



European Defence Fund (EDF)

Call for proposals

EDF-2023-RA-SI

Call for **spin-in** EDF research actions
implemented via actual cost grants

Version 1.1
22 June 2023



HISTORY OF CHANGES			
Version	Publication Date	Change	Page
1.0	13.04.2023	– Initial version.	
1.1	22.06.2023	<ul style="list-style-type: none"> – Update of the call opening date – Addition of provisions following the Council Implementing Decision (EU) 2022/2506 of 15 December 2022 on measures for the protection of the Union budget against breaches of the principles of the rule of law in Hungary 	<ul style="list-style-type: none"> – 23 – 25-26
		–	
		–	



EUROPEAN COMMISSION
Directorate-General for Defence Industry and Space
DEFIS.A – Defence Industry

CALL FOR PROPOSALS

TABLE OF CONTENTS

0. Introduction	5
1. Background.....	6
2. Type of action and funding rate — Objectives — Scope and types of activities — Functional requirements — Expected impact — Specific topic conditions	7
Type of action and funding rate	7
Specific topic conditions.....	7
EDF-2023-RA-SI-CYBER-ASPT: Automation of security penetration tests	7
Objectives.....	7
Scope and types of activities	8
Functional requirements	10
Expected impact	10
EDF-2023-RA-SI-ENERENV-IPS: Innovative propulsion systems for defence applications	11
Objectives.....	11
Scope and types of activities	13
Functional requirements	16
Expected impact	16
EDF-2023-RA-SI-MATCOMP-HPM: High performance materials for Defence applications	17
Objectives.....	17
Scope and types of activities	18
Functional requirements	21
Expected impact	22
3. Available budget	22
4. Timetable and deadlines	23
5. Admissibility and documents	23
6. Eligibility	24
Eligible participants (eligible countries).....	24
Consortium composition	26
Eligible actions and activities.....	26
Geographic location (target countries).....	27
Duration	27

Project budget.....	27
Ethics.....	27
Security.....	28
7. Financial and operational capacity and exclusion.....	29
Financial capacity	29
Operational capacity	30
Exclusion	30
8. Evaluation and award procedure	31
9. Award criteria.....	32
10. Legal and financial set-up of the Grant Agreements.....	34
Starting date and project duration	34
Milestones and deliverables.....	35
Form of grant, funding rate and maximum grant amount.....	35
Budget categories and cost eligibility rules.....	35
Reporting and payment arrangements.....	37
Prefinancing guarantees	37
Certificates	38
Liability regime for recoveries	38
Provisions concerning the project implementation.....	38
Other specificities	39
Non-compliance and breach of contract	39
11. How to submit an application.....	39
12. Help	40
13. Important	42
Annex 1	45
Annex 2	47
Annex 3	49

0. Introduction

This is a call for proposals for EU **action grants** in the field of collaborative defence research and development under the **European Defence Fund (EDF)**.

The regulatory framework for this EU Funding Programme is set out in:

- Regulation 2018/1046 ([EU Financial Regulation](#))
- the basic act (EDF Regulation [2021/697](#)¹).

The call is launched in accordance with the Work Programme 2023 Part II² and will be managed by the **European Commission, Directorate-General for Defence Industry and Space (DG DEFIS)**.

The objective of this call is to spin-in results generated in other civil EU-funded programmes to the defence sector. The aim is to encourage cross-fertilisation of the civil-defence innovation landscape. Furthermore, it encourages proposals to drive forward and integrate results from other sectors, combining them with defence-specific solutions.

This will enhance the overall EU R&D efficiency, avoid unnecessary duplication of R&D efforts, improve defence industrial innovation capacity and make sure the armed forces will have access to the most performant solutions.

The call covers the following **topics**:

- **EDF-2023-RA-SI-CYBER-ASPT: Automation of security penetration tests**
- **EDF-2023-RA-SI-ENERENV-IPS: Innovative propulsion systems for defence applications**
- **EDF-2023-RA-SI-MATCOMP-HPM: High performance materials for Defence applications**

Each project application under the call must address only one of these topics. Applicants wishing to apply for more than one topic, must submit a separate proposal under each topic.

We invite you to read the **call documentation** carefully, and in particular this Call Document, the Model Grant Agreement, the [EU Funding & Tenders Portal Online Manual](#) and the [EU Grants AGA – Annotated Grant Agreement](#).

These documents provide clarifications and answers to questions you may have when preparing your application:

- the [Call Document](#) outlines the:
 - background, type of action and funding rate, objectives, scope and types of activities, functional requirements, expected impact and specific topic conditions (sections 1 and 2)
 - timetable and available budget (sections 3 and 4)

¹ 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 (OJ L 170, 12.5.2021).

² Commission Implementing Decision C(2023) 2296 final of 29.03.2023 on the financing of the European Defence Fund established by Regulation (EU) No 2021/697 of the European Parliament and the Council and the adoption of the work programme for 2023 - Part II.

- admissibility and eligibility conditions, including mandatory documents (sections 5 and 6)
- criteria for financial and operational capacity and exclusion (section 7)
- evaluation and award procedure (section 8)
- award criteria (section 9)
- legal and financial set-up of the Grant Agreements (section 10)
- how to submit an application (section 11)
- the Online Manual outlines the:
 - procedures to register and submit proposals online via the EU Funding & Tenders Portal ('Portal')
 - recommendations for the preparation of the application
- the AGA — Annotated Grant Agreement contains:
 - detailed annotations on all the provisions in the Grant Agreement you will have to sign in order to obtain the grant (*including cost eligibility, payment schedule, accessory obligations, etc.*).

You are also encouraged to visit the [DG DEFIS webpage](#) to consult the list of projects funded previously.

1. Background

The European Defence Fund (EDF) fosters the competitiveness, efficiency and innovation capacity of the European defence technological and industrial base (EDTIB).

It contributes to the EU strategic autonomy and its freedom of action, by supporting collaborative actions and cross-border cooperation between legal entities throughout the Union, in particular SMEs and mid-caps, as well as by strengthening and improving the agility of both defence supply and value chains, widening cross-border cooperation between legal entities and fostering the better exploitation of the industrial potential of innovation, research and technological development, at each stage of the industrial lifecycle of defence products and technologies.

The EDF funds projects which are consistent with the defence capability priorities commonly agreed by EU Member States within the framework of the Common Foreign and Security Policy (CFSP), through:

- collaborative research that could significantly boost the performance of future capabilities, aiming to maximise innovation and introduce new defence products and technologies, including disruptive technologies for defence, and aiming to make the most efficient use of defence research spending in the EU

or

- collaborative development of defence products and technologies, thus contributing to the greater efficiency of defence spending in the EU, achieving greater economies of scale, reducing the risk of unnecessary duplication and thereby fostering the market uptake of European defence products and technologies and reducing the fragmentation of defence products and technologies, ultimately leading to an increase in the standardisation of

defence systems and a greater interoperability between Member States' capabilities.

In line with the Work Programme 2023 part II, this call covers thematic topics addressing **spin-in research actions** which will be implemented through actual cost grants.

2. Type of action and funding rate — Objectives — Scope and types of activities — Functional requirements — Expected impact — Specific topic conditions

Type of action and funding rate

The topics under this call for proposals concern EDF Research Actions (RA).

Research Actions are reimbursed at a funding rate of 100%.

Specific topic conditions

For all topics under this call:

- multi-beneficiary applications are mandatory and specific conditions for the consortium composition apply (*see section 6*)
- the proposals need to build upon or integrate results that have been achieved within one or several projects funded under an EU programme call with a focus on civil applications (*see section 6*)
- the following reimbursement option for equipment costs applies: depreciation only (*see section 10*)

EDF-2023-RA-SI-CYBER-ASPT: Automation of security penetration tests

Objectives

Cyber defence applications are in most cases relying on cybersecurity technologies. There are many actions in the civil domain on the automation of penetration test. However, due to the particular conditions of defence-related use-cases, civil technologies need to be adapted, further improved or combined with defence-specific technologies through additional R&D efforts to make them suitable for defence applications. This research topic aims to overcome defence-specific obstacles associated to the automation of penetration tests, and at least partially automate the process by developing a user-friendly software solution that performs network security penetration tests for cyber defence actors.

General objective

Vulnerability scanners and various policy audit tools are available to system administrators today. However, the use of such tools are not sufficient to protect computer networks against advanced threat actors and internal threats. To complement them, many organisations employ penetration testers who actively try to think as a threat agent and compromise computer networks. Penetration testers can be used for many different purposes. For example, they can be assigned the task of verifying a system administrators hypotheses concerning a vulnerability in the computer network, to identify vulnerabilities missed by scanners and administrators, or to act as a red team that test the security operations centre of an organisation.

Specific objective

To emulate the thinking and actions of a real threat agent is difficult, and is even

more complex as the capabilities of likely threat agents increase. Consequently, competent penetration testers are scarce and to regularly run penetration tests is associated with considerable costs. A number of conceptual attempts have been made to automate this process, e.g. by modelling the process as hidden Markov model and train models on theoretical/artificial data. However, security audits and penetration tests involve many activities that are non-trivial to automate.

Scope and types of activities

Scope

The proposals should address research that is based on use cases where the system owner administrates the penetration tests. Thus, non-cooperative computer networks are outside the scope of this topic. For instance, the use cases can include a) whitelisting of payloads in antivirus software, or b) release of initial information about the targeted network to the penetration testing system. The expected scope is to create a user-friendly software solution that performs network security penetration tests. Interference on deployed systems should be on a minimal/acceptable level, while simultaneously leaving a realistic imprint in the systems, as security logs, etc. Furthermore, the final outcome of the proposals should be suitable for the context of military security operation centres (SOC) and evidence of this should be provided in the proposals.

Types of activities

The following table lists the types of activities which are eligible for this topic, and whether they are mandatory or optional (*see Article 10(3) EDF Regulation*):

Types of activities (art 10(3) EDF Regulation)		Eligible?
(a)	Activities that aim to create, underpin and improve knowledge, products and technologies, including disruptive technologies, which can achieve significant effects in the area of defence (generating knowledge)	Yes (mandatory)
(b)	Activities that aim to increase interoperability and resilience, including secured production and exchange of data, to master critical defence technologies, to strengthen the security of supply or to enable the effective exploitation of results for defence products and technologies (integrating knowledge)	Yes (mandatory)
(c)	Studies , such as feasibility studies to explore the feasibility of new or upgraded products, technologies, processes, services and solutions	Yes (mandatory)
(d)	Design of a defence product, tangible or intangible component or technology as well as the definition of the technical specifications on which such a design has been developed, including any partial test for risk reduction in an industrial or representative environment	Yes (mandatory)
(e)	System prototyping ³ of a defence product, tangible or intangible component or technology	No
(f)	Testing of a defence product, tangible or intangible component or technology	No

³ 'System prototype' means a model of a product or technology that can demonstrate performance in an operational environment.

