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Space Sector's Commercial Transformation: Procurement Opportunities and Financial Transparency (6)

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BUSINESS INNOVATIONS IN SPACE - SURVEILLING THE EUROPEAN SPACE
TRANSFORMATION

Abstract

The space sector is rapidly transforming, with a proliferation of new actors, the emergence of new challenges and the development of a space economy. We believe it is not just a matter of degree, capturable by the term “commercialization” alone, but is of a deeper nature. We call it “*innovatization*”: the transformation of a sector from a mode of *technological achievements* – where the economy has little or no influence, i.e. neither consumers nor costs really count, and only technological performance matters – to a mode of *innovations* (in the economic sense: impacting consumers and costs).

How can we help European space adapt in this process? The transformation seeks for a change in industry structure, institutional adaptation, mindset and skillset changes... new innovation policies. ESA founded ECSECO as a platform for thought leadership and discussion on this topic. To drive commercialization within the European space sector, the ECSECO community initiative encourages cross-disciplinary exchange and supports the evolution from technology to business-oriented innovation. Further initiatives may also involve identifying relevant measures and metrics to monitor the transformation of European space. Recent linked research has started benchmarking European NewSpace – setting up a range of innovation and engineering economic indicators to assess parts of the innovatization process, measuring decreasing component costs, evaluating human capital, and counting entrepreneurs. It also included interviews and workshops of over 120 C-levels, key people, and start-ups. First results show that some indicators lag considerably behind their potential (and the US), while others less so. Institutions (as innovation promoters), competition, and risk capital are particular difficulties in Europe. Workshops' biggest emergent theme was administrative burden and slow speed. This leads us to the issue “how institutions work with companies”: Public Private Collaborations (PPCs; or PPPs).

We propose two designs: that of an organization (e.g. ECSECO), and of a research stream. The research rests on 3 pillars: (1) creating a database of space innovation and engineering economic data; (2) the *Innovation Perception Index*: a space innovator and financier survey; (3) continuing fundamental research and framework development, now focusing more on PPCs. This research is envisioned to be communicated in an Annual Report, *Outlook: business innovations in space*, presenting a barometer of space innovation based on indicators, expert interpretation, and a community forum. Its target audience is innovators and entrepreneurs, R&D and business leaders, analysts, academics, and all those aiming to boost space innovation.