

The importance of space for EU security, defence and resilience



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Report

INTRODUCTION

Space is critical for the security and the prosperity of the European Union (EU). Member States increasingly rely on space as a strategic domain to safeguard their economic prosperity and strategic interests and their security. In addition, a wide range of civilian and military activities are entirely dependent on the Union's ability to maintain safe and secure access to space. **Resilience in and from space is therefore a strategic issue.**

However, partly due to the fact that great power competition has now reached the stars, **the Union's freedom of access to and action in space is at stake.** Strategic competition in space could lead to the risk of tensions and uncontrolled escalation with consequences that could spill over into other strategic domains. Furthermore, the ever-growing range of activities in outer space also represent a challenge for the EU. The congestion in orbit and the increasing level of space debris lead to a higher possibility of collisions.

The EU has already focused on developing some tools to tackle these challenges and address some of the above-mentioned threats, such as the EU Space Surveillance and Tracking (EUSST) initiative through the EU Space Programme (EUSP). However, **the EU and its Member States should be more capable of assessing and addressing adequately and collectively** the whole spectrum of space events the Union could face, in particular by promoting and supporting responsible behaviour in outer space.

INCREASING THREATS AND SPACE AS A STRATEGIC ARENA

Space is increasingly a domain for **great power competition**, and the Union's strategic competitors are increasingly enlarging their space presence. A rapidly evolving domain, space is increasingly exposed to irresponsible actions and threatening behaviours such as anti-satellite launches, proximity manoeuvres, jamming, dazzling and other displays of force orchestrated by major powers. In this regard, space is an ideal setting for hybrid threats to be perpetrated because of the challenges of detection and attribution.

Additionally, **satellite collisions** are a growing concern because space is no longer the prerogative of a small number of States and it is set to be used by new institutional commercial actors. Mega satellite constellations and cost-effective space launches will only lead to greater congestion in space and the orbital risk landscape will become more dense and insecure. The role of private companies will increase, although in most cases private actors are directly financed and supported by State actors. This relationship may in itself change the way space is utilised from commercial and strategic perspectives.

The use of space as an arena for strategic competition and the growing commercialisation of space is having a direct impact on **international norms and regulations** for space. We are witnessing an erosion of multilateralism in space and the principles laid down in the 1967 Outer Space Treaty are being challenged. Accordingly, there is a risk that unilateral or exclusive multilateral initiatives (e) will undermine the EU's ability to ensure open and safe access to space through a genuine multilateral solution.

From a strategic point of view, the EU's resilience on Earth is intimately connected with space. There is a need for the EU to protect its space-based assets and ensure the security of its ground infrastructure. Part of the response needs to include enhanced **space situational awareness** capacities, cybersecurity and keeping pace with rapid technological developments. Additionally, there is a need for a deep strategic reflection on threats already existing on Earth as well as in outer space. While the Union recognises that space is congested, contested and competitive it needs to give serious thought to the resilience, security and defence dimensions of EU space policy.

EU EFFORTS AND CAPACITIES IN OUTER SPACE

Without secure access to space, Europe will struggle to maintain an autonomous presence in the world. Given critical infrastructures and capacities such as **Galileo and Copernicus**, the EU is already a space actor that needs to ensure the secure and responsible use of space. While it is true that the EU's Space Programme is civilian in nature, there is a growing need to consider the strategic dimension of space use. One of the first steps in nurturing a common EU strategic culture for space is to recognise the collective vulnerabilities EU Member States face in and from the space domain.

The **European space industry** is a global leader, but more needs to be done to invest in European space launchers and space technologies. Investments in, and the application of, quantum computing and Artificial Intelligence for space is also increasingly critical. Additionally, the Union needs to do much more to invest in SST capabilities, including being able to protect key space-based infrastructure such as the Galileo and Copernicus systems. The EU Satellite Centre is also a key EU asset for the provision of geospatial intelligence products and services.

The EU is engaged at the diplomatic and political levels. Not only has the EU proposed an International Code of Conduct for Outer Space Activities in the past, but it is today developing its diplomatic approach to responsible behaviours in outer space, Space Traffic Management (STM) and space safety measures. A forthcoming Roadmap on STM by the European Commission in 2022 will allow the EU to further enhance its efforts. Through the development of space capacities and a greater presence in space, the Union would be able to strengthen its diplomatic efforts and ensure that it can help set norms and standards and to **shape the international governance of space**.

LAUNCHING A STRATEGIC REFLECTION THROUGH THE STRATEGIC COMPASS

Overall, it is clear that the Union needs a **common strategic approach** to space and to enhance its space presence through more sustained and frequent European launches and space-based initiatives. However, EU

Member States are still too fragmented in their strategic approach to space. National strategic cultures and capacities differ, although the Union as a whole would collectively suffer the consequences of a satellite outage or space-based crisis. The Strategic Compass could initiate a much deeper reflection at the EU level on the security and defence dimensions of space, through the recognition of space as contested domain.

This **strategic reflection** could lead to enhanced situational awareness in space, exercises with a space dimension and a reflection on the space aspects of Article 42.7 TEU and Article 222 TFEU. Such steps could help generate a more common EU strategic culture for space. Additionally, the Compass may assist with the Union's strategic communication efforts related to space, especially in communicating why space resilience is important for the EU's economy and citizens. However, the Compass should also underline the need for large and sustained public investments in space through the Multiannual Financial Framework. The Compass could be complemented by a specific strategic reflection on space security, defence and resilience, which would set the EU level of ambition on the autonomous access to and the use of space.