Types of activities (art 10(3) EDF Regulation)		Eligible?
(g)	Qualification ⁴ of a defence product, tangible or intangible component or technology	No
(h)	Certification ⁵ of a defence product, tangible or intangible component or technology	No
(i)	Development of technologies or assets increasing efficiency across the life cycle of defence products and technologies	No

The proposals must cover at least the following tasks as part of the mandatory activities:

- Generating and integrating knowledge and studies:
 - automation of tasks performed by penetration testers. For example, network/vulnerability tests, security misconfiguration tests, identifications and authentication failure tests, broken access control tests, injection tests, web/contact scraping and credential harvesting, email validation, integration with online reconnaissance tools like Shodan, creation of password guessing lists based on per domain/organisation information for feeding password cracking tools;
 - bring about an artificial intelligence capable of making relevant decisions. For example, effective ways to perform a network scan without being blocked, choosing the most effective exploitation method on a vulnerability(ies), evaluate the outcome of the exploitation and in cases of exploitation failure decide whether the exploitation method was wrong or a secondary security control prevented the execution of the payload, etc., given the costs and benefits involved;
 - defining user interfaces for operators of the automated penetration testing solution, e.g. a GUI⁶ showing the progress of the test, showing future plans of the artificial intelligence, and making it possible to control these plans through constraints;
 - evaluation of the solutions capability and suitability for operational use, e.g. by comparing its behaviour and capability to penetration testers of different competence.
- Design:
 - producing the blueprints for a product capable of automating penetration tests based on the technical model, along with suitable use cases.

In addition, the proposals must include methods for the evaluation of the outcome of the automated penetration testing based on well-established standards such as the Common Vulnerability Scoring System (CVSS).

⁴ 'Qualification' means the entire process of demonstrating that the design of the product, component or technology meets the specified requirements, providing objective evidence by which particular requirements of a design are demonstrated to have been met.

⁵ 'Certification' means the process by which a national authority certifies that the product, component or technology complies with the applicable regulations.

⁶ Graphic User Interface.

The proposals must also give due consideration to design principles and implement a specific ethics-focused approach during the development, deployment and/or use of AI-based solutions, e.g. by using the Assessment List for Trustworthy Artificial Intelligence (ALTAI) to develop procedures to detect and assess the level and address potential risks.

In order to avoid unnecessary duplications and to best complement R&D efforts already targeting civil applications, the research conducted must build on R&D results of projects funded by EU programmes targeting civil applications for efficient spinning-in of knowledge and innovative solutions to the defence sector.

Functional requirements

The proposals must benefit a future solution for the armed forces of the Member States and EDF associated countries (Norway).

The outcome should enable or be capable of:

- executing a number of tools and techniques typically used during penetration tests, e.g. tools available in platforms such as Kali Linux;
- assessing alternatives, predict the effect of actions, and/or plan for future actions, e.g. by evaluating which actions are the most valuable in the long run;
- performing actions so that they leave a footprint (e.g. host logs) that is representative of the actions taken;
- having a user interface which allows a human operator to specify its behaviour, e.g. by selecting profiles representing tests with different focus and aggressiveness;
- allowing a human operator to specify acceptable and non-acceptable actions, e.g. in terms of white-listed hosts and black-listed hosts;
- having a user interface which communicates plans, assessments, and previous actions to a human operator.

Expected impact

The outcome should contribute to:

- a stronger, more competitive and technologically independent European Defence Technological and Industrial Base (EDTIB) when it comes to solutions for security penetration test automation and capability to test the security posture of operational computer networks and emulate threat agents during training, exercises, and system tests;
- enhanced security for the EU, its Member States and EDF associated countries (Norway) and more capable and interoperable forces performing cyber defence operations;
- the spin-in of civil European R&D into the defence sector.

EDF-2023-RA-SI-ENERENV-IPS: Innovative propulsion systems for defence applications

Objectives

General objective

The EU has set the goal of becoming a climate-resilient society by 2050, fully adapted to the unavoidable impacts of climate change. With this target, the EU tracks its progress on cutting emissions through regular monitoring and reporting, and sets targets to progressively reduce its greenhouse gas emissions targeting net-zero greenhouse gas emissions by 2050.

These targets could affect also military platforms, which progressively must reduce their GHG (Green House Gases) emissions similarly as other economic sectors. In the field of mobility and transportation, the Green Deal objectives aim especially at boosting energy efficiency and ecodesign of products, reducing dependence on fossil fuels, promoting renewable and low-carbon gases and also supporting sustainable and sovereign key component development.

Innovations on propulsion systems are of higher interest in the heart of the contribution of the defence sector to address the European "Fit for 55" target. It is also an opportunity for defence to foster sovereignty and strategic autonomy while enhancing defence core capabilities (range, autonomy, silent operation and watch, lower signature...).

Developing innovative propulsion systems adapted for military operations without compromising current defence capabilities is challenging, and the specific military environment can limit the transfer of civil technologies regarding safety, maintenance, cost and supply issues.

In this sense, one of the main issues that Member States and EDF associated countries (Norway) armed forces, especially in the land and naval domain, are facing is to meet EU Green Deal (EUGD) targets with the existing fleets. Long military platforms lifespan forces to analyse existing and emerging sustainable fuels regarding their projected availability and useability as sustainable fuel solutions for a transitional period without significantly modifying current platform's configuration.

Therefore, a first step on the green transitional pathway must be a focus on the land and naval domain, to offer solutions to their existing platforms, for example by analysing Sustainable Fuels (SF) keeping EUGD and suitable to be used in retrofitted conventional combustion engines or looking at adaptations of conventional propulsion systems to enhance efficiency. The use of SF must not change the vessel's and vehicle's current structure neither compromise their present operational range.

Supporting the scale-up of innovative propulsion technologies for defence applications (marine, land) is essential to make military equipment more efficient and less reliant on fossil fuels. This research topic may cover several areas such as low carbon advanced fuels, improved engine energy efficiency, hybridisation or alternative propulsion concepts.

Future capability and operational challenges require to conduct research on the next generation of integrated architectures for military platforms, able to manage energy distribution for propulsion, in order to enhance their mobility, their survivability, their capability and their resilience to cope with multiple threats within a large range of missions, while reducing fossil energy, ensuring maintainability and support, and optimising life cycle costs.

Technological challenge:

The solutions must ensure high level of safety, low logistics footprint and life cycle cost reduction. The solutions must also take into account the possibility of retrofitting existing units at low cost.

Based on civil industry research achievements and civil-driven innovations, no technology risk is expected regarding, for example, the adaptation of available bio-fuel and e-fuel to be used as a reference to develop a military standard for the use of SF.

Market barriers:

The solutions may derive from COTS components when possible in order to be affordable and to ensure maintainability and support in operations.

Specific objective

The specific objective of this topic is to spin-in results generated in other civil EU-funded research programmes to the defence sector. To do so, different types of innovative propulsion systems that are integrated into innovative energy architectures are to be identified and analysed. This spin-in of knowledge into the defence sector should aim to the highest possible reduction of greenhouse gases integrating new technologies. The solutions should consider alternative sources of sustainable fuels (pure biofuels, hydrogen, hydrogen-based fuels as ammonia, methanol, LOHC⁷ and e-fuels), used standalone or mixed with conventional fuels, and propulsion solutions. As a first step, the proposals must define the gradual adaptation for the land and naval domain.

As the current platforms appear to be vulnerable to fossil energy supply, the operational benefit provided by the innovative propulsions and energy solutions (higher autonomy, efficiency, redundancy, new operating modes, as e.g. silent mode and extended silent watch, low thermal signature, maintaining access to emission control area⁸) represents an opportunity to foster users' capability needs. The development of joint European capabilities on core alternative propulsion and energy architectures must nevertheless address the ability to operate in specific military scenarios and ensure the highest level of safety, low logistics footprint and life cycle cost reduction.

The proposals should analyse a range of solutions that can contribute to the reduction of greenhouse gases to meet the EUGD without compromising operational capabilities, including solutions suitable for retrofitting existing units/vessels but also solutions for future units/vessels.

It is also of interest to provide an overview of innovative management of energy for propulsion systems in combination with all the aforementioned additional measures and assess which combination can reduce greenhouse gases most efficiently while maintaining at the same time the requirements requested.

As main challenge, alternative propulsion and energy systems for military platforms will imply to study their integration into a wider scope, in order to maintain their combat effectiveness, thus covering energy supply in operations including powering infrastructure and logistical issues.

⁷ Liquid organic hydrogen carriers.

⁸ Reference to:

- The emission control area (SECA, NECA and ECA) under the MARPOL (Marine pollution) convention as adopted by the IMO (for maritime domain);
- The LEZ (Low emission zone) or ZEZ (zero emission zone) for metropolis access –ground domain).

Increasing the ability for military platforms to operate with SF can participate to maintain the capacity to operate in those area in peacetime (incl. training in Europe).

The proposals should provide solutions to issues of safety and long-term storage concerns, which make them otherwise inapplicable for military uses. The solutions should be specifically adapted to platforms that operate in critical combat scenarios. Attention should be given to promote solutions for the next generation systems and for retrofitting the current military propulsion systems.

Scope and types of activities

Scope

The proposals must address solutions of innovative architectures based on efficient energy management and advanced propulsion technologies for application in defence. Solutions will be analysed/compared through presentation of KPIs⁹ or other parametric method. Relevant indexes valid for multiple domains will be preferable.

The proposals must focus on key subsystems covering a complete value chain including sustainable fuels storage and supply, analysing the impact of the military requirements on the internal combustion engines design (covering current and future engines) and auxiliary energy systems in order to optimise the cost-effectiveness of the solution implemented.

The proposals must include the exploration of technologies, from off-the-shelf (civilian, pending relevance and military solutions) to alternative power/energy generation capacities or innovations, and characterise the potential gains, risks, development and production roadmaps regarding platform propulsion performance needs and different operational scenarios (training, missions, low / high intensity conflicts). Moreover, the proposals should analyse the best option in every case in terms of cost, efficiency and safety.

