the discussions on SEIS. • The SEIS concept is also being taken forward with the Group of Four. • The EEA is undertaking SEIS country visits. • The priority data flows have been identified and the quality of country data are monitored and have been reported on in the annual progress reports. • All 32 member countries now participate in the priority data flow exercise. • The Agency in the Eionet context is increasing links with GMES. • Reportnet continues to be developed. One of the main challenges at the moment is to make more efficient use of the uploaded data.

Main theme	Sub-theme	Planned activities	Main outputs
	Communications services for the public	• Over the next five years, an extensive geographic Internet portal to regional and selected localised information will be made available. The portal will be built by combining the Agency's activities with other ongoing United Nations, international, national and Community initiatives. • Web and multimedia services targeted towards the younger audience will be established.	• The EEA has been working on web and multimedia services and has recently launched the Honoloko pc game in 26 languages.

Main theme	Sub-theme	Planned activities	Main outputs
Tackling climate change	Assessment of progress to the Kyoto and burden sharing targets	• Assessments of progress to the Kyoto targets and the effectiveness of national and EU policies; • Greenhouse gas monitoring, accounting and review; • Benchmarking of Europe with other regions of the world.	• Greenhouse gas emission trends and projections in Europe 2004. EEA Report No 5/2004 • Analysis of greenhouse gas emission trends and projections in Europe 2004. EEA Technical report No 7/2004. • Annual European Community greenhouse gas inventory 1990–2001 and inventory report 2003. Technical report No 95. • Impacts of Europe's changing climate. EEA Report No 2/2004 • Video news release Climate change — Impacts and responses. • Greenhouse gas emission trends and projections in Europe 2005. EEA Report No 8/2005. • Annual European Community greenhouse gas inventory 1990-2003 and inventory report 2005. Technical report No 4/2005. • Application of the Emissions Trading Directive by EU Member States. EEA Technical report No 2/2006. • Greenhouse gas emission trends and projections in Europe 2006. EEA Report No 9/2006. • Greenhouse gas emission trends and projections in Europe 2007. EEA report No 5/2007 • Annual European Community greenhouse gas inventory 1990–2005 and inventory report 2007. EEA Technical report No 7/2007. • Application of the Emissions Trading Directive by EU Member States – Reporting year 2006. EEA Technical report No 4/2007.

Main theme	Sub-theme	Planned activities	Main outputs
	Climate change impacts, adaptation and scenarios	• Scenarios for sectoral developments and climate change impacts, including EU-25 contributions: • Assessment of climate change impacts and adaptation, including the assessment of seasonal characteristics on a regional level (e.g. temperature, precipitation and storm events); • Integrated sectoral policy analyses, including the role of environmental technologies; • Identification of vulnerable areas and assessment of adaptation to climate change.	• Climate change and a European low-carbon energy system. EEA Report No 1/2005. • Vulnerability and adaptation to climate change in Europe. Briefing No 3/2005. • Vulnerability and adaptation to climate change in Europe. Technical report No 7/2005. • Application of the Emissions Trading Directive by EU Member States. EEA Technical report No 2/2006. • Air quality and ancillary benefits of climate change policies. EEA Technical report No 4/2006. • Air quality and ancillary benefits of climate change policies. EEA Briefing No 2/2006. • Annual European Community greenhouse gas inventory 1990–2004 and inventory report 2006. EEA Technical report No 6/2006. • The European Community's initial report under the Kyoto Protocol. EEA Technical report No 10/2006. • Energy and environment in the European Union — Tracking progress towards integration. EEA Report No 8/2006. • Climate change: the cost of inaction and the cost of adaptation. EEA Technical report No 13/2007. • Climate change and water adaptation issues. EEA briefing No 1/2007.

Main theme	Sub-theme	Planned activities	Main outputs
Tackling biodiversity loss and understanding spatial change	Biodiversity	• Distance to 2010 target assessments; • Performance indicators for biodiversity policies, especially Natura 2000 implementation and the link to sectoral policies; • Assessments of forest condition; • Support for member states and the Commission on Natura 2000 and biodiversity action plans; • Bring together existing experience and knowledge across its networks to develop common methods for monitoring habitats and species and the pressures on them; • Maintenance of reference databases, portals, guidelines and networks; • Development of an early warning network of alien invasive species; • Sectoral policy integration and economic analyses.	• Progress towards halting the loss of biodiversity by 2010. (EEA's first stand-alone integrated assessment report on biodiversity in Europe). EEA Report No 5/2006. • Report on European forest types: categories and types for sustainable forest management and policy. • EEA Technical report No 9/2006. • Halting the loss of biodiversity by 2010: Proposal for a first set of indicators to monitor progress in Europe. EEA Technical Report No 11/2007. • Europe's Environment — The fourth assessment, SOER report (Chapter 4 – Biodiversity). • The Pan-European Ecological network: taking stock, Council of Europe Publishing, Nature and Environment nr. 146. • Workshop on data assessments

Main theme	Sub-theme	Planned activities	Main outputs
	Landscape and spatial change assessments	• An integrated information system, including spatial data, for the natural, cultural and built environments to support thematic and sectoral policy initiatives • Assessments of sustainable development of regions in Europe in the context of biodiversity and landscape change; • Assessments of changes associated with climate change, desertification, erosion, accretion, agricultural intensification and extensification, and contamination; • Assessments of coastal and marine ecosystems.	• Urban sprawl in Europe — The ignored challenge. EEA Report No 10/2006. • The changing faces of Europe's coastal areas. EEA Report No 6/2006. • Land accounts for Europe 1990–2000. EEA Report No 11/2006. • Land use — http://www.eea.europa.eu/themes/landuse • Urban Environment (new web pages) • Noise (new web pages)

Main theme	Sub-theme	Planned activities	Main outputs
Protecting human health and quality of life	Environment and human health	• A methodological framework in which to analyse environment and health issues; • A set of environment and health indicators to track key environmental stressors, such as air quality and indoor pollution on human health, in consultation with EEA member countries and the World Health Organization; • Establishment of an Eionet network for environment and health; • A revised set of environment and health assessments; • Partnership activities with the European Food Safety Authority.	• Work continues on evaluating scientific evidence and methods on environmental burden of disease • In cooperation with WHO, DG SANCO and the JRC on environment and health indicators, the EEA participated in the preparation of a baseline report on children's environmental health and indicator fact sheets. • Environment and health and quality of life chapter of the Belgrade report.
	Chemicals	• Development of a monitoring framework and information system linked to concentrations, exposure and effects of chemicals, including pesticides, in different natural and urban systems; • Partnership activities with the new European Chemicals Agency.	• Towards a European Chemicals Information System: a survey on reported monitoring activities of chemicals in Europe. EEA technical report No 6/2007. • Feasibility assessment of using the Substance Flow Analysis Methodology for chemicals information at macro-level. EEA technical report No 1/2007. • Feasibility study: Modelling environmental concentrations of chemicals from emission data. EEA technical report No 8/2007.

Main theme	Sub-theme	Planned activities	Main outputs
	Water quality and water framework directive	• Assessments of European water bodies; • Further development of Eurowaternet, the European water monitoring network, to be in line with and support reporting under the water framework directive and the nitrate, urban waste water, drinking water and bathing water directives; • An integrated information system, including spatial data, linking freshwater to coastal and marine areas, and information at the scale of river basins.	• Eurowaternet and Waterbase: the European Environment Agency's monitoring and information networks for inland water resources and transitional, coastal and marine waters • Waterbase online is now also available for transitional, coastal and marine waters • Numerous other reports on water quality in Europe and the Mediterranean
	Marine environment	• Assessments of distance–to–target; • Assessments of ecosystem health in Europe's large marine ecosystems based on an integrated spatial information system to examine trends in natural systems and effects of land–based pollution; • Development of information flows for the marine strategy using Reportnet and other available tools; • Development of scenarios for coastal zone development, marine resource exploitation and maritime transport in the Arctic and Mediterranean; • Partnership activities with the European Maritime Safety Agency.	• Assessment work undertaken in the fresh water area focused on impacts of climate change • Climate change and water adaptation issues. EEA technical report No 2/2007. • Work on importance of small water bodies to aquatic ecosystems • Work on future implementation of the Marine Strategy Framework Directive • EMMA (European Marine Monitoring and Assessment working group) • Development of a marine module for WISE • Maps and graphs on coastal zones

Main theme	Sub-theme	Planned activities	Main outputs
	Air quality	• Distance–to–target assessments; • Assessments of local and indoor air pollution; • Air quality and air pollutant emissions monitoring, including improvements to Airbase • Assessment of exposure to air pollutants, especially in urban areas and street canyons.	• The European Air quality database website: annual update of the air quality information database hosted by the European Topic Centre on Air and Climate Change. • Inventory Review 2007: Emission Data reported to LRTAP Convention and NEC Directive. Joint EMEP/EEA report. • Inventory Review 2007: Emission Data reported to LRTAP Convention and NEC Directive. Joint EMEP/EEA report. • EMEP Particulate Matter Assessment Report. EMEP/CCC Report 8/2007. • EMEP/CORINAIR Atmospheric Emission Inventory Guidebook — 2007. EEA Technical report No 16/2007. • NEC Directive status report 2006. EEA Technical report No 15/2007. • Annual European Community LRTAP Convention Emission Inventory report 1990–2005. EEA Technical report No 14/2007. • Air pollution by ozone in Europe in summer 2006. Overview of exceedances of EC ozone threshold values during April–September 2006. EEA Technical report No 5/2007. • Air pollution in Europe 1990–2004. EEA Report No 2/2007. • Air pollution by ozone in Europe in summer 2004. Overview of exceedances of EC ozone threshold values during April–September 2004. EEA technical report No 3/2005. • EMEP/CORINAIR Emission Inventory Guidebook — 2005. EEA Technical report No 30. • Annual European Community CLRTAP emission inventory 1990–2003. EEA Technical report No 6/2005. • Air pollution at street level in European cities. EEA Technical report No 1/2006. • Air pollution by ozone in Europe in summer 2005. Overview of exceedances of EC ozone threshold values during April–September 2005. EEA Technical report No 3/2006. • Air pollution in Europe 1990–2004. EEA Report No 2/2007 • Air quality and ancillary benefits of climate change policies. EEA Technical report No 4/2006

Main theme	Sub-theme	Planned activities	Main outputs
	Urban areas and noise	• Assessments of changes in living and green spaces within the urban environment; • Support to the thematic strategy on urban environment, particularly in the area of monitoring urban sprawls, land-use, reporting and sustainable urban management; • Assessments of noise in selected areas.	• Noise web area • Work with the European Commission on activities to support the Noise Directive • Activities on noise mapping and support to the Commissions working group on monitoring. • Proposal to use Eionet/Reportnet for noise dataflow
	Natural and technological hazards	• Environmental and economic impact assessment of natural hazards; • Maps relating to land-use and risk of technological hazards.	• More work done in the previous reporting period – 2003 Environmental Assessment report chapter 10

Main theme	Sub-theme	Planned activities	Main outputs
Sustainable use and management of natural resources and waste	Waste and material flow assessments	• Support for the thematic strategies on sustainable use of natural resources and on waste recycling; • Waste and material flow assessments; • Waste and natural resources policy analysis, including effectiveness and state of action assessments; • Development of indicators for natural resource use and waste prevention; • Support to member countries in waste reporting (including the packaging waste directive) and material flow accounting; • Support to the Waste Statistics Regulation, including the commitment to review reporting obligations.	• Updated database on waste management: (http://waste.Eionet.eu.int/wastebasecontinued) • Paper and cardboard — recovery or disposal? Review of life cycle assessment and cost-benefit analysis on the recovery and disposal of paper and cardboard. EEA Technical report No 5/2006. • 25 country fact sheets on waste management in EU Member States. The fact sheets present general information on the legislative waste framework and waste management plans for each country. They also present more specific information on legislation, policies, instruments and data for the waste streams of municipal waste, biodegradable waste and tyres. Available on the website of ETC/RWM: http://waste.eionet.europa.eu/announcements/ann1158318732. • Further support was provided to the Commission in its preparation of the EU Action Plan on SCP and in its work on revision of waste legislation • In the area of waste, the two multi-annual studies on the impacts of transboundary movements of waste and on the impacts of a recycling society were continued and preliminary results made available to the European Commission.
	Information on best practice	• Identification and dissemination of best practice information and success stories.	• Ongoing in all areas with web articles

Main theme	Sub-theme	Planned activities	Main outputs
EEA in the wider world	Supporting the EU wider Europe neighbourhood policy	• Improved information capacities and flows in southeast Europe under the CARDS programme; • Publication of joint thematic messages with UNEP; • Contributions to UNEP's 4th Global Environmental Outlook (GEO–4) for publication in 2006–07; • Improved information capacities and flows in countries in EECCA under the Environment for Europe process, and participating in the fourth pan–European assessment 2007 report; • Assessment of the environmental effects of the Euro- Mediterranean free–trade area (to be established in 2010).	• Joint UNEP/EEA Arctic report published on 15 March, and Brussels UNECE workshops 'Electronic databases for environmental reporting' (May, Moscow) and 'EECCA core set of indicators' (July, Moldova) with the EECCA countries as a follow-up to the EEA/Tacis project • Sustainable consumption and production in South East Europe and Eastern Europe, Caucasus and Central Asia — Joint UNEP–EEA report on the opportunities and lessons learned. EEA Report No 3/2007. • Incorporation of European storylines in the Scenarios chapter of the GEO 4 report (chapter 9) • TACIS portal: http://ewindows.eu.org/belgrade07/eecca/tacis/tacis_06 • EEA-UNEP/MAP joint work plan 2006-2008. In MAP Publications: http://www.unepmap.org. • Priority issues in the Mediterranean environment. EEA Report No. 4/2006.
	Support to the external dimension of the sustainable development of the EU	• Cooperation with UNEP on the GEO series and joint messages; • Development of data flows to support indicators on international issues.	• EEA cooperated with the United Nations Environment Programme (UNEP) on a range of issues • New joint work plan with UNEP • Incorporation of European storylines in the Scenarios chapter of the GEO 4 report (chapter 9)

Main theme	Sub-theme	Planned activities	Main outputs
	Developing partnerships to support global environmental governance	• Specific areas of work will include: • streamlining of international reporting through establishment and strengthening of agreements with international bodies and conventions relating to specific policy areas; • strengthening of cooperation with UN bodies, OECD, international financial institutions and Eurostat to ensure a better harmonisation of global reporting activities and delivery of joint information; • cooperation with WHO and US Environmental Protection Agency to support knowledge building in the area of health and environment.	• The EU–North American EcoInformatics network was strengthened by the signing in March of an agreement between the European Commission (DG Research) and the US Environment Protection Agency on EcoInformatics. • Joint work with WHO, OECD and other bodies ongoing

Main theme	Sub-theme	Planned activities	Main outputs
Supporting sustainable development and environmental policies	Sustainable development	• Assessment of achievement of environmental objectives in the context of the 6th environment action programme, Cardiff and Lisbon processes, the EU strategy on sustainable development and their inter- linkages; • Links between EEA/Eionet and relevant social and economic networks and expert groups; • Analysis and dissemination of information and guidelines on sustainable development and sustainability impact assessment; • Economic analyses of sustainable development; • Scenarios for European and regional development.	• Collaboration with Eurostat on sustainable development indicators. Some of these indicators were shared with Eurostat for inclusion in the 2007 'monitoring report' under the EU Sustainable Development Strategy. Contributions were also made to Eurostat on proposals for additional Sustainable Development Indicators while support also continued on the Structural Indicators. • Fourth pan-European assessment report • DestiNet established a clear model of key multilateral stakeholder participation on analysing strategies for sustainable development of the tourism sector and reviewing their impacts. • Links with Sustainable development observatory
	The challenges of enlargement	• Support for the accession process in 2004; • The enlargement context of the 6th environment action programme; • Tracking of the enlargement process post 2004.	• Agriculture and the environment in the EU accession countries — Implications of applying the EU common agricultural policy. Environmental issue report No 37

Main theme	Sub-theme	Planned activities	Main outputs
	Regular crosscutting assessments	• State and outlook environment report 2005 • Environmental signals (annual report) • EEA snapshots • Policy briefings.	• All produced (although Signals have stopped as a publication)

Main theme	Sub-theme	Planned activities	Main outputs
	Sectoral assessments	• Specific outputs will include: • indicator-based reporting mechanisms for transport, agriculture and energy in the first instance; • pilot studies (e.g. urban waste-water and packaging policies) including economic aspects; • analyses of effective policy mixes and cross-compliance in partnership with other key players, including OECD, • support for the network of European environmental protection agencies, including analyses of specific policy implementation in member countries; • establishment of a network of policy analyst professionals to support the development of a methodological guide and framework for undertaking policy effectiveness evaluations.	• Energy subsidies in the European Union: a brief overview. EEA Technical report No 1/2004 • Energy subsidies and renewables. EEA Briefing No 2/2004 • Transport and environment: on the way to a new common transport policy. EEA report No 1/2007. • Size, structure and distribution of transport subsidies in Europe. EEA Technical report No 3/2007. • High nature value farmland — Characteristics, trends and policy challenges EEA Report No 1/2004 • IRENA website. It contains agriculture and environment methodology factsheets (35), agriculture and environment data service and applications • Transport biofuels: exploring links with the energy and agriculture sectors. EEA Briefing No 4/2004 • TERM 2004 — Ten key transport and environment issues for policy-makers. EEA Report No 3/2004 • Transport and environment in Europe. EEA Briefing No 3/2004 • Transport and environment factsheets (about 30) were updated with most recent data • How much biomass can Europe produce without harming the environment? EEA briefing No 2/2005. • Core Set Indicators in the area of energy and environment (CSI027–031). • Launch of Transport and environment reporting mechanism (TERM) 2005 report. 28 March 2006 • Integration of environment into EU agriculture policy. EEA Report No 2/2006. • Assessing environmental integration in EU agriculture. EEA Briefing No 1/2006. • Transport and environment: on the way to a new common transport policy. EEA report No 1/2007. • Energy Indicators for Sustainable Development: Guidelines and Methodologies Joint publication by International Atomic Energy Agency

Main theme	Sub-theme	Planned activities	Main outputs
	Emerging issues, research agendas and horizon scanning	• Specific areas of work will include: • environmental technologies in the area of climate change adaptation and energy; • tracking of the uptake and impacts of genetically modified organisms; • scientific approaches to treat uncertainty in policy making.	• This work is ongoing. The EEA are working with the Commission on Environmental Technology Action Plan (ETAP) • The Environmental Technology Portal in 2005 part of the Environmental Technology Atlas • Transport and energy in Europe: Future trends & uncertainties. Support to the Belgrade process. 20–21 March 2006, EEA, Copenhagen. • Reports and activities on late lessons from early warnings

Main theme	Sub-theme	Planned activities	Main outputs
	Scenarios and prospective studies	• Specific outputs will include: • development of comprehensive scenarios for Europe's environment; • in-depth scenario analysis of key issues (e.g. changes in land-use in relation to climate change and energy demand and maritime transport in environmentally sensitive areas, such as the Arctic and Mediterranean); • elaboration of approaches to public and stakeholder participation in scenario development and assessments.	• Contributions to and co-authorship of the Millennium Ecosystem Assessment report on scenarios • Information portal on environmental scenarios. This web page provides information on outlooks and scenarios from an environmental perspective and is well visited • Several background papers for the European environment outlook exercise were finalised, and provide input for the 2005 state of the environment and outlook report • European environment outlook. EEA Report No 4/2005. • Background paper 'Scenarios for Adaptation: Scenario Exercises in the Context of Climate Change Adaptation in Europe • Adaptation to Climate Change in Europe • Background reports for the 'European environment outlook' exercise were finalised, and provided input for The European environment — State and outlook 2005 report. • PRELUDE. • Results of the review of scenarios studies in the pan-European region. 2007: EnviroWindows • Results of the review of outlook indicators in the pan-European region. 2007: EnviroWindows • The Pan-European environment: glimpses into an uncertain future. EEA report No 4/2007. • Europe's environment — The fourth assessment. • More information on scenarios and background information on PRELUDE. 2007 • Land-use scenarios for Europe: Qualitative and quantitative analysis on a European scale (PRELUDE). EEA technical Report No. 9/2007. • Results of the modelling review project. 2007

Sustainable consumption and production:

- Environmental pressures from European consumption and production — Insights from environmental accounts. EEA Brochure No 1/2007.

- The road from landfilling to recycling: common destination, different routes. EEA Brochure No 3/2007.
- Sustainable consumption and production in South East Europe and Eastern Europe, Caucasus and Central Asia — Joint UNEP–EEA report on the opportunities and lessons learned. EEA Report No 3/2007.
- Sustainable consumption and production, Chapter 6 in Europe's environment — The fourth assessment. State of the environment report No 1/2007.
- Finding the pathways towards sustainable consumption and production in Europe'. Speech by Professor Jacqueline McGlade at the conference 'Time for Action: Towards Sustainable Consumption and Production in Europe', Ljubljana. Slovenia, 27–29 September 2007.

Appendix B Case Studies

A set of case studies was carried out to investigate issues and processes in more detail. The purpose of the case studies is to bring together the views collected in a more concrete form, by looking at specific products or activities, highlighting any issues that arose and exploring them in slightly more depth. The resulting information is also used in the main document to illustrate and evidence key points. Each case study involved desk research and interviews with those involved in the topic, interviews with those affected by the output and wider consultation. The overall assessment presented here represents the views of the evaluators based on both the case study interviews and the results of the wider study.

List of case studies:

- EEA Case Study 1: EEA products and services related to agriculture
- EEA Case Study 2: Climate change: the cost of inaction and the cost of adaptation
- EEA Case Study 3: The Belgrade Report – the 4th Assessment on the Environment in Europe 2007
- EEA Case Study 4: Coastal and Seas products
- EEA Case Study 5: Greenhouse gas emission trends and projects in Europe 2007
- EEA Case Study 6: Ozone web
- EEA Case Study 7: Reportnet – Electronic infrastructure and tools for streamlining flows of environmental information in Europe
- EEA Case Study 8: PRospective Environmental analysis of Land Use Development in Europe – PRELUDE
- EEA Case Study 9: Infrastructure for Spatial Information in Europe - INSPIRE
- EEA Case Study 10: Waste

Each case study presents a description of the activity, an assessment of the activity in terms of effectiveness and efficiency and the overall key messages.

B.1. EEA Case Study 1: EEA products and services related to agriculture

B.1.1. Description of the activities

This case study reviews products and services of the EEA aimed at promoting the integration of environmental considerations in agriculture. These are:

- The EEA report 'How much bioenergy can Europe produce without harming the environment?' of June 2006 and the technical report 'Estimating the environmentally compatible bioenergy potential from agriculture' of December 2007. These reports constitute examples of cross-sectoral collaboration within the EEA on a topical issue.
- The management of the CIFAS (Cross-compliance Indicators in the context of the Farm Advisory System) project carried out during 2005-2006 and commissioned by DG Agriculture. This project was selected for two reasons: first, it involves EEA activities promoting environmentally friendly farming practices; and, second, the Agency's activities facilitated the future implementation (by January 1st, 2007) of an EU agricultural policy measure.
- The High Nature Value Farmland (HNVF) project, carried out in collaboration with JRC-Ispra. This was launched in 2005 and is expected to be completed this year (2008). HNVF is one of the agri-environmental indicators developed under the IRENA project. Both the indicator and the current project are important as supporting, or associated with, biodiversity.
- The final outputs of the IRENA project (Indicator Reporting on the Integration of Environmental Concerns into Agricultural Policy) including the publication of the 'Agriculture and environment in the EU-15 – the IRENA indicator report' and the 'Integration of environment into EU agriculture policy – the IRENA indicator-based assessment report' in January and March 2006, respectively. The EEA activities related to the development of agri-environmental indicators and the overall management and coordination of the project are not addressed in this case study as they took place prior to the period covered by the present evaluation.

