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REGULATORY SCRUTINY BOARD OPINION

**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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SWD(2022) 31



Brussels,
RSB

Opinion

Title: Impact assessment / EU space-based global secure communication system

Overall 2nd opinion: NEGATIVE

(A) Policy context

High-speed, secure, resilient global connectivity is essential for growth. This initiative aims to provide resilient high-speed connectivity through a multi-orbit space infrastructure, integrating quantum encryption technologies. It would be additional to a number of EU initiatives as well as existing and planned – private and public – terrestrial, submarine and space communication networks. The initiative was announced in the 2021 European Commission action plan on synergies between civil, defence and space industries.

(B) Summary of findings

The Board notes the improvements in the report, in particular with regard to the problem definition and structure of the analysis.

However, the Board maintains its negative opinion, because the revised report still contains the following significant shortcomings:

- (1) There is still no analytical coherence between the problem definition, objectives, options, criteria for the comparison of options and the definition of future monitoring indicators.**
- (2) The report continues to assume a predetermined technical solution – without specifying it – and consequently artificially limits the scope, design and content of the options to the implementation of this predetermined outcome.**
- (3) The report does not contain any timescale for the initiative nor does it identify where the necessary funding would come from.**
- (4) The impact analysis is incomplete as it continues to lack clarity on methodological assumptions and validity of secondary data cited and broadly employed for the economic estimates, benchmarks and multipliers in relation to the present initiative.**
- (5) The report does not specify how the increased greenhouse gas emissions generated by the initiative would be compatible with the objectives of the Climate Law.**

This opinion concerns a draft impact assessment which may differ from the final version.

(C) What to improve

(1) Building on the clearer scope of the initiative, the report should create a more consistent intervention logic. First, it should link the governmental needs and use cases identified in a general way at the beginning of the report with the subsequent analysis. The report should demonstrate how the specific needs analysed in the problem definition (e.g. push for autonomous transportation, machine-to-machine and internet-of-things considerations, and access to frequencies) reflect the general use cases. Second, the problem definition should clearly demonstrate the issues associated with using non-EU satellite infrastructure, thus justifying the inclusion of a specific objective on autonomous solutions. Third, the options should address the identified problem and problem drivers and be coherent with them. In particular, there is an apparent contradiction between the assumption in the options that there is supply of the necessary satellite services, and the argument in the problem description that there is insufficient supply. Finally, the analysis should be more consistent between the criteria used for the comparison of options and the monitoring indicators.

(2) When discussing how the current EU satellite assets are insufficient to meet the evolving government needs, the problem description should contain a more specific analysis of expected future supply and demand trends and explain and analyse the drivers behind the lack of supply. It should further explain the evidence-based rationale and urgency for the initiative, which seems accelerated compared with the timing of the two phases of the governmental satellite communication (GOVSATCOM) deployment.

(3) The problem description should explain the link between the European Quantum computing infrastructure initiative and the need for EU government satellite infrastructure. It should clarify, in particular, why quantum key distribution cannot happen through secure land communication or through private satellites, and whether key distribution through satellites would not depend on land communication for at least part of the connection.

(4) The report should provide a wider set of policy options or explain why policy choices are limited to the modes of implementation of the initiative, leaving aside options pertaining to system architecture or scope. In particular, it should explain why the capacity (and cost) of the system would be the same under the fully public option and the public-private-partnership option. As to the content of the policy options, the report should be more explicit with regard to funding (from EU, Member State and private sources), third-party access regime for commercial services, liability as regards joint assets (e.g. satellites), governance and security aspects, explicitly explaining which decisions need to be taken now, which in the future, what they will depend on and what actions they will require. It should clarify to what extent the level of private funding will be subject to the outcome of a (competitive) concession award procedure. It should explain how an efficient and timely public procurement process as well as the effective participation of SMEs and innovative start-ups would be ensured. It should also clarify how uncertainty on the governments' demand for satellite capacity would be managed under the different options. The report should set out a clear timescale for the deployment of the initiative consistent with the immediate needs it identifies.

