



INSIGHT

EU STRATEGIC AUTONOMY AND TECHNOLOGICAL SOVEREIGNTY

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EU SPACE POLICY AND STRATEGIC AUTONOMY:
TACKLING LEGAL COMPLEXITIES IN THE ENHANCEMENT
OF THE ‘SECURITY AND DEFENCE DIMENSION
OF THE UNION IN SPACE’

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ABSTRACT: EU space policy is an important field in the pursuit of EU strategic autonomy, both as regards the need to protect EU space infrastructures (and industry) from external threats and as regards the need to strengthen EU capacity to act in the space domain for security and defence purposes. However, some complexities exist in the governance of EU space policy, which may affect its ability to deliver in the above-mentioned terms. Reference is made, in particular, to: (i) the role of other international organisations, such as the European Space Agency (ESA), and of the member States, in shaping and carrying out EU space policy (ii) the nature of EU space competence as designed in the Treaties and the different procedures applicable respectively to civil and security/defence aspects of space. Recent practice shows that EU is striving to overcome such limits, with a view to equip its own space policy with the necessary tools to address security and defence challenges of the Union and of the Member States. The *Insight* gives account of such recent practice and singles out the main developments which allowed the EU legal system to cope with the above-mentioned difficulties, in order to realize a shift from a purely scientific/commercial approach to space policy to a more strategic one, where security and defence interests of the EU and of the Member States are taken into account and possibly addressed.

KEYWORDS: Strategic autonomy – Space policy – EU Space Programme – EUSPA - Common Foreign and Security Policy – Defence

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I. INTRODUCTION

The concept of strategic autonomy, originated within the defence sector,¹ has developed as a general driver of Common Foreign and Security Policy (CFSP) since its elaboration within the 2016 Global Strategy.² Nowadays, it transcends its original scope of application, and is generally used to describe the EU attitude in shaping its own policies in several fields, in order to address increasingly complex global challenges, such as fast technological development, redistribution of power, contestation of international law and governance models, increased use of economic tools for geopolitical goals, growing conflictuality in international relations.³ In a sociological perspective, the concept probably helps “branding” the process of a shift in EU global role, from a normative power acting on grounds of its values and principles (including market principles), to a geopolitical actor, more keen to a “realistic” approach to international relations.⁴

While the concept is in itself characterized by a certain degree of ambiguity, it is widely acknowledged that “autonomy” should not be confused with isolation, full independence, unilateralism or autarky,⁵ but refers to the ability of the EU to set its own priorities and define its core (i.e. strategic) interests, being prepared to pursue them, if necessary on its own.⁶ In this context, the adjective “strategic”, once again borrowed by the war language, plays the role to identify matters relating to, or affecting the, “core interests of [our] political community”.⁷

In terms of policy making, the concept of Strategic autonomy seems to entail, at least, the need to focus on “things we need the most” (i.e. areas of regulation and political action which incorporate or help to pursue strategic interests of our society) and to manage interdependencies in such fields, where dependency/interference from third countries is perceived as a threat to the capacity of EU to protect its values, its interests and those of its citizens.⁸ This implies both (i) strengthening strategic deficiencies of EU economy and society, by supporting the development of autonomous EU capabilities in certain sectors,

¹ The first official EU document containing the expression “strategic autonomy” is the European Council Conclusions EUCO 217/13 of 19-20 December para. 16.

² European External Action Service, ‘Shared Vision, Common Action: A Stronger Europe – A Global Strategy for the European Union’s Foreign and Security Policy’ (2016) eeas.europa.eu.

³ N Helwig and V Sinkkonen, ‘Strategic Autonomy and the EU as a Global Actor: The Evolution, Debate and Theory of a Contested Term’ (2022) *European Foreign Affairs Review* 1, 2.

⁴ N Helwig, ‘The Ambiguity of the EU’s Global Role: A social Explanation of the Term “Strategic Autonomy”’ (2022) *European Foreign Affairs Review* 21.

⁵ N Tocci, ‘European Strategic Autonomy: What it is, Why we Need it, How to Achieve it’ (26 February 2021) *Istituto Affari Internazionali* www.iai.it.

⁶ Council of the European Union ‘Strategic Autonomy, Strategic Choices’ (5 February 2021) www.consilium.europa.eu.

⁷ D Fiott, ‘The European Space Sector as an Enabler of EU Strategic Autonomy’ (16 December 2020) www.europarl.europa.eu.

⁸ N Tocci, ‘European Strategic Autonomy: What it is, Why we Need it, How to Achieve it’ cit.

and (ii) protecting EU society, infrastructure and industry from threats coming from third Countries or, in any case, from the global context.