Background to the activities

The Agency's activities on agriculture and environment are very important for both the EU and the EEA. They concern one of the largest sectors of economic activity in the EU, in terms of employment and GDP, and an issue area where the Union has a long-established and well-supported agricultural policy (absorbing over 40% of the EU budget) and a developing rural policy both of which are increasingly geared toward sustainability. Furthermore, since agriculture and forestry account for over 78% of land cover in the EU25, agricultural practices and land use can have considerable impacts (positive or adverse) on natural resources, most notably biodiversity, water and soil, and on climate[1]. The impacts of agriculture on air/climate, biodiversity, land and soil constitute a priority work area for the Agency, according to its strategy for 2004-2008. As this strategy also states,

> *Over the next five years the EEA will produce a series of assessments on the links between these issues and cross-sectoral impacts on the environment. A limited set of core indicators will be used to report on the impacts of sectors on environmental trends and ecosystem health.*

There are additional factors, internal and external to the Agency, explaining why the EEA embarked on these particular activities. The Agency, for instance, was requested to manage CIFAS and IRENA by the Commission services, while both the HNVF

[1] See, European Commission, DG Agriculture and Rural Development, 'Situation and prospects for EU agriculture and rural areas,' January 2008. At http://ec.europa.eu/agriculture/analysis/markets/index_en.htm.

project and bioenergy products were initiated by EEA staff, particularly enthusiastic about these issues and encouraged by the personal interest of the EEA leadership, including the Executive Director.

Bioenergy products

Bioenergy is important for European agriculture and there are support measures for energy crops under both the Common Agricultural Policy and the rural development policy of the EU. It is also related to climate change, employment, particularly in rural areas, and land use change, as well as to innovation and overall development. The salience of the issue and the desire of the EEA staff to present timely information on a highly debated topic explain the EEA's launching of bioenergy products.

The EEA began to explore the links between energy and agriculture in 2004 with the publication of the briefing 'Transport biofuels: exploring links with the energy and agriculture sectors' in November 2004. The briefing was intended as a contribution to the debate on this issue in the EU at that time, triggered by the Directive 2003/30/EC on promoting the use of biofuels, or other renewable fuels, for transport. This was followed by a similar product, in October 2005, 'How much biomass can Europe use without harming the environment?', presenting the main components and preliminary findings of the 2006 report on bioenergy.

The 2006 bioenergy report 'How much bioenergy can Europe produce without harming the environment?' is a modelling exercise assessing the bioenergy potential in the agriculture, forest and waste sectors in the EU. The report draws on earlier work carried out by partners of the European Topic Centres on Air and Climate Change (ETC/ACC), e.g. Öko-Institute, Alterrra and AEA Technology Environment, and on Biodiversity (ETC/BD), notably the European Forest Institute. The 2007 report 'Estimating the environmentally compatible bioenergy potential from agriculture' addresses the same issues. It differs, however, from the earlier report. For example, the technical component of the 2007 report (e.g. the calculation of the bioenergy potential of agriculture) is enriched with additional information and analysis. Furthermore, the 2007 report examines environmental pressures caused by agriculture and discusses policy measures that could help to limit environmental impact for the production of biomass for energy on farmland.

These reports were supplemented with additional initiatives. The Agency, in cooperation with JRC-Ispra, organised expert workshops, in 2006 and 2007, seeking to identify sustainable bioenergy crops in the Mediterranean and to explore the potential for perennial energy crops (grasses and tree plantations) in the EU by looking at cost/supply relations and constraints. In addition, the Agency published, in 2007, the technical report 'Environmentally compatible bioenergy potential from European forests' carried out by the European Forest Institute, a partner of the ETC/Biodiversity, and with ETC funding.

The above bioenergy products of the Agency, according to interviews with the EEA, were aimed at policy makers, academics, experts and interest groups. They were also considered appropriate for non-experts with a scientific background, particularly in key sectors, e.g. agriculture and waste.

The CIFAS project, 2005-2006

CIFAS was launched and funded by DG Agriculture following the request of the European Parliament. It was developed in consultation with, and carried out by, the EEA. The project was aimed at facilitating the establishment of Farm Advisory Systems (FAS) throughout the EU by January 1st, 2007, according to the Council Regulation (EC) No 1782/2003[2]. FAS were intended to help farmers comply with their environmental obligations. FAS establishment, according to the Regulation, would

[2] http://eur-lex.europa.eu/pri/en/oj/dat/2003/l_270/l_27020031021en00010069.pdf.

take place via the development of farm advisory tools, e.g., 'farm-level indicators' related to cross-compliance requirements and standards on the environment, or via the assessment of tools existing in the EU members.

CIFAS was also intended, according to an interview with the DG Agriculture service responsible for the project, to promote stakeholder involvement in the project as well as networking and debate. Thus, communication and dissemination were important components of CIFAS. The stakeholders identified included national Ministries of Agriculture, farm advisory services, farmers' unions/organisations and environmental NGOs. The reason was that these stakeholders would be responsible for the establishment and functioning of FAS.

The project outputs included the following:

- A database on cross-compliance requirements and standards related to the environment and covering the EU25;
- An inventory of farm advisory tools and systems to facilitate compliance;
- The creation of channels required for exchange of information and experience as well as dissemination of information. These channels were an interactive website, seminars and recommendations.

High Nature Value Farmland (HNVF)

EEA work on HNVF goes back to the 2002-2003 study, carried out by an external consultant and identifying HNV areas and the tools required to identify these areas. Subsequently, the EEA, in collaboration with the United Nations Environment Programme, was involved in an earlier HNVF initiative, the report on 'High Nature Value Farmland – Characteristics, trends and policy challenges' of 2004, including a preliminary map of HNVF areas in Europe based on land cover (CORINE 1990) and farm system (FADN) data. The initiative was undertaken in response to the Kyiv Resolution on Biodiversity of the Environment Ministers (in the context of the Environment for Europe Conference of 2004), calling for the identification of HNVF areas in Europe and the introduction of appropriate conservation measures.[3]

In 2005, the EEA and JRC-Ispra embarked on the HNVF project, seeking to refine the HNVF analysis and mapping based on the updated CORINE data as well as on European and national biodiversity data. The project was also aimed at evaluating the objectives of the above-mentioned Kiev Resolution. The EEA staff that had managed the 2004 initiative (and had considerable expertise in agriculture and biodiversity) promoted the idea for an HNVF project. They pursued collaboration with JRC-Ispra due to lack of EEA resources in terms of expertise and funding.

HNVF was selected, according to interviews with EEA, because of the project managers' personal interest in biodiversity related issues, the political salience of biodiversity and the importance of HNVF in the policy debate. As pointed out in interviews with the EEA and JRC-Ispra, effective HNVF policy measures need to support farming types and systems favourable to biodiversity. The project was also compatible with the EEA commitment to promoting biodiversity, evidenced in several corporate documents, most notably the Agency's strategy for 2004-2008.

Interviews with the EEA and JRC-Ispra project team identified DG Agriculture and DG Environment as the main potential users of the project outputs, while policy makers and members of the scientific community at the national and European levels would benefit as well.

[3] http://reports.eea.europa.eu/report_2004_1/en.

Current project outputs include, for instance, a 'Background document on the methodology for mapping High Nature Value Farmland in the EU27,' jointly published by the EEA and JRC in 2006 and a draft map on HNVF.

IRENA

The EEA managed the IRENA project on the development of 35 agri-environmental indicators, a joint initiative of DG Agriculture, DG Environment, Eurostat, JRC and the EEA, and based on the Memorandum of Understanding on cooperation between the five organisations of 2002. Such activities of the Agency are mentioned in the EEA strategy of 2004-2008. The IRENA project was to be completed during 2004. In practice, however, the Evaluation Report of the project, the final deliverable in the form of an internal document, was completed in October 2005. The previous evaluation of the EEA characterised the project as 'a successful example of cross-DG and inter-agency cooperation.'[4]

Under IRENA, the Agency produced two reports, published in January and March 2006. The 'Agriculture and environment in EU-15 – the IRENA indicator report' reviews links between agriculture and environment, including the impact of the former on the latter, with the use of the IRENA indicators and the DPSIR[5] approach. It also assesses progress achieved in the development and interpretation of indicators. The 'Integration of environment into EU agriculture policy – the IRENA indicator-based assessment report' discusses the usefulness of agri-environment indicators in policy evaluation and necessary steps for improvement. It also addresses obstacles and limitations to successful integration of environmental considerations in agricultural policy at the EU and the member states' levels and identifies examples of good practice in agri-environmental policy design and implementation.

The reports were intended for policy makers and stakeholder groups in the areas of agriculture and environment at the European and national levels, including the DGs Agriculture and Environment, national ministries and farmers' organisations

How the activities are carried out

Bioenergy Products

The 2006 report was largely prepared by an EEA team of three with expertise in the areas of energy and agriculture and an expert from AEA Technology, a partner of the ETC/ACC. The project team was supported by a team of 12 sectoral and thematic experts from the ETC/ACC, the EEA and academic institutions. Similarly, the technical report of 2007, benefited from external expert input, including modelling guidance, but it was mainly prepared by the EEA expert on agriculture and environment. We were unable to obtain information on the budgetary resources allocated to these products.

CIFAS

The project was developed during 2005-2006 with most of the technical work carried out by a consortium of consultants (CIFAS consultants), coordinated by the Institut für Ländliche Strukturforschung (of Goethe-Universität, Frankfurt am Main). CIFAS was managed at the EEA by a team of two consisting of the project manager, an external national expert contracted for CIFAS, and the project leader from within the Spatial Analysis Group. The project team was supported by a highly competent steering group, according to interviews with the EEA and DG Agriculture, composed of the DGs Agriculture, Environment and the JRC, and led by the Environment Unit of DG Agriculture.

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[4] http://ec.europa.eu/environment/pubs/pdf/eea_b_en.pdf.

[5] Driver-Pressure-State-Impact-Response

Communication and dissemination of information were key elements of the project. These were promoted by several activities and products[6]. For instance, four stakeholder workshops were organised in 2005-2006 and a website was set up within EnviroWindows to ensure dissemination and exchange of information. Additional products included a database on the environmental cross-compliance requirements and standards in the EU25 and an inventory of existing or developing, farm advisory tools and systems in the EU members. Finally, the CIFAS outreach seminar, held in March 2007 at the European Parliament, was organised by the EEA to disseminate the project outcomes.

The total project budget amounted to 500,000 euro with contracted support and stakeholder participation taking up the largest portion of the budget allocated.

HNVF

The HNVF project is carried out by the EEA and JRC project team of four members, with each partner responsible for specific tasks. For instance, in 2006, the EEA set up a site for exchange of information on approaches to HNVF mapping and reviewed an operational definition of HNVF in 2006[7]. It also organised consultation meetings with the EU members to discuss the project outputs in 2006 and 2007. To improve HNVF mapping, the JRC-Ispra organised regional workshops (for the Mediterranean, central and eastern, and north-western Europe) with national experts and technical staff involved in land-cover photo-interpretation. It also launched two studies seeking to identify HNV farming systems and areas in two regions in Belgium and France with the use of national agricultural statistics. Currently, the project team members are preparing the final report.

The project activities are covered by the budgets of the partner organisations. Interviews with JRC-Ispra and the EEA did not provide any specific information on the budget allocated and the cost of the activities undertaken.

IRENA

Both reports under IRENA were produced by project and EEA staff and under the guidance of the steering group members from DG Agriculture, DG Environment, Eurostat and JRC. Additional support for the Jan. 2006 report was provided by the European Topic Centres for Air and Climate Change, Biodiversity, Terrestrial Environment and Water and experts from several research institutions in Europe. The production of the latter report benefited from input of the Institute for European Environmental Policy, which carried out the previous evaluation of the EEA.

The above reporting was covered by the IRENA overall budget of 675,000 Euro.

B.1.2. Assessment of the activities

Effectiveness

There are clear linkages between the selected initiatives of the EEA addressed in this case study, e.g., CIFAS, HNVF and IRENA, and core issue areas and concepts of the EEA's strategy and programmes, notably biodiversity, preservation of nature and sustainability, while the Agency's bioenergy activities relate to climate change and land use change issues for instance. In addition, these initiatives remain relevant for the Agency, in terms of its objectives and activities. There was general agreement, it should be noted, amongst those interviewed, that the IRENA and HNVF initiatives are important for shaping the debate and issues framing. Some interviews with the Agency and the Commission pointed out that these particular products can also help policy makers at the national and EU level to set priorities as well as to monitor the effects of policy measures.

[6] http://cifas.we.eea.europa.eu.

[7] http://eea.eionet.europa.eu/Public/irc/envirowindows/hnv/information.

Interviews suggest different types of impacts of these activities, which can be categorised as: real, soft and potential. Interviews with DG Agriculture, for instance, revealed that the structure of the database on the CIFAS implementation, created and operated by DG Agriculture after the completion of the project, was influenced by the structure of the project database by the EEA. Similarly, interviews with JRC-Ispra referred to the inclusion of the draft map on HNVF, prepared by the EEA and the JRC, in the Belgrade Report of 2007 and the DG Agriculture Report on 'Rural development in the European Union', considered as important influences of the project. Finally, the recommendations on IRENA reported by the EEA fed into the Commission's Communication for the update of agri-environmental indicators, according to interviews with DG Agriculture, Eurostat and the EEA. With regard to soft impacts, interviews with CIFAS stakeholders, DG Agriculture officials and HNVF project managers emphasised the ability of the EEA team members to encourage opportunities for networking, particularly useful for the new EU members and stakeholders, and to promote experiential learning. Although on a slightly less positive note, an environmental NGO official interviewed, stated that the EEA bioenergy report of 2007 failed to contribute to the European debate and to influence the Commission's position on promoting the use of renewable forms of energy (included in the proposed Directive of January 2008, almost co-terminous with the EEA report), it may feed into the European Parliament debate on this issue[8].

Efficiency

Interviews with those involved in the projects discussed in this case study revealed several challenges and opportunities encountered during the development of the projects which impact on efficiency. Limited resources (human, funding and time) were considered the main challenge to the smooth and timely completion of tasks, according to interviews with project managers. For instance, it was very difficult for the 2 ½, or 3, person team with agricultural and environmental expertise in the EEA (including the national expert contracted for CIFAS) to manage and coordinate several projects carried out almost simultaneously. This limitation persisted, despite calls for support by the project management team, already under pressure from the DG Agriculture for deliverables, and delayed the completion of the IRENA project. Limited resources, however, did not affect the quality of the IRENA reports, according to interviews with DG Agriculture.

Limited resources and the departure of a key EEA staff member also partly explain, according to some in the EEA, the Agency's inability to communicate the environmental dimension of bioenergy in a well-supported and timely manner. Similarly, lack of staff, according to the HNVF project manager from JRC, protracted individual consultations with the EU members but did not impact on efficiency. On the contrary, it enabled the project manager to form a full and clear picture of the results.

We were unable to collect evidence on the cost-effectiveness of the projects examined in this case study. Interviews with project managers in the EEA, however, suggest the following elements adding to the quality and value of the project and enhancing its efficiency and effectiveness. Personal links developed across teams in the EEA, or with staff from other organisations, having converging, or complementary, interests and expertise, facilitate networking intended to support proposed projects and eliminate the problem of lack of resources. This, in turn, enables the launching of small cross-sectoral, or inter-organisational, projects and contributes to the success of the initiatives.

B.1.3. Key lessons/messages

- The EEA has delivered quality products and services related to agriculture and addressing priority issue areas for the Agency and the EU within a very short

[8] http://ex.europa.eu/energy/res/legislation/res_directive_en.htm.

period and despite budgetary and human resource constraints. Crucial to this, was the determination of the staff.

- The EEA should continue pursuing collaboration with DG Agriculture and contribute information, including indicator updates, and expertise, regardless of the DG's reliance on Eurostat and external consultants.
- The EEA should continue work on bioenergy, and issues related to rural policy, including HNVF, given their increasing importance for the EU and for DG Agriculture. Such work would be welcome by DG Agriculture. It would also enhance the Agency's image as a responsible and reliable information and service provider among the services of the relevant DGs, including DG Agriculture.
- The Agency should actively support work integrating both EEA teams and priority themes and promote collaboration with the ETCs and Commission services. In particular, it should seek to intensify collaboration with JRC-Ispra and develop cooperative links with JRC-IPTS. Collaboration would reduce pressures on the staff, and avoid their potentially adverse impact on the quality and timeliness of the EEA products.

B.2. EEA Case Study 2: Climate change: the cost of inaction and the cost of adaptation

B.2.1. Description of the activity

The EEA technical report 'Climate change: the cost of inaction and the cost of adaptation" looks at the economic costs of climate change (impacts) at a European level. Climate change is the most frequently cited area where future demand for work by the EEA is expected, according to the interviews and surveys of the evaluation. The product selected is a technical report that reviews, analyses and discusses the methodological issues regarding cost of inaction and cost of adaptation to climate change modelling.

This was chosen as a case study rather than other products that focus on the collection and analysis of data as this report looks at development of methodologies to meet a need of the emerging policy area. Any value ascribed to EEA value-added products is predicated on a respect for their methodological competence. Thus a study on the development of new methodologies should give an insight on this issue and highlight any problems or constraints, as well as consultations and working practices.

Background to the activity

The EEA started looking at the cost of inaction in the area of climate change in around 2005. There is no mention of the subject specifically in the Annual Report 2004, but in 2005 the State of the Environment Report was produced (having started in 2003) and part of a chapter looked at addressing climate change and it was cited that 'considerable weight is given to future challenges and costs of action/inaction in the face of uncertainty'. Also in the 2005 Annual Report the EEA stated that climate change and its impacts are becoming more visible in Europe and 'are projected to become more pronounced in the future'. In 2005 the EEA published a briefing and a report on vulnerability and adaptation to changing climate. The report was presented at a meeting of the EPA Network, at a UK Presidency conference on adaptation and at the Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, held in Montreal in December 2005.

In 2006 the preparations started for a report on climate change impact indicators in 2008, as a follow-up to a similar report published in 2004. The report was prepared jointly with the Joint Research Centre. It was also at this point that work was initiated on a technical report on climate change and water adaptation issues and a working paper was finalised on 'costs of climate change impacts' (February 2006) and made available to participants of the European Climate Change Programme II working group on adaptation.

The EEA started working on the costs of inaction in climate change ahead of the European Commission. They funded a project through a specific framework contract (Initially a consortium of IVM, FEEM[9] and ECOLOGIC) to look at these issues[10]. The term of reference for this project was very specific and went through line-by-line the emerging issues that needed to be addressed by the work in this area. Discussions

[9] FEEM is partner in a Consortium of 18 European Research Institutes supporting the European Environmental Agency (EEA) on Environmental Economic Activities from 2004 to 2008. The 1.Consortium, lead by Ecologic (Germany), includes high-level experts in environmental economic research from both old and new EU Member States. FEEM is part of the core research group of the Consortium.

[10] Much of the work on climate change is supported by the European Topic Centre on Air and Climate Change, but in this instance, the work needed an expert approach and it was more appropriate to tender externally.

with the consortium led to the decision that the cost of adaptation was missing and also needed to be addressed in order to provide balanced information.

Before the initial project work started, the EEA organised an expert meeting, which involved the OECD, DG Environment, the JRC and a number of Universities. The work fitted well with the strategy of the EEA, which called for a more structured approach to enhance the effectiveness of economic approaches and methodologies in environmental policy making.

It was using the results of the project work which led to the EEA technical report on Climate change: the cost of inaction and the cost of adaptation'. This was published in December 2007. The report was designed to be pitched between academia and policy makers but with policy makers in mind. This was also affected by the Stern review which came out in the UK[11]. It moved this subject up the political agenda making it more important to communicate the results of the use of methodologies to policy makers in a user friendly way. It provided an opportunity to raise the profile of some of the methodologies being reviewed by the EEA.

How the activity is carried out

The production of the technical report was mainly done by an external contractor, although managed internally at the EEA. This process involved an extensive period of consultation, revision and comment. There was also a steering group, although reported to be used in a non-formal way.

The budget for this whole activity was made available over two years (2007/2008). In the first year €50,000 and €40,000 in the second year. It covered two working papers and one technical paper. The technical paper (the subject of this case study) was subcontracted out for editing and the subcontractor was given 10 days to complete the 80-page report. The total time given to the project in 2007 was 56 days and over 80 days were used[12]. This is a very small budget, and therefore gives an indication of the scale of the activity in this area (if you compare to pieces of work like the Stern Review - this had a budget of €1 million).

Reference is also made to the JRC IPTS work – the Peseta project which is also working on methodologies (http://peseta.jrc.es/)

B.2.2. Assessment of the activity

Effectiveness

Climate change is an area where increasing resources are being focused. The main issues identified through this evaluation and interviews with key stakeholders related to the economic and social costs and the support needed. Although the EEA is not necessarily equipped to undertake significant activities in this area, it can report on what is going on and raise awareness of methodologies being used to predict the cost of inaction and adaptation. The work in 2008 is a continuation of the dissemination of this work and to present it as key conferences and workshops, including the EPA network. Producing technical reports gives the EEA the opportunity to look into new areas worthy of exploration and it can do this at the European level. The report is considered to contribute to 'issues framing' in the policy cycle. These types of technical reports can serve a purpose from both the external perspective (to bring a new issue to the attention of policy makers) and an internal perspective (to decide about future resource allocation).

The report is aimed at the policy maker as well as academia. According to interviews a considerable amount of time was devoted to talking about the audience and this was explained as 'producing a report with an economic flavour for someone who had a

[11] The Stern Review – The economics of climate change 2006

[12] Taken from AMP

good scientific knowledge base, but not necessarily an expert'. Therefore the economics was presented in lay terms. The report was made available for download from the EEA website. The following table shows the total number of page views since it was published. It is not possible to see who is viewing these pages but many of viewers came directly to the EEA site and were responding to an email alert (according to google analytics).

Figure 1 Total number of page views since December 2007

Page	Views of page (since Dec 2007)
http://reports.eea.europa.eu/technical_report_2007_13/en	8,547

Google Analytics

Most of these page views took place in December 2007 and January 2008 with the number of hits tapering off quite soon after the launch of the publication. It is very difficult to assess whether the report is reaching the target audience as no data is collected on this.

Figure 2 Number of page views by month

Month	Number of page views
December 2007	3,198
January 2008	2,833
February 2008	1,051
March 2008	658
April 2008	455
May 2008	351

http://reports.eea.europa.eu/technical_report_2007_13/en

The following table shows that the number of views of this report is lower, but not by any considerable amount that some other technical reports (Greenhouse Gas Emissions could be said to be a more popular subject). The Fourth Assessment, which is not a technical report but a general state of the environment report, is there to show the number of views on a more general publication over the period.

Figure 3 Number of page views of a selection of reports - EEA

Name of report	Published	No of views since published
Climate for a transport change. TERM 2007: indicators tracking transport and environment in the European Union	March 2008	9530
Climate change: the cost of inaction and the cost of adaptation	December 2007	8,547
Greenhouse gas emission trends and projections in Europe 2007	November 2007	15245
Europe's Environment – The Fourth Assessment	October 2007	23960

Google Analytics June 2008

The report was only published in December 2007 but the same team have also been working with and had an influence on the EU Green Paper on Adaptation. According to those working on the publication, both internally and externally, the work fits well with emerging priorities of the Agency. It is only a technical report, and perhaps these are difficult to target effectively for an unknown external audience. It clearly benefits the EEA internally who can make good use of this information in dissemination events and in future planning of activities.

As already stated, the lack of knowledge of the external users of the publication makes it difficult to judge its usefulness to European policy makers. It is such a small area; none of those interviewed in the main evaluation referred to it, or to the EEA technical publications in general.

According to the EEA there have been a number of organisations that have linked to this report.

The following websites are linked to this page according to Google:

Name of organisation	URL	Notes
Bibsonomy	http://www.bibsonomy.org/group/sustdev_ac?bibtex.start=0&bookmark.start=20&bookmark.entriesPerPage=10&bibtex.entriesPerPage=50	System for sharing academic bookmarks (university of Kassel)
Weblogalot	http://www.weblogalot.com/Data/12992/	Weblog directory
Euractiv	http://www.euractiv.com/en/climate-change/economics-climate-change/article-161678?_print	As part of an article looking at economics
Finland's environment administration	http://www.environment.fi/	
The Umweltbundesamt	http://www.umweltbundesamt.at/umweltschutz/klima/eea-studien/?wai=1	Austria's federal environment agency.

Name of organisation	URL	Notes
Danish Water Forum	http://www.danishwaterforum.dk/News/index.html	News item
Centres d'études économique est sociales de l'environnements	http://dev.ulb.ac.be/ceese/CEESE/fr/lien.php?categorie=1&menu=5	The CEESE belongs to the Institut de Sociologie and is affiliated to the Centre Emile Bernheim

There is potential for more organisations to be encouraged to link to EEA reports and information. As it stands, there would appear to be limited interest in this technical report.

Efficiency

Although a small publication, both in terms of time and budget, there were some delays in the production and the external contractor spent a significant number of extra days on the task.

