

35th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Interactive Presentations - 35th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND
ECONOMICS (IP)

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ANALYSIS OF PATENT FILING DATA IN THE SPACE SECTOR: KEY FINDINGS AND LESSONS
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Abstract

In 2020, the European Patent Office, the European Space Agency (Technology Transfer and Patent Management Office) and the European Space Policy Institute have set up a trilateral partnership aimed at investigating global space-related patent filing data to reveal technical, commercial and policy insights for the further development of the space sector.

Through their public nature, patents provide means of observing technology trends, key innovators and policy impacts, which can be used by all space sector participants. As part of this collaboration, three research studies have been conducted so far, addressing both broader sectorial trends as well as selected specific technology domains (i.e. quantum technologies and space).

Overall, more than 12,000 relevant patent families have been examined in the three studies, while employing tailored methodologies from the European Patent Office to extract, classify and examine patents from global patent databases and furthermore putting this information in perspective with technical analysis provided by European Space Agency and policy analysis by the European Space Policy Institute. These studies identified several rapidly developing technology domains and allowed to elaborate some underlying trendlines shaping the evolution of the space sector.

This paper provides an overview of key findings of these studies, insights into data and statistics, as well as additional information concerning the patent data analysis as an analytical approach with its versatility and suitability for different purposes. In conclusion of the studies and this paper, the analysis of space-related patent data could be considered as a suitable tool for private companies as well as public actors, as it allows to produce results relevant for the interests of various communities, while employing public and freely available data.