Provided that a definition of what is strategic for a certain community may vary depending also on contingencies and political evaluations, a legal reference for the identification of assets considered fundamental for the EU and the Member States on grounds of security and public order is found in Regulation (EU) 2019/452 establishing a framework for the screening of foreign direct investments into the Union (hereinafter, the “regulation”).⁹ In particular, according to art. 4 of the regulation, a foreign investment may be considered a risk for security and public order, if it affects one of the following assets: critical infrastructures (e.g. energy, transport, water, health, communications, aerospace, defence, etc.), critical technologies and dual use items (e.g. artificial intelligence, robotics, energy, aerospace, defence, etc.), supply of critical inputs (such as energy, raw materials and food), access to sensitive information, freedom and pluralism of media. Furthermore, the Annex to the regulation contains a list of “programmes of Union interest”, considered essential for security and public order, pursuant to art. 8 of the same regulation. It is not a surprise that the aerospace sector is repeatedly mentioned among the critical infrastructures and technologies for the Member States, and components of the EU space programme are listed among the “programmes of Union interest” under art. 8 of the regulation.¹⁰ Space services operators are also qualified as critical entities under the Directive (EU) 2022/2557 on the resilience of critical entities.¹¹

As it will be explained in more details below, not only space policy is essential to the implementation of several other EU sectoral policies, but space application is also a fundamental technology contributing to the security and defence of the Union (§ 2). This is in particular due to the dual use nature of space related items and infrastructure, i.e. the possibility to use them for both civil and military purposes. As a consequence, EU space policy is an important field of action in the pursuit of EU strategic autonomy, including its original defence dimension, *inter alia* as regards the need to protect EU space infrastructures from external threats and to strengthen EU capacity to act in the space domain for security and defence purposes.

However, some complexities exist in the governance of EU space policy, which may affect its ability to deliver in the above-mentioned terms. Reference is made, in particular, to: (i) the role of other international organisations, such as the European Space Agency (ESA), and of the member States, in shaping and carrying out EU space policy (ii) the nature of EU space competence as designed in the Treaties and the different procedures applicable respectively to civil and security/defence aspects of space. Recent practice shows that EU is striving to overcome such limits, with a view to equip its own space policy with the necessary tools to address security and defence interests of the Union and of the Member States.

⁹ Regulation (EU) 2019/452 of the European Parliament and of the Council of 19 March 2019 establishing a framework for the screening of foreign direct investments into the Union.

¹⁰ See Annex to the regulation, programmes n. 1, 2, 3, 4.

¹¹ Directive 2022/2557/EU of the European Parliament and of the Council of 14 December 2022 on the resilience of critical entities and repealing Council Directive 2008/114/EC.

The purpose of the present *Insight* is to give account of such recent practice and single out the main developments which allowed the EU legal system to realize a shift from a purely scientific/commercial approach to space policy to a more strategic one, where security and defence interests of the EU and of the Member States are taken into account and possibly addressed, coping with the above-mentioned legal features. To this purpose, after having clarified the relevance of EU space policy in the pursuit of EU strategic autonomy (§ II), the *Insight* shall examine the above mentioned institutional and material complexities of EU space policy governance (sections III and IV). Then, it shall analyse how such complexities have been addressed in the practice: by integrating security and military requirements within EU space infrastructure and developing new space capacities in strategic sectors, such as space situational awareness (SSA) and ultra-secure satellite communications (section V)¹² and by adjusting the EU-ESA relationship and the management of EU space programmes (section VI). It is argued that, while a lot still needs to be done in the construction of common defence capabilities, patterns developed within EU space policy, also in view of the special property regime of the space infrastructure developed by the Union, may constitute a proxy for future developments within the Common security and defence policy (CSDP).

II. SPACE AS ENABLER OF EU STRATEGIC AUTONOMY

The current geopolitical context places EU space policy at the centre stage in the pursuit of strategic interests of the EU and the Member States for several reasons. In the first place, space is a critical asset for civil and economic life of the EU and its citizens: our societies depend to a large extent on space technologies, applications and related services. EU space programmes such as Copernicus, Galileo and European Geostationary Navigation Overlay Service (EGNOS) provide geo-localization and earth observation services which strengthen the EU capacity to do alone certain things and to pursue its own interests (e.g. monitoring greenhouse emissions, managing borders, developing digital economy, countering crime, monitoring transport, providing weather forecast, supporting agriculture, etc.). Indeed, space technology, infrastructures and services are today essential to support and implement several EU sectoral policies, having an impact on essential features of our collective living. This makes our societies particularly vulnerable to irresponsible behaviour of other actors in this domain and imposes to secure space infrastructure, which is increasingly exposed to attacks (including cyber-attacks).¹³

¹² The security/defence dimension of the latter assets is clear if one considers that (i) SSA is instrumental to detect and warn against space collisions (weather intentional or not) (ii) satellite communications ensure secure connectivity among Member States, including governmental communication in early warning or crisis situations, besides having a positive impact on EU political influence on third countries beneficiaries of the new services.

¹³ Joint Communication JOIN(2022) 49 final from the Commission and the High Representative of the Union for foreign affairs and security policy of 10 November 2022 on Policy on Cyber Defence.