First of all the timescale was delayed due to the process of comments and amendments. This work had to not only be reviewed by the EEA but also by the European Commission and the JRC. Methodologies is a very sensitive issue. The report had to pass to the European Commission, the IPTS, a range of other academics and also went for in house review.

It took a longer time to deal with the comments than produce the actual report. The underlying technical report was completed over a 4-5 month period and to initially get the report together took 2 months. From start to print took about 9 months with the review process. The review process was lengthy cutting down the amount of time that could be given to the external contractor to respond to the comments. However validation is crucial as there are policy implications.

Although it is a small budget, the potential readership is also small. The publication costs could conservatively be estimated at €25,000, and there are around 8,500 views of the web page. It is not published in a paper version and it would appear that this is indeed the right way to publish this type of technical report. The value for money is also linked to the defining of the target audience and the ability of the EEA to then use the appropriate channels to communication the study or report. In this case, it does appear that the publication is needed as much internally as externally. There are also associated dissemination activities and with the use of the report and the output of the projects in the EU Green Paper on Adaptation, the potential value for money would appear to be adequate.

B.2.3. Key lessons/messages

- This particular area of the climate change agenda is not one where the EEA has worked historically but they took this initiative to highlight its importance in 2005, publishing a number of reports in and around the subject, as it moved up the political agenda.
- The EEA used external contractors to work with them on this matter. The EEA does not produce its own methodologies but works on a number of other related issues in the area of climate change. Methodologies is a sensitive issue, as is

analysing methodologies[13]. Validation when producing this kind of information is crucial. This increased the overall publication time of the document but nevertheless lent it credibility.

- Although the EEA does not have plans to internalise this work (in terms of the technical work) it is an area which links coherently with its other work in the area of climate change. It is a particular area where the EEA can be seen to bridge the gap between science and policy without doing either itself – it is an area of high value added.
- The JRC is working on methodologies and the European Commission is increasingly involved on the policy side. This agenda is more the domain of the European Commission than the EEA. Currently the European Commission has a number of activities underway or concluding in this area:
  - ECCP II working group on Impacts and Adaptation
  - The Green Paper on "Adapting to climate change in Europe - options for EU action",
  - Undertaking an extensive research project into adaptation and mitigation options;
  - Hosting a conference on climate change adaptation; and
  - Hosting workshops in European countries.
- Overall the concept of cost of inaction and adaptation is now viewed in much wider terms than climate change and is an emerging subject in biodiversity, agriculture, water for example.
- It is difficult to define the target group of a technical report (although there were a number of discussions on this). In real terms, a report such as this serves the European policy process more than the member countries and in fact has a small natural readership (this is not to say there is not a cascade effect from the European policy process to the national, it just does not come from the EEA to the member countries).
- Internally, this work is important to the EEA as it helps to keep abreast of developments in an area which is closely linked to its core work in climate change.

[13] In the Stern review they were particularly critical, something that the EEA is not really in a position to be.

B.3. EEA Case Study 3: The Belgrade Report – the 4th Assessment on the Environment in Europe 2007

B.3.1. Description of the activity

The Belgrade report on Europe's environment is the 4th of a series of assessments providing a detailed picture of the state of the environment and environmental policies in Europe and measuring progress in implementing environmental policies and strategies since the Kiev Ministerial Conference of 2003. The report covers 53 countries from the pan-European region, including Western and Central Europe, Eastern Europe, Caucasus and Central Asia and South-eastern Europe. The report was prepared and published by the EEA. It was presented at the 6th Ministerial Conference on pan-European environment in Belgrade, 10-12 October 2007.

Background to the activity

EEA reporting on the pan-European environment is based on a mandate that is external to the EU. It takes place within the 'Environment for Europe' process of the UNECE and has its origins at the Dobris Conference of 1991, whereby the Environment Ministers of the UNECE countries and the Commissioner for Environment (representing the EC) called for the preparation of a pan-European report by 1993. The report would serve as a tool for effective environmental policy and strategy implementation and for raising public awareness. It was intended as a joint effort of the European Commission and the UNECE, assisted by a task force of representatives from European countries and international and regional organisations (notably the UNEP, the OECD, the Council of Europe and the IUCN). The report was to be funded partially by the PHARE Programme (the Community's financial instrument to assist the restructuring of post-Communist countries in Central and Eastern Europe).[14] Subsequent Ministerial Declarations under this process, adopted at the Sofia, Åarhus, and Kiev conferences (of 1995, 1998 and 2003, respectively), renewed the EEA's mandate to provide comprehensive and updated reporting and assessment on Europe's environment to future conferences and, thus, to support decision making.[15] Therefore, reporting at the European level became a regular activity of the Agency. At the Belgrade Conference, however, the language of the Ministerial Declaration on the mandate changed slightly since the EEA was called to 'consider preparing the fifth assessment report' for the next conference.[16] The future report should be submitted up to a year in advance.

Several strategic documents of the EEA emphasised the Agency's commitment to producing the Belgrade Report on the pan-European environment. The EEA's strategy 2004-2008, for instance, considered the preparation of the report as a priority activity, linked to the Agency's commitment to promoting the EU's sustainable development strategy externally and to supporting the European Neighbourhood Policy via involvement in regional processes for the environment. This commitment was reiterated in the Annual Management Plans (AMP) of 2005, 2005 and 2007, while the 2007 AMP stated the EEA's support for initiatives seeking to improve environmental assessments and reporting, particularly in view of the preparation of the Belgrade report.

In response to the request of the Dobris Conference of 1991, the EEA prepared the 1st report on 'Europe's Environment – the Dobris Assessment', in collaboration with international and European organisations and individual countries from Western and Central and Eastern Europe. The report was launched at the 3rd Ministerial Conference

[14] http://www.unece.org/env/efe/wgso/pre-kiev.declar/Dobris_E.pdf

[15] The Ministerial Declarations of the above conferences consulted are found on http://www.unece.org/env/efe/history%20of%20EfE/fromDobtoBelg.htm

[16] http://www.unece.org/env/documents/2007/ece/ece.belgrade.conf.2007.8.e.pdf

on the 'Environment for Europe' in Sofia, in October 1995. It was followed by three assessments presented at the Åarhus, Kiev and Belgrade Conferences. Each report provided comprehensive and nearly up-to-date information on the environment at the time. The Kiev Report, the 3rd assessment, introduced some changes in terms of geographical coverage, substance and information collection method. The report covered, for the first time, the 12 East European, Caucasus and Central Asian (EECCA) countries, including Russia. It also analysed the impact of economic activities on the European environment, e.g. agriculture, energy, industry and tourism. Finally, to facilitate the collection of information from the EECCA countries, the Agency used questionnaires and consultant support, both funded by TACIS. This method, according to interviews with the Agency and the UNECE, was not welcome by some EECCA countries and, therefore, it was not used during the preparation of the 2007 report.

The relevance of the earlier assessments produced by the EEA was acknowledged by the Ministers and the European Commissioner for the Environment at the Kiev Ministerial Conference. In their view, the 1995, 1998 and 2003 assessments,

> *... have helped to identify major threats and challenges for the development of regional environmental policies, and in the first years, to lay the ground for the preparation of the Environmental Programme for Europe, which was endorsed at the Sofia Conference as the first attempt to set long-term environmental priorities at the pan-European level and to make Agenda 21 more operational in the European context.*[17]

The Belgrade report employed some novel approaches and covered new issues. For instance, progress was assessed against the objectives of both the Sixth Environmental Action Programme of the European Union and the Environment Strategy for the EECCA where possible. Progress was also measured, to some extent, with the use of indicators to ensure some comparability. Finally, the issues of education for sustainable development and sustainable production and consumption were introduced.

Similar to earlier assessments, the Belgrade Report feeds into the Environment for Europe process and guides it by providing nearly up-to-date information (with 2004-2005 being the base data year) and assessment on the environment and by identifying existing and new challenges and opportunities. The report can help policy makers and practitioners from the pan-European region pursue environmental policy activities individually, and/or collectively, in an informed, focused and needs-driven manner. The report is useful to environmental activists and experts (though not sufficiently detailed and scientific for the latter) and to those UNECE countries not covered by the report, most notably the USA. Finally, it may be useful to the informed public and the media, and through the latter, it may contribute to raising public awareness of the key environmental issues in Europe.

How the activity is carried out

The preparation of the Belgrade Report was a rather long and complex process. During the second half of 2005, there were exploratory talks within the Agency and bilateral talks between the EEA project managers and DG Environment as well as between the project managers and the Working Group on Environmental Monitoring and Assessment (WGEMA) of the UNECE. They were intended to help the project management team to identify the substance, the approach and the structure of the report. Actual preparations started in January 2006 and completed in June 2007.

The Belgrade report was a joint effort of several organisations and individuals. Some examples of the organisations involved include: the EEA and the European Topic

[17] http://www.environmentforeurope.org/images/kiev_ministerial_declaration_2003.pdf.

Centres, contributing expert analysis, assessment and quality control, for instance; the JRC-Ispra and Eurostat, with the latter supporting data assessment; and, finally, the OECD, the World Bank, UN bodies and the UNECE conventions, providing the EEA with access to their database. In addition, National Contact Points (of the EEA and the WGEMA-UNECE) and individuals from NGOs, research and educational institutions, for instance, contributed sectoral and thematic expertise. The report benefited from considerable feedback during the consultation period, October 2006-February 2007, when the draft chapters were released on the report's site on EnviroWindows.

The project was coordinated by EEA staff with the support of an external consultant and an EEA member of staff. The WGEMA-UNECE supported the project coordinators. For instance, it recommended experts in EECCA and facilitated the team's access to, and work carried out in, the region. Thematic coordinators managed contributions to, and work on, individual chapters, reporting to the project coordinator.

We were unable to identify the budget allocated to the production of the Belgrade Report. According to interviewed Agency staff, the project was partly funded by the EEA's core budget and supplemented by a contribution from TACIS amounting to about 300,000 Euro, to cover activities in the EECCA countries, such as expert contributions, communication and translation of documents. The estimated EEA's contribution was 10-15 staff days per year.

B.3.2. Assessment of the activity

Effectiveness

The Belgrade report satisfied the request of the Kiev Ministerial Conference. However, it was not welcome as warmly as the Kiev Report since, according to the Belgrade Ministerial Declaration, the conference participants simply *took note* of the report. This was attributed, by the WGEMA-UNECE, to politics within the Environment for Europe process – it was not related to the report. Nonetheless, the findings of the Belgrade assessment helped the Environment Ministers and the European Commissioner identify the main environmental issues in Europe, including climate change, biodiversity loss and waste.[18] The report also fulfilled the Agency's priorities in the broader European region, set out in its strategy and Annual Management Plans.

The reports on the pan-European environment produced by the EEA, including the Belgrade report, are the only reports providing an independent assessment on the environment in the region on a regular basis. Interviews with the EEA and the WGEMA-UNECE suggest that these reports are considered as the most authoritative tool for policy and strategy implementation under the Environment for Europe process and particularly useful for the EECCA countries. The importance of the statistical annex was also emphasised in the sense that figures expedite and facilitate comparisons. They also show progress, or lack of it. Interviews with the EEA suggest that the report fails to fully satisfy experts because it is not sufficiently 'scientific' and detailed. It also fails to appeal to the broader public, for the opposite reasons. Currently, the Agency is exploring new ways of reporting to appeal to many different types of audience. The Belgrade report, although an overview, is useful at the beginnings of the policy cycle, namely issue identification and framing as well as measure identification.

Besides the 'normal' challenges involved in such an ambitious undertaking, few additional problems were identified in interviews with the EEA and the WGEMA-UNECE. Some of these were internal to the Agency. Overall, the EEA staff were, reportedly, rather uninterested in taking over the management and coordination of a complex and demanding project, particularly in the aftermath of the completion of the

[18] http://www.unece.org/env/documents/2007/ece/ece.belgrade.conf.2007.8.e.pdf.

State and Outlook report, launched in October 2005. Some also mentioned lack of EEA staff experienced in managing similar projects (due to, for instance, the departure of the project manager responsible for the State and Outlook Report upon the completion of the project) and, most importantly, the non-existence of a reporting group within the Agency (the existing one was gradually dismantled 2-3 years prior to the launching of the Belgrade report).

Funding difficulties of procedural nature primarily were pointed out by the EEA. More precisely, TACIS support was inaccessible for about 9 months, which complicated the Agency's work in some EECCA states. The linkage between limited, or no funding, and difficulties with parts of the EECCA region, it should be noted, was often mentioned in interviews with the EEA and the WGEMA-UNECE.

Collection of information did not work very well with all the EECCA countries, according to the EEA and the WGEMA-UNECE. Some countries, most notably Russia and Turkmenistan, challenged the quality and validity of the information used in the Belgrade Report. According to interviews with the EEA, the Agency relied on information provided by regional and international organisations, as it had been requested from these countries. The strong reaction on the part of some countries was attributed to loss of expected economic benefits since the use of international sources by the EEA resulted in minimal involvement of national experts from the EECCA countries in the preparation of the report.

Overall, the EEA staff were positive about their involvement in the preparation of the Belgrade Report, seen as a challenging but very rewarding experience. In addition, the initiative was, in the view of the project coordinator, a useful learning experience and a *sine qua non* for professional development within the EEA.

At the Belgrade Ministerial Conference, the Agency was requested to 'consider' the preparation of the next pan-European assessment report for the 2011 conference to be submitted up to a year in advance. This implies that the Ministerial Agenda will reflect the conclusions of the Report on the priorities of the conference and, thus, enhance the influence of the document and the EEA's role in the process.

Efficiency

We were unable to measure efficiency in terms of cost/benefit analysis as those interviewed at the EEA found the data difficult to find. They, however, characterised the report as a quality and value for money product. Furthermore, the staff viewed the preparation of the report as a successful and smooth process. This was echoed by DG Environment and the UNECE and attributed to effective coordination by the project coordinator.

B.3.3. Key lessons/messages

- There is some uncertainty, about this type of reporting and its context since the Environment for Europe process is currently undergoing reform (initiated in April 2008 and based on the Belgrade Ministerial Declaration).
- Although uncertain about the future of its reporting role in the Environment for Europe process, the Agency is looking at how to improve its products and make the process more efficient. There have been some exploratory talks within the Agency about adopting a modular approach for reporting, in general, focusing on specific priority issue areas, including issue areas of transboundary nature. Such developments are likely to influence pan-European reporting. There is also discussion inside the Agency about new ways to communicate information, for instance through the creation of partnerships and networks with third countries from the pan-European region.
- There are going to be changes in the EU's financial instruments in 2008. Since TACIS was discontinued, financial support for a future pan-European assessment should come from the current EU financial instruments for the EECCA countries, the European Neighbourhood Policy Instrument (also covering EU partners in

Southern Europe) and the Development Cooperation Instrument (covering the Central Asian countries). Some, in the Agency, fear that the existence of two instruments is likely to pose challenges of procedural nature and lead to delays in funding. Furthermore, there are concerns about insufficient EU funding for the future pan-European assessment since funds for work in the EECCA region under the ENPI may be unavailable prior to 2010.

B.4. EEA Case Study 4: Coastal and Seas products

B.4.1. Description of the activity

This case study reviews the following products of the EEA concerning issues of the coastal and Mediterranean environments:

- The EEA report 'Priority issues in the Mediterranean Environment', of March 2006, concentrating on pollution problems in parts of the Mediterranean Sea and addressing challenges to the marine environment having implications on the marine environment and posing risks to human health.
- The EEA report 'The changing faces of Europe's coastal areas,' of July 2006, a spatial assessment integrating socio-economic development and environmental protection in coastal regions.

Both reports use of the sustainable ecosystem concept to address several existing and emerging issues, impacting on the marine and coastal ecosystems for example, biodiversity loss, climate change resulting in the introduction of alien species or the appearance of harmful algae blooms leading to seafood contamination. These reports also involve considerable complexity due to the multiple issue linkages. Informational gaps and the existence of several policy actors operating within different frameworks and under several, often interlinked, processes add to the complexity of the themes discussed. These reports were produced by the EEA and its European Topic Centres. There have been additional reports produced by external contractors on behalf of the EEA, which are not dealt with in this case study. This case study does not address the development of indicators.

Background to the activity

Coastal and marine issues have been important for the Agency. The Regulation establishing the EEA identified coastal and marine issues, particularly in relation to socio-economic issues, as priority areas of the Agency's work. Coastal issues are also covered by the 2004-2008 strategy of the Agency, though not explicitly – as they are embedded within the spatial analysis and are related to biodiversity, spatial change and water quality. The importance of spatial assessment of coastal areas was also addressed in the Annual Management Plans of 2006 and 2007. As noted in the main evaluation report, the Mediterranean environment is also very important for the Agency and, according to some, as important as the Artic.

The report on the Mediterranean

The Agency's work on the Mediterranean goes back to the report 'State and pressures of the marine and coastal Mediterranean environment,' published in February 2000, a joint product of the EEA and the ETC on the Marine and Coastal Environment, in cooperation with the Mediterranean Action Plan, and coordinated by the EEA and UNEP/MAP. This report was intended as a contribution toward the overall assessment of the environmental situation throughout the Mediterranean region. Mediterranean issues were also addressed in subsequent work on regional European seas carried out by the Norwegian Institute for Water Research (NIVA) for the EEA and published in 2001.

In mid-2004, the Agency, in cooperation with its European Topic Centre for Water (ETC/WTR) and UNEP-MAP, launched a study on the Mediterranean region, on the initiative of the UNEP-MAP. The UNEP/MAP, reportedly, wanted to update the 2000 report with the use of data from the national diagnostic reports on pollution. The new initiative on the Mediterranean was intended to provide up-to-date information and assessment and to explore environmental challenges with the use of the ecosystem approach. The report should focus, in particular, on emerging issues in the region, including natural hazards, harmful algae bloom and invasive alien species.

The report was primarily aimed at policy makers in the EU and individual Mediterranean countries. It would also be useful to organisations and processes

addressing challenges to the regional environment. For example, the report could feed into several initiatives taking place around that time, most notably, the European Union's strategy on the Mediterranean, proposed by the Commission in September 2006 and the Cairo Conference on the Mediterranean environment of November 2006, including the Horizon 2020 timetable on reducing pollution in the region, addressed at the conference.

Coastal report

Prior to the launching of this product, the EEA's reporting in this area was largely limited to contributions to the SOER. The Agency's desire to produce a report covering this issue area was first mentioned in the AMP of 2003. In mid-2004, the EEA and the ETC/Terrestrial Environment (TE), were involved in expert consultations seeking to sharpen the focus of the future report during workshops in Malta, the UK and Poland. In November 2004 and in response to DG Environment's request, the ETC/Terrestrial Environment published the background paper on 'The state of the coasts in Europe – towards an EEA assessment report', outlining the proposed methodology as well as the overall approach to the assessment report. Subsequently, the EEA briefing 'The continuous degradation of Europe's coasts threatens European living standards,' of July 2006, summarises the substance and findings of the report on coastal areas.[19]

The 2006 report of the EEA supports Integrated Coastal Zone Management in the EU via the provision of nearly up-to-date spatial information. The report, according to interviews with staff in the EEA and DG Environment filled existing informational gaps and, through improved assessment, it enhanced the understanding of coastal trends in Europe.

The report on coastal areas was intended to contribute to the debate on the Integrated Coastal Zone Management (ICZM) experience in the EU, in general, and to feed into the Commission's Communication to the Council and the European Parliament, assessing the EU's experience and setting the guidelines for further progress in ICZM in Europe. The specific objective of this work was to contribute to the review of the Recommendation of the European Parliament and the Council concerning the implementation of Integrated Coastal Zone Management in Europe (2002/413/EC), planned by the European Commission for 2006. This was achieved with the use of multitemporal CORINE Land Cover and other GIS data in the EEA, including data from the Natura 2000 network of protected sites.

How the activity was carried out

The report on the Mediterranean environment

The report on the Mediterranean environment was largely prepared by researchers from the Hellenic Centre for Marine Research (HCMR), a partner of the ETC/WTR at that time, under the guidance of two HCMR chief researchers, one of which had already contributed to the earlier report on the Mediterranean produced by the EEA and UNEP/MAP (of 2000). In addition, a national researcher, contracted by UNEP/MAP, as well as some UNEP/MAP staff supported the report. Valuable additional material (for instance, maps and photographs) was obtained from several sources in Europe. The research and the completion of the report were the responsibility of two chief researchers from the HCMR, one of which had contributed to the earlier EEA/UNEP/MAP report of 2000. The project was managed by the EEA.

The prevalence of HCMR staff in the preparation of the project was attributed by the chief researcher interviewed to their expertise, knowledge of, and experience in, working with, or within, the EEA and also their good relations with the UNEP/MAP. The interviewee, however, pointed out that, despite the HCMR's expertise and work on

[19] http://ec.europa.eu/environment/iczm/pdf/state_coasts_europe.pdf.

the Black Sea, the HCMR was left out of a joint EEA/ ETC/WTR initiative on that region, launched around that time in view of future EU enlargement but which was never completed. This was attributed to power games within the ETC between countries, represented 'unofficially' by the ETC partners, as well as between the 'north' and the 'south'.

The decision to carry out a study on the Mediterranean was taken around March/April 2004 and work started in October 2004, with the final draft completed in May 2005. It was pointed out, at the interview, and verified on the EEA website, that the final draft version was first published in November 2005 but it was immediately withdrawn following, reportedly, criticisms due to several errors found in the draft report version. Despite this incident, the substance of the report received positive comments by experts who reviewed and commented on earlier drafts provided by the report editors from the HCMR. These comments added value to the report and reinforced its substance, which, incidentally, was based on original research as well as secondary sources.

With regards to the cost of the report production, interviews with the HCMR pointed out that the ETC/WTR contributed about 20,000 Euro toward the cost of the report, while the consultant fee, covered by the UNEP/MAP amounted to about 5,000 US Dollars. The HCMR contribution was difficult to estimate as it involved several researchers and contributions from earlier work.

The coastal assessment

The report on the changing coastal areas in Europe was prepared during 2004-2005 with the final draft completed in September 2005. It was largely based on work of the ETC/TE and benefited from contributions of the ETC Biological Diversity (BD), ETC-Water, some EEA staff and national experts as well as feedback from DG Environment and DG Research. The report benefited from expert discussions and feedback provided from November 2004 through to December 2005. The project was an initiative of the project manager on coastal issues within the Spatial Analysis Group, working under the supervision of the Head of Group.

The substance of the report, including its findings, was published on the EEA website and also disseminated via the Agency's information centre. The EEA project manager interviewed pointed out that about 7,000 copies of the report were printed, while about 3,500 copies of the report were distributed to the EEA member countries, EU institutions, libraries and other stakeholders. A considerable amount was distributed to cover requests submitted to the Agency. The report was also presented at several relevant events, including the Littoral2006 Conference in September, in Poland, and an expert evaluation workshop in December 2006. The report also benefitted from substantial media coverage, including a regular EEA press release in 24 EEA languages following the launching of the publication, and notification in some leading newspapers and news services.

We were unable to obtain information on the cost of the production of this report.

B.4.2. Assessment of the activity

Effectiveness

The reports discussed in this case study meet their objectives. They both present nearly up-to-date information on priority issues of the EEA and fit well with the objectives identified in the EEA strategic documents. Their integrated approach focusing on ecosystems is compatible with the sustainability objective of the EEA. Finally, the reports contribute to raising awareness of the issues addressed in the reports amongst the policy makers and the informed public.

The chief editor of the report on the Mediterranean environment did not identify any concrete and direct impacts of the report on policy initiatives at the EU level. There are, however, similarities between the main recommendation of the report on the need to implement and enforce environmental regulation throughout the region and

recommendations of regional initiatives, notably the Horizon 2020 initiative. This does not necessarily suggest that the former shaped the latter. Such broader regional initiatives usually influence, and may be influenced by, EU policy processes. In this case, however, it is likely that the regional initiative shaped the EU stance. On the contrary, the EEA assessment report on coastal change shaped developments in the ICZM. Interviews with the DG Environment and the EEA pointed out that the report not only fed into the Commission's Communication but was incorporated in the proposed package as well. These, according to interviews, clearly fed into the debate on changes in the EU's coastal policy within the European Parliament and the Council. There are many players involved in marine and coastal issues, including EU members, and international and regional organisations, and policy activities take place at different levels. Therefore, it is rather difficult to identify policy impacts, and the extent of these impacts, with some degree of certainty.

The production of the report on the Mediterranean did not encounter any major challenges according to interviews with those involved in the process. The complexity of the report was not particularly problematic given the team's experience and expertise. However, some rather minor issues were identified, such as, the difficulty in condensing information and finding appropriate pictures illustrating issues and the state of the environment in the region.

