

Towards Global Land Monitoring GMES services

Meeting 16 – 17 February, 2006

Brussels, Centre Albert-Borschette

Summary Report

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Attendance

The participants of the meeting were the following :

JRC : J.P. Malingreau, E. Bartholomé, Th. Nègre

DG Enterprise : A. Podaire, W. Steinborn

Météo-France : J. C. Calvet, F. Gérard

OSTC : C. Petit, S. Bogaert

VITO : E. Gontier, D. Van Speybroeck

I. M. P. Viterbo

Medias-France : M. Leroy

ECMWF : A. Beljaars

EEA : M. Erhard

Eumetsat : W. Balogh

Infoterra GmbH: S. Kuntz

Scope

The GEOLAND project includes workpackages to analyse the evolution towards the onset of operational services. The four GEOLAND global components¹ have worked together in this context to propose a strategic approach towards operational implementation of a global land

¹ (the four components are : the Core service for Biophysical Parameters coordinated by MEDIAS-France, the Observatory for Natural Carbon coordinated by Météo-France, the Observatory for Crop Monitoring coordinated by Alterra and the Observatory for Land Cover and Forest Change coordinated by JRC)

monitoring core service. GEOLAND will end in December 2006 ; action is needed now to consolidate the momentum of the global part of GEOLAND.

The objective of the meeting was to confirm the interest of key partners in the establishment of such a service and discuss the strategy for consolidating it in the GMES framework. What is the usefulness of such a service ? What is the connection with users ? How to raise the awareness at national level ? Endorsement by partners around the table is a prerequisite to move from GEOLAND to a GMES initiative and to submit a proposal for endorsement by GAC on a global land monitoring initiative. Converging positive signals are needed, based on a sound strategic view.

The meeting, organized by the GEOLAND Project and hosted by DG JRC, was made of two parts. The first part on February 16 was to recall the GMES context, to present the GEOLAND views regarding strategic evolution and to collect feedback from each represented institution. The second part on February 17 was devoted to three discussion sessions concerning the future service perimeter, implementation and sustainability.

Key conclusions

During the meeting the participants acknowledged the strategic importance for Europe to develop its own global land monitoring capacity. EEA, ECMWF and JRC expressed their interest for the establishment of such a capacity which is aimed at feeding their own activities with high quality input data. Moreover JRC and the Belgian Space Policy office expressed their readiness to promote the initiative at the GMES Advisory Committee.

All participants recognized the benefit of working jointly toward the establishment of a global land monitoring capacity for the activities their institutions are involved in. They agreed (i) to contribute to the preparation and to support the submission of a proposal to the GAC (May 2006), (ii) to contribute to the preparation and to participate to a GMES workshop before end 2006, (iii) to raise awareness among Member States and stakeholders to ensure consensus, (iv) to take steps towards the establishment in due time of a formal partnership.

Properties of a global land monitoring GMES service

Regarding the details and properties of the envisioned service the participants came to the following conclusions:

1) Service perimeter

Role of global service in regional European monitoring

Regarding the role of the global service in regional monitoring of European territory: as far as biogeophysical variables are concerned, the regional focus should be seen as a component of a global system because of full internal consistency and standardization of the whole data and information generation process (EO systems, data processing chains, analysis methods and models are essentially the same).

Need of reprocessing

The need to establish an operational reprocessing capacity is well recognized for most applications (e. g. consistency of long time series, interoperability between different generations of EO instruments).

Multi-source data procurement

Multi-source data procurement is seen as a mandatory component of a reliable operational system, in particular in order to ensure back-up access to EO data in case of failure of the preferred system. The management of procurement should not be the responsibility of the core service, which should forward technical requirements to space agencies. The issue should be looked at with due consideration to (i) the strategic positioning of European Earth Observation capacity (including mission continuity e. g. the VEGETATION mission), (ii) the cost-benefit dimension of a multi-source data management and analysis system and (iii) the long-term sustainability (e. g. gaps in data procurement due to lack of appropriate EO mission).

Core Service definition

According to the current definition presented to the participants, a Core Service is a service oriented towards the needs of the European sectorial policies, and therefore should be funded by European tax payers. With this definition which is new in the GEOLAND arena and should require further confirmation, all components that were identified previously as “priority downstream services” should belong to the Core Service. In particular National Meteorological Services and relevant actors of EUMETSAT SAFs should be within the Core Service perimeter. Regarding data processing and assembly centres, depending of the level of process they are either inside (high level products), or outside (low level products).

2) Service implementation

Joining or not global and regional ventures

The issue was raised of whether a global land monitoring service should be implemented jointly with the regional component dealing specifically with high resolution land cover mapping and monitoring. The participants noted that EC has in actual fact split the European and global components with the “fast track” implementation approach. The partners underlined indeed that both components address at present different communities, architectures, space segments and governance. On the other hand, considering that the first call of early 2007 could probably include a “service evolution” component in parallel to the “fast track” implementation, and the next call won’t happen before 2008, a joint operation with regional component can be a tactical choice for survival of on-going global land monitoring activities. The participants could not make any final statement on the issue at this stage.

Link with ESA activities

All participants have a clear understanding that there is room only for one single global service at European level. The GMES communication of past October clearly states that ESA won’t fund any service beyond GSE second phase, and that such services will be implemented under the responsibility of the EC. It is therefore important to take steps towards federating a wide range of efforts developed in Europe including those undertaken by ESA.

Link with GEO

Regarding the articulation of the proposed service with GEO, it was recognized that the GEO initiative is an important element for global scale EO applications. It is therefore important to establish a practical connection with GEO secretariat. On the other hand it was also recognized that GEO does not include the service component and is limited to the observation segment.

Legal aspects

The participants discussed about the structuring of the core service. It was recognized that service level agreements involve the need for a legal structure. This is a condition for operational implementation. Although we are not yet there, reflection should start now to find out what the best legal solution will be, also considering the specific legal status of each involved partner.

Draft action plan

The participants agreed on the overall draft action plan proposed by GEOLAND, with a number of remarks. A number of services are already operational / pre-operational: provision of input data is critical for them already now. It is therefore necessary to start in 2007 a "transition phase" to take full benefit of what was developed so far. The perimeter of funding of GMES and GEO seems to be as follows (TBC) : GEO should focus on in situ collection systems and R&D, whereas GMES would focus on space data and services.

3) Long-term Sustainability

The participants evaluated the financial situation, considering as mentioned before that most activities identified fall in first instance within the perimeter of a GMES core service to be financed by the European Commission. In the very short term

- BOSS4: global applications not addressed
- Funding gap in 2007 is an issue
- Operational money is related to GMES governance onset. Work in progress, no clear timeframe
- Costing of operation should be completed after the workshop → need to identify contribution of national partners

Data acquisition continuity

- Recommend active participation of GEOLAND in satellite design (user needs, mission specs)

Short action list

- Prepare strategic document for GAC
- Distribute the request of operational continuity beyond space agencies
- Establish link with GEO-Geneva: identify direct links
- Investigate GEO-FP7
- Brief member state delegates
- Contribute to organization of a workshop in Fall 2006