Types of activities

The following table lists the types of activities which are eligible for this topic, and whether they are mandatory or optional (*see Article 10(3) EDF Regulation*):

Types of activities (art 10(3) EDF Regulation)		Eligible?
(a)	Activities that aim to create, underpin and improve knowledge, products and technologies, including disruptive technologies, which can achieve significant effects in the area of defence (generating knowledge)	Yes (optional)
(b)	Activities that aim to increase interoperability and resilience, including secured production and exchange of data, to master critical defence technologies, to strengthen the security of supply or to enable the effective exploitation of results for defence products and technologies (integrating knowledge)	Yes (mandatory)
(c)	Studies , such as feasibility studies to explore the feasibility of new or upgraded products, technologies, processes, services and solutions	Yes (mandatory)
(d)	Design of a defence product, tangible or intangible component or technology as well as the definition of the technical specifications on which such a design has been developed, including any partial test for risk reduction in an industrial or representative environment	Yes (mandatory)

⁹ Key performance indicators.

Types of activities (art 10(3) EDF Regulation)		Eligible?
(e)	System prototyping ¹⁰ of a defence product, tangible or intangible component or technology	No
(f)	Testing of a defence product, tangible or intangible component or technology	No
(g)	Qualification ¹¹ of a defence product, tangible or intangible component or technology	No
(h)	Certification ¹² of a defence product, tangible or intangible component or technology	No
(i)	Development of technologies or assets increasing efficiency across the life cycle of defence products and technologies	No

The proposals must cover at least the following tasks as part of the mandatory activities:

- Integrating knowledge:
 - state-of-the-art of current military and civilian SF and propulsion solutions;
 - identification of several improved technological solutions for optimised propulsion architecture allowing to increase power density, energy generation, energy storage and energy distribution and management efficiency;
 - define together with defence end-users best efficient and sustainable solutions for the military applications and in different operational scenarios, the storage and operational requirements in terms of risk of explosion, corrosion, toxicity, safety and logistic facilities;
 - identify and analyse possible SF regarding their properties and availability regarding military constraints;
 - provide monitoring and analysis of critical technologies, their potential applications, identify barriers, existing gaps and dependencies related to sustainable fuels.
- Study:
 - evaluate advanced propulsion and energy architectures for next generation of platforms und upgrade/retrofitting of current platforms, including from a cost perspective;

¹⁰ 'System prototype' means a model of a product or technology that can demonstrate performance in an operational environment.

¹¹ 'Qualification' means the entire process of demonstrating that the design of the product, component or technology meets the specified requirements, providing objective evidence by which particular requirements of a design are demonstrated to have been met.

¹² 'Certification' means the process by which a national authority certifies that the product, component or technology complies with the applicable regulations.

- characterise the effect of the solutions on the physical components, engine behaviour, efficiency, consumption, maintained plans, life cycle cost, and materials behaviour;
 - define the optimum operational scenarios (area, modes, type of mission, etc.) offered by each solution including the characterisation of the improvement of military functions (stealth mobility, low emissions, etc.) but also the performance limitations (range, autonomy, speed, etc.);
 - assess the impact of the solutions on safety, risk of incidents, vulnerability towards threats through a FMECA¹³ approach;
 - define the business case, cost analysis and the supply chain of the solutions that contribute to EU strategic autonomy;
 - define SF application standard for military including onboard storage and distribution system analysis, including long-term storage and stability;
 - run a training and manufacturing requirement analysis in order to sustain their manufacturing and application processes;
 - evaluate the environmental benefits of the solutions with life cycle assessment including at least greenhouse, NOx, SOx gases and particles impact, as well as impact on abiotic depletion and use of critical raw materials.
- Design:
- simulation and modelling in order to provide a technical evaluation of the solutions and to define the adaptations needed whether they are physical components or functionality ones;
 - provide long-term test bench information regarding the behaviour of the platform propulsion architecture and its different components, including fuel storage solutions. Depending on the technologies to be evaluated, one or several tests should be used to identify the relevant ones for maturity;
 - develop a production roadmap along with the design of the most relevant energy management architecture;
 - demonstration of technologies and partial testing of a proposed solution. Design a maintenance plan for the technologies involved.

In addition, the proposals should cover the following tasks:

- Study:
 - identify technology shortfalls that need to be addressed in subsequent activities at EU or national level.
- Design:
 - demonstrate the product/technologies in a representative military environment.

¹³ Failure mode effects and criticality analysis.

In order to avoid unnecessary duplications and to best complement R&D efforts already targeting civil applications, the research conducted must build on R&D results of projects funded by EU programmes targeting civil applications for efficient spinning-in of knowledge and innovative solutions to the defence sector.

In addition, research activities should be in line with activities conducted by EDA (e.g. the incubation forum for circular economy in European defence (IF-CEED)¹⁴ activities) in this area.

Functional requirements

The proposed product/technologies should meet the following functional requirements:

- be compatible in a dual-use approach with at least one of the following sustainable fuels: biofuels¹⁵, hydrogen, hydrogen-derived fuels and e-fuels;
- be capable to use greener sources of energy and operate with a dual fuel engine which combines current fuel solutions and advanced sustainable fuels;
- improve efficiency of propulsion component technologies (weight, volume and other performances such as acceleration, stealth mobility, etc.);
- improve the energy and power generation to serve increasing energy demand of auxiliary energy production for onboard systems and unmanned aerial and naval vehicles;
- improve energy storage density without compromising safety;
- be adapted for the retrofit of typical defence solutions currently present in the Member States and EDF associated countries (Norway) armed forces or for the development of future solutions, while meeting the Green Deal requirements;
- be compatible with NATO/EU logistics, meaning it should lead to a common solution that allows, amongst others, for refuelling;
- ensure the possibility of global operations;
- be compliant with relevant national, European and global regulations and standards.

Expected impact

The outcome should contribute to:

- the spin-in of civil European R&D into the defence sector;
- enabling Member States and EDF associated countries (Norway) armed forces to meet EU Green Deal targets, and to be climate neutral by 2050, with only minimal loss of military and joint operational capabilities;
- facilitating the introduction of new propulsion and energy integrated systems technologies by reducing their evaluation time and cost, thus providing a cutting-edge tactical advantage in operations, while contributing to energy transformation in Europe;

¹⁴ <https://eda.europa.eu/what-we-do/eu-policies/if-ceed>.

¹⁵ Excluding E5, E10, B7 fuels, synthetic navy fuels derived from biomass already compliant with the STANAG 1385.

- developing the autonomy of the industrial sector in the EU and enhance cross-border cooperation (from large industrial groups to SMEs) in a high-tech niche sector;
- the EU technological sovereignty and strategic autonomy ahead of future non-associated third-country competitors;
- enhancing complementarity and stimulate cross-fertilisation between civil and defence technologies and solutions in this area.

EDF-2023-RA-SI-MATCOMP-HPM: High performance materials for Defence applications

Objectives

General objective

The complex tasks in operational scenarios require specific technical characteristics for the defence equipment and materials. The performance and life-cycle cost of defence platforms and equipment directly depend on the materials properties of the solutions available for their manufacturing. In particular, the resistance to high temperatures is an important feature for use in specific environments or for components that need to withstand high thermal loads due to their functionality. At the same time, future materials and structural solutions should exhibit low weight and keep the same material performances necessary for specific defence applications.

Furthermore, in addition to the physical and chemical required properties of the materials themselves, there are challenges related to availability, production, processing, export control and environmental concerns which also need to be taken into account.

Specific objective

Defence applications require the investigation and improvement of materials that are able to withstand hypersonic flight, extreme thermal loads, ballistic loads, electromagnetic pulse, etc.

The development of material solutions for civil applications is a broad and dynamic technological field. Temperature resistance and weight reduction are aspects of interest for civil applications also and R&D efforts in this regard regularly result in new materials, design, structures, processes or standards that improve material performance. However, due to the harsh and particular conditions of defence-related use-cases, civil technologies need to be adapted, further improved or combined with defence-specific technologies through additional R&D efforts to make them suitable for defence applications.

The capacity to withstand high temperatures is a particularly important characteristic for materials used in many defence applications. Parts of aircraft, both airplanes and helicopters, especially close to the engine, need to yield the necessary temperature resistance, weight and structural characteristics. Concerning ground systems, components withstanding high temperatures do not only need to have acceptable weight but should also demonstrate good ballistic performance, for example to gain protection against kinetic energy penetrators. For missile, air and space applications, materials need to reach the state of the art in terms of lightness, structural strength as well as withstanding extreme thermal loads (e.g. typical of hypersonic flight). High temperature materials used for naval applications need to additionally be protected against salty water corrosion or other types of corrosion but also to save weight by reducing insulation or to enhance heat resistance. Sensor systems need materials that exhibit transparency in spectral band suitable for their function, such as visual

frequencies, near infrared, radiofrequencies or others, while maintaining mechanical properties in terms of hardness and temperature resistance.

All of these application examples will additionally benefit from materials that feature a certain level of protection against effects of electromagnetic pulse and contribute to ensuring electromagnetic compatibility.

Scope and types of activities

Scope

Several key components and structural parts of defence systems are subject to extreme conditions (like high temperatures, ballistic impact or explosions), often in combination with harsh conditions in terms of stress, chemical environment, etc. In these conditions, material properties at high temperatures and/or when subject to high velocity impact represent a limiting factor for the performance of the system as a whole. In addition, for some applications, the critical components consist of or are protected by insulation materials. This leads to a considerable increase in total weight and a significant rise in material costs.

The proposals must focus on design and/or adaptation of high performance materials for future use in defence applications while achieving weight saving. The proposals must also address demonstration of material performance in a laboratory environment that recreates realistic conditions for the materials used.

Types of activities

The following table lists the types of activities which are eligible for this topic, and whether they are mandatory or optional (*see Article 10(3) EDF Regulation*):

Types of activities (art 10(3) EDF Regulation)		Eligible?
(a)	Activities that aim to create, underpin and improve knowledge, products and technologies, including disruptive technologies, which can achieve significant effects in the area of defence (generating knowledge)	Yes (mandatory)
(b)	Activities that aim to increase interoperability and resilience, including secured production and exchange of data, to master critical defence technologies, to strengthen the security of supply or to enable the effective exploitation of results for defence products and technologies (integrating knowledge)	Yes (mandatory)
(c)	Studies , such as feasibility studies to explore the feasibility of new or upgraded products, technologies, processes, services and solutions	Yes (mandatory)
(d)	Design of a defence product, tangible or intangible component or technology as well as the definition of the technical specifications on which such a design has been developed, including any partial test for risk reduction in an industrial or representative environment	Yes (mandatory)
(e)	System prototyping ¹⁶ of a defence product, tangible or intangible component or technology	No

¹⁶ 'System prototype' means a model of a product or technology that can demonstrate performance in an operational environment.

