

Outer space development and implications for planetary sustainability

Department: Sustainable Development

Research group: Innovation Studies

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Project description

Human activities in outer space have grown exponentially in recent years, in particular in the development of new satellite infrastructures around the Earth's orbit, rocket launches, and space tourism. These developments bring positive and negative implications on a planetary scale, in terms of environmental and social dimensions. On one hand, the benefits include the unprecedented capabilities of Earth observation satellites in climate monitoring and Internet satellites in offering global connectivity including the most remote places on Earth. On the other hand, increasing launches lead to new sustainability problems, such as the rapid accumulation of space debris in the Earth's orbit and severe atmospheric pollution as a result of increasing launches and re-entries of space objects. The global space sector urgently requires new policy and governance models in response to these new challenges.

The Bright Minds assistant will investigate the different strategies of business and policy actors in the space sector and contribute to the following broad research questions:

- What are the core factors that shape current and future space activities in the form of technologies, infrastructures, businesses, or missions as a whole?
- What could be the role of different actors, including international organizations such as the United Nations, national space agencies/ the European Space Agency, multinational corporations, and local communities in transforming or reforming global space governance?

The research activities of the Bright Minds assistant include (to be discussed & jointly decided):

- Analyze media data and policy reports on space technologies, infrastructures, or missions and contribute to the development of a novel database
- Derive policy implications for the space sector
- Opportunity to publish your results and present your work at a scientific conference
- Opportunity to engage with and be part of the project [PLANETSTEWARDS](#) – funded by the European Research Council (ERC)

Job requirements

Someone who is highly motivated and genuinely interested in the topic of outer space and sustainability! Ideally, you have a background in innovation or sustainability governance and are interested in qualitative analysis. If you are driven by curiosity and want to engage with a novel sustainability challenge that humanity is facing – this is for you!