

European Defence Fund Space-defence R&D areas and opportunities

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European Defence Fund Industry & Matchmaking Day
Space4Defence 2025

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EDF: a **successful catalyst** of the defence (industry) landscape

€4 billion already committed for cooperative defence R&D

EU 2nd biggest defence R&D investor in Europe

157 R&D projects (incl. EDF23)

+ 62 projects from precursors (PADR and EDIDP)

High-level of inclusiveness

~1.200 beneficiaries from all parts of the EU

~1/3 of participants SMEs

Real cooperative dimension

On average, 17 entities from 8 MS and Norway involved in an EDF project

Growing attractiveness

236 proposals submitted under 2023 calls: +76% increase

Number proposals x2 under

non-thematic SMEs and disruptive technologies calls



EDF-funded actions in line with EU's capability priorities



Key next-generation defence capabilities supported

Examples: space, main battle tank, strategic air transport, anti-UAVs, navy vessels



~20% of the EDF budget implemented under EU Defence Innovation Scheme

with innovative measures to support defence R&D and attract new and small players



First concrete products and systems already used by armed forces

Examples: counter naval mine solutions, unmanned ground vehicles



Part of a comprehensive EU strategy to boost defence investment

with ASAP and EDIRPA, the new European Defence Industrial Strategy (EDIS) and the newly proposed EDIP