The project manager responsible for the coastal report, however, pointed out the challenge of assessing coastal change by using different sets of spatial data, namely Corine land cover change data and other GIS-based information.

Efficiency

We were unable to collect evidence on the value for money of the reports discussed. Interviews with those involved in the preparation and completion of the reports pointed out the benefits gained, and information learnt from the process. They also referred to the predominantly positive reflections on the reports during the preparation and outreach phase (the latter in the case of the assessment of coastal changes in Europe). The overall view was that the reports were useful.

B.4.3. Key lessons/messages

- The EEA can contribute to coastal and marine issues by employing different EU frameworks, for instance, water quality, and at different fora.
- The Agency should continue its activities within the EU and international and regional institutions.
- The Agency should maintain its links and pursue activities under the existing frameworks for environmental protection.
- The Agency should maintain the already good working relations on marine and coastal issues with the DG Environment.

B.5. EEA Case Study 5: Greenhouse gas emission trends and projects in Europe 2007

B.5.1. Description of the activity

The Greenhouse gas emission trends and projections in Europe is a yearly reporting tool of the EEA containing an assessment of the actual historic and projected future progress of the European Commission, its Member States, EU candidate countries as well as other EEA member countries towards achieving the objectives of the UN Framework Convention on Climate Change (UNFCCC) and their emission targets under the Kyoto Protocol.

Background to the activity

The report on GHG emissions is developed to report on the achievements of the UNFCCC and to support and complement the annual progress report of the European Commission to the Council and European Parliament, which is required under Council Decision 2004/280/EC, concerning a mechanism for monitoring Community GHG emissions and for implementing the Kyoto protocol. The report published in 2007 assesses whether countries are currently on track towards their individual targets based on an analysis of[20]:

- Their past GHG emissions from 1990-2005
- Their intended accounting of CO_2 removals from land use, land-use change and forestry
- Their intended use of the flexible mechanisms of the Kyoto Protocol to fulfil their commitments

The assessment of whether the countries will reach their targets by 2010 is based on a compilation of the projections by these countries regarding:

- The expected reductions from their existing and planned domestic policies and measures by 2010 including, for some countries, mitigatory effects of the EU Emission Trading Scheme
- Their intended use of carbon sinks and of the flexible Kyoto mechanisms

The report contains information on the 27 Member States, candidate countries and other EEA member countries but mostly concentrates on details of the pre-2004 Member States (EU-15) since these are covered by the EU burden-sharing agreement which lays down differentiated emission limits for each of the 15 Member States, with the aim of ensuring that the EU-15 meets its overall reduction commitment under the Kyoto Protocol.

The data and analyses are provided by the Annual European Community GHG inventory report submitted to the UNFCCC in 2007 and the Initial Report of the European Community submitted to the UNFCCC in 2007. Furthermore, data has been used from the reports submitted by Member States to the European Commission; the second national allocation plans (NAPs) as notified to the EC to subsequent Commission decisions; and the Fourth National Communications submitted to the UNFCCC.

Besides the report on GHG emission trends and projections, The EEA performs, as part of its strategy, an extended inventory of the GHG so that the EC can calculate its emissions and report to the UNFCCC. There is a legal text that explains what Member States have to do, what sort of information they have to deliver and within the context of the EEA the data are processed, checked, and validated. The information from the inventory report is used for the report on projection and trends, whereby the former is

[20] Quoted from the 'Greenhouse gas emission trends and projections in Europe 2007' report.

more technical than the latter. The trends and projections report fits within the annual strategy. First, it fits within the 'information systems and networks' programme where work is being done on a core set of indicators to communicate information in a clear and simple way. The Agency has been working with its member countries on the development of a core set of indicators to reflect the state of the environment in the context of analyses of economic performance, social development and policy implementation[21]. Second, it fits within the programme 'tackling climate change' and specifically the 'assessment of progress to the Kyoto and burden sharing targets' and 'climate change impacts, adaptation and scenarios'. Objectives within this area are:

- To assess the progress to the Kyoto targets and the effectiveness of national and EU policies
- To monitor greenhouse gas, accounting and review
- To benchmark Europe with other regions of the world
- Scenarios for sectoral developments and climate change impacts
- Assessment of climate change impacts and adaptation, including the assessment of seasonal characteristics on a regional level
- Integrated sectoral policy analyses, including the role of environmental technologies
- Identification of vulnerable areas and assessment of adaptation to climate change

The first report on trends and projections was published in 2003. The inventory reports have existed since 1999.

The report is published by the EEA, but has as spin-off in that it feeds into the progress report prepared by the EC to report on GHG emissions. Furthermore, the Member States use the report to compare the information from the different countries and companies can use it to get an insight into the level playing field. The general public and media pay attention to the report and finally, the European Parliament looks closely at the product to inform itself.

How the activity is carried out

About 10 people in total are working on climate change issues within the EEA, of which 3 full time equivalents are specifically involved in the reporting on GHG emissions. About 1,5 full time equivalent (fte) is allocated to the report on trends and projections. This equals about 100,000 Euro a year. The allocation is based on the experience of the past, and EEA claims to have a fair overview of the resources needed to publish this report. Besides these internal resources, other organisations such as the ETC /ACC and local data providers have been involved in the process. ATC/ACC works with 1-2 fte a year on the report, with total costs of about 100.000 euro. The EIONET has a formal role to review the information that is being published, and every country has its own reporting expert with which the EEA cooperates. In practice, the ETC/ACC compiles the information that has to be reported to the EC, prepares the data and performs the analysis and the assessment. The countries can give feedback to the ETC/ACC before the report is sent to the EEA.

The different parties consider the role of the ETC in a distinct way; the ETC at times feels that they are increasingly considered as 'consultants' rather then partners by the EEA. The ETC used to provide the EEA with scientific information and executed the products in cooperation with the EEA. Due to the growth of the EEA, the ETC experienced a shift in roles where the EEA became more the producer of the products, and the ETC the consultant to the EEA, rather than a partner.

[21] Quoted from the strategy 2004-2008 of the EEA

Other organisations involved are the 11 partners of the ETC in 8 countries, JRC in Italy and Eurostat.

Regarding feedback opportunities during and after the process of reporting, the parties are quite positive: the EEA works on a day-to-day basis with the services of the EC and organizes workshops with Member States to improve the knowledge and understanding between the different parties. The process of publishing the report involves a feedback-process: first a meeting is organised with the ETC in the spring semester to define the content of the new report, what changes will be made compared to last year, and what updates can be made. After this the ETC starts collecting and compiling the information. The ETC prepares the country profiles and based on the feedback from the countries and experts the ETC drafts the report. Then the report is sent to the EIONET, experts and the EC for review. The EEA monitors this whole process.

B.5.2. Assessment of the activity

Effectiveness

The report has two purposes:

1) It assesses the process of reaching the targets in the climate change area (compliance checking).
2) It fits with the formal and legal process and provides information to the EC to prepare its own report to monitor the targets.

These objectives have been set out in the strategy of EEA, and the EC decision to monitor GHG emissions and trends. According to the EEA, the report has a strong impact on the media, public and political fields and it is used to see whether the EU stands up to its commitments. There were 15245 page views according to Google statistics since its publication on the Internet.

The report fits at the beginning and at the end of the policy cycle. It shows where the EU stands in the world in GHG emissions, and this plays an important role in international negotiations. The EEA furthermore implements a legal decision by reporting on GHG emission trends and projections which is set in the Council Decision 2004/280/EC. Experts and other stakeholders see the GHG inventories as the most authoritative reports on GHG emissions in the field. The report on trends and projections uses the information published in the inventories and includes projections and policy analysis, which is considered as an important addition to the inventories. Therefore the report can be also seen as leading in its field.

Limitations and challenges encountered by both the producers and the users of the report are that it deals with technical issues that are not always understandable for readers. This implies a risk of misunderstanding and misuse. The challenge is to make the information available in such a way that all different types of users can use it. The EEA tries to give as much explanation and background on the data as possible, but improvements could be made to the reach a larger group of stakeholders and to translate the complex data into an understandable format. It is not evident that the individual Member States use the data to compare themselves with other countries.

Furthermore, users such as NGO's would be interested in more detailed information on different sectors, which does not always comply with the sector division used by the EEA. The emission trading system for instance, imposes targets to the sectors, but these are other sectors than those required by the UN monitoring system. For users it is often difficult to link these two systems and a help-desk or platform could be established where users can go to with specific data related questions. Finally, it was mentioned that it would be interesting for the general public to see for example what the 'factory in the neighbourhood' does to reduce emissions. These data are already available, but one has to be an expert to understand and interpret those.

Although the EEA attempts to make the information as clear and understandable as possible, they also recognized that transparency could be improved. The report could

also play a larger role in relation to policy learning. The countries could learn from each other's achievements, and more attention could be paid to the development of the data, the evaluation of trends and points for (policy) learning based on these trends. It is felt that these topics receive less priority from policy makers than is whished for by the field. Overall however, the product meets the needs of the stakeholders (EC, EP, UN) to a large extent.

The quality of the reporting varies among the Member States. According to the EEA, the quality of the inventory reports is a high as possible since the guidelines to draft these reports are very specific. The quality of the report on trends and projections is not as high, but the EEA supports the EC in building capacity among the countries and to improve the methodologies. Still, the editors have to deal with unequal or not updated projections, loose guidelines and timeliness of the data. Countries are legally required to report or update their data every 2 years, but they do not always do that in time. In the trends and projections report the EEA attempts to clarify which policies lead to the largest reductions. Concerning the EEA, the ultimate quality criterion however is the usefulness of the report, which is very high according to the Agency and the other stakeholders. The report is considered very trustworthy and other organisations such as NGOs take further actions based on the report. This impact will only become larger after 'Kyoto'.

Efficiency

The interviewees found it difficult to draw conclusions on the assessment of costs versus priorities, but the report on trends and projections is seen as very relevant. The EEA guarantees that there is a correct, robust and relevant inventory system in place, and the reports give a 'quality stamp' on the numbers. The UN has audited the reporting unit and the conclusions of this audit were very positive. There are a few organisational issues or bottlenecks identified, such as the delay sometimes caused by the information flow coming from the Member States and the communication between the different actors (EIONET, experts in Member States, ETC, EEA). It is desired that the links between experts and National Focal Points, but also between the other actors, be improved. Overall, the activities are assessed by the stakeholders as cost-effective.

B.5.3. Key lessons/messages

- New legislation will be a key factor influencing the future of reporting on GHG emissions trends and projections. The report is constantly under improvement and Member States are supported in building their capacities to monitor the GHG emissions. The EEA attempts to stay close to the policy developments and changes like the climate change package that will be followed by new EU legislation. EEA can be a data provider to help understanding this process and prepare for the era after 'Kyoto'. Specific attention is being paid to ETS (emission trading scheme) as a novel source of data.
- There have been some thoughts on new ways to attribute emissions to countries, target groups, and products. Currently emissions are calculated based on the country borders, but one could also attribute the emission to production of goods and services, or to the country where these are being consumed. By involving the life cycle of the product, the calculations could change and the system would be increasingly 'fair'. These decisions however are political decisions. EEA together with the ETC could deliver input to this discussion by analysing data and developing scenarios.
- The EEA is performing its own analysis on the data to ensure and improve the consistency of the data from the GHG inventories. The EC proposed to set targets for the trading sector and for other sectors, and it will be a challenge to make sure that all methods to report and monitor fit with each other. The EEA welcomes additional information from the Member States on the data collection and the assumptions made to better understand what the numbers really mean. Furthermore, this would improve the comparability of the data. It was proposed

by the ETC to consider the extension of countries involved in the reporting towards the East of Europe and Russia, since emissions are a global problem.

- The information is increasingly complex, which causes a huge amount of work and requires human resources to analyze and assess the data and combine both strategic and technical aspects of the work. The workload will also increase now the EEA has to start thinking on the post Kyoto period and at the same time live up to the current requirements.
- The future role of the EEA in the GHG emission area is not yet clear. It could easily be affected by new legislation and new ways of data collection. However, this very much depends on the way the EU takes a stand in future agreements. When the EU signs up to agreements as one legal entity, and the Member States do not, the organisation and position of the EEA can be further streamlined. If the Member States however sign up individually as well to agreements, there will be overlap in data collection and double reporting. Nevertheless, this is a political rather than an organisational decision.
- The EEA sees its role not only as a provider of information, but also as an active facilitator and communicator: a mediator between the public and other stakeholders. Its role is to bridge the gap between complex and difficult information and users that need digested information. Therefore access and usability should be further improved in the future and interactive cooperation with the Member States and increased contribution from them is required. This is also stressed by the NGOs who argue for a further focus on the communication of the report to the broader public. This could be done by press releases and independent fact sheets or summary reports per country sent to the local press in the language of the country.
- According to some stakeholders, the EEA could take an arbiter role in the future as compliance agency, and a larger role in the field of monitoring of emission trading systems and linking this to the use of external credits.

B.6. EEA Case Study 6: Ozone web

B.6.1. Description of the activity

The ozone web is a web-based air pollution monitoring system of the EEA. It is an Internet tool that offers users the opportunity to monitor and track ground level ozone incidents on a pan-European scale. High ozone levels are a health hazard, since they form harmful smog together with nitrogen oxides and particulate matter. Ozone web is contributing to the creation of SEIS by providing near real time information and streamlining data handling services.

Background to the activity

One of the most prominent air pollution problems in Europe is ground level ozone. The ozone web is a tool where data from over 500 air quality monitoring stations is sent to the EEA every hour and displayed in (near) real time on the website. The EU has made it obligatory under the Air Quality Framework Directive (1996) for countries to alert citizens on a national level when ozone levels reach particular levels. This Directive defines basic principles and a common strategy related to ambient air quality and sets out a timetable for improving air quality for European citizens and for the development of daughter directives on a range or air pollutants. The third daughter directive (2002/3/EC) of this Framework Directive concerns ozone, and was adopted in 2002. Its long-term objectives are equivalent to the World Health Organisation's new guideline values and target values for ozone in ambient air to be attained by 2010. It sets several numerical limit values, target values, measuring models and calibration and quality assessment methods, to be able to make comparable measurements throughout the EU and to provide good public information. It furthermore obliges the countries to report monthly to the European Commission on all surpasses of the information threshold[22] and alert threshold. When thresholds are exceeded, the national authorities should inform the public. The long-term objective is to limit the number of days with average ozone concentrations above 120 µg/m3 to less than 25 days a year.

Figure 4 Thresholds

Objective	Value	Measured as	Target/action	To be met in
Information threshold	180 µg/m3	Hourly average	National authorities should inform the public and give advice immediately after an exceedance. Countries should report monthly on all exceedances	Now
Alert threshold	240 µg/m3	Hourly average	National authorities should inform the public and give advice immediately after an exceedance. Countries should report monthly on all exceedances	Now
Protect Human Health	120 µg/m3	8 hour average	Not to be exceeded on more than 25 days per year	2010

Source: http://www.eea.europa.eu/maps/ozone/legislation/eu-legislation-and directives

In addition to the ozone directive, national targets for reducing emissions of the ozone precursors – NOx and VOCs – should be met by 2010. These targets are listed in the directive on 'national emissions ceilings' adopted in 2001. The EEA processes national reports on behalf of the Commission and has produced annual reports on air pollution by ozone during the summer period since 1995.

[22] A value greater than 180 µg/m3 is the level with a greater risk to human health from brief exposure for particularly sensitive sections of the population.

In 2002, it was explicitly outlined in the Sixth Environment Action Programme that all Member States should achieve 'levels of air quality that do not give rise to unacceptable impacts on, and risks to, human health and the environment'. EU law also requires information about concentrations of ozone and other air pollutants to be made fully available to the public. Information must be clear, comprehensive, up-to-date and made accessible via, for example the internet and public reports.

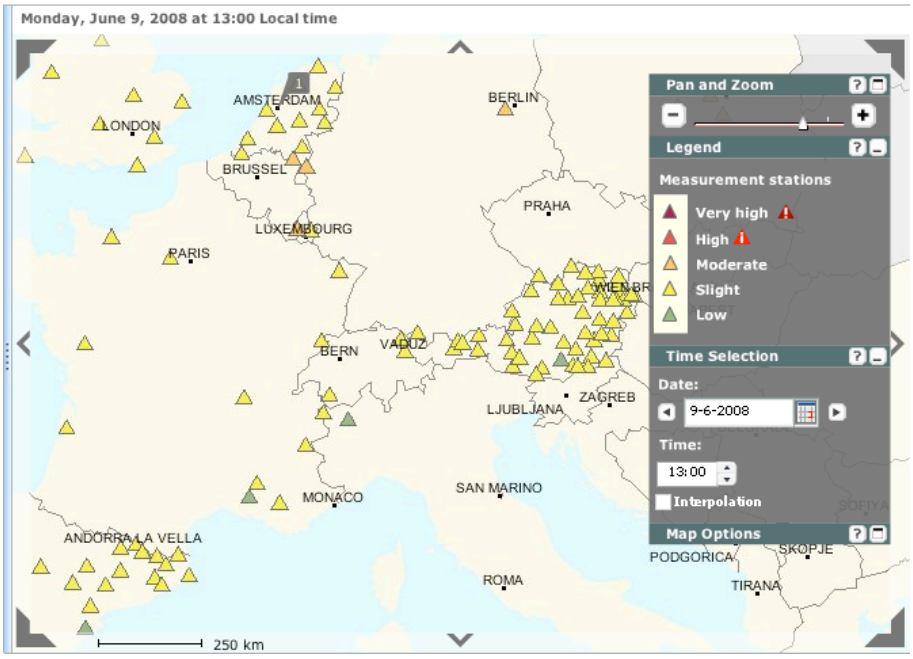
Based on this background, the Ozone Web project became part of the strategy 2004-2008 of the EEA. It fits within the environmental theme 'protecting human health and quality of life' where priorities have been set on air quality. These priorities include the '**support of the process of reaching a quality of air that does not give rise to significant impacts and risks to human health and the environment**'. Specific outputs within this strategy include:

- The distance-to-target assessments
- Assessments of local and indoor air pollution
- Air quality and air pollutant emissions monitoring including improvements to airbase
- Assessments of exposure to air pollutants, especially in urban areas street canyons

The Ozone web moreover fit within the theme 'information systems and networks' of the strategy, specifically related to communications services for the public.

To develop the Ozone Web tool, first a scoping activity was carried out by EEA to define the focus of the Ozone web. Workshops were organised with stakeholders such as the general public, representatives of the member countries, and the Topic Centres to understand people's interests, and to select areas to focus on. After the implementation in 2006 new focus groups were organized to test the usability of the website in test sessions with ten different persons from six different European countries. The test persons were selected based on geographical distribution, sex, age and profession and they had no previous professional experience with environmental issues and web applications.

The Ozone Web is originally designed for the general public and for air quality experts. Nowadays the balance is shifting slightly towards more expert use for further modelling and analysis and to less public use for background information about ozone and its health impacts.



Source: http://www.eea.europa.eu/maps/ozone/map

How the activity is carried out

The Ozone Web is filled with information (near) real-time, gathered from the member countries. Data providers are the national and regional authorities in the EEA network, divided over 25 countries, 45 providers, over 700 stations. The data provision is voluntary. Where possible, the EEA tries to improve the system by including additional data providers and expand the number of countries for which data is included. The provider's sites and newly published data is constantly monitored and collected, however, there is a delay between the time of the measurements and the time when they are actually ready for download. This delay varies depending on the providers, but the maps and statistics displayed at the Ozone web always reflect the latest available data. Every year a 'Summer Ozone Report' is published by the EEA based on the available data, which is required by the WHO air quality guidelines. At this moment the EEA is running a pilot to see whether the yearly 'Summer Ozone report' can be substituted by the near real time data. Every month EEA provides its Ozone web data to the European Commission.

The actual work is divided between the EEA, the European Topic Centres and external consultants who are hired via procurement procedures. The ETC supports the drafting of the summer Ozone report, gives expert insights and is responsible for parts of the communication. EEA gives direction to these processes, and formulates the strategy. Third party consultants work on the feasibility, prototyping, and the actual implementation of the system. The resources allocated to the Ozone Web activities are described in the annual implementation plan of the EEA and the EEA annual management plan system. For 2008 the budget allocated to all Air and Transport activities, of which Ozone Web is part, is 2903 Meuro (about 8% of the total budget). In the Air and Transport area a total of 5,6 men years are allocated.

The allocation of these resources is decided based on risk assessment, available capacity, access, and the approach chosen. The EEA considers the EIONET and Topic Centres as key resources, although they recognize that it is not always easy to work with a large community. However, for the data collection, expertise and insight the EIONET and Topic Centres are crucial. The relationship between these actors is described by the EEA as organic. There is a framework in terms of people and their roles but the relationships between the organisations evolved organically. Trust and

confidence between the parties is crucial according to the EEA. Other organizations involved are the data providers in the various countries.

Annually EEA, EIONET and the Topic Centres meet to discuss the activities and this is considered a good mechanism for feedback. Feedback also can be given through the website and the National Focal Points. According to the EEA these mechanisms are sufficient to provide and receive feedback. However, for the general public feedback mechanisms could be improved. According to the EEA feedback should be given on several activities in the air quality field, since Ozone Web is part of the package of projects on air quality.

B.6.2. Assessment of the activity

Effectiveness

The main objective of the Ozone Web mentioned in the annual management plan, the strategy 2004-2008 and the implementation plan of EEA is to create a pilot data display to pilot the (nearly) real time ozone status and to assess the properties of it.

The Ozone Web fits both in the early stages and the later stages of the policy cycle. The Framework directive on ozone leads to the publication of these data. At the same time it has a significant role in influencing the European Commission when changing legislation.

It is seen as the authoritative source of information. There are other sources for forecasting but no others that compile all the data and give a (near) real time overview of the ozone status.

In terms of limitations or challenges some issues can be highlighted. First, the website loads very slowly. Another challenge for the EEA is to organise the cooperation with and between the involved countries. They also have to trust the Agency regarding the data processing and presentation. One concern brought up by the member countries was if the compliance check for each of them is based on the (near) real time data system, the data cannot be validated in a thorough way (as it was with the Summer report) due to time limitations. This however will not be the case according to the European Commission, as compliance will always be based on processed and verified data.

In terms of usability, the website was tested in order to evaluate users' ability to operate and comprehend the interactive map functionality of Ozone Web (i.e. search, zoom, pan and retrieval of data). The users were asked to solve a set of 12 predefined tasks and these were scored for difficulty of resolution. The success rates in the completion of these tasks were taken as a main measure of usability.

According to this user test, the Ozone Web scored rather well. Many aspects of the tested functionalities received user approval and enthusiastic reactions indicating that it is a desired tool and quite user friendly (a rate of 70 on a scale of 100). By presenting environmental information as an interactive web-based product it becomes more relevant to a more diverse group of users who have more freedom to get information of personal interest. Notwithstanding, the EEA regarded a score of 80 preferable and therefore was not completely satisfied with this result. Some map functionalities were still difficult to use and improvements would be desirable. Also, not everybody has the skills to use web applications which limits the website's outreach to the target group. It was highlighted that some people many not find the EEA website to acquire this type of information. They would not necessarily go to the EEA website and users who are not involved in environmental issues would not understand what Ozone Web is about, since it is not always clear what 'air quality' means. In the future it could be presented in a more simplistic, understandable way. 50% of the users finds the website through Google, so using keywords in a smart way is crucial for further dissemination of the data and information.

The EC, the member countries and the EEA consider the Ozone Web a useful tool and appreciate its existence. Its data have been used in various presentations and reports.

It is however not clear what the added value of the product is for the general public. Based on Google statistics there are 4000-6000 page views per month, which represents the external audience. Most of these visitors, about 2000, visited the 'Map' of Ozone web or the 'Welcome' page. In summer the use is higher than in the other seasons. The ETC however assumes that the public will rather check national sources of information than the EEA website when looking for information on air quality.

In general, the EEA and the EC evaluate the product as of good quality: data comes in fast, the processing is fast and the independence is good. There are however information gaps in some countries, but this is improving. Ozone Web furthermore helps to (indirectly) deliver the priorities of the 6th environmental action plan of the EC by the support of air quality prevention and avoidance, and data exchange. And, people and countries can take preventive actions or avoid exposure based on this product.

Efficiency

In the future the EEA could make more use of other organisation's activities on the Internet, such as Google Maps. Furthermore, the operational support is not fully embedded in the organisation, which is necessary to be able to deliver (nearly) real time information. This asks for operational support, web services, and mandates to deliver. This is now done on an ad hoc, but not on a structural basis. Finally, there is need for a multi annual perspective to be able to built and implement a sustainable tool and plan the procurement of it in time.