Secondly, space is a technological frontier, whose development contributes to EU's economic growth, digital transition, connectivity, resilience, and non-dependence. The emergence of the private sector in the conduction of space-related activities and services is offering new commercial opportunities in a globally competitive environment. The EU cannot fail to support the EU supply chain for space-related goods and services and strengthen EU launch capabilities. This has an impact also on the capacity of the EU to have safe, secure and autonomous access to space, which is essential to ensure its freedom of action in this domain.

Finally, and in connection with the point just mentioned, space is an increasingly contested geopolitical domain.¹⁴ Not only it is a potential theatre of operations,¹⁵ but it is also a strategic enabler of several security and defence activities on earth.¹⁶ For example, crisis management (weather civil or military), depend to a large extent on space-based services (precise positioning, communication, meteorological, geospatial and imagery services, etc.), whose disruption would cause a considerable harm to our capacity to react to security threats. In this respect, also in response to other powers' race to the militarization of space, a pressing need is felt to "enhance the security and defence dimension of the Union in space".¹⁷

While tools developed within the research, industrial and commercial policies of the EU may contribute to address industry related challenges,¹⁸ security and defence aspects require at least some convergence of EU space policy towards goals typical of Common foreign and security policy (CFSP). However, this is not easy to achieve, due to the way in which this policy has been traditionally governed at EU level and to the nature of EU competence in this domain.

III. INSTITUTIONAL COMPLEXITIES OF EU SPACE GOVERNANCE: THE ROLE OF ESA AND OF THE MEMBER STATES

In order to understand the strategic implications of the role of ESA and the Member States in the governance of EU space policy, it is useful to provide some background information on the origin of European cooperation in space and its current functioning.

¹⁴ Communication COM(2022) 60 final from the Commission of 15 February 2022 Commission contribution to European Defence 10.

¹⁵ See, for a recent account of the military use of space, D Mauri, 'Conflitti Armati e Spazio Extra-Atmosferico: Il Caso delle Armi Anti-satellite (ASAT)' in M Vellano, A Miglio (a cura di), *Sicurezza e Difesa Comune dell'Unione Europea* (Wolters Kluwer 2022) 293 ff.

¹⁶ Council of the European Union, A Strategic Compass for Security and Defence – For a European Union that protects its citizens, values and interests and contributes to international peace and security, Doc. 7371/22, 21 March 2022 (hereinafter "Strategic Compass").

¹⁷ *Ibid.* 23.

¹⁸ Reference is made, for example, to the financing of space and defence industries under the single hat of the new DG defence, industry and space, as well as the screening of foreign investments in this sector under the mentioned Regulation 2019/452 cit.

III.1 ESA AS A TOOL OF EUROPEAN SPACE COOPERATION

Originally, the Treaties did not provide for any competence of EU institutions in the realm of space. Space policy was in the hands of the Member States, which would cooperate at international level within different organisations. In particular, the ESA was established in Paris in 1975, as the result of the merger of two previously existing international organisations: the European Space Research Organisation (ESRO) and European Launcher Developer Organisation (ELDO).¹⁹

ESA is an autonomous international organisation, whose membership only partially overlaps with that of the EU. Of its 22 States parties, 19 are also EU Member States, while 3 of them are not (United Kingdom, Switzerland, Norway). While all EU Member states which are not parties of ESA have today established formal cooperation with the organisation under art. XIV of the ESA Convention,²⁰ other third countries, such as Canada, are allowed to cooperate in some ESA programmes, by virtue of similar cooperation mechanisms.

ESA policies, programmes and resources are decided by the Council of Ministries of ESA (art. XI ESA Convention). Mandatory programmes are funded by all its members according to their GDP, while optional programmes are funded “à la carte” by interested members (art. V ESA Convention). Interestingly, the ESA Convention provides for the so called “fair return” rule: the percentage of funds invested by a country in a given programme is then redistributed in contracts to its industries.²¹

Thus clear that ESA is a flexible tool of national (and European) industrial policy, ensuring steady public investments in space. Furthermore, ESA provides its members with highly qualified technical capabilities, necessary to carry out the operational phase of space programmes developed within the organisation. Such programmes may have scientific purposes (i.e. exploration of the universe) or pursue the use of space to improve life on earth (i.e. space application). In both cases, the nature of ESA cooperation is limited to “exclusively peaceful purposes” (art. II ESA Convention), such clause having been interpreted restrictively by ESA members, so as to preclude, for around two decades from its establishment, the involvement of the organisation in any security (not to say military) aspects of space.²²

¹⁹ Convention for the establishment of a European Space Agency, signed in Paris in 1975 and entered into force on 30 October 1980, The European Space Agency, *ESA Convention* www.esa.int.

²⁰ Slovakia, Slovenia, Latvia and Lithuania are associate members, while Bulgaria, Croatia, Cyprus and Malta have a cooperation agreement with ESA, The European Space Agency, *Member States & Cooperating States* www.esa.int.