EDF Categories of Actions

Addressed by **annual work programmes**
& **calls for proposals**



 **Medical response, CBRN & human factors**

 **Information superiority**

 **Sensors**

 **Cyber**

 **Space**

 **Digital transformation**

 **Energy resilience & environmental transition**

 **Materials and components**

 **Air combat**

 **Air and Missile defence**

 **Ground combat**

 **Force protection and mobility**

 **Naval combat**

 **Underwater warfare**

 **Simulation and training**

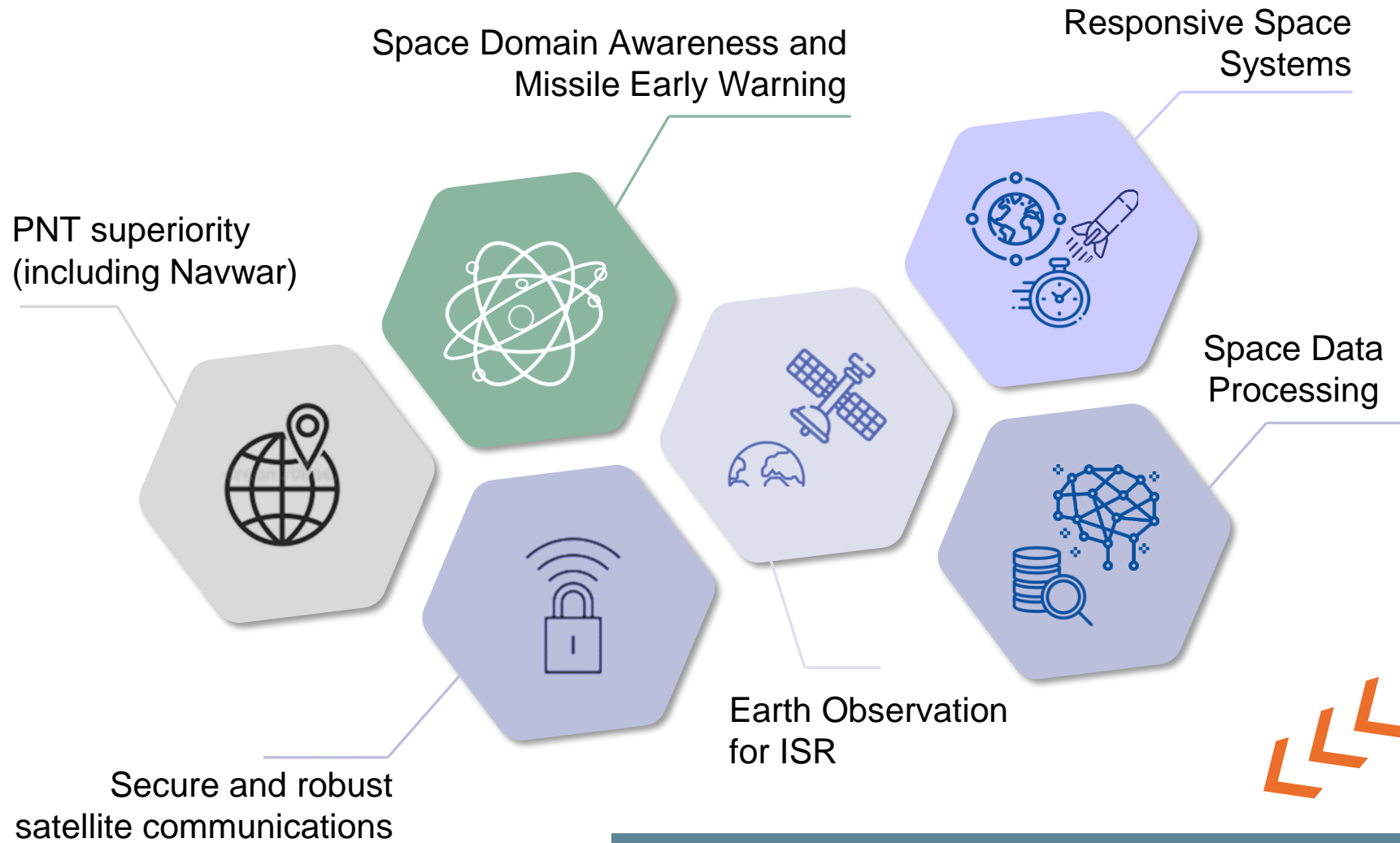
**Horizontal
categories**

 **Disruptive technologies**

 **Innovative defence technologies
(SMEs)**



Space category of actions: R&D areas



Topics addressed in each area on a given year informed by:

- **Strategic compass**
- **Capability Development Plan (CDP)**: consistency with commonly agreed priorities
- **Coordinated Annual Review on Defence (CARD)**: opportunities for collaborative R&D
- **Permanent Structured Cooperation (PESCO)** projects
- **Synergies** and complementarity **with other EU programmes**

EDF Multiannual perspective: Space

- High level of ambition for **Space**: >10% EDF budget (~100M€/y in average)

Main expected outcomes for the
SPACE category

PNT: Joint procurement for integration of PRS receivers into EU MSs military systems (autonomy/synergy Space/Defence) and strengthening of NAVWAR capabilities

SDA: Joint procurement of SSA capabilities interfaced with EU SST

SBEW: Space-based missile early warning prototype interconnected with other relevant sensors and effectors

SBEO: Space Based ISR constellation prototype

Secure Comms: Joint procurement of a secure waveform for satellite communications (potential synergies with the space connectivity constellation, subject to further analysis)

[Latest version published on 30/01/2025](#)

https://defence-industry-space.ec.europa.eu/document/download/4e253565-aa45-445d-86e4-5489869f00fa_en?filename=EDF%20Indicative%20Multiannual%20Perspective%202025-2027.pdf

EDF Work Programmes 2021 to 2024

Space category of action

EDIDP 2019-2020
(EDF precursor)



- AI-based processing for persistent earth observation from space
- Advanced SSA C2
- Enhanced SSA sensors
- Early warning against ballistic missile
- European standardized and sovereign Galileo PRS
- Development of a European protected waveform to secure defence satellite communications in peacetime, missions and operations
- Space-based maritime surveillance

>75 M€

EDF 2021



- Space and ground-based NAVWAR surveillance
- European protected waveform and accompanying technologies for resilient satellite communications against jamming

50 M€

EDF 2022



- Responsive space system
- Innovative space ISR capabilities
- Space-based missile early warning

20 M€

40 M€

90 M€

EDF 2023



- Threats surveillance and protection of space assets
- Space situational awareness

25 M€

100 M€

EDF 2024



- Multi-source satellite image analysis (challenge, 2 topics)
- Secure waveform for satellite communications

25 M€

25 M€

+ others resulting from non-thematic calls (SME, disruptive)

























































