

Info Day – 23 March 2007

Space
Research

GMES & Thematic priority SPACE in FP 7

Seventh
Framework
Programme
2007-2013

Alexandr Prokop

prokop@tc.cz

Content

- GMES - History and Background
- FP7 and overall approach of the Space theme
- Content of the Work Programme
- Information on the 2007 Call for Proposals
- Call Procedures & Proposal Submission



GMES: the challenge

Gothenburg Summit (2001):

- *... the next phase of GMES, [should be] aimed at achieving by 2008 an **operational and autonomous** European capability for GMES, based on a sound cost/benefit assessment ...*
- *... the Commission [should] contribute to focusing GMES on users' needs by assessing in detail its own needs for GMES services ...*
 - Council Resolution 2001/C 350/02 (Nov 2001)

GMES: from concept to reality

- The **next EU flagship for Space** after Galileo (*2nd Space Council, June 2005*)
- An EU-led initiative, in which the **Commission** will manage actions for identifying and developing **services** relying both on in-situ and remote sensing data and **ESA** will implement the **space component**

Clear definition of roles in the special case of GMES

- **R&D for GMES in FP7 should:**
 - Make best use of, and harmonise, existing systems
 - Support the development of new capacity where needed
 - Explore condition for long-term sustainability.

FP7 2007 – 2013

■ SP Cooperation

32,413 M€

1. Health
2. Food, Agriculture & Biotechnology
3. Information & Communication Technologies
4. Nanosciences, Nanotechnologies, Materials & new Production Technologies
5. Energy
6. Environment (including Climate Change)
7. Transport (including Aeronautics)
8. Socio-economic Sciences & Humanities
9. **Space**
10. Security

1,430 M€

Space in FP7: building on the experience of FP6

- Large **increase in budget** for Space (and Security)
- Space was a **new activity** in FP6, we have learnt a lot:
 - Better mutual knowledge of European space stakeholders
 - Better understanding of the FP6 « new instruments »
 - More realistic view of what is achievable for the development and validation of an operational GMES service
- FP7 should build on experience from FP6 to ensure that GMES is successful, in particular building on the foundation of GMES **Fast Track Services**

GMES in FP7 Space Work Programme

- *EC, ESA*
- *“GMES Advisory Council” of Member States*
- *Space Advisory Group*
- *User Implementation Groups for the GMES Fast-Track Services*

