

SESSION 7 – DI LAZZARO

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Session 7- Financial support for space-based assets and services

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The present Space Policy of the EU contemplates some flagship programmes, among them **GALILEO** and **GMES**. These space application-driven programmes have an important role in the development of their wide downstream markets, thus contributing to additional economy development. A clear financial envelope for them is vital to guarantee the Europe2020 perspective. The current status of MFF¹ (2014-2020) includes only funding for GALILEO, while that of GMES is still under discussion. In the meanwhile also an other important flagship programme such as **SSA** together with other initiatives such as **Exploration** and **Science**, proposed for funding in the same MFF, have not been included in the plan..

E-GNSS/Galileo

2011 is an important year for the European Global Navigation Satellite System

- 2 March 2011: the Safety of Life service of EGNOS has been declared operational for the aviation
- 22 June 2011: the final two contracts for Galileo FOC were signed at Le Bourget
- 21 October 2011: launch of the first two Galileo IOV satellites

Thales Alenia Space has played a primary role in these key milestones - being the prime contractor for EGNOS Programme, the prime contractor for one of the two contracts signed at Le Bourget (GMS) and having realised together with Astrium the IOV satellites.

But we have a lot of challenging work still in front of us for making Galileo a global success:

- The last two IOV satellites have to be launched by mid 2012
- The Galileo FOC phase must be completed
- EGNOS system needs be exploited

The European Commission must maintain the decision to build up the Galileo full constellation and all related infrastructures together with a long-term vision to guarantee continuity to Galileo services worldwide, getting a significant share in the worldwide high-tech market, and the development of the downstream market.

The target of a Full Operating Capacity (FOC) based on a constellation of 27 satellites, plus a suitable number of spare satellites and adequate ground infrastructure, notwithstanding the initial objective to have 18 satellites (4 IOV + 14 FOC) ready for 2014, is a prerequisite to achieve the added value of Galileo in terms of authentication, high precision and uninterrupted service, For said reasons it is appreciated that the procurement of additional 6/8 satellites has been just launched by EC, within the current budget framework: this will allow Industry to

¹ Multiannual Financial Framework

maintain the industrial production lines, to take benefit of the lesson-learned from IOV and avoid to loose expertise

GMES

GMES is a European Union flagship programme as well as GALILEO. GMES has been conceived as an Operational System so that is essential to guarantee continuity of data dissemination and supply of services by fully deployment of the foreseen Constellation.

Thales Alenia Space has a primary role also in the development of the Global Monitoring for Environment and Security Programme as prime Contractor of **GMES Sentinel 1** and **Sentinel 3** Satellites². It has been achieved thanks to the know how matured in previous National and European Programmes³.

The **slow-down** in the decision making process of the EC GMES Programme, and the **funding uncertainty due to the complete exclusion of MFF 2014-2020**. This would mean: **no commitment for the launch of Sentinels Model B**, for the **procurement/launch of Sentinels Model C**. This would create an incomplete coverage of the user community requirements. *The above-mentioned consequences would not allow Industry to proceed with the activities, thus jeopardising the investments done on the infrastructures (2.3⁴ billion Euro already spent for the initial space component). It is useless to say about the damages at human resources level, with the risk of losing qualified and well experienced staff*

The cancellation of the commitment on the Operational Activities (834 Million⁵ EURO per year) could compromise also the launch of the first three Sentinel Model A (now under construction). Without the provision of first Sentinels data the development of the downstream market would stop with prejudice of the investments done on development of services (in the last years were already invested about 700⁶ Million EURO within EU and ESA frameworks).

GMES, similarly to GALILEO, is key element to achieve the Lisbon treaty objectives. It is vital to guarantee soon **a short/medium term and sustainable financial commitment** to it secured by the European Commission within the frame of a long-term vision.

Considering the intrinsic institutional nature of this market it is important to create awareness and to develop the GMES downstream market before thinking to possible PPP Model solutions, which could be adopted for the long term sustainability of the system operations and maintenances.

The suggested **alternative funding**, by asking the Member States continuing continue to cover the costs of the launch and annual operations/maintenance of the programme, will

² Including the responsibility of the platform, some payloads and critical components

³ **MTG** (meteorology), **SMOS** (climatology), **Jason** (oceanography) and at National level as prime contractor of the dual system **COSMO SkyMed**, with the responsibility for the end-to-end system and the space segment SAR at the state of the art, and prime contractor of **Pleiades** Optical payload

⁴ EU 632 Mil Euro +ESA 1651 Mil Euro

⁵ In details is 834M€/year per seven years with the following breakdown:

- 600 M€/year for the space component
 - o 170 M€/year for development
 - o 430 M€/year for exploitation
- 150 M€/y for services
- 50 M€/year for in situ,
- 34 M€/year for market uptake

⁶ EU 518 Mil Euro + ESA 237 Mil Euro

lead to the **suppression of the GMES**. Taking into account that some Member States have already guaranteed the continuity of their own systems. As consequence **no role for Europe** on important themes such as Environment, Climate Changes, Emergency Disasters, Maritime Surveillance, Security, etc... .

