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1. SOME CONSIDERATIONS ON THE PROCESS TO ESTABLISH A SECURE CONNECTIVITY IN THE EUROPEAN UNION

1. *Introduction*

In recent weeks, public debate has been fueled by the news that the Italian government was looking to enter into a €1.5 billion deal with SpaceX to buy Starlink secure communications services. It was followed by a public message from Elon Musk who wrote he was ready to provide Italy with the most secure and advanced connectivity.

Although the Italian government did not confirm this scenario, the possibility of a deal provoked strong reactions and controversy. As is well known, in fact, the SpaceX constellation, a non-EU satellite internet service provider, represents a near monopoly of satellites in Low Earth Orbit that could compete with the European Union's IRIS^2 project. Moreover, SpaceX already has some 6,500 satellites in low Earth orbit, with plans to add tens of thousands more, while the IRIS^2 project has just been launched.

Given the relevance of the issue, several Members of the European Parliament from different political groups have submitted a number of written questions to the Commission (here, here, here, here) asking how it intends to deal with the situation where some Member States decide to enter into multi-year contracts with SpaceX, which could use its current dominant position to pre-empt the potential market for an emerging European project such as IRIS^2. In sum, they were concerned about the risks of outsourcing critical infrastructure, in particular information and data infrastructure, to SpaceX; the negative impact of this deal with the EU's strategic autonomy plan; the possibility that all secure communications with the government of an EU Member State and between it and the Commission, including confidential communications, would be controlled by a foreign national. Furthermore, questions were also raised about the Italian project's compatibility with the objectives of the Recovery and Resilience Facility on digital sovereignty. In particular, the Commission was asked to explain, in the light of art. 18 of Regulation 2021/241, how it intends to evaluate a potential request to include SpaceX technologies in Italy's NRRP and ensure that the required security self-assessment – based on objective common criteria – properly addresses risks posed to digital sovereignty and data management by a non-EU company.

Leaving aside any political aspect, which are not relevant here, the affair provides an opportunity to reflect on the EU regulatory framework for secure connectivity.

Indeed, it is well known that the development of secure connectivity is a key objective of the EU for a variety of reasons, ranging from defence to market, and has attracted significant investment from EU institutions and Member States.

In particular, this paper will briefly focus on Regulation 2023/588 establishing the Union Secure Connectivity Programme for the period 2023-2027 and its implementation since its adoption.

2. *The Secure Connectivity Programme within the EU Competence in the Field of Space*

Space policy, as referred to in Article 189 of the TFEU, is a fundamental component for the strategic autonomy of the EU, as demonstrated by the creation of the Agency for the Management of the Union's Space Programme. This is stressed also in the Strategic Compass for Security and Defence, which calls for the development of an EU Space Strategy for security and defence. In this sense, as underlined by scholars, there are several synergies between space programmes for civil purposes and the protection of the Union's security. These include the programme for secure connectivity based on space technology, which pursues the Union's strategic objectives in both the civil and military fields (see C. CELLERINO, *La difesa europea dinanzi alla guerra in Ucraina tra "autonomia strategica" e vincoli strutturali: quali prospettive per la Difesa comune?*, in *Il diritto dell'Unione europea*, 2022, p. 28).

Indeed, Regulation 2023/588 is legally based on Article 189, par. 2 TFEU, and its objective is to establish a new Union programme to provide a Union multi-orbital satellite communication infrastructure for government use, complementing and integrating existing and future national and European capabilities within the GOVSATCOM framework, and to develop and integrate the "European Quantum Communication Infrastructure" initiative. In other words, this programme aims to provide the European Union with its own satellite constellation, called IRIS² (Infrastructure for Resilience, Interconnectivity and Security by Satellite), which will provide ultra-fast (low latency) and highly secure communications services by 2027. The security of these communications will be based on advanced encryption technologies, including quantum cryptography, a method that uses the properties of quantum mechanics to protect and transmit data in a way that makes it invulnerable to cyber-attacks.