FP7-Space

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

R&D strengthening
Space foundations

Cross-cutting issues

Space in FP7: indicative distribution of resources

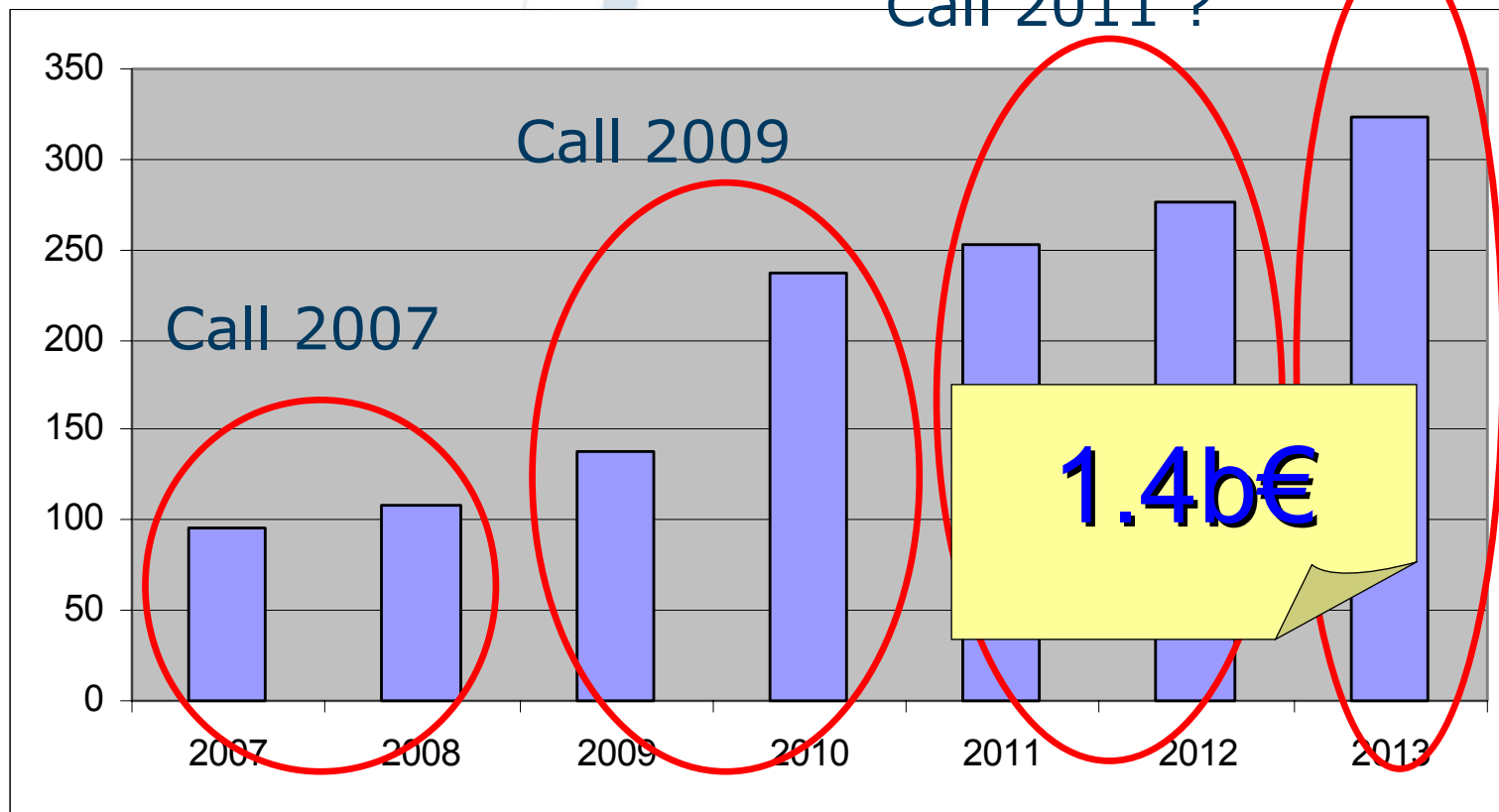
- € 1.4 billion for FP7 Space theme
- About 85% for GMES (€ 1.2 billion), including for dedicated space infrastructures
 - *To respond to the EU challenge in Space today*
- About 15% for strengthening space foundations and cross-cutting issues
 - *To provide opportunities for those actors/activities which are currently not catered for yet at ESA or national level, thereby adding value to these*

Draft Budget Annual Commitment Profile 2007-2013

(subject to annual adoption by budgetary authorities)

Call 2013 ?

Call 2011 ?



FP7-Space

**Space-based applications at the
service of the European Society
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R&D strengthening
Space foundations

