THE EU, SPACE AND DEFENCE

A reflection on strategy, complementarity and capabilities

Proceedings from a meeting co-organised by the Finnish Presidency of the Council of the EU and the EU Institute for Security Studies on 1 October 2019 in Brussels.

Report

On 1 October 2019, the EU Institute for Security Studies (EUISS) and the Finnish Presidency of the Council of the EU co-organised a roundtable in Brussels focusing on the EU, space and defence. Hosted at the Finnish Permanent Representation to the EU, the event allowed participants to exchange views on the strategic necessity of space and the ways in which the EU thinks about space in the context of defence. The roundtable brought together officials from EU Member States, EU institutions, the European Space Agency, NATO, representatives of the aerospace and defence industry and think tankers.

SPACE AS A STRATEGIC DOMAIN

Participants agreed that today space is 'congested, contested, competitive', especially given the growing access to space of state and non-state actors alike. The EU has stressed 'peaceful access to space' and its ongoing efforts include the use of space for exploration and observation and security in order to provide for the autonomy of action for Common Security and Defence Policy (CSDP) missions and operations. Overall, the EU does not want to see space militarised but the technological advances of third countries were described as a cause for concern given the trend towards the weaponisation of space. In this respect, the EU's approach to space is not necessarily shared by other space powers such as the United States and China or even by partners such as NATO.

One of the key points raised during the meeting related to how space could enhance the EU's strategic autonomy and technological sovereignty. While the exact meaning of the concept remained contested for most participants, it was acknowledged that strategic autonomy entails the capacity for autonomous decision-making, action and access to space, as well as security of supply. Participants agreed that space-based navigation, positioning and observation capabilities were key to a range of civilian and military applications ranging from satellite communications for military operations to search and rescue for emergency services and basic telecommunication. However, it was also clear that EU member states had sometimes very different concepts of how space should be utilised and they did not agree on issues such as arms control in space or deterrence in space.

In this respect, many participants stressed that EU autonomy in space should not be read as isolationism but rather as a way to enhance the Union's role as a credible security provider and partner. More specifically, a number of participants focused on the importance of protecting space- and land-based critical space infrastructures from cyber vulnerabilities. In this sense, flagship projects such as Galileo and Copernicus needed to be secured from potential vulnerabilities. Other participants took the time to stress the need for the EU to look at critical supply chains for key space technologies in order to decrease dependencies on potential 'back door' technologies that could open up system vulnerabilities.

From an industrial angle, the dual-use nature of space capabilities was stressed and it was acknowledged that the space and aerospace sectors are vital for Europe's defence technological and industrial base. Nevertheless, a number of participants stated that the EU was lagging behind in relevant technological advancements. Europe's propensity to define space in largely civilian terms was acknowledged but many

participants pointed to the growing technological disparity between EU and other space powers in terms of investment.

There was also a debate about how the EU should strategise its approach to space. Building on the EU Global Strategy, some thought it necessary to draft an overarching EU strategic document on defence and space whereas others were bolder in calling for an EU 'White Book' on defence to include a space dimension. Either way, there was a consensus among participants that space should increasingly be included in discussions about the EU's strategic level of ambition in defence. What is more, one participant stated that Europe was not particularly good at anticipating technological trends or shocks (e.g. the security concerns generated by 5G).

COMPLEMENTARITY OF VISION AND TOOLS

Turning to a discussion about the complementarity of the EU's institutions and resources, participants noted that a fundamental basis for a more ambitious EU approach to space is trust among member states. Despite the fact that industry, civil society and academia should have a place in defining the Union's approach to space, it was thought that more time was needed for initiatives such as the European Defence Fund (EDF) and Permanent Structured Cooperation (PESCO) to build up a shared vision among member states and institutions. Institutional innovations at the EU level should lead to greater coherence and a number of participants stressed the importance of the creation of a new Directorate General (DG) for Defence Industry and Space. More than ever before, coherence between space and defence was required given the combined €29 billion that will be dedicated to each area from 2021-2027 (i.e. €13 billion for defence, €16 billion for space).

Beyond the new DG, however, other participants remarked how there is the potential for greater policy linkages when one considers how new technologies such as Artificial Intelligence (AI), quantum computing, unmanned technologies and cyber systems are effecting the development of space assets and infrastructure. In this respect, it was stressed that the EU should not forego the opportunity to link the Space Programme with the Digital Europe programme, Horizon Europe and Connecting Europe Facility – these three funding streams could amount to a combined total of over €150 billion under the next multi-annual financial framework from 2021-2027. Another participant also pointed to the importance of maintaining EU-NATO cooperation in the area of space, especially given that the alliance has recently adopted a Space Policy of its own.

Finally, the seminar also touched upon the inherent dual use nature of space systems and the strong interlinkages between space and defence. However, although a number of participants underlined the civil-defence interface at play in the development of space assets there was less agreement on clearly delineating the civilian and military aspects of space. It was acknowledged that this posed an issue for mechanisms like the EDF. In practice this means that while space supply chains may be dual-use in nature it is essential that the Fund only invests in defence specific technologies and capabilities for space. Additionally, the 4-8% that will be earmarked for disruptive technologies under the EDF will be an opportunity to potentially invest in new space-relevant technologies such as AI and quantum computing.

CAPABILITIES AND PRIORITIES

When discussing the EU and space capabilities, participants noted that Europe possessed world class capabilities in space, such as the Copernicus and Galileo systems, as well as a highly competitive industry. Europe's skills-base in the space sector was also stressed as a capability in its own right. Moreover, work was ongoing on various projects, such as GovSatCom and two projects under the PESCO framework. For example, under PESCO participating member states are developing an EU Radio Navigation Solution (EURAS) and a European Military Space Surveillance Awareness Network (EU-SSA-N). In this respect, most participants seemed to agree that greater investments in space capabilities and critical infrastructure protection are required.

However, the discussion also touched upon the vulnerability of certain space-based assets and the need to identify ways of enhancing the Union's resilience to potential supply or service disruptions. Using the example of potential disturbances to global navigation services such as Galileo, some participants flagged the need to also make ready 'analogue' systems that could maintain a basic level of operational ability and autonomy in case of space service 'black outs'. It was generally felt that policymakers

and the public were under-prepared for large-scale space capability outages and the crisis that this could potentially cause.

Finally, a number of participants flagged the need to ensure greater standardisation and interoperability for space-based capabilities. In this regard, while the Union is investing in key strategic capabilities for space there is a need to ensure that there is no duplication of efforts between EU member states. To this end, while the EU has developed new capability prioritisation tools such as the Strategic Context Cases to provide a pathway for coherent capability development, it was clear that any prioritisation of space-based capabilities needed to also consider a host of legal, ethic and technological issues. For example, the introduction of seemingly civilian space robots to clear defunct satellites or debris could be used for nefarious means too. For many participants, such examples only underlined the need for a more comprehensive defence and space strategic concept and greater EU investments in space.