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THE BOOMING GLOBAL SPACE MARKET AND THE DEMAND FOR INTERNATIONAL SPACE REGULATION-ARBITRATION ALIGNMENT

Abstract

The proliferation of space debris, the rising complexity of space operations, the emergence of mega constellations and the increased risks of collision and interference with the operation of space objects -including cyber threats and the placement/development of weaponry and military technology in outer space- will affect the long-term sustainability of space activities. Addressing these risks requires international cooperation to avoid potential harm to the space environment and the safety of space operations.

Space is one of the fastest growing technological sectors in Europe, but the capacities of its space sector are unevenly distributed. Europe is already a major player in Space but there is still a need to include more start-ups, small-to-medium size businesses and mid-capitalisation businesses among participating stakeholders, as they can also help respond to global challenges such as climate change and security issues.

By recalling the EU's longstanding commitment to international law and to the values and guiding principles developed in the UN framework, via UN COPUOS and ITU, several initiatives in terms of Legislation/Regulation/Arbitration are aligning in Europe, taking shape to promote responsible behaviour in space and calling for the development of technologies that minimize the environmental impact of manufacturing/launching space assets and/or that maximize the use of renewable resources and the reusability or repurposing of space assets to enhance the long-term sustainability of those activities - further recognising that space is a global common good that should be for exploration and use by all, emphasising the link between space and non-space sectors.

Underlining the value of strengthening the European framework for commercial uses of outer space and coordinating respective legislation and standardisation, this paper also addresses: the importance of taking into account both civil and military specific needs within major entities/key-players (including Defence related) as Space is increasingly critical to inter/national security (a domain that is essential to telecommunications and military operations); calls for mitigation measures to monitor and manage existing space debris; highlights the role of space surveillance and tracking system (SSTS) to advance towards an improved space traffic management (STM) and space debris management (SDM); and points

out promising secure connectivity to provide ultra-fast and highly secure communication services that will help improve protection of critical infrastructure, surveillance, support for external action and crisis management - contributing to a more resilient Europe, also in Space.

This paper also includes a set of policy analyses and recommendations for strategic planning.