Cross-cutting issues

Space-based applications at the service of European society (GMES): overview

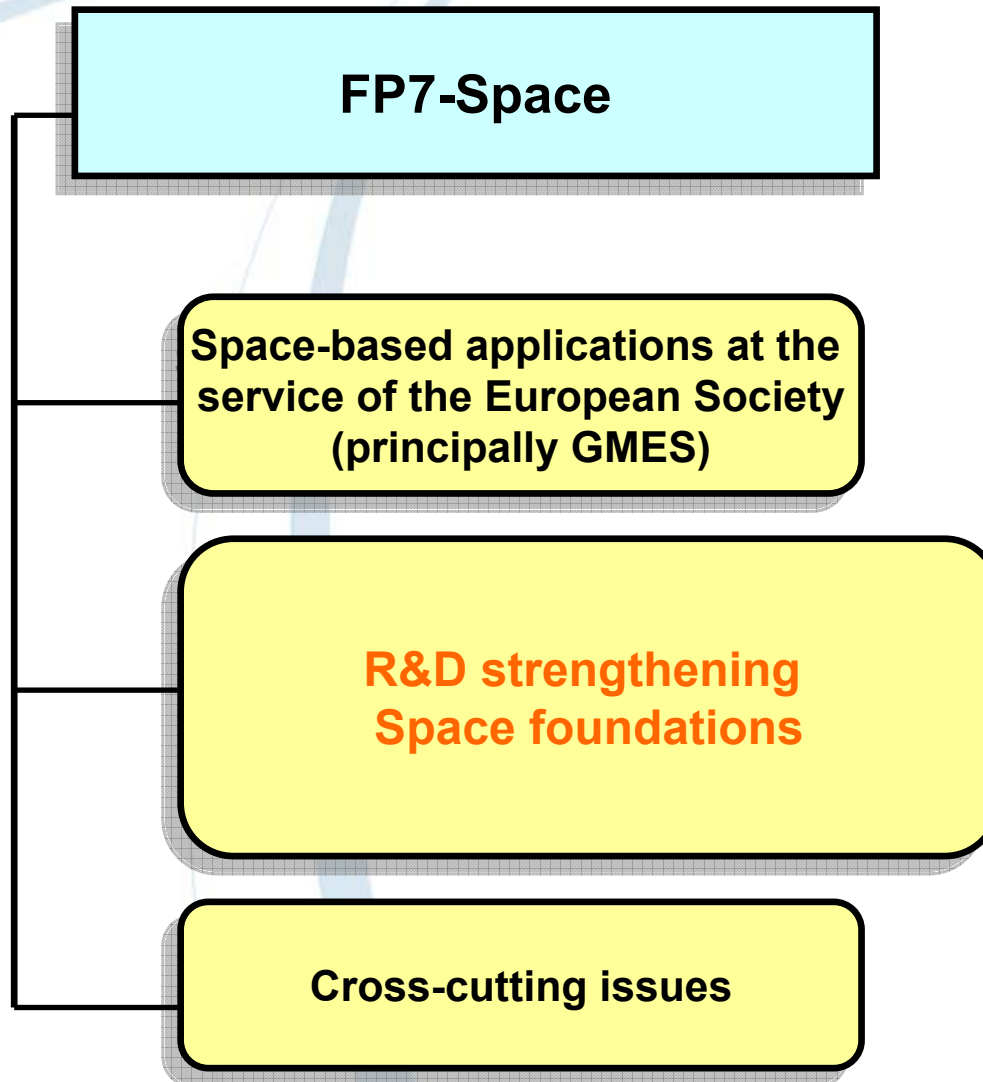
- Development and validation of (pre-)operational GMES services, starting with the Fast Track Services, followed by other pilot and downstream services
- Integrating Earth Observation with SatCom and SatNav technologies (esp. for prevention and management of emergencies)
- Support to the coordinated provision of data (space and in-situ) for related projects in FP7
- Development of dedicated space infrastructures for GMES (→ESA)

GMES: coordinated data provision

- Feedback from FP6 projects: **access to data** could be difficult due to significant costs (shared funding in research projects) and lack of coordination
- As a support to GMES service development, **coherent Europe-wide approach** to the coordinated provision of data from both space and in-situ observation systems
 - Space data → supply coordination by ESA
 - In-situ data → co-ordination at EU level e.g. EEA, JRC ...
- For mission operators: provide longer-term perspective
- For users: facilitate the long-term availability of data

