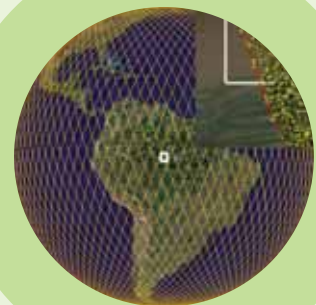
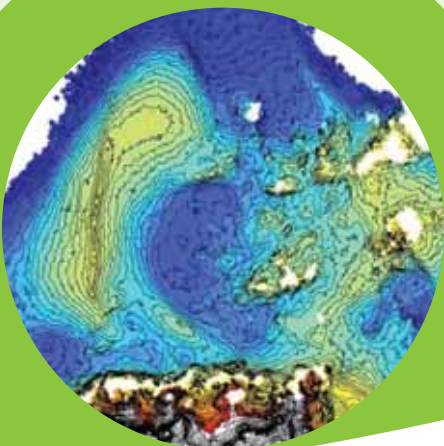


Did you know that 69 countries have agreed to set up a plan that, over the next 10 years, aims to set up a worldwide observation system – the Global Earth Observation System of Systems ?  
[www.earthobservations.org](http://www.earthobservations.org)

# SPATIAL INFORMATION FOR ENVIRONMENTAL MONITORING

Societies experience major demographic, economic, technical, political and social evolutions. They are accompanied by rapid changes in land cover and use, in access to resources and in the mutual pressures between man and its environment.

The main challenge is to understand the causes of these changes and control their impacts on societies and natural environment and at the same time anticipate the resulting evolutions. The spatial dimension of the environment and of the territories is fundamental. Adapted geoinformation is essential for understanding and modelling of environmental processes and more generally for supporting environmental policies.



## IMPORTANCE OF GEOINFORMATION

Much of the spatio-temporal data sets being generated today are from Earth Observation Systems, geo-positioning and tracking, mobile sensors, outcomes of models, and many other sources. Better information is one of the keys to improve environmental policy in the next decade.

- Geographic information is present in most of environmental research fields, from observation systems (remote sensing data, in situ data) to decision support systems (modeling, forecasting).
- It plays a special role because of its potential to present information in a lively and understandable way to citizens and stakeholders. It ensures better and more accessible information on the environment.
- Geoinformation develops a more environmentally conscious attitude towards land use.
- Scientists are currently challenged by the great increase of data volume of spatio-temporal databases due to improvements in data acquisition, validation, archiving, and distribution. A key challenge is to turn data into information.

## PEER GEOINFORMATION ACTIVITIES

- Establishing a forum for a scientific network through FP7 projects, expert and virtual groups and teaching modules.
- Common proposal to the FP 7 calls.
- Strategic research agenda based on three interlinked GIP hubs: observing for environmental monitoring, reasoning for understanding environmental systems and modeling for environmental analysis.
- Raising awareness about the need of scientific research for supporting the role of geo-information in the new governance modes (e.g e-government; e-policy).
- Disseminating information through the website and newsletter (<http://peer.teledetection.fr>).
- Contributing to the sessions of the PEER FP6 Marie Curie Series of Events - METIER (METHODs of Interdisciplinary Environmental Research) – Remote sensing & collection of environmental data, Information management, Geo-visualization.

## GLOBAL EARTH OBSERVATION AND ENVIRONMENTAL MONITORING: THE ROLE OF GEOINFORMATION

The Geoinformation pillar organized the 14-16 November 2005 in Montpellier (France) the seminar "Global Earth Observation and Environmental Monitoring: the role of geoinformation" with participation of the EU Commission (DG Research). During two days, the seminar attracted more than 140 scientists and stakeholders, from Europe, Canada and USA. After the seminar this scientific community is now active through the common vision of a geo-information research agenda including the three following research domains:

**Monitoring:** geo-information contribution to the GEOSS; development of satellite-based (together with ground and airborne) monitoring systems relating to the management of the environment and security and their integration with ground-based, ship-borne and airborne components; support to the production and delivery of GMES data and services.

**Modelling:** geo-information contribution to modelling links between economy/environment/society including market based

instruments, externalities, thresholds and developing the knowledge base and methodologies for sustainability impact assessment on key issues such as land use; social and economic tensions related to climate change.

**Decision-making support:** geo-information contribution to engage environmental decision makers with researchers to develop and communicate processes and information that help solve or avoid problems associated with environmental decisions.

## CONTACT

Sylvain Labbe PEER Geoinformation research coordinator, C/O Cemagref  
Tel. +33 4 67 54 87 47 | [geoinformation@peer-environment.eu](mailto:geoinformation@peer-environment.eu), [sylvain.labbe@teledetection.fr](mailto:sylvain.labbe@teledetection.fr)  
Avenue Agropolis F-34, 394 Montpellier Cedex 5, France