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TOWARDS A NEW BUSINESS MODEL FOR EARTH OBSERVATION SERVICES IN EUROPE?

Abstract

The past twenty years have seen an increase of private investment in Earth observation satellite programs. However, recent examples in several countries show a step back of this momentum. Investments in Earth observation systems worldwide are done massively by the public sector and the public share is likely to increase due to the current economic context. Therefore, the entire paradox resides in the fact that various forms of public-private partnerships, which aim to decrease the risks and the investments for the public sector, are less employed.

Following this logic, institutional stakeholders are facing challenges to fund Earth observation programs and are delaying the financing of key assets, which are of great importance for the economic stability and the safety of the citizens. In this highly strategic and political discussion, the future of remote sensing capabilities in Europe is at stake, particularly the independent access of civilian institutions or companies to satellite data, in order to galvanize the private economy.

However, it is certain that manifold tools and solutions exist to leverage the contribution of the private industry at all level of the Earth observation services value chain in Europe, and thus to lower the financial burden for the tax payers. The research presented in this paper aims to demonstrate this fact and to suggest alternative business models for the remote sensing and meteorology fields.

This paper will first analyze the key business model concepts of the Earth observation services industry in Europe, such as the “EO value chain”, “industry” or “data providers”, using the existing and admitted taxonomy. The research will present current examples worldwide such as the TerraSAR-X Public-Private-Partnership in Germany or the use of cross subsidization in countries like the United States. It will propose innovative solutions to address the current challenges inspired by economic approaches from non-space sectors. Earth observation sector developed with a monopoly of the public sector up the value chain, where the risks and up-front investment are, and a large participation of the private industry down the value chain, i.e. close to the users. Alternative business models will be described with the aim to challenge the current monopolistic approach implemented in Europe and around the globe.