



News Release  
15<sup>th</sup> September 2008

## GMES Fast Track Service Land - adapting to Climate Change

- European Commission accelerates GMES process and starts set-up of operational service capacity: geoland2 project launched at GMES Forum 2008.
- European, African and Global land cover and vegetation core services to support better management of land resources in times of climate change.
- General land resource monitoring applications ranging from water stress and quality to sustainable spatial development.

The GMES Forum 2008, entitled “Together, take better care of the Planet”, organised by the European Commission and the current French Presidency of the European Union on September 16<sup>th</sup> and 17<sup>th</sup> in Lille, will mark the launch of the first GMES (Global Monitoring for Environment and Security) geo-information services in a pre-operational mode.

The geoland2 consortium of 50 service providers, users, and research institutions will take this opportunity to officially kick-off this major undertaking. For the first time in Europe’s history, major operational resources and assets from a comprehensive range of previous GMES projects will join to build a common European service capacity.

The key objective of geoland2 is to design, build, integrate and test sound and reliable operational processing lines and demonstrate large scale production capacities. The three major topics addressed by the project are the monitoring of land cover and land use, of biogeophysical parameters and of seasonal and annual change in land cover/ land use.

The architecture of geoland2 is structured into two layers: the **Core Mapping Services** generate ‘*basic*’ land cover, land cover change and land state products, covering a wide thematic content, spatial scales and update frequencies. The more specific **Core Information Services** utilise the Core Mapping Service products and other data sources to generate ‘*elaborate*’ information products addressing specific European policies.

The three main tasks within the Core Mapping Service are:

- **EUROLAND** Land Cover and Land Use: very high resolution Urban Atlas inventory and change on several dozen European cities (22 classes, 0.25ha Minimum Mapping Unit);

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*Contact for the Media*

**Judith Metschies, geoland2 Communications**

T. +49-7545-8-4267, F. ++49-7545-8-1337, E. [judith.metschies@infoterra-global.com](mailto:judith.metschies@infoterra-global.com),  
W. [www.gmes-geoland.info](http://www.gmes-geoland.info) / [www.land.eu](http://www.land.eu)



- **Biogeophysical Parameters:** description of the continental vegetation state, the radiation budget at the surface and the water cycle;
- **Seasonal and Annual Change Monitoring:** very high/ high resolution Area Frame Sampling over permanent samples representative for European and African environmental / ecological conditions for annual statistics of land cover and land cover change; and a complete medium resolution continental coverage of seasonal and annual vegetation parameters to produce land cover change and agricultural land use.

The seven Core Information Services, which address important sectoral policies and show examples of GMES end-to-end services, are set up with the following aims:

- **Spatial Planning:** Describe, explain and forecast urban land use change in Europe.
- **Water Quality:** Integrate Earth Observation derived land cover/ land use data in water quality models that can contribute to improved water management in Europe.
- **Agri-Environment:** Evaluate the utility of the Core Mapping Services for the supply of Earth Observation-based indicators assessing the impact of agriculture on the environment and the effectiveness of agri-environmental measures in Europe.
- **Forest Monitoring:** Address specific user requirements from the European Environment Agency (EEA), DG, the Joint Research Centre (JRC) and the DG AGRI for improved forest class and biodiversity indicator information.
- **Land Carbon:** Understand and assess the impact of weather and climate variability on terrestrial biospheric carbon fluxes.
- **Natural Resource Monitoring in Africa (NARMA):** Develop an environmental monitoring capacity over African countries for the needs of the EC services and for regional and continental EC partners in African countries.
- **Global Crop Monitoring:** Provide objective, real-time crop assessment and yield forecasts in support of EC policies in the fields of agriculture and food security.

All of the above services are designed to support public authorities and administration of all levels - from local to global - in the successful and efficient implementation of European directives and international policies by providing sustainable, reliable and cost efficient solutions.

The 32 Mio € project geoland2 is co-funded by the European Commission within its GMES activities in the 7<sup>th</sup> Framework Programme with a grant of 22 Mio € over 4 years.

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T. +49-7545-8-4267, F. ++49-7545-8-1337, E. [judith.metschies@infoterra-global.com](mailto:judith.metschies@infoterra-global.com),

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