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EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a
REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

establishing the Union Secure Connectivity Programme for the period 2022-2027

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Impact assessment on the proposal on building an EU space-based global secure communication system
A. Need for action
Why? What is the problem being addressed?
The megatrends of digital hyper-connectivity and technological transformation prompt an unprecedented increase of demand for services dependent on edge technologies, improving safety, security and resilience. The rapidly evolving international system renders the global satellite connectivity a strategic asset for security and safety. At EU level, the governmental satellite communication needs are increasing quantitatively and evolving qualitatively, moving towards higher security solutions, low latency and higher bandwidth. The core problem is thus a mismatch between these rapidly evolving governmental needs and the absence of available EU solutions (both at national and European level) in secure, reliable and diverse satcom services, notably enabled by the technology-edge of Medium and Low Earth orbit. Main drivers comprise the hybrid and cyber threat level increase, the evolving nature of secure governmental satcom needs towards low latency and global coverage as well as the absence of space assets' capacity able to support the evolving needs. Member States' governmental actors are mostly affected with an impact to the security and safety of all EU citizens. In addition, the European space (including the New Space) and the digital industry competitiveness is also directly affected. On a wider scale, this problem could affect the credibility of the EU and its MS as a security actor on the global stage.
What is this initiative expected to achieve?
The general objective is to safeguard the EU sovereignty and security by increasing the provision of resilient, global, guaranteed and flexible satcom solutions built on an EU technological and industrial base. Based on the EU GOVSATCOM and EUROQCI and a strict service-based approach, the proposed initiative will be able to fill several capacity gaps mainly for governmental users, by providing higher security solutions, low latency and higher bandwidth. To this end low latency and higher bandwidth will be reached by deploying multi-orbital assets (LEO and MEO in addition to the existing GEO); and enhanced security by quantum cryptography (EUROQCI). The system design together with an incremental development and deployment could start as of 2023. The deployment of the first new satellites and the utilisation of existing satcom capacity would enable provision of initial services and in-orbit test of quantum cryptography by 2024-2025. The full deployment of the space constellation with the integrated quantum cryptography would allow full operational capability by 2027.
What is the value added of action at the EU level?
The objectives of the proposed initiative cannot be sufficiently achieved by Member States alone as the scale and global dimension of the evolving needs and the related costs can be only addressed at EU level. Action and coordination at EU level would avoid duplication of efforts across the Union and Member States, and would increase synergies between existing and future capacity as well as civil, space and security communities. It would lead to a better exploitation of existing assets and thus economies of scale, greater security and resilience, notably through quantum cryptography, better geographical, uninterrupted coverage, and to provision of a greater array of flexible services. All European citizens would directly benefit in the same way from the enhanced operational effectiveness of the initiative.
B. Solutions
What legislative and non-legislative policy options have been considered? Is there a preferred choice or not? Why?
To close the capacity gap in the provision of required governmental services, the following policy options were considered to achieve the objective in the most effective and efficient manner: First it was considered whether the EU could purchase these secure accredited services from established solutions by the public or private sector, currently limited to foreign market providers (**Option 3 – non EU constellation**). Although the EU satcom market is already well developed, there are currently no EU providers that can serve all the increasing and evolving governmental needs. Buying the services from non-EU private sources is from a security and a strategic autonomy point of view not preferred. Therefore, the EU needs to act to ensure the provision of these services by either fully funding and procuring its own system **(Option 1 – fully public)** or establishing a public-private partnership (**Option 2 – in the form of a concession**). The last option was considered to be the preferred option, striking the right balance between the security and reliability needs of the EU Member States and the financial burden related to the deployment and operation of the system. This option would also permit the private partner to deploy additional infrastructure elements to provide commercial services.

Who supports which option?

The outcome of the public consultation and additional targeted consultations showed the following :

- Several Member State stakeholders have provided positive feedback on the public-private partnership option, building on the integration of existing EU GOVSATCOM capacity as well as indications of national commitments towards the development of additional satcom capacity.
- The industrial stakeholders, both well-established industry and New Space ecosystem, have favoured the public-private partnership model, in view of the possibility to provide additional commercial services and accordingly invest.
- Non-EU constellation operators have supported the option 3, where the Union would procure services from their systems.

C. Impacts of the preferred option

What are the benefits of the preferred option (if any, otherwise main ones)?

The preferred option would allow the EU to obtain a space-based secure connectivity system at a lower cost, as the Union would share the design, development and deployment with the private operator. The involvement of the private sector creates additional benefits; competition during the concession process would enable innovative solutions and enhance the competitiveness of the EU industry. Furthermore, the concessionaire(s) will exploit the system for commercial services, hereby creating additional benefits for the downstream sector. The development of a new system would contribute significantly to the EU industrial economy (for both upstream and downstream private actors); creating additional jobs and adding to the gross value added (GVA) of the European space industry. Citizens would benefit from the technological advantages and reliability of satcom. The social footprint of satcom services could go beyond the strict governmental contexts and allow breaching the digital divide by providing broadband to unconnected areas.

What are the costs of the preferred option (if any, otherwise main ones)?

A rough order of magnitude of the total cost of the infrastructure is € 6 billion. A blending of funds in the form of a public-private partnership (PPP) could be structured as follows: € 4 billion from the public sector (EU and Member States) and € 2 billion from the private sector.

How will businesses, SMEs and micro-enterprises be affected?

Space industry (including New Space): fostering innovation on upstream space technologies, launchers, and downstream applications that will allow them to increase their global competitiveness. Digital industry: the exploitation of such a system will allow telecommunication operators to benefit from the increased capacity and reliable and secure services. In addition, the commercial dimension will allow retail services to reach more customers across the entire EU. All other businesses will benefit from the secure and reliable connection, making them able to provide new services, less vulnerable to cyber threats and service disruptions.

Will there be significant impacts on national budgets and administrations?

Under the preferred option, there will be no significant impacts on national budgets and administrations. The governmental users would have to adapt their equipment to benefit from the service. However, this does not entail a significant investment.

Will there be other significant impacts?

The preferred option would have a positive impact on the global competitiveness of the European space industry, particularly in the field of operations of multi-orbital and multi-satellite constellations. Furthermore, the EU, by control over the system under the preferred option, would ensure that it is designed and operated in a sustainable manner, and in line with the existing standards on the protection of the space environment.

D. Follow up

When will the policy be reviewed?

The system would be evaluated every fourth year based on dedicated KPI relevant to its ability to answer to identified capacity gaps of governmental user needs, guaranteed and uninterrupted access to secure satcom solutions and on the appropriate level of non-dependence of third countries.