



Operational environmental sensing: Future UK policy drivers, technical requirements and capabilities

24th April 2006, DTI Conference Centre, 1 Victoria Street, London

The workshop "Operational environmental sensing: Future UK policy drivers, technical requirements and capabilities" was held on 24th April 2006 at DTI Conference Centre in London (1 Victoria St). It was jointly organised by BARSC, DEFRA and BNSC.

The aim of the workshop was to focus on the requirements that DEFRA users and its supporting agencies have for remote sensing data, and the potential role of the value-adding service industry in the UK in addressing these requirements. The workshop also covered data services and infrastructure requirements for spaceborne and airborne remote sensing data.

The meeting was attended by 74 delegates, broken down into 36 from industry, 10 from DEFRA, 4 from BNSC, 17 from other UK government agencies, and 7 from Universities.

The programme was organised into 2 main sessions addressing policy, technology, applications and data services, with 16 presentations in total. Copies of presentations are available on BARSC's website: <http://www.barsc.org.uk/news & events>

Whilst not specifically directed at GMES, the workshop did provide a framework for discussion of GMES-related activities, and it is now intended to follow up the workshop with a dedicated GMES user workshop organised by DEFRA later in the year.

Key points from the 2 discussion sessions are given below.

Summary of morning discussion session

Chair: Andy Shaw (Defra)

Panel: Ian Davidson (Defra), David Fernall (Defra), Doug Knox (Forestry Commission), Alan Brown (CCW)

- A lot of use is already being made of remote sensing data, particularly by delivery agencies and organisations such as the Forestry Commission and English Nature. The challenge is to broaden the user base, and see how we



can build investment models to ensure that those kinds of applications are made more widespread, and spread the cost and operationalisation across a number of organisations.

- Need to help different government users join-up their application of remote sensing. Similar data provide many different products for different users. Makes sense to share data, knowledge and techniques.
- Need to push towards widely used operational systems where information is fed not just to specialists, but is used by staff throughout the organisations.
- Move to operational use will depend on demonstrated policy value. One issue is the cost of infrastructure and getting the fixed costs shared among many users. The more users there are, the more costs come down for everyone concerned. Operational use also requires guaranteed access to data, and we need programmes such as GMES to provide that continuity.
- We have a problem in the UK of looking at everything on a case-by-case basis and looking for cost-benefits that are hard to define in the absence of an over-arching business model. We can take an example from other EU member countries that are looking at a top-down approach, and the need for remote sensing GI requirements across a number of holistic directives.
- Current government budget structures are not ideal for taking such an approach to cross-cutting benefits. Needs a national debate that involves OST, BNSC, and the Chief Scientific Advisors to all the government departments because there is a need to aggregate at a high level before addressing the sort of questions being asked.

Summary of afternoon discussion session

Chair: Tony Sephton (EADS Astrium)

Panel: Mike Wooding (RSAC), Evanthia Karpouzli (Scottish Executive), David Cotton(SOS), Matt O'Donnell (BNSC), Matthew Stuttard (LogicaCMG)

- We now have a complete suite of resolutions of data. The availability of VHR data has taken quite a lot of time to come through, but we have seen here that several people have been using it, and for a lot of the interests related to land study and habitat mapping high resolution is so important that they need to find a way of getting hold of such data.
- There is no "one size fits all" solution. We need to see facilitation of communities to share information, and to filter their needs into a coordinated strategy. We have seen in the land and coastal applications that, while some of the generic issues are the same, for reliability and continuity of data the specific needs and interests vary greatly between communities, with the temporal, spatial and spectral requirements being very different.



- The lack of a national acquisition strategy holds us back. We tend to do things piecemeal in the UK. There is a good reason for that: we are a small, well-regulated, law-abiding country, which is largely cloud-covered, so there aren't many niches. Nevertheless, the GIFTSS programme shows that things can be done, and the GIS programme now moving into stage 2 is another demonstration of what has been going on over the last 2 or 3 years.
- Looking at the GMES programme, Defra should be examining which are the services coming from or likely to come from GMES which will meet its needs, and which will not, and those that will not should really be addressed to a national programme which may require a national acquisition strategy.
- There is more convergence now in data use, in the same way that we are seeing a convergence in data and modelling. People want to map and model the physical environment in three dimensions and even in four, i.e. at sub-surface as well as surface and just above the surface, and are integrating the marine environment, estuaries, land surface models, etc.