



OPPORTUNITY #16

What if space traffic was internationally regulated?

RULES FOR SPACE, INC.

Using the analogy of air traffic control, an international space transport association defines and enforces 'space traffic' rules for safety and best practice for future growth in space transport and commercial development.



MEGATREND

Borderless World - Fluid Economies

TRENDS

Future of Space
International Collaboration
Legal Transformation

SECTORS AFFECTED

Automotive, Aerospace & Aviation
Communication Technologies & Systems
Cyber & Information Security
Data Science, AI & Machine Learning
Education
Financial Services & Investment
Infrastructure & Construction
Insurance & Reinsurance
Logistics, Shipping & Freight
Manufacturing
Travel & Tourism
Government Services

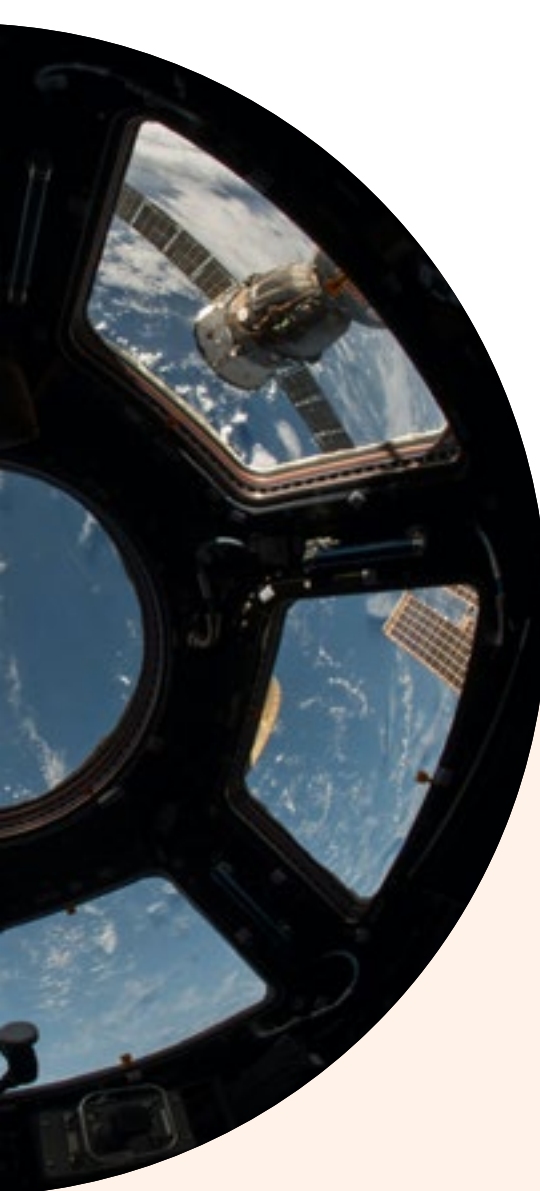


WHY IT MATTERS TODAY

There are more than 70 space agencies around the world, of which 16 have successfully conducted a space launch and 7 have been able to probe extra-terrestrial locations – such as the Moon, Mars or deep space and more than a dozen additional national agencies are on the way, along with an increasing number of private space agencies, such as Blue Origin and SpaceX.³⁵⁴ No fewer than seven missions are planned for 2023; from the United Arab Emirates, the United States, Japan, South Korea, Russia and India along with several from private companies.³⁵⁵

It is estimated that 85% of all known satellites, probes, landers, crewed spacecraft and space station flight elements launched into earth's orbit or beyond have been registered with the UN's Office for Outer Space Affairs (UNOOSA).³⁵⁶ In the latest press releases from UNOOSA, 14,000 satellites had been launched³⁵⁷ and 11,000 satellites could be orbiting the earth.³⁵⁸

The global space industry could generate \$1 trillion in revenue by 2040.³⁵⁹ That is just over double the size of the space economy in 2021, estimated at \$470 billion,³⁶⁰ which is partly driven by more attractive investing in the space economy as the cost of launching a satellite has gone down from \$200 million to about \$60 million via reusable rockets, with the potential to decrease further to \$500,000 via mass production.³⁶¹



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**\$1
TRILLION**

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THE OPPORTUNITY

Space, as a new economy, has multiple stakeholders and is covered by various non-binding global regulations and treaties, some that have limited signatories and do not cover commercial interests.³⁶²

While UNOOSA promotes responsible development in space and outer space activities, fostering international solutions to problems will be important.³⁶³ Space will see the arrival of more sectors in the future, spanning transportation, food, energy, mining, tourism, science and more.

An international space transport association – with a multilateral agreement – could play a valuable role in accelerating the benefits of space-related opportunities. Such an organisation could make development in space safer and more cost-effective and reduce technological risk and human error in this complex area. The association could ensure common language and agreement on the interpretation of changing terms.³⁶⁴ This can help to resolve disputes about how the space economy can be developed.³⁶⁵ It can also facilitate the process of defining vertical limits in outer space beyond national and international airspaces.

Increased space traffic provides numerous opportunities for learning and tourism, but with these activities come a greater risk of accidental or malicious damage. As earth's orbits are more frequently used for transport (of both people and goods), research and technological applications, there will be more need for transparency and oversight. It will be important to consider who and what is transported, when and what trajectories and orbits are used, how the increase in space debris is managed and how to preserve space for future generations.

BENEFITS

Increased safety and security while enabling economic growth through space travel and exploration.

RISKS

A lack of collaboration among public and private actors. Unfair lobbying efforts by well-capitalised special interest groups.



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