



geoland<sup>2</sup>

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### Operational Monitoring Services for our Changing Environment

With the ongoing climate change, the pressure on nature, biodiversity and our own living conditions increases steadily. To mitigate these threats by effective adaptation strategies and counter measures a frequent and area-wide monitoring of the environment is crucial to provide decision makers with accurate, up-to-date and reliable information on the changing conditions of our natural resources.

Benefiting from Earth observation satellite data, the GMES Land Services provides such cross-border harmonised geo-information at global to local scales in a time- and cost-effective manner. These monitoring services have been defined, developed and implemented within a series of projects funded by the European Commission (geoland, BOSS4GMES) and the European Space Agency (GSE Land / GSE Forest Monitoring).

Building upon their results, geoland<sup>2</sup> is the last brick towards the implementation of fully mature GMES Land Services, consisting of Core Mapping Services and Core Information Services. The project aims to organise a qualified production network, to build, validate and demonstrate operational processing lines and to set-up a user driven product quality assurance process, to guarantee that the products meet the actual user requirements.

The Core Mapping Services produce basic geo-information on land cover and land use and its annual and seasonal changes as well as a variety of additional biophysical parameters describing the continental vegetation state, the radiation budget at the surface and the water cycle on the basis of satellite Earth observation data. The mapping products are of broad generic use: besides being a valuable information source in their basic form, they are the basis for more specialised geo-information services, focusing on a broad variety of thematic fields, like water quality, forest managing, spatial planning, agri-environmental issues, the carbon cycle, food security, etc.

The Core Information Services offer specific information for European Environmental Policies and international treaties on Climate Change, food security and the sustainable development of Africa.

geoland<sup>2</sup> gathers more than 50 European Service Provider partners and over 80 major international user organisations and is financed by the European Commission within its 7th Framework Programme. geoland<sup>2</sup> project activities started in September 2008 and the project duration is 4 years.



[www.gmes-geoland.info](http://www.gmes-geoland.info) | [www.land.eu](http://www.land.eu)