GMES: dedicated space infrastructure

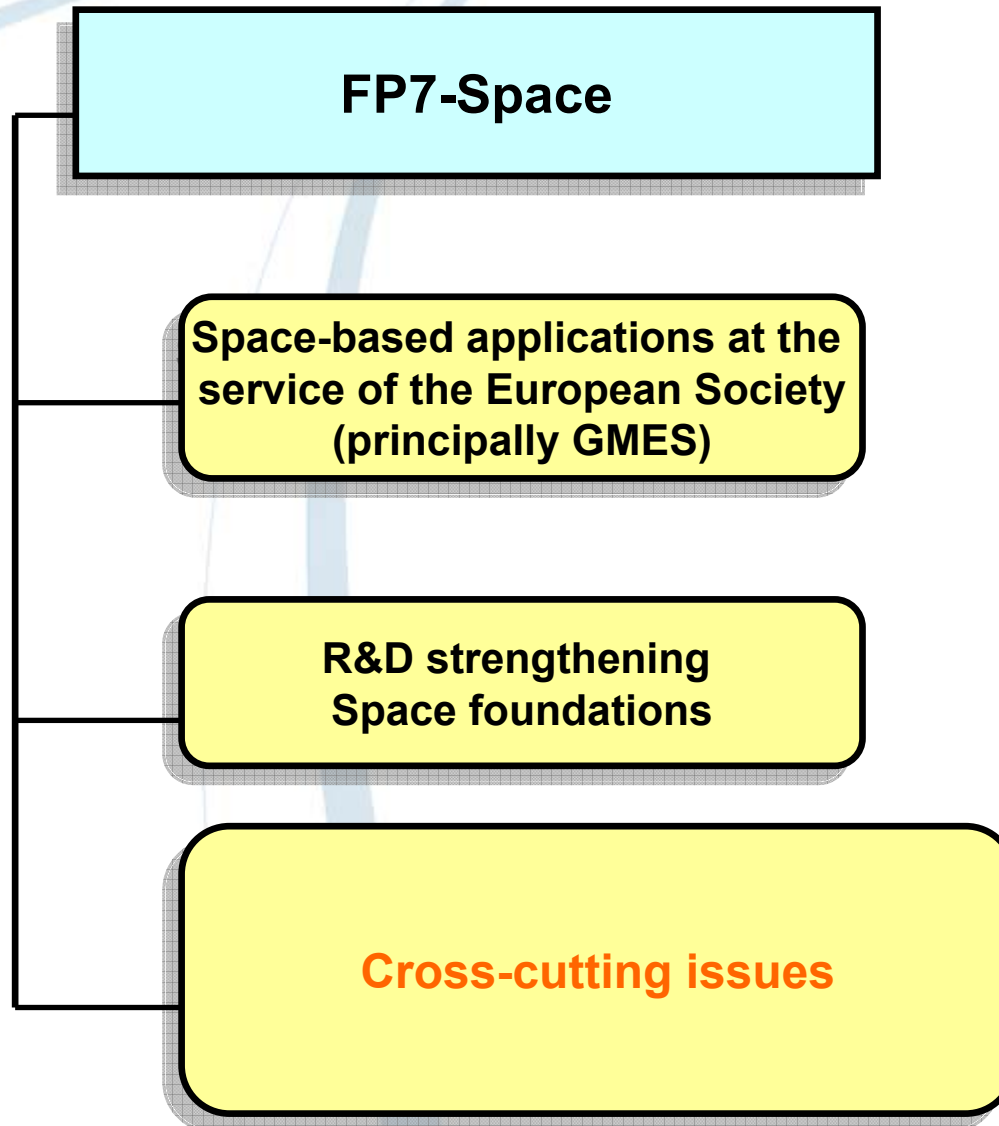
- FP7 funding to support ESA ‘**GMES Space Component**’, in particular for dedicated space infrastructure *[COM(2005)565]*
- ~**45%** of total FP7-Space budget could be dedicated to space infrastructure
- ESA to be the **direct (pre-defined) beneficiary** of a grant (or series of grants)
 - Grant agreement with ESA to be the subject to **FP7 Rules** and to **Financial Regulations**



Strengthening space foundations: overview

To provide opportunities for those actors/activities which are currently not catered for yet at ESA or national level, thereby adding value to these

- Support to research in space science and exploration
- New concepts in space transportation, space technologies and critical components (for Non-Dependence)
- Research into reducing the vulnerability of space-based systems



Horizontal/cross-cutting issues: Overview

- **International cooperation**
- **European Research Area Networks (ERA-NET)**
- **Integration of SMEs**
- **Dissemination**

Horizontal issues:

International cooperation

- Cooperation with **third countries** supported
- Cooperation with established or emerging space powers may be highlighted (e.g., US, Russia, Canada, China, India, Ukraine, Japan), where there is **mutual benefit** and serving concrete **European objectives**
- Support to sustainable economic and social development (e.g. Africa, Black and Caspian sea region, North Africa, Middle East).