²¹ Art. VII, ESA Convention. On the clashes of the “fair return” rule with internal market rules see, among others, R Hansen, J Wouters, ‘Towards an EU Industrial Policy for the Space Sector’ (KU Leuven Working Paper 149-2015).

²² However, security-sensitive issues of space technology development, such as limitations to technology transfers to non-ESA Members or security derogations to information sharing obligations, were tackled since the beginning. See for example, art. III, and XI.5.j and XXIII ESA Convention. Extensively on these issues, FG von der Dunk, ‘Europe and Security issues in Space: The Institutional Setting’ (2010) Space, Cyber and Telecommunications Law Program Faculty Publications 71; on the peaceful nature of cooperation in

III.2 THE EU-ESA RELATIONSHIP AND ITS STRATEGIC IMPLICATIONS

At the end of the 80's, the EU integration process started to develop an interest in space policy, despite the lack of an express competence in this sector. By the time, it started to be acknowledged that independent and reliable access to space was a goal to be pursued, at least partially, at EU level.²³ The transformation of the geopolitical landscape following the fall of the Soviet Union, which determined a global reduction of public funding to the space industry, and the approaching transition towards the global information society, fuelled the interest of the EU to support the development of new commercial services based on space applications, such as satellite personal communications, multimedia, navigation, etc.²⁴ In this perspective, the EU lacking the necessary technical capabilities to design and develop its own space programmes, ESA became its natural partner for the realization of the first two EU flagship space programmes. EU asked ESA to develop Galileo (and EGNOS), providing the EU with a space infrastructure for satellite navigation, and Copernicus (former Global monitoring for environment and security-GMES),²⁵ aimed to provide EU with Earth observation data.²⁶

The subsequent conclusion of the 2003 Framework agreement between the two organisations is the confirmation of a strategic partnership between the supply side of space systems (ESA) and demand side of the same (the Union).²⁷ The 2003 Framework agreement was concluded for four years and automatically renewed for following periods of four years. Cooperation is still today based on joined institutions such as the Space Council,

space during the Cold war, see N Klimburg-Witjes, 'Shifting Articulations of Space and Security: Boundary Work in European Space Policy Making' (2021) *European Security* 526.

²³ Communication COM(88) 417 final from the Commission of 26 July 1988 on the Community and Space: a coherent approach. The first legal step of (former) Community into the space sector was primarily as a regulator of services deriving from space applications, under the umbrella of the internal market competence, see FG von der Dunk, 'European Space Law' in FG von der Dunk, F Tronchetti (eds), *Handbook of Space Law* (Edward Elgar 2015) 205, 239 ff.

²⁴ Communication COM(96) 617 final from the Commission of 4 December 1996 on the European Union and Space: fostering applications, markets and industrial competitiveness. Indeed, market-oriented application of space would soon become the bulk of business and employment in Europe and worldwide. Interestingly, in 2004, under the Barroso Commission, space policy was transferred from the Commissioner for Research, to the Commissioner for Industry, see V Reillon, 'European Space Policy, Historical Perspective, Specific Aspects and Key Challenges' (30 January 2017) www.europarl.europa.eu.

²⁵ Regulation (EU) 377/2014 of the European Parliament and of the Council of 3 April 2014 establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010, today repealed by Regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU.

²⁶ See, F Munari, 'Il Programma GMES. Un Laboratory Case per Testare le Nuove Frontiere (Spaziali) del Diritto dell'Unione Europea' (2009) *Diritto dell'Unione Europea* 563.

²⁷ Decision 578/2004/EC of the Council of 29th April 2004 on the conclusion of the Framework agreement between the European Community and the European Space Agency 63-68.

where both ESA and European Commission representatives are involved, a joined Secretariat and a high-level space policy group. Yet, until recently, the terms of cooperation (ESA managing a project of the EU, EU participating in ESA optional program, creation of joint subsidiary bodies, etc.) were defined by *ad hoc* arrangements for each project.

It should be noted that the mentioned agreement did not create a leadership role for the EU in shaping European space policy, being based on the assumption of the technical superiority of ESA in space issues.²⁸ A clear illustration of the just mentioned situation is that the two main EU space programmes, Galileo and Copernicus, though fully owned, managed and mainly funded by the EU, are operated by ESA only, the latter holding the necessary capabilities to perform this task. In this perspective, ESA certainly remains the EU “gateway” to space, in terms of scientific and technical capacities. Yet, the EU-ESA cooperation is not exempt of difficulties. For our purposes, in particular, the asymmetry between ESA and EU membership mentioned above (section III.1), and more precisely the participation to the former of States not party to the EU, brought about some problems when sensitive information for the essential interests of the Union or the Member States had to be dealt with, within EU-ESA cooperation.