Types of activities (art 10(3) EDF Regulation)		Eligible?
(f)	Testing of a defence product, tangible or intangible component or technology	No
(g)	Qualification ¹⁷ of a defence product, tangible or intangible component or technology	No
(h)	Certification ¹⁸ of a defence product, tangible or intangible component or technology	No
(i)	Development of technologies or assets increasing efficiency across the life cycle of defence products and technologies	No

The proposals must cover at least the following tasks as part of the mandatory activities:

- Generating knowledge:
 - determination of the property ranges (density, mechanical properties, temperature resistance, etc.) for new materials;
 - determination of components exposed to operating conditions;
 - description of the chemical, physical and mechanical requirement profile.
- Integrating knowledge:
 - identification and selection of candidate materials from suppliers within the EU and EDF associated countries (Norway) and that are not subject to export restrictions by non-associated third countries;
 - setting-up cross-disciplinary collaboration between material suppliers, Original Equipment Manufacturers (OEMs), research institutes and defence end-users on the considered use-cases.
- Studies:
 - evaluation of components exposed to operating conditions on the basis of their performance characteristics.
- Design:
 - test of partial demonstrators in a representative defence environment (e.g. plasma wind tunnel, mechanical and chemical testing, ballistic testing, electromagnetical testing, fire testing, etc.);
 - demonstration of the feasibility of the manufacturing in industrial conditions typical of the considered application.

In addition, the proposals should cover the following tasks:

¹⁷ 'Qualification' means the entire process of demonstrating that the design of the product, component or technology meets the specified requirements, providing objective evidence by which particular requirements of a design are demonstrated to have been met.

¹⁸ 'Certification' means the process by which a national authority certifies that the product, component or technology complies with the applicable regulations.

- Generating knowledge:
 - Investigation and evaluation of processing parameters through process simulation, thermal analysis and manufacturing tests;
 - Investigation and evaluation of different material and/or coating configurations according to the defined requirements;
 - If the proposal targets materials for hypersonic environment or protection against kinetic energy penetrator impacts, it should address adequate advanced ablation kinetic/fragmentation models under high-temperature hypersonic conditions or kinetic energy penetrator impacts respectively.
- Integrating knowledge:
 - use of high performance computing, application of digital twin methods, multiphysics and multiscale 3D simulation;
 - characterisation of materials, and/or coatings, including, if relevant for the envisaged application, aspects of:
 - fire/heat resistance;
 - erosion;
 - adhesive strength;
 - advanced ablation;
 - electromagnetic (EM) transparency;
 - structural strength.
 - investigation of manufacturing processes, including, when relevant, aspects related to:
 - joining of (smaller) tiles;
 - electromagnetic compatibility protection;
 - high thermal flux in oxidising environment, e.g. with usage of Ceramic Matrix Composites (CMC), Ultra-high-temperature ceramics (UHTC), Ultra high temperature ceramic matrix composite (UCTCMC), Organic Matrix Composites (OMC)...
 - high temperature application of ceramic-like materials (CMC) for ballistic protection.
 - investigation of processes with a high reproducibility and repeatability for the manufacturing of the new material.
- Studies:
 - evaluation of fire test procedures according to IMO (International Maritime Organisation) related to military relevant operational conditions and requirements in particular for materials considered for navy applications;
 - determination of operating temperature critical areas;

- feasibility of recycling processes by evaluating the overall material performance impact while paying attention not to downgrade its quality and properties.
- Design:
 - implementation of material design to optimise the tailored properties of the components and to predict their limits in expected conditions;

The proposals may also cover the following tasks:

- Design:
 - design of tests facilities on material coupons, including for mechanical, thermal and chemical stresses, thermomechanical, oxidation, and other functional properties.

In order to avoid unnecessary duplications and to best complement R&D efforts already targeting civil applications, the research conducted must build on R&D results of projects funded by EU programmes targeting civil applications for efficient spinning-in of knowledge and innovative solutions to the defence sector.

Functional requirements

The proposed technologies should meet one or several of the following functional requirements that are specific to defence applications:

- hypersonic flight, characterised by high thermal flux in oxidising environment;
- high specific strength in severe environments for both engine and platform parts for military aircraft and missiles;
- passive ballistic protection against opponents with similar characteristics, e.g. threats such as armour-piercing fin-stabilised discarding sabot;
- protection against explosive and blast effects used against physical systems like infrastructure, vehicles and/or personnel;¹⁹
- protection of electromagnetic sensors by ensuring specific mechanical properties such as mechanical hardness and extreme thermal loads, while maintaining transparency in specific sensors' spectral bands;
- materials to enhance electromagnetic compatibility and protection;
- fire/heat resistance for defence purposes such as in case of fire of unexploded fuel of missiles, missile and ammunition carriage, requirements for structural engine parts, etc.;
- compliance with military standards and regulations for the intended use-case and mission efficiency requirements;
- adjustment of dimensions according to the actual process and test environment;

¹⁹ Experience of the European Commission's Joint Research Centre in the field of [material testing](#) and [simulation](#) might be considered, see for example Peroni, Jung, Larcher and Solomos, High strain-rate properties of hybrid aluminium and polyurethane foams, In: International conference on impact loading of structures and materials 2016 and Solomos, Larcher, Valsamos, Karlos and Casadei, A survey of computational models for blast induced human injuries for security and defence applications, Publications Office of the European Union, Luxembourg, 2020.

- operation for time periods that uphold the structural integrity of the material itself, and the system properties it is intended to uphold for the defence application considered;
- efficiency of solutions to equip heat-sensitive components with materials with adapted properties.

Expected impact

The outcome should:

- contribute to the EU technological sovereignty and strategic autonomy by developing an autonomous industrial sector and enhance cross-border collaboration involving both large industrial groups and smaller players such as SMEs;
- strengthen European supply chains on materials, by including actors from different sectors and across the EU and EDF associated countries;
- reduce the operating and lifecycle costs of the component and/or the system by use of new material concepts;
- reduce the time and cost of new material development by making best use of technologies available in the civil sector;
- provide ecological benefits such as CO₂ balance, lifetime energy consumption analysis, REACH compliance and reduced usage of ozone layer depleting substances on military vehicles;
- provide new business and cooperation opportunities to innovators that have not been active in the defence sector before.

3. Available budget

The estimated available call budget is **EUR 59 000 000**.

Specific budget information per topic can be found in the table below:

Topic	Topic budget	Fixed maximum number of projects
EDF-2023-RA-SI-CYBER-ASPT: Automation of security penetration tests	EUR 14 000 000	No
EDF-2023-RA-SI-ENERENV-IPS: Innovative propulsion systems for defence applications	EUR 25 000 000	No
EDF-2023-RA-SI-MATCOMP-HPM: High performance materials for Defence applications	EUR 20 000 000	No

We reserve the right not to award all available funds or to redistribute them between the call priorities (i.e. topics), depending on the proposals received and the results of the evaluation.

4. Timetable and deadlines

Timetable and deadlines (indicative)	
Call opening:	22 June 2023
Deadline for submission:	<u>22 November 2023 – 17:00:00 CET (Brussels)</u>
Evaluation:	November 2023 - May 2024
Information on evaluation results:	June 2024
GA signature ²⁰ :	June - December 2024

5. Admissibility and documents

Proposals must be submitted before the **call deadline** (see *timetable section 4*).

Proposals must be submitted **electronically** via the Funding & Tenders Portal Electronic Submission System (accessible via the Topic page in the [Search Funding & Tenders](#) section). Paper submissions are NOT possible.

Proposals (including annexes and supporting documents) must be submitted using the forms provided *inside* the Submission System (⚠ NOT the documents available on the Topic page — they are only for information).

Proposals must be **complete** and contain all the requested information and all required annexes and supporting documents:

- Application Form Part A — contains administrative information about the participants (future coordinator, beneficiaries and affiliated entities), the ethics issues table and the summarised budget for the project (*to be filled in directly online*)
- Application Form Part B — contains the technical description of the project (*to be downloaded from the Portal Submission System, completed and then assembled and re-uploaded*)
- mandatory **annexes and supporting documents** (*templates available to be downloaded from the Portal Submission System, completed, assembled and re-uploaded together with Application Form Part B*):
 - detailed budget table (EDF RA)
 - participant information (including previous projects, if any)
 - list of infrastructure, facilities, assets and resources
 - actual indirect cost methodology declarations (if actual indirect costs used)
 - ownership control declarations
 - PRS declaration (if the project requires access to Galileo PRS information).

²⁰ In case of change in the management mode for a given action (see Section 3 of the EDF Work Programme), this timeframe may be different.


Please note that the amounts entered into the summarised budget table (filled in directly online) must correspond to the amounts calculated in the detailed budget table. In case of discrepancies, the amounts in the online summarised budget table will prevail.

At proposal submission, you will have to confirm that you have the **mandate to act** for all applicants. Moreover, you will have to confirm that the information in the application is correct and complete and that the participants comply with the conditions for receiving EU funding (especially eligibility, financial and operational capacity, exclusion, etc.). Before signing the grant, each beneficiary and affiliated entity will have to confirm this again by signing a declaration of honour (DoH). Proposals without full support will be rejected.

Your application must be **readable, accessible and printable**.

Proposals (Part B) are limited to maximum **100 pages**, counting the work package descriptions. Evaluators will not consider any additional pages.

You may be asked at a later stage for further documents (*for legal entity validation, financial capacity check, bank account validation, etc.*).

 For more information about the submission process (including IT aspects), consult the [Online Manual](#).

6. Eligibility

Applications will only be considered eligible if their content corresponds wholly (or at least in part) to the topic description for which it is submitted.


Eligible participants (eligible countries)

In order to be eligible, the applicants (beneficiaries and affiliated entities) must:

- be legal entities (public or private bodies)
- be established in one of the eligible countries, i.e.:
 - EU Member States (including overseas countries and territories (OCTs))
 - non-EU countries :
 - listed EEA countries ('EDF associated countries', see [list of participating countries](#))
- have their executive management structure established in eligible countries
- must not be subject to control by a non-associated third country or non-associated third-country entity (unless they can provide guarantees – see *Annex 2* - approved by the Member State or EDF associated country where they are established)

Beneficiaries and affiliated entities must register in the [Participant Register](#) — before submitting the proposal — and will have to be validated by the Central Validation Service (REA Validation). For the validation, they will be requested to upload documents showing legal status and origin.

