

## Risk EOS Flood Risk Analysis Services – an outlook

*“Based on satellite observations of actual floodings in recent years we will be able to see some trends. We can point out which areas are at higher risk of future flooding, and we can analyse how roads and other forms of sealing of the soil will impact flooding” (Source: Professor Jacqueline McGlade, Executive Director of the EEA, in: ESA News 12 Nov 2004, “Satellite view highlights Europe’s changing landscape”)*

*The delivered and still to be provided services and geo-information already corresponds to the requirements of the proposal of the Flood Directive of the European Parliament and of the council on the assessment and management of Floods” ( Mr. Bacik, Slovak Water Management Enterprise, August 2006).*

### **An EU policy on flood risk management**

Based on an agreement between the European Parliament and the EU Council of Ministers from April 25, 2007 the Flood Directive on the assessment and management of floods (European Commission COM (2006) 15 final) will now become a binding Directive for the Member States. Under the proposed directive they would need to carry out a preliminary assessment to identify the river basins and associated coastal areas at risk of flooding. For such zones they would then need to draw up flood risk maps and then flood risk management plans focused on prevention, protection and preparedness.

### **GMES Flood Risk Analysis services support implementation of Floods Directive**

The GMES Flood Risk Analysis services developed within EC-FP-6 and ESA programmes support the implementation of Floods Directive by matching requirements to corresponding portfolio:

Floods Directive requirements	GSE Risk EOS Flood Risk Analysis services
„... description of the flood which have occurred in the past ...“ (Preliminary Flood Risk Assessment / Article 4)	Mapping of Past Flood Events
„Members States shall ... prepare flood maps and indicative flood damage maps, hereinafter „flood risk maps“, ...“ (Article 7)	Flood Hazard Maps Flood Risk Maps
„Member States shall make the preliminary flood risk assessment, the flood risk maps and ... available to the public ...“ (Article 14)	Flood Information Service

The GMES Flood Risk Analysis services support the implementation of Floods Directive through:

- Providing appropriate information for implementation of flood risk management plans across the countries and regions of the Community;
- Considering all steps of the “flood cycle” – prevention, protection, preparedness, emergency response and recovery;
- Making best use of Earth Observation data enabling European wide harmonised and comparable mapping and modelling results;
- Taking into account the particular geographic, hydrologic and other relevant circumstances of the river basins or sub-basins to provide tailored solutions;
- Being interoperable with parallel GMES services like Spatial Planning and Urban Services (e.g. ESA GSE Land, EC FP6 IP geoland).

### **Towards operational GMES service**

In summary, the GMES service package Flood Risk Management is ready for operational implementation and use. It provides valuable and pertinent geo-information products for each step of the implementation of the directive.

Users on different trans-national European catchments have already acknowledged the benefit of the GSE Risk EOS Flood Risk Analysis service package. They stated clearly that these services

support them in their duty to implement flood risk management plans. Closely involved policy makers have also put forward the relevance and importance of the Risk EOS Flood Risk Analysis services in relation with the Directive.

The Flood Risk Management package is seen as a complementary part of the FP-7 GMES Emergency Response Core Service (ERCS) enabling service evolution to better document the risk vulnerabilities, especially through mapping of risks and potential damages on water basins.

The Flood Directive is closely linked with the Water Framework Directive aiming at integrated basin management comprising flood risk management as well as water quality management. The Flood Risk Analysis portfolio reflects this integrated approach and supports the implementation of integrated management plans by building on a common European Land Monitoring service (LMCS).

Moreover, the GMES service package Flood Risk Management fits into the work programme “Regions for Economic Change (see Commission Staff Working Document / SEC (2006) 1432) under the Theme “Preventing and reducing floods”.