III.3 THE ROLE OF THE MEMBER STATES

Besides the programmes developed through EU-ESA cooperation, national space agencies of the member States continue to carry their own space programs and activities, also within ESA. Suffice it to mention that, in 2022, only 28.4 per cent of ESA budget was based on EU income, while more than 64 per cent of ESA budget came from individual ESA members, the three major ESA funders being Italy, Germany and France.²⁹ This shows that EU cooperation with ESA and the related development of EU space programmes do not preclude Member States to pursue their own national space policy, in parallel that of the EU, provided that the principle of loyal cooperation is complied with. This division of competences among EU and the Member States in the space issues is reflected and confirmed by the shared and “parallel” nature of EU space competence, as framed by the Lisbon Treaty.³⁰

Furthermore, Member states retain a fundamental role as regulators of space related activities, due to the “harmonization” limit of EU space policy competence. Indeed, while EU space policy ex art. 189 TFEU allows “joint initiatives, support [to] research and technological development and coordinat[ion of] the efforts needed for the exploration and exploitation of space”, EU cannot harmonize national legislations in the space sector. This, in turn,

²⁸ FG von der Dunk, ‘European Space Law’ cit.

²⁹ Budget 2022 ESA activities and programmes, available at: The European Space Agency, *ESA Budget 2022* www.esa.int.

³⁰ The express conferral of a space policy competence by the Lisbon Treaty consolidated the legal basis of the long-lasting action of EU in the sector. *Ex multis*, S Marchisio, ‘La Politica Spaziale Europea: una Competenza dell’Unione Ancora da Definire’ in N Parisi e altri (a cura di) *Scritti in onore di Ugo Draetta* (Editoriale Scientifica 2011) 377 ff.

leaves to the Member States the power (and responsibility) to adopt national legislation *inter alia* in new emerging areas of space regulation, such as exploitation of space resources or space traffic management, and undermines the efforts for the adoption of a common regulatory approach at EU level, unless other EU competences are relied upon.³¹

It is thus clear that space competences and capabilities at European level are divided in several different layers governance, not all of which are fully controlled by the EU, with a negative impact on the EU capacity to pursue strategic autonomy in this domain. This is even more so when security and defence implications of space are at stake, as the next paragraph shall try to explain.

IV. THE MATERIAL COMPLEXITIES OF EU SPACE GOVERNANCE: THE CIVIL/MILITARY NEXUS AND THE DIFFERENT LEGAL BASIS APPLICABLE TO CIVIL AND SECURITY ASPECTS OF SPACE

In space faring nations, civil and defence aspects of space have traditionally been linked and tackled together.³² However, the Treaties place EU space policy among TFEU competences and, as a matter of facts, EU space assets are under civil control.³³ On the contrary, security and defence remain an exclusive competence of the Member States (art. 4(2) TEU). After the entry into force of the Maastricht Treaty, member States can coordinate certain aspects of their national security and defence policies under the framework of Common foreign and Security Policy (CFSP). Yet, also in this context, domestic competences are safeguarded by the unanimity rule required by the Treaties for the adoption of CFSP decisions (art. 24 TEU). Furthermore, the non-interference clause provided for by art. 40 TEU precludes incursions of TFEU competences into CFSP procedures and, thus, also protects national security competences from unwanted “communitarisation”. Probably, preventing the involvement of the former Community in sensitive questions related national security is among the reasons why, as mentioned above, the Treaties originally avoided to provide EU institutions with competences in space policy.

It could therefore be argued that, within the EU (but also within ESA) the inevitable relationship between space activities and security/defence issues is “artificially” removed from international cooperation frameworks. This legal *fictio* does not help to implement

³¹ See, as regards space traffic management, Joint Communication JOIN(2022)4 from the Commission and the High Representative of the Union For Foreign Affairs and Security Policy of 15 February 2022, An EU Approach for Space Traffic Management, An EU Contribution addressing a global challenge. Reliance on internal market legal basis has been proposed as a way to overcome the harmonization limit of art. 189 TFEU competence, see M Barbano, ‘Space Traffic Management and Space Situational Awareness: The EU Perspective’ (2022) Air and Space Law 451, 464.

³² V Reillon, ‘European Space Policy, Historical Perspective, Specific Aspects and Key Challenges’ cit. 29

³³ Communication COM(2016) 705 final from the Commission of 26 October 2016, Space Strategy for Europe.

the security and defence dimension of EU space policy, which is central to strategic autonomy (above, section II).

In this context, at least in principle, civil and security/defence aspects of space policy remain covered by different legal basis: while art. 189 TFEU competence is exercised, and managed by the Commission, in order to develop and fund new space infrastructures and capacities at EU level, the use of military/security space capabilities to react to security threats can only be coordinated under CFSP competence. Absent such coordination, the decision to deploy space capabilities for security purposes rests on the Member States.³⁴ This is surprising with reference to security threats to, or deriving from, the use of the various components of EU Space Programme, which is the first, and so far only, critical infrastructure owned by the EU (*infra* section VI). In this regard, it makes sense that Council Decision (CFSP) 2021/698 lays down the responsibilities of the Council and the High Representative in case they are informed by the competent security monitoring authority of the existence of a threat to, or deriving from the use of, the EU Space Programme components. The Council, acting unanimously upon a proposal from the High Representative, decides on the necessary instructions to the appointed security monitoring structure. If the urgency of the situation requires immediate action, the High Representative is authorised to issue the necessary provisional instructions. The Council and the Commission are immediately informed, and it is up to the Council to modify or revoke them as soon as possible.

