

GMES Preparatory Activities

A suite of studies initiated by ESA in 2005 to prepare for the implementation of the EO component of GMES

See procurement proposal : [ESA/IPC/\(2004\)70](#)

7 Lines of preparatory activities covering :

- i. Socio-Economic Benefits of GMES
- ii. Four Architecture studies :
 - Long-term scenario for implementation
 - **Services Evolution (1.5 M€, 12 months duration)**
 - Evolution of ground-segment
 - Space missions status & evolution
- iii. Ground-Segment activities
- iv. Definition studies for Sentinel 1 (SAR continuity)
- v. Definition studies for Sentinel 2 (Land super-spectral)
- vi. Definition studies for Sentinel 3 (Ocean / Global Land family)
- vii. Phase-0 studies on Sentinels 4 & 5 (Atmospheric composition)

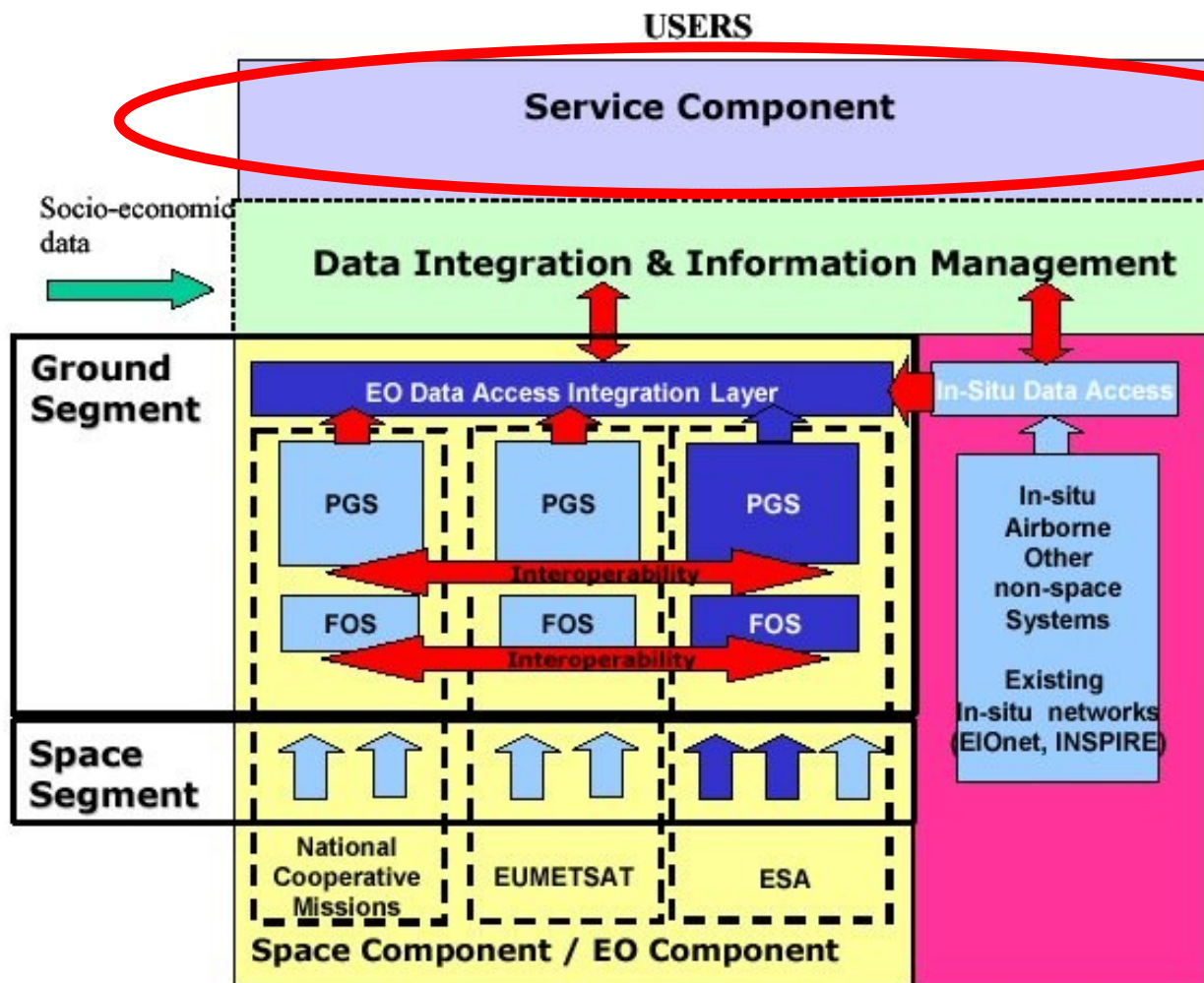
Scope (formally) defined in IPC paper

□ Main Activities :

- Analyse services currently under development (GSE, EC FP6, national),
- Co-ordinate & elaborate requirements for architecture & infrastructure.

□ Main Deliverables :

- Requirements for all aspects implementation of GMES in the next phase (including service, G/S & Space components),
