

EARSC Position Paper on GMES Data and Information Policy

EARSC represents the Earth Observation geo-information services companies in Europe. Today EARSC has 70 members coming from 20 countries in Europe and including nearly 50% of the total number of European EO service companies. Over 60% of these are small or medium sized enterprises. Our members include both commercial operators of EO satellites and downstream, value-adding companies. The sector plays a key role in providing value-added geo-spatial information to its customers in Europe and the world. In 2010, the revenue of EARSC members is estimated to be around €700m and giving work to around 2600 highly skilled employees. The industry is growing at around 10% per annum.

Introduction

In March 2011, EARSC published a position paper that provided views on how the European EO-Services industry could support and benefit from a publicly-owned GMES infrastructure¹; the goal being to maximise the overall economic return from the substantial public-sector investment. One of the main conclusions and recommendations from that paper concerned the need to establish a suitable policy for the data generated by the GMES space component and the information products generated by the GMES Services.

The European Commission will shortly prepare legislation to define the GMES Data Policy. EARSC, as the organisation that represents the EO geo-information services industry in Europe, puts forward the views of its members on some details concerning such a data policy.

In our previous paper, we recommended *to establish a clear data policy, with appropriate procurement budgets for satellite data, core GMES services and GMES value-added, downstream services:*

- *Raw data from Sentinels should be free and open.*
- *Data from commercial satellite operators should be procured under appropriate license conditions.*
- *Core services to be freely and unconditionally available to all users and downstream partners.*
- *Downstream services should be procured commercially on a fair and competitive basis.*
- *A registration system for GMES users should be put in place to ensure that basic quality conditions are met and licensing conditions are respected as well as achieving fair competition on the international market.*

In this paper, we build upon these recommendations.

¹ *Exploiting GMES Operational Services; March 2011*

Background

In referring to GMES (and EO services in general) it is important to draw the distinction between “data” and “information” services. In this paper we are defining EO data as being the output that come from the satellite and its associated ground segment and information products² as resulting from the combination of two or more data sets in an added-value process performed by the GMES Services.

Commercial EO data providers have invested in developing satellites and ground segments providing services to customers on a commercial basis. The price charged depends highly on the characteristics of the data on offer most notably the resolution and the minimum time between observations. There is a very sharp increase in the value of high resolution data whilst low and medium resolution data has a low direct value; at least commercially. The data policy for the Sentinel data should seek to minimise the negative impact on the market for commercial observations whilst maximising the potential to create new market opportunities.

On 29th June 2011, the EC published its proposed budget in the communication “*A Budget for Europe 2020*”. The proposition for a Multi-annual Financial Framework (MFF) excludes GMES from EU funding. EARSC commented on this proposal in a Position Paper³ in which we said that “Outside the EU Framework, GMES loses its European dimension and becomes a matter of choice for a few member States”. Similarly in Regulation (EU) No 911/2010, it is stated that:

“GMES initial operations should be implemented consistently with other relevant Union policies, instruments and action, in particular with environmental, security, competitiveness and innovation, cohesion, research, transport, competition and international co- operation policies”

The financial framework in which GMES is developed will clearly have an important impact on the data policy that is selected. Since our view is that GMES must be funded under an EU scheme ie within the MFF 2014 to 2020, then our proposals here are consistent with that outcome.

Elements of a Data and Information Policy

Data for GMES will come from the Sentinel missions, contributing missions and in-situ networks.

- Sentinel missions: EARSC supports the ESA position that all data coming from the Sentinel missions in their current definition and processed by the ESA core ground segment should be made available on a free and open basis. Non-European nations with similar observing capacity, should be expected to give reciprocal conditions of access. All users will be required to register and to abide by the licensing conditions.
- Contributing missions: data will be procured from commercial operating missions according to licence conditions to be negotiated with each operator. Such data should be made available to public sector users in Europe free of charge at all times in accordance with the licensing conditions. Data for commercial users and for all users outside of Europe should be available from the operator on a fully commercial basis.

² An information service may also be referred to as a “downstream” service.

³ EARSC Position Paper on “*The Threat to GMES*”, July 2011.

- In-situ data, supporting the generation of GMES products, made available by the EEA under their GMES agreement with the EU, should also be made freely available reflecting the principle that government data paid for from the public sector should be open and available to all organisations that wish to access it.

A GMES Product (or core product) is taken to be one that is fully paid for by public authorities eg the EU or National Administrations, under a consolidated contract. Therefore, in line with emerging open government practises and recommendations from the EU Council⁴ and EC⁵, these products are envisaged to be freely available to all European users in the public and private sectors. This policy will have the effect of opening up the market and encouraging innovation and new product development. Nevertheless, the impacts of the policy should be measured and evaluated as part of a wider audit advocated below.

Whilst the GMES products would be freely available to all European users under appropriate security rules for crisis monitoring or security services, the market for downstream products should be allowed to develop freely.