The programme is therefore another piece in the mosaic that is the EU's space policy, which has developed within the limits imposed by the specific nature of this competence. Indeed, although the Lisbon Treaty has included space policy among the shared competences, it has a different configuration from the other shared competences because of two main reasons. Firstly, it is expressly provided the EU cannot take any legislative harmonisation, which is the instrument most commonly used in the field of shared competences; secondly, the principle of pre-emption set out in Article 2, par. 2, TFEU does not apply in the field of space, since Article 4, par. 3, TFEU provides that the exercise of this competence by the EU may not result in Member States being prevented from exercising theirs. It is therefore a so-called *sui generis*.

Regulation 2023/588 takes into account these limits and emphasises that, notwithstanding the provisions of Art. 4, par. 3 TFEU, it is appropriate for the Commission to ensure, as far as possible, the consistency of the activities carried out under the programme with those of the Member States, without creating unnecessary

duplication. Obviously, this is only a non-binding recommendation in a recital, the effectiveness of which depends on its actual implementation.

In any case, despite the *sui generis* nature of the competence, the EU has made great efforts over the years to develop a space policy that is as systematic and coherent as possible and not exclusively linked to economic issues. In this sense, the 2021 Space Programme is a clear sign of the European legislator's will to unify the Union's space policy, because it has brought together the EU's main space programmes within the framework of the MFF and has reorganised the institutional and organisational structure in the field of space, including the creation of the European Union Space Programme Agency. Also part of this unifying effort is the establishment, within the European Commission, of the Directorate-General for Defence Industry and Space (DG DEFIS). In regard was underlined that while the European Commission's previous space directorate (DG Enterprise and Industry) focused on space in order to stimulate European competitiveness in the high-tech sector and to promote positive spill-over effects in other industrial sectors, DG DEFIS manages the Commission's activities in these two areas in a more integrated way, overseeing the implementation of the EU's space programmes, which mainly consist of the European Earth Observation Programme (Copernicus), the European Global Navigation Satellite System (Galileo) and the European Geostationary Navigation Overlay Service (EGNOS) (S. MARCHISIO, *The Law of Outer Space Activities*, Roma, 2022, p. 243).

From the perspective of the EU's space policy, Regulation 2023/588 could thus be considered as a small segment of a *sui generis* competence that the EU is trying to pursue among many difficulties, and which is still highly fragmented. However, from the point of view of international space governance, it is an important achievement that helps to confirm the EU's position as a player in space activities at international level. Furthermore, it is an objective that the EU has been pursuing for a long time. In fact, as mentioned in the preamble of the Regulation, the European Council already in 2013 welcomed the preparation of satellite communications for governmental purposes through close cooperation between Member States, the Commission and the European Space Agency. These communications were identified as one of the elements of the overall Common Foreign and Security Policy strategy for 2016. Furthermore, the Strategic Compass on Security and Defence of 21 March 2022 invites the Union to work on the proposal for a space-based global secure communications system of the Union.

3. *Some consideration on Regulation 2023/588 and its implementation*

The objectives of Regulation 2023/588 are certainly ambitious and are unlikely to be easily achieved within the timeframe set out in the Regulation. In this respect, Art. 4 of the Regulation states that the programme should be fully operational by 2027. Instead, the Commission has so far signed a 12-year concession contract for the deployment of the IRIS2 constellation with the SpaceRISE consortium, which includes three leading European satellite network operators (SES SA, Eutelsat SA and Hispasat S.A), supported by a core team of European subcontractors from the satellite communications ecosystem, with the aim to develop, deploy, and operate the EU's new system, enabling both governmental and commercial connectivity services, only by 2030. The EU is funding the project with €6 billion, of which €2.4 billion will come from the 2021-2027 MFF and the rest from the 2028-2035 budget, while the European Space Agency (ESA)

and other private investors will match the funding with €500 million and €4.1 billion respectively.

However, regardless the three-year delay that has already been foreseen, the tight timeframe of the Regulation is due to the perceived urgency of the objectives it pursues, which is all the more urgent given the speed with which companies providing similar services, and therefore potential competitors to IRIS[2], such as Starlink, are strengthening their position.

