

GMES opportunities in research projects

Operational capacity workshop, Sofia, 26 March 2010

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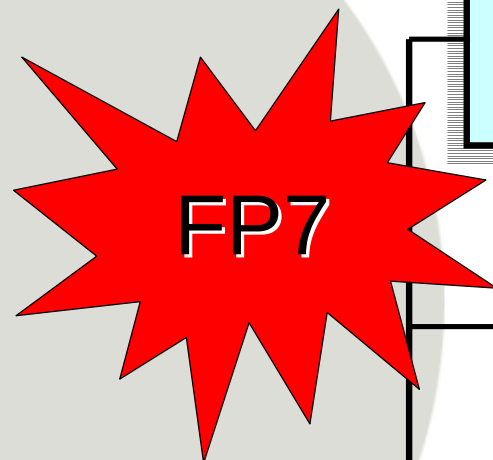
European Commission
Enterprise and Industry

Structure of presentation

- 1) Background: Space Research in FP
- 2) The typical space call
- 3) Existing GMES core service projects
- 4) The context of the 4th space call
- 5) More information

1) Europe and space (excl. Galileo)

- European Commission
 - FP7 GMES (9.1)
 - FP7 Supporting Space Foundations (9.2)
 - Cross cutting issues (9.3)
 - Tenders (GMES)



FP7-Space

Space-based applications at the service of the European Society (principally GMES)

9.1

R&D strengthening
Space foundations

9.2

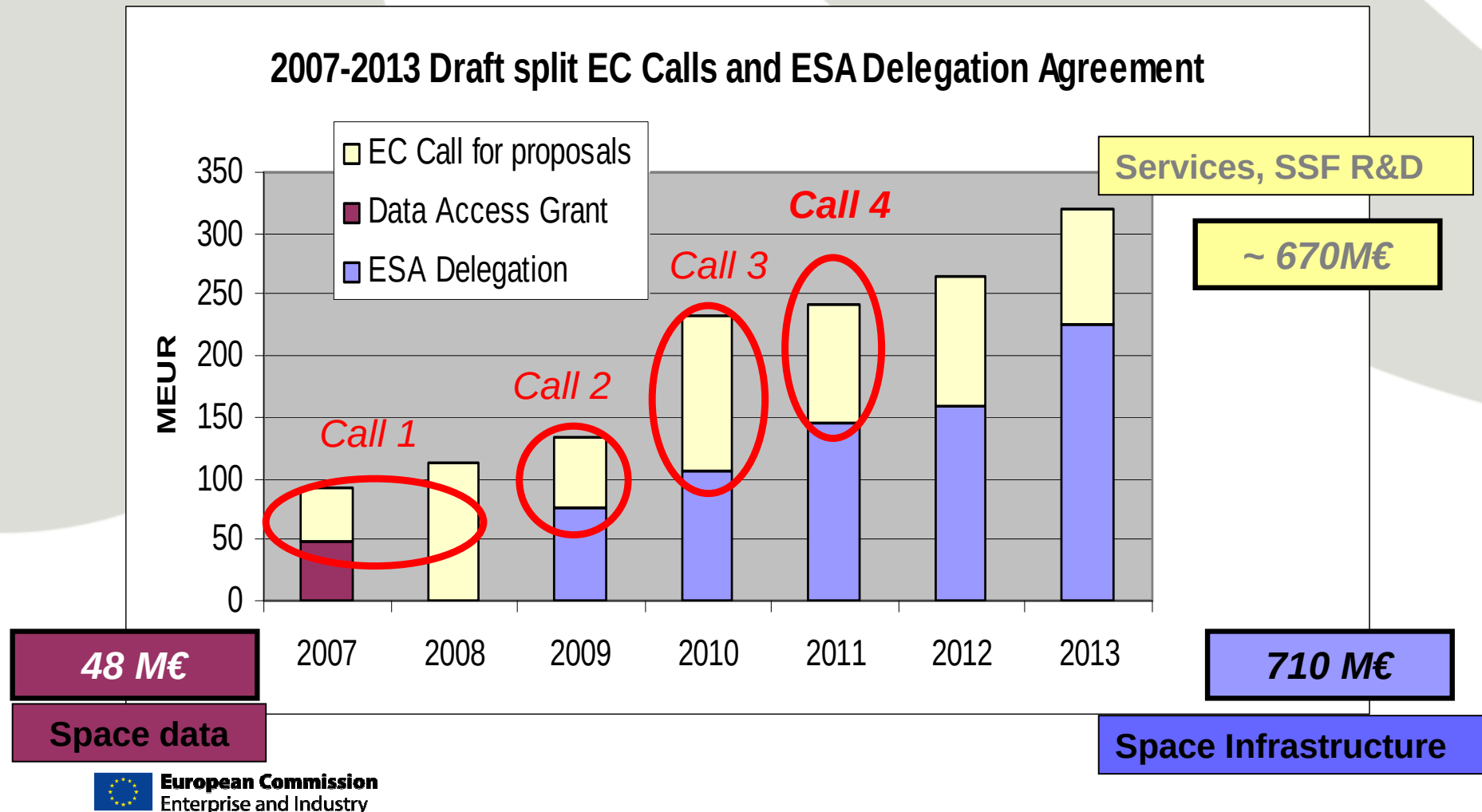
Cross-cutting issues

9.3

2) FP7 Space (EUR 1.4 billion):

