ESPI

European Space Policy Institute

ESPI 75 PERSPECTIVES

Enabling SATCOMs in the EU Space Programme:
Setting the CSDP Priorities Straight

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In order for Europe to respond to global challenges and to play a global role, its European Space Policy (ESP, 2007) has identified that the strategic mission of space activities in Europe must meet Europe's security and defence needs. ESP indicated the organisation of the governance of space must be in line with the political ambitions of EU, ESA and their respective Member States and as a result this policy must be gradually implemented into a European Space Programme, which would cover all EU policies, among them the CSDP. A credible CSDP requires the autonomous ability to gather and transmit information in order to support EU-decision making and actions, and as such the space domains of Earth observation, navigation and telecommunications are relevant to CSDP. But the developing European Space Programme currently focuses on the first two domains. The Satellite Communication (SATCOM) dimension had been identified by the Council in 2013 as a shortfall and as such, it is not been yet a part of the developing European Space Programme. Latest developments in this field initiated by the EC, ESA and EDA (some of them adopted by Council) seem to finally pave the way to embed SATCOMs into the future European Space Programme. The time has not come, but it is getting there.

1. Is the European Space Programme in line with the political ambitions of the EU?

The European Space Programme is the practical implementation of the European Space Policy whose success relies on a European coordinated approach to space activities. In order for Europe to respond to global challenges and to play a significant role on the international stage, its European Space Policy (ESP, released on May 2007) has identified that the strategic mission of space activities in Europe must meet Europe's security and defence needs regarding space.[2]

The ESP recognised *"that space technologies are often common between civilian and defence applications and that Europe can, in a user-driven approach, improve coordination between defence and civilian space programmes, pursuing in particular the synergies in the domain of security"*. The ESP recommended that further reflection was needed on how to ensure that security and defence aspects are taken into account in the determination of the EU's space policy and its programmes.

This policy is gradually implemented into a European Space Programme, which would cover all EU policies, among them the CSDP. This should be done through a trilateral structured dialogue with the competent multiple actors of the EU, the Member States and the intergovernmental organisations, e.g. ESA and EUMETSAT as non-EU agencies.

ESP also stressed the need to set up a structured dialogue with the competent bodies of the Member States and within the EU bodies as well as the

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[2] Communication from the Commission to the Council And The European Parliament, European Space Policy, COM(2007) 212 final, Brussels, 26.4.2007. Available at http://ec.europa.eu/enterprise/policies/space/documents/esp_en.htm

European Defence Agency (EDA)[3] in order to address the preliminary elements of the future European Space Programme. These "first elements of a European Space Programme, which should encompass all important European and national programmatic activities", were submitted by the European Commission and ESA together with the ESP in April 2007.

So far, the European Space Programme, consists of three programmes which fall under the responsibility and management of the European Commission. The first two are:

- The EGNOS-GALILEO global programmes, which deal with Positioning-Navigation-Timing (PNT).
- The second priority is the Copernicus programme (former Global Monitoring for Environment and Security - GMES), which deals with Earth observation.

These two priorities were verified in a 2005 Council decision[4] that states that *"for the EU, the European Space programme will be space-based applications to contribute to the achievement of its policies, particularly Galileo and Global Monitoring for Environment and Security (GMES)"*.

The third and last addition to the European Space Programme is the Space Situational Awareness (SSA) capability, which refers to the knowledge of location and function of space objects and space environment, including operational satellites, space debris, near Earth objects and space weather. It must be noted that the SSA Preparatory Programme has been adopted on 26 November 2008 ESA Ministerial Council, just a year after the announcement of the European Space Policy. Strangely, although ESP it did not make any reference to it, SSA became the third element of the current Space Programme and currently is one of the most important topics in space security.

The question remaining is whether the the European Space Programme, in its current form, meets Europe's security and defence needs. One has to note that ESP, as one of its central policy guidelines, indicated that the governance of space must be in line with the political ambitions of EU, ESA and their respective Member States. As a result this policy must be gradually implemented into a European Space Programme, which would

cover all EU policies, among them the then European Security and Defence Policy (ESDP) which creates a framework for the military and defence aspects of EU policy.

