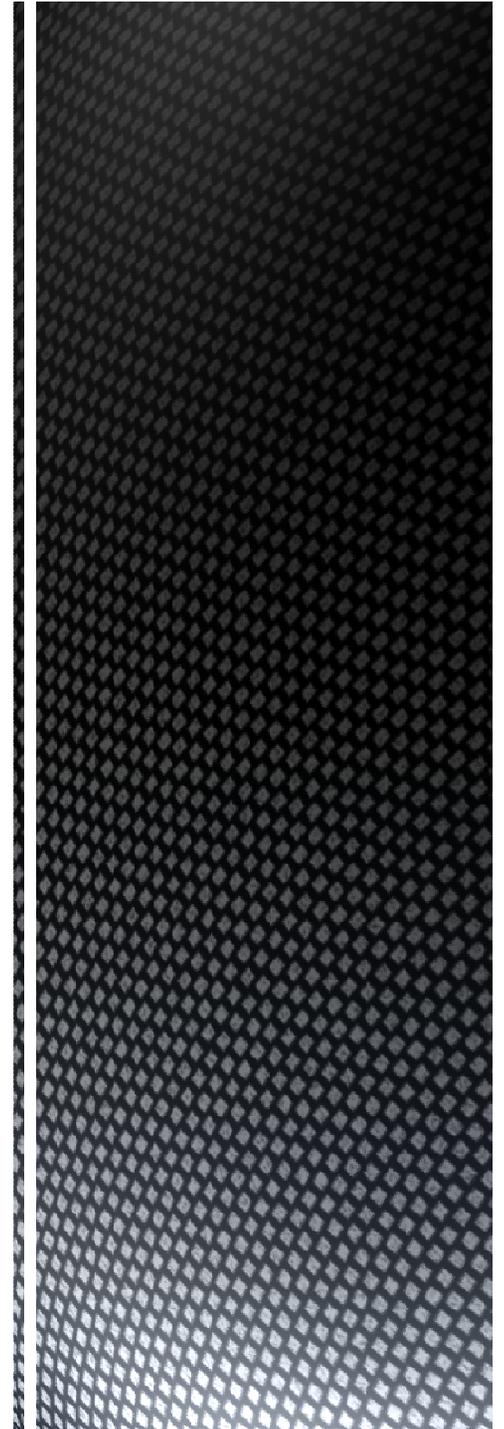


A progress report on developing a national space strategy in Romania

Nicolae Mihail TONCEA¹, Andrei STAN²,
Octavian CRISTEA (presenter)³, Paul DOLEA³

1– IAROM; 2– SPASTO CONSULTING; 3- BITNET CCSS

**CHALLENGES IN ASTRONOMY, ASTROPHYSICS
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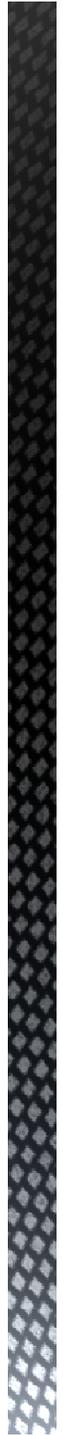


- Actually, nations are increasingly dependent on capabilities provided by space assets: communications, navigation and timing, weather, missile warning and tracking, Earth observation, etc.
- Space infrastructure is at risk of damage or destruction by natural phenomena, such as solar radiation and asteroids, and by other spacecraft and their debris. It is also under threat from electromagnetic interference, be it intentional or otherwise. It is why space assets are actually considered as being “critical infrastructure” and a subject of international concern.
- The development of the Romanian space sector cannot be done without taking into account the strategies and policies of the European Space Agency (ESA), European Union (EU) and NATO.
- Of special interest for the development of Romanian space research and industry is the participation to ESA programs.

As part of Romania integration into ESA projects and programs, the Romanian Space Agency (ROSA) has developed five support tools, generally called “strategic projects”.

The "National strategy for space and related fields" is a one of the strategic projects, jointly implemented by IAROM, SPASTO CONSULTING and BITNET CCSS.

The main objective of this project is to identify national space related capabilities and cooperation opportunities within ESA programs, including identification of European space industry niches.