Under Evaluation, results expected mid-May



Under **EDIDP** and **EDF21-24**: ~450M€ committed in space-related projects/actions

EDF Work Programme 2025

EUR ~1.065 billion – DDL 16 October, 17.00 CET

33 topics	Opening of the calls: Mid-Feb 2025	Deadline for submission: 16 Oct 2025 17.00 CET
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 Medical Response & CBRN	<ul style="list-style-type: none">SGA under FPA on medical countermeasures  SGA under FPA on medical countermeasures  Autonomous triage and evacuation 	13.5 M€ 11.5 M€ 10 M€
 Information superiority	<ul style="list-style-type: none">EU MIDS  	39 M€
 Sensors	<ul style="list-style-type: none">Multi-band 4D radar  Infrared detectors  	29.5 M€ 29 M€
 Cyber	<ul style="list-style-type: none">Robustness of autonomous vehicles (spin-in)  Improved cyber defence operation capabilities  	20 M€ 34 M€
 Space 115 M€	<ul style="list-style-type: none">On-orbit operations and services (spin-in) Space-based ISR constellation 	49 M€ 66 M€
 Digital transformation	<ul style="list-style-type: none">Human-AI dialogue systems (challenge)  	27 M€
 Energy & Environment	<ul style="list-style-type: none">Propulsion system for next generation rotorcrafts Naval hybrid propulsion and power systems (spin-in)  Aircraft propulsion and energy management systems  	25 M€ 20 M€ 48 M€
 Materials & Components	<ul style="list-style-type: none">Chiplet for defence applications  	25 M€
 Air combat	<ul style="list-style-type: none">Collaborative air combat Enhanced pilot environment 	49 M€ 54 M€
 Air & missile defence	Not addressed	
 Ground combat	<ul style="list-style-type: none">Counter-battery capabilitiesFuture modular multipurpose land platforms Drone-based mass munitions (spin-in, cascade funding)Land collaborative combat including air-land 	20 M€ 79 M€ 49 M€ 44 M€
 Protection & Mobility	<ul style="list-style-type: none">Soldier systems (cascade funding) 	35 M€
 Naval combat	<ul style="list-style-type: none">Digital ship and naval combat cloud  	54 M€
 Underwater warfare	<ul style="list-style-type: none">Advanced underwater networks  Stand-off anti-submarine warfare 	25 M€ 20 M€
 Simulation & training	<ul style="list-style-type: none">Design and analysis framework for Aerial Systems Live, Virtual, Constructive training interoperability  	28 M€ 15 M€
 Disruptive technologies	<ul style="list-style-type: none">Great-Depth-Enabling Technologies (R)Non-thematic research topic <p>Max. 4 M€/proposal, up to design</p>	23 M€ 20 M€
 SMEs	<ul style="list-style-type: none">Non-thematic research for SMEs and ROsNon-thematic development for SMEs <p>Max. 6 M€/proposal</p>	34 M€ 33 M€

Legend: **Research** **Development**  STEP **EUDIS-related**
 Contributing to identified EDF main expected outcomes

 Others	Other actions (outreach, IT, studies, audit, indirect management) <ul style="list-style-type: none">Business coaching for SMEsBlending facility for equity funding for SMEs/Mid-CapsBusiness accelerating servicesMatchmaking events for investors and SMEsEDF hackathon eventsCSA for EDF NFP network	6,6 M€ 1.6 M€ 20 M€ 3.8 M€ 0.6 M€ 0.6 M€ 2 M€
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#EUDefenceIndustry

DEFIS

EDF-2025-DA-SI-SPACE-3OS: On-orbit operations and services

What are we talking about?

- assets to conduct space-to-space operations in support of Space Domain Awareness, to protect and ensure the uninterrupted services of space systems used for defence applications, in particular to inspect, repair, update, maintain or deorbit military satellites.

