

CYBER, C4ISR

# (FI) Arctic Command & Control Effector and Sensor System (ACCESS)

(established in May 2023)

For Public Release

## PROJECT DESCRIPTION

The project aims at creating a knowledge base and concept for a new generation scalable and multifunctional transceiver family. Technological trends such as miniaturization and convergence enable the development of systems that combine more and more functionalities into the same equipment. This project explores the possibilities of developing multi-functional systems where a single piece of equipment with centralized control can provide improved performance and reliability at a reduced weight and cost.

In order to meet the demands of the increasingly fast-paced and multidimensional battlefield, there is a need for comprehensive and up-to-date situational awareness spanning all domains, including MANET data links, passive electronic surveillance and the localization and classification of enemy RF signals, combined with blue force tracking and identification-friend-or-foe functionalities. Traditionally these functions have been achieved via specialized, separate equipment and devices. However, technological convergence and miniaturization are beginning to enable the development of a software-based system that could achieve a wide range of functionalities while being smaller in size as well as life-cycle cost-efficient.

The ACCESS project aims at information exchanges and coordination between Member States and associated countries in order to prepare the ground for conceptualizing, designing and developing such a convergence-based multifunctional system. The project will coordinate between existing and future RD projects, identifying synergies and helping to establish the technical requirements and specifications for a new generation multifunctional transceiver family. To achieve operability across all Member States, the system should be designed to also perform in arctic conditions. Solutions for GNSS denied environments should also be foreseen. Modularity should be addressed in order to achieve scalability.

In addition to coordinating existing and future activities of the Member States, the project may host a series of workshops dedicated to establishing the knowledge base for the development of the interoperable and multifunctional communication and electronic warfare system. Moreover, the ACCESS project also aims at identifying specific development projects to be incorporated in order to further these goals.

## OBJECTIVES/PRODUCTS

1) Information exchange aiming to creating a knowledge base for the development of new concepts and battlefield solutions making use of technological convergence. Such concepts should consider especially how multifunctional systems can simultaneously provide capabilities such as C2, sensors and effectors spanning a wide spectrum, also enabling an enhanced situational awareness. 2) Conceptualizing the development of technological solutions providing the combined capabilities of wireless software-based C2 and sensor systems, especially with a view to operating in arctic conditions. The solutions should constitute a convergence-based system combining functions of C2, situation awareness, electronic protection and electronic support.



FI, EE, FR, SE



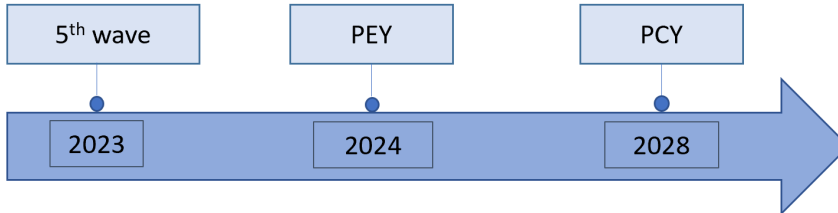
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IDEATION  
INCUBATION  
EXECUTION  
CLOSING**Contribution to the  
more binding  
commitments**  
Yes**Capability  
Perspective****EU CDP priority**  
Cross-Domain  
capabilities  
contributing to  
achieve EU's level  
of ambition**CARD references**  
Communication  
Security and  
Information  
Management, Data  
Links and Tactical  
CIS and C2**Operational  
Viewpoint****HICG**  
CIS-Friendly Forces  
Identification and  
Tracking  
Land ISTAR**EDA support**

No

## INDICATORS

Project Execution Year (PEY) and Project Completion Year (PCY):



## DELIVERABLES ACHIEVED

- No deliverables achieved yet.

## CRITERIA FOR SUCCESS

- The ACCESS project is expected to enhance the information superiority capabilities of the Member States and associated countries. In the increasingly complex and multidimensional operational environments of the modern battlespace, secure and efficient operations will be facilitated with the development and deployment of scalable, integrated, multifunctional RF transceiver technologies.
- The security, accuracy and speed of data transfer and communication technologies will be improved. Moreover, the development of a new generation multifunctional transceiver technology combining RF communications with electronic signal management and electronic protection will enable improvements in logistics and possibly even tactical innovations.
- EU defence industrial autonomy for critical communications systems will be increased to the extent that the development of the aforementioned technologies will reduce dependency from non-EU products and technology supply.