The aim of the policy is the establishment of a common European defence capability. After the Treaty of Lisbon (2009), the ESDP was replaced by the Common Security and Defence Policy (CSDP). As its name indicates, the CSDP is the security and defence policy for the EU and is an integral part of the EU's foreign policy, the Common Foreign and Security Policy (CFSP).

EU countries must make civilian and military capabilities available to the EU to implement the CSDP. CSDP includes the progressive framing of a common EU defence policy; this will lead to a common defence when the European Council, acting unanimously, so decides.

According to the Wise Men Report, a task force organised by ESA in 2001, *"ESDP is incomplete without a space component".[5]* So it was natural for ESDP to address first its needs and define its relevant policy regarding space capabilities.

In 2003 both the Council[6] on 19 May 2003 and the Presidency report on ESDP, endorsed by the European Council at Thessaloniki on 19-20 June 2003, recognised the importance of space applications and functions needed in order to enhance the EU capabilities to carry out crisis management operations.

Also in June 2003, the second pillar's[7] responsible body, the Policy and Security Committee (PSC) indicated to the Commission that: "A credible CFSP/ESDP requires the autonomous ability to gather and transmit information in order to support EU-decision making. In particular the areas of Earth observation, navigation and telecommunications

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3 EDA has been established on December 12, 2003. SATCOM as a topic was put in EDA's 2005 Work Programme, as European efforts in this area can be optimised both in military SatCom (MilSatCom) and in commercial SatCom.
4 COUNCIL OF THE EUROPEAN UNION, 9440/05, Brussels, 27 May 2005

5 Bildt Carl, Peyrelevade Jean and Späth Lothar, 'Towards a Space Agency for the European Union', Report for the Director-General of the European Space Agency, November 2000. Available from http://esamultimedia.esa.int/docs/annex2_wisemen.pdf
6 GAERC Conclusions on ESDP, Council of the European Union 9174/03, Brussels, 19 May 2003, par. 22, available at http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%20917 4%202003%20INIT
7 Under the Maastricht Treaty (1991), the European Union consisted of a three pillar organisation that includes the old EC (the economic pillar), a pillar for a new Common Foreign and Security Policy (the second pillar), and a third pillar on Justice and Home Affairs, which covers issues of internal security like immigration and criminal activity. Each pillar would have its own rules, with the latter two more inter-governmental in design. The Treaty of Lisbon amends existing EU treaties, formally abolishing the old pillar structure, with the explicit recognition that the Common Foreign and Security Policy will remain subject to its own rules. Currently the actual policies are still pursued by the old three pillars competencies.

are relevant to CFSP and ESDP."

PSC based its opinion in the EU Military Staff (EUMS) document "Space Systems Needs for Military Operations"[8] where satellite communications (SATCOMs) were included under the function *"Military command and control (C2)",* which must be ensured at any given time for EU-led military operations.

Following this, in 2004, the Council in its Decision on European Space Policy "ESDP and Space"[9] stated that the cornerstone of the European Community Space Programme should be "Galileo, EGNOS, GMES and SATCOM, and their potential capacities. They also have the potential to contribute to civilian and/or military crisis management".

In this document dated 22 Nov. 2004 the Council identified SATCOM capabilities said "Secure and reliable communications are essential for exercising political and strategic direction of any operation. They are also vital at the operational and tactical level. On external theatres, these capabilities may often depend upon space-based assets, especially where local infrastructure is deficient".

It must be noted that many of the user needs and requirements for space systems in the planning and conduct of military crisis management operations are equally applicable to civilian crisis management operations and SATCOM is one of them.[10]

By comparing the current European Space Programme elements and the needs already expressed in the ESDP domain, it is obvious that something is missing. There is a very strong security component in Galileo. There is also a security dimension in Copernicus. But, when launching the ESP three years later, the EC had not explicitly taken into account the ESDP security and defence needs and requirements regarding satellite communications. So it is no surprise that satellite communications have not been given any special

attention.

The question is, however, why SATCOMs have not yet been integrated into the European Space Programme, after the institutional recommendations that have been made, especially given the fact that satellite communications are the mainstay of the European space industry?