According to the EEA, the investments made to the Ozone Web have been so far good value for money but in the same time they are not yet satisfied by the number of people using it, which comes back to the earlier mentioned points for improvement of the tool.

B.6.3. Key lessons/messages

- The Ozone Web appears to be a very useful tool for complying with the EU and WHO directives on Air quality and to communicate information to the public.
- However, the general public could be more involved, the information deriving from the tool is not very easily understandable by the general public
- When moving to 'near' real time data securing the quality of the data is regarded as important, also to sustain the trustworthy position of the EEA toward the member countries.
- Work in this area should be continued, and the EEA seems to be ahead of its field. Other organisations are duplicating the initiative and EEA should consider whether to take these organisations on board or keep the tool by itself as own brand.
- It will be interesting to extent the tool in the future to other air quality measurements and parameters such as particulates, small dust, et cetera.
- Due to some limitations in the system not everything on the website is available to everybody. Websites and tools need to be translated, and the website is not always speedy enough.
- Finally, visibility can be improved, for instance by influencing the Google rankings for instance. This has been done already, but could be improved.

B.7. EEA Case Study 7: Reportnet – Electronic infrastructure and tools for streamlining flows of environmental information in Europe

B.7.1. Description of the activity

Reportnet is an integrated suite of IT tools optimised to support the business processes of the European Environmental Information System and building on a shared information infrastructure

Background to the activity

The reporting of environmental data has a history longer than the agency and numerous reporting obligations have been established involving a great variety of national and international institutions. At the moment there are over 400 reporting obligations and the average country has 200-300 obligations (the EEA is involved in some 20-30). The European Commission proposed a common position under the Sixth Environmental Action Programme to

> *'review and regularly monitor information and reporting systems with a view to a more coherent and effective system to ensure streamlined reporting of high quality, comparable and relevant environmental data and information'*

At the same time that DG Environment were reviewing environmental reporting, EEA and EIONET, through the Bridging the Gap process[23], were considering how to move towards a better-balanced reporting system, which meets policy needs and addresses the issue of reporting fatigue in Member States.

Recommendations included:

- Developing policy-relevant frameworks for assessment based on key policy questions and relevant indicators
- Streamlining the current reporting obligations to remove redundancies and duplication
- Developing new methods for collecting, analysing, modelling and comparing data at the EU level, utilising existing and new data to fill information gaps
- Optimising institutional cooperation so that information is reported once but used by many thus maximising efficiency

(These recommendations started emerging in 1998 at the Bridging the Gap conference in the Netherlands. The last Bridging the Gap conference was held on May 14-16th 2008)

Reportnet started in 2000 and has been in operational use since 2002 (in full in 2004). Substantial funding for software development came through the European Commission's Interchange of Data between Administrations (IDA) programme (€5 million). The EEA has continued to further develop the infrastructure to ensure that the data it disseminates to policy-making agents and the public is quality assured at each step of the processing chain.

The original Reportnet project consisted of two parts – organisational and technical. In 2002, the basic developments around Reportnet were concluded. Operational tools were released over the years, which started with the central data repository (CDR), the directory (DIR) and a metadata search service (CR). The reporting obligations database (ROD) was compiled from a variety of sources and has become a popular tool. Data quality was addressed by launching the data dictionary and lastly a set of applications providing generic data exchange functions (GDEM) completed the

[23] The Bridging the Gap conferences aim to provide insights for closing the gaps in the chain from science to policy, or more broadly, from knowledge to action.

functionalities as identified by the strategy and subsequent review. In addition, operating data exchange tools for air data exchange were supported and enhanced and an initial web tool for displaying countries' real-time ozone measurements was released.

The European Environment Agency has an important role to play in the development of better systems of monitoring, evaluation and reporting, as a contribution to more effective environmental policy- making. This is spelt out in the amended Regulation establishing the EEA (Article 1 (2)

> *…objective, reliable and comparable information at European level enabling them to take the requisite measures to protect the environment, to assess the results of such measures and to ensure that the public is properly informed about the state of the environment. To that end the necessary technical and scientific support…..*

It was under the EEA strategy (2001) that proposals were made to develop a common, shared European Environment Information System (EEIS), on which the existing e-EIONET could be expanded into what is called "Reportnet". This theme continued into the next strategy (2004-2008) where information systems and networks lie at the heart of the Agency's priority to support all EEA and Eionet activities related to the flows of data and information from countries and others to the EEA, through to the assessments and knowledge provided back to countries, the Community institutions and other clients.

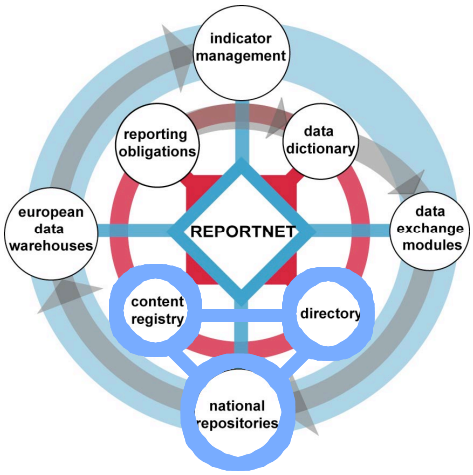
How the activity is carried out

The Reportnet tool includes central web services with an intelligent data system behind. Member countries have has an active role in its development. In relation to the Central Data Repository, each country has a folder where it uploads data. The CDR makes it easy for the EEA, its topic centres and users to access national deliveries.

In terms of volume - there are around 20-30 deliveries per country per year.[24] After the data has been delivered, the ETCs are the next in the queue to work with the data and go deeper into the quality checks. The ETCs then go back to the countries to check consistencies and for redelivery. The data then might go for further screening and this is sometimes done by the EEA internally and sometimes by an external contractor (eg in the case of bathing water). For each piece of data, it is known who is processing the data and who is publishing the final results. In some areas the EEA is only a delivery agency.

[24] There is a complete variety of data : Example, bathing water is the 31st December every year.

Figure 5 Reportnet components and main data flows



Reportnet is core business for the EEA and done through the core budget. Operationally, 4 people at the EEA deal with the data coming in[25]. At the beginning of Reportnet, with the introduction of new technologies, substantial amounts were invested in networking as well as in the provision of an Eionet helpdesk network management centre (NMC). The overall resourcing over the last three years in the EEA averages around 300 man days (just under 1.5 FTE). This is around 1/10th of the resources used in the programme area "providing an information system".

Figure 6 Reportnet resources (2005-2007)

Year	Task	Resource
2005	Development of Reportnet technical tools to support streamlined reporting (2005	26 days
	EIONET IT infrastructure and developments	123 days
	EIONET web sites and user support	86 days
	Total 2005	**235 days**
2006	Eionet IT systems and developments	122 days
	Reportnet services	214 days
	Total 2006	**336 days**
2007	Eionet IT systems and developments	132 days
	Reportnet services	168 days
	Total 2007	**300 days**

In those interviewed external to the Agency, there is little memory of the initial workload involved. However according to the IDA Reportnet Global Implementation Plan 2003, a share of each Eionet member country is in the range of €60/ year for manpower, which means one full time person that would manage the content and also

[25] The data stays in the system forever for documentation purposes.

technically take care of the server as the technical part of the network (this was during implementation phase).

The original IDA project budget over 2003-2004

2003	€ 327,000
2004	€ 1,173,000

Overall according to the interviews there have been some tremendous improvements in Reportnet since it started. Interviews with data providers suggest that currently, for a data provider, it takes very little time to report to Reportnet once you understand how to use the system.

EEA staff monitor Reportnet usage mainly by looking at the (quality of) data uploads to CDR: how many deliveries the EEA received, by country, year and data flow. The staff also look at timeliness and completeness of deliveries. This information is used to make data flow 'smiles'. There is no formal feedback mechanism in place but users occasionally report problems, bugs, etc. directly to respective EEA colleagues or to Eionet Helpdesk.

B.7.2. Assessment of the activity

Effectiveness

The principles underlying Reportnet are

- that countries should be required to report information only once against well defined needs based on policy objectives.
- that this information is held in a well-designed repository to enable ease of access and development of a corporate memory,
- that those institutions at the international level who need this information access it when they want to,
- that countries share information to enhance policy learning, and
- that information is transparent and accessible so enhancing participation and improving quality through use and exposure.

> *The business vision is streamlining through 'deliver-once-use-by-many'. Business objectives are quality improvements of delivered data, reducing duplication, providing multiple uses of delivered data, decreasing needless manual work from the information gathering and so decreasing unnecessary reporting burden in member countries and at other responsible organisations. Ensuring transparency and availability of data was also an objective of this work (Annual report 2004)*

Reportnet has had a significant impact on the reporting of data. In the last evaluation report (2003) it was mentioned very little, except to say that the streamlining process was not yet very developed and it was likely to be a long process before results are visible It was unclear whether Reportnet in the future would add value or just be another data collection system competing with existing ones. This process has leapt forward in terms of its delivery. The following table gives an overview of some of the developments of Reportnet in the last four years. It continues to support new reporting obligations and other data collection activities for example, there are plans to use Eionet/Reportnet for the noise data flow under the directive from 2008 in connection with the delivery by EU Member States of the noise mapping areas.

Figure 7 Overview of the developments in Reportnet taken from the Annual Management Plans and Annual reports 2004 – 2007

Year	Reportnet developments
2004	A proposal was be drafted on how to re-engineer current business processes in countries to report more efficiently to the international level. The first phase of the indicator management service (IMS). Use of Reportnet tools to facilitate data flows continued to increase during 2004. In particular the central data repository (CDR) was systematically used by an increasing number of countries. Reportnet's data dictionary (DD) holds complete descriptions and data element definitions for all priority data flows. Reportnet's generic data exchange module (GDEM) has been successfully introduced in the context of Eionet — water data collection on groundwater Reportnet came into the operational phase of supporting the first full chain of data flows, starting in the area of water. In parallel, the need to streamline reporting with the help of EEA member countries was explained.
2005	In 2005, the eighth progress report was prepared, covering deliveries for 12 priority data flows from 34 countries in Europe. The objective of the progress reports is to encourage countries towards better performance through *compétition amicale* concentrating on praise for achievements rather than blame for failures. A contract was awarded to European Dynamics to make some improvements to the Reportnet tools. The most requested feature has been the introduction of a means to receive a notification when a reporting event takes place. This was delivered in December 2005 and is called the Unified Notification System. Alongside this system, which will be expanded in 2006, the Web dashboard is a website which provides a quick overview of what is moving in real time in Reportnet at any one time. Further work is being carried out on the handling of data flows and a module to merge country deliveries into European datasets. Reportnet's generic data exchange module (GDEM) was successfully extended to include the Eionet — water data collection on rivers and the reporting of monthly and summer ozone exceedances required by the 3rd daughter directive. Reportnet's indicator management service (IMS) was also expanded to clarify the connection between indicators in the EEA core set and their source data sets and reporting obligations.
2006	Maintenance and development of Reportnet continued to facilitate its increasing use for national data flows. In addition to the yearly Eionet priority data flows report, the results for individual data flows were made available on the web throughout the year. Preparation of Reportnet for the next cycle was ensured by updating the GDEMs (Generic data exchange modules) and the DD (Data dictionary) for the upcoming Eionet-Water data collection and the monthly ozone data reporting. The Reporting obligations database was also updated in many thematic areas. Reportnet also allowed EEA to provide support to the Environment Directorate-General of the European Commission in the following areas in 2006: • Integrated pollution prevention and control (IPPC) reporting; • The second round of the European pollutant emission register (EPER); • Emission Trading Directive (Article 21) reporting; and • End-of-life vehicle (ELV) Directive
2007	The Reportnet-based tool developed by EEA in 2006 to support streamlined reporting by Member States under Article 17 of the Habitats Directive, was used by 25 Member States for this purpose in 2007. The tool has helped streamline substantially Member States' reporting efforts, enabled automated routines for quality assurance of their deliveries by the ETC/BD and will considerably simplify the task for the ETC and the European Commission of

Year	Reportnet developments
	producing a European assessment for the European Parliament and the European Council in 2009 as required under the Directive.

Reportnet remains relevant and will do so for a number of years, although the future of Reportnet will be directly affected by the introduction of SEIS (Shared Environmental Information System). This move will mean that the countries will keep their own data and the need for a 'gathering tool' will disappear. However there is still a need for an overall European portal to access all the country data and so parts of Reportnet and the lessons learnt from Reportnet will remain important. The ROD and DDR are the main tools used by the data providers. A number of people mentioned the indicator management system but it is less well used. The countries interviewed thought that although the business processes may change sooner, tools like CDR will probably be around for another 10 years.

Those interviewed directly about Reportnet highlighted the importance of transparency of data. This is something that has been a significant effect of Reportnet. Especially now that DG Environment obliges countries to report to CDR. It means that all of the data can be retrieved with ease. It was however, not known to what extent people or countries access the data themselves. The emphasis of use, as already highlighted, is on CDR and ROD. There are also many parts of the system that users do not use. This raises a question about under use of the whole system, particular by the wider population of policy makers and researchers.

Reporting can be seen as one of the last steps in the policy cycle. However it affects all areas as the data flows and streamlining of reporting requirements and its role within the network of reporting agencies and various legislative requirements underpin the work of the EEA and the policy cycle at the European level.

There are some issues around the systems used and the data collected by the Agency, DG Environment, the JRC and Eurostat. Although there is a broad understanding of complementarity and of the individual roles and responsibilities, there is no technical system in common for historic reasons. Each has its own machinery and software preferences. There is an agreement on how to exchange data and from those interviewed it works well enough. The roles and responsibilities of the stakeholders was set out in the Preparatory Report for Reportnet 2003.

The role of the EEA	Role of Member Countries	Role of EC
• Provide most tools • Operate DD, CR, Directory • Provide support via NMC and otherwise • Provide guidelines • Use in its own data flows with ETCs • Show best practice • Guardian of the concept and process, promotion	• Centralise international data and information reporting • Operate and populate Repository • Manage own data in Directory, EEA and local	• DG Environment: Take into account in streamlining reporting obligations • DG Environment: Use in own data flows and negotiate with committees • DG Environment: Be interface to IDA • Eurostat: Provide some tools and standards • Eurostat: Use in own data flows and negotiate with committees • IDA: Provide funding and common tools • DG Information Society: Support tools development • JRC: Prototype and demonstrate tools • JRC: Use in own data flows and negotiate with committees

Efficiency

Overall it is very difficult to judge value for money. There is no particular measure of overall efficiency although the whole principle of reporting once and using many times, plus the overall view from the stakeholders that it takes little time to report to the one system would indicate large cost and time savings over an alternative dispersed system. However there are still may reporting obligations which are dealt with externally to Reportnet, and also organisations have not streamlined indicators and often ask for data in completely different formats.

> *'Environmental information is currently collected by a multitude of organisations using techniques ranging from satellite observation from space to volunteers knee-deep in mud collecting water samples for laboratory analysis'. At the moment, we are not reaping the full benefits of all these data already available, because we cannot access them all.'*

Professor McGlade 2008 - Bridging the Gap Slovenia.

It is a complex area. According to an EEA report on environmental dataflows under European reporting obligations - based primarily on the reporting obligations database, the EEA analysed the environmental dataflows in 5 main thematic areas of the EEA: Air quality, climate change, land use, nature and biodiversity and water. For air quality, climate change and land use the dataflows are limited and well defined, less so for nature and biodiversity and water. There are few dataflows in the areas of climate change and land use. The dataflows that they identified are well supported by Reportnet and Eurostat tools and most of them are actually used in the calculation of the EEA core set of indicators. In the area of air quality there are about 40 dataflows where roughly half of these are for the EU, and are supported by Reportnet. The other halves of these dataflows are mainly related to ICP Forest monitoring and to HELCOM emission monitoring. From the dataflows relating to air quality only about one third are used for the EEA core set of indicators.

It would appear that SEIS will increase this efficiency as it will connect the existing environmental information systems in Europe. With SEIS, users will at all times be able to access the best and the most recent information available on the environment and carry out geographical comparisons.

B.7.3. Key lessons/messages

- Reportnet has necessitated a change in organisation and work processes as well as the development of a system. There was some initial issues around stakeholder buy in when the process was being developed, however the Member States seem positive about its use and helpfulness in terms of data reporting.
- In terms of emerging issues, one of the biggest impacts on Reportnet will be the implementation of SEIS. SEIS is a modern way of data sharing and Reportnet is the traditional way. If SEIS becomes a success, traditional reporting will disappear and therefore some of the elements of Reportnet. However the two systems will need to remain in place side by side in the short term (maybe 5-10 years). This means that Reportnet also needs to continue to be resourced and developed. There are new requirements being taken on board and systems change in that time.
- From the perspective of the EEA there is also a need for some countries to further invest on their side. This is a difficult issue if the future is looking towards SEIS.
- It is clear that the data held by Reportnet, and some of the tools may be under exploited. There is an extent to which the system and data appears to be owned by the EEA and not something for wider use. In the future it will not be an EEA tool but a SEIS tool. The main areas CDR and ROD have great potential for being used external to the ETCs and NFPs.

B.8. EEA Case Study 8: PRospective Environmental analysis of Land Use Development in Europe – PRELUDE

B.8.1. Description of the activity

The Prospective Environmental analysis of Land Use Development in Europe, PRELUDE, is an EEA project of stakeholder scenarios combining qualitative and quantitative methods and providing insights in the dynamics and prospects of land use change in Europe by 2035. The main outcomes of the project include the following[26]:

- An interactive multimedia presentation tool (both a web-based version and a CD-ROM based version) launched in March 2006
- Several academic papers prepared and presented by EEA staff in workshops and conferences in Europe and the USA in 2006 and 2007 and addressing several dimensions of PRELUDE
- The background report 'Land use scenarios for Europe – Regional case studies Estonia, The Netherlands, Northern Italy' and a technical annex of January 2007, addressing modelling at the regional level
- The technical report 'Land-use scenarios for Europe qualitative and quantitative analysis on a European scale (PRELUDE)' published in June 2007. This report focuses on the methodological approach and key finding of the project, including lessons learnt and conclusions on further scenario and policy analysis on land use change and the environment.

The Regulation, establishing the EEA and amended in 1999, outlines the tasks of the Agency, including forecasting, required to achieve its objective, in Article 2 (vi) and (vii):

- *to publish a report on the state of, trends in and prospects for, the environment every five years, supplemented by indicator reports focusing upon specific issues*
- *to stimulate the development and application of environmental forecasting techniques so that adequate preventive measures can be taken in time.*

Background to the activity

Over the last decades, forward-looking studies have been carried out by several international organizations. The most prominent examples include the long-term emissions scenarios of 2000 by the Intergovernmental Panel on Climate Change (IPCC) and the ecosystem and biodiversity scenarios developed within the Millennium Ecosystem Assessment and within the Global Environment Outlook (GEO) of the United Nations Environment Programme (UNEP), to which an EEA expert contributed. In the European context, the 'Bridging the Gap' conferences, in London (1998) and in Stockholm (2001) also stressed the need for scenarios and prospective studies to underpin early warning and to identify new problems.

Prior to initiatives leading to PRELUDE, the EEA had some experience on forward-looking studies, mainly on model-driven projections, gained through the State of Environment Report "Turn of the Century" report of 1999, while the European Topic Centres carried out some scenario exercises in the areas of transport and waste, for instance. From 1999 onwards, the Agency began to commission scenario-based studies in preparation of the future SOER (2004-05) primarily. The main reports in this field include "Cloudy crystal balls: An assessment of recent European and global scenario studies and models" of 2000, outlining the strengths and weaknesses of the tool; "The

[26] PRELUDE related products are found in http://scenarios.ew.eea.europa.eu/reports/fol077184.

ShAIR scenario" an integrated assessment applied to air pollution and greenhouse gases, "Participatory integrated assessment methods – An assessment of their usefulness to the European Environment Agency" and "Scenarios as tools for international environmental assessments" of 2001.

The importance of scenarios for the evaluation of future environmental problems was emphasised in the Annual Management Plans and Annual Reports of 2001 and 2002.The Annual Management Plan of 2003 was the first strategic document explicitly introducing the use of environmental scenarios, based on both qualitative and quantitative methods and drawing on the IPCC experience of 2000, in the EEA's activities. It also provided for the development of 'Envirowindows', operational in early 2003. The intention was to support production of information needed for reporting on the state and trends of the environment as well as to ensure dissemination and exchange of information.

Since then, the EEA strategy 2004-2008, and subsequent strategic documents, have provided for forward-looking studies, both scenarios and outlooks, aimed at promoting sustainability and sustainable environmental policies. The Agency's strategy, for instance, identifies the following examples of specific outputs:

- Development of comprehensive scenarios for Europe's environment
- In-depth scenario analysis of key issues (changes in land-use in relation to climate change and energy demand and maritime transport in environmentally sensitive areas, such as the Arctic and the Mediterranean)
- Elaboration of approaches to public and stakeholder participation in scenario development and assessments

PRELUDE was launched as an EEA pilot exercise. The idea emerged from Agency staff, already involved in external quantitative scenario activities and with some experience in participatory methods. The staff were driven by the perceived need for a more scenario like approach including qualitative/quantitative analysis by the Agency, requiring genuine engagement from the participants, so that the benefit of diverse views on the subject matter could contribute to new insights to the problem being analysed. A participatory method, according to interviews, would also benefit the Agency. Stakeholder engagement was expected to create 'access points', thereby permitting the Agency's participation in exploratory policy discussions and, possibly, in the actual policy of stakeholders.

Primarily, the project would allow the Agency to evaluate the added value of expanding its capacity for scenario based assessments on a regular basis in the future and, simultaneously, to develop capacity within the EEA to implement the Story and Simulation approach (SAS), supported by the qualitative perspective and quantitative modelling. In addition, it would put the Agency on the map as a body, which does not exclusively use modelling (notably projections and outlooks) in its approach to future information and analysis. Finally, it would raise awareness and stimulate strategic debate.

Land use was selected for being a well-integrated issue. Land use/land cover are subject to several influences, such as agriculture, transport, climate change, urbanisation and demography, are linked to several other environmental issues, i.e., biodiversity and waste, and also reflect societal needs. Furthermore, the issue area had value added in the sense that the environmental consequences of changes in land use/land management in Europe, with the use of scenarios for the future, had not been assessed.

Members of the project management team interviewed pointed out that, during the exploratory phase, additional issue areas were considered for this scenario exercise, for instance, climate change and water. The EEA management and the relevant European Topic Centres, however, did not show sufficient interest. Besides, focus on these issues would deprive the project of the value added, given the substantial amount of work already done.

Being a novelty, PRELUDE attracted interest and support from within the Agency, including from the Senior Management and the (then) new Executive Director.

> *"PRELUDE illustrates that the key trends facing Europe can change significantly. We need better-integrated, long-term assessments to effectively support strategic decision-making. Our current governance structures are not well suited to this kind of long-term vision."*

> *"The PRELUDE project was our attempt to go far beyond the perspective of two legislative cycles and explore Europe's society and environment 30 years from now. We need a long-term view if we don't want to undermine our commitment to sustainable development."*

PRELUDE was designed to build the methodological capacity of the EEA staff involved in the project as well as to raise awareness of both the tools and the content of PRELUDE within the Agency, including staff, the Scientific Committee and EIONET partners. It was also intended to support a broad range of clientele, such as agri-environmental policy makers in the EU –within the Commission and the Council- and immediate forces as well as national authorities for agriculture, rural development and spatial planning, the European Spatial Planning and Observation Network (ESPON) and the wider public. However, interviewed EEA staff and stakeholders involved in PRELUDE agreed that the project was better received by the DG Agriculture, being the main land user and interested in both scenarios work and integration of issues, rather than for DG Environment, with main focus on data collection and monitoring". In addition, some interviewees pointed out the importance of PRELUDE for indirect and potential clients, benefiting from the project outcome and the method used, for instance, the research community and the DG Regional Policy.

How the activity was carried out

PRELUDE was developed during 2003-2005 under the supervision of the EEA Scenarios Group, operational since January 2004, and with contributions from stakeholders and support groups. The process involved three workshops. During the first workshop (in June 2004), stakeholders developed five plausible qualitative storylines and scenarios for land use change in Europe over a period of 35 years, which, subsequently were translated into quantitative information and modelling at the EU level. This information was given to stakeholders during the second workshop to help them strengthen their scenarios. It was followed by a modelling exercise assessing the consequences of the EU scenarios in the regions and, then, stakeholder feedback at the May 2005 workshop. Multimedia work, completed in 2006, won four communication awards for best practice in communicating the importance of initiatives aimed at promoting sustainable development.