It is clear, therefore, why the legislative process was relatively fast. In fact, the proposal was submitted on 16 February 2022 and the text was adopted at first reading, with few amendments, on 16 March 2023. During the legislative process, which was mainly informal and thus raised the issue of lack of transparency, Member States basically shared the idea that no single EU Member State would be able to meet all the evolving needs in this field on its own. Only a few countries highlighted some critical points. For example, Greece stressed the need for a fair balance in the distribution of the programme's capacities among the Member States and the absolute necessity to ensure the interoperability and complementarity of the Union's programme with relevant national activities, capacities and infrastructures in the preparation, development, implementation and management of the programme. Not even the national parliaments have shown a proactive attitude in the context of subsidiarity control. In fact, they have issued only five opinions, which are obviously not reasoned and are of a general nature. Instead, the proposal received two negative opinions from the Regulatory Committee, which twice found the impact assessment accompanying the legislative proposal unsatisfactory. According to the Regulatory Committee, among other things, the impact assessment proposal did not provide a timeframe for the measures to be taken and was inadequate with regard to climate issues.

As regards its content, the EU Secure Connectivity Programme essentially complements the EU Space Programme established by Regulation 696/2002, in particular its GOVSATCOM component. In addition, satellites built under the programme could be equipped with subsystems to increase the capacity and services of the components of the Union's space programme. This would allow the development of additional non-communication services to be decided by the programme committee meeting in the relevant configuration under Regulation 2021/696.

However, the aim of Regulation 2023/588 is not primarily to complement GOVSATCOM, but to develop additional communications infrastructures for government use through public-private cooperation. These infrastructures will be used for both civil and military purposes.

From a civil perspective, Regulation 2023/588 aims to enable connectivity across the Union and around the globe, for citizens and business, including, but not limited to, providing access to affordable high-speed broadband that can help remove communication dead zones and increase cohesion across the Union, including its outermost regions, rural, peripheral, remote and isolated areas and islands.

Indeed, the programme is in clear continuity with other Union initiatives, such as the digital strategy, which are considered to be of strategic importance for the European Union in the coming decades. These are all areas where the challenges are of such a scale and importance that, in order to achieve effective results, they cannot be tackled by the Member States individually, but must be pursued in the context of the Union, even where the Union's powers are limited. In this respect, for example, the Council Conclusions

adopted on 9 June 2020, entitled Shaping Europe's Digital Future, underlines that «satellites and other space-based assets and services are essential for the implementation and functioning of numerous digital applications as well as for providing connectivity in remote areas and monitoring of environment and climate changes. Therefore it is critical to continue to promote European space programmes in order to obtain the best possible preconditions for the digital transformation». In a broader sense, therefore, the EU Secure Connectivity Programme is certainly complementary to almost all of the Union's future-oriented policies.

As mentioned above, in addition to civil aspects, defence aspects are also relevant. Indeed, the development of a European satellite communications system is closely linked to security requirements. This point is well emphasised in the explanatory memorandum to the proposal, where the Commission stresses that satellite communications are a strategic asset closely linked to national security and are in use by most member states. This view is in line with the Commission's Action Plan on synergies between civil, defence and space industries of 22 February 2021, which states that it aims to give everyone in Europe access to high-speed connectivity and to provide a resilient connectivity system to keep Europe connected, whatever happens. Indeed, the programme is aimed to provide secure connectivity services in the event of disruptions to terrestrial communications networks caused, among others, by war or cyber-attacks.

The programme is thus a further step along the path that the Union is trying, not without difficulty, to take in order to assert its own "strategic autonomy" in the defence sector. In this sense, given the complexity of today's threats, strengthening European defence requires a "strategic transformation" of all the Union's policies. After all, as stated by the Commission, in a geopolitical context where cyber and hybrid threats are multiplying, establishment of an EU-level governance that can leverage secure and edge satellite communication services for all national and EU security actors would contribute to a more effective and autonomous EU response to such threats. In this respect, it is important to note that, in addition to the resources made available by the budget, the European Defence Fund, the creation of which in 2021 marks the Commission's definitive entry into financing defence research, will also contribute to implementing the programme.

