# **STUDIOGALLO**

# **European Defence Fund 2021-2027**

The European Defence Fund encourages and facilitates collaborative, cross-border research and development within the defense sector. It aims to bolster the EU's technological advantage, enhance capabilities crucial for the Union's strategic autonomy and resilience, and safeguard its citizens and Member States.

In tandem with and enhancing Member States' endeavors, the Fund encourages collaboration among companies and research entities across various sizes and geographical locations within the Union. This collaboration focuses on advancing cutting-edge and interoperable defense technology and equipment through research and development. The Fund aids competitive, collaborative projects across the entire research and development cycle to impact European defense capability and industry significantly.

It actively promotes the involvement of small and medium-sized enterprises (SMEs) in collaborative initiatives and nurtures revolutionary innovative solutions.



### **Annual Work Programmes**

The EDF is implemented through annual work programs structured along 17 thematic and horizontal categories of actions, which have been shaped to remain stable during the Multiannual Financial Framework 2021-2027. In view of easing coordination between stakeholders, readiness, and predictability over the years, an indicative EDF multiannual perspective has been released. It gives an overview of the main expected outcomes per category of actions for the period 2021-2027. This multiannual perspective may be subject to annual updates.

The EDF categories of actions are:

Medical response, Chemical Biological Radiological Nuclear (CBRN) biotech & Human factors: the European defense industry often integrates civilian solutions into its military offerings. Given the intense competition, especially from US and Asian companies, and its impact on the defense priorities of Member States and Europe, consistent investment at the European level is crucial in this field. Emphasis is placed on the ongoing strategic development of capabilities, particularly in detecting, identifying, and monitoring CBRN threats, along with creating medical countermeasures for CBRN situations;

**Information superiority:** this is crucial for every operation, encompassing the entire military decision-making process. This is particularly significant due to increasingly shorter timelines and a growing volume of data to gather and handle. It encompasses various technologies and capabilities, enabling command entities across all levels to make decisions based on appropriate, timely, and precise information, ensuring swift and secure transmission to relevant actors.;

Sensors: the category includes a wide range of technologies centered on optoelectronic, also known as "optronic," technologies, as well as radar systems. These technologies encompass both active (generating waves to explore the environment) and passive (detecting waves or particles in the environment) systems, incorporating networked sensing systems;

**Cyber:** recognized vulnerabilities underscore the significant EU reliance on third countries for cybersecurity and cyber defense technologies, significantly impacting the EU's strategic autonomy. Encouraging collaboration in research and development for cybersecurity and cyber defense, resulting in the advancement of cyber defense technologies and systems, aligns with the EU's ambition to fortify cyber resilience and enhance capabilities;

**Space:** space capabilities offer swift, globally accessible services (including within space), delivering continuous and discreet support for situational awareness, aiding decision-making, and the execution of military operations. They also assist in evaluating the outcomes of these operations. Military applications and scenarios necessitate space capabilities to deliver secure, durable, dependable, and high-performance services within an ever-changing threat landscape.;

**Digital transformation:** the emergence of digitalization and big data has brought about the actualization of Artificial Intelligence (AI) and autonomous systems, even though we are only at the initial stages of technological advancements in these fields. These innovations significantly alter the execution of defense operations. Consequently, there is a necessity to establish and advance fundamental AI technologies for computer-assisted decision-making, and collaboration between humans and systems, as well as for robotics and autonomous systems within the realm of defense;

Energy resilience & Environmental transition: the shift toward ecological transition will restructure global geopolitics, influencing economic, trade, and security interests worldwide. It's crucial to acknowledge that global climate and environmental issues serve as substantial catalysts for threats and instabilities. These challenges have the potential to escalate into conflicts, create food insecurity, prompt population displacement, and drive forced migration;

Materials and Components: The accessibility of crucial materials and components poses a shared challenge among space, defense, and security sectors, as highlighted in the Action Plan on Industry Synergies. Advanced material technologies, semiconductors, and microelectronics are recognized as crucial technologies applicable across various industries. It's imperative to improve the identification of strategic dependencies and analyze measures to mitigate them. This includes assessing the risk of potential compromise or denial of technology use during operations;

Air Combat: this category involves developing and integrating air combat systems and technologies into comprehensive systems enabling data exchange and sensor networking. This enables operations in increasingly intricate air environments. These capabilities are envisioned to function in the future through a blend of manned and unmanned platforms, potentially integrated into larger joint operational settings, utilizing a collaborative combat approach;

Air and Missile Defence: it encompasses diverse capabilities aimed at safeguarding EU forces and populations against various aerial threats, ranging from countering Unmanned Aerial Systems (UAS) to defending against ballistic missiles;

**Ground Combat:** this category focuses on major land combat systems, Unmanned Ground Systems (UGS), and indirect fire while ensuring collaborative combat for European land forces:

**Force protection and mobility:** it minimizes losses to hostile action at all levels while ensuring security of supply for the forces on the battlefield. Force protection and mobility have a broad range of aspects, which vary from the design parameters of major combat platforms to individual soldier systems;