Scenario development, according to those interviewed, was a unique experience for stakeholders and some Agency staff. Besides exposing participants to novel –to most- methodologies and complex issue linkages, scenarios gave people some freedom. Facilitation was crucial for the meetings and outcomes since it made the process fully creative and enabled free flow of ideas.

PRELUDE2 Action was the strategic follow-up to PRELUDE. It involved several outreach initiatives to promote the project, and through this, to raise awareness of the issues and to stimulate strategic debate. These initiatives included a seminar for the EEA Management Board in May 2005 and the formal launching of the project in Brussels, in Nov. 2005; presentations of PRELUDE to the EEA and its clients, notably the Council of Environment Ministers, DG Agriculture; and several workshops on PRELUDE in Copenhagen and Vienna, for instance.

There were no formal mechanisms in place to ensure rigorous monitoring and evaluation of the project development and outreach activities. However, 'success criteria' for workshop facilitation and informal feedback on PRELUDE were very useful for the project managers.

PRELUDE was developed with the contribution of several groups of people, both internal and external. The overall supervision of the project was assigned to the Scenarios Group. The Project Team, which consisted of the Scenarios Group staff and two additional members 'attached' to the Group, was responsible for the management and implementation of the project plan, including coordination and communication with stakeholders and external support groups. The team was supported by the Advisory Committee, an in-house group of thematic and sectoral experts (initially 4 and subsequently 7), offering advice and feedback on the general approach of the project as well as on its consistency and synergy with other similar work of the Agency. This Committee was not the equivalent of a strong steering committee: it was intended to contribute to the efficiency of the project and to promote the quality of deliverables rather than to take decisions concerning the project. The Stakeholder Panel of 25 members, representing, a broad range of national, European and international agricultural, environmental, industrial and governmental organisations, discussed and developed the scenarios and their storylines and ensured the validity of the assumptions and the modelling results. Additional external groups supported PRELUDE. For instance, PROSPEX, a Belgian based consultant, facilitated the scenarios building process (3 workshops) and compiled the outcomes of both the stakeholder meetings and the project outreach event of November 2005. In addition, teams from the University of Kassel/Louvain La Neuve and from the Maastricht based Research Institute for Knowledge Systems (RIKS) contributed quantitative analysis and spatially specific modelling, underpinning the scenario storylines. Finally, the UK based World Wide Pictures was responsible for the multimedia output of the project.

The overall project cost for the period 2003-2006 amounted to 456,000 Euro. This figure includes stakeholder reimbursement, consultant fees on stakeholder involvement and modelling (about 400,000 Euro), and the cost of multimedia support (20,000 Euro). The figure, however, does not include the cost of EEA staff or meeting, which was not factored in the proposed project budget.

Members of the project team interviewed did not report any budgetary difficulties with PRELUDE. Interviews with stakeholders, however, pointed out some delays in reimbursement, attributed, in their view, to organisational and bureaucratic problems.

B.8.2. Assessment of the activity

Effectiveness

It is difficult to judge the effectiveness of PRELUDE –in terms of impact on policy and policy actors - using the standard evaluation study criteria because of the impact of PRELUDE and future scenarios on people – they promote thinking and change perspectives; therefore, they may lead to policy changes in ways, and at a pace, different from those of most policy determinants.

Interviews with stakeholders, facilitators and Agency staff suggest that PRELUDE was a very successful exercise, an 'eye opener' and an excellent example of good practice in scenarios. Feedback from outreach initiatives was also very positive. These suggest that the project has been important for the Agency - it enhanced its visibility, the recognition of its role and interest in the Agency itself.

The PRELUDE objectives, as identified by the project inception team, clearly shaped the overall approach of the Agency's strategy to scenario studies. In addition, the initiative remains relevant for the Agency – at least in terms of its objectives and planned activities. For instance, the Annual Management Plans for 2006 and 2007 reiterated the intention to establish the Agency's leadership in European scenarios, outlined relevant main activities for 2006-2008 and were supportive of exploring multiannual scenario exercises along the lines of PRELUDE.

At that time, the Scenarios Group within the Agency focused its activities on promoting PRELUDE in several events in Europe, including an outreach workshop in Vienna and a session in the Green Week in 2007. The intention was to raise awareness of both the substance and approach of PRELUDE and, thus, stimulate the debate on

the specific problems and solutions. The Group also supported scenario capacity building in Slovenia and Turkey, in line with the recommendations of the Management Board Seminar of May 2005, and contributed to the GEO4 report of 2007. The Group has not attempted to conceive and carry out another ambitious scenario study due to limited resources, both human and budgetary, attributed to lack of political support, primarily, and to recruitment difficulties.

PRELUDE has been communicated to its key audience, notably DG Agriculture, on several occasions and attracted political interest and support and, according to some, served as a driver and inspiration for subsequent DG initiatives, i.e., Scenar 2020. Interest and support, however, have not led to any concrete joint projects between the DG and the Agency. The DG simply resorted to its established practice: Scenar 2020 was carried out by an external consultant but benefited from the available PRELUDE results and of EEA experience provided at the meetings of the steering committee of which the Scenarios Group Leader was a member.

Scenarios, in general, according to interviews with EEA and JRC-Ispra staff, are valuable tools at the strategic level, primarily for complex policy situations and when some policy ideas already exist. Scenarios can help policy makers to identify policy issues as well as to generate and assess policy options, simply by motivating them to explore and think. Thus, they fit in the early stages of the policy cycle.

There was general agreement that scenarios are not appropriate for identifying and establishing short-term goals. In practice, there are few documented examples where scenarios have influenced concrete policy decisions, since the public sector is not open to such practices and policy makers tend to be more focused on day-to-day policy issues rather than strategic policy questions.

Those involved in the process reported some difficulties, encountered during the project development. One example was stakeholders' scepticism about the approach during the early stages of the projects. This was replaced by keen interest and active participation in the process. Analytical issues were reportedly more challenging. The main one was transfer from local/regional to European level extrapolation with transfer of storylines/simulation to modelling being less difficult.

Efficiency

It is difficult to pinpoint the value for money of PRELUDE and to address the following questions; it's a unique a complex project – not the normal EEA output. Those interviewed pointed out that the exercise ran smoothly and with no implications on resources, time and financial due to hard work, enthusiasm and the experience of the management and support teams.

B.8.3. Key lessons/messages

- PRELUDE was a successful exercise in the opinion of the EEA staff, the facilitators and stakeholders interviewed.
- The EEA has contributed to the long-term assessment of land use change in Europe and provided the inspiration and vision needed for a sustainable policy. However, the Agency's limited resources suggest that the Agency alone is unable to pursue similar activities on a more regular basis, unless more resources are allocated to these activities. Substantial funding is required to secure the external expertise needed for such complex and demanding activities.
- The Agency might consider undertaking less ambitious scenario studies, in cooperation with the relevant European Topic Centres, to address key emerging issues in the areas of climate change, preservation of biodiversity and ecosystems, for instance.
- The Agency should remain engaged in forward-looking scenario studies carried out by international organisations and encourage the involvement of staff not already involved in previous exercises.

- The EEA should continue pursuing cooperation with, and offer its expertise to, EU bodies carrying out similar activities, including the Commission services and EU Agencies. This would enhance its status as a responsible and reliable service provider contributing to the EU policy process.

B.9. EEA Case Study 9: Infrastructure for Spatial Information in Europe – INSPIRE

B.9.1. Description of the activity

This case study reviews the Agency's role in the implementation of the INSPIRE initiative of the European Commission aimed at establishing a network of geospatial information intended to facilitate access, sharing and use of data collected by several information centres throughout the EU. Environmental priority areas for the development of the information network and its services include air pollution, land use, biodiversity loss, climate change and water management.

INSPIRE is one of the priority areas of the EEA's strategy of 2004-2008 under the theme of information systems and networks. The Agency will contribute to the 'establishment of a shared European information system, in line with INSPIRE and the GMES initiatives, … to support the development of its products and services and to extend the capacities and network needed by users.'[27] INSPIRE has remained one of the Agency's priorities and there are several references to the initiative in the Agency's Annual Management Plans (AMP) from 2004 through to 2007. In the 2005 and 2006 AMP, for instance, INSPIRE was identified as a strategic objective of the Agency and as an important instrument, *in par*, for instance, with environmental indicators, while the 2006 AMP stressed the Agency's support for the creation of the Spatial Data Infrastructure in the EEA to support Eionet and the scientific community.

B.9.2. Background to the activity

The idea for INSPIRE resulted from the European Commission's need to develop a common spatial infrastructure to ensure high quality information and informed participation, essential elements of effective environmental policy. INSPIRE emerged in the late 1990s at the same time as the creation of certain databases, for example, GISCO, the database created and maintained by Eurostat since 2001. Around that time, the Commission and the EEA began exploratory talks with individual EU Member States to identify their attitudes toward a common infrastructure. INSPIRE was launched in 2001 on the initiative of DG Environment, in cooperation with Eurostat and the JRC. The Memorandum of Understanding of 2002, signed by the three components of the Commission formalised cooperation on INSPIRE and also provided for the involvement of the EEA to support DG Environment activities aimed at the development of INSPIRE.

The initiative led to the INSPIRE Directive 2007/2/EC, of April 2007, effective in May of the same year. The Directive regulated the creation of an infrastructure for spatial information in Europe related to environmental policies, or activities, impacting on the environment. These activities and a broad number of potential actors, according to EEA staff involved in INSPIRE since its early stages, were identified at the beginning of INSPIRE. The Directive focuses on technical standards and protocols, issues concerning organisation, coordination and policy, including data access as well as the creation and maintenance of spatial information.

One of the early contributions of the Agency to INSPIRE was the position paper of October 2002, whereby the Agency identified user needs in environmental policy areas and suggested specific data to be included in the regulatory framework for INSPIRE.[28] In addition, the Agency contributed, via its involvement in working groups, to the development of the INSPIRE Directive and helped its partners in the Commission identify and assess the impact of the legal framework.

[27] http://reports.eea.europa.eu/corporate_document_2003_1/en/strategy_web_en.pdf.
[28] http://www.ec-gis.org/inspire/reports/position_papers/inspire_etc_pp_v2_3_en.pdf.

In 2004, EEA staff led the Task Force responsible for revising the scoping of INSPIRE (from January to March 2004) and produced the scoping document, published by the Agency in March.[29] The Task Force was created to help overcome the 'stalemate' over the initiative, brought about by the working groups' failure to reach consensus over the initiative. This document was the basis for subsequent discussions amongst the INSPIRE expert group, DG Environment, JRC, Eurostat, the EEA and representatives from the EU Member States. It also facilitated the adoption of the Directive by the Commission, in July 2004, which led to preparations for the implementation of INSPIRE in 2005-2006. The contributing factor to this change was the focus on user demand, an approach proposed by the Agency and which, eventually prevailed because it took into account the views of the EU Member States, the future users of INSPIRE.

Since then, Agency staff has helped with the preparation of the INSPIRE implementing rules, thereby facilitating the transposition and implementation of the Directive in the EU members. Interviews with EEA staff and JRC-Ispra pointed out several reasons explaining the Agency's involvement in INSPIRE. The EEA has considerable experience with e-reporting tools, notably Reportnet. In addition, it has demonstrated ability to build and implement the components of INSPIRE since the Agency and Eionet developed their own spatial data infrastructure as a part of the European network for exchange and sharing of environmental information. Furthermore, the Agency can provide expertise needed for data specification, user requirements and network services. The Agency can also provide considerable reference material, including its Metadata Standard for Geographical Information.

The INSPIRE infrastructure for the environment is aimed at spatial data centres at the national and European level. These include the EU, its members, the EEA, the European Space Agency as well as national and regional NGOs .

B.9.3. How the activity was carried out

The EEA has contributed to INSPIRE within the context of the Group of Four. In that context, JRC-Ispra currently coordinates preparations in view of the imminent implementation of INSPIRE. It is also responsible for setting up working groups and consultations and for the technical element of INSPIRE. The JRC, for example, prepared the architecture for user requirements identified by the EEA. The JRC also needs the EEA support for harmonized data specifications. Eurostat coordinates the implementation and monitoring, while DG Environment deals with the consolidation of implementing rules. Interviews with the EEA and JRC-Ispra pointed out that Eurostat experienced problems, notably lack of stability and continuity in his activities since most of the staff involved in INSPIRE were national experts who normally stay with a EU organisation for up to four years. Recently, however, these problems seem to have been resolved.

The EEA has not experienced similar problems, according to interviews with the Group for Data Access and Management since 4 out of the 8 group members are involved in INSPIRE on a part-time basis. Resources are sufficient as long as the Agency provides the support needed. The Agency, it was emphasised, cannot contribute more since it is unable to deploy additional resources.

As mentioned in the previous section, the Agency has set up its own spatial data infrastructure with Eionet. To ensure compliance with the INSPIRE Directive, the staff regularly check the Directive requirements and are in close contact with their network. The Group organises regular meetings with Agency staff and Eionet to discuss issues related to INSPIRE – particularly to ensure harmonisation with the implementing rules. It also holds annual meetings with IT staff to be informed about, and benefit from, the IT perspective. There are also regular meetings between the INSPIRE team

[29] http://www.ec-gis.org/inspire/reports/inspire_scoping24mar04.pdf.

and the National Focal Points (NFP) to discuss issues related to SEIS and GMES. Prior to the implementation of the INSPIRE Directive, the team organised a seminar to familiarise the NFP with the Directive. The INSPIRE team believes that, although issues related to INSPIRE are rather technical, meetings are important. The support of both technical and non-technical staff is crucial for the successful implementation of the Directive since they are all involved in the new informational system.

We were unable to establish the budgetary implications of the Agency's involvement in, and implementation of, INSPIRE.

B.9.4. Assessment of the activity

Effectiveness

INSPIRE and SEIS, with the latter seen by some as a spin-off of the former, are areas of strategic importance for the Agency, as the previous brief overview on the EEA strategy and AMP showed, and for the EU and its members. Both information infrastructures are needed to support policymaking and assessment.

The JRC Ispra and EEA staff interview consider INSPIRE has strengthened the Group of Four and promoted close intra-group collaboration, both formal and informal. It also reinforced the Agency's status within the Group of Four and, in particular, benefited its relations with the JRC-Ispra. There was agreement amongst the JRC-Ispra staff interviewed of the importance of the EEA role in INSPIRE, particularly with regards to user requirements, as well as its contribution to the JRC work. The Agency can help the JRC identify priorities and make INSPIRE environmentally oriented. These comments notwithstanding, there were some minor differences of opinion between the EEA and the JRC, pointed out by the Agency, during consultations on implementing rules, whereby the JRC created a situation requiring additional resources on the part of the Agency. These differences were soon resolved and clearly did not impact on the EEA/JRC relations.

EEA staff interviewed pointed out that the spatial data infrastructure (SDI) is increasingly being utilised to manage data and information related to several major products and services, including, for instance, the SOER and reporting mechanisms on transport and the environment. Also, the 2005 Annual Report stated that SDI was used by the EEA to support the production of about 600 maps and graphs, already published in EEA reports. These, according to the same source, were downloaded about 58,800 times.[30]

Efficiency

We were unable to measure efficiency in terms of cost/benefit analysis as interviewed staff from the Agency and JRC-Ispra found the issue difficult to address. However, feedback on INSPIRE from the EU Member States suggests that most countries genuinely need this infrastructure and feel that the costs are not particularly high when compared to the benefits expected after the transposition and implementation of the Directive. Some concerns have been voiced, however, according to interviews with the EEA, because the implications of the implementation details will remain unknown, at least, until the implementation of INSPIRE, planned for 2009.

B.9.5. Key lessons/messages

- INSPIRE surpassed the initial expectations of those involved in the process, according to interviews with the EEA and JRC-Ispra. Although initially intended as an infrastructure to feed spatial information in the environmental policy, INSPIRE soon expanded to other sectors, such as transport.

[30] http://reports.eea.europa.eu/report_2005_0802_115659/en/ar2005.pdf.

- The EEA has been a key player in the launching of INSPIRE, including the work leading up to the preparation of the Directive. The Agency is currently contributing to work in view of the imminent implementation of the initiative in the EU members.
- The Agency has supported the Commission components during work on the initiative and its contribution has been acknowledged particularly by the JRC.
- The EEA has set up its own infrastructure and uses the initiative internally. It should expand the application of INSPIRE.
- The Agency can be expected to contribute to SEIS implementation. It has the experience and expertise in environmental information systems.

B.10. EEA Case Study 10: Waste

B.10.1. Description of the activity

The EEA and the European Topic Centre on Resource and Waste Management (ETC/RWM) have produced a considerable amount of work addressing issues of waste management in the EU and the EEA member and collaborating countries. This includes EEA reports, briefings and case studies, technical reports and working papers of the ETC/RWM, country fact sheets and waste indicators. In addition, the ETC/RWM maintains the WasteBase, a database providing information on waste, most notably waste quantities in European countries, as well as on waste management, namely policies, plans, strategies, and instruments in individual countries. The EEA and the ETC/RWM work draws on data obtained from Eurostat, responsible for the management of the waste data centre according to the decision of the Group of Four of November 2005.

This case study focuses on a small number of outputs produced by the EEA and its Topic Centre. These are:

- 'Effectiveness of packaging waste management systems in selected countries: an EEA pilot study', of October 2005. This is the first example of the Agency's work on policy effectiveness evaluation
- The EEA Brochure 'The road from landfilling to recycling: common destination, different routes', of October 2007, addressing the effects and effectiveness of national policies on waste, with particular emphasis on municipal waste, and comparing them to trends in waste generation and treatment
- The 'Transboundary shipments of waste in the EU,' of February 2008, a technical report prepared by the European Topic Centre on Resource and Waste Management (ETC/RWM) for the Agency and managed by the EEA

These reports were selected because they address key issues in the area of waste, e.g., significantly rising municipal waste and transboundary waste trafficking, including hazardous and illegal waste. However, the assessment of the EEA activities will draw on additional outputs mentioned above.

Background to the activity

Waste management issues have been important for the EEA. The Regulation establishing the Agency included waste management as a priority area of the Agency's activities aimed at providing information to support the implementation of the Community's (at the time) environmental policy. Waste management was one of the thematic areas of the EEA's work outlined in the 2004-2008 strategy aimed at supporting policy. The Agency outputs outlined in the Strategy included waste/material flow assessments, policy effectiveness evaluations, indicator development and support for reporting, including the packaging waste directive. The importance of EEA information, analyses and assessments was also highlighted in the Annual Management Plans of 2005, 2006 and 2007

Packaging waste management systems

The Agency had some experience in effectiveness evaluation of environmental measures gained from earlier work, notably the 'Reporting on environmental measures – Are we effective?', of November 2001, which provided a framework for evaluating the effects and effectiveness of the EU environmental policy and regulation. This type of work, however, became important around 2004 since not much work had been done in this area and, therefore, it was included in the EEA Strategy. Agency work in this area was supported by the European Parliament and DG Environment, although DG Environment was sceptical in the beginning because of concerns about 'timing' (the process of amendment of the packaging waste directive was in progress). However, DG staff was involved in consultations and provided feedback and support.

The study on packaging waste management systems is a comparative ex-post evaluation of the effectiveness of these systems in selected European countries, notably Austria, Denmark, Ireland, Italy and the United Kingdom. The project was carried out by the ETC/RWM, managed by the EEA, and with contributions from EEA staff and national experts. In addition to DG Environment, staff from national environmental authorities and industry representatives were involved in the consultations and provided feedback.

The objective of the study was two-fold: for the EEA, to gain experience of *ex-post* effectiveness evaluation through a pilot study and to analyse the effectiveness of packaging waste policies in the selected countries. Packaging waste was chosen to be the focus of the pilot study because of the long time series of data available. The study was aimed at policy makers in the European Commission (DG Environment) and, it was hoped during the early stages of the project, to feed into the discussion on the amendment of the EU directive.

This effectiveness evaluation was followed by a similar exercise on urban wastewater treatment, a subject matter of the water policy, published in October 2005 and prepared by an external consultant for the EEA.

The road from landfilling to recycling

This EEA brochure focuses on waste management policies in the EU members introduced in the context of the Landfill Directive and other relevant waste regulation. It also evaluates the results of these policies in terms of diverting municipal waste from landfill. The evaluation of waste management policy measures was based on 25 individual country fact sheets on waste developed to support the project. The objective of the study was to identify whether the EU regulation has brought about change in national waste management with focus on municipal waste.

The brochure prepared by EEA and ETC/RWM staff is based on a study carried out by ETC/RWM under guidance of the Sustainable Consumption and Production Group of the EEA. It was aimed primarily at helping policy makers at the EU and national levels to evaluation the use of policy instruments. The EEA expects to publish the full evaluation of the effectiveness of waste policies related to the landfill directive in selected countries in early 2009.

Transboundary waste shipment in the EU

The idea for this technical report emerged from ETC/RWM staff, and was supported by the EEA since the subject matter is a priority in the EU and an interesting topic in its own right. In addition, DG Environment staff expressed interest in the report, although they prefer more emphasis to be placed on illegal waste trafficking, which is a major problem and an issue where there is no official data available.

The report examines developments in transboundary shipment of waste within the EU as well as such shipments to and from the Union during the period 1995-2005, focusing on shipments by waste volume/type and shipments intended for recovery and disposal as well as green list, hazardous and illegal waste. It also analyses factors influencing such activities. The report draws on EU Member States' reporting to DG Environment and to the Secretariat of the Basel Convention, and on Eurostat data.

The report contributes to the EEA work on policy analysis and assessment. It was also intended to feed into the debate on the consequences, both positive and negative, of waste trafficking within the EU as well as to the debate within the institutions of the Basel Convention. Within the EU, the report is particularly useful to DG Environment and Eurostat and the relevant national authorities. It was also expected to attract the interest of technical experts within environmental NGOs.

The technical report was carried out by staff from the ETC/RWM under the management of the Sustainable Consumption and Production Group in the EEA.

B.10.2. Assessment of the activity

Effectiveness

The EEA outputs discussed in this case study fit well with the provision of the Regulation establishing the Agency as well as with the objectives outlined in the EEA's multiannual strategy and Annual Management Plans. There are also clear links between the Agency's initiatives and priority issue areas, concepts and principles of the EU's waste management policy incorporated in the Environmental Action Programme and the Thematic Strategy on waste prevention and recycling proposed by the Commission in 2005. Despite the slight defocusing from waste management due to increased salience of the sustainable use of resources, the Agency's activities remain relevant since they can contribute to the elaboration of short- and medium-term policy solutions to address increasing problems related to waste management. In addition, the revision of the EU's Waste Framework Directive and recycling targets enhance the relevance of the Agency's work.

Overall, interviews with staff in DG Environment and Eurostat pointed out the relevance of the Agency's work on waste to their work and its impact on policy. DG Environment staff appreciate the information provided by the EEA and are satisfied with the quality of the analysis and assessment. The technical report on transboundary waste shipment in the EU, according to interviews with DG Environment, has fed into the DG's activities and, most importantly, provides a useful and authoritative alternative to the Commission's report on the Waste Shipment Regulation, which is behind schedule. Some EEA staff pointed out the importance of briefings and country fact sheets for their work. These, in combination with the Agency and the ETC/RWM reports, have helped the DG to form a clear picture of the use of policy instruments, for instance, and facilitated the policy monitoring activities of the DG Environment staff. On a less positive note, the work on packaging waste systems was not sufficiently timely, according to interviews, and, therefore, it did not significantly shape the policy process within the Commission. It should be noted, however, the study was a pilot study and, therefore, the primary criterion for selecting packaging waste was data availability rather than timing of the policy process.

Similarly, Eurostat staff appreciate the EEA work on waste. Country fact sheets, for instance, complement their work in the sense that they help the staff to explain changes in waste data, e.g., reduction in the amount of waste to landfill. Comments on the landfill and transboundary waste shipment work of the EEA were similar. Besides facilitating data interpretation, these products enable Eurostat to see the information needs/preferences of DG Environment. Finally, Eurostat staff interviewed pointed out the value-added of the report on transboundary waste shipment, that is, it provided timely information on developments taking place outside the EU's borders but related to the EU.

