

---

## ***Multi-Domain Command and Control Systems Workshop***

---

### ***- Call for Papers -***

#### ***Modalities for Industry engagement to the Multi Domain Command and Control (MDC2) systems workshop with defence planners and experts***

The EU Global Strategy states that “A solid European defence, technological and industrial base needs a fair, functioning and transparent internal market, security of supply, and a structured dialogue with defence relevant industries.” At the European Defence Agency’s (EDA) Ministerial Steering Board (SB) on 18 May 2017, Defence Ministers endorsed EDA’s revised approach towards establishing a structured dialogue and enhanced engagement with industry based on a set of priority actions. EDA is implementing these actions also following the related way ahead agreed by the Member States in the Steering Board in National Armament Directors’ composition in April 2021. In this context, engagement with industry on capability development is understood to be outside the procurement phase and is intended to improve interaction and contribute to the harmonisation of national and multi-national requirements.

In June 2019, the EDA Steering Board endorsed the first edition of the 11 Strategic Context Cases (SCC) as a guidance to implement the EU Capability Development Priorities agreed upon by Member States in 2018. The SB tasked EDA to make use of the SCC’s to inform the further implementation of the EU defence initiatives, notably Coordinated Annual Review on Defence (CARD), Permanent Structured Cooperation (PESCO) and, to the extent possible, in the context of the European Defence Fund (EDF). The SB further tasked EDA to make use of the SCC to facilitate the initiation and consolidation of cooperative projects.

In May 2022, in response to the European Council tasking in the Versailles Summit, the Commission and the High Representative/Head of the European Defence Agency presented a Joint Communication on the Defence Investment Gaps Analysis and Way forward (JOIN(2022) 24 final). With regards to the analysis of Defence capability gaps carried out by EDA, the Joint Communication proposes to work on a number of specific strategic medium-to-long term capabilities and recommends augmentations of existing forces and capabilities in the Cyberspace domain, and notably to address “Resilient and interoperable Multi-Domain Command & Control (C2) capabilities from the strategic down to the tactical level and across all domain boundaries as they are critical enablers for any military operation and mission. Two key areas have been identified to enhance the related capabilities, (1) contributing to the improvement of EU’s cross-domain C2 capacities, and (2) providing a deployable joint interoperable C2 capability readily available for integration to be able to operate more efficiently with international and regional partners.”

In this context, EDA is organising the 1<sup>st</sup> Workshop on Multi-domain Command and Control Systems to assist EDA and its participating Member States (pMS) in keeping them abreast with the state-of-the-art technology and to identify potential collaborative work in this technical field on **14 February 2023**. The purpose of this Workshop is twofold, on one side to provide Industry with a deeper insight into the Information Superiority activities, and on the other hand, to contribute to developing a common

understanding between Industry and Member States on the related challenges and opportunities. Therefore, inputs coming from industry (through a call for paper process) are requested to support the definition of a consolidated Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Agenda, to be decided by the Member States, and to discuss with EDA pMS concrete steps to forge a capability path towards meaningful collaborative work.

Following this call for papers, Industry representatives are invited to express interest by submitting answers to the questions below by close of business on **16 January 2023**. Particular companies will be selected to participate in the workshop based on an evaluation of these answers by EDA. The call for papers jointly addresses two topics: multi-domain C2 systems and Data-Centric/Zero Trust Security. Two separate sessions dealing with both topics are envisaged as part of the workshop agenda which will much depend on the number of submissions finally accepted for presentation. According to the level of interest shown by Industry and Member States, EDA may organise a follow-up workshop later in 2023.

## OBJECTIVE OF THE MEETING

The main objective of the workshop is to provide insight into research and development options to understand issues and challenges in shaping an *EU approach to multi-domain operations*. The provision of strategic enablers and assets to enable a Rapid Deployment Capacity and to further strengthen EU military command and control structures with the necessary communications and information systems are key elements within the Strategic Compass of the European Union. Industry would be expected to share its views and suggestions to the audience (Member State defence planners and relevant defence sector experts) on further perspectives which could inform R&T and capability development in this selected area. This should also include the long-term perspective (beyond 20 years) on the industrial and technological outlook notably on C4ISR requirements to ensure efficient use of data provided by air, land, sea, space and cyberspace, and thus, to make capability planners reflect on the ‘art of the possible’. This input may inform the ongoing cycle of the EU Capability Development Plan and its work strands.

