CYBER, C4ISR

(PT) Automated Modelling, Identification and Damage Assessment of Urban Terrain (AMIDA-UT)

(Established in November 2021)

For Public Release

PROJECT DESCRIPTION

The project is based on a digital 3D mapping system (of systems), mainly designed to identify urban targets (buildings or other built structures). Architecturally, it consists of isolated, or several, coordinated / autonomous drones, with multisensory payloads, complemented with vehicle/soldier-attached sensors and even space-based sensors for earth observation (SBEO), which collect and send the necessary data to a land-based station, that is processed afterwards (it may consider the use of cloud computing and AI), to create digital models of the terrain and to identify and characterise building structures (construction materials, typical layouts and structural systems) automatic and autonomously.

From this product, and through the fusion of information from other sources (e.g. satellite image), a set of decision support services and computer applications can be developed in the areas of targeting, manoeuvre, Force Protection, or training (simulation).

OBJECTIVES/PRODUCTS

The main objective of this project is to create an automated system/equipment/tool for improved and faster mapping and identification of target structures, as well as to support and improve the operational effectiveness of planners, weaponeers, modelling and simulation analysts, battle damage assessors and commanders, in the decision-making process, or to support training activities.

In the short term, the objective is to define the CST and CSR, promoting the utility and operational value of the products and by-products to be developed, at the level of the pMS, as well as to EDTIB. In the medium term, develop a strengthened Feasibility Study to promote the largest number of financing and co-financing options, namely the use of EDF for RD purposes. In the long term it is intended that the product or by-products is/are accepted, useful and ready for use in an interoperable manner in CSDP operations.

INDICATORS

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

2021 4ᵗʰ Wave ➤ **2026** PEY ➤ **2027** PCY
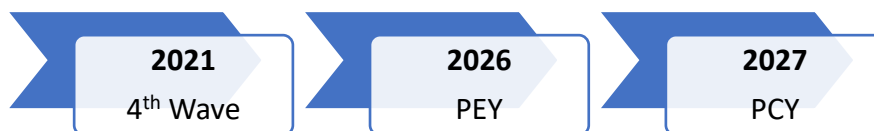
DELIVERABLES ACHIEVED

- Terms of Reference (ToR).
- Draft Common Staff Targets (CST) and Draft Common Staff Requirements (CSR).
- Feasibility Study/Preliminary Technological Demonstrator.
- Draft Work Breakdown Structure (WBS).

CRITERIA FOR SUCCESS

- Create a system/equipment/tool for different purposes in operational effectiveness and supporting training activities.

PT, AT, ES, FR

BG, CZ, DE, LT, RO, EL

IDEATION
INCUBATION
EXECUTION
CLOSING

Contribution to the more binding commitments
Yes

Capability Perspective

EU CDP priority
Persistent and Resilient C4ISTAR

CARD references
Soldier Systems

Operational Viewpoint

HICG
Land ISTAR
Indirect Fire Support
Air Precision Strike-Unmanned
C-IED

EDA support
No