

GMES program status and proposed approach for the implementation of GMES initial operations

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Outline of the Presentation

- **Background and Recent GMES Milestones**
- **Overview of the Commission's Proposal**
- **Governance context in 2011-2013**
- **GIO Implementation plan**
- **Proposed approach for the Land service**

GMES regulation timing and implementation

- **29 May 2009**
 - Adoption of the Regulation proposal for a GMES Program by the Commission COM(2009) 223 final
- **2009-2010**
 - Co-decision procedure with Council and Parliament
 - Vote in the EP June_July 2010
 - Expected adoption by the end of 2010 (oct.?)
 - Preparatory phase for the implementation
- **2011-2013**
 - Implementation of basic act by the Commission assisted by a Comitology Committee through adoption of annual workprogrammes
 - Technical implementation as foreseen in 2008 Communication and Council conclusions

Content of the Proposal (1/2)

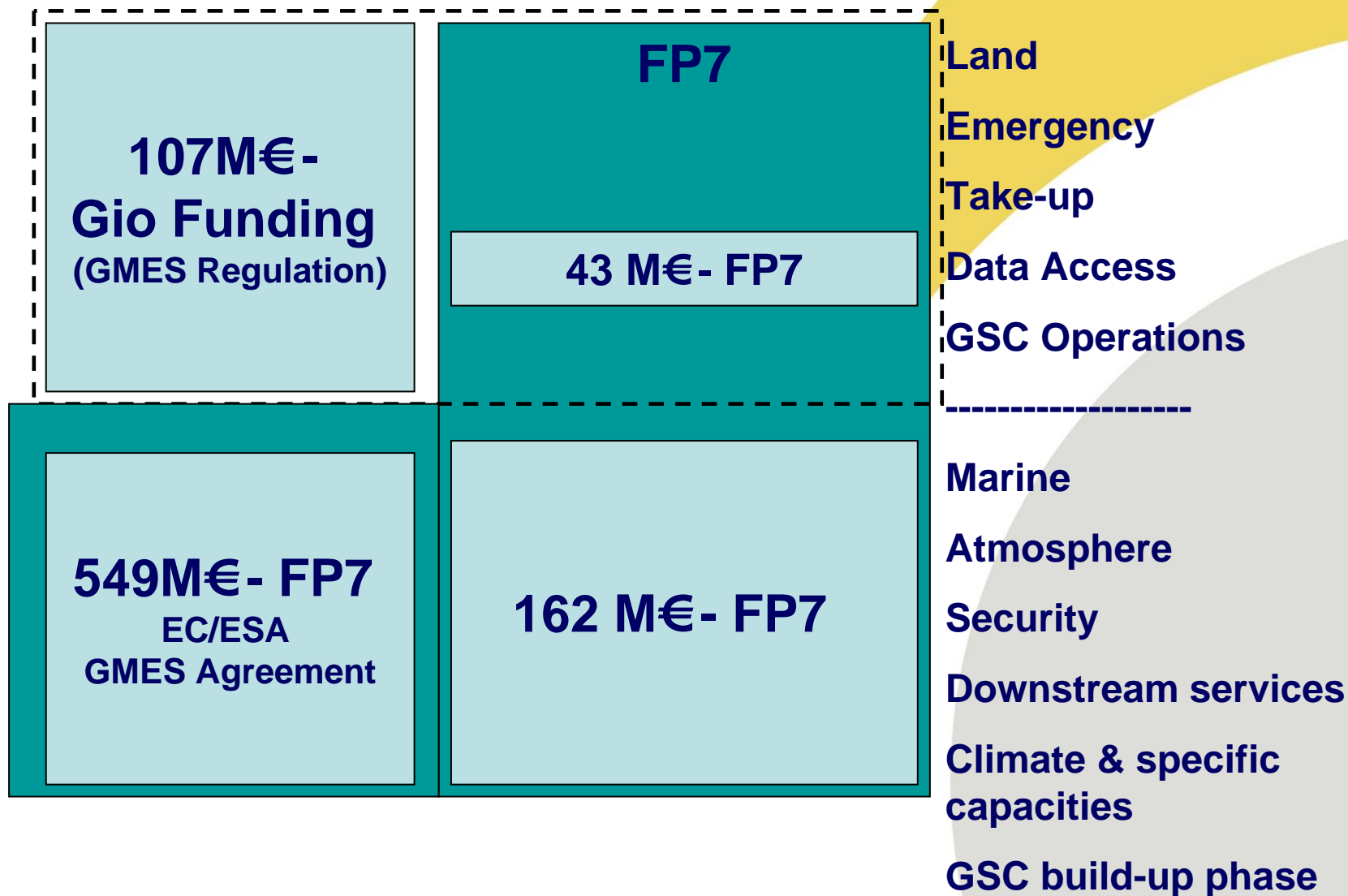
- Scope and architecture
 - Programme comprises:
 - **service component** (land, marine, atmosphere, emergency response, climate change, security),
 - **space component**
 - **in-situ component**
 - Initial operations comprise
 - emergency response, land monitoring
 - users uptake
 - data access, including support to in situ data collection
 - space component
 - Continuity with research activities
 - Organisational arrangements
 - Data policy (full and open access)
 - Participation third countries

