



Brussels, 20 September 2011
FP7-SPACE-2011/42

WORK PROGRAMME UPDATE – NEXT CALL - 2013

First ideas for discussion

1. INTRODUCTION

- The aim of this note is to provide some background information and the main inputs in order **to stimulate reflections and discussions on the potential topics for the next (and last FP7) call.**
- It summarises the main aspects for the next update of the “Space” Work Programme (WP) 2013 and the corresponding Call publication. The planning, the potential topics, the foreseen budget and funding schemes are here described.
- Recommendations are still to be formulated by the Space Advisory Group (SAG).
- The European non-dependence process by Commission-EDA-ESA had its first meeting on 8 September in ESTEC, and is scheduled to draw up a list of *European Non-Dependence Urgent Actions* by January 2012.
- The Programme Committee recommendation from WP 2012 discussions to give due regard to the findings of the conference on a GMES Climate service in June 2011 in Helsinki has been taken into account.
- Discussions of the Commission’s Director-Generals of the research family (DG RTD, ENTR, INFSO, MOVE) have recommended that the work programmes of the last year of FP7 will be geared towards further articulating the link between research and innovation, with emphasis on points like technology transfer, dissemination of results and support to the policy challenges depicted by the policy DGs. Corresponding strategy papers and first exchanges with policy DGs on 2013 WP are to be developed in the autumn 2011.
- The 2013 WP should be a bridge to the future of Horizon 2020, with its key political orientations being given by Europe 2020 and Innovation Union objectives.
- Programme Committee (PC) members will be consulted on this note at the meeting 5 October.

2. KEY DATES

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| – Programme Committee PC 22 | 5 Oct. 2011 |
| – Space Advisory Group (SAG), EC-EDA-ESA group | Oct-Dec 2011 |
| – PC 23 – discussion of outline, first news on 3 rd call | January 2012 |
| – PC 24 – discussion draft 2013 work programmes | mid March 2012 |
| – FP7-family preparation of Interservice file | May 2012 |
| – PC 25 - formal PC consultation | end June 2012 |
| – Adoption and publication | mid July 2012 |

3. POTENTIAL TOPIC BREAKDOWN OF BUDGET

Budget figures in 2013 are at the moment somewhat speculative, as there could be still major negative impacts on the amount available to the Space Theme from austerity cuts by the budgetary authority, contributions to be made to activities such as ITER, but also positive contributions still to be made from incoming payments from Associated States.

The overall budget in 2013 is likely to be in the order of 320M€ of which about 174M€ are foreseen for the GMES Space Component, implemented through the *EC-ESA Delegation Agreement*, and around 4M€ are foreseen for management related actions such as *horizontal activities* (Cordis, Cost, Eureka, ERA-Net) managed centrally by DG Research and cost for evaluation and communication.

Hence **the budget for the Call is in the order of 138M€**

A rough indication of budgets could be as follows:

– GMES area:	90 M€
– Space Foundations:	36 M€
– Cross-cutting activities GMES & SSF	<u>12 M€</u>
<i>Sum for Calls for proposal</i>	<i>138 M€</i>
<i>Sum for GMES Space Component</i>	<i>174 M€</i>
– Evaluations, reviews:	2 M€
– Communication events, studies:	2 M€
– Horizontal activities (DG RTD):	<u>4 M€</u>
<i>Sum of FP management related actions</i>	<i>8 M€</i>
TOTAL 2013 SUM	320 M€

As regards GMES, this overall budgetary information should be seen in conjunction with the *GMES Regulation Initial Operations WP 2013*, which makes available about 56 M€ for **operational** activities.

4. POTENTIAL TOPICS

For the FP7 Space Theme, the 2013 work programme is foreseen to include activities as defined previously in FP7 calls, with a two-fold research objective:

- To **strengthen further GMES** developments through R&D;
- To widen the action areas covered in **Strengthening of Space Foundations**, to cover **space science and exploration, space technologies and transportation and security of space assets**.

The following sections set out the various proposed topics within these areas.

Additionally to the topic areas implemented through *competitive calls for proposals*, FP7 funding will again be used for the GMES Space Component implementation as well as data access activities supporting the GMES services.

Following the second amendment of the ESA-EU Delegation Agreement in 2011, the overall FP7 contribution to the GMES Space Component will amount to 715M€ (including the Data Access grant of 2007), corresponding to 50% of the overall FP7 Space Theme budget of 1.43 bn€

Activity 9.1 Space-based applications at the service of European Society

Area 9.1.1 (Pre-)operational validation of GMES services and products

- Towards a GMES Climate change service – preparatory activities (improve Earth System reanalyses to include hydrological cycle, coupling the ocean and atmosphere, feedback mechanisms; data archiving, integration and access through a central clearing house mechanism; gridded approach to impact indicators ...)
- Stimulating development of downstream services (land, marine, atmosphere, climate change attribution and impacts ...)
- Remote sensing methods (hyperspectral data exploitation, change detection from combined radar and optical imagery ...)

Area 9.1.2 Integration of satellite communication and satellite navigation solutions with space-based observing systems

- Integrated downstream service activities and applications

Area 9.1.3 Support to the coordinated provision of observation data &

Area 9.1.4 Development of Earth observation satellites

- Funding support via EU-ESA Delegation Agreement

Activity 9.2 Strengthening Space Foundations

Area 9.2.1 Research to support space science and exploration

- Space Science – space based data exploitation (astrobiology, planetary science, astronomy, astrophysics, health ...)
- Earth-analogue research preparing for space exploration (field testing of technology, of habitats, of sampling methods, search of life in extreme conditions, ...)

Area 9.2.2: Research to support space transportation and key technologies

- Critical space component technologies for non-dependence [urgent action list for R&D of EU dimension - *will be available in January 2012*]
- Enabling space technologies – (technology assessment methodologies, power generation, ...)
- Propulsion (fuel storage, in-orbit refueling, “green” fuels ...)

Area 9.2.3: Research into reducing the vulnerability of space assets

- Space-weather events (space mission concepts, space infrastructure protection, physics of events ...)
- Security of space assets from in-orbit collisions (radar sensors for debris identification, tracking, breakup dynamics, debris accumulation dynamics, debris removal ...)

Activity 9.3 Cross-cutting Activities

Area 9.3.1: SME specific research

- [Spin-in – *was done in 2012*]
- Spin-out of space technologies to earth based challenges and applications

Area 9.3.2: International cooperation

- Cooperation with third countries

Area 9.3.5: Studies and events in support of European Space Policy

- Research agenda workshops in preparation of suitable RTD&I roadmaps for Horizon 2020