Other entities may participate in other roles, such as associated partners, subcontractors, third parties giving in-kind contributions, etc. (*see section 13*).

 Please note that, in EDF, subcontractors involved in the action²¹ and associated partners must also comply with the above-listed conditions concerning establishment and control.


Associated partners which are not established in one of the eligible countries (or which are subject to control by a non-associated third country or non-associated third-country entity) may however participate exceptionally if certain conditions are fulfilled (*not contravene EU and MS security and defence interests; consistent with EDF objectives; results not subject to control or restriction by non-associated third countries or non-associated third-country entities; no unauthorised access to classified information; no potential negative effects over security of supply of inputs which are critical for the project*), subject to agreement by the granting authority and without any funding under the grant.

Specific cases

Natural persons — Natural persons are NOT eligible (with the exception of self-employed persons, i.e. sole traders, where the company does not have legal personality separate from that of the natural person).

International organisations — International organisations are not eligible, unless they are international organisations whose members are only Member States or EDF associated countries and whose executive management structure is in a Member State or EDF associated country.

Entities without legal personality — Entities which do not have legal personality under their national law may exceptionally participate, provided that their representatives have the capacity to undertake legal obligations on their behalf, and offer guarantees for the protection of the EU financial interests equivalent to that offered by legal persons²².

Associations and interest groupings — Entities composed of members may participate as 'sole beneficiaries' or 'beneficiaries without legal personality'²³.  Please note that if the action will be implemented by the members, they should also participate (either as beneficiaries or as affiliated entities, otherwise their costs will NOT be eligible).

Subcontractors involved in the action — Subcontractors with a direct contractual relationship to a recipient (*i.e. beneficiary or affiliated entity*), other subcontractors to which at least 10 % of the total eligible costs of the action is allocated, and subcontractors which may need access to classified information in order to carry out the action.

Following the [Council Implementing Decision \(EU\) 2022/2506](#), as of 16th December 2022, no legal commitments (including the grant agreement itself as well as subcontracts, purchase contracts, financial support to third parties, etc.) can be signed with Hungarian public interest trusts established under Hungarian Act IX of 2021 or any entity they maintain. Affected entities may continue to apply to calls for proposals. However, in case the Council measures are not lifted, such entities are not eligible to participate in any funded role (beneficiaries, affiliated entities, subcontractors, recipients of financial support to third parties). In this case, co-

²¹ 'Subcontractors involved in the action' means subcontractors with a direct contractual relationship to a beneficiary or affiliated entity, other subcontractors to which at least 10 % of the total eligible costs of the action are allocated, and subcontractors which may need access to classified information in order to carry out the project.

²² See Article 197(2)(c) EU Financial Regulation [2018/1046](#).

²³ For the definitions, see Articles 187(2) and 197(2)(c) EU Financial Regulation [2018/1046](#).

applicants will be invited to remove or replace that entity and/or to change its status into associated partner. Tasks and budget may be redistributed accordingly.

EU restrictive measures — Special rules apply for certain entities (e.g. *entities subject to [EU restrictive measures](#) under Article 29 of the Treaty on the European Union (TEU) and Article 215 of the Treaty on the Functioning of the EU (TFEU)*²⁴ and entities covered by *Commission Guidelines No [2013/C 205/05](#)*²⁵). Such entities are not eligible to participate in any capacity, including as beneficiaries, affiliated entities, associated partners, subcontractors or recipients of financial support to third parties (if any).


 For more information, see [Rules for Legal Entity Validation, LEAR Appointment and Financial Capacity Assessment](#).

Consortium composition

Proposals must be submitted by minimum 3 independent applicants (beneficiaries; not affiliated entities) from 3 different eligible countries.

Eligible actions and activities

Eligible actions and activities are the ones set out in section 2 above.

 Please note that the evaluation will also take into account how the proposals address the 'must', 'should' and 'may' requirements included in the subsections 'Scope and types of activities' and 'Functional requirements'. Failing to address a 'must' may give grounds to consider the proposal out of scope; failing to address a 'should' may give grounds for impacting the scoring negatively; addressing a 'may' may give grounds for impacting the scoring positively.

The following actions and activities are not considered as eligible for funding under this call:

- projects that do not implement the objectives set out in Article 3 of the EDF Regulation
- projects that do not concern new defence products or technologies or the upgrade of existing defence products or technologies
- projects that do not relate to at least one of the types of activities set out in Article 10(3) of the EDF Regulation
- projects that do not cover the mandatory types of activities set out in section 2
- projects that concern products and technologies whose use, development or production is prohibited by international law
- projects that concern the development of lethal autonomous weapons without the possibility for meaningful human control over selection and engagement decisions when carrying out strikes against humans (with the exception of the development of early warning systems and countermeasures for defensive purposes).
- projects where background or results:

²⁴ Please note that the EU Official Journal contains the official list and, in case of conflict, its content prevails over that of the [EU Sanctions Map](#).

²⁵ Commission guidelines No [2013/C 205/05](#) on the eligibility of Israeli entities and their activities in the territories occupied by Israel since June 1967 for grants, prizes and financial instruments funded by the EU from 2014 onwards (OJEU C 205 of 19.07.2013, pp. 9-11).

- would be subject to control or restriction by a non-associated third country or non-associated third-country entity, directly, or indirectly through one or more intermediate legal entities, including in terms of technology transfer
- and, for pre-existing information (background), this would impact the results.


Projects should take into account the results of projects supported by other EU funding programmes. In particular, the proposals need to build upon or integrate results that have been achieved within one or several projects funded under an EU programme call with a focus on civil applications. This(these) previous project(s) may be completed or may still be active. The submitting consortium does not necessarily need to include the participants or result owners of the previous project(s). However, applicants must provide a confirmation that they have or will have the necessary rights to use and commercialise the results of the previous project(s). The complementarities must be described in the project proposals (Part B of the Application Form).

Projects must comply with EU policy interests and priorities (*such as environment, social, security, industrial and trade policy, etc.*).

Financial support to third parties is not allowed.

Geographic location (target countries)

Proposals must relate to activities taking place in the eligible countries (*see above*).

 Please note that moreover, in EDF, only infrastructure, facilities, assets and resources which are located or held in an eligible country may be used. Other assets, infrastructure, facilities or resources may be used only exceptionally if certain conditions are fulfilled (*no competitive substitutes are readily available; not contravene EU and MS security and defence interests; consistent with EDF objectives; results not subject to control or restriction by non-associated third countries or non-associated third-country entities*), subject to agreement by the granting authority and without any funding under the grant.

Duration

Project duration:

- for all topics: between 12 and 48 months

Projects of longer duration may be accepted in duly justified cases. Extensions are possible, if duly justified and through an amendment.

Project budget

Project budgets (maximum grant amount):

- for all topics under this call: should not exceed the budget available for the topic (*see table in section 3*)

This does not however preclude the submission/selection of proposals requesting other amounts. The grant awarded may be lower than the amount requested.

Ethics

Projects must comply with:

- highest ethical standards (including highest standards of research integrity) and
- applicable EU, international and national law.

Proposals under this call will have to undergo an ethics review to authorise funding and may be made subject to specific ethics rules (which become part of the Grant Agreement in the form of ethics deliverables, e.g. *ethics committee opinions/notifications/authorisations required under national or EU law*).

Security

Projects involving classified information must undergo security scrutiny to authorise *funding* and may be made subject to specific security rules (detailed in a security aspects letter (SAL) which is annexed to the Grant Agreement).

Projects where the Member States of the participating beneficiaries and affiliated entities decide to establish a specific security framework under Article 27(4) of the EDF Regulation, will be subject to this specific security framework and classified foreground information (results) generated by the project will be under the originatorship of these Member States.

If no such specific security framework is set up by the signature of the grant agreement, the security rules will be governed by Commission Decision [2015/444](#)²⁶ and its implementing rules²⁷.

These rules provide for instance that:

- projects involving information classified TRES SECRET UE/EU TOP SECRET (or equivalent) can NOT be funded
- classified information must be marked in accordance with the applicable security instructions in the SAL
- information with classification levels CONFIDENTIEL UE/EU CONFIDENTIAL or above (and RESTREINT UE/ EU RESTRICTED, if required by national rules) may be:
 - created or accessed only on premises with facility security clearing (FSC) from the competent national security authority (NSA), in accordance with the national rules
 - handled only in a secured area accredited by the competent NSA
 - accessed and handled only by persons with valid personnel security clearance (PSC) and a need-to-know
- at the end of the grant, the classified information must either be returned or continue to be protected in accordance with the applicable rules
- action tasks involving classified information may be subcontracted only with prior written approval from the granting authority and only to entities established in an EU Member State or in a non-EU country with a security of information agreement with the EU (or an administrative arrangement with the Commission)
- disclosure of classified information to third parties is subject to prior written

²⁶ See Commission Decision 2015/544/EU, Euratom of 13 March 2015 on the security rules for protecting EU classified information (OJ L 72, 17.3.2015, p. 53).


²⁷ See Article 27(4) EDF Regulation.

approval from the granting authority.

Please note that facility security clearing may have to be provided before grant signature. The granting authority will assess the need for clearing in each case and will establish their delivery date during grant preparation. Please note that in no circumstances can we sign any grant agreement until at least one of the beneficiaries in a consortium has facility security clearing.

Further security recommendations may be added to the Grant Agreement in the form of security deliverables (*e.g. create security advisory group, limit level of detail, use fake scenario, exclude use of classified information, etc.*).

Beneficiaries must ensure that their projects are not subject to third-country/international organisation security requirements that could affect implementation or put into question the award of the grant (*e.g. technology restrictions, national security classification, etc.*). The granting authority must be notified immediately of any potential security issues.

 More information on security aspects can be found in Annex 3.

7. Financial and operational capacity and exclusion

Financial capacity

Applicants must have **stable and sufficient resources** to successfully implement the projects and contribute their share. Organisations participating in several projects must have sufficient capacity to implement all these projects.

The financial capacity check will be carried out on the basis of the documents you will be requested to upload in the [Participant Register](#) during grant preparation (*e.g. profit and loss account and balance sheet, business plan, audit report produced by an approved external auditor, certifying the accounts for the last closed financial year, etc.*). The analysis will be based on neutral financial indicators, but will also take into account other aspects, such as dependency on EU funding and deficit and revenue in previous years.