Financing proposal

- **107 M€ allocated to the implementation of the Regulation**
- **Another 43M€ re-deployed within FP7**
- **Proposed allocation in the legislative and financial statement accompanying the proposal**

Objective	Budget (M€)
Emergency response service	12
Land monitoring service	26
Take-up of services by users	5
GMES space component operations	40
Access to data for the services	24
Total	107
Research activities under FP7	43
Total including FP7	150

Various sources of funding of GMES 2011-2013



GIO Implementation plan

GIO implementation

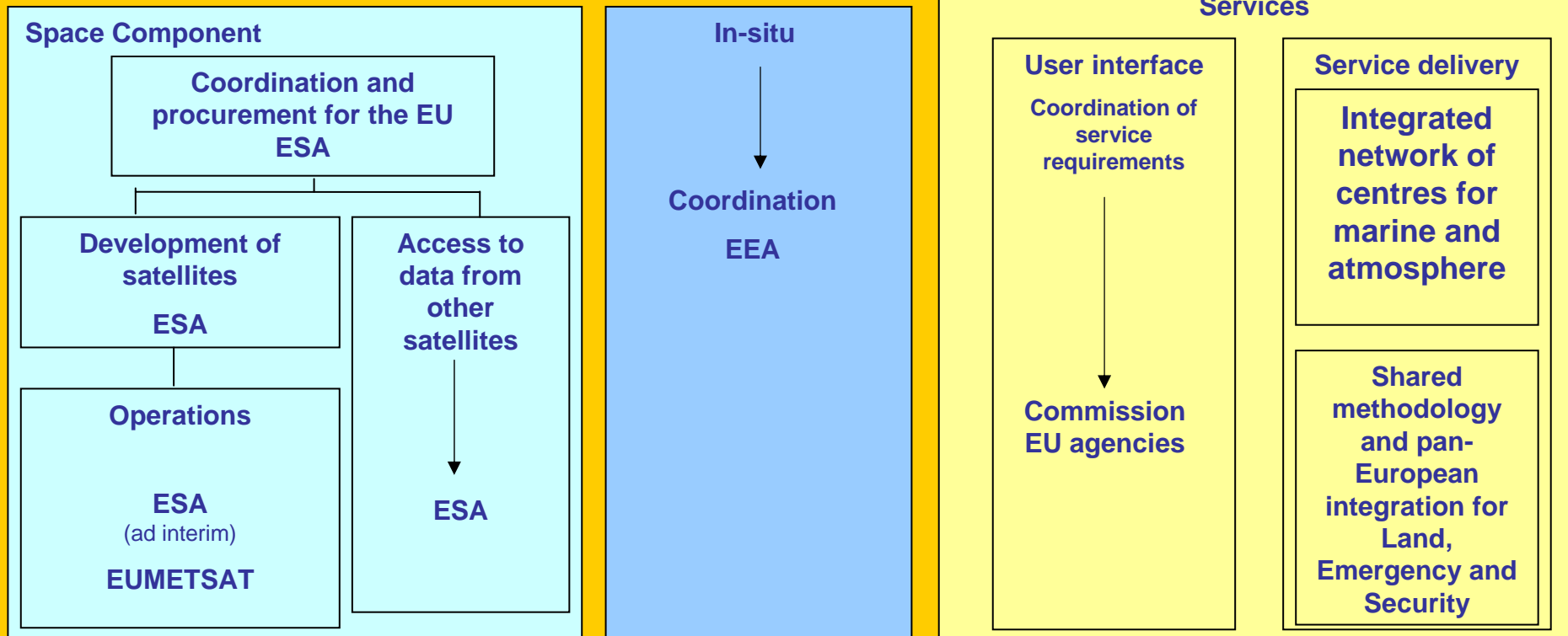
- Three steps:
 1. Preparatory phase: consolidation scope of services, preparation work programme, technical specifications, organisational arrangements
 2. Service procurement
 3. Monitoring - evaluation