- Scenarios for service delivery with focus on EO components,
- Conditions for evolution of services to operational status,
- basic requirements (in longer term) for the overall architectural structure of the GMES implementation.



Focus Here !

(other studies address other components)

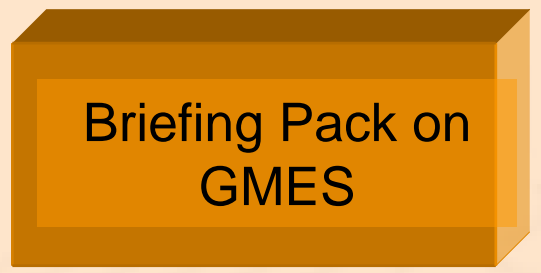
Next Decade

(2005 – 2015)

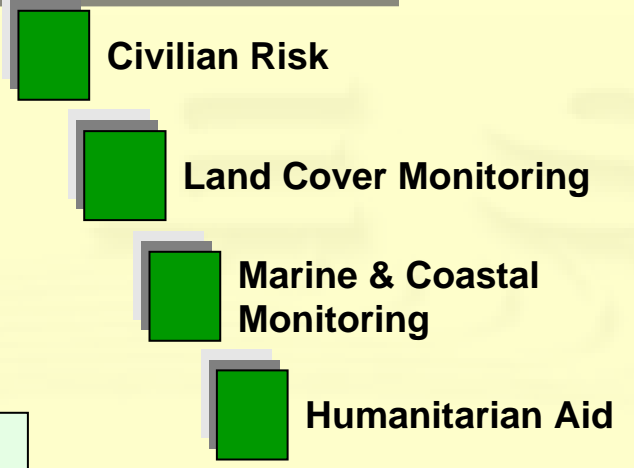
- Review & analyse services currently under development (GSE, EC FP6, national),
- Define initial implementation designs of operational service production, delivery & use for 4 specific service portfolios based on current capabilities,
- Explore additional dimensions of GMES (beyond environment) that may have significant impact on the evolution of GMES services in the mid-term (2008-2015),
- Formulate a complete, coherent and consolidated vision of how the full range of GMES services may evolve to operational status on a sustainable basis in the timeframe of 2008 – 2015.



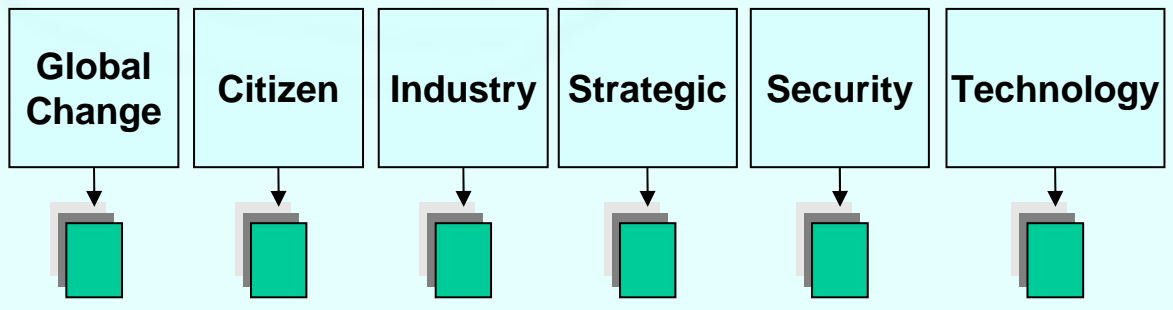
1. Review current GMES services capabilities & status