Activities targeted by the call topic: studies and design

- the proposal of possible detailed **CONOPS** and related **feasibility analysis** for on-orbit operations and services [...], considering also the 'dual-use by design' of the required capabilities and, where relevant, the High-Level Requirements included in the technical guidance document produced under Horizon Europe*.
→ **Synergies with // civil activities**
- a **design** that, taking into account relevant civilian developments as background information (→ **'spin-in' dimension of the topic**), can provide defence capability planners and national armament directorates with the in-orbit demonstration of **potential solutions to be implemented to achieve the required capability**.
- development of **technological and capability demonstrators** (TRL 6 - ready for IOD/IOV) of systems or sub-systems to be designed to perform on-orbit operations and services on current and planned satellites owned by EU Member States and EDF Associated Countries Ministries of Defence.

The defence needs and associated CONOPS to be considered include:

- the space-based ability to support space operation centres in their identification and attribution of designated in-orbit unfriendly behaviours from cooperative and non-cooperative space objects, in all relevant orbits.
- Rendez-vous Proximity Operations (RPO), docking and berthing: the ability to perform autonomous close-proximity operations, rendez-vous and capturing of cooperative and non-cooperative, prepared and non-prepared, Resident Space Objects (RSO) for de-orbiting (e.g., emergency debris removal) or servicing (e.g., life extension) enabling military space logistics (e.g., assembly, maintenance and repairing) and responsive space capabilities.
- the ability of the servicer to perform multi-purpose and multi-functional operations thanks to at least one advanced robotic arm and manipulator, including a tool exchanger device.

Budget: 49 M€

* in-Space Operations and Services (ISOS) within the Horizon Europe Cluster 4 (HORIZON-CL4-SPACE-2025-01-21 to 25) [...] target[ing] a comprehensive dual-use by design space infrastructure supporting ISOS and composed of servicing, host, logistics and satAPPS components

EDF-2025-DA-SPACE-SBISR: Space-based ISR constellation

What are we talking about?

- development of an affordable constellation of small satellites, including its ground segments able to handle various types of innovative sensor payloads (optical, night vision, low light infrared, hyperspectral, RADAR, passive RF detection and video) for intelligence, surveillance and reconnaissance (ISR) applications.
- complement high-end existing military capabilities while allowing responsive and smart tasking and data collection for near real-time operational and tactical use.

Activities targeted by the call topic: studies, design, system prototyping and testing

- development of the overall system (space and ground segments, including a **federation layer**) up to prototyping, **in-orbit demonstrations of selected space component prototypes**, and testing of the federation layer, allowing EU Member States and EDF Associated Countries to have early access to space data.

Other considerations

- Designed as a **follow-on of EDF-2022-DA-SPACE-ISR** topic (that led to SPIDER project) to reach the expected outcome from the EDF Multiannual perspective
- Strong potential synergies with the study on potential **Earth Observation Governmental Service** (EOGS) that EU Space programme is considering

Budget: 66 M€

Useful links

- **EDF general information** on DG DEFIS website (**annual WP and MAP, Slides of Info Days, Tutorials**)

https://defence-industry-space.ec.europa.eu/eu-defence-industry/european-defence-fund-edf-official-webpage-european-commission_en

- **EDF Calls for proposals** on the *Funding and Tenders portal* (**where to find call documentation and apply**)

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/edf>

- **SAVE-THE-DATE!! EDF Info-days : 2-3 April 2025** Register from here → [European Defence Fund Info Days - European Commission](#)

- **Access to EDF results** (projects fiches)

- EDIDP: [European Defence Industrial Development Programme \(EDIDP\) - European Commission \(europa.eu\)](#)
- EDF 2021: [Results of the EDF 2021 Calls for Proposals: EU invests €1.2 billion in 61 defence industrial cooperation projects \(europa.eu\)](#)
- EDF 2022: [Result of the EDF 2022 Calls for Proposals \(europa.eu\)](#)
- EDF 2023: [Results of the EDF 2023 Calls for Proposals - European Commission \(europa.eu\)](#)

- **EU Defence industry web page** (access to all defence industry policies): [EU Defence Industry - European Commission \(europa.eu\)](#)

- **STEP**: https://commission.europa.eu/strategy-and-policy/eu-budget/strategic-technologies-europe-platform_en



**EUROPEAN
DEFENCE
FUND**

**MANY THANKS
FOR YOUR
ATTENTION
AND
GOOD LUCK!**