Another interesting point to consider in this brief analysis of the programme is the governance established by Regulation 2023/588. It involves four main actors, namely the Commission, the European Union Agency for the Space Programme, the Member States, and the European Space Agency, and is based on some fundamental principle, such as clear distribution of tasks and responsibilities; strong control; transparent and cost-efficient management; service continuity and necessary infrastructure continuity, including protection from relevant threats; constant efforts to control and mitigate risks. These are the same principles established by the Union Space Programme.

As regards the distribution of tasks and responsibility, member States contributes with their technical competence, know-how and assistance, in particular in the field of safety and security, or, where appropriate and possible, by making available to the Union the data, information, services and infrastructure in their possession or located on their territory. Moreover, they take all the necessary measures to ensure the smooth functioning of the Programme, including by helping to secure and protect, at the appropriate level, the frequencies required for the Programme. Instead, the Commission has overall responsibility for the implementation of the Programme and, thus, it

determines the priorities and evolution of the Programme, in line with the user requirements, and supervises its implementation, without prejudice to other policies of the Union. Furthermore, the Commission procures, awards and signs the contracts in accordance with the Financial Regulation. It thus has both the main programmatic and executive responsibilities. Rather, the Agency has operative tasks and firstly to ensure, through its Security Accreditation Board, the security accreditation of the governmental infrastructure and governmental services in accordance with the Union Space Programme. The role of the Agency can even be strengthened by the Commission by entrusting it with some additional tasks, particularly *a)* operation of the governmental infrastructure of the Programme; *b)* operational security of the governmental infrastructure; *c)* provision of the governmental services; *d)* management of contracts; *e)* overarching coordination of user-related aspects of the governmental services; *f)* undertaking activities related to user uptake of services offered by the Programme. ESA, finally, is entrusted with supervision and support.

Basically, the governance established by Regulation 2023/588 reflects the model set out in the Union Space Program, with the most important role played by the Commission and the EUSPA, in cooperation with member State and with the support of ESA. However, Regulation 2023/588 seems to strengthen the operational and management role of the EUSPA and to provide for a lower degree of flexibility as regards the inclusion of other entities in the programme. This approach is consistent with the idea of promoting the strategic autonomy of the EU.

4. *Brief conclusions*

The development of the Secure Connectivity Programme, and more generally a strong EU space capability, is essential for both civil and defence purposes.

From a civilian perspective, it can enable connectivity across the Union and around the world, providing access to affordable high-speed broadband and helping to eliminate communication dead zones.

From a defence point of view, instead, it is fundamental for many reasons, including support to missions and operations abroad. In this sense, as underlined by the European Parliament, war in Ukraine has highlighted the strategic value of geospatial imagery and secure connectivity in military targeting, manoeuvring and defence.

More generally, the programme could benefit other Union policies such as external action, border management, protection of critical assets, crisis management, humanitarian aid or disaster relief.

The full deployment of the IRIS^2 constellation is therefore an opportunity for the EU to promote the digital transition, strengthen its role in the international scenario and improve of its defence capabilities.

However, this project presents technical and legal challenges. As regards the technical aspects, in fact, the EU-owned infrastructure will be delivered only by 2030, while member States probably need to access services offered by Medium Earth Orbit and Low Earth satellites. On this point, for example the Italian ministry of Defence stated before the Italian Chamber of Deputies that Italy's international military activities require communication, connectivity, positioning and navigation services. These are currently provided by systems in geostationary orbit, which have limited geographical coverage and bandwidth. They must therefore be rapidly integrated with low-orbit

services, which offer greater continuity, coverage and lower latency. However, the full deployment of IRIS², which will consist of 290 satellites, should be achieved only by 2030.

Instead, from a legal perspective, a stronger EU role in this area requires the EU itself to develop a deeper legal framework. However, as discussed above, the competences provided by the Treaties are limited. In this respect, the European Parliament's proposal to reform, *inter alia*, Article 189 TFEU could be an appropriate achievement. Parliament's proposed version of Article 189 TFEU would indeed allow the Union to harmonise national laws with the aim of creating a common space policy.

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