



Global Monitoring for Environment and Security (GMES)

General Overview



Valère MOUTARLIER
European Commission
GMES Bureau



GMES in a nutshell

- **GMES is an EU-led initiative** for an **autonomous** and **operational** European Earth observation capacity
- **EU Need for information in support of:**
 - **European policies:** environment & climate change, CAP, Maritime Policy, CFSP/ESDP...
 - **EU international commitments:** protocols and conventions (eg Kyoto, Montreal, CLRTAP..)
 - **National or regional «adaptations»** of these policies or commitments
- **GMES aims to provide relevant information not only to policy-makers** but also many **other users** (national authorities/agencies, private industry, researchers, European citizen..)

Current challenges

- **Global Environmental Change** reinforces the need for **Information**
- **Technological Progress** is an asset to respond to the need
- **Availability of relevant data**
 - Lack of access
 - Lack of funding for technical infrastructure, lack of continuity
 - Spatial and temporal data gaps
 - Lack of data interoperability
 - Inadequate user involvement
 - ...

- Relevance of EU level as a **policy driver**
- Overall “**information chain**”: from observation to information required by the users
- “**System of systems**“: mutualisation & long term sustainability of capacities & resources
- Build on **existing capacities** in MS taking into account subsidiarities

GMES: Focus on services

- **GMES intends to provide reliable and timely services on a **sustained basis****
- **GMES Services provide **information products**** (e.g. maps, datasets, gridded fields, assessment reports, targeted alerts, etc.) related to environmental and security issues
- **EU-funded services** are designed to enable and support the development of a **downstream sector** for customised services of special interest to national, regional and local users in the member states
 - e.g. local air quality health warnings,
 - oil spills remediation,
 - bathing water quality,...

Three Service areas based on Earth compartments:

- Marine Monitoring
- Atmosphere Monitoring
- Land Monitoring

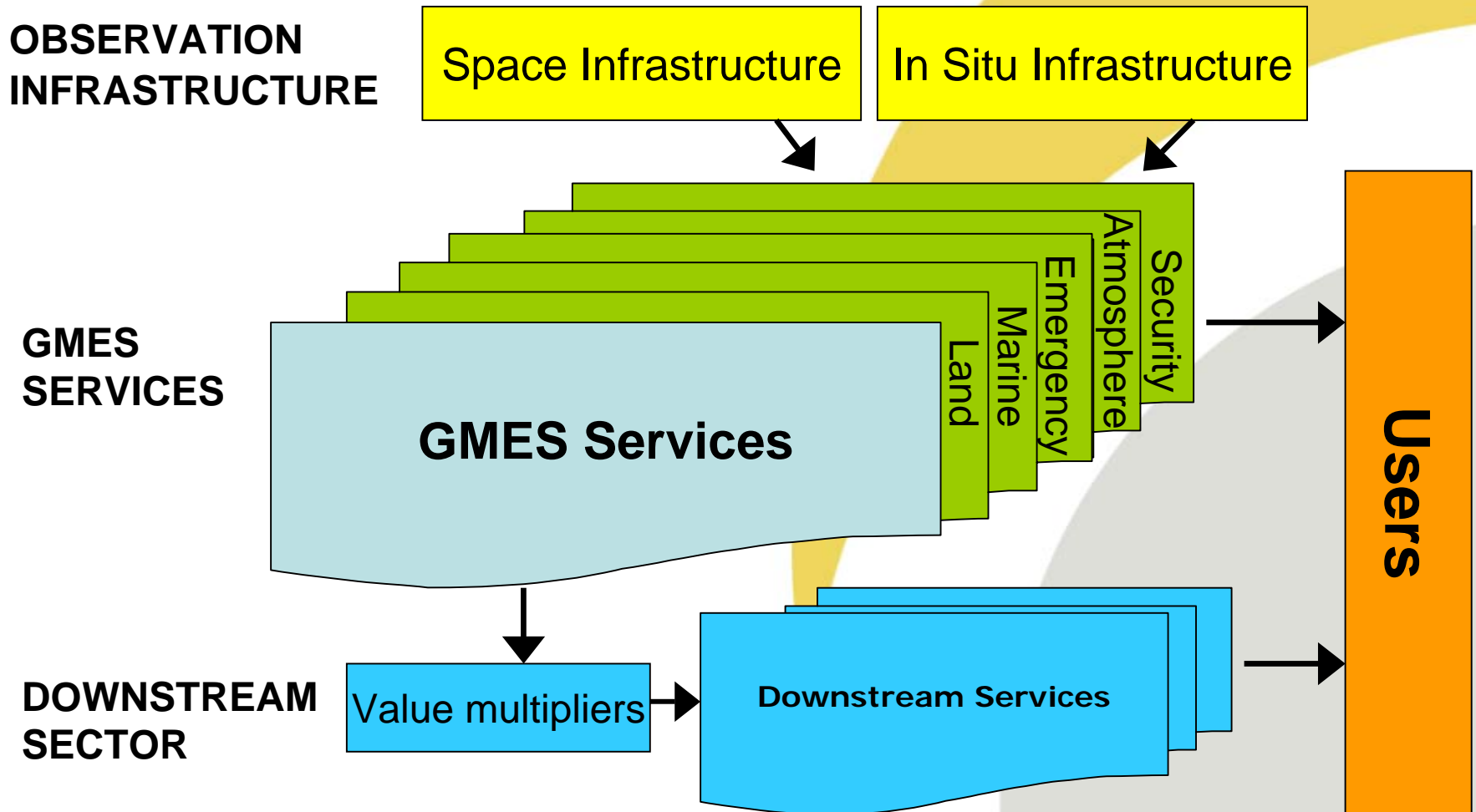
Contribution to Emergency Response, Security and Climate change