The check will normally be done for all beneficiaries, except:

- public bodies (entities established as public body under national law, including local, regional or national authorities) or international organisations
- if the individual requested grant amount is not more than EUR 60 000.

If needed, it may also be done for affiliated entities.

If we consider that your financial capacity is not satisfactory, we may require:

- further information
- an enhanced financial responsibility regime, i.e. joint and several responsibility for all beneficiaries or joint and several liability of affiliated entities (*see below, section 10*)
- prefinancing paid in instalments
- (one or more) prefinancing guarantees (*see below, section 10*)

or

- propose no prefinancing
- request that you are replaced or, if needed, reject the entire proposal.

 For more information, see [Rules for Legal Entity Validation, LEAR Appointment and Financial Capacity Assessment](#).

Operational capacity

Applicants must have the **know-how, qualifications** and **resources** to successfully implement the projects and contribute their share (including sufficient experience in projects of comparable size and nature).

This capacity will be assessed together with the 'Implementation' award criterion, on the basis of the competence and experience of the applicants and their project teams, including operational resources (human, technical and other) or, exceptionally, the measures proposed to obtain it by the time the task implementation starts.

If the evaluation of the award criterion is positive, the applicants are considered to have sufficient operational capacity.

Applicants will have to show their capacity via the following information:

- general profiles (qualifications and experiences) of the staff responsible for managing and implementing the project.
- description of the consortium participants (including previous projects, if any).

Additional supporting documents may be requested, if needed to confirm the operational capacity of any applicant.

Public bodies, Member State organisations and international organisations are exempted from the operational capacity check.

Exclusion

Applicants which are subject to an **EU exclusion decision** or in one of the following **exclusion situations** that bar them from receiving EU funding can NOT participate²⁸:

- bankruptcy, winding up, affairs administered by the courts, arrangement with creditors, suspended business activities or other similar procedures (including procedures for persons with unlimited liability for the applicant's debts)
- in breach of social security or tax obligations (including if done by persons with unlimited liability for the applicant's debts)
- guilty of grave professional misconduct²⁹ (including if done by persons having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the grant)
- committed fraud, corruption, links to a criminal organisation, money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking (including if done by persons having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the grant)
- shown significant deficiencies in complying with main obligations under an EU procurement contract, grant agreement, prize, expert contract, or similar (including if done by persons having powers of representation, decision-

²⁸ See Articles 136 and 141 of EU Financial Regulation [2018/1046](#).

²⁹ Professional misconduct includes: violation of ethical standards of the profession, wrongful conduct with impact on professional credibility, false declarations/misrepresentation of information, participation in a cartel or other agreement distorting competition, violation of IPR, attempting to influence decision-making processes or obtain confidential information from public authorities to gain advantage.

making or control, beneficial owners or persons who are essential for the award/implementation of the grant)

- guilty of irregularities within the meaning of Article 1(2) of EU Regulation [2988/95](#) (including if done by persons having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the grant)
- created under a different jurisdiction with the intent to circumvent fiscal, social or other legal obligations in the country of origin or created another entity with this purpose (including if done by persons having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the grant).

Applicants will also be rejected if it turns out that³⁰:

- during the award procedure they misrepresented information required as a condition for participating or failed to supply that information
- they were previously involved in the preparation of the call and this entails a distortion of competition that cannot be remedied otherwise (conflict of interest).

8. Evaluation and award procedure

The proposals will have to follow the **standard submission and evaluation procedure** (one-stage submission + one-step evaluation).

An **evaluation committee** (assisted by independent outside experts) will assess all applications. Proposals will first be checked for formal requirements (admissibility, and eligibility, *see sections 5 and 6*). Proposals found admissible and eligible will be evaluated (for each budget envelope; *see section 3*) against the operational capacity and award criteria (*see sections 7 and 9*) and then ranked according to their scores.


For proposals with the same score (within a budget envelope) a **priority order** will be determined according to the following approach:

Successively for every group of *ex aequo* proposals, starting with the highest scored group, and continuing in descending order:

- 1) Proposals will be prioritised according to the scores they have been awarded for the criterion 'Excellence and potential of disruption'. When these scores are equal, priority will be based on scores for the criterion 'Innovation and technological development'. When these scores are equal, priority will be based on scores for the criterion 'Competitiveness. When these scores are equal, priority will be based on scores for the criterion 'Creation of new cross-border cooperation'
- 2) If necessary, any further prioritisation will be based on the number of Member States or EDF associated countries, in which applicants involved in the proposal are established

All proposals will be informed about the evaluation result (**evaluation result letter**). Successful proposals will be invited for grant preparation; the other ones will be put on the reserve list or rejected.

³⁰ See Article 141 EU Financial Regulation [2018/1046](#).

 No commitment for funding — Invitation to grant preparation does NOT constitute a formal commitment for funding. We will still need to make various legal checks before grant award: *legal entity validation, financial capacity, exclusion check, etc.*

Grant preparation will involve a dialogue in order to fine-tune technical or financial aspects of the project and may require extra information from your side. It may also include adjustments to the proposal to address recommendations of the evaluation committee or other concerns. Compliance will be a pre-condition for signing the grant.

If you believe that the evaluation procedure was flawed, you can submit a **complaint** (following the deadlines and procedures set out in the evaluation result letter). Please note that notifications which have not been opened within 10 days after sending will be considered to have been accessed and that deadlines will be counted from opening/access (see also [Funding & Tenders Portal Terms and Conditions](#)). Please also be aware that for complaints submitted electronically, there may be character limitations.

9. Award criteria

The **award criteria** for this call are as follows:

1. Excellence and potential of disruption (5 points)

- Excellence of the overall concept and soundness of the proposed approach for the solution, including main ideas, technologies and methodology
- Compliance of the proposal with the objectives, scope and types of activities, functional requirements and expected impact of the topic as set out in section 2
- Extent to which the objective and expected outcome of the proposed project differs from (and represents an advantage at strategic, technological or defence operational level over) existing defence products or technologies, or has a potential of disruption in the defence domain

2. Innovation and technological development (5 points)

- Extent to which the proposal demonstrates innovation potential and contains ground-breaking or novel concepts and approaches (*e.g. new products, services or business and organizational models*), new promising technological improvements, or the application of technologies or concepts previously not applied in the defence sector
- Integration of existing knowledge and previous or ongoing R&D activities in the defence and/or civil sectors, while avoiding unnecessary duplication
- Extent to which the innovations or technologies developed under the proposal could spin-off to other defence applications and products

3. Competitiveness (5 points)

- Foreseen competitive advantage of the product/technology/solution vis-a-vis existing or planned products/technologies/solutions across the EU and beyond, including consideration given to the balance between performance and cost-efficiency of the solution

- Potential to accelerate the growth of companies throughout the EU, based on an analysis of the EU internal market and the global market place, indicating, to the extent possible, the size and the growth potential of the market it addresses, as well as expected volumes of sales both within and outside of the EU.
- Strength of the IP strategy (*e.g. patents*) associated with the solution to support the competitiveness and growth of the applicant companies

4. EDTIB autonomy (5 points)

- Extent to which the proposed project will contribute to the autonomy of the European Defence Technological and Industrial Base (EDTIB) by increasing the EU's industrial and technological non-dependency from third countries
- Beneficial impact that the proposed activities will have on the strength of the European security of supply, including the creation of a new supply chain
- Extent to which the project outcome will contribute to the defence capability priorities agreed by Member States within the framework of the Common Foreign and Security Policy (CFSP), and in particular in the context of the [Capability Development Plan](#) (EDA version releasable to the industry); where appropriate, extent to which the proposal addresses regional or an international priorities which serve the security and defence interests of the EU as determined under the CFSP and do not exclude the possibility of participation of Member States or EDF associated countries

5. Creation of new cross-border cooperation (5 points)

- Extent to which the proposed project will create new cross-border cooperation between legal entities established in Member States or EDF associated countries, in particular SMEs and mid-caps, especially compared to former activities in the technological area of the call and taking into account the specificity of the market
- Planned future cross-border cooperation between legal entities established in Member States or EDF associated countries and cooperation opportunities created by the proposed activities
- Extent to which SMEs and mid-caps which cooperate cross-border participate substantially, and industrial or technological added value brought by them

6. Implementation (5 points)

- Effectiveness and practicality of the structure of the work plan (work breakdown structure), including timing and inter-relation of the different work packages and their components (illustrated by a Gantt chart, Pert chart or similar)
- Usefulness and comprehensiveness of the milestones and deliverables of the project; coherence and clarity of the criteria for reaching the milestones, which should be measurable, realistic and achievable within the proposed duration

- Appropriateness of the management structures and procedures, including decision-making mechanisms, to the complexity and scale of the project; quality of the risk management, including identification and assessment of the project specific critical risks, which could compromise the achievement of the stated project's objectives and detail of proposed risk treatments (*e.g. mitigation measures*)
- Appropriateness of the allocation of tasks and resources between consortium members, ensuring that all participants have a valid and complementary role; allocation of the work share that ensures a high level of effectiveness and efficiency for carrying out the project.

Award criteria	Minimum pass score	Maximum score	Weighting
Excellence and potential of disruption	n/a	5	2
Innovation and technological development	n/a	5	2
Competitiveness	n/a	5	1
EDTIB autonomy	n/a	5	1
Creation of new cross-border cooperation	n/a	5	2
Implementation	n/a	5	1
Overall weighted (pass) scores	30	45	N/A

Maximum points: 45 points.

There is no minimum pass score for individual criteria.

Overall threshold: 30 points.

Proposals that pass the overall threshold will be considered for funding — within the limits of the available budget (i.e. up to the budget ceiling). Other proposals will be rejected.

10. Legal and financial set-up of the Grant Agreements³¹

If you pass evaluation, your project will be invited for grant preparation, where you will be asked to prepare the Grant Agreement together with the EU Project Officer.

This Grant Agreement will set the framework for your grant and its terms and conditions, in particular concerning deliverables, reporting and payments.

The Model Grant Agreement that will be used (and all other relevant templates and guidance documents) can be found on [Portal Reference Documents](#).

Starting date and project duration

The project starting date and duration will be fixed in the Grant Agreement (*Data Sheet, point 1*). Normally the starting date will be after grant signature. A retroactive

³¹ In case of change in the management mode for a given action (see Section 3 of the EDF Work Programme), these rules may be different.

starting date can be granted exceptionally for duly justified reasons — but never earlier than the proposal submission date.