Our final considerations:

- **GMES is a must for the EU:** support was received from the EU Parliament ⁷, the EISC⁸...and from the Council of the EU and the Council of ESA at Ministerial level (HSPG/13-2011 rev1)⁹. Why the EU and not a subset of Member States to fund GMES? Because it is **a true European Programme - a primary tool for the implementation of the Lisbon Treaty** decisions. Nor a single, or a group of Member States can make GMES a success. The communitarian added value is enormous. GMES has been tailored by and for the Commission, GMES is aimed at dealing with EU-wide (and even worldwide) societal and environmental challenges that can only be led at the level of the EU.
- **GMES allows a strong payback** through the “implementation of the European policies in the areas of environment, climate change, humanitarian aid, civil protection and crisis management by ensuring better protection of people, property, environment and cultural heritage in the event of major natural and man-made disasters”. This payback is composed **by savings (environment monitoring, science, security...) and by genuine new industry turnover.**
- **GMES is a powerful engine of industrial development** (not only Space manufacturing and services, it involves also a variety of small, medium and large non-space industry). It is one of the answers of Europe to the demand of new initiatives reacting to the present crisis. GMES will strongly contribute to an economy based on knowledge and innovation, and will be an indispensable asset towards a more resource efficient, greener and more competitive economy, in particular bringing an outstanding added value to many key policies of the EU. This crisis must be seen also as an opportunity for dismantling the last barriers and resistance of some Member States. GMES gives Europe the opportunity **to exit the crisis in a reinforced shape**, through the development of technologies which carry future welfare and new employment.

⁷ From the letter of Vittorio Prodi - Member of EU Parliament - Chairman of the Sky and Space Intergroup(We are)... “deeply concerned regarding the GMES programme funding.

The budget level recommended by the EC in its proposal for the next EU Multiannual Financial Framework (834M€/year), should be considered adequate to ensure the sustainability of the operational programme after 2013.

GMES services continue to be provided to users and that, by developing downstream services, it offers opportunities to SMEs and to foster innovation in Europe.

GMES is politically and technically the most advanced programme in the world. It has the potential to place Europe at the head of environmental monitoring, risk and security management whilst providing invaluable information to European decision makers and citizens. It is a key driver for sustainable development in Europe; it enables major societal changes through access to environmental information, crucial for growth and competitiveness. Moreover it is essential for environmental treaty verification, for development aid and for humanitarian disaster relief.

Outside the EU Framework, GMES will lose its European dimension and become the project of a few Member States. This will result in a new definition of data policy by the contributors that cannot guarantee “full and open access” for all Member States.

We therefore invite the Commission to reconsider its financial proposal and ask for GMES to be financed within the next EU MFF with a predetermined annual budget.”

⁸ The EISC (European Interparliamentary Space Conference)

- emphasises that the GMES regulation envisages that the product and the information generated by GMES services will be distributed to all EU Member States and partly beyond, thereby legally manifesting the Communitarian character of GMES.
- Therefore, URGES the EU Parliament, the EU Council and the European Commission to allocate within the next EU Multiannual Financial Framework (MFF) the necessary means to secure GMES deployment and operations in the timeframe 2014-2020
- Urges the European Commission to propose by December a modified GMES regulation in the above sense.

⁹ HSPG Report

RECALLS that GMES is a European Union flagship programme, built on a partnership with ESA and their Member States, with the involvement of other relevant European bodies; REAFFIRMS that it is a priority for the EU to ensure the sustainable development and exploitation of GMES services and infrastructures in the medium- and long-term

- **ESA and Member States have started to develop the GMES space infrastructures (Sentinels), while EU was in charge to finance the operational phase.** If the EU doesn't play its role and doesn't finance the operations and maintenance, core services and support to market uptake, it will cause major impacts on the space, services industry, that have already made already considerable investment.
- **GMES appropriate governance and data policy is a key issue:** any decision regarding GMES management, governance and data distribution must take into account of the present market conditions of Services.

The Commission proposal for the MFF must therefore remain consistent with its own statements and past Communications, and with the Resolutions and Conclusions of the Council and the Parliament. The EU institutions need to urgently reassure the user's communities, investors and international observers that GMES will continue as anticipated in the Union's Multi-annual Financial Framework project.

Conclusions

Space industry need budget stability and long term funding commitments.

GALILEO

Together with a stable, long-term governance framework, the financial support from the European Institutions to the GNSS is a must for the European industries either for the deployment phases or the advanced projects as planned in the GNSS Research & Development to facilitate the GNSS-based products development and to complement the investments done by the European industries.

TAS is happy to see that the 2014-2020 financial perspectives confirm the strategic importance of Galileo for Europe!

GMES

In order to implement the European Leading role in the GMES Programme it is important that the EU defines and endorses a **clear long-term vision and set the relevant funding scheme today.**

More generally, we wish to conclude reminding that in the EU Space Policy it was foreseen also a gradual development of the **SSA (Space Situational Awareness) programme**¹⁰, devoted to protect the EU space assets.

The EU Space Policy foresees also support to new initiatives in the areas which provided until now the foundations for space activities such as: **Science, Technology, and Human Spaceflight within the Exploration Initiatives.**

The European Union must **keep the momentum** to build up **the future European space capabilities**, to get a significant share in the worldwide high-tech market and create new jobs and economy turnover.

¹⁰ Council of European Union – SSA Nex Step , 25 October 2011, 15981/11