**Naval Combat:** naval power and supremacy at sea is crucial for the European armed forces to fulfill their missions and to defend European citizens and territory as well as to enable power projection in more remote geographical areas. It has also a key role in peace and crisis times to support a credible foreign policy;

Underwater warfare: European navies consider underwater warfare a vital component of their operational strategies and naval capability enhancement, encompassing seabed warfare activities like safeguarding critical infrastructure. The Strategic Compass emphasizes the necessity to protect crucial maritime infrastructure, including the seabed, by fostering joint operational, capability, and technological solutions;

Simulation and Training: employing simulations and simulators enhances both individual and collective capabilities through training procedures. Military training involves a diverse array of simulated weaponry, ships, aircraft, and vehicles alongside live training on real equipment, while Modelling & Simulation (M&S) offers a safer, less resource-intensive rehearsal capability across various professions, including the military.

Disruptive technologies: the EDF regulation mentions that disruptive technologies can be based on concepts or ideas originating from "non-traditional" defence actors. The Fund should allow for sufficient flexibility regarding the consultation of stakeholders and the carrying out of such actions. Two lines of action are considered for the European Defence Fund 2021-2027:

**Disruptive technologies based on concepts or ideas originating from "non-traditional defence's state-of-art"**, such as Artificial intelligence (AI), big data, the internet of things (IoT), autonomous systems (AS), biotechnologies and quantum technologies;

Emerging technologies equally disruptive, contributing to (or complementing) the development of innovative defence systems, such as laser-based or RF-directed energy weapons, over-the-horizon radar applications, adaptive camouflage, or electromagnetic artillery systems.

# Calls for proposals

Calls for proposals are launched on an annual basis following the adoption of the corresponding annual work program, implemented directly by the Commission.

The EDF annual work programs are defined in close cooperation with Member States representatives within the EDF Programme Committee, including the involvement of the European Defence Agency (EDA) and the European External Action Service (EEAS). Identified priorities are aiming at contributing to the security and defence interests of the Union, in line with defence capability priorities agreed upon by Member States within the framework of the Common Security and Defence Policy (CSDP) and particularly in the context of the Capability Development Plan (CDP), and taking into account, where appropriate, regional priorities and priorities from and international organizations (NATO).

The categories of actions structuring the annual work programs have been designed to **cover all military domains and key enabling technologies**. Funded projects should enable the European Commission to respond to the needs of Member States while targeting critical capabilities that are essential for the future.

All the EDF Call for Proposals are linked here (https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search?programmePeriod=2021%20-%202027&frameworkProgramme=44181033).

# Funding and eligibility

Financial support is provided mainly through **grants**, regarding collaborative R&D projects in the field of defence. The EDF can support 100% of the total eligible costs of a research action. In comparison, the EDF support to a development action may vary between 20% and 100% of its total eligible costs depending on the activities covered (e.g. design, prototyping, testing, qualification, certification). **Incentives** are also provided, to favor the involvement of (cross-border) SMEs and mid-caps in the projects: their qualitative and quantitative participation is assessed as part of the award criteria and an increased funding rate (bonus) is offered if the costs allocated to SMEs or mid-caps are above a given threshold. An increased funding rate is also offered to projects developed in the **Permanent Structured Cooperation (PESCO)** context.

Eligibility is restricted to collaborative projects, involving at least three suitable entities from at least three Member States or associated countries. Disruptive technologies call for proposals that can accommodate smaller consortia (at least two eligible entities from at least two Member States or associated countries). Norway is the only associated country that has opted in for the EDF. Recipient and subcontractor

entities must be established, have their executive management in the EU, and must not be subject to control by a non-associated third country. Entities established in non-associated third countries may participate but are subject to conditions defined to ensure the security and defence interests of the EU and its Member States. Such entities cannot receive EDF funding.

# **EDF National Focal Points (NFPs)**

The National Focal Points are individuals nominated and supported by EU Member States, and Norway. Working closely, NFPs support the implementation of the European Defence Fund, reaching out to stakeholders (notably applicants and potential applicants), providing information and advice to potential applicants and beneficiaries of the EDF program, and assisting in building partnerships, throughout the EDF life cycle. National NFPs are listed in the following link (https://defence-industry-space.ec.europa.eu/eu-defence-industry/network-european-defence-fund-national-focal-points-nfp\_en).

# **EDF Budget**

An allocation of nearly **8 000 000 000 euro** for 2021-2027 has been earmarked for the European Defence Fund. Of this, 2 700 000 000 euros are designated for collaborative defense research, while 5 300 000 000 euros are allocated for collaborative capability development projects, supplementing national contributions.

#### Links

Regulation (EU) 2021/697 of the European Parliament and of the Council of 29 April 2021 establishing the European Defence Fund and repealing Regulation (EU) 2018/1092 (Text with EEA relevance) (https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/? uri=CELEX:32021R0697)

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