Governance Context

Political
Coordination

European Commission
+
Partners Board, Programme Committee
Security Board and User Forum

Technical Implementation



Proposed approach for Land service

GLO implementation – Proposed scope Land service

- Four components corresponding to priorities from user consultation:
 1. Global component
 2. Pan-EU component
 3. Local component
 4. Reference data access component (cross-cutting service)
- > might be enlarged to thematic components beyond 2013, depending on user demand

Global Land component

- Priority defined in GMES Glob-Land workshop
Stresa: global ECVs and integration into land assimilation models Carbon fluxes and water
- Building on BIOPAR
- Selection of ECVs according to maturity and existing activities (ESA CCI, GCOS/GTOS..)
- Set up a dynamic vegetation monitoring (intra-interseasonal) based on HR/MR datasets
- Additional Glob-Land elements to be considered later?

Local Land component

- Land cover/LCC zooming on 'hot spot areas'
- Building on Urban Atlas 2009
- Extending to other 'hot spots'
- Potential candidates: protected sites (Natura2000), coastal areas, risk areas (of interest for Emergency as well), or in support to biofuel Directive
- -> consolidation of scope still required

Reference data access component

- Access to reference data at various scales (Global, Pan-EU, local) in support to several GMES services
- Possible support to Pan-EU products
- Building on Prep. Action 2009
- On-going discussions with Eurogeographics and NMCAAs

Pan-EU Land component 1/2

- Scope based on outcomes of Land IG and discussions with stakeholders (EIONET-GMES workshops and GMES-INSPIRE workshop in Madrid in 2009,
- MS call for better synergies between Pan-EU and National Land Cover activities. Ultimate goal: Pan-EU land cover derived from aggregation of national land cover products
- Harmonisation/standardisation required -> long process
- Short and medium long term strategy required