(5) The report should further discuss the methodological validity and assumptions behind the broad economic impact estimates, benchmarks and multipliers just extracted from secondary sources and done for projects of different scope and characteristics. It should also align the used economic multipliers between different parts of the report and the annexes. It should better argue why the public-private-partnership option would generate

additional commercial services, as it seems that these services could largely be provided through commercial (most likely non-EU) satellite providers under the baseline.

(6) Also for the environmental impacts, the report should better justify why impacts from this initiative would be similar to those from other EU space programmes. It is, for example, not clear why the environmental benefits would be similar to those of Copernicus, which has a much clearer focus on earth observation for environmental purposes. The report should also specify how it would ensure that the increased greenhouse gas emissions from large-scale satellite production and launches would not have negative effects on the trajectory to climate neutrality of the Climate Law.

(7) The comparison of effectiveness of options should stem logically from the preceding analysis. Moreover, the measures used under each of the comparison criteria (e.g. security accreditation, quantum key distribution payloads, etc.) should be explained, allowing for clear comparability and more straightforward identification of the preferred policy option.

(8) The overall evidence base, beyond referencing sources, should better support the entire analysis and be rendered specific to this initiative. The stakeholders' views (including those from SMEs and potential disruptive innovators) should be better integrated within the analysis throughout the entire report, particularly when views of stakeholders are not unanimous.

(D) Conclusion

The Board's opinion is in principle final. The DG should seek political guidance on whether, and under which conditions, this initiative may proceed further.

Full title	EU space-based global secure communication system
Reference number	PLAN/2021/10522
Submitted to RSB on	20 December 2021
Date of RSB meeting	Written procedure



Brussels,
RSB

Opinion

Title: Impact assessment / EU space-based global secure communication system

Overall opinion: NEGATIVE

(A) Policy context

High-speed, secure, resilient global connectivity is essential for growth. This initiative aims to provide resilient high-speed connectivity through a multi-orbit space infrastructure, integrating quantum encryption technologies. It would be additional to a number of EU initiatives as well as existing and planned – private and public – terrestrial, submarine and space communication networks. The initiative was announced in the 2021 European Commission action plan on synergies between civil, defence and space industries.

(B) Summary of findings

The Board notes the information provided in advance of the meeting.

However, the Board gives a negative opinion, because the report contains the following significant shortcomings:

- (1) The report lacks a coherent intervention logic, identifying the problem accurately, connecting the problem definition to the objectives of the initiative, the legal base and to the options. Consequently, it lacks clarity on the purpose, scope and content of the initiative, who it is aimed at and what goals it aims to achieve both within and outside the EU.**
- (2) The report lacks a structured and evidence-based analysis of the supply and demand issues with satellite connectivity services. It does not appropriately distinguish between governmental, private and third-country needs and does not identify the drivers for the lack of supply in the EU. It does not convincingly establish the rationale for intervention.**
- (3) The report assumes a pre-determined technical solution – without specifying it – and consequently, coupled with the weak problem definition, artificially limits the scope, design and content of the policy options to the implementation of this pre-determined outcome. It thereby excludes any other policy choices to meet the objectives. The preferred option is insufficiently defined and its costs and benefits not explicitly analysed.**
- (4) The impact analysis lacks clarity on methodological assumptions, sources of evidence and validity of data, in particular as to the economic multipliers. The environmental impacts do not discuss the direct impacts of constructing, launching and operating the envisaged multi-satellite system**

(C) What to improve

(9) The report should clearly present, justify, and follow a focused and consistent intervention logic. It should revise the general and specific objectives and align them with a revised and more focussed problem description. It should identify a complete set of policy options that directly address the identified problems and problem drivers.

(10) The report should justify precisely what and whose needs the initiative aims to tackle. It should identify and analyse the relevant use cases and clearly determine for each case why it cannot be met by existing or future terrestrial or commercial satellite communication systems. It should specify and justify in which cases, how and why an EU-controlled system would be more suitable. In doing so, it should define the primary use cases and uses, which should form the backbone of the entire analysis. Secondary issues such as the possible use of spare capacity for rural connectivity or African broadband should be separated and clearly identified as such.

