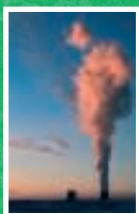


Information Society and Environment: Linking European Policies



Information Society
and Media



European Commission

The Information Society brings important benefits for the environment. To help ensure this promise is fulfilled, the Information Society Policy Link initiative is linking Information Society projects with relevant European policy-makers in areas as diverse as air and noise pollution, water quality, natural resource management, and environmental crisis management.

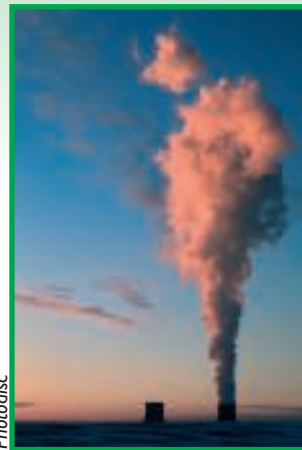
Challenges for the Environment

Protecting our environment is essential for the quality of life of current and future generations. While environmental protection is not synonymous with sustainable development, it is a key component and serves to emphasize that environmental considerations should be an integral part of other policy objectives in areas such as competitiveness, innovation, inclusion, health and security.

Access to and exploitation of high-quality information is essential to our ability to safeguard the environment. There is paradox here in that many environmental theories, assumptions and models are currently based on very limited amounts of data. If we are to improve our understanding of the environment, we need to better identify and exploit environmental data sources.

Management of natural resources presents another key challenge. It is widely recognised that the current pace of world population and economic growth cannot be sustained. The combination of resource exhaustion and pollution threaten widespread degradation of our physical environment. The gross inequality of wealth distribution, where 20% of the world's population consumes 80% of its resources, is also unsustainable because of the tensions and threats it raises for global security. We need to address both the absolute increases in resource consumption and the relative inequalities between the developed and developing worlds.

The Information Society will play an important role in environmental protection and sustainable development. New technologies and organisational structures will reduce the environmental impact of industry and society, improve our understanding of our environment and provide us with the information we need to protect our world for future generations.



Photodisc

Photodisc



Environmental Policy

Sustainable development has been a central EU priority for several years and was articulated in an EU strategy agreed at the Göthenburg Summit in June 2001. Since then, environmental protection and sustainable development have been 'mainstreamed' throughout the EU's policies and activities.

The cornerstone of the EU's environmental policy is Environment 2010: Our Future, Our Choice, the EU's Sixth Environment Action Programme (6th EAP) covering the period 2001–2010. The Programme identifies four thematic priorities to be tackled over the current decade:

- Climate change;
- Nature and biodiversity;
- Environment, health and quality of life;
- Natural resources and waste.

The 6th EAP provides the environmental component of the Community's sustainable development strategy, placing the EU's environmental plans in a broad perspective, considering economic and social conditions. It also makes the link between environment and European objectives for growth and competitiveness.

To further focus stakeholders' efforts, seven thematic strategies have been developed, each following a common and incremental approach towards policy action and proposals. These thematic strategies cover: air pollution; soil protection; protection and conservation of the marine environment; sustainable use of pesticides; urban environment; sustainable use of natural resources; and waste recycling.

Where the Information Society meets the Environment

The Information Society can support these goals in many ways, providing key building blocks for putting the sustainable development principle into action.

Connecting cutting-edge Information Society projects to relevant environmental policies will therefore both help Europe meet its environmental and sustainability goals and stimulate growth and innovation.

A wide range of EU policies and activities are already applying Information Society technologies to help us better understand our environment and how we are affecting it. Good communications and IT support also play a life-saving role in crisis management. Key initiatives are:

- *Galileo*: a satellite navigation system being supported jointly by the European Union and the European Space Agency (ESA), which will have a substantial impact on our understanding of the environment as well as contribute to other sectors such as agriculture, fisheries and transport.
- *Global Monitoring for Environment and Security (GMES)*: another joint initiative between the EU and ESA to strengthen the acquisition and integration of high-quality EU environmental, geographical and socio-economic data. It will help improve policymaking from local to global level.
- *INfrastructure for SPatial InfoRmation in Europe (INSPIRE)*: an initiative of the European Commission with Member States to improve access to high quality geo-spatial information.

Information Society Activities

Fifth Framework Programme

Building on work under earlier Framework Programmes, research on Application of ICT to the Environment under IST-FP5 focused on the use of sensors and data in new information-based applications and systems.

In environmental management, the main technical emphasis was on new tools, integrated systems and services for environmental monitoring, using techniques such as remote sensing, geographic information systems, novel sensors and advanced data mining and decision support systems. These were applied to applications in air and noise, water and marine, and natural resources. Fifteen projects were funded in this area with a total cost of €49.4 million and a total EC contribution of €26.6 million.

Other action lines addressed intelligent systems for risk and disaster management. These aimed towards more accurate and earlier prediction of natural disasters by improving the information dissemination process and through better planning of long-term cross-border strategies. Nine projects were funded in this area, at a total cost of €20.4 million for an EC contribution of €12.2 million.

