



European Space Agency

## About Earth Observation

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Data from Earth Observation satellites are one of the most important assets brought to us by the space age. By helping us to understand our planet and secure our environment they benefit our daily lives in many ways. The future looks even more promising as new ways of using these invaluable data are discovered.

The objective and continuous views of our planet supplied by satellite images and data provide scientists and decision makers with the information they need to understand and protect our environment. Among their many applications are monitoring the air, seas and land; providing the basis for accurate weather reports; and supplying national and international relief agencies with data when disasters strike.

## Earth Observation at ESRIN

ESRIN, known as the ESA Centre for Earth Observation, is the ESA establishment responsible for managing the operation and exploitation of ESA's Earth Observation satellites. In cooperation with other space agencies, it also manages the acquisition, distribution and exploitation of data from non-ESA satellites. The world's largest database of environmental data for both Europe and Africa is managed from ESRIN.

In carrying out this work, ESA's Earth Observation Directorate works closely with national space agencies, both in ESA Member States and worldwide, as well as with coordination and standardisation bodies. It also cooperates with many small-and medium-sized enterprises, and with the service industry.

Data from the many instruments on board ESA satellites, and from more than 20 non-ESA Earth Observation satellites, are sent to a network of worldwide acquisition stations, processed in these stations or at archiving centres, and then distributed to a worldwide user community that includes several thousand scientists, value companies or application centres.

Instrument performance and product quality are permanently checked and new products developed in response to evolving user demand. Responsibility for ensuring this is done quickly and efficiently lies with those working in Earth Observation at ESRIN.

## Exploiting data

ESRIN endeavours to maximise the beneficial use of Earth Observation data. It does this by fostering the use of this valuable information by as many people as possible, in as many ways as possible.

Monitoring the growth of cities, mapping the habitats of endangered species, tracking ground subsidence, assisting the management of scarce water resources,

detecting oil slicks, guiding ships through ice and rough seas, and helping aid workers in Africa are just some of the many ways in which these data are being used.

Earth Observation data are being used by United Nations agencies, the European Commission, non-governmental organisations, national and local authorities, and commerce.

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### More about...

- Living Planet (<http://www.esa.int/esaLP/index.html>)
- EO Principal Investigator Portal (<http://eopi.esa.int/>)
- Data User Element (<http://dup.esrin.esa.it/>)
- Earth Observation Market Development (EOMD) (<http://www.eomd.esa.int/>)
- GMES (<http://www.esa.int/esaLP/LPgmes.html>)
- Earth Observation  
Earthnet on line (<http://earthnet.esrin.esa.it>)
- Multi-mission EO Portal (<http://www.eoportal.org>)
- ESRIN Grid-on-Demand (<http://eogrid.esrin.esa.int/>)

### Related links

- The International Charter on Space and Major Disasters  
(<http://www.disasterscharter.org/>)
- Observing the Earth (<http://www.esa.int/esaEO/index.html>)

### ESA's Earth Observing missions...

- Envisat overview ([http://www.esa.int/esaEO/SEMWYN2VQUD\\_index\\_0\\_m.html](http://www.esa.int/esaEO/SEMWYN2VQUD_index_0_m.html))
  - ERS overview ([http://www.esa.int/esaEO/SEMGWH2VQUD\\_index\\_0\\_m.html](http://www.esa.int/esaEO/SEMGWH2VQUD_index_0_m.html))
  - Earth Explorers overview ([http://www.esa.int/esaEO/SEM9JP2VQUD\\_index\\_0\\_m.html](http://www.esa.int/esaEO/SEM9JP2VQUD_index_0_m.html))
  - MSG overview ([http://www.esa.int/esaEO/SEMLFM2VQUD\\_index\\_0\\_m.html](http://www.esa.int/esaEO/SEMLFM2VQUD_index_0_m.html))
  - MetOp overview ([http://www.esa.int/esaEO/SEM9NO2VQUD\\_index\\_0\\_m.html](http://www.esa.int/esaEO/SEM9NO2VQUD_index_0_m.html))
  - Proba overview ([http://www.esa.int/esaEO/SEM9WO2VQUD\\_index\\_0\\_m.html](http://www.esa.int/esaEO/SEM9WO2VQUD_index_0_m.html))
  - Third Party Missions overview ([http://www.esa.int/esaEO/SEMP5R2VQUD\\_index\\_0\\_m.html](http://www.esa.int/esaEO/SEMP5R2VQUD_index_0_m.html))
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