



European  
Commission



# GMES Status November 2004

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DG RTD/H5

« Space: research activities, GMES »



**GMES**



# GMES: a joint EC-ESA initiative

- The objective is to establish by 2008 a European capacity for global as well as regional monitoring to support EU objectives in a wide variety of policy areas.
- GMES should:
  - make the maximum use of existing EO systems,
  - harmonise current initiatives,
  - support the development of new capacity where needed.
- **to achieve coherent, efficient and sustainable systems of production of information**

*Action Plan for the intermediate period (2004-2008): see Commission Communication COM (2004) 65 final, of 3 Feb. 2004*



# GMES: a multi-purpose tool

- observation of the state and evolution of the global environment
- monitoring for the EC 6th Environmental Action Plan
- aid to civil protection for prevention, monitoring and assessment of natural and man-made hazards
- support to EC Common Agricultural, Fisheries and Regional development policies
- assistance to development and humanitarian aid
- support to the EU Common Foreign and Security Policy (CFSP) and other policies relevant to European citizens' security



# GMES management 2004 - 2005

## GMES Programme Office

- Undertakes the *operational management of GMES* in accordance with the mechanisms foreseen in the EC/ESA Framework Agreement. It is populated in part by seconded staff from the Commission and relevant international organisations (e.g. EEA, EUMETSAT).

## GMES

- By **Decision of the EC/ESA Member States**, the European Commission and ESA, as well as other stake-holders on an ad-hoc basis: relevant international organisations (e.g. **EEA, EUMETSAT, ECMWF, European Maritime Safety Agency, EU Satellite Centre**, etc.), representatives of end-users, industry, service providers, research organisations, academia.  
**=> long-term strategy, political and financial support**

Inaugural meeting 6 July 2004 (see → <http://www.gmes.info>), **next meeting 8 December 2004**



# Action Plan for 2004 - 2005

- Analysis of existing or planned GMES activities
  - Initial mapping of GMES (pre) operational activities
  - Focus on "initial services" for early implementation in 2005. These will be confirmed with the Advisory Council
  - Demonstration of the initial services at the Earth and Space week (12-20 February 2005)

[http://europa.eu.int/comm/space/esw/index\\_en.htm](http://europa.eu.int/comm/space/esw/index_en.htm)

- Strategic & socio-economic
  - Strategic socio-economic
  - Possible funding scenarios

- Proposal for GMES implementation
  - Approach for the governing structure & related funding scenarios
  - Final proposal to be submitted by EC to the Council & European Parliament by end 2005



# GMES Initial Services

- Preliminary picture of what GMES is
- Concrete examples of GMES added-value
- Increase awareness & mobilize stakeholders on GMES
- Starting-point for other GMES activities  
e.g.: socio-economic & architectural studies

Generic core vs.  
customised  
services

Cost-benefit  
analysis & impact  
study

availability, maturity, reliability, utility,

co-ordinated results of on-going & planned  
Service activities under EC & ESA Programmes



# Preliminary list of Initial Services

- Marine & coastal environment
- Risk management (floods & fires, subsidence & landslides)
- Air pollution (local to regional scale)
- Water quality (at European scale)
- Land cover state and changes (at European scale)
- Forest monitoring (global)
- Food security and early warning system
- Global change issues (modelling at European level)
- Maritime security (transport, coastal, ice-monitoring)
- Humanitarian aid



Exploration of notion « Initial Service » vs. « Project »:

Initial Services based on past and current projects

- taking long-term agenda rather than short/mid-term agenda, relying on multiple funding sources





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# Supporting Programmes

- Two main implementing mechanisms until 2007:
  - **European Commission**
    - *Framework Programmes FP(5) & FP6*  
(*DG Research and DG Information Society*)



- **European Space Agency**
  - *GMES Service Element (2002-2006)*
    - Service Consolidation
    - Scaling-up Services
  - *GMES Preparatory Activities (2005-2007)*
    - Socio-economic studies, Sentinel studies



# GSE Services in consolidation

- **CoastWatch**
- **ROSES**
- **ICEMON**
- **Northern View**
- **Forest Monitoring**
- **SAGE**
- **Risk-EOS**
- **TerraFirma**
- **Urban Services**
- **Food Security**
- **Respond**
- **PROMOTE**



# Next Stage of GSE

## Scaling-up Services: 2005-2007

- Three European-Scale Portfolios (Large)
  - Coastal & Marine Environment Services
  - Land Information Services
  - Polar Environment Services
- Four Regional-Scale Portfolios (Medium)
  - Forest Monitoring Services
  - Flood & Fire Risk Management Services
  - Geo-hazard Risk Management Services
  - Food Security Information Services in Africa
- Follow-on actions to be defined in 2005
  - Humanitarian Aid, Atmospheric Monitoring
  - From RESPOND & PROMOTE consolidation results



# GMES projects in FP6 « Space »

Area		1st & 2nd Call ± 70 Mio €	3rd Call March 2005 ± 30 Mio €
Land Cover & Vegetation	IP	GEOLAND	
Oceans		MERSEA	
Risk management		PREVIEW	
Atmosphere	NoE	GEMS	
Water resources			?
Security		GMOSS	?
Cross-domain Pilot activities			?
<b>INSPIRE</b>		<b>2 SSA</b>	<b>?</b>
GMES enhancements & support actions	SSA & STREP	7 STREP & 6 SSA	?