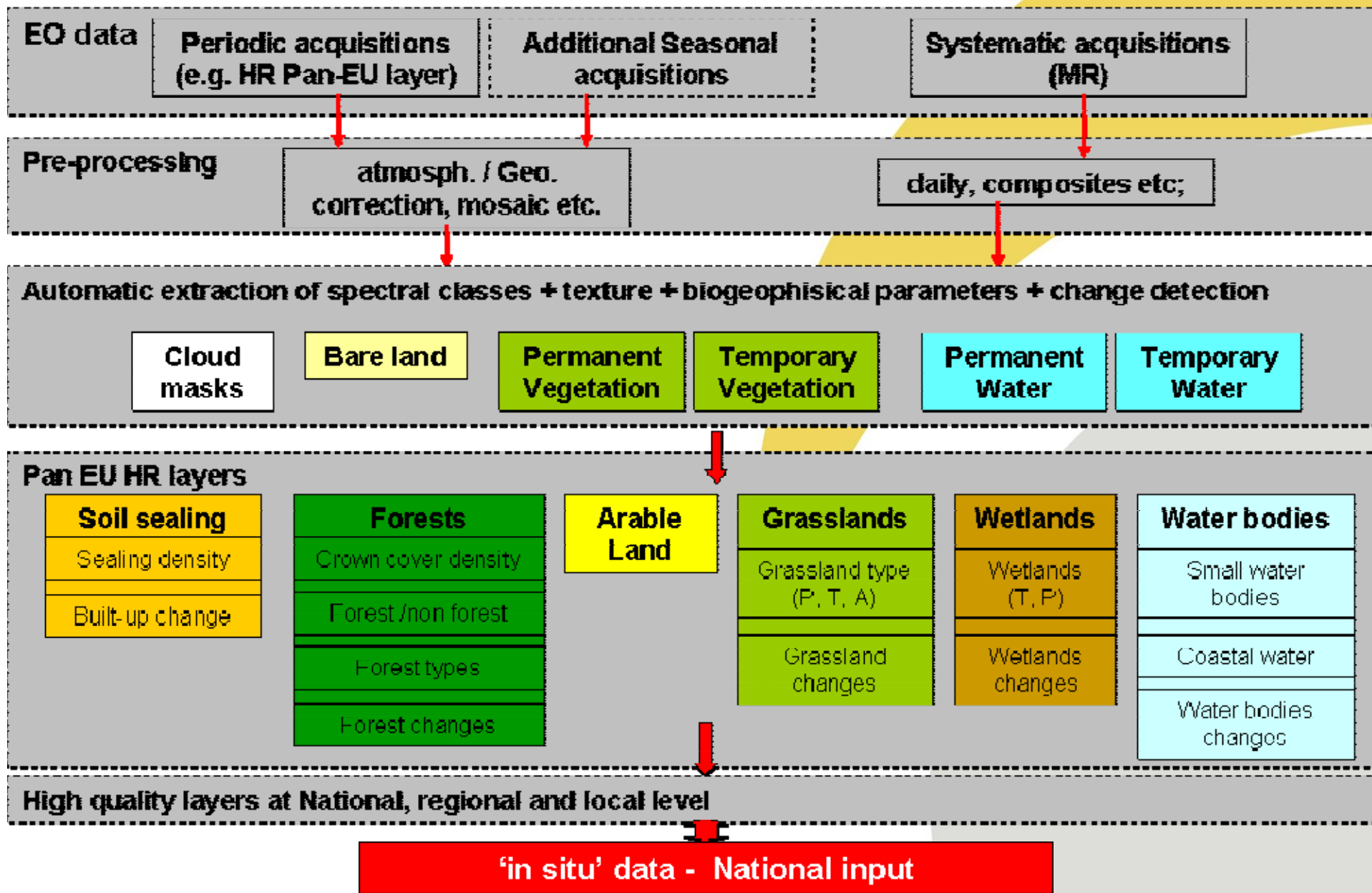
Pan-EU Land component 2/2

- Short term strategy (GIO)
 1. Ensure the continuity of Corine LC/LCC time series (5ha, 44 classes): new 2012 exercise
 2. Produce up to 5 HR Pan-EU layers (1ha), depending on outcomes of Geoland2:
 1. Soil Sealing
 2. Forest
 3. Water bodies
 4. Grassland
 5. Wetlands
 3. Support harmonisation/standardisation efforts of MS (linked to INSPIRE) in continuity to HELM project

Proposed contents of Pan-EU HR layers

- **Proposed 5 HR layers**
 - **Soil Sealing/Built-up areas -> pixel-based + 1HA**
 - **Primary product**
 - **Sealing density (incl. low density class) -> IMPERVIOUSNESS**
 - **IMPERVIOUSNESS change detection**
 - **Secondary product**
 - **Built-up area**
 - **Forest**
 - **Primary product:**
 - **Crown cover density -> pixel based + 1 HA**
 - **Forest type (deciduous, coniferous, mixed) -> pixel-based + 1HA**
 - **CHANGE products (clear-cut, afforestation)**
 - **Secondary products:**
 - **Forest/non forest areas**
 - **Water bodies**
 - **Primary product:**
 - **Water bodies (definition?) , incl. Small bodies -> pixel based + 1 HA**
 - **Water bodies change detection (annual, seasonal)**
 - **Coastal waters intertidal zones -> ??**
 - **Grassland**
 - **Primary products**
 - **Grassland types (highly biodiverse grassland – natural/non natural) cf. Directive renewable resources -> 1 HA? 5HA?**
 - **Grassland change detection (permanent/ non permanent change) ref. year 2008, 2012, every year**
 - **Wetlands**
 - **Primary product**
 - **Wetlands areas -> pixel based + 1 HA -> cf. definition RAMSAR**
 - **Wetlands change detection (annual, seasonal) (using other sources 'in situ' information)**

Possible approach for HR layers



Possible Service delivery scheme

- Various service delivery scheme :
 1. Global component -> centralised scheme, integrated network of centres (ITTs)
 2. Pan-EU component -> mix of centralised and decentralised scheme, similar as for Corine LC (ITTs + grants MS)
 3. Local component -> centralised scheme , ITTs (but MS/local actors might be involved more in validation)
 4. Reference data access component -> several options to be considered (partnership, grants, ITTs??), possible extension of existing EC procurement ??

Thank you for your attention

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
- ESA GMES Space Component Programme:
<http://www.esa.int/esaLP/LPgmes.html>