

22nd SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
International policy and economic aspects of space applications (4)

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THE EVOLUTION OF GOVERNANCE MODELS FOR SPACE PROGRAMMES AND THEIR
IMPACT ON THE DEVELOPMENT OF SPACE APPLICATIONS

Abstract

Space activities are undertaken by an increasingly diversified number of countries who each have their own motivation and drivers to invest in space, their own organisational framework and areas of priorities.

Because there is no one single governance model applicable to the space sector, but a wide variety of schemes applied according to each nations' particularities, they have different impacts at policy, market and industry levels.

The proposed paper aims to compare the evolutions in the three leading space programmes worldwide, the US, Europe and Japan plus two emerging leaders India and South Korea.

Rather than having a "one by one" country review, the paper will compare the situation of these case studies by thematic areas, including

1. What is the institutional framework applicable to space activities and applications? This part compares the role of civil and military stakeholders in space programmes of the countries analysed and addresses the particularities by type of space applications (eg Satcom, Satnav and EO). It will highlight the consequences in terms of objectives pursued, structure of the industry (for instance in terms of revenues), barriers and opportunities for international cooperation opportunities etc.

2. What are the strategic priorities associated to space applications (civil and military)? The objective is here to clarify the policy objectives associated to the space programmes in the countries analysed. Obviously, they are each driven by their own political context explaining their areas of interest in terms of space technology development and space applications pursued. The consequences on the capabilities developed in these countries and the future plans followed by these space programmes will be highlighted.

3. What are the financing frameworks in place? This part aims at comparing budget levels globally and by applications, as well as indicating what types of financing models are followed by applications in these countries (pure government financing, outsourcing of commercial capacity, public-private partnerships...). The rationale behind these choices will be highlighted as well as the consequence in terms of program management and requirements for the industry to access government markets.

4. How regulatory frameworks have favoured the development of space applications? The objective here is not to give a detailed review of regulations in place (which will not be possible) but rather to illustrate with some specific cases how regulatory provisions in these countries may have positively or negatively affected the development of space applications (frequency licensing, export control, data policy, IPRs...)

5. How space markets have developed so far in these countries? The final section of the paper compares how satellite applications have developed in these countries illustrated by metrics such as market revenues or the users of satellite services. The relationship between the frameworks identified above and the level of market development/maturity will be highlighted.