Project duration: *see section 6 above*

Milestones and deliverables

The milestones and deliverables for each project will be managed through the Portal Grant Management System and will be reflected in Annex 1 of the Grant Agreement.

The following deliverables will be mandatory for all projects:

- progress reports (every 6 to 12 months, to be agreed during grant agreement preparation)
- a special report³²

Form of grant, funding rate and maximum grant amount

The grant parameters (*maximum grant amount, funding rate, total eligible costs, etc.*) will be fixed in the Grant Agreement (*Data Sheet, point 3 and art 5*).

Project budget (maximum grant amount): *see section 6 above*.

The grant will be a budget-based mixed actual cost grant (actual costs, with unit cost and flat-rate elements). This means that it will reimburse ONLY certain types of costs (eligible costs) and costs that were *actually* incurred for your project (NOT the *budgeted* costs). For unit costs and flat-rates, you can charge the amounts calculated as explained in the Grant Agreement (*see art 6 and Annex 2 and 2a*).

The costs will be reimbursed at the funding rate fixed in the Grant Agreement. This rate depends on the type of activities and participants (*see section 2*).

Grants may in principle NOT produce a profit (i.e. surplus of revenues + EU grant over costs). Where the no-profit rule is activated in the Grant Agreement, for-profit organisations must declare their revenues and, if there is a profit, we will deduct it from the final grant amount (*see art 22.3*).

Moreover, please be aware that the final grant amount may be reduced in case of non-compliance with the Grant Agreement (*e.g. improper implementation, breach of obligations, etc.*).

Budget categories and cost eligibility rules

The budget categories and cost eligibility rules are fixed in the Grant Agreement (*Data Sheet, point 3, art 6 and Annex 2*).

Budget categories for this call:

- A. Personnel costs
 - A.1 Employees, A.2 Natural persons under direct contract, A.3 Seconded persons
 - A.4 SME owners and natural person beneficiaries

³² 'Special report' means a specific deliverable of a research action summarising its results, providing extensive information on the basic principles, the aims, the outcomes, the basic properties, the tests performed, the potential benefits, the potential defence applications and the expected exploitation path of the research towards development, including information on the ownership of IPRs but not requiring the inclusion of IPR information (see art 2(23) EDF Regulation).

- B. Subcontracting costs
- C. Purchase costs
 - C.1 Travel and subsistence
 - C.2 Equipment
 - C.3 Other goods, works and services
- D. Other cost categories
 - D.1 Financial support to third parties (not allowed)
 - D.2 Internally invoiced goods and services
- E. Indirect costs

Specific cost eligibility conditions for this call:

- personnel costs:
 - average personnel costs (unit cost according to usual cost accounting practices)³³: Yes
 - SME owner/natural person unit cost³⁴: Yes
 - subcontracting costs:
 - country restrictions for subcontracting costs: Yes, subcontracted work must be performed in the eligible countries
 - travel and subsistence unit cost³⁵: No (only actual costs)
 - equipment costs:
 - depreciation only (for all topics)
 - other cost categories:
 - costs for financial support to third parties: not allowed
 - internally invoiced goods and services (unit cost according to usual cost accounting practices)³⁶: Yes
 - indirect cost:
 - flat-rate: 25% of the eligible direct costs (categories A-D, except subcontracting costs, financial support to third parties and exempted specific cost categories, i.e. internally invoiced goods and services and PCP procurement costs)
- or
- actual costs



The indirect cost method selected will be fixed for the project and cannot be changed later on.

³³ [Decision](#) of 27 February 2023 authorising the use of unit costs for staff costs and costs for internally invoiced goods and services for specific actions under the European Defence Programme.

³⁴ Commission [Decision](#) of 20 October 2020 authorising the use of unit costs for the personnel costs of the owners of small and medium-sized enterprises and beneficiaries that are natural persons not receiving a salary for the work carried out by themselves under an action or work programme (C(2020)7115).

³⁵ Commission [Decision](#) of 12 January 2021 authorising the use of unit costs for travel, accommodation and subsistence costs under an action or work programme under the 2021-2027 multi-annual financial framework (C(2021)35).

³⁶ [Decision](#) of 27 February 2023 authorising the use of unit costs for staff costs and costs for internally invoiced goods and services for specific actions under the European Defence Programme.

- VAT: non-deductible VAT is eligible (but please note that since 2013 VAT paid by beneficiaries that are public bodies acting as public authority is NOT eligible)
- other:
 - in-kind contributions for free are allowed, but cost-neutral, i.e. they cannot be declared as cost
 - kick-off meeting: costs for kick-off meeting organised by the granting authority are eligible (travel costs for maximum 2 persons, return ticket to Brussels and accommodation for one night) only if the meeting takes place after the project starting date set out in the Grant Agreement; the starting date can be changed through an amendment, if needed
 - project websites: communication costs for presenting the project on the participants' websites or social media accounts are eligible; costs for *separate* project websites are not eligible
 - eligible cost country restrictions: Yes, only costs for activities carried out in eligible countries are eligible
 - other ineligible costs: Yes, costs related to the use of assets, infrastructure, facilities or resources located or held outside the eligible countries are not eligible (even if their use was authorised, *see section 6*).

Reporting and payment arrangements

The reporting and payment arrangements are fixed in the Grant Agreement (*Data Sheet, point 4 and art 21 and 22*).


After grant signature, you will normally receive a **prefinancing** to start working on the project (float of normally **55%** of the maximum grant amount; exceptionally less or no prefinancing). The prefinancing will be paid 30 days from entry into force/starting date/financial guarantee (if required) — whichever is the latest.

For projects of more than 18 months, there may be one or more **additional prefinancing payments** linked to a prefinancing report and one or more **interim payments** (with detailed cost reporting).

In addition, you will be requested to submit one or more progress reports not linked to payments.

Payment of the balance: At the end of the project, we will calculate your final grant amount. If the total of earlier payments is higher than the final grant amount, we will ask you (your coordinator) to pay back the difference (recovery).

All payments will be made to the coordinator.

 Please be aware that payments will be automatically lowered if one of your consortium members has outstanding debts towards the EU (granting authority or other EU bodies). Such debts will be offset by us — in line with the conditions set out in the Grant Agreement (*see art 22*).

Please also note that you are responsible for keeping records on all the work done and the costs declared.

Prefinancing guarantees

If a prefinancing guarantee is required, it will be fixed in the Grant Agreement (*Data Sheet, point 4*). The amount will be set during grant preparation and it will normally be equal or lower than the prefinancing for your grant.

The guarantee should be in euro and issued by an approved bank/financial institution established in an EU Member State. If you are established in a non-EU country and would like to provide a guarantee from a bank/financial institution in your country, please contact us (this may be exceptionally accepted, if it offers equivalent security).

Amounts blocked in bank accounts will NOT be accepted as financial guarantees.

Prefinancing guarantees are formally NOT linked to individual consortium members, which means that you are free to organise how to provide the guarantee amount (*by one or several beneficiaries, for the overall amount or several guarantees for partial amounts, by the beneficiary concerned or by another beneficiary, etc.*). It is however important that the requested amount is covered and that the guarantee(s) are sent to us in time to make the prefinancing (scanned copy via Portal AND original by post).

If agreed with us, the bank guarantee may be replaced by a guarantee from a third party.

The guarantee will be released at the end of the grant, in accordance with the conditions laid down in the Grant Agreement.

Certificates

Depending on the type of action, size of grant amount and type of beneficiaries, you may be requested to submit different certificates. The types, schedules and thresholds for each certificate are fixed in the Grant Agreement (*Data Sheet, point 4 and art 24*).

Liability regime for recoveries

The liability regime for recoveries will be fixed in the Grant Agreement (*Data Sheet point 4.4 and art 22*).

For beneficiaries, it is one of the following:

- limited joint and several liability with individual ceilings — *each beneficiary up to their maximum grant amount*
 - unconditional joint and several liability — *each beneficiary up to the maximum grant amount for the action*
- or
- individual financial responsibility — *each beneficiary only for their own debts.*

In addition, the granting authority may require joint and several liability of affiliated entities (with their beneficiary).

Provisions concerning the project implementation

Security rules: *see Model Grant Agreement (art 13 and Annex 5)*

Ethics rules: *see Model Grant Agreement (art 14 and Annex 5)*

IPR rules: *see Model Grant Agreement (art 16 and Annex 5):*

- background and list of background: Yes
- protection of results: Yes
- limitations to transfers and licensing: Yes
- rights of use on results: Yes

- for Research Actions: access to results for policy purposes: Yes
- for Research Actions: access to special report: Yes
- for Research Actions: access rights to further develop results: Yes

Communication, dissemination and visibility of funding: *see Model Grant Agreement (art 17 and Annex 5)*:

- additional communication and dissemination activities: Yes

Specific rules for carrying out the action: *see Model Grant Agreement (art 18 and Annex 5)*:

- specific rules for EDF actions: Yes
- specific rules for PCP Grants for Procurement: No
- place of performance obligation for PCP Grants for Procurement: No
- specific rules for Grants for Financial Support: No
- specific rules for blending operations: No.

Other specificities

n/a

Non-compliance and breach of contract

The Grant Agreement (chapter 5) provides for the measures we may take in case of breach of contract (and other non-compliance issues).



For more information, see [AGA – Annotated Grant Agreement](#).

11. How to submit an application

All proposals must be submitted directly online via the Funding & Tenders Portal Electronic Submission System. Paper applications are NOT accepted.

Submission is a **2-step process**:

a) create a user account and register your organisation

To use the Submission System (the only way to apply), all participants need to [create an EU Login user account](#).

Once you have an EU Login account, you can [register your organisation](#) in the Participant Register. When your registration is finalised, you will receive a 9-digit participant identification code (PIC).


b) submit the proposal

Access the Electronic Submission System via the Topic page in the [Search Funding & Tenders](#) section (or, for calls sent by invitation to submit a proposal, through the link provided in the invitation letter).

Submit your proposal in 2 parts, as follows:

- Part A includes administrative information about the applicant organisations (future coordinator, beneficiaries, affiliated entities and associated partners) and the summarised budget for the proposal. Fill it in directly online
- Part B and Annexes through a password-protected single zip archive:
 - Part B (description of the action) covers the technical content of the proposal. Download the mandatory word template from the Submission System, fill it in and add to the zip archive as a PDF
 - Annexes (*see section 5*). Download the templates, and add to zip archive as PDFs (— unless other format specified).

