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Public-Private Partnerships: Traditional and New Space Applications (2)

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DEVELOPING THE EUROPEAN COMMERCIAL SPACE SECTOR: HISTORICAL INSIGHTS INTO
STRATEGIC POLICY AND PROGRAM DEVELOPMENT

Abstract

In the last two decades the space sector rapidly changed with a relative shift of initiative towards the private sector. Space agencies and governments have partially driven these changes and adapted to them, updating the specific approaches, ways of working and relationships with industry in line with changing market conditions and industrial capabilities, navigating the continuum between technology and capability development on one hand, and commercialisation of products and services on the other hand. In Europe in particular, many large programmes with commercial implications were implemented over the years. More recently, recognizing the importance and opportunities linked to a dynamic commercial space ecosystem, the ESA Agenda 2025 lists Commercialisation as a top priority of the agency.

The significant changes in the space sector led, to a certain extent, in differentiated considerations of “traditional” and “commercial” programmes and therefore to the opportunity of more extensive lessons learnt from the commercial aspects of traditional programmes. Through research and interviews, this paper collects these missing lessons learnt and approaches of the large historical ESA programmes with a specific focus on commercialisation, also looking at the related incentives for co-funding and risk sharing.

In particular, the authors present, study and put in context the policy and programmatic tools used in ESA commercial endeavors such as, but not restricted to, the ARTES programme, related to the Alphabus, Electra, OneSat, SmallGeo satellite platforms, the developments leading to the creation of the commercial operators Arianespace – more than 700 spacecraft launches, and a temporary position of market leader, claiming up to 60% of the global commercial satellite launch market in 2014, Eumetsat – more than 1bn revenue in 2022, and Eutelsat – 36 satellites in orbit, more than 1000 employees, more than 320M in net income in 2022. An attempt is also made to explain the reason for their competitive positioning in their respective markets. Other initiatives to support commercialisation targeted to startups are also presented, such as the network of ESA Business Incubation Centres founded in 2003 with the first centre in the Netherlands, and it has since expanded to 29 BICs in 21 European countries. The authors hope to advance the understanding of the context, strengths, and limitations of these policy and programmatic tools, so as to support the continuous improvement of the frameworks supporting Space Commercialisation.