

# Earth OBSERVATION QUARTERLY



meteorology

earthnet

remote sensing

solid earth

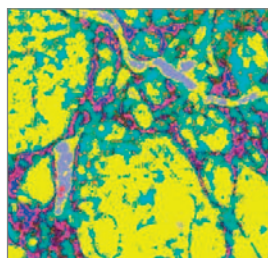
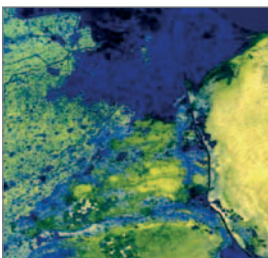
future programmes

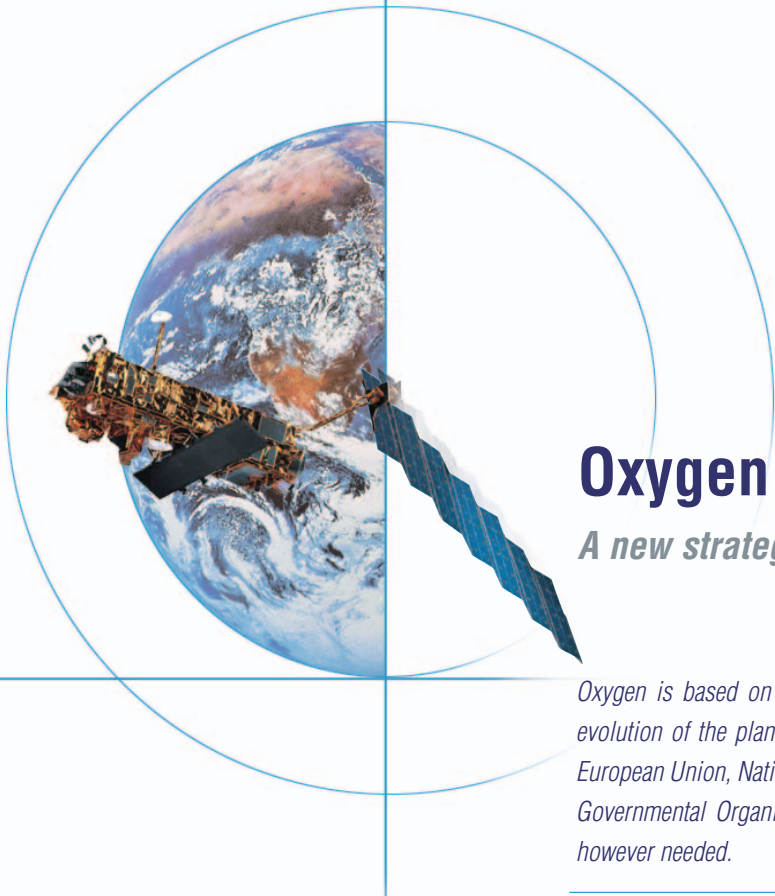
## Oxygen

### *A new strategy for Earth Observation*

Europe has achieved leadership in many areas of Earth Observation (EO), notably in SAR imagery and the numerous applications of interferometry. The Envisat payload is now giving Europe a competitive advantage in ocean monitoring and atmospheric chemistry, which are likely to become keys to a number of political and industrial issues of the 21st century. This leadership in science, technologies and data processing is further matched by a coveted operational modelling expertise. ECMWF, the European Centre for Medium-Range Weather Forecasts, currently runs the best model available for mid-term forecasting and climate prediction and is well advanced in incorporating new satellite data into its official forecasts.

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# Oxygen

## *A new strategy for Earth Observation*

*Oxygen is based on the strong belief that the collective responsibilities of mankind regarding the evolution of the planet are going to be better defined and shared by guaranteeing to all actors, the European Union, National Administrations, International Organisations, developing countries and Non-Governmental Organisations an open and equitable access to space information where, when and however needed.*

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Still, having access to data from Earth Observing satellites remains often expensive and always cumbersome. The use of these data requires large organisations and highly trained people and is therefore restricted to governmental institutions and large companies. This is severely limiting the development of science, applications and services that Earth Observation programmes should deliver. Delivery of the data may also be quite slow and this does not facilitate applications requiring near real-time access.

Oxygen (O2) stands for "Open and Operational". These two words embody at the same time the main characteristics of future Earth Watch systems and the process to achieve it. Oxygen has one objective: allowing for the sustainability of the next generation of operational Earth Observation satellites by increasing the use of EO data. It is a strategy, not another shopping list of satellites. It concentrates on defining a set of requirements from a set of users, as well as one or several mechanisms for achieving sustainability in providing Earth Observation data. In order to do so, one should increase the exposure of future users, scientists, value-adding companies, service providers, public authorities, European Commission, to the potential benefits of EO for their activities and responsibilities.

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by guaranteeing to all actors, the European Union, National Administrations, International Organisations, developing countries and Non-Governmental Organisations an open and equitable access to space information where, when and however needed.

Oxygen is based on the evidence that the price of data must be determined by the benefits they provide rather than by the cost of producing them.

Oxygen will be a major contribution to the implementation of GMES since it will provide access to the space component of this Environment and Security Intelligence System which we are currently building with the European Commission.

Oxygen will rationalise the acquisition, processing and distribution of data from Earth Observation satellites, in order to ensure their most effective exploitation. I would like to commit ourselves to making available, within two years, equitably to all interested entities, the whole data set generated by European satellites, and to building, in cooperation with industry, a first core of services addressing public and private needs. Success in this enterprise will mean that, by 2010, we shall be in a position to implement a new constellation of coordinated EO satellites, which we will refer to as the Oxygen Generation.

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