It is clear that both the ESP and the developing European Space Programme which implements it, failed to even reference the SATCOM dimension[11] needed in the CFSP/CSDP domain. As such the European Space Programme, in its current form, cannot cover the CFSP/ESDP EU policies, due to its missing link: SATCOMs.

In order to examine what caused this, this Perspective will examine two approaches that the ESP gives as guidelines for the implementation of the future European Space Programme, to see if SATCOMs have any chance to be embedded in the future. These criteria are first the "user-driven approach" and second, the "permanent structured dialogue" between all relevant EU space actors:

- The *"user-driven approach":* The EPS states that *"space technologies are often common between civil and defence applications and that Europe can, in a user-driven approach, improve coordination between defence and civil space programmes".*
- The *"permanent structured dialogue"*: The setting up of the structured dialogue among European institutional actors aims at achieving a substantial increase in the coordination of space, security and defence related activities, including the European Commission, the General Secretariat of the Council, the European Defence Agency, ESA and Member States.

In section 2 and 3 of this Perspective, the current status of these two criteria will be examined to see if they can shine a light on what the future might be for SATCOMs in the developing European space programme.

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[8] EUMS paper "Space systems needs for military operations" (9793/03 dated 27 May 2003).

[9] Council of the European Union. Note from General Secretariat to COREPER/Council. European Space Policy. "ESDP and Space." 11616/3/04 REV 3 of 16 Nov. 2004. Brussels: European Union.

[10] See "Generic Space Systems Needs for Military Operations" (6091/06), "Space Systems Requirements as per Requirements Catalogue 2005" (RC 05) approved by the GAERC (doc. n.13732/05 dated 7 November 2005). http://register.consilium.europa.eu/pdf/en/05/st13/st13732-ex01.en05.pdf. See also "Outline of Generic Space Systems Needs for Civilian Crisis Management Operations" (2006), available at http://www.europarl.europa.eu/meetdocs/2004_2009/documents/dv/st10970_/st10970_en.pdf

[11] Under the term SATCOMs in the CFSP/ CSDP domains, the following three capabilities are included: Commercial SATCOM which are operated by private companies, Military SATCOM which are operated at the national level y the five European Member States that have MILSATCOM systems (F, DE, UK, IT, ES), and Governmental SATCOM, a new class between the first two. According to the definition approved by the EDA it is "highly available satellite communication, providing a level of security with some resilience, obtained using technological solutions available on the market with a minimum of changes." See http://www.pwc.fr/assets/files/pdf/2015/02/pwc_concept_paper_satcom.pdf

2. Are SATCOMs a Need in a CSDP User-Driven Approach?

An extensive analysis of the link between the development of the CSDP and how capabilities like SATCOMs has been embedded in the EU institutional framework Space has been already presented in ESPI Perspective no. 27.[12]

Starting from the beginning of the 2000s, communications were mentioned as a vital operational domain (like command and control), needed to pursue the European Security and Defence Policy which needed improvement.[13] But the space dimension seemed to be neglected.

An important indicator for the significance of SATCOMs (civilian and military) is the role they have played in EU crisis management. Since 2003 the European Union has launched some 35 civilian missions and military operations contributing to stabilisation and security, mostly beyond Europe.[14] These missions and operations constitute an integral part of the EU's comprehensive approach towards crisis management, drawing on civilian and military assets and are conducted in the framework of the CSDP.

Since the early stages of the implementation of the CSDP, shortfalls in secure means for long-distance communications (i.e. EUPOL Proxima, Operation Artemis) have been repeatedly identified. In the Joint Declaration on EU-UN Cooperation in Crisis Management (24 September 2003), for instance, communications was one of the four areas of focus.[15]

This assumption has been confirmed by the EC's *"Report of the Panel of Experts on Space and Security"*[16] which brought together the possible

defense and security aspects of the future European Space Programme. In the case of the 2005 SPASEC, telecoms has been identified as one of the seven space needs for ESDP.