(11) Equally, the report should expand the analysis of the supply side of space-based connectivity services, explaining the peculiarities of the EU market and the specific reasons for the alleged supply failure in the EU. It should clarify how and why these are different from other regions and countries. It should clearly demonstrate and substantiate with evidence the market failures that would warrant a public initiative to provide satellite infrastructure.

(12) Given that security aspects are one of the key drivers identified by and supporting the initiative, the report should emphasise the current shortfalls and deficiencies in this respect, including as regards cyber and hybrid threats. It should demonstrate how the envisaged satellite-based solution can mitigate these better than quantum encrypted terrestrial-based networks both now and in the future. The report should also clarify how and why this solution would be more resilient than existing terrestrial and satellite connectivity solutions. Furthermore, the report should better explain the application of the concept of EU strategic autonomy as regards satellite systems, including the access and control restrictions that might be necessary.

(13) The legal basis chosen – Art. 189(2) of the TFEU – does not correspond fully to the narrative of the report. The dual-use nature of the proposal should be further clarified and the possibility or intention of extending its reach to EU military missions should be clearly stated and explained or dropped. If retained, the report should clarify why Art. 41(2) TEU is not part of the legal basis.

(14) In terms of policy options, the report should provide a clear explanation of what decisions have already been taken, on what basis, and what is left to be decided and thus analysed in the report. In doing so, the report should explain why alternative approaches and technical solutions, including those that proved successful in other international initiatives, were judged to be not feasible in this context and on what grounds they were not retained for consideration. In particular, the report should justify why policy choices constructed around the identified problems and needs, pertaining, for example, to system configuration, dual-use nature of the initiative or the geographic scope, were not considered.

(15) The report should specify the precise content of the preferred option. It should clearly identify the elements that constitute the core of the option and the ones that can be decided later. This distinction should be explained and justified. A more precise definition of the modular approach should allow a more objective analysis of its specific impacts, rather than presenting them as a compilation of chosen benefits without elaborating what they are

or entail. The report should be more specific on the envisaged governance and project management of the preferred option given the challenges resulting from the scope and complexity of the initiative. It should indicate upfront the implementation phases, modes, the respective costs and the breakdown of roles and responsibilities between the Commission and industry. It should discuss how possible conflicts of interest would be prevented, given that key industrial partners might be involved in competing projects.

(16) The report should clearly present impacts and costs specific to each policy option, including direct environmental impacts related to the constructing, launching and operating the infrastructure. The latter should clearly refer to the ‘do no significant harm’ principle and the analysis should demonstrate how it would be respected. The report should elaborate on the analysis of the common impacts and adjust these in extent and magnitude, where necessary, for each policy option or blocks thereof. It should also discuss the methodological validity and assumptions behind the economic impact estimates, in particular the significant multipliers, which were derived from projects with different characteristics. In particular, the report should clarify to what extent and how these multipliers incorporate possible crowding-out effects of private initiatives.

(17) The evidence-base for the initiative should be strengthened. References to all relevant studies should support and enhance the credibility of the analysis. Views of and impacts on all categories of stakeholders should feature clearly in all pertinent sections of the analysis. As the categories of stakeholders are not homogenous, all relevant distinctions, including minority and dissenting views, should clearly be accounted for in the analysis. Given the primary focus on secure public communication, an accurate, detailed and current reflection of Member States’ views should be presented.

(18) The report should define when and how the initiative will be evaluated. The monitoring arrangements should define what success would look like, based on the objectives of the initiative.

Some more technical comments have been sent directly to the author DG.

(D) Conclusion

The DG must revise the report in accordance with the Board’s findings and resubmit it for a final RSB opinion.

Full title	EU space-based global secure communication system
Reference number	PLAN/2021/10522
Submitted to RSB on	12 October 2021
Date of RSB meeting	10 November 2021