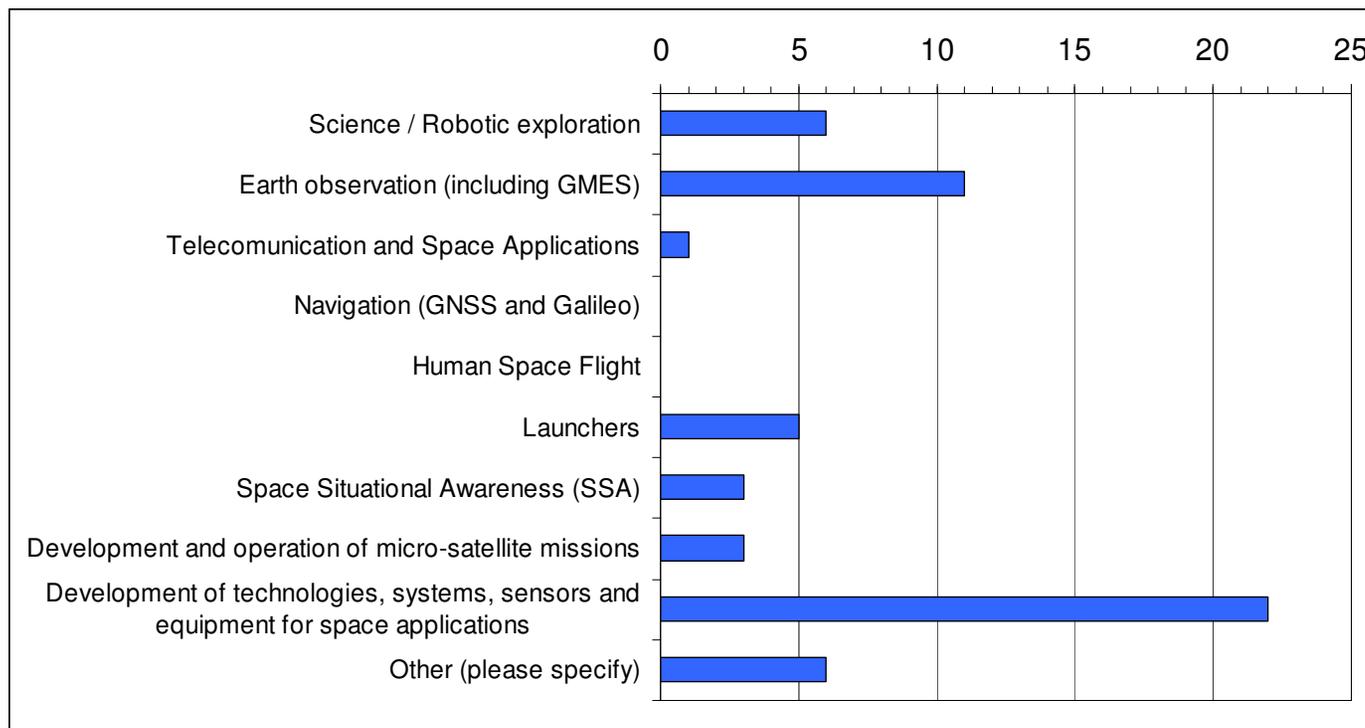
Implementation tools

Actually, the national space program is implemented using the following tools:

1. Space & Security priority within the "Partnerships in priority S&T domains" Programme;
2. Space Technology and Advanced Research (STAR) Programme;
3. ESA: Outline proposals under the Romanian industry incentive scheme
4. ESA: other procurements (not under the incentive scheme) open to Romanian entities.

This presentation is focusing on the analysis of public funded space research projects contracted in 2012 in the framework of two national programs: “STAR” and “Partnerships in Priority S&T Domains”.

SOME SAMPLE STATISTICAL DATA:



Number of R&D contracted projects in Romania / ESA space subdomains (in 2012).

The main outcomes of this analysis are:

- lack of project proposals in some space related ESA programs to which Romania is contributing (such as GNSS and Galileo),
- mismatch between Romanian project proposals addressing space technologies and the ESA “Compendium of Potential Generic Technology Activities” (which rises questions about potential space industry niches for Romania),
- an extreme geographical centralization of funded project proposals (83% of the project coordinators being from Bucharest).

REGARDING ASTRONOMY IN THE ESA PROGRAMMES FRAMEWORK

1. There is no astronomy program!
2. However astronomy related expertise is required in:
 - some space missions which are part of the Science Program (for instance space telescopes)
 - some components of the SSA (Space Situation Awareness): such as observation of NEOs and satellites using optical instruments, orbit determination and prediction, etc.

OTHER IMPORTANT ISSUE RELATED TO THE FUTURE DEVELOPMENT OF ASTRONOMY IN ROMANIA:

As requested by many international organizations, including ESA and EC, Romania has to define in few years some niches in which can offer the best competence (at international level).

This is valid for astronomy too!

Thank you for your attention!