Interestingly it was ESA, an institution which has no official responsibility for the definition of a European security policy (but it is a major actor in the European space domain) who released at the end of 2006, the "Lessons Learned" from the ESDP missions and operations held between 2003 and 2006. Under the vague title "European Space and Human Security Working Group Report (ESHSWG)"[17] this report, requested by then EU High Representative Javier Solana focused on the space dimension of the European external interventions.

This two year study, based on a bottom-up approach, having feedback from the end-users, focused on intervention with either a military character (Concordia in FYROM, Artemis in the DRC) or civilian (the police mission in Bosnia Herzegovina, Operation Proxima in FYROM, Operation EUJUST- Themis, the rule-of-law mission in Georgia, the monitoring of the Rafah border in the Gaza strip, the Aceh Monitoring Mission).

These interventions occurred in geographical theatres located in various regions of the world: Europe (Kosovo, FYROM), Africa (DRC, Sierra Leone), the Middle East (Afghanistan, Iraq), South Asia (Sri Lanka, Thailand, Bali). The nature and size of the missions were diverse, as were the tasks performed.

The first general lesson that can be learned from the various testimonies is that operational actors are faced with information deficits. *"Whether civil or military, practically all the actors stress the need for better means of communication".* The second general lesson, from the ESHSWG report, is a clear hierarchy of needs: *"(T)he demand which takes precedence and which is regarded as the highest priority is the demand for communication. Transmission of information is seen as essential, both intrinsically and because it conditions all others".*

A relevant assessment comes from a 2010 Bulletin of the European Defence Agency: *"Communication and Information Systems deployed abroad need a*

[12] Kolovos Alexandros, The European Space Policy - Its Impact and Challenges for the European Security and Defence Policy", European Space Policy Institute, ESPI Perspectives 27, (9/2009). Available at http://www.espi.or.at/news-archive/399-2-september-2009-qespi-perspectiveq-on-the-impact-and-challenges-of-esp-for-esdp.

[13] Shortcomings of certain C3I resources exist with regard to deployable communications units. Laeken European Council, Draft Presidency report on European Security and Defence Policy, 15193/0, COSDP 333, Brussels, 11 December 2001 (12.12), ANNEX I, p. 18.

[14] Available at http://eeas.europa.eu/csdp/missions-and-operations/index_en.htm

[15] CSDP Missions and Operations: Lessons Learned Processes, Directorate-General for External Policies of the Union, Directorate B Policy Department, EXPO/B/SEDE/FWC/2009-01/Lot6/16 April 2012, available at http://www.tepsa.eu/download/CSDP%20Missions%20and%20Operations-%20Lessons%20Learned%20Processes%20%28DG-%20External%20Policies%29.pdf

[16] SPASEC March 2005: Report of the panel of experts on

space and security, prepared for EC DG Enterprise & Industry, available at http://ec.europa.eu/enterprise/policies/space/files/article_2262.pdf

[17] Available at http://www.agoria.be/upload/belgospace/ESHS_Report_Complete_%20Final%20091006.pdf

permanent broadband connectivity between theatres and headquarters for key services such as imagery, videoconferences, secured intranet. All of this requires a lot of SatCom capacity. Recent lessons learned from operations ATALANTA and EUFOR Chad-CAR are excellent illustrations of the need to set up and run a cell specialised in connectivity services".[18]

A more recent assessment comes from the EU Training Mission in Mali (EUTM Mali), where the trained units lacked communication equipment, thus hindering command and control.[19]

So the need for SATCOMS from a purely *"CSDP user-driven approach",* along with its hierarchical priority between other needs in the same domain, is definitely there.

The fact is that the current European Space Programme preliminary elements still do not take into account SATCOMs, the number one priority for conducting the CSDP missions and operations. Instead, number one is the Galileo flagship programme (which according to the 2006 ESA's ESHSWG is the number three priority in the field), while flagship element no. 2 Copernicus (former GMES) is the number 2 priority according to the same feedback from the CSDP end users.

It is not clear why these findings, resulting from a bottom-up approach, were not given much exposure or consideration. Obviously a more recent review of CSDP missions and operations would verify the validity of these priorities, if there was ever a counter-argument.