Horizontal issues:

International cooperation

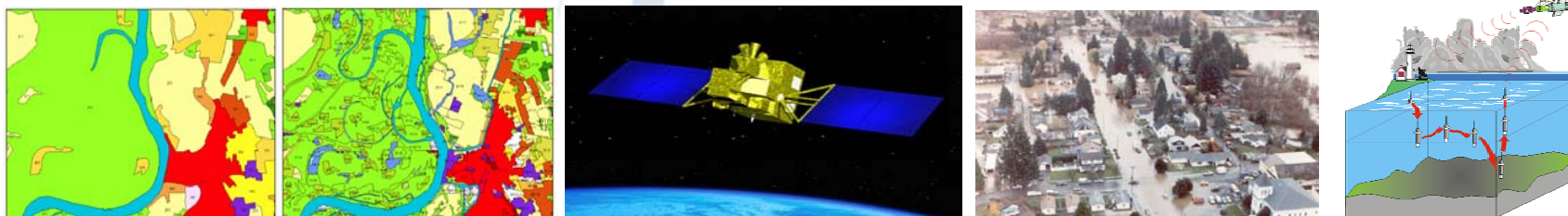
- **Definition: Third countries which are not associated countries**
- **General rule: welcome, especially in the context of GMES agenda in developing countries**
- **Need to justify the benefit of the international cooperation**
- **Primarily own financing (but some support possible for developing countries)**
- **In 2007, all topics are open to international cooperation**

Horizontal issues: European Research Area Networks

- **ERA-NET** model for regional cooperation in GMES:
 - Local and regional authorities count among main GMES users/stakeholders
 - Synergy potential for GMES services and INSPIRE implementation at local regional level
- Close participation of **Committee of Regions**:
 - Follow-up of conference for the European Space Technology User Regions (2005)

Horizontal issues: SMEs

- There are many opportunities for **SMEs** within GMES activities (state-of-the-art data processing, modelling, simulation, image analysis)
- Often the result of developments made in specialised academic organisations and commercial spin-offs
- GMES service projects are expected to actively integrate such **SME capacities** along the entire end-to-end service chain
- **Feedback from FP6** has demonstrated that SMEs are particularly active in the space sector (up **22%** SME participation in FP6)



Information on the first Space Call 2007

<http://cordis.europa.eu/fp7/calls/>

Priorities for the first Call (2007)

- Development and validation of pre-operational GMES **Fast Track Services** (Ocean, Land, Emergency)
 - Development and preparation of **GMES Pilot Services** in **new application fields** (Atmosphere, Security)
 - Basic **Space science, technology and transportation**
- AND**
- Support to the coordinated procurement of **space-based data** for GMES related projects in FP7 (→ ESA)

Budget allocations to call topics



- A total of **88 M€** is to be committed from the **2007** Community budget

AND

- An **additional amount** from the **2008** Community budget is expected to be added to this call for the activities not funded from 2007 budget (a new finance decision to cover the budget from that year to be requested at the appropriate time)

Budget allocations to call topics (1)



Activity 9.1 - GMES

	2007	2008 draft
<p>Call FP7-SPACE-2007-1 •Activity 9.1 Space-based applications at the service of European Society :</p> <p>Topic 1 Development of upgraded capabilities to existing FTS and related (pre)-operational services</p>	 <p>84 M Euro</p>	
<p>Call FP7-SPACE-2007-1 •Activity 9.1 Space-based applications at the service of European Society :</p> <p>Topic 2 Developing pre-operational service capabilities in new application fields</p>	 <p>20 M Euro</p>	
<p><i>(Reminder :</i> <i>- Data access Support action via ESA)</i></p>	~48	0

Budget allocations to call topics (2)

Activity 9.2 Space foundations &

Activity 9.3 Cross-cutting issues

	2007	2008 draft
<p>Call FP7-SPACE-2007-1 <u>Activity 9.2</u> Strengthening of Space foundations Topic 1 Space Science Topic 2 Space Technologies Topic 3 Space Transportation</p>	 <p>28 M Euro</p>	
<p>Call FP7-SPACE-2007-1 <u>Activity 9.3</u> Trans-national co-operation among NCPs</p>	 <p>2 M Euro</p>	