2. Derive initial implementation designs for 4 specific services

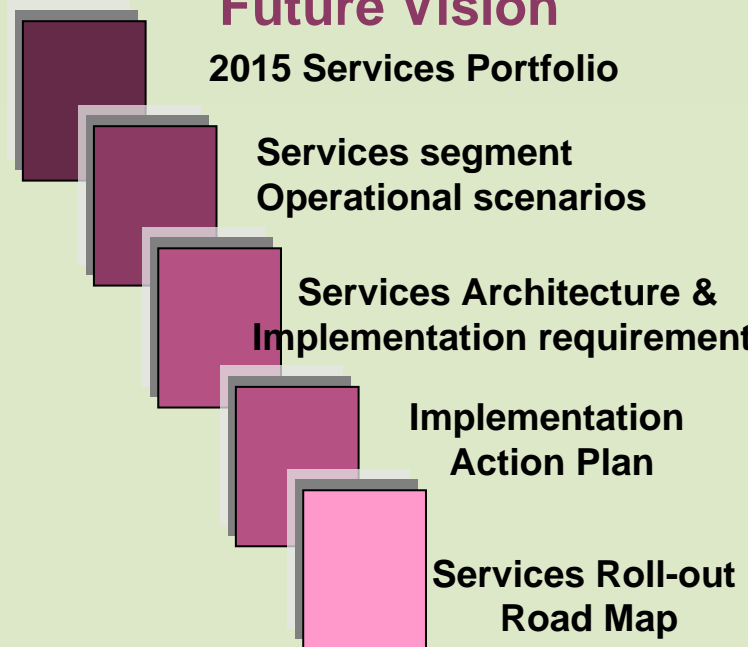


3. Bring New Perspectives



Dossiers : issues & implications for GMES services

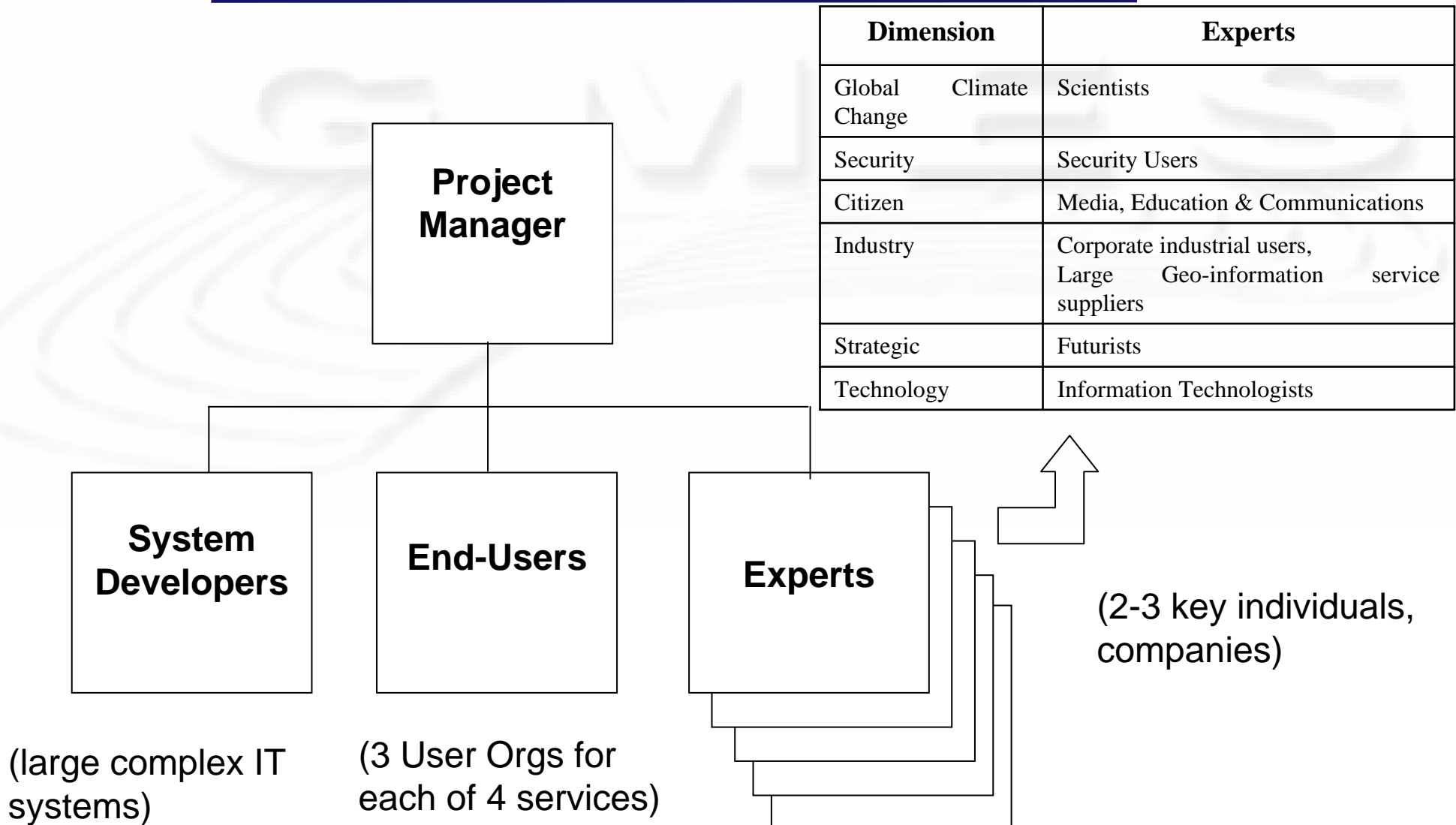
4. Consolidate GMES Future Vision



Main tasks & Logic

Services Segment of this study	Associated ESA GSE Stage 2	Associated ESA GSE Stage 1	Associated EC GMES IP	Associated GMES Fast-track / Pilot
Civilian Risk management	- Fire & Flood risk Management services (Regional scale), - Geo-Hazard risk management services (Regional scale)	RISKEOS, TERRAFIRMA	PREVIEW	Fast-track GMES information services in support of emergency management
Land cover monitoring	- Land Information services (European scale)	SAGE, URBAN, FOREST	GEOLAND	GMES Fast-track Land monitoring services
Marine & Coastal monitoring	- Marine & Coastal Environment services (European scale)	ROSES, COASTWATCH	MERSEA	Pilot GMES Marine Core services
Humanitarian Aid	None at present (see Annex 3)	RESPOND	None at present	Fast-track GMES information services in support of emergency management

Teaming Requirements



- NO 'Clean-Sheet' Designs. Many elements exist. Design methodology to handle this specifically.
- Physical designs : sized in capacity, throughput, performance, redundancy -> for services with required levels of availability, reliability & affordability
- Additional dimensions – NO waffle (already exists). Concise dossiers of practical issues & implications of how GMES services need to adapt.
- GSE Stage 1 inputs identified. GSE Stage 2 inputs via SLAs & consolidated OSPs. Review and comment of implementation designs expected.

- ITT Closure** : **16-Dec**
- ITT Evaluation** : **Jan 2006**
- Contract Negotiation** : **Feb**
- KO** : **01 Mar**
- GMES Briefing Pack** : **01 May (3 months)**
- Mid-Term Review** : **01 Sept (6 months)**
(Initial implementation designs for 4 specific services)
- Final Review** : **01 Feb 07 (11 months)**
(2015 GMES Future Vision – set of 5 documents)