As new GMES products will be developed and made available, a suitable decision making authority should be constituted to determine and maintain the list of GMES products. Since these could compete with existing commercial products, representatives from the commercial service providers must be part of this decision making.

GMES will have a strong, positive impact on the market for EO services. The private sector will provide one of the key ways to achieve the maximum economic benefit for the EU. The policies to achieve this are likely to change with time as the users evolve, become more aware of the possibilities and the industry adapts to meet the changing market. The data policy should therefore be reviewed on a regular basis through an audit process. Reviews should not be so frequent as to undermine the confidence of users and a 5 year period could be envisaged.

Security arrangements for data are already adequate ie full responsibility rests with the data supplier. In the case of information, responsibility for security clearance cannot be assured by the supplier alone and the conditions and process for security clearance will require definition upfront by the appropriate authorities. Oversight of the security aspects of GMES should remain within the governance structures yet to be established.

Consequences

The introduction and maintenance of a scheme based upon the elements discussed above has a number of consequences that need to be recognised and taken into account.

1. Governance:

Many of the elements discussed above require decisions to be taken that have impacts on various stakeholders. Whilst the ultimate control is envisaged under the EU as the major funder of the operating infrastructure, other stakeholders have key roles to play and a suitable governance scheme must allow for all views to be heard.

⁴ The Commission is invited to make rapid progress in key areas ofand the availability of public sector information. EU Council Conclusions of February 4th 2011.

⁵ COM(2009) 212; Re-use of Public Sector Information – Review of Directive 2003/98/EC.

In particular, for the industrial sector point, it will be vital to ensure that we can fulfil our role correctly and that, with respect to the services that are provided by industry today and in the future, there is an appropriate balance between the public sector as sponsor and as customer.

A fully functioning governance scheme could take some time to implement. Since services are already being started it could be envisaged to develop this in two steps. Firstly, an interim scheme should be established where all stakeholders can exchange views. This would function under preliminary rules that can be reviewed after a relatively short period of time before introducing a more permanent structure. Legislation in place in 2012 should be reviewed in 2014 with the intention to modify and streamline.

Industry representatives both data providers and information product providers, have key and critical views to provide. A governance structure put in place must reflect this and should cover:

- o GMES data and product list maintenance and modifications
- o Registration criteria and licence conditions
- o Future data needs and Sentinel missions.

We consider that the participation of the services industry sector to the decision making on GMES is mandatory.

2. Budgets:

An adequate budget must be established within the EU financial framework to ensure:

- 1) Continuity of the data (satellite and in-situ) and information services provision. Once users start to build information services into their procedures and processes they need to have the confidence that such services will be available for a long-duration. There must be a budget established that reassures all potential users to commit to using GMES products for say annual monitoring and assessments or trend forecasting.
- 2) Contributing mission data is resourced through long-term data buy contracts respecting the licence conditions that are appropriate. The licence conditions may need to change according to the inclusion of products into the GMES portfolio (for instance new geographic coverage, regularity of observations, precision etc). Flexibility should be ensured in the negotiating and contractual process to allow these modifications.
- 3) Maintain GMES products and services. If the definition of a GMES product is one that is paid for centrally by the EU then a suitable budget must be preserved to pay the operators to provide them. It is envisaged that contracts would be reviewed / renewed on a regular basis and care must be taken to ensure a clear, transparent and competent procurement. This should be under the authority of the GMES governance that is put in place.
- 4) R&D into new products and services whether these are to become part of the GMES core or to enter the market on a commercial basis.

The budget should be part of annual operational programmes within the EU ideally with a single funding source. Any alternative risks excluding many EU countries and not realising a core goal to ensure uniform accessibility to key environmental and security information necessary for EU and MS policies. An early decision is needed to remove uncertainty associated with the long-term sustainability of GMES such that users and indeed service providers can feel confident to commit their own resources to the programme.

3. Registration Scheme

A registration scheme for users of GMES satellite and in-situ data and GMES products should be set-up and maintained under the authority of ESA, EEA, MS and the EU. Users must be recognised before they can download any data or information. Acceptance of appropriate licence conditions should be a prerequisite for accessing the service. Abuse of the licence terms should result in disqualification for access - including the case for a nation denying reciprocity of data access. This is necessary to ensure that European service providers compete on an even playing field with non-European suppliers and that the conditions attached to data from contributing missions is respected and controlled.

Recommendations

1. An industrial viewpoint must be part of the decision making regarding the overview, management and evolution of GMES. For example, a GMES Services Supplier Group could be established alongside the GMES User Group so as to provide a platform for this exchange.
2. A comprehensive governance arrangement for GMES should be put in place as early as possible. Recognising the difficulties to achieve this, an interim governance structure is suggested to be put in place in 2012 with a permanent structure to follow.
3. A budget for GMES should be established as soon as possible within the Multi-annual Financial Framework including sufficient funding to ensure the development and supply of the GMES products. Funds should also be made available to support future research needs into new and innovative products and services.
4. A registration scheme for GMES data and products must be put in place and covered by European legislation.