The above-mentioned mechanism allows to respect the procedures provided for under CFSP as regards the exercise of security competences, while at the same time recognizing the role of EU space infrastructure developed under art. 189 TFEU in responding to security threats. The provision of powers of EU institutions to decide, in accordance with intergovernmental decision-making procedures – yet with a certain degree of autonomy in cases of urgency – actions relating to the EU Space Programme for security response purposes is a relevant example of a security capacity put, to a certain extent, under the control of EU institutions.

V. TACKLING MATERIAL COMPLEXITIES: IMPROVING THE SECURITY/DEFENCE REQUIREMENTS AND USES OF EU SPACE INFRASTRUCTURE

A way to tackle the civil military/nexus, without affecting the above-mentioned system of competences, is the development of an EU space infrastructure (under art. 189 TFEU competence) suitable to address (also) the security and defence needs of the EU and of the member States.

³⁴ Communication COM(2016) 705 final cit. 10; European External Action Service, 'Shared Vision, Common Action: A Stronger Europe – A Global Strategy for the European Union's Foreign and Security Policy' cit.

A after the entry into force of the Maastricht Treaty, although it was still acknowledged that “it is not within the Commission's remit to consider the military aspects of space technology applications”, the Commission started to accept “the need to ensure the convergence of civil and military effort in order to avoid duplications and make the best use of the public funding”.³⁵

Correspondingly, some years later, the Council officially addressed the importance of space for the defence dimension of the Union, identifying a list of areas where space could improve European defence capabilities.³⁶ In other words, it was necessary to exploit the synergies between existing (officially civil, but clearly strategic in nature) EU space programmes (Galileo/EGNOS and Copernicus) and defence/security needs of the EU and of the Member States.³⁷

In this perspective, ESA activities carried out in the implementation of EU space programmes started to be contaminated with security demands on the part of the EU.³⁸ Thanks to the Administrative agreement formalized between ESA and European Defence Agency (EDA),³⁹ ESA was provided with the necessary military/security requirements for the development of space components and services dedicated to security users within the Union.⁴⁰

In the Lisbon aftermath, following some resolutions of the Space Council, this approach was brought a step further: the Commission engaged in the organisation of two additional space programmes, with a strong strategic/security dimension: the SSA⁴¹ and the Governmental Satellite Communication (GOVSATCOM). Both initiatives are based on the initial pooling and sharing of national capabilities of contributing Member States.

³⁵ Communication COM(96) 617 cit.

³⁶ European space policy: ESDP and space from Council of the European Union 11616/3/04 REV 3 of 16 November 2004.

³⁷ N Klimburg-Witjes, ‘Shifting Articulations of Space and Security: Boundary Work in European Space Policy Making’ cit. See also Communication COM(94) 248 final from the Commission of 14 June 1994 Satellite navigation services: a European approach; A Kolovos, ‘Strengthening Links Between European Union Space and Defence: Adopting a Combined Approach’ (2023) Space Policy 526.

³⁸ This was possible thanks to the adoption of a more liberal interpretation of the “peaceful purpose” clause of the ESA Convention, as including defensive (vs. offensive) aspects of security, FG von der Dunk, ‘Europe and Security issues in Space: The Institutional Setting’ cit. 76.

³⁹ Administrative agreement between the European Defence Agency and the European Space Agency concerning the establishment of their cooperation, Council of the European Union, 10085/11, 12 May 2011.

⁴⁰ On the side of the industrial policy, EDA is also involved in the joint taskforce on critical space technologies for European “non-dependence”. The aim was the coordination of public fundings in technological areas critical for EU space programmes, with limited commercial prospects and currently provided by non-EU enterprises, with a view to reduce the dependence from foreign countries in strategic areas. I Oikonomou, ‘The European Defense Agency and EU Military Space Policy: Whose Space Odyssey?’ (2012) Space Policy 102.

⁴¹ The beginning of work on SSA is marked by Communication COM(2011)152 from the Commission of 4 April 2011, Towards a space strategy for the European Union that benefits its citizens; in the meanwhile next generation satellite communications started to become integral part of European defence capabilities discourse, see Communication COM(2013) 542 final of 24 July 2013 Towards a more competitive and efficient defence and security sector.