Recent milestones

- 2006** **Graz Dialogue:** phased implementation approach
FP7 Research programme: R&D funding. € 1,2 billion allocated in FP7 to GMES (period 2007 –13)
- 2007** **Munich Roadmap:** GMES Architecture
Lisbon Process: GMES and Africa
EC/ESA Agreement on the Space component
- 2008** **Lille GMES Forum:** Service Demonstrators
ESA Ministerial on GMES Space component
Commission Communication on GMES
ESP Council and Competitiveness Council Conclusions
Governance and long term funding issues

Political Guidelines

- An architecture that puts **users** at the forefront
- Public investment with impact on **growth and jobs**
- A European initiative open to international **cooperation**
- **Financing** strategy to ensure sustainability
- **Governance** approach: **partnership**, EU-Lead
- Differentiate **political coordination** and **technical implementation**



- **Implementation of services based on user requirements**
- **Existing Consultation Process**
 - GMES Advisory Council (GAC)
 - Service implementation groups (user needs federation tool)
 - In-situ working group
 - Industry workshops
 - Service Projects in FP7 and their user interfaces schemes
- **To be further developed**
 - Partner Board
 - User Forums / Scientific & Technical Committees
 - EU Agencies obtain user federation function

Public investment for growth

- **GMES is implemented through public investment**
- **GMES has a positive impact on economy, growth, jobs and innovation**
- **Full and open data policy: key success factor**
 - **Security of Information**

International cooperation

- Imperative to fulfil the European need for information at global level and to develop a **cost efficient system**
- GMES partners should ensure a coordinated approach for an **international cooperation strategy** building on existing cooperation schemes
- Group on Earth Observations (**GEO**) process
 - ensure access to observation data not controlled by Europe
 - define the European contribution to this international endeavour

- **Approach**

- public financing for GMES with a modular approach
- Three stages:
 - demonstration stage (R&D funding)
 - pre-operational stage (mixed R&D and operational funding)
 - operational stage (operational funding)
- EU to implement accompanying measures in support of innovation and market uptake in the downstream sector

- **Cost Assessment**

- Space Component Long-term Plan coordinated by EC and ESA
- EEA to evaluate in-situ needs on global or cross-border networks
- Cost-benefit studies for services

- The Commission will make a **legislative proposal** for EU Earth observation programme and funding of the initial operations of GMES
- The GMES **financing needs** will be subject to an analysis led by the EU.
 - For the period 2011–2013, the constraints of the existing EU budget will be taken into account.
 - Decisions on funding and organisational arrangements after 2013 will have to be determined as part of the next multiannual financial framework of the EU.
- The Commission will propose **interim governance** arrangements
- Additional work
 - data policy
 - international cooperation
 - competitiveness and innovation

Added value for you – some examples

GMES will...

- enable to sustainably and operationally monitor **long-term trends of global change** -> long, uninterrupted time series of intercomparable, quality data
- ensure a **free and open access** to the GMES services and data
- enable **downstream services** in a variety of areas at national, regional and local level (GMES economy)
- address the **policy needs of member states** and their institutions (not only needs at EU policy level)
- help **member states meet their reporting obligations** under EU laws (e.g. marine directive) and their international obligations (e.g. Kyoto, Montreal)
- be an effective means of supporting national agencies, NGOs, citizens in **assessing and understanding environmental and related problems**

For further information

EU Policy and Institutional Issues

<http://ec.europa.eu/gmes>

EU Space Research:

http://ec.europa.eu/enterprise/space_research/index_en.htm