- Space-based applications at the service of European society (9.1) (GMES) (85% of budget, i.e. 1.2 billion)
 - About 30% for services development (EC)
 - About 10% for data procurement (space based and in-situ) (ESA + EEA)
 - About 45% foreseen for developing space infrastructures (ESA)
- SSF (9.2, 9.3) (15% of budget, i.e. 0.2 billion)
 - Upstream + downstream research

2) Breakdown of FP7 Space funding



3) Looking ahead – based on what exists

- GMES becomes operational
 - Move from R&D projects to operational services
- The user takes the centre stage
 - GMES Bureau is implementing European user expressed needs, under the political guidance of the GMES Advisory Council (latter now formalised in *GMES Partners Board*)

3) First FP7 space call: Five GMES services Five FP7 Collaborative Projects funded



Atmosphere: **MACC**



Emergency Response: **SAFER**



Land: **geoland2**



Marine: **MyOcean**



Security: **G-MOSAIC**

103M€

Project durations from 2009 to 2011/12

4) The context of the 4th FP7 space call

- Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the European Earth observation programme (GMES) and its initial operations (2011–2013)
- The “GIO regulation” would establish an operational budget line for GMES

4) The GIO regulation foresees to finance:

- *“In the light of the criteria described in section 1.2. above, GMES initial operations (2011–2013) should comprise action in the following fields:*
 - (a) emergency response services;*
 - (b) land monitoring services;*
 - (c) measures to support take-up of services by users;*
 - (d) data access;*
 - (e) the GMES space component.”*

4) The GIO regulation foresees FP7 to finance:

- (8) *“**Marine and atmosphere services** will continue to be developed in parallel to the emergency management and land monitoring service with support of the research and development funding under the Seventh Framework Programme, including the establishment of a pre-operational capacity before 2013.”*



Atmosphere

Monitoring Atmospheric Composition and Climate (MACC)

- Combines computer models with observations to monitor the composition of the Earth's atmosphere and predict regional air quality
- 1 June 2009 – 1 November 2011



MACC provides
services on:

- Greenhouse gases, aerosols, particulate matter and reactive gases such as tropospheric ozone and nitrogen dioxide
- Air quality, Climate forecasting, Stratospheric ozone and solar radiation



Marine

MyOcean

- Observing, monitoring, forecasting temperature, salinity, and currents in oceans and seas
- Important insights contributing to enhancing climate models