Within the former, the Space Surveillance and Tracking (SST) support framework was created, with the aim to networking national SST (civil and military) assets to monitor space debris.⁴² The result was the establishment of the EU SST consortium, involving seven member States (France, Germany, Italy, Spain, Poland, Portugal and Romania) which would voluntarily supply their civil and military monitoring capabilities, in cooperation with the EU Satellite Centre (SATCEN). The initiative is destined to expand its scope under regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme (hereinafter, “Space regulation”),⁴³ with a clear vocation to protect the security of European space-related assets, both in orbit and on the ground, from potential threats generated by collision with man-made objects.⁴⁴

As regards GOVSATCOM, it aims to enable a resilient and robust governmental satellite communications capability to the Union and the Member States authorities managing security critical missions (crisis management, including civil or military CFDP missions, humanitarian crisis, maritime emergencies, border surveillance, etc.) or infrastructures (diplomacy, police, digital infrastructure, energy, transport or space infrastructure, etc.). The implementation of GOVSATCOM, prioritized in several policy documents since 2016, started in 2021 under the Space regulation (*infra* section VI).

As the Commission acknowledged, the (artificial) divide between military and civil aspects of space activities is a cost that the “Europe can no longer afford”.⁴⁵ This is even more so, under the “mantra” of strategic autonomy. Yet, the “strategic shift” of EU space policy still needed to address some institutional issues relating to the management of EU Space Programme developed in cooperation with ESA.

VI. ADDRESSING INSTITUTIONAL COMPLEXITIES: THE SINGLE EU SPACE PROGRAMME AND THE EU SPACE PROGRAMME AGENCY (EUSPA)

While the EU-ESA relationship is still key to the success of European space policy,⁴⁶ the pursuit of strategic autonomy seems to have led the EU to increase the internalization (within the EU institutional framework) of functions relating to the management of EU Space Programme, as well as to impose additional controls and obligations on ESA, when it carries out activities on behalf of EU.

⁴² Decision 541/2014/EU of the European Parliament and of The Council of 16 April 2014 establishing a Framework for Space Surveillance and Tracking Support. See, L Ciarravano, ‘The European Space Situational Awareness Capability: A Legal Perspective’ in *Liber Amicorum Sergio Marchisio. Il diritto della Comunità internazionale tra caratteristiche strutturali e tendenze innovative* (Editoriale Scientifica 2022) 1011.

⁴³ Regulation (EU) 2021/696 cit.

⁴⁴ The SSA concept also includes other areas of space hazards monitoring, such as monitoring of space weather phenomena (SWE), and near earth (natural space) objects (NEO). See Joint Communication JOIN(2022) 4 cit.

⁴⁵ Communication COM(2013) 542 final cit.

⁴⁶ Communication COM(2016) 705 final cit.

The Space regulation adopted in 2021 lays down the budget 2021-2027 for the newly established EU Space Programme, under which all existing EU space components are continued, improved and supported. It should be noted that, among the five global objectives set by art. 4 of the Space regulation, two of them expressly pertain to the “safety and security of the Union and the Member states and ...autonomy of the Union, in particular in terms of technology” (art. 4(1)(c)), as well as “safety, security and sustainability of all space activities pertaining to space objects and debris proliferation” (art. 4(1)(e)). In this vein, the security components of SSA and GOVSATCOM form integral part of the Programme, improved and implemented within it. The space package adopted by the Commission on 15 February 2022, including the proposal for a secure connectivity programme, covering the launch of a new constellation of EU satellites (IRIS) for secure communications, and the new approach to space traffic management, builds upon such components, stressing their critical nature for defence purposes.⁴⁷

The Space regulation acknowledges expressly that, due to the dual use nature of the Programme, achieving and maintaining a high degree of security is a key priority (Recital 51). The Union is the owner of all tangible and intangible assets created or developed under the Programme’s components (art. 9), save the authority and control of Member States over national sensors or other structures involved within it. It is up to the Commission to implement, together with the overall Programme, its security structure (art. 30). This shall include the protection of infrastructure from both physical and cyberattacks, the control of technology transfer, the development and preservation of competence and know how acquired within the Union, the protection of classified or in any case sensitive information. In order to do this, the Commission shall take account of the experience of the Member States, and respect their competences, drawing inspiration from their best practices in the field of security. Furthermore, security rules of the Council and the Commission shall apply, including the separation between operational functions (delegated to ESA or other entities) and accreditation ones (entrusted upon the new EUSPA). The Commission shall also ensure that all entities involved in the implementation of the Programme “protect the interest of the Union” (art. 28(3)). The “protectionist” language is also reflected in limits to the admission of third country enterprises to procurement procedures within the Programme (art. 34).

As regards the relationship with ESA, the governance system has been simplified by the signature of a single Financial framework partnership agreement (FFPA), defining the roles and responsibilities of all partners (the European Commission, ESA and the new EUSPA) in each component of the program and the necessary coordination and control mechanisms. As provided for in art. 31 of the Space regulation, the FFPA signed on 22

⁴⁷ Proposal COM(2022) 57 final of the Commission of 15 February 2022 for a regulation of the European Parliament and of the Council establishing the Union Secure Connectivity Programme for the Period 2013-2027; Joint Communication JOIN(2022) 4 cit.