## QUESTIONS

### Multi-domain Command and Control Systems

- In a multi-domain operations battlespace, how to harmonize the networking requirements for connecting future platforms (manned and unmanned) including sensors in the long-term perspective (20 years)?
- Which C4ISR requirements at the operational and tactical levels are essential to building a strategic multi-domain command and control system?
- Which innovative technologies provide added value and impact to modernizing network infrastructures that will enable a multi-domain concept of manoeuvre?

### Data-Centric Security/Zero Trust Security

- How does Data-Centric Security/Zero Trust Security relate to and impact the operationalisation of multi-domain command and control systems?
- Which advantages and disadvantages may bring the adoption of DCS/ZTS into C4ISR networks in terms of:

- Attain interoperability
- Compliance with Federated Mission Network (FMN) specifications

## Industry & Market

- What kind of initiatives and decisions would be required as incentives to promote the development of state-of-the-art technology from an economical point of view in the context of:
  - Multi-domain command and control systems to enable multi-domain operations
  - Data-Centric Security/Zero Trust Security
- How can European Industry ensure its strategic autonomy on the above-mentioned technologies? What are the key potential challenges (including dependencies from external suppliers) that European industries and their supply chains are facing in this domain?

## INSTRUCTIONS

Answers should be limited to 1500 words for all questions together, though length will not be used as an exclusionary criterion. They should not contain commercially sensitive information. Answers may be made available as supporting material for the workshop to the Member States' representatives including those from submitters that were not selected for participation, should they not have an opt-out of supplying their papers formally expressed (proper attribution will be observed). Submitters should also specify whether they have any limitations in presenting their views in a panel format.

Please send your paper, clearly linking answers to questions, to the EDA by e-mail to [CAP@eda.europa.eu](mailto:CAP@eda.europa.eu) with a copy to [salvador.llopis@eda.europa.eu](mailto:salvador.llopis@eda.europa.eu) and [Lou-Anne.DUCOS@eda.europa.eu](mailto:Lou-Anne.DUCOS@eda.europa.eu). Please clearly indicate a point of contact to coordinate possible participation in the workshop.

The EDA will assess the papers according to the criteria below while also striving to select a broad spectrum of representatives to ensure as fair, objective and balanced a discussion as possible. Responses from national research centres as well as commercial actors will be considered.

## ELIGIBILITY CRITERIA

**European** - Submissions will only be accepted from defence and defence-related industry established within the EDA participating Member States based on EDA's approach towards industry engagement<sup>1</sup>.

**Credibility** - Lack of defence expertise will not be a criterion for exclusion but interested commercial actors must have a demonstrated track record of output and an effective market presence of C4ISR products / developments in the civil area.

**Versatility** – Submitters should be well versed in CIS/C4ISR/Cyber Defence technological challenges. However, participation is not limited to systems integrators. Submissions from SMEs are encouraged.

---

<sup>1</sup> When engaging industries on EDA prioritisation tools (CDP/SCC, OSRA, KSA), the Agency invites industries established in pMS that do not have limitations stemming from entities outside the pMS. Such limitations could refer to intellectual property rights, security of supply, security of information or export control.

## EVALUATION CRITERIA

**Innovation** - The level of innovation and originality demonstrated in the answer. Ability to propose thoughts looking far ahead, notably in the domain of Command and Control (C2) Systems (integration).

**Comprehensiveness** – i.e., how different aspects are articulated with each other. Ability to include answers in the broader context. Answers should address all related capability aspects in a structured and comprehensive manner.

**Lifecycle approach** - Industry involvement in the process is to be considered throughout the capability lifecycle, from research to decommissioning and therefore answers should span different lifecycle aspects including upgrading.

**Interoperability** - The level of interoperability with other systems (basic to high-end) is to be considered.