3. SATCOMs in the permanent dialogue of the EU Space Actors

The Council's *"Draft road map"* of 2005[20] mentions that *"In the context of the European Space*

Programme, a permanent inter-pillar dialogue should be established to ensure global coherence of all EU needs and requirements, with a view to optimise all programmes since the initial design phase and avoid unnecessary duplications".

So the ESP in 2007 endorsed this permanent structured dialogue between all actors which aims at raising awareness about respective programmes and identifying opportunities for the complementary development of space-based assets for respective user communities.

This dialogue was not always easy before the Lisbon Treaty which entered into force on 1 December 2009, and reinforced the EU engagement in security and defence matters.

One characteristic example is the following: Soon after the two aforementioned 2003 Council decisions on *"ESDP and Space"* the EC presented a White Paper on *"Space: a new European frontier for an expanding Union."[21]* Although the White Paper semi- adapted to the Council decisions by presenting a chapter entitled "3.4 Space as a contribution to the CFSP, the ESDP and to the anticipation and monitoring of humanitarian crises", which made explicit reference to the security dimension of space, satellite telecommunications are only identified in its Areas for Co-operation sub-section. Instead its main focus on satellite communications fell under the Recommended Actions in chapter 3.3 "Bridging the "digital divide".

It is true that the then existing EU 2000 Space Strategy[22] developed jointly by EC & ESA focused on transport, environment and research. Obviously, the development of two other policies, the CFSP in 1993 and ESDP in 1999 had no influence upon this 2000 Space Strategy.

This progress regarding SATCOMs for the ESDP domain was much slower. Council Resolutions, one after another, ignored the link of SATCOMs and CSDP. For example: The September 2008 decision on *"Taking forward the European Space Policy"[23]* while highlighting the important contribution of

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[18] EDA Bulletin, Issue 13, February 2010. Available at http://www.egmontinstitute.be/wp-content/uploads/2010/02/201002-J.Coelmont-EDA_Bulletin_13.pdf

[19] JOINT COMMUNICATION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Capacity building in support of security and development - Enabling partners to prevent and manage crises, Council of the European Union, 8504/15, Brussels, 30 April 2015 available at http://data.consilium.europa.eu/doc/document/ST-8504-2015-INIT/en/pdf

[20] Draft initial road map for achieving the steps specified in the European Space Policy: *"ESDP and Space",* Council of the European Union, 9505/05, Brussels, 30 May 2005. Available from http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2095055%202005%20INIT

[21] *"WHITE PAPER, Space: a new European frontier for an expanding Union An action plan for implementing the European Space policy",* Brussels, 11 November 2003, COM(2003) 673, available at http://www.dlr.de/rd/en/Portaldata/28/Resources/dokumente/WhitePaper_en.pdf

[22] Council Resolution of 16 November 2000 on a European space strategy. Official Journal C 371, 23/12/2000 P. 0002 – 0003.

[23] Council resolution of 26 September 2008 Taking forward the European Space Policy, OJ C 268, 23.10.2008, available at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2008.268.01.0001.01.ENG

space to the CFSP/ESDP and to the security of European citizens confirmed again the importance of the security dimension of space by identifying space and security as one of four new priority areas for the further implementation of ESP.

But when it came to SATCOMs it still referred to them as space applications, which *"are expected to create substantial global market opportunities, especially for SMEs"*. Yet, this decision expressed also the need to define the ways and means to improve the coordination between civilian and defence space programmes in long-term arrangements.

There are complex reasons for this slow development, each of which merits further analysis (but this falls out of scope of this paper). Indicatively, the list includes:

- The European Council did not have security and defence policy regularly and highly on its agenda. It must be noted that since the entry into force of the Lisbon Treaty 2009, the European Council held a first thematic debate on defence only in December 2013.
- There is a divergence of views on the need for the EU to have its own security space capabilities. EU is fragmented because Europe is not a unitary body and defence is still at the heart of national sovereignty. Decisions on military capabilities remain with Member States.
- The asymmetrical views between EC and ESA in security and defence matters, due to their institutional incompatibilities, and different ESA and EU membership, rules and procedures.
- The Commission, which has the authority to manage the European Space programme is weak when it comes to the CSDP issues. One example can be taken from an EC communication (COM (2013) 542 that states: "contrary to all space-faring nations, in the EU there is no structural link between civil and military space activities".[24] Also, the SPASEC Report from 2005 indicated *"the lack of an assessment mechanism for the aggregation of needs is considered a capability gap"*.