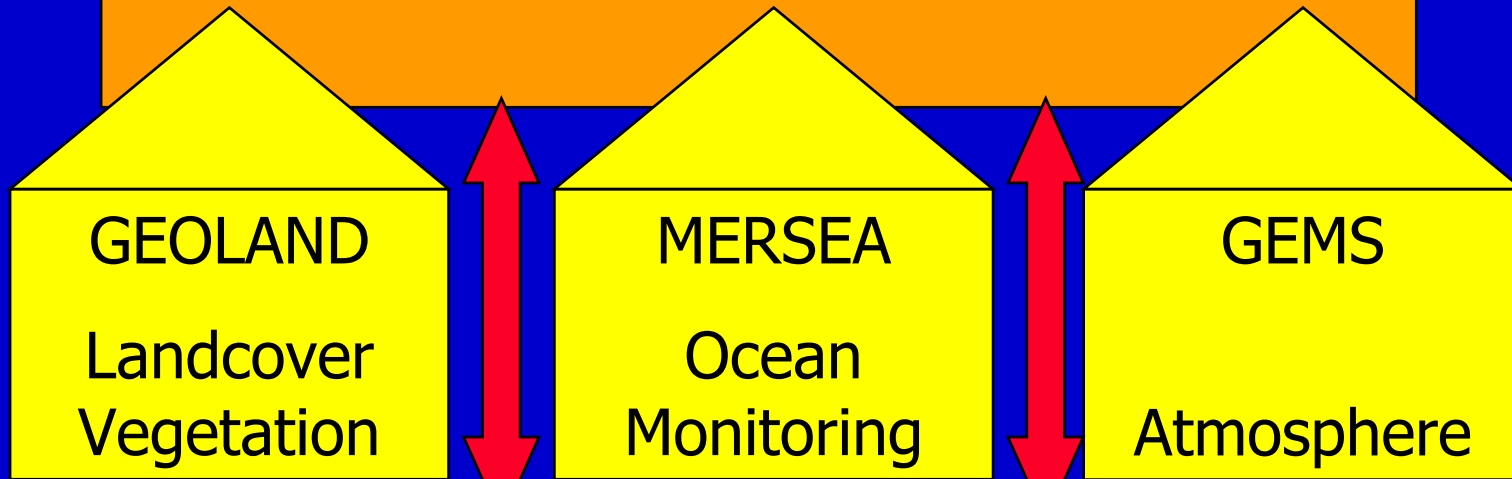


# HALO Support Action

SSA

**HALO - Harmonised coordination  
of the Atmosphere, Land and Ocean integrated  
projects  
of the GMES backbone**

IP



**ORCHESTRA**  
Open Architecture  
Risk management

**WIN**  
Wide Information  
Network

**OASIS**  
Open System  
Crisis Mgmnt



# GMES – the future

- International participation in GEOSS
- GMES will have to be implemented within the frame of the EU budget 2007-2013
- Basis for such actions are outlined in White Paper for Space, as integral part of a « **European Space Programme** »
- Contributions to GMES twofold:
  - Operational actions
  - Research & Development

Space Council  
26th November



## The case for R & D in FP7

- Need to maintain (and in some cases establish) close links between R&D activities and implementation of GMES services:
  - Improvement/expansion of existing services
  - Input for new services
- GMES acts as driver/prescriber & facilitator of research activities through:
  - Request/requirements from GMES services (e.g. for FP7)
  - Supply of data (especially continuous time series) and facilities to the research community



# GMES Application Fields

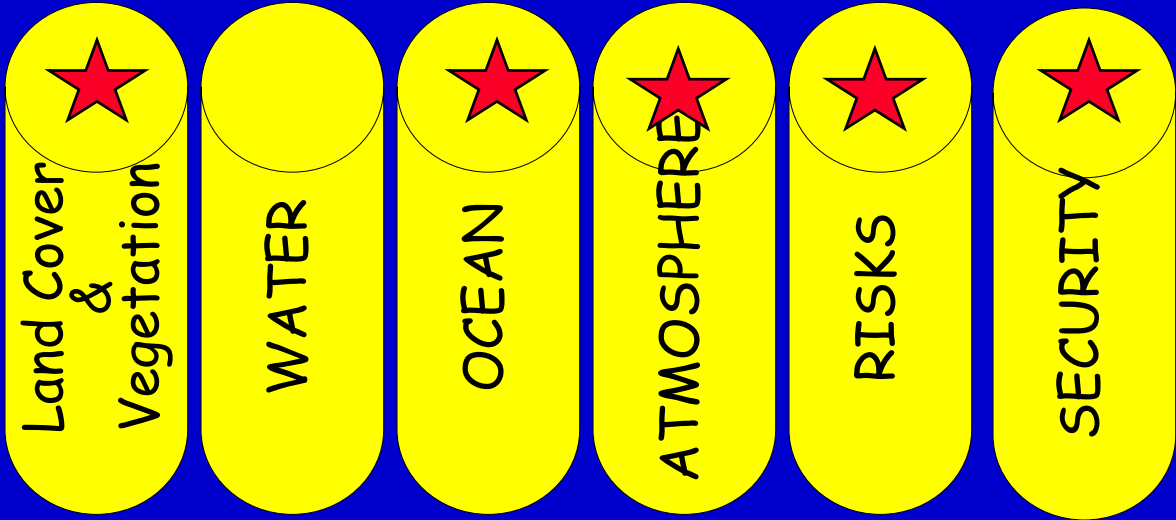
Inputs from  
Data Providers

Space  
Level 1 products / sensor

Airborn  
Level 1 products / sensor

In-situ  
Level 1 products / sensor

Production by  
Service and/or Thematic Centres



Outputs for  
Users