June 2021⁴⁸ requires ESA to apply EU security rules, in particular with regard to the management of classified information, as well as to apply EU procurement rules when procuring in the name and on behalf of the Union,⁴⁹ to respect certain rules in the management of EU funds and to take “appropriate measures to ensure the protection of the interests of the Union and comply with decision taken by the Commission for each of Programme’s components”.⁵⁰

The above obligations stem from the need to preserve the compatibility of ESA activities with EU legal system and strategic interests, in a context where ESA is not a Union agency, but rather a third-party organisation to which also third countries participate. In particular the issue of who can access information relating to, or generated within, the components of EU Space Programme is one of the main strategic aspects that the above-mentioned provisions aim to address.⁵¹

In this perspective, the creation of EUSPA, which replaces and succeeds the former European GNSS Agency established by Regulation (EU) No 912/2010, is expression of the intent of the Union to separate politics, including security accreditation of all EU actions in space, from technical aspects, including design, development, construction, operation and deployment of space infrastructure.⁵² Only the latter can be left to ESA, while politically sensitive aspects have to be dealt with in an EU-only institutional framework and controlled through legal obligations imposed upon ESA. It cannot be excluded that, in the future, EUSPA will take over some further ESA functions, once developed the necessary technical capacities. No doubts that its establishment marks a watershed in EU approach to space governance.

VII. FINAL REMARKS

At EU level, the shift from a purely scientific/commercial to a more strategic approach to space issues went in parallel with the increasing European integration in the security and defence sector, from Maastricht onwards. Despite the alleged purely civil nature of the Galileo and Copernicus programmes, their establishments as EU funded and owned space programmes at the end of the 90’s cannot have occurred without the awareness of their strategic potential. Today, the language of the new Space regulation leaves no doubts in this regard: the critical and dual use nature of EU space infrastructure requires

⁴⁸ See The European Space Agency Press release 20/2021 of 22 June 2021, *ESA and EU celebrate a fresh start for space in Europe* www.esa.int.

⁴⁹ See, for a challenge of ESA tendering procedures in the context of Galileo Programme, recently case T-54/21 *OHB System v Commission*, ECLI:EU:T:2023:210.

⁵⁰ Art. 31 Regulation 2021/686 cit.

⁵¹ See recently, J Wouters, G Pavesi, ‘EU-ESA Relations: “Appropriate” at Last?’ in *Liber Amicorum Sergio Marchisio. Il diritto della Comunità internazionale tra caratteristiche strutturali e tendenze innovative* cit. 1237.

⁵² N Klimburg-Witjes, ‘Shifting Articulations of Space and Security: Boundary Work in European Space Policy Making’ cit.

a “security by design” approach to the management and governance of EU Space Programme and some restructuring of EU-ESA relationship.

After all, among the objectives of European space policy, art. 189 TFEU includes the promotion of “the implementation of its [i.e. EU] policies”. It could be argued that CSDP is part of the policies whose implementation can be promoted through European Space Policy. In this vein, and correspondingly, the Strategic compass (i.e. a CFSP document) refers to space-related services provided for in the context of the Union’s Space Programme (such as secure satellite communications and SST), as a fundamental asset for the development of future European defence capabilities. Also considering the transversal nature of EU space competence, the above-mentioned evolution seems compatible with the Treaties, provided that the vertical division of competences in accordance with art. 4(2) TEU is preserved.⁵³

In this perspective, the joint adoption by the Commission and the High Representative, in March 2023, of the EU Space strategy for security and defence confirms the practice of convergence of space policy and CFSP goals, pursued *inter alia* through cooperative action of all institutions involved, in their respective competence domains.⁵⁴ The document explores very important new initiatives such as the establishment of a Single Intelligence Analysis Capability (SIAC), put under the High Representative and working along with Member States military and civilian intelligence services, in order to increase their strategic understanding of space threats and counterspace, the proposal for a future Union Space Law, aimed to enhance the level of resilience of space systems and services in the EU, and the idea to extend the scope of application of the mentioned Council Decision (CFSP) 2021/698 to all space threats that may affect the security of the EU. Surely, legal questions on each of the above-mentioned initiatives are not fading and on these issues, we will have to continue to work.

While times (and Treaties) are not ripe for the adoption of a Space security and defence strategy proper, it should not be excluded that patterns developing in the space sector may work as a proxy for future progresses of CSDP, including the possible establishment of “common defence” capacities, under art. 42(2) TEU.

⁵³ See, on these issues, also with regard to other competences, S Poli and E Fahey, ‘The Strengthening of the European Technological Sovereignty and its Legal Bases in the Treaties’ (23 May 2022) *Eurojus rivista.eurojus.it* 147.

⁵⁴ Joint Communication JOIN(2023) 9 final from the Commission of 10 March 2023 to the European Parliament and the Council European Union Space Strategy for Security and Defence.