Sixth Framework Programme

Under FP6, IST research activities in the field of environmental applications focus on the management of environmental risk due to natural hazards, industrial accidents or civil security events. Activities cover two phases: the first one covering the monitoring, planning, forecasting, preparedness and recovery phases; and the second dealing mainly with the alert and response phase.

Key technology areas being addressed in the research include:

- Sensors with communication and location capabilities;
- Tools for modelling, simulation, decision support and visualisation, including integration of geo-spatial data;
- Service architectures and platforms for environmental and crisis management based on open standards.

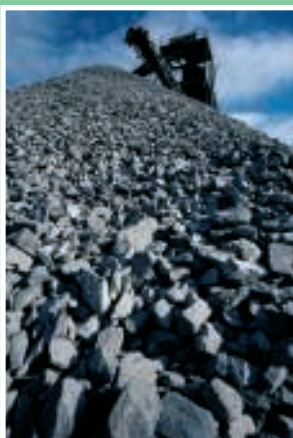
Interoperability of equipment and systems is a key concern in this field. IST research promotes the development of open platforms that support the evolution towards network-centric environmental and crisis management solutions.

In February 2005, Information and Media DG established a new Unit *ICT for the Environment* in order to address more efficiently ICT research related to environmental challenges.

Other Activities

Environmental applications are addressed under the eTEN Programme, primarily for the practical realisation of eEurope's objectives on eServices. Projects address the deployment of environmental applications and services as one of several areas of common interest for online public services.

eContent is a market-oriented programme supporting the production, use and distribution of European digital content, including its linguistic diversity. Access to and use of geographical information is a key theme, where environment and risk management are important end-user applications. Geographical and spatial data remains a key priority under the follow-on programme, eContentplus (2005-2008).



Photodisc

Next Steps

The research synopses and policy cases presented here represent only the first stage in linking Information Society activities to EU policies. Information Society & Media DG is now working with Environment DG to establish a policy interface to improve synergies. A virtuous circle should develop, with improved communication between researchers and policymakers ensuring that:

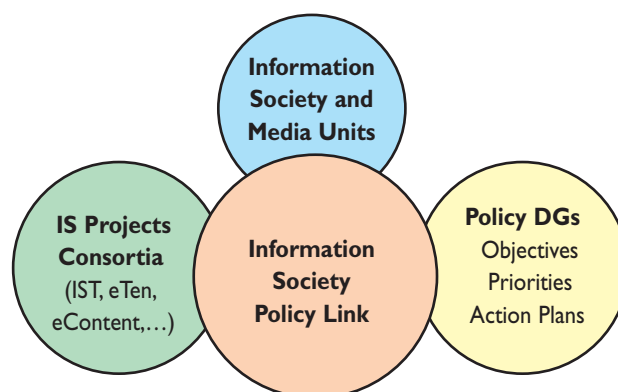
- Information Society & Media programmes better reflect relevant EU policies;
- EU policies better account for Information Society technologies;
- ICTs are better applied to meeting Europe's challenges.

At a later stage, specific actions will be launched addressing policy-makers in national and regional administrations in Member States, European institutions and national parliaments.

Getting Involved

The *Information Society Policy Link* initiative links policy-makers and researchers in a number of ways, so as to leverage the benefits of Information Society & Media projects for European policies. A variety of activities are planned, including a series of Policy Workshops and events targeted at the European policy community.

Project Consortia play a crucial role in the development of this joint effort, providing a valuable source of information for European policy-makers on relevant technological developments, as well as improving the quality, impact and awareness of their own projects for the benefit of EU policies. Organisations involved in past or present Information Society projects with relevant activities or results are invited to contact the Initiative at the address shown.



Information Society Policy Link at a Glance

Information Society related actions constitute a considerable effort of the European Union. For instance, Information Society Technologies (IST) research has been the largest thematic priority in the EU's Fifth (1998-2002) and Sixth (2002-2006) Framework Research Programmes. Together they represent an investment of over €7bn in IST research, and are complemented by programmes such as eContent (€100m) and eTEN (€315m), which focus on digital content and eServices deployment respectively.

The projects funded by these programmes offer benefits to all areas of Europe's economy and society. To fully realise these benefits the technologies need to be linked closely to European policy-making in the relevant areas.

Information Society Policy Link is an initiative of Information Society & Media DG to identify and reinforce links between its projects and relevant EU policies. More than 3000 projects from Information Society programmes are being analysed, identifying a wealth of concrete results that support EU policies across all of the principal policy domains.

By exchanging information and experiences, the Information Society Policy Link initiative aims to ensure that results from European ICT research provide greater leverage, both in implementing current policies and shaping priorities for the future.

Further Information

Information Society Policy Link initiative

Coordinator: Vassilios Laopodis
e-mail: info-is-policy-link@cec.eu.int
http://europa.eu.int/information_society/activities/policy_link/index_en.htm

Environment DG

Irja Vounakis, irja.vounakis@cec.eu.int
http://europa.eu.int/comm/environment/index_en.htm

Europe's Information Society: Thematic Portal

http://europa.eu.int/information_society/