



Sharing A Future Satellite Communications Capability For Governmental Purposes

In December 2013 the EU Council (Heads of States & Governments) reaffirmed their commitment to *“delivering key capabilities and addressing critical shortfalls through concrete projects by Member States, supported by the European Defence Agency”*. To this end they authorized inter alia further efforts towards *“the next generation of Governmental Satellite Communication through close cooperation between the Member States, the Commission and the European Space Agency; a users' group should be set up in 2014”*.

Whereas:

- Secured, satellites-enabled communications constitute a critical factor in the EU's and individual Member States ability to respond autonomously (when required) and in a timely manner to global defence, security, humanitarian, emergency response or other challenges and finally,
- The period 2017-2025 will see the renewal of all military and governmental assets,

Eurospace, the European Trade Association of the space manufacturing industry, wishes to express its full support to the GOVSATCOM initiative and also signal its readiness to contribute to the discussions aiming to prepare for the post-2025 generation possibly through a new paradigm.

In the interest of helping achieve progress towards “getting there” the following recommendations are worth setting forth from an Industry perspective:

1. Consultation with Industry: Need for a **thorough, direct, results-oriented dialogue between the designated institutional stakeholders at the EU and national level** (see Dec. 2013 Council Conclusions) **and the European Industry; relying on the users' requirements collected through** the future EC study and EDA's own analysis, this dialogue should aim to address the possible R&T/R&D priorities, the implementation scenarii and the corresponding implementation models.

2. Future procurement aspects: In industry's views, for the GOVSATCOM programme to move to the next level, governments need to have reassurances that through the EU and national funds (i) their **sovereignty concerns** will be properly addressed and (ii) that the **European industry competitiveness, both for space assets and for access to space**, will improve further.

3. Research & Innovation: As mentioned earlier, Industry stands ready to contribute with ideas on the possible implementation roadmaps in conjunction with the users' requirements, once established. It is imperative therefore to **identify the planning, as well as the possible funding streams for this research and innovation effort**, taking account of existing best practices.

In conclusion, from a European space manufacturing Industry perspective the GOVSATCOM initiative agreed in the Dec. 2013 EU Council represents a compelling case of the value-added of a European approach to the benefit of the EU, its Member States and the European Industry.

The success of such initiative will be benchmarked against the criteria of (i) the impact on the competitiveness of this sector and (ii) the satisfaction of the European and National Governmental needs for autonomous, secure, satellites-enabled communications across the world.

Background Note

Space telecommunications in general

For a detailed analysis of the market landscape and the challenges facing the space manufacturing industry readers are invited to refer to the recent [Position Paper of EUROSPACE](#) adopted in early 2014 (Space telecommunications: challenges of a key sector for Europe).

The added value of a concerted approach at the European level

Telecommunications are a key instrument in support of the EU's and National missions abroad and an indispensable asset safeguarding the ability to operate in an autonomous and timely manner.

A shared European capacity in satellite communications would significantly contribute to the EU's autonomy in decision-making and action at the global level in response to challenges relating to defence, security, humanitarian crises and natural/emergency disasters.

Heads of States and Governments sitting in the EU Council formation in December 2013 expressly mandated the EDA to coordinate actions with the European Commission, the European Space Agency and the EU Member States (MS) with a view to fostering progress in this critical capability shortfall. Recent successful examples at variable geometries, such as the French-Italian cooperation, as well as success of the EDA's European satellite communications procurement cell (ESCPC) demonstrated how MS could benefit from pooling and sharing policy especially in a time of budget restrictions. Both initiatives pave the road to more ambitious deployment of the European Defence and Security Policy. Industry supports an incremental implementation of this pooling and sharing policy to serve the complete range of users' needs.

From users' requirements collection to technology development: need for a well-defined roadmap supported by a timely and sustainable budget.

In fulfilling this mandate, the EDA and the EC (DG ENTR) shall deliver by mid-2015 a joint roadmap for the next generation of governmental telecommunications capacity. They will start with the collection of user' need up to mid 2015: EDA will collect the MoD needs for governmental communications (not as hardened as military communications) through a dialogue with the MS while the EC will launch a study focusing on the civilian needs (e.g. EEAS, FRONTEX, DG ECHO, National civil protections etc.).

