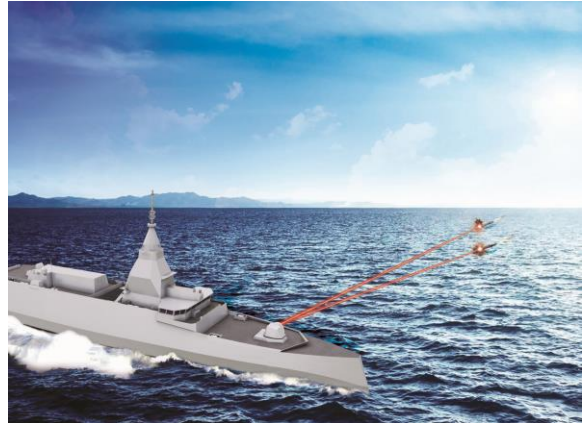


TALOS-TWO Press release

Kick-off Meeting 10th and 11th December 2024

The TALOS-TWO project (Tactical Advanced Laser Optical Systems: Technologies for High Power Laser, Vulnerability study, Vignette development and Operational Study), funded by the European Defence Fund programme, started in December 2024.

TALOS-TWO has the aim of paving the way towards fully European and sovereign 100kW-class laser weapons by 2030. With a focus on the laser source and beam combining modules of the laser effector, the project will contribute to maturing critical LDEW technologies and subsystems and provide a proof of concept that combining technologies can meet the requirements of the end-users in different use cases.



The kick-off meeting was opened by CILAS (Project Coordinator) who highlighted the importance of laser weapons as new systems for military forces to address emerging threats in the context of modern warfare. The aim of TALOS-TWO is to ensure the sovereignty of laser components for EU forces and bring innovative European solutions for the Laser Source architectures of the future L-DEW systems. CILAS also stressed the importance of setting up synergies with national programmes and working in coordination with MoDs to continue the work of TALOS-TWO with future demonstrators.

Building on the results of the European PADR (Preparation Action for Defence Research) TALOS project (<https://www.talos-padr.eu/>) that ended in April 2023, TALOS-TWO brings together 21 European partners from 8 countries. The consortium includes the three main national champions for LDEW in France (CILAS), Italy (Leonardo) and Germany (Rheinmetall), two other large companies, 7 research organisations, 5 SMEs and 1 MidCap, fostering a cross-border cooperation throughout academic and industrial worlds. The LDEW academic and industrial sector will be highly impacted by the TALOS-TWO project outcomes: the project will represent a good example of collaborations among different EU countries and will provide significant potential for economic growth and innovation in EU defense sector, thus contributing directly to EU excellence and autonomy and putting Europe at the forefront of the LDEW market.

In particular, TALOS-TWO will:

- Develop two high-power 1 μ m combined Laser Sources demonstrators adopting innovative architectures
- Simulate combining methods using 2 μ m laser sources (virtual 2 μ m demonstrator)
- Contribute to establish a European supply chain for 1 μ m and 2 μ m laser sources
- Mature technologies needed to develop fully European 2 μ m ("eye-safe") laser sources with significant output power increase
- Pioneer dynamic 3D visualisation of the danger zone around the target for a controlled shooting
- Investigate the effects of high-energy lasers on relevant targets to predict the capability of LDEW effectors to defeat these targets
- Synergise with national programmes for the insertion of TALOS-TWO technologies into national demonstrators
- Provide a roadmap for future developments towards TRL 8 by 2030 for a 1 μ m 100kW-class LDEW and a 2 μ m 10kW-class LDEW.

Project Facts:

Project reference	101167869
EDF call:	EDF-2023-RA-DIS-LDEW - Laser-based directed energy weapons
Start Date	01 Dec 2024
Duration	36 months
Requested EU Contribution	25,000,000.00 €

Project Partners:

COMPAGNIE INDUSTRIELLE DES LASERS CILAS SA (CILAS) – FR
LEONARDO - SOCIETÀ PER AZIONI (LDO) – IT
RHEINMETALL WAFFE MUNITION GMBH (RWM) – DE
UAB ALTECHNA SENSING (Altechna) – LT
CRYTUR SPOL SRO (Crytur) – CZ
DEUTSCHES ZENTRUM FÜR LUFT UND RAUMFAHRT EV (DLR) – DE
EDAIR TECHNOLOGIES SL (EDAIR) – ES
FERDINAND-BRAUN-INSTITUT GGMBH LEIBNIZ- INSTITUT FÜR HÖCHSTFREQUENZTECHNIK (FBH) – DE
FiberBridge Photonics GmbH (FiberBridge) – DE
FRAUNHOFER GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG EV (Fraunhofer) – DE
MBDA FRANCE (MBDA-FR) – FR
MBDA DEUTSCHLAND GMBH (MBDA-GE) – DE
MBDA ITALIA SPA (MBDA-IT) – IT
WOJSKOWA AKADEMIA TECHNICZNA IM.JAROSLAWA DABROWSKIEGO (WAT) – PL
OFFICE NATIONAL D'ETUDES ET DE RECHERCHES AEROSPATIALES (ONERA) – FR
THALES LAS FRANCE SAS (TLAS) – FR
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO (TNO) – NL
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