Timing of the Space Research Call 1

FP7-SPACE-2007-1

22 December 2006	Publication
19 June 2007	Deadline
July-September 2007	Evaluation
October 2007	Commission funding decision
November 2007	Start of negotiations
Early 2008	1 st set of grant agreements signed

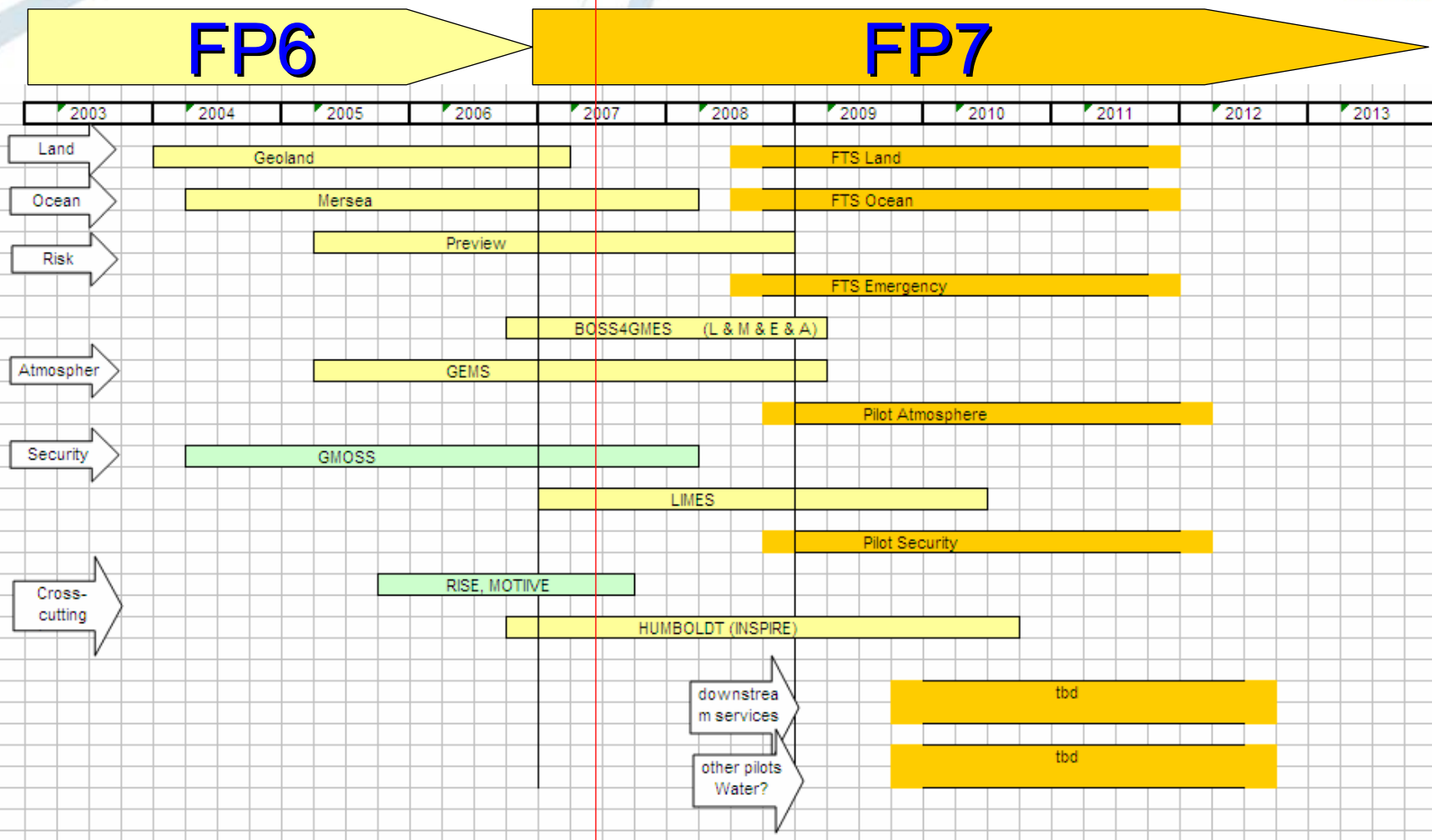
~134 M€

More information: <http://cordis.europa.eu/fp7/calls/>

Activity 1 «GMES»: Topics 1.1 and 1.2

- Development of **Fast Track Services**
 - **A: Land Monitoring Core Service**
 - **B: Marine Core Service**
 - **C: Emergency Response Core Service**
- Development of pre-operational GMES pilot services in **new application fields**
 - **A: Atmosphere**
 - **B: Security**
- **Collaborative R&D projects** are called for, **with a strong expected impact** on the Fast Track Service evolution – see call text!
- **Support actions** to accompany the three projects by taking over a common task in all three