While the delay in synchronisation of the various

EU policies back in 2000 may have had some institutional causes, the situation might have changed around the time the Lisbon Treaty came into force. The first time when the potential of satellite communications technologies have been highlighted as the highest priority was by "Space Council" in May 2009. [25] Council called on the EC, ESA and its Member States to consider *"integrating satellite technologies in future broadband projects in response to institutional demand in support of European programmes and policies, including security."* The Space Council concluded: *"Filling the gaps in the field of telecommunications is the highest priority for any action plan"*.

The setting-up of the European External Action Service (EEAS) and its close cooperation with the EDA, highlighted the significance of crisis management as a key element of the EU. To this end, one can note that currently there is an unparalleled collaboration among the Commission, the High Representative of the Union for Foreign Affairs and Security Policy, assisted by European External Action Service (EEAS)[26], as well as EDA and ESA along with interested Member States in a truly structured coordination in space and security.

SATCOMS have benefited from the momentum of the European Union building process, after the new Treaty, which now permits a more constructive attitude of all main space actors.

So it appears that the time for the SATCOMs to assist coordination and the effectiveness of the EU CSDP missions and operations is coming. The following actions, presented in a chronological order, can support the optimism that SATCOMs will find their place in the future European Space Programme:

1. In June 2011, the Council invited the Commission, in close collaboration with Member States and after consultation with ESA and EDA *"to evaluate the need for improvements of the available space infrastructure to develop secure services based on the integration of global satellite communications, earth observation and positioning"*.

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[24] A New Deal for European Defence, Towards a more competitive and efficient defence and security sector, REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A New Deal for European Defence Implementation Roadmap for Communication COM (2013) 542; available at http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52014DC0387&from=EN

[25] Space Council has been established under a Framework Agreement between the European Community (EC) and the European Space Agency (ESA), which entered into force on 28 May 2004.

[26] EEAS, the new body who has replaced old second (CFSP/ESDP) Pillar in 2012, is still evolving. EEAS has had distinguished personalities (such as specific envoy for Space Mme Claude-France Arnould,, former Executive Director of EDA, and Mr. Frank Asbeck, former Director of the Satellite Centre, as an advisor for space issues). But still its space unit, along with SatCen, has not been involved in the issues of the developing European Space programme so far.

2. To this end, in December 2011, the 8th Space Council recognised that satellite communications represent a key capability in any crisis response and crisis management operation. As such the Council *"recommends the European Commission, EEAS and Member States, with the support of EDA, to work towards a secure and guaranteed access to commercial and governmental satellite communications for crisis response and crisis management actors".*[27, 28]

3. In the frame of a structured cooperation, the EDA and ESA signed an administrative agreement (2011) to launch joint initiatives such as an initiative for SATCOM tactical/mobile interim solution (ETISC).[29]

4. In February 2013, Commission set a target to preserve a world class industry in the telecommunication markets. [30]

5. In July 2013 The Commission (EC), identified the space technologies, space infrastructures and space services that can serve both civilian and defence objectives that needs further action. Satellite Communications (SATCOM) has been characterised as a critical technology. The EC declared that that it *"will act to overcome the fragmentation of demand for security SATCOM".*[31] The EC will explore the possibilities to facilitate, through existing programmes and facilities, Member States efforts to deploy government owned telecommunications payloads on board satellites (including commercial) and develop the next generation of government-owned MILSATCOM capability at European level."

