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International cooperation in using space for sustainable development: The "Space2030" agenda (1)

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OPPORTUNITIES AND CHALLENGES FOR ACHIEVING 'SPACE2030': INSIGHTS FROM THE FIELD OF GLOBAL EARTH OBSERVATION SYSTEMS

Abstract

The space sector is experiencing major structural transformation. Besides rapid technological innovation and commercialization, new developments in space-based infrastructures today can serve as a key enabler for accelerating sustainable development. In this regard, the United Nations Committee on the Peaceful Uses of Outer Space has proposed a "Space2030" agenda along with its implementation plan. A core question remains how the global space sector may build strong bridges for international cooperation to achieve the ambitious agenda.

Insights to the above question may be drawn from understanding the long-term development of the global earth observation field. Global earth observation systems have in recent years been promoted as a critical infrastructure for sectoral transformations and new environmental management. Given the exponential rise in the number of non-state actors and in use dimensions, the field of global earth observation may face new challenges when it comes to coordinating international cooperation among actors that share similar or dissimilar interests (e.g. market-driven, technology-driven, environment-driven, geopolitically driven, etc.).

This study aims to identify potential collaborations or conflicts of interest among different actors in the field of global earth observation systems. Methodologically, we run a discourse-based network analysis based on text-data in the newspaper media and government documents. A total of 144 news articles (without duplicates) and 28 government documents were derived from the LexisNexis database using a systematic search-string protocol. Using qualitative content analysis software (Nvivo), we systematically coded the discursive text-data from year 2001 to year 2020 based on similarities or differences in actors' interests and derived social networks that cluster groups of actors based on similar interests. The development in year 2021 was subsequently complemented with desk research to capture the latest development trends.

The results indicate that actors in the field of global earth observation systems may differ quite significantly in terms of their interests, resulting in potentially different preferences in collaboration or cooperation. However, the interests of the various actors are aligned on a global scale, i.e. actors cooperate to pursue common goals at the global level. Therefore, there may be great potentials to accelerate sustainable development, given similar collective priorities. Based on these insights, we provide policy recommendations to foster international cooperation in the global earth observation field in view of the Space 2030 agenda.