

ASD KEY PRIORITY 5.1

SPACE AS PUBLIC INFRASTRUCTURES

ISSUE

The involvement of the EU in space is especially important for what concerns programmes whose objectives are the development of public services. In this context, space systems are to be considered as public infrastructures (just like transport networks) and EU role is to exploit and maintain these infrastructures.

If one considers that, by a greater involvement in space, the EU primarily aims at developing space applications to meet the needs of the citizens and policies and to contribute to economic growth, it would be paradoxical to see these space activities continuing to be financed, in a nearly exclusive way, through R&D funds, coming from institutions dedicated to R&D funding – Member States in the ESA framework (or, to a lesser extent, the 7th FP in the EU framework).

One could therefore imagine a system (as it is the case with telecoms and meteorology) where space agencies, and ESA in particular, propose precursors and concepts and where the EU defines the requirements of operational systems and guarantee their sustainability through dedicated management structures (and adequate funding).

Budgetary and legal instruments at EU level are therefore urgently required for the procurement, operations and maintenance of space assets. The recent experience of Galileo has shown that a framework has to be conceived and set up to support the paradigm shift represented by the migration from “support to R&D” to “procurement and ownership of industrial developments”.

BACKGROUND

Regarding Security and Defence, space systems are becoming more and more strategic assets, contributing to an autonomous European decision making process for the benefit of all Member States and by increasing the efficiency of the ESDP operations.

Regarding economic growth, satellite applications already contribute to the competitiveness of Europe (today mainly through space telecommunications and, increasingly, through navigation and Earth observation) but downstream services definitely need to be further developed to make the benefits of space enabled applications available to a greater scope of potential users.

Regarding environmental challenges, space systems have become indispensable tools to provide data to the climate models which allow scientists to simulate and understand the climate change. Furthermore, effective monitoring of environmental threats – and better anticipation of their impacts – is a key factor for a better assessment of the risks for citizens (disasters management...), for natural resources (ecosystems, water cycle...) as well as for economic sectors at stake (agriculture, fisheries, forestry, tourism, insurance...).

In addition, the societal benefits of EU space programmes (Galileo and GMES being first examples) should also be emphasised. The applications and services derived from these programmes will have a tremendous impact on the wellbeing and security of citizens, not only in Europe but throughout the world, hence reinforcing the influence of Europe. Thus, dedicated institutional investment to allow the development of these infrastructures, and deployment of services based on them, is fully legitimate.

OBJECTIVE

The most critical and urgent issues are

- to get the right legal and financial framework to complete, operate and ensure the sustainability of GNSS and GMES programmes

In the longer term, other domains that should be part of a future EU space infrastructure programme:

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- Access to space: it has officially been recognized that it is of vital importance for Europe to maintain an independent access to space; it would certainly make sense for EU to contribute to the maintenance of the CSG launch range and exploitation facilities.
- Security: European space assets must be considered as a part of our critical infrastructure, and their protection against threats must be guaranteed. The recent initiative in Space Situational Awareness taken by European Space Agency Member States is a first step which could be taken over by the EU for the operational exploitation phase. Furthermore, the need for Europe to organise its security crisis management system and to acquire its own operational tools is well identified. The availability and continuity of such independent capabilities must be guaranteed.
- ISS: a European policy on human spaceflight and exploration is urgently required. First steps of the policy should address what could be the role of the EU in the future of the ISS, as an EU LEO research infrastructure.

ASD ACTION

- Promote the concept of space assets as European strategic infrastructures within EU institutions (EC, Council, Parliament)
- Contribute to the elaboration of the required budget for the development, operations and maintenance of the EU space infrastructures for the next financial perspectives