Work Programme



Activity 2 « Space foundations »: Topics 1.1, 2.1 and 2.2

- Support to/exploitation of research in **space science – access , analysis, transfer to educational bodies**
- New concepts in **space technologies** and critical components (for Non-Dependence)
- New concepts in **space transportation – innovative propulsion concepts**
- *Collaborative R&D projects and Coordination and Support Actions* are called for

Some priorities

- New FP7 activity in these areas: should ensure **complementarity** with the extensive activities already undertaken by ESA/member states, e.g. ESA road-maps
- Focus on **upstream** aspects of research (e.g. **innovative** launch/propulsion technologies, optimal **preparation** of scientific payloads)
- But also **downstream** aspects (effective **exploitation** of data produced by missions, contribution to the **sustainable** provision of critical components)

Activity 3 « Cross-cutting »:

- Re-inforcing the network of National Contact points **promoting trans-national co-operation**
- Identifying and sharing good practices
- Benchmarking, **joint workshops**, training, twinning
- **Trans-national brokerage events**, dissemination **promoting uptake of results** esp. GMES case to national public authorities and citizens alike

- *Coordination and Support Actions* is called for (only NCPs!)

Future Calls for Proposals

- Biennial Space research calls are planned (2009-2011-2013)
- Backloading of annual budgets

Potential Topics

- **Activity 9.1** Space-based applications at the service of European Society
 - Pre-operational Validation of GMES services and products – further core services and stimulating downstream GMES services
 - Integration of SatCom with GMES for prevention and management of emergencies
- **Activity 9.2** Strengthening the foundation of Space Science and technology
 - Research to support space science and exploration
 - Research to support space technologies
 - Reducing the vulnerability of space assets
- **Activity 9.3** Cross-cutting activities
 - International Cooperation
 - Cross-border cooperation and ERA-NET

More information

- EU Space research websites:
 - <http://ec.europa.eu/enterprise/space>
 - <http://www.gmes.info>
 - <http://cordis.europa.eu/fp7/calls/>

- ESA web-site
 - <http://www.esa.int/esaLP/LPgmes.html>

- Helpdesk:
 - <http://ec.europa.eu/research/enquiries>

- FP7 - CZ:
 - <http://www.fp7.cz>

Thank you for your attention

Further details on « Space applications GMES » 

Further details on « Space foundations » 

Further details on « Cross cutting activities» 

Further details on Space applications: GMES

GMES: to serve Community policies

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

Indicative breakdown of resources

- **85% (€ 1.2 billion)** foreseen for applications (GMES):
 - About **30%** foreseen for projects on service development
 - About **10%** foreseen for « data procurement of data»: both space-based (ESA) and in-situ
 - About **45%** foreseen for developing space infrastructures (ESA)

Some priorities

- Development of **Fast Track Services**
- Development of pre-operational GMES pilot services in **new application fields** (e.g. Atmosphere, Security)
- Address GMES fields that have not been covered in FP6 (e.g. polar observation, downstream services)
- **Coordinated data provision** (support action)

GMES: support to emergency management

- Combining GMES services with other Space applications - SatCom and SatNav - within an integrated approach
- Addressing all kinds of emergencies affecting the safety of citizens
- Building on the experience of FP6
- Aiming at pilot tests in real situations (not just simulations)

GMES: coordinated data provision

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Further details on Space foundations

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Breakdown of resources

- **15% (€ 150-180 Mio)** foreseen for « strengthening space foundations »
- **No precise earmarking of funds foreseen between topics**

Further details on Cross-cutting Issues

Horizontal issues: International cooperation

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How to Apply?

