

COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

65th Session, 1-10 June 2022

Statement of Italy on Item 10. Spin-off benefits of space technology

Mr. Chairman, Distinguished Delegates,

It is a pleasure for me to have the opportunity to present you some of the main results of a three-year economic and econometric study carried out by the Italian Space Agency with the University of Milan. The purpose of this work was assessing the socio-economic impact of public investments in space, in particular on the innovation and performance by several stakeholders of the Italian space system. In doing so, the study also achieved results on the ability of these stakeholders to create benefits at the macroeconomic national level.

The research was based on a dual mode, aimed at monitoring the convergence of the results:

- Direct survey on three types of stakeholders, with the participation in the project of 305 key witnesses;
- Econometric analysis of historical series (1990-2020) of budget figures, patent data, scientometric data, with over 20000 observations.

The study has involved three categories of stakeholders:

- Companies which provide upstream technologies.
- Companies and other downstream organizations in the field of Earth observation (EO), intermediate users of EO data that provide services and applications to end users in several areas.
- The scientific community active in space research: research centres (private or public, universities or other institutes).

With regard to upstream technology - The study registered significant benefits in terms of technological content of the offered products/services and on the innovative activity of companies: improvement of their technical know-how, significant improvement of the research and development activity. Higher innovation corresponds with a subsequent widespread improvement of the turnover and of the number of customers, the break into new markets. A positive impact has been registered also in terms of employment, as well as in terms of higher competitiveness of companies, thanks to their better economic performance following the supply relationship.

The econometric analysis confirms objectively how suppliers have improved their economic performance and innovative potential.

For what concerns the aggregate economic impact of the direct effect alone – using a prudential direct multiplier value of 3 - the benefit-cost ratio (5-year horizon) is positive and equal to 1.36.

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With regard to downstream/Earth observation sector and the socio-economic benefits for the intermediate users of the downstream sector - targeted at public and private companies and research centres - the results of the survey highlight the key contribution of EO to the improvement of operational processes. The availability of EO data has contributed to improve the quality of products and services, their research & development capabilities and had created new research & development teams/units.

Regarding the aggregate economic impact, the research estimated the direct cost-benefit ratio at 2.1. Therefore, every euro of public spending in the downstream EO sector, generates 2.1 euros of economic benefit for the Italian taxpayer, without considering the overall final impact (that is, keeping into account the impact generated on end users, for which further studies will be needed).

Finally, the study also has observed a significant impact of the ASI investments on scientific productivity, such as an increased impact of citations of scientific publications, ranging from 11-17% to 36% in the case of ASI funding of all articles written in the same period by the same authors.

Mr Chairman,

If it is of interest, I would like to inform you and the Assembly that an executive summary of this study is published on the ASI website.

Thank you for your attention