6. In Jun 2013 the EDA presented its "Secure Telecom by Satellite" (SECTELSAT) concept for future governmental SATCOM, which could meet a wider range of mission requirements while generating significant savings, taking one step further the ESCPC initiative.[32]

7. In October 2013 the High Representative, taking into account that by the end of this decade, current EU member states' military Satcoms (MILSATCOM) will come to the end of their operational life declared that *"Governmental SATCOM offers the potential for a genuine dual-use cooperative European approach respecting national sovereignty. The objective is the development of a future dual civil-military capability by 2025 via a user-driven approach based on a detailed roadmap".*[33]

8. In December 2013 the EU Council reaffirmed its commitment to *"deliver key capabilities and addressing critical shortfalls through concrete projects by Member States, supported by the European Defence Agency".*[34] To this end it authorised further efforts towards *"the next generation of Governmental Satellite Communication through close cooperation between the Member States, the Commission and the European Space Agency".*

9. In June 2014, the Commission, declared that these key capabilities must be preserved and mentioned that it will continue its work to support the development of the next generation of SATCOM. In this area*, "in line with the European Council Conclusions, a user-group has been set up consisting of Commission services, the EEAS, EDA and the European Space Agency to study*

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[27] COUNCIL OF THE EUROPEAN UNION, 17828/1/11, Brussels, 2 December 2011, p.25 available at https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/intm/126579.pdf

[28] On the "guaranteed access", see Communication Satellites For European Defence And Security: Challenges And Opportunities Betzdorf, Luxembourg, 25 Nov. 2015, Available at http://www.eu2015lu.eu/en/agenda/2015/11/25-seminaire-SatCom/1_Keynote-speech---Rini-GOOS.pdf

[29] EDA WORK PROGRAMME 2012, APPROVED BY THE EDA STEERING BOARD ON 30 NOVEMBER 2011, Available at http://www.eda.europa.eu/docs/documents/eda_work_programme_2012.pdf

[30] EU SPACE INDUSTRIAL POLICY, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS EU SPACE INDUSTRIAL POLICY, COM(2013) 108, 28.2.2013, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0108:FIN:EN:PDF

[31] "Towards a more competitive and efficient defence and security sector". Available at http://ec.europa.eu/enterprise/sectors/defence/files/communication_defence_en.pdf

[32] Since May 2013, more than 20 orders have been placed for a total value of almost €4 million.

[33] Final Report by the High Representative/Head of the EDA on the Common Security and Defence Policy Brussels, 15 October 2013, available at http://eeas.europa.eu/statements/docs/2013/131015_02_en.pdf

[34] Conclusions of the European Council (19/20 December 2013). Available at http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ec/140245.pdf

SATCOM demand. Results are expected in 2015". [35]

10. Implementing this decision, the EC launched the study: *"Identification of the requirements for SATCOM to support EU Security Policies and Infrastructures"* to identify options for new activities that could be proposed in the EU's Space Programme. The concept paper *"Satellite Communication to support EU Security Policies and Infrastructures" has been published in January 2015.* [36]

11. In December 2014, the Competitiveness Council highlighted SATCOMs as a main emerging priority: *"Given the nature of security activities, bearing in mind that most security capabilities are owned and operated by Member States, NOTES the growing demand for GOVSATCOM and therefore UNDERLINES the importance of investigating potential forms of collaboration with Member States, with the foreseeable intent to resort to their GOVSATCOM assets to fulfil EU operational requirements".*

12. Then in February 2015, EDA called for proposals for a "Governmental Satellite Communication (GOVSATCOM) Feasibility Study".[37] The development of the next generation of GOVSATCOM by 2025 will be based upon commonly agreed military user requirements and its preparation phase will start in 2016. The objectives are to identify synergies with the Commission (for civilian user needs), and to start planning about the governance system.

13. In its 2015 Report on the Implementation of the European Commission's Communication on Defence[38] the Commission launched a study to identify the necessary technologies for the next generation of GOVSATCOM and to explore a cooperation scheme in order to develop

the next generation of a GOVSATCOM capacity at the European level.

14. In May 2015 the Council in its Conclusions on CSDP welcomed the progress achieved by Member States with the support of EDA in pooling & sharing projects and programmes, notably in the four key projects endorsed by the European Council in December 2013, with GOVSATCOM being one of them.

15. Then on 26 June 2015, the EDA finally launched a 1 million euro, 18-month feasibility study to prepare a GOVSATCOM programme.[39] This study will be complemented by works funded by the Commission and ESA.

