



## ***“Communication Satellites for European Defence and Security: Challenges and Opportunities”***

### **Seminar Conclusions**

On 25 November 2015 took place a seminar on “Communication Satellites for European Defence and Security: Challenges and Opportunities” in the framework of the Luxembourg Presidency of the European Union. The Deputy Prime Minister of Luxembourg, Minister of Defence, Mr Étienne SCHNEIDER invited Member States’ representatives, the European Defence Agency (EDA), the European Commission, the European Space Agency (ESA) and the European External Action Service (EEAS) to express their views on challenges and opportunities facing satellite communications in the military and the security domains.

#### **I. Growing user needs for GOVSATCOM**

The key importance of satellite communications (SATCOM) in defence and security operations no longer needs to be demonstrated. SATCOM have become fully integrated in defence and security rationales, from strategic information gathering to tactical/operational decisions.

The EU Governmental Satellite Communications initiative (EU GOVSATCOM) led Member States, with the support of EDA, the European Commission, ESA and European External Action Service (EEAS) to significantly make head-way in gathering respective military and civil user needs. These are being translated into common technical requirements to allow a tailored European solution for the next generation of GOVSATCOM.

The first conclusions of the ongoing EDA study show that with respect to military users, there is clearly a need for GOVSATCOM services, for whom a higher level of security is required/desired than available with commercial capacity, without necessarily going to the much higher expense of a full-fledged MilSatCom service.

The civilian users that the European Commission is considering in its approach are twofold: Direct security users (police, border surveillance, civil protection, humanitarian aid) and large infrastructures for which Satellite Communications are critical such as Transport (with Air Traffic Management, Railways and Maritime), the Space (Copernicus and Galileo), Security (Eurosur, CISE etc.). In particular, the European Commission identified a number of areas where availability of resilient SATCOM solutions will be a key enabler for future policy development, such as long distance RPAS or Arctic Communications.

The main messages the European Commission and EDA got from the civilian and military users is that they have a growing need for GOVSATCOM which is expected to increase constantly in the future.

#### **II. Challenges to address**

The SATCOM environment for security and defence purposes faces various challenges:

- The availability of commercial SATCOM resources for security and defence users is heavily challenged by access requirements of multiple other users (e.g. media etc.),



- SATCOM are confronted with growing intentional threats (e.g. jamming, cyber threats). These threats are no longer military specific but originate from terrorists or criminal organization and also target civilian users,
- There is competition with other systems/applications on frequency spectrum allocation with consequences on the availability of sufficient frequency bandwidths reserved for governmental use.
- There is an issue with European autonomy and control both in terms of satellite operations but also in terms of technology.

The current fragmentation of the demand for secure SATCOM is ineffective: Users are left with more expensive and less robust solutions. Fragmentation is also a threat to the competitiveness of our industry and on our capacity to master in Europe the necessary capabilities to act autonomously.

### III. Opportunities

#### An Incremental Approach

Possible next steps beyond the current preparatory studies of EC, EDA and ESA are expected to be proposed to respective Member States towards the end of 2016. Related proposals may suggest an incremental approach. This is expected to include a first phase of pooling and sharing of existing GOVSATCOM resources. Indeed, some GOVSATCOM systems are already deployed in Europe and could constitute the precursors of a future European GOVSATCOM service. But there is also the need to anticipate the replacement of these various systems and to prepare a next generation of GOVSATCOM, including potential pre-cursor/prototype developments of future innovative elements, in preparation of a full operational deployment.

#### Being innovative

Europe can leverage from a solid and world-leading commercial satellite communication industry. This can provide a strong basis for an innovation-based approach to GOVSATCOM and sustained partnership between both public and private actors, also leveraging from industry's experience in national and European programmes. Such partnership would also allow reinforcing rather than replacing commercial efforts and would avoid interference with the market. The potential participation from industry in a future GOVSATCOM initiative would also support the competitiveness of the European space and defence industry and support its growth.

In order to make further progress, there is a clear need for putting in place an **effective governance** scheme in order to guarantee the most effective implementation of such a dual-use programme from the onset, which is being elaborated to support national capabilities, and which may combine national and European efforts in both intergovernmental or community frameworks.