1 April 2009 – 1 July 2012



MyOcean

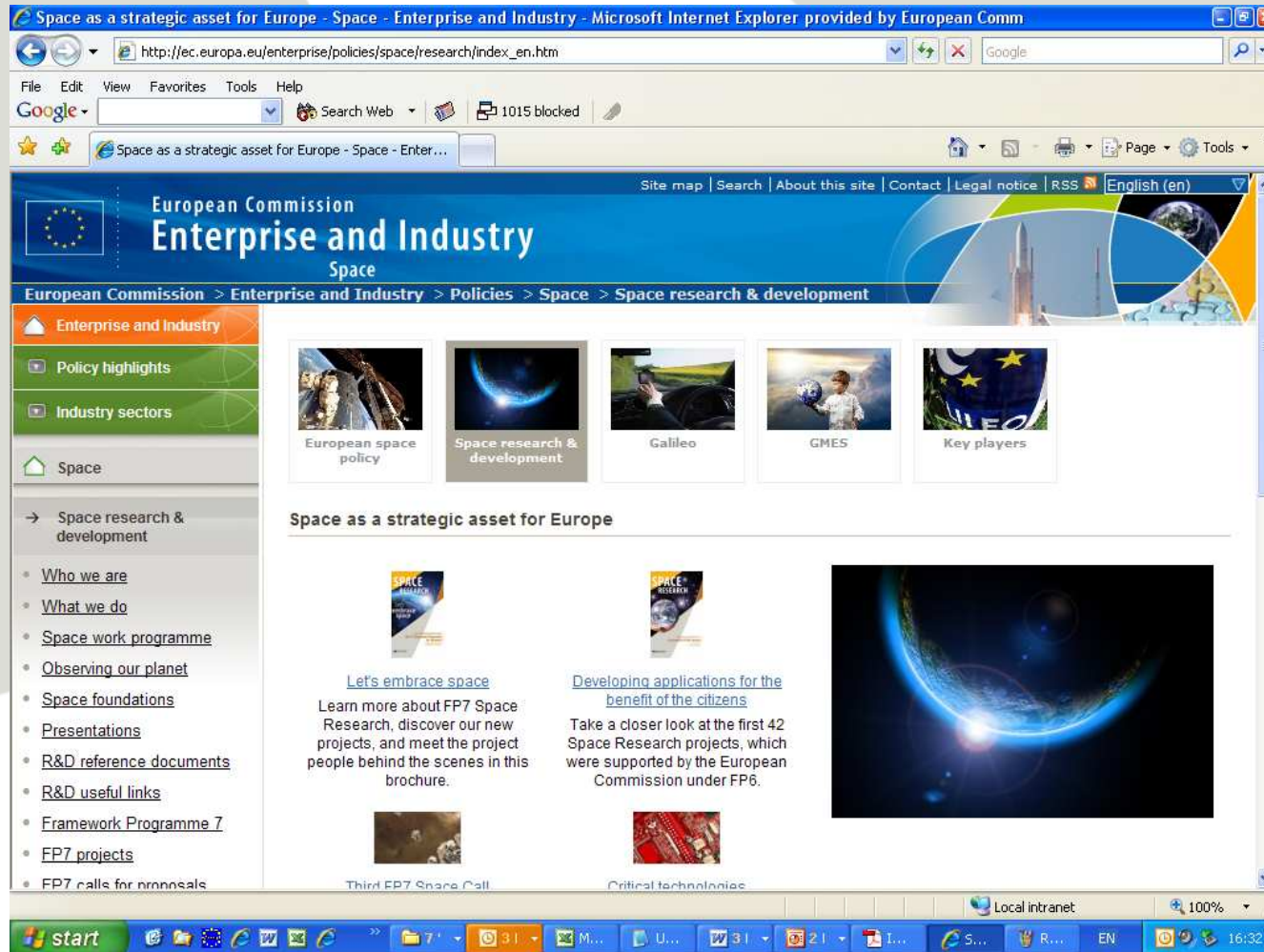
- Assimilation of space and *in situ* data into **3D models**, representing the physical state of the ocean
- **Observation data**: Sea level, Ocean colour, Sea surface, temperature, Sea Ice & wind
- Seven **Monitoring and Forecasting Centers** to serve the Global Ocean, the Arctic, Baltic Sea, the Atlantic, the Mediterranean and the Black Sea.



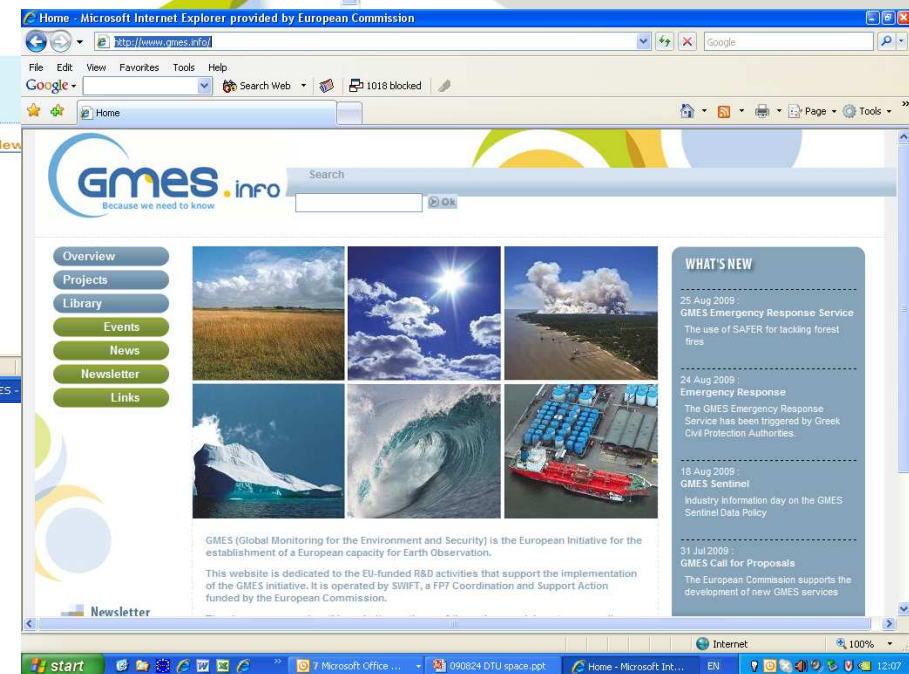
4) GIO regulation

- *“Over the last thirty years, the EU (...) has made substantial R&D efforts in the field of Earth observation”*
- EU space research has a comprehensive record, providing for both large scale and small scale R&D projects

5) More information: ec.europa.eu/embrace-space



5) More information



- europa.eu/gmes
- Gmes.info

5) Foreseen timeline for the 4th Space call:

- 29 July 2010 publication
 - ec.europa.eu/embrace-space
 - cordis.europa.eu/fp7
- 25 November 2010 deadline
- Dec-Feb 2010/2011 evaluation by REA

Summary of this presentation

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Thank you for your attention

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