Eurospace believes that the EU (EC and EDA), in cooperation with ESA and National Space Agencies, can play a very useful role in identifying, jointly with industry, the technologies enabling pooling and sharing models, and in ensuring that the necessary R&D work is supported by an identified, timely and sustainable budget. In particular, H2020 would be a suitable programme to accommodate such research, and a decision should be made in a timely manner to ensure that the right activity lines and budgets are planned from the 2016 work programmes onwards. Efforts on satellite communication technology go hand in hand with Remotely Piloted Air System (RPAS) communications which are crucial in tasking RPAS and having access to their data. They are also closely linked to the relevant cyber-security technologies, which will need to be developed to protect critical

space infrastructures. As a result **support to R&D in the satellite communication field offers a great opportunity to tackle three out of the four capability priorities called for by the European Council of December 2013**, but also to implement the EU's Space Industrial Policy: constant technological advancements are necessary to maintain our leading role on the export market and the competitiveness of European space industry. As is today the case in the US, dual technologies developed through public funding will become competitive assets on the world-wide scene. Therefore, Eurospace considers that the formal involvement of industry when addressing the necessary technology roadmap is crucial. This applies to any other activity of that sort which could be launched by EDA, DGENTR or ESA.

Non-technological boundary conditions for success: the crucial political, regulatory and temporal enablers

Overall, Eurospace considers that beyond the pure technology development through EU and National sources the following parameters are worth framing in the interest of ensuring the successful implementation of an EU Governmental SatCom capability:

1. **A political test-case, or else the paradigm shift:** Considering the sensitivity of space-based systems for Member States and the EU's Common Security and Defence Policy, but also taking into account the unquestionable reliance and dependence of military decision-making and operations on space assets, GOVSATCOM will be a test case for the EU. Stakes regarding a sustainable and efficient cooperation model around governmental communication between European Member states governmental users, EU civilian users (EC and EU agencies), the ESA and industry are extremely high in terms of programmatic and political credibility (the paradigm change). Therefore, industry believes that the political added value of GOVSATCOM will indeed be for European actors to succeed in the significant challenge of setting-up a viable European cooperation model around a future satcom capacity. Eurospace considers that the successful best practices developed by ESA within the ARTES programme should be considered when reflecting on the possible implementation scenarios.
2. **Decisions timeliness:** In order not to lose the momentum of the European Council, industry is keen on starting the dialogue with EU bodies and the EU MS in a timely manner. In particular, the early identification of the budget lines which will sustain the coming preparation activities is necessary in order to make sure that the EU's objectives rely on a sound basis. For example, industry expects to be informed soon regarding the appropriate programme funding streams (e.g H2020 Space, H2020 Security, other?) that will support the research activities, as well as the associated conditions, time frames and budgets. Worth stressing also that the potentially sensitive character of some research topics should be accounted for when identifying/designing the appropriate budget source.
3. **Regulatory framework:** There is a need to safeguard the GOVSATCOM initiative by means of a suitable access to spectrum resources. For this aim a cooperative dialogue between the satellite industry and the Regulatory Authorities of MS's should be intensified. Also, measures should be taken to secure filings in due time would the EU envisage a Preparatory Action involving in-orbit capacity.
4. **Formal involvement of relevant stakeholders through a result-oriented dialogue:** Be it for the identification of the necessary technology research, or for the

identification and analysis of potential governance and procurement schemes, formal and effective involvement of European Industry is considered both necessary and beneficial so as to maximise the quality of the findings and the positive impact on competitiveness.

5. **EU Member States buy-in (last, but certainly not least):** In industry's views, for the GOVSATCOM programme to move to the next level, Governments in the EU Member States need to have reassurances that through the EU and National funds (i) their **sovereignty concerns** will be properly addressed and (ii) that the **European industry competitiveness** (for space assets and access to space) will improve further. Failure to secure either of these two conditions will only cast doubts on the sustainability of this initiative.

Conclusion

From a European space manufacturing Industry perspective the GOVSATCOM initiative agreed in the Dec. 2013 EU Council represents a compelling case of the value-added of a European approach to the benefit of the EU, its Member States and the European Industry.

The success of such initiative will be benchmarked against the criteria of (i) the impact it will bring on the competitiveness of the sector (such as for instance the reusability of cutting-edge technologies on the commercial market) and (ii) the satisfaction of the European governmental needs for autonomous, secure, satellites-enabled communications across the world.