During interviews with Eurostat on the EEA's waste management activities, the issue of quality of the EEA data emerged. Although the Eurostat staff found that the overall quality of reporting is good and the Agency has made progress, since they use Eurostat data, Eurostat staff still need to spend time to verify statistical data included in the reports. The issue is related to Eurostat's adherence to particular methods of data collection and analysis. However, the EEA are bound to use the data as they receive it from their network of Ministries and Environmental Protection Agencies in member countries to supplement Eurostat data (including data for those EEA member countries that are not EU member States). This challenge for the EEA and Eurostat reflects that there is a need for environmental authorities and statistical authorities in some EU Member States to work closer together to avoid differences in the data reported to Eurostat and the EEA.

Efficiency

Interviewed project managers in the EEA and the ETC/RWM did not mention any problems or challenges encountered during the development of the projects. In addition, interaction and consultations with stakeholders – with the exception of the packaging industry in the case of packaging waste evaluation – were smooth and

useful. Finally, the question on resources allocated to these initiatives was not looked into.

With regard to the cost-effectiveness of the projects, those interviewed pointed out the benefits of the products, real and potential impact on policy, and the low financial cost since the projects drew on EEA and ETC/RWM expertise, primarily, and not on external expertise which is often more costly.

B.10.3. Key lessons/messages

- The Agency and its Topic Centre have produced a considerable amount of quality information, analysis and assessment on key issues in the area of waste management.
- The work has shaped the views of actors in the Commission (DG Environment) and, to some extent, policy developments.
- The work has facilitated good working relations between the Agency and the ETC/RWM and their partners in the Commission, most notably DG Environment and Eurostat.
- The Agency and the new European Topic Centre on Sustainable Consumption and Production should strike a balance between the two components, SCP and waste, and continue to pursue its activities on waste management issues.

Appendix C Evaluation Methodology

C.1. Scope of the work

This study aimed to address two key issues:

- The efficiency of the EEA in delivering its corporate strategy, focusing mainly on internal and managerial issues
- The effectiveness of the EEA corporate strategy and the impact on the relevant policymaking processes – thus focussing on the external perspective.

The study needed to take into account objective performance measures, where available, but also the softer indicators that can be constructed on the basis of, for example, consultation with the key stakeholders or examination of specific activities.

The purpose of the evaluation was to enable the Agency to make judgements that can improve the efficiency and effectiveness of its activities and outputs; as part of this to improve its planning and programming through strengthening its systematic approach to evaluation and enhancing a results orientated approach to management.

The methodology included:

- Reconstruction of the intervention logic
- Construction and refinement of evaluation questions
- Questions and the identification of main data sources
- Primary research:
  - Construction of interview guides, questionnaires
  - Web based surveys
  - Face to face interviews
  - Telephone interviews
  - Focus groups
  - Case studies (involving desk research and further interviews)
- Secondary research
- Analysis of results
- Construction of the final report
- Project management

The next sections detail this overall methodology for the evaluation.

C.2. Reconstruction of the logic of the strategy

In order to frame the evaluation, an initial review of documentation and use of the first interviews and discussion with members of the steering group led to the 'logic of the strategy' being constructed, (analogous to the "intervention logic" of a programme evaluation) to clarify and classify the objectives, and understand their relative roles, and to examine the links in the chain between the resources devoted to the work, the activities carried out and their link to the objectives (planned or target outcomes) and

the actual outcomes. From this the appropriate indicators and data sources were identified.

C.3. Refining of the key evaluation questions and identification of the main data sources

Following on from the initial 'logic of the strategy' - in order achieve the objectives of the evaluation, the key evaluation questions were refined. Each of these questions has, several sub-questions that were set out explicitly in the subsequent interview guides and questionnaires developed.

Exhibit 1 Internal Efficiency Questions

Key question	Subsidiary questions	Main data sources									
		EEA documentation	Internal management and key staff	Management Board	Scientific Committee	DG Environment,	Other DGs	Parliament	EEA Networks (EIONET and ETCs)	Monitoring data and reports	Other Stakeholders
Has the corporate strategy been delivered through the annual management plans	To what extent do the annual management plans deliver the strategy?	★	★	★	★				★		
	What is the process for the development of the plans?	★	★								
	How effective is this process for ensuring the annual management plan reflects the needs of the EEA (internally)?	★	★	★	★						
	How effective is this process for ensuring the annual management plans complements external needs and priorities?	★				★	★	★			
	What factors (internal and external) have influenced the implementation of the plans?		★	★	★	★		★	★		
	What resource constraints have influenced the implementation of the plans (financial, human, skills, data, technology etc)?	★	★	★		★			★		
	How are priorities set within this planning cycle?	★	★	★	★	★					
	Are the plans (strategic and management) set out in manner enabling effecting monitoring of objectives and targets?	★	★							★	
	Do the governance structures facilitate the agency in	★	★	★	★						

Key question	Subsidiary questions	Main data sources									
		EEA documentation	Internal management and key staff	Management Board	Scientific Committee	DG Environment,	Other DGs	Parliament	EEA Networks (EIONET and ETCs)	Monitoring data and reports	Other Stakeholders
	delivering the strategy?										
	Are the priorities of the stakeholders adequately reflected in the process?					★	★	★			★
	What feedback mechanisms are in place to ensure the plans are kept current?	★	★	★	★				★	★	
Have the available resources been used to best effect?	What is the balance between internal, network and external resources? (finance, HR, data, technology etc)	★	★							★	
	On what basis is this decided?	★	★								
	External perspective on resource allocation								★		
	Is the structure of the EEA fit for purpose?		★	★	★	★	★	★	★		
	What are the emerging issues/priorities which affect or may affect the use of existing resources?		★	★	★	★			★		
	What effects does this have on the EEA in terms of service delivery?		★	★					★		
	Does the existing network infrastructure facilitate or impede the efficient provision of information and services (in what ways)?		★			★	★	★	★		★
	How effective are the collaboration mechanisms? How do the different mechanisms of collaboration with external bodies		★	★		★	★	★	★		★

Key question	Subsidiary questions	Main data sources									
		EEA documentation	Internal management and key staff	Management Board	Scientific Committee	DG Environment,	Other DGs	Parliament	EEA Networks (EIONET and ETCs)	Monitoring data and reports	Other Stakeholders
	effect the functioning of the EEA (positive or negative)?										
	Are the products/services produced in the most efficient way possible?	★	★						★	★	
Has the Agency carried out a clear and effective monitoring of delivery against its plans and targets?	To what extent does the monitoring system provide useful and relevant information?	★								★	
	What type of monitoring information is used externally and how is it used?					★	★	★	★		★
	Are the outputs of the monitoring system used to improve the services of the Agency?	★	★	★							

Exhibit 2 External Effectiveness and Impact questions

Key question	Subsidiary questions	Main data sources									
		EEA documentation	Internal management and key staff	Management Board	Scientific Committee	DG Environment,	Other DGs	Parliament	EEA Networks (EIONET and ETCs)	Monitoring data and reports	Other Stakeholders
To what extent have the outputs of the strategy been used in the policy processes	What is the usefulness of the information and activities provided at the different stages of the EEA policy cycle (issue identification, issue framing, policy measure identification, policy measure identification, policy measure development, implementation, effectiveness) ? ★	★	★			★	★	★	★		★
	How far have the EEA's strategic priorities matched the published policy agendas of the EEA's principal clients: Commission, Council and Member States and the European Parliament?			★		★	★	★			★
	Has the EEA achieved an established role in EU policy processes? At which stages?					★	★	★			
	Do policymakers have unmet policy demands that the EEA could or should address?					★	★	★			
	Has the work of the EEA made a difference to environment related policy developments in the Member States?			★		★	★		★		★
	Do what extent do stakeholders feel the strategy is appropriately targeted?			★	★	★	★	★	★	★	★
	To what extent to the products and services provided			★		★	★	★	★		★

Key question	Subsidiary questions	Main data sources									
		EEA documentation	Internal management and key staff	Management Board	Scientific Committee	DG Environment,	Other DGs	Parliament	EEA Networks (EIONET and ETCs)	Monitoring data and reports	Other Stakeholders
	meet the needs of the stakeholders:										
	What are the views of key stakeholders on the quality and usability of products: Timeliness, availability, coverage, accuracy, independence			★		★	★	★	★		★
	What are the views of key stakeholders on the medium of the products: paper (environmental considerations), web based, newsletters etc			★		★	★	★	★		★

Exhibit 3 Questions relating to the future challenges

Key question	Subsidiary questions	Main data sources									
		EEA documentation	Internal management and key staff	Management Board	Scientific Committee	DG Environment,	Other DGs	Parliament	EEA Networks (EIONET and ETCs)	Monitoring data and reports	Other Stakeholders
What changes need to be taken into account for the next strategic planning cycle	What are the broad emerging issues in environmental policy? (external)					★	★		★		★
	Would any emerging issues change the nature of relationships or collaborations with the EEA?					★	★		★		
	What are the broad emerging issues for the EEA in environmental policy?		★	★	★						
	What implications does this have for the management and working methods (is this a strategic change in focus?)		★	★	★	★					
	What changes in products and underlying processes will this require?		★	★	★	★					
	What additional skills and resources will be needed by the EEA and by its networks?		★	★	★	★			★		
	How should resources be allocated to meet these emerging needs internally		★	★	★	★					
	What resources should be allocated to meet these emerging needs within the networks?		★	★	★	★			★		
	How can the EEA avoid overlap with other organisations?		★	★	★	★	★	★	★		★

The next sections give more detail on the numbers and composition of the respondents.

C.3.1. Web based questionnaires

Web based questionnaires were designed for

The Management Board
The Scientific Committee
The National Focal Points
The European Parliament
The General Public

Figure 8 Web based questionnaire response rates

Stakeholder group	Total number of responses
Management Board	25
Scientific Committee	15
National Focal points	19
European Parliament	4 (plus the follow up telephone interviews – another 6)
The General Public	159

C.3.2. Specific topic guides

Topic guides were designed for the following groups:

- EEA Staff and Management
- The European Commission
- The European Parliament
- Indirect stakeholders (industry, NGOs etc)
- Press

EEA Staff and Management

Twenty two staff were interviewed as part of the evaluation. Another two were also involved in the focus group. They cover all programmes and priority areas.

Figure 9 List of EEA Staff and management interviewed

Name	Department/area
Jacqueline McGlade	Executive Director
Gordon McInnes	Head of Administrative Services
Marion Nielsen-Hannerup	Communication and Corporate Affairs

Sigfus Bjarson	Information and Data Services
David Stanners	Strategic Knowledge and Innovation
Jock Martins	Biodiversity, Spatial Analysis and Scenarios
Ivone Martins	Biodiversity and ecosystems
Galina Hristova	Management Board, Eionet and SC
Andre Jol	Climate Change and Energy
Lars Mortensen	Sustainable Consumption and Production
Ronan Uhel	Spatial Analysis
Teresa Ribeiro	Scenarios and Forward Studies
Malene Bruun	Information Centre
Beate Werner	Water and Agriculture
Brendan Killeen	Press Office
Hermann Peifer	Information and Data Services
David Gee	Strategic Knowledge and Innovation
Etem Karakaya	Climate change costs
Axel Volkery	Policy and scenarios analysis
Ybele Hoogeveen	Nature protection and biodiversity
Chris Steenmans	Data access and management
Jan-Erik Petersen	Agriculture and Environment
Adriana Gheorghe	International and Regional Cooperation
Andrus Meiner	Spatial Analysis
David Simoens	IT Networks and Data Flows
Tim Haigh	Air and Transport

The European Commission and European Parliament

Figure 10 European Commission and European Parliament interviews

Services	No of staff interviewed
DG Environment	25
JRC/IES	7
Eurostat	4
DG Agriculture	3
DG Enterprise	1
DG Research	1
DG Regional Policy	2
European Parliament	10

Indirect stakeholders (industry, NGOs etc)

Figure 11 European Agencies

Agencies	No of interviews
European Spatial Planning and Observation Network (ESPON)	1
Global Monitoring for Environment and Security (GMES)	1

Figure 12 Governmental organisations (national, regional international)

Governmental Agencies	No of interviews
United Nations Environment Programme	1
World Health Organisation	3
United Nations Economic Commission for Europe	1
OECD	1
US Environmental Protection Agency	1
Dutch Ministry for the Environment	1

Figure 13 Green 10

Organisation	Number of interviews
Nature Friends International	1
Birdlife International	2
Health and Environment Alliance	1
European Federation for Transport and Environment	1

European Environment Bureau	1
Climate Action Network - Europe	2
WWF Europe	1

Figure 14 Other non governmental organisations

Organisation	No of interviews
Asia-Europe Foundation	1
COPA-COGECA	1
Natural England – UK	1

Figure 15 Others

Organisation	No of interviews
PROSPEX – Belgium	1
Independent – Greece	1
Hellenic Centre for Marine Research	1
Paul Watkiss - External consultant	1

The Press

Twelve press interviews were completed covering the following organisations/newspapers:

ENDS
The Economist
Figaro
De Standaard
Business Europe
Euractiv
Gothenburg Press
Le Figaro
Le Monde
Irish Times
Inside Europe

The case studies also included interviews with topic centres and national focal points.

C.3.3. Focus groups

Two focus groups were held as part of the evaluation. One internal and one external to the Agency. The focus groups used the time to discuss in more depth some of the emerging issues from the evaluation.

C.3.4. Case studies

The purpose of the case studies was to bring together the views collected in a more concrete form, by looking at specific products or activities, highlighting any issues that have arisen and exploring them in slightly more depth. For each case-study as well as bringing together the wider comments on the topic, there were a small number of interviews with those directly involved, or directly targeted by the product/activity.

Following discussions with the steering group, the following case studies were undertaken:

Proposed case	**Prelude**
Type of activity/product	Emerging Issue
Thematic Area	Tackling biodiversity loss, understanding spatial change, incl. land use
Reason for selection/specific features	Prelude is an example of the value added projects being undertaken by the Agency. It looks at future land use and provides five different scenarios. The objective is to stimulate strategic discussions on an emerging issue.
Key stakeholders	EEA Staff: from project co-ordination team, advisory group Stakeholder Panel: Policy, NGO and industry stakeholders
Comment	The role of the EEA in stimulating rather than responding to strategic emerging issue debates is an area that has come up in many of the interviews, making it an important area in which to carry out some deeper analysis. Biodiversity loss has been highlighted as an area of future demand in the consultations so far, making this an important area to examine in more detail. In terms of spatial data, questions of its usefulness and levels of detail have arisen which merit further examination.

Proposed case	**Agriculture**
Type of activity/product	Sector
Thematic Area	Supporting sustainable development and environmental policies
Reason for selection/specific features	This is a key economic sector that has an impact on the environment and on which environmental policies have an impact. In terms of the EU's activities it remains a very significant sector. It is also an area where there are current and emerging policy debates in which the evidence base is becoming increasingly important.
Key stakeholders	EEA Staff Commission: DGs Environment and Enterprise Food and Agriculture Organization of the United Nations COPA-COGECA ETUC
Comment	As well as carrying out activities in support of the policy process, the Agency is also using this to shape its own activities in the field, and the areas in which they will work in future.

Proposed case	**Climate change: the cost of inaction and the cost of adaptation**

Type of activity/product	Emerging Issue
Thematic Area	Tackling climate change
Reason for selection/specific features	Climate change is the most frequently cited area where future demand for work by the EEA is expected, according to the interviews and surveys so far completed. The product selected is a technical report that reviews, analyses and discusses the methodological issues regarding cost of inaction and cost of adaptation to climate change modelling.
Key stakeholders	EEA Staff Commission JRC External experts
Comment	Rather than other products that focus on the collection and analysis of data this report looks at development of methodologies to meet a need of the emerging policy area. Any value ascribed to EEA value-added products is predicated on a respect for their methodological competence. Thus a study on the development of new methodologies should give an insight on this issue and highlight any problems or constraints, as well as consultations and working practices

Proposed case	**ReportNet**
Type of activity/product	Governance process
Thematic Area	Information systems and networks
Reason for selection/specific features	Reportnet is the web applications and processes developed by the EEA to support international environmental reporting, and thus part of the core activities underpinning the work of the Agency. It involves a wide range of stakeholders and is in a state of constant development. It is also heavily involved/affected by the actions surrounding the development of the SEIS, which may have an impact on the functioning of the whole EEA network.
Key stakeholders	EEA Staff NFPs Topic Centres Country representatives involved in environmental reporting People involved in environmental reporting from the perspective of the international organisations receiving and making use of the data
Comment	The purpose of this case is to look at the reporting infrastructure and its underpinnings, and to review the effectiveness of its functioning. It is not a technical review.

Proposed case	**Waste**
Type of	Policy measures and instruments

activity/product	
Thematic Area	Supporting sustainable development and environmental policies
Reason for selection/specific features	This is an area of activity that falls at the cusp of the activities of the Commission and the Agency, and which has been subject to a certain amount of debate. However, the evaluation of the effectiveness of specific policies is becoming an increasingly important area. These specific topics also fit well with the Commission high level "better regulation" agenda
Key stakeholders	EEA Staff External Experts Commission
Comment	The issue under examination in this case is the nature of the interface between the Commission and the Agency in the selection of tasks and the identification of the priorities of the Agency.

Proposed case	**Inspire**
Type of activity/product	Policy measures and instruments
Thematic Area	Information systems and networks
Reason for selection/specific features	INSPIRE lays down general rules for the establishment of an infrastructure for spatial information in Europe, for the purposes of environmental policies and policies or activities which may have a direct or indirect impact on the environment. This work involves all the members of the group of 4 and thus gives an insight into how they can and do work together. In this case we have select ed an initiative where the EEA does not lead the initiative, but that has serious implications for the Agency and its network.
Key stakeholders	EEA Staff Commission (DG Environment) JRC Eurostat
Comment	The focus of this case is on the working methods and implications of an activity where the Agency is not the lead partner but which has big implications for the future work of the Agency. This study focuses therefore on the external relationships whereas the other case in this area focuses on the internal relationships (within EIONET)

Proposed case	'Greenhouse gas emission trends and projections in Europe 2007'
Type of activity/product	Specific product
Thematic Area	Tackling climate change
Reason for selection/specific features	This might be classed as a "classic" EEA product, which takes their data and adds value through additional analysis. It also has a forward-looking element. It falls within the area of climate change, which stakeholders so far seem to see as the most important area of future work.
Key stakeholders	EEA Staff ETC Commission NFPs
Comment	An example of a mainstream activity

Proposed case	Ozone web
Type of activity/product	Specific product
Thematic Area	Protecting human health and quality of life inc air, water
Reason for selection/specific features	Ozone web provides hourly ozone information from selected stations in European countries. It is an example of new "real time" information products, which the Agency considers will be an increasingly important area of work.
Key stakeholders	EEA Staff Commission Data providers
Comment	In presentation, Ozone web is directed towards the wider public rather than the informed policy-related audience for most of their other activities.

Proposed case	Belgrade Report 'Europe's environment — The fourth assessment'
Type of activity/product	Specific product
Thematic Area	EEA in the wider world

Reason for selection/specific features	This report provides an example of the EEA working with external partners and providing coverage of an area wider than the EEA members. Co-operation with external bodies and working with stakeholders. Core business.
Key stakeholders	EEA Staff Commission Regional Environmental Centres NGOs
Comment	An example of a complex product with some similarities to the State of the Environment report, which brings together many parts of the Agency in addition to external partners

Proposed case	**Coastal**
Type of activity/product	Thematic activity
Thematic Area	Tackling biodiversity loss, understanding spatial change, incl. land use
Reason for selection/specific features	An area of work representing the core business of the Agency, but where the pan-European or multi-national nature of the environment is particularly relevant. It includes several of the Agency's areas of information provision. This topic involves s slightly different group of stakeholders from the others selected.
Key stakeholders	EEA staff Commission EuroGOOS NFPs ETC water
Comment	The transnational nature of issues has been highlighted by several in interviews. This is an area of work where the European Added Value of the Agency can specifically be examined.

The purpose of the case studies was to examine the issues that have already been highlighted in the interviews and data collection processes.

For each of the cases, the report examines:

- How the product or service relates to the strategy, and the original basis for the decision to carry out the work
- How the activity has evolved over time (where relevant)
- The timescale of the activity
- The resources devoted to the activity (internal and external, and financial and other)

- The relationship between planned and actual activities (and reasons for any changes)
- The reach of the product (where appropriate) including distribution data (print, electronic etc)
- Involvement of stakeholders and feedback mechanisms
- How the product/service is used by the stakeholders and the EEA
- Process/operational issues relating to the activity

C.4. Secondary data collection

As well as primary data collection, the following existing information was collected and reviewed including plans, reports, financial and monitoring data, agreements, contracts and operational procedures for the networks and experts.

The regulation
Strategy
Previous 5 year multi-annual programmes
Annual Reports
Minutes of Management Board Meetings
Minutes of Scientific Committee Meetings
Monitoring Reports and MIS data
Previous evaluations
EEA products
Budget discharges for all the years concerned
Annual reports from the Court of Auditors

C.5. Analysis Phase

The analysis phase was the key element of the study – it brought together the data and enabled the required judgements to be made. At this point the questions in the original tender documents were answered, based on the data collected.

The analysis fell into three stages – initial analysis of the information collected and a general review of the key issues, in depth analysis using this and other data to explore the issues arising through the case studies, and a final analysis bringing these aspects together.

Quantitative analysis was done through excel. We have also analysed performance data using a selection of methods and indicators to produce the necessary information.

Qualitative information has been used throughout the final report to answer the questions and evidence the key conclusions and recommendations.

C.6. Final report, conclusions and recommendations

The judgement phase is where the conclusions are drawn based on the above analysis and the key recommendations are made. The product of this phase is first the draft final report and, following the comments from the steering group, the bureau and the management board, the final report for publication or circulation in line with the wishes of the EEA.

C.7. Project Management and Liaison with the EEA

Regular internal progress reviews were held, based on reviewing achievements at predefined, regular control points. Five steering committee meetings were held during the course of the study and Technopolis reported on a regular informal basis, normally weekly, in between meetings.

Appendix D Statistical annex

D.1. Questionnaire for the Management Board

Figure 16 How far do you feel the EEA has achieved an established role in European policy processes

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	3	17	3	0	4	23
							Answered	23
							Skipped	2

Figure 17 In which policy areas do you feel it has a well established role?

		Response
Open question		22
	Answered	22
	Skipped	3

Figure 18 In which policy areas do you feel there is scope for a greater role?

		Response
Open question		21
	Answered	21
	Skipped	4

Figure 19 At what stages in the policy cycle does it have an established role?

	Information systems and networks	Tackling climate change	Tackling biodiversity loss and understanding spatial change	Protecting human health and quality of life	Supporting sustainable use and management of natural resources and waste	Sustainable development and other environmental policies The EEA in the wider world	Response Count
Issues identification	18	15	17	16	20	19	20
Issues framing	15	13	15	15	16	**19**	21
Policy measure identification	**17**	15	13	10	14	13	21
Policy measure development	**14**	4	3	2	3	2	19
Policy measure implementation	**13**	5	3	1	2	0	16
Policy measure effectiveness evaluation	**13**	**13**	9	10	10	8	18
						answered question	22
						skipped	3

Figure 20 At what stages in environmental policy making do you think its role could be strengthened (please tick all that apply)

	Information systems and networks	Tackling climate change	Tackling biodiversity loss and understanding spatial change	Protecting human health and quality of life	Supporting sustainable use and management of natural resources and waste	Sustainable development and other environmental policies The EEA in the wider world	Response Count
Issues identification	3	**4**	2	2	3	**4**	7
Issues framing	3	**5**	4	2	3	4	8
Policy measure identification	5	10	10	9	10	**13**	17

	Information systems and networks	Tackling climate change	Tackling biodiversity loss and understanding spatial change	Protecting human health and quality of life	Supporting sustainable use and management of natural resources and waste	Sustainable development and other environmental policies The EEA in the wider world	Response Count
Policy measure development	6	**9**	8	5	7	8	15
Policy measure implementation	**6**	2	2	1	4	4	8
Policy measure effectiveness evaluation	10	9	**11**	8	**11**	9	16
						answered question	22
						skipped	3

Figure 21 To what extent do you feel that the strategy is appropriately targeted for European policy makers?

	1	**2**	**3**	**4**	**5**	**Don't know**	**Rating Av**	**Response**
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	6	14	2	0	3.818	22
							Comments	11
							Answered	22
							Skipped	3

Figure 22 What do you think are the key emerging issues in the field at European level that are important to the Agency?

		Response
Open question		21
	Answered	21
	Skipped	4

Figure 23 Do you think this will give rise to new information needs that could be addressed by the Agency?