These actions are very important as they put the satellite communications in the limelight. There is a favourable environment promoting ever closer and stronger links and synergies between the civil and military space activities. For example, high level civil-military requirements are developed in co-operation with the Commission together with the EEAS and EDA regarding the possible options for the next generation of government satellite communication.

This would be a true reality check for the possible next steps, because in the past there have been several efforts to pursue joint system developments on an equal-partner basis. All have failed for a series of reasons: lack of equality in the capability, disagreement on requirements, and funds available.[40]

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[35] A new deal for European Defence, Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions, Enterprise and Industry, Implementation roadmap for communication, com (2013) 542; Towards a more competitive and efficient defence and security sector, COM (2014) 387

[36] Available at http://www.pwc.fr/assets/files/pdf/2015/02/pwc_concept_paper_satcom.pdf

[37] Available at http://www.eda.europa.eu/procurement-gateway/opportunites/eda-procurement/procurement-view/15.cat.op.001

[38] Available at http://ec.europa.eu/growth/sectors/defence/files/communication-implementation-report_en.pdf

[39] Available at https://www.eda.europa.eu/info-hub/press-centre/latest-news/2015/06/26/eda-launches-govsatcom-feasibility-study

[40] In 1992, the Western European governments began collaborative discussions geared toward initiating a pan-European system. In 1993, three separate programs were being studied: 1. EuMilSatCom, which would involve eight countries; 2. BiMilSatCom, involving the United Kingdom and France; 3. and InMilSat, involving the United Kingdom, France, and the United States. By 1995, the EuMilSatCom discussions were discontinued when Italy dropped out, citing the programs estimated costs. InMilSat was dropped because of differences between U.S. and European operational requirements. At the same time, two new potential programs emerged: GEFsatcom, involving Germany and France; and TriMilSatCom, involving the United Kingdom, France, and Germany. Discussions for both ended unsuccessfully in 1996. In 1997, the United Kingdom, France, and Germany signed a TriMilSatCom Memorandum of Understanding, and it appeared that a European milsatcom system was on the horizon. One year later, however, the United Kingdom withdrew after deciding to focus on a separate national system (Skynet 5). At that point, given the substantial difficulties in reconciling performance requirements, achieving interoperability with legacy systems, controlling cost, countries decided to focus on national systems.

The issue of funds is also of critical importance, since in the period from 2008 many European economies are dominated by the financial crisis and are close to or moving into recession. It is worth noting that EDA's SECTELSAT concept for future governmental SATCOM, which could generate significant savings, has attracted the interest of many countries. So far, Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Italy, Luxembourg, Poland, Portugal, Romania, and the United Kingdom are part of the EU SatCom Market.

National priorities at a time of economic stress and in a landscape of terrorism tend to exclude strong emphasis on space issues. These EU initiatives on restructuring and defragmenting the institutional demand for SATCOM combining both civilian and defence needs and commercial and governmental SATCOM capacity at European level are timely and necessary. Their implementation could also support a stronger European space and defence industry, very much needed to develop and sustain European CSDP capabilities.

5. Conclusions

Space can be described as the fourth dimension of warfare, equally critical to civilian and military missions and operations as the land, sea and air domain. SATCOMs as an operational requirement is identified in every CSDP related EU official document so far. Furthermore, lessons learned from the field exposed SATCOMs as the number one priority in the CSDP.

As the analysis showed, SATCOM is probably the most important capability needed to the CSDP domain. Although the existing European Space Programme should be in line in principle and cover all EU policies, as it stands today, it does not cover the number one CSDP need, communications.

The new security environment after the Lisbon treaty gave room to all relevant institutional actors to pursue the best possible reflection needed on how to ensure that security and defence aspects are taken into account in the developing European Space Programme. The Council already identified SATCOMs as a main emerging priority.

It is clear that further work is needed towards increasing synergies between the civilian, military and the security sector, intensifying the dialogue with the relevant institutional actors and planning appropriate programmatic activities. The introduction of SATCOMs in the European Space Programme will improve the capability necessary for the EU to respond to its missions and operations best.

Finally it seems that the time for the limelight for satellite communications has arrived. It is not yet a pillar of the European Space programme, it may take 5 or 10 years, but gradually it is getting there.

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