

STRATEGIC ENABLERS & FORCE MULTIPLIERS

(FR) Timely Warning and Interception with Space-based TheatER surveillance (TWISTER)

(Established in November 2019)

For Public Release

PROJECT DESCRIPTION

The project aims at strengthening the ability of Europeans to better detect, track and counter hypervelocity threats, in close cooperation with NATO, through a combination of enhanced capabilities for space-based early warning and endo atmospheric interceptors. The project will address different types of threats, like ballistic missiles up to 3500 km range (including manoeuvring ballistic missiles and re-entry vehicles), high-altitude supersonic/hypersonic cruise missiles, hypersonic glide vehicles and other high manoeuvring Air Breathing Targets (ABT). Early warning satellites will provide reliable and timely information on initial detection of the threats, their trajectory and their characterisation, in order to allow their neutralization by an endo- atmospheric multirole interceptor.

OBJECTIVES/PRODUCTS

To this end, the project intends to:

- Develop a common understanding of the requirements and threats.
- Develop a future European space-based Early Warning capability carrying out the initial detection and tracking of those threats before handing them over to ground based radars.
- Develop a new multirole endo atmospheric interceptor able to face a large set of current and future complex and evolving air and missile threats.

INDICATORS

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



DELIVERABLES ACHIEVED

- High Level Requirements agreed for EW architecture study (March 2020).
- Interceptor Concept phase (March 2021).
- EW technological studies and ground demonstrator (Feb 2022) in the frame of EDIDP and EDF call preparation.

CRITERIA FOR SUCCESS

- Shared view on threats and requirements on both parts of TWISTER.
- The detailed definition of threats and scenarios are included in the scope of EDIDP/EDF funded projects, as a common activity of consortia and supporting Project Members.
- Strong involvement of Project Members in the management and the co-funding of the activity are necessary to reach the high level of ambition set for these capabilities.
- The exchanges will have to be developed between Project Members for further steps in order to avoid the duplication of the efforts.

FR, AT, FI, DE, IT,
NL, ES

BE, SE

IDEATION
INCUBATION
EXECUTION
CLOSINGContribution to
the more binding
commitments
YesCapability
PerspectiveEU CDP priority
Space Services
Integrated Air and
Missile DefenceCARD references
Defence in Space
Ground Based Air
Surveillance
Medium and
Long-Range Air
Defence and BMDOperational
ViewpointHICG
Surface Based Air
& Missile Defence

EDA support

No