		%	Response
Yes		90.9	20
No		9.1	2
	Answered		22
	Skipped		3

Figure 24 If yes, what types of needs?

		%	Response
New types of data		60	12
Data on new topics		60	12
New analyses of existing data		95	19
New forms of access to data		50	10
New forms of communication		30	6
Other		10	2
	Answered		20
	Skipped		5

Figure 25 Please give examples of potential new needs?

		%	Response
New types of data		**78.6**	**11**
Data on new topics		35.7	5
New analyses of existing data		71.4	10
New forms of access to data		35.7	5
Other		14.3	2
	Answered		14
	Skipped		11

Figure 26 In your opinion, to what extent might the Agency be able to meet these needs?

		Response
Open question		19
	Answered	19
	Skipped	6

Figure 27 Does the EEA information play a role in environmental policy making in your member country?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	1	7	6	5	0	1	2.79	20
					If it does, in what way?			17
							Answered	20
							Skipped	5

Figure 28 In which national policy areas do you feel it is most useful?

		Response
Open question		18
	Answered	18
	Skipped	7

Figure 29 In which policy areas is it least useful?

		Response
Open question		15
	Answered	15
	Skipped	10

Figure 30 At what stages in the national policy process does it have a strong role?

		Response
Open question		16
	Answered	16
	Skipped	9

Figure 31 At what stages in the national policy processes do you feel it could be strengthened?

		Response
Open question		13
	Answered	13
	Skipped	12

Figure 32 How well do the priorities of the EEA multi-annual strategy fit with your national priorities?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	1	5	13	0	1	3.63	20
					Comment			6
							Answered	20
							Skipped	5

Figure 33 What do you think are the key emerging policy issues at the national level that the Agency should be aware of?

		Response
Open question		18
	Answered	18
	Skipped	7

Figure 34 Will this result in new information needs?

		Response
Open question		17
	Answered	17
	Skipped	8

Figure 35 To what extent do you think the Agency would be able to meet these needs? (please explain)?

		Response
Open question		14
	Answered	14
	Skipped	11

Figure 36 What other main sources of European or international information on environmental and related issues do you use?

		Response
Open question		17
	Answered	17
	8	11

Figure 37 Overall how would you rate the quality of information provided by the EEA on the following criteria? Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely

	1	2	3	4	5	Don't know	Rating Av	Response
Availability	0	1	3	9	6	0	4.052631	19
Timeliness	0	1	8	8	2	0	3.578947	19
Coverage	0	0	5	11	2	0	3.833333	18
Accuracy	0	0	4	14	1	0	3.842105	19
Independence	0	1	2	6	9	1	4.277778	19
Well communicated	0	0	5	8	5	1	4	19
							Answered	19
							Skipped	6

Figure 38 In order to broaden the picture of the impact of the EEA's work at the national level, could you give names and contact details of three people in your member country who might be willing to give views on the usefulness and impact of the EEA's activities?

	%	Response
Contact	100	11
Contact	81.8	9
Contact	63.6	7
Answered		11
Skipped		14

Figure 39 To what extent do the Annual Management Plans reflect the multi-annual strategy of the EEA?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	3	11	5	1	4.11	20
							Answered	20
							Skipped	5

Figure 40 Are your requirements regarding the following criteria met in the Annual Management Plans?

	Not met	Met to some extent	Generally met	Completely met	Don't know	Response Count
Content of annual plans	0	0	**11**	8	1	20
Coherence of plans with EU policy issues	0	0	**12**	7	1	20
Role of EEA compared to other EU actors	0	1	**9**	8	2	20
Role of EEA compared to other international actors	0	5	**11**	3	1	20
					answered question	20
					skipped	5

Figure 41 Do you feel the way the EEA plans its work at a strategic and management level contributes to the effectiveness of individual activities?

	1	**2**	**3**	**4**	**5**	**Don't know**	**Rating Av**	**Response**
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	3	13	4	0	4.05	20
							Answered	20
							Skipped	5

Figure 42 What (if any) factors contribute to the success in implementing the plans ?

		Response
Open question		10
	Answered	10
	Skipped	15

Figure 43 What (if any) factors limit the successful implementation of the plans?

		Response
Open question		8
	Answered	8
	Skipped	17

Figure 44 How does the planning process deal with changes in policy priorities arising over the life of the strategy?

		Response
Open question		7
	Answered	7
	Skipped	18

Figure 45 Is the planning process adequately flexible?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	5	11	2	2	3.83	20
							Answered	20
							Skipped	5

Figure 46 To what extent does the Board have a direct influence on the allocation of resources against priorities?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	1	9	9	1	0	3.5	20
							Answered	20
							Skipped	5

Figure 47 Do you feel this is adequate?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	2	2	9	6	0	4	19
							Answered	19
							Skipped	6

Figure 48 Are the annual plans set out in a manner that assists the Board with its oversight of work?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	1	5	12	2	0	3.75	20
							Answered	20
							Skipped	5

Figure 49 Do you receive timely, adequate and useful information to enable you to follow up the implementation of the plans?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	1	6	12	1	0	3.65	20
							Answered	20
							Skipped	5

Figure 50 Do you feel this is adequate?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	7	9	2		3.72	18
							Answered	18
							Skipped	7

Figure 51 Does the functioning of the Eionet network help the efficient provision of information and services?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	2	12	5	0	4.16	19
							Answered	19
							Skipped	6

Figure 52 How would you categorise the relationship with the network members in your member country (formal, close collaboration, mutually supporting…)?

		Response
Open question		18
	Answered	18
	Skipped	7

Figure 53 To what extent are collaborations by the Agency with other external bodies helpful to the EEA and more widely?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	5	9	6	-	4.05	20
							Answered	20
							Skipped	5

Figure 54 There is a view that the EEA is moving from only being a data collector to complementing its core activities by providing other value added services. To what extent do you think this is : (please rate from 1-5 where 1 is not at all and 5 is completely)?

	1	2	3	4	5	Don't know	Rating Av	Response
A valid statement	1	0	2	10	8	0	4.14	21
Desirable	0	0	2	7	12	0	4.48	21
Being achieved	0	0	14	5	0	0	3.26	19

	1	2	3	4	5	Don't know	Rating Av	Response
							Answered	21
							Skipped	4

D.2. Questionnaire for the National Focal Points

Figure 55 How far do you feel the EEA has achieved an established role in European policy processes

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	10	8	0	0	3.44	18
							Answered	18
							Skipped	1

Figure 56 In which policy areas do you feel it has a well established role?

		Response
Open question		15
	Answered	15
	Skipped	4

Figure 57 In which policy areas do you feel there is scope for a greater role?

		Response
Open question		14
	Answered	14
	Skipped	5

Figure 58 To what extent do you feel that the EEA strategy 2004-2008 is appropriately targeted for European policy makers?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	6	9	1	1	3.69	17

	1	2	3	4	5	Don't know	Rating Av	Response
							Answered	17
							Skipped	2

Figure 59 At what stages in the policy cycle does the Agency have a strong role?

	Information systems and networks	Tackling climate change	Tackling biodiversity loss and understanding spatial change	Protecting human health and quality of life	Supporting sustainable use and management of natural resources and waste	Sustainable development and other environmental policies The EEA in the wider world	Response Count
Issues identification	12	10	**12**	**12**	**12**	**12**	14
Issues framing	10	10	**13**	9	10	8	14
Policy measure identification	8	7	4	3	4	3	12
Policy measure development	**9**	6	3	3	3	3	15
Policy measure implementation	**10**	4	3	2	0	1	11
Policy measure effectiveness evaluation	**8**	**9**	**9**	6	**9**	4	10
						answered question	16
						skipped	3

Figure 60 At what stages do you think the role of the Agency could be strengthened (please tick all that apply)

	Information systems and networks	Tackling climate change	Tackling biodiversity loss and understanding spatial change	Protecting human health and quality of life	Supporting sustainable use and management of natural resources and waste	Sustainable development and other environmental policies The EEA in the wider world	Response Count
Issues identification	2	2	3	2	2	2	7
Issues framing	2	2	1	2	1	2	6
Policy measure identification	3	4	7	6	6	8	12
Policy measure development	3	2	4	3	4	4	9
Policy measure implementation	3	2	3	3	5	5	10
Policy measure effectiveness evaluation	5	5	7	7	6	5	12
						answered question	16
						skipped	3

Figure 61 In general how well does the EEA strategy and its priorities fit with you national policy and priority areas??

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	6	10	2	2	3.63	16
							Answered	16
							Skipped	3

Figure 62 Are there specific areas or topics where the EEA strategy is particularly well aligned?

	Response

		Response
Open question		14
	Answered	14
	Skipped	5

Figure 63 Are there areas or topics where the EEA strategy focus differs from the national priorities?

		Response
Open question		9
	Answered	9
	Skipped	10

Figure 64 What do you think are the key emerging issues in the field at national level that the Agency should be aware of?

		Response
Open question		12
	Answered	12
	Skipped	7

Figure 65 What do you think are the key emerging issues in the field at European level that are important for the Agency?

		Response
Open question		13
	Answered	13
	Skipped	6

Figure 66 Do you think this will give rise to new information needs that could be addressed by the Agency?

		%	Response
Yes		100	14
No		0	
	Answered		14

		%	Response
	Skipped		5

Figure 67 If yes, what types of needs?

		%	Response
New types of data		28.6	4
Data on new topics		42.9	6
New analyses of existing data		71.4	10
New forms of access to data		85.7	12
New forms of communication		57.1	8
Other		0	0
	Answered		14
	Skipped		5

Figure 68 Please give examples of potential new needs?

		%	Response
New types of data		30.8	4
Data on new topics		46.2	6
New analyses of existing data		46.2	6
New forms of access to data		69.2	9
Other		7.7	1
	Answered		13
	Skipped		6

Figure 69 In your opinion, to what extent might the Agency be able to meet these needs?

		Response
Open question		13
	Answered	13
	Skipped	6

Figure 70 What do you see as the major implications for the various parts of the Eionet in meeting these needs?

		Response
Open question		14
	Answered	14
	Skipped	5

Figure 71 To what extent do the Annual Management Plans reflect the multi-annual strategy of the EEA?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	1	12	3	0	4.13	16
							Answered	16
							Skipped	3

Figure 72 To what extent do the NFPs have an influence on the allocation of resources against priorities?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	2	5	9	0	0	-	2.44	16
							Answered	16
							Skipped	3

Figure 73 Do you feel this is adequate?

	1	2	3	4	5	Don't know	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	1	2	7	6	0	-	3.13	16
							Answered	16
							Skipped	3

Figure 74 How would you categorise the relationship between the NFP and the national network members in your member country?

		Response
Open question		16
	Answered	16
	Skipped	3

Figure 75 How would you categorise your relationship with the management board members from your member country?

		Response
Open question		16
	Answered	16
	Skipped	3

Figure 76 The EEA strategy is to complement its role of data collection with an increased focus on value added services. Please indicate below (on a scale of 1-5 where 1 is not at all and 5 means completely) the extent to which you think this is:

	1	2	3	4	5	Rating Av	Response
A valid statement	0	2	2	8	4	3.87	16
Desirable	0	1	2	6	6	4.13	15
Being achieved	0	6	2	7	0	3.06	15
						Answered	16
						Skipped	3

Figure 77 Are there specific topic areas where this is particularly noticeable or has added most value?

		Response
Open question		10
	Answered	10
	Skipped	9

Figure 78 Are there areas or topics where this shift could usefully be further developed?

		Response
Open question		7
	Answered	7
	Skipped	12

Figure 79 What are the implications of this change for the NFPs and the national networks?

		%	Response
As information providers		100	11
As information users		72.7	8
	Answered		11
	Skipped		8

Figure 80 To what extent does the EEA provide the necessary support and feedback for the NFPs and national networks?

	1	2	3	4	5	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	7	6	3	3.75	16
					Answered		16
					Skipped		3

Figure 81 In which areas is the EEA particularly helpful?

		Response
Open question		12
	Answered	12
	Skipped	7

Figure 82 In which areas would more support by the EEA be valuable – please give your suggestions regarding?

		%	Response
Administrative and procedural support		44.4	4
Scientific and technical support		55.6	5
Strategy and policy support		33.3	3
	Answered		9
	Skipped		10

D.3. Questionnaire for the EEA Scientific Committee

Figure 83 Do you feel that the contributions of the scientific committee to the scientific quality of EEA outputs are effective?

	1	2	3	4	5	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	0	5	8	1	3.71	14
					Answered		14
					Skipped		1

Figure 84 Where do you feel the committee could contribute more? Please specify

		Response
Open question		15
	Answered	15
	Skipped	0

Figure 85 Are there specific aspects of the work of the EEA on which the SC should focus more, if at all?

		Response
Open question		14
	Answered	14
	Skipped	1

Figure 86 What are the main barriers to more effective contribution? Please explain

		Response
Open question		15
	Answered	15
	Skipped	0

Figure 87 To what extent do the priorities of the annual management plans reflect the views of the SC?

	1	2	3	4	5	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	2	5	7	0	3.36	14
					Answered		14
					Skipped		1

Figure 88 Do you have any comments on the mechanisms by which the views of the SC are taken into account in the process of drawing up the Annual Management Plan?

		Response
Open question		14
	Answered	14
	Skipped	1

Figure 89 How well established do you think the role of the EEA is in your specific area of interest?

		Response
Open question		15
	Answered	15
	Skipped	0

Figure 90 In which other fields do you think the EEA has a well established role? Please specify and comment?

		Response
Open question		13
	Answered	13
	Skipped	2

Figure 91 To what extent do you think the EEA strategy is appropriately targeted for (please indicate on a scale of 1-5 where 1 is not at all and 5 means completely)?

	1	2	3	4	5	Rating Av	Response
European Policy Makers	0	1	2	7	5	4.07	15
National policy makers	0	3	5	6	1	3.33	15
Experts/academia	0	1	6	8	0	3.47	15
					Answered		15
					Skipped		0

Figure 92 Overall how would you rate the quality of EEA products (databases, reports, policy papers etc) on the following criteria? Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely

	1	2	3	4	5	Don't know	Rating Av	Response
Availability	1	0	2	1	11	0	4.4	15
Timeliness	1	0	0	8	5	1	4.14	15
Coverage	0	0	1	8	4	2	4.23	15
Accuracy	0	1	1	8	4	1	4.07	15
Independence	0	1	0	5	9	0	4.46	15
Well communicated	1	1	1	5	7	0	4.06	15
							Answered	15
							Skipped	

Figure 93 In your opinion have there been any significant changes in the quality of EEA outputs (more specifically, improvements or reduction in quality) in recent years? Please specify

		Response
Open question		14
	Answered	14
	Skipped	1

Figure 94 Could you please provide some examples of particularly good outputs?

		Response
Open question		15
	Answered	15
	Skipped	0

Figure 95 Could you please provide some examples of outputs you think might be improved?

		Response
Open question		10
	Answered	10
	Skipped	5

Figure 96 In your opinion, to what extent are the EEA products credible in scientific terms? Please specify and explain

		Response
Open question		14
	Answered	14
	Skipped	1

Figure 97 Have there been any changes in credibility over time? Please comment

		Response
Open question		13
	Answered	13
	Skipped	2

Figure 98 Could you please provide some examples of highly credible outputs?

		Response
Open question		11
	Answered	11
	Skipped	4

Figure 99 Please explain why they are well regarded?

		Response
Open question		10
	Answered	10
	Skipped	5

Figure 100 Could you please provide some examples of weaker outputs in scientific terms?

		Response
Open question		11
	Answered	11
	Skipped	4

Figure 101 Could you comment on the scientific rigour of EEA outputs in your area of expertise compared to similar outputs from other organisations

		Response
Open question		12
	Answered	12
	Skipped	3

Figure 102 Are they comparable?

		Response
Open question		10
	Answered	10
	Skipped	5

Figure 103 In your opinion, how would you characterise the relationship between the EEA and other providers of similar products?

		Response
Open question		11
	Answered	11
	Skipped	4

Figure 104 What do you think are the key emerging issues (or reemerging issues) in your area of expertise at the European level that are important for the Agency?

		Response
Open question		15
	Answered	15
	Skipped	0

Figure 105 What other environmental issue areas do you think are becoming important for the EEA?

		Response
Open question		14
	Answered	14
	Skipped	1

Figure 106 What do you think are the key emerging environmental issues within the expert community?

		Response
Open question		14
	Answered	14
	Skipped	1

Figure 107 Do you think the emergence or re emergence of key issues in your area of expertise will give rise to new information needs that could be addressed by the Agency?

		%	Response
Yes		100	15
No		0	0
	Answered		15
	Skipped		0

Figure 108 If yes, what types of needs?

	%	Response
New types of data	58.3	7
Data on new topics	66.7	8
New analyses of existing data	66.7	8
New forms of access to data	50	6
New forms of communication	58.3	7
Other	25	3

		%	Response
	Answered		12
	Skipped		3

Figure 109 Please give examples?

		Response
Open question		11
	Answered	11
	Skipped	4

Figure 110 In your opinion how will the emergence or re emergence of key issues in your area of expertise affect the role of the SC

		Response
Open question		12
	Answered	12
	Skipped	3

Figure 111 To what extent is the SC able to meet these challenges?

		Response
Open question		13
	Answered	13
	Skipped	2

Figure 112 In your opinion how well do the priorities of the EEA strategy fit with those of the expert /academic community?

	1	2	3	4	5	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	0	3	0	10	1	3.64	14
					Answered		14
					Skipped		1

Figure 113 Could you provide examples of particularly good fit?

		Response
Open question		12
	Answered	12
	Skipped	3

Figure 114 Could you provide examples where there is not such a good fit?

		Response
Open question		9
	Answered	9
	Skipped	6

Figure 115 The EEA strategy is to complement the ole of data collection with an increased focus on value added services/ To what extent do you think this is appropriate?

	1	2	3	4	5	Rating Av	Response
Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely	1	1	0	6	5	4.0	13
					Answered		13
					Skipped		2

Figure 116 To what extent has the SC been involved in this strategic trend in terms of

Please indicate on a scale of 1-5 where 1 is not at all and 5 means completely

	1	2	3	4	5	Don't know	Rating Av	Response
Strategy definition	0	0	4	4	5	1	4.08	
Ensuring scientific rigour	0	0	2	6	3	2	4.09	
Overall quality	0	0	2	8	2	1	4.0	
							Answered	14
							Skipped	1

D.4. Web user survey

Figure 117 What is your background?

Answer options	Response %	Response count
Commercial company	17.9%	28
EU institution	5.8%	9
Information centre / Library / Bookshop	0.6%	1
International organisation (other than the EU)	0.6%	1
Media	2.6%	4
Member of Eionet	2.6%	4
Non-governmental organisation (NGO)	5.1%	8
Policy-maker	2.6%	4
Public sector organisation	14.1%	22
Scientist	20.5%	32
School/University teacher	5.8%	9
Student	14.7%	23
Other (please specify)	7.1%	11
	answered question	156
	skipped question	3

Figure 118 How did you arrive at the site today?

Answer options	Response %	Response count
Search engine	16.2%	25
Bookmark in own browser	18.2%	28
Link from another site (please specify)	3.9%	6
Link in report or document	22.1%	34
Recommendation	11.0%	17
Other (please specify)	28.6%	44
	answered question	154
	skipped question	5

Figure 119 What is the purpose of your visit to the website today?

Answer options	Response %	Response count
Education	20.5%	31
Games/information for children	0.0%	0
Commercial purpose and marketing	2.0%	3
Policy-making	16.6%	25
Research	52.3%	79
Job application or contract opportunities	11.3%	17
General interest	32.5%	49
Other (please specify)	9.3%	14
	answered question	151
	skipped question	8

Figure 120 How often do you visit this site?

Answer options	Response %	Response count
Every day	5.9%	9
More than once per week	15.7%	24
Once a week	14.4%	22
Once a month	21.6%	33
Less than every month	7.2%	11
Frequently when seeking information on a specific topic	20.9%	32
This is my first visit to the site	14.4%	22
	answered question	153
	skipped question	6

Figure 121 What type of information are you looking for from the EEA? Please tick all that apply?

Answer options	Response %	Response count
Comparative data	42.4%	64
Specific data	47.0%	71
Analyses of data	53.0%	80
Indicators	49.0%	74
Static maps	21.2%	32
Live maps	15.9%	24
Information on trends/emerging issues	50.3%	76
Information on environmental policy	71.5%	108
Other (please specify)	5.3%	8
	answered question	151
	skipped question	8

Figure 122 On what areas of information/topics are you looking for information from the EEA?

Answer options	Response %	Response count
Air pollution	57.3%	86
Biodiversity	39.3%	59
Chemicals	25.3%	38
Climate change	68.0%	102
Environment and health	56.7%	85
Natural resources	44.7%	67
Noise	23.3%	35
Soil	31.3%	47
Waste and material resources	48.7%	73
Water	53.3%	80
	answered question	150
	skipped question	9

Figure 123 Sectors and activities?

Answer options	Response %	Response count
Agriculture	37.8%	54
Energy	69.2%	99
Fisheries	21.0%	30
Household consumption	36.4%	52
Industry	44.1%	63
Population and economy	42.7%	61
Tourism	23.8%	34
Transport	40.6%	58
	answered question	143
	skipped question	16

Figure 124 Regions and specific areas?

Answer options	Response %	Response count
Coasts and seas	34.1%	44
Specific regions	55.8%	72
Urban environment	66.7%	86
	answered question	129
	skipped question	30

Figure 125 Methods and tools?

Answer options	Response %	Response count
Assessment methods and tools	50.0%	69
Environmental management and practices	73.2%	101
Policy analysis	53.6%	74
Environmental scenarios	64.5%	89
	answered question	138
	skipped question	21

Figure 126 Other information topics?

Answer options	Response %	Response count
Other	100.0%	13
Comments		13
	answered question	13
	skipped question	146

Figure 127 If you have visited this site before have you found the information you are looking for?

Answer options	Response %	Response count
Yes	91.2%	124
No	8.8%	12
	answered question	136
	skipped question	23

Figure 128 If you have visited this site before how easy as it to find the information?

Answer options	Response %	Response count
Not at all easy	5.3%	7
Not very easy	14.3%	19
Quite easy	63.2%	84
Very easy	15.8%	21
Not relevant	1.5%	2
	answered question	133
	skipped question	26

Figure 129 If you have visited this site before how useful is the information?

Answer options	Response %	Response count
Not at all useful	0.7%	1
Not very useful	4.5%	6
Quite useful	40.3%	54
Very useful	54.5%	73
Not relevant	0.0%	0
	answered question	134
	skipped question	25

Figure 130 What information did you find lacking?

Answer options	
answered question	44
skipped question	115

Figure 131 Apart from the website, have you found any other information from the EEA useful (please tick all that apply)?

Answer options	Response %	Response count
Printed reports	68.7%	79
Brochures	34.8%	40
Meetings/conferences organised by EEA	21.7%	25
Meetings conferences attended by EEA	10.4%	12
EEA Information Centre	35.7%	41
Other (please specify)	6.1%	7
	answered question	115
	skipped question	44

Figure 132 How likely are you to use the EEA as a source of information in the future?

Answer options	Response %	Response count
Not at all likely	2.0%	3
Not very likely	6.0%	9
Quite likely	47.7%	72
Very likely	44.4%	67
	answered question	151
	skipped question	8

Figure 133 Would you recommend the EEA as a source of information to colleagues/friends?

Answer options	Response %	Response count
Not at all likely	1.9%	3
Not very likely	9.7%	15
Quite likely	37.4%	58
Very likely	51.0%	79
	answered question	155
	skipped question	4

Figure 134 What other sources do you use for this type of information?

Answer options	
answered question	69
skipped question	90

Figure 135 Country coverage

Answer options	
Austria	2
Belgium	2
Bulgaria	3
Cyprus	1
Czech Republic	2
Denmark	4
Estonia	1
Finland	1
France	7
Germany	10
Greece	7
Hungary	4
Iceland	1
Ireland	1
Italy	16
Latvia	1
Malta	2

Answer options	
Netherlands	1
Poland	8
Portugal	6
Romania	4
Slovakia	2
Slovenia	3
Spain	13
Sweden	3
Turkey	4
United Kingdom	15
Other	1
Albania	2
Bosnia and Herzegovina	1
FYROM - The Former Yugoslav Republic of Macedonia	1
Serbia	3
Australia	1
Brazil	2
Canada	2
Chile	1
China	1
India	1
Israel	1
Japan	1
Jordan	1
Pakistan	1
Peru	1
Taiwan	1
Ukraine	1
United States of America	2
Vietnam	1
Response Count	150

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