Call Procedures and Proposals Submission

- **”Guide for Applicants”** based on the official FP7 legal documents published in the December 2006
 - ➔ FP7
 - ➔ Specific Programmes
 - ➔ Calls
 - ➔ Rules of Participation

- It provides **essential and practical information** for potential applicants in preparing and submitting their proposals

- For the **Space Theme** (for each funding scheme)
 - ➔ 1st Version of the Guide available on CORDIS on the 22nd December
 - ➔ 2nd Version updated on the 2nd half Feb '07 – information on the **2008 budget** included

MAKE SURE YOU'VE THE CORRECT DOCUMENT!

Submission: *Guide for Applicants*

- **First section completely generic**
 - General principles, basic rules, how to apply
- **Written with newcomers in mind**
 - Includes a glossary
- **All call-specific information is found together in Annex**
 - No need to hunt around for important details
- **Includes the evaluation criteria and procedure**
 - Formerly “guidance notes for evaluators”

Guide for Applicants - ANNEXES

- **ANNEX 1** Timetable and specific information for FP7-SPACE-2007-1 Call
 - Indicative timetable
 - Information on 2008 budget for each funding scheme

- **ANNEX 2** Evaluation criteria and procedure

- **ANNEX 3** Instructions for completing “Part A” of the proposal
 - General administrative info on proposal and participants
 - A1 Proposal Summary, A2 Participants Information, A3 Financial Info

- **Annex 4** Instructions for drafting part B of the proposal
 - It is a “template”, list of “headings”
 - Its structure closely aligned to the “evaluation criteria”

Submission: *Guide for Applicants*

- **Must be through the **Electronic Proposal Submission System****
 - Proposal submission (upload) possible as from mid March 2007
 - Start of FP7 looks like end of FP6
- **Forms can be **already downloaded****
- **Proposals are submitted and evaluated in a **single stage****
- **Unique registration** facility for all FP7
- **Deadlines** are strictly enforced

Submission: *Guide for Applicants*

- **Before submitting your proposal, DON'T FORGET THE CHECK LIST**
 - Does your planned work fit with the call for proposals?
 - Are you applying for the right funding scheme?
 - Is your proposal eligible?
 - Is your proposal complete?
 -

Who can participate?

- Any undertaking, university or research centre of other legal entity, whether established in a **Member State (MS)** or **Associated Country (AC)** or third country
- **JRC** (Joint Research Centre)
- **International Organisations** and participants from **third countries** can participate

Conditions for participation

- ***Minimum condition for participation***, as a general rule, at least 3 independent participants from 3 different Member States (MS) or Associated countries (AC)

- **For Support Action:** at least 1 legal entity

- ***Specific conditions*** may also apply for
 - Collaborative projects addressing the participation of International Cooperation Partner Countries (ICPC) – minimum is 4 participants, 2 of which from MS or AC and another 2 from ICPC countries unless otherwise foreseen in work programme

Eligibility for funding

- Legal entities from **MS and AC** or created under Community law (and JRC)
- **International European** interest organisations
- Legal entities established in **International Cooperation Partner Countries (ICPC)**
- **International organisations and legal entities from third countries other than AC and ICPC may receive funding only if:**
 - provided for in Specific Programme or Work Programme
 - it is essential for carrying out action
 - provision for funding is provided for in a bilateral agreement between Community and the third country

Upper funding limits

■ Collaborative Projects

Research and Technological Development activities:

- **up to 50%** of eligible costs for large industry
- **up to 75%** for research organisations (non-profit), Public bodies, secondary and higher education establishments, SMEs

Demonstration activities: up to 50%

Other activities (including e.g. Management): up to 100%

■ Coordination and Support Actions: up to 100%

More information

- NCP User Forum
 - <http://cordis.europa.eu/forums/>
- The Commission's FP7 Enquiry service
 - <http://ec.europa.eu/research/enquiries>
- CORDIS help desk
 - http://cordis.europa.eu/guidance/helpdesk/home_en.html
- EPSS Help desk
 - support@epss-fp7.org
- IPR helpdesk
 - <http://www.ipr-helpdesk.org>

Thank you for your attention