The zip archive must be submitted password-protected (using AES-256 encryption method), with a size of less than 100 MB. The password (and any other passwords used in the documents) must be communicated before the deadline for submission to the following email address: DEFIS-EDF-PROPOSALS-PWD@ec.europa.eu (together with the proposal ID and the name of the zip archive).

 If your proposal includes **classified information**, please contact us at DEFIS-EDF-PROPOSALS@ec.europa.eu — well in time before the deadline, in order to arrange the delivery of the classified documents. Please be aware that such documents **MUST NOT** under any circumstances be submitted online through the Funding & Tenders Portal.

The proposal must keep to the **page limits** (*see section 5*); excess pages will be disregarded.

Documents must be uploaded to the **right category** in the Submission System otherwise the proposal might be considered incomplete and thus inadmissible.

The proposal must be submitted **before the call deadline** (*see section 4*). After this deadline, the system is closed and proposals can no longer be submitted.

Once the proposal is submitted, you will receive a **confirmation e-mail** (with date and time of your application). If you do not receive this confirmation e-mail, it means your proposal has NOT been submitted. If you believe this is due to a fault in the Submission System, you should immediately file a complaint via the [IT Helpdesk webform](#), explaining the circumstances and attaching a copy of the proposal (and, if possible, screenshots to show what happened).

Details on processes and procedures are described in the [Online Manual](#). The Online Manual also contains the links to FAQs and detailed instructions regarding the Portal Electronic Exchange System.

12. Help

As far as possible, ***please try to find the answers you need yourself***, in this and the other documentation (we have limited resources for handling direct enquiries):

- [Online Manual](#)
- FAQs on the Topic page (for call-specific questions in open calls; not applicable for actions by invitation)
- [Portal FAQ](#) (for general questions).

Please also consult the Topic page regularly, since we will use it to publish call updates. (For invitations, we will contact you directly in case of a call update).

Contact

For individual questions on the Portal Submission System, please contact the [IT Helpdesk](#).

Non-IT related questions should be sent to the following email address: DEFIS-EDF-PROPOSALS@ec.europa.eu.

Please indicate clearly the reference of the call and topic to which your question relates (*see cover page*).

13. Important



IMPORTANT

- **Don't wait until the end** — Complete your application sufficiently in advance of the deadline to avoid any last minute **technical problems**. Problems due to last minute submissions (*e.g. congestion, etc.*) will be entirely at your risk. Call deadlines can NOT be extended.
- **Consult** the Portal Topic page regularly. We will use it to publish updates and additional information on the call (call and topic updates).
- **Funding & Tenders Portal Electronic Exchange System** — By submitting the application, all participants **accept** to use the electronic exchange system in accordance with the [Portal Terms & Conditions](#).
- **Registration** — Before submitting the application, all beneficiaries, affiliated entities, associated partners must be registered in the [Participant Register](#). The draft participant identification code (PIC) (one per participant) is mandatory for the Application Form.
If your project applies for the SME/Mid-cap bonuses, registration (draft PIC and SME self-assessment wizard) is also mandatory for all participants claiming SME/Mid-cap status (beneficiaries, affiliated entities and subcontractors involved in the action; *see section 2*).
Moreover, registration (draft PIC) is required for entities that must submit an ownership control assessment declaration (beneficiaries, affiliated entities, subcontractors involved in the action and associated partners).
- **Consortium roles** — When setting up your consortium, you should think of organisations that help you reach objectives and solve problems.
The roles should be attributed according to the level of participation in the project. Main participants should participate as **beneficiaries** or **affiliated entities**; other entities can participate as associated partners, subcontractors, third parties giving in-kind contributions. **Associated partners** and third parties giving in-kind contributions should bear their own costs (they will not become formal recipients of EU funding). **Subcontracting** should normally constitute a limited part and must be performed by third parties (not by one of the beneficiaries/affiliated entities). Subcontracting going beyond 30% of the total eligible costs per beneficiary/affiliated entity must be justified in the application and may be accepted by the granting authority if the topic is not subject to a fixed subcontracting limit (*see section 10*).
- **Coordinator** — In multi-beneficiary grants, the beneficiaries participate as consortium (group of beneficiaries). They will have to choose a coordinator, who will take care of the project management and coordination and will represent the consortium towards the granting authority. In mono-beneficiary grants, the single beneficiary will automatically be coordinator.
- **Affiliated entities** — Applicants may participate with affiliated entities (i.e. entities linked to a beneficiary which participate in the action with similar rights and obligations as the beneficiaries, but do not sign the grant and therefore do not become beneficiaries themselves). They will get a part of the grant money and must therefore comply with all the call conditions and be validated (just like beneficiaries); but they do not count towards the minimum eligibility criteria for consortium composition (if any).
- **Associated partners** — Applicants may participate with associated partners (i.e. partner organisations which participate in the action but without the right to get grant money). They participate without funding and therefore do not need to be validated.

- **Consortium agreement** — For practical and legal reasons it is recommended to set up internal arrangements that allow you to deal with exceptional or unforeseen circumstances (in all cases, even if not mandatory under the Grant Agreement). The consortium agreement also gives you the possibility to redistribute the grant money according to your own consortium-internal principles and parameters (for instance, one beneficiary can reattribute its grant money to another beneficiary). The consortium agreement thus allows you to customise the EU grant to the needs inside your consortium and can also help to protect you in case of disputes.
- **Balanced project budget** — Grant applications must ensure a balanced project budget and sufficient other resources to implement the project successfully (*e.g. own contributions, income generated by the action, financial contributions from third parties, etc.*). You may be requested to lower your estimated costs, if they are ineligible (including excessive).
- **No-profit rule** — Grants may in principle NOT give a profit (i.e. surplus of revenues + EU grant over costs). Where the no-profit rule is activated in the Grant Agreement, this will be checked by us at the end of the project.
- **No double funding** — There is a strict prohibition of double funding from the EU budget (except under EU Synergies actions). Outside such Synergies actions, any given action may receive only ONE grant from the EU budget and cost items may under NO circumstances be declared to two different EU actions.
- **Completed/ongoing projects** — Proposals for projects that have already been completed will be rejected; proposals for projects that have already started will be assessed on a case-by-case basis (in this case, no costs can be reimbursed for activities that took place before the project starting date/proposal submission).
- **Combination with EU operating grants** — Combination with EU operating grants is possible, if the project remains outside the operating grant work programme and you make sure that cost items are clearly separated in your accounting and NOT declared twice (see [AGA — Annotated Grant Agreement, art 6.2.E](#)).
- **Multiple proposals** — Applicants may submit more than one proposal for *different* projects under the same call (and be awarded a funding for them).
Organisations may participate in several proposals.
BUT: if there are several proposals for *very similar* projects, only one application will be accepted and evaluated; the applicants will be asked to withdraw one of them (or it will be rejected).
- **Resubmission** — Proposals may be changed and re-submitted until the deadline for submission.
- **Rejection** — By submitting the application, all applicants accept the call conditions set out in this Call Document (and the documents it refers to). Proposals that do not comply with all the call conditions will be **rejected**. This applies also to applicants: All applicants need to fulfil the criteria; if any one of them doesn't, it must be replaced or the entire proposal will be rejected.
- **Cancellation** — There may be circumstances which may require the cancellation of the call. In this case, you will be informed via a call or topic update. Please note that cancellations are without entitlement to compensation.
- **Language** — You can submit your proposal in any official EU language (project abstract/summary should however always be in English). For reasons of efficiency, we strongly advise you to use English for the entire application. If you need the call documentation in another official EU language, please submit a request within 10 days after call publication (for the contact information, see *section 12*).

- **Transparency** — In accordance with Article 38 of the [EU Financial Regulation](#), information about EU grants awarded is published each year on the [Europa website](#).

This includes:

- beneficiary names
- beneficiary addresses
- the purpose for which the grant was awarded
- the maximum amount awarded.

The publication can exceptionally be waived (on reasoned and duly substantiated request), if there is a risk that the disclosure could jeopardise your rights and freedoms under the EU Charter of Fundamental Rights or harm your commercial interests.

- **Data protection** — The submission of a proposal under this call involves the collection, use and processing of personal data. This data will be processed in accordance with the applicable legal framework. It will be processed solely for the purpose of evaluating your proposal, subsequent management of your grant and, if needed, programme monitoring, evaluation and communication. Details are explained in the [Funding & Tenders Portal Privacy Statement](#).

Annex 1

EDF types of action

EDF uses the following actions to implement grants:

Research Actions

Description: Research Actions (RA) target activities consisting primarily of research activities, in particular applied research and where necessary fundamental research, with the aim of acquiring new knowledge and with an exclusive focus on defence applications.

Funding rate: 100%

Payment model: Prefinancing — (x) additional prefinancing payment(s) — (x) interim payment(s) — final payment

Development Actions

Description: Development Actions (DA) target activities consisting of defence-oriented activities primarily in the development phase, covering new defence products or technologies or the upgrading of existing ones, excluding the production or use of weapon.

Funding rate: variable per activity (rates depend on activity and bonuses for SME and mid-cap participation and PESCO)

Payment model: Prefinancing — (x) additional prefinancing payment(s) — (x) interim payment(s) — final payment

PCP Grants for Procurement

Description: PCP Grants for Procurement (PCP) target activities that aim to help a transnational buyers' group to strengthen the public procurement of research, development, validation and, possibly, the first deployment of new solutions that can significantly improve quality and efficiency in areas of public interest, while opening market opportunities for industry and researchers active in Europe. Eligible activities include the preparation, management and follow-up, under the coordination of a lead procurer, of one joint PCP and additional activities to embed the PCP into a wider set of demand-side activities.

Funding rate: variable (to be defined in the work programme)

Payment model: Prefinancing — (x) additional prefinancing payment(s) — (x) interim payment(s) — payment of the balance

Lump Sum Grants for Research Actions

Description: Lump Sum Grants (LS-RA) reimburse a general lump sum for the entire project and the consortium as a whole. The lump sum is fixed ex-ante (at the latest at grant signature) on the basis of a methodology defined by the granting authority (either on the basis of a detailed project budget or other pre-defined parameters). The lump sum will cover all the beneficiaries' direct and indirect costs for the project. The beneficiaries do not need to report actual costs, they just need to claim the lump sum once the work is done. If the action is not properly implemented, only part of the lump sum will be paid.

Lump Sum Grants for Research Actions cover the same type of activities as Research Actions and follow — where relevant — similar rules (*e.g. for funding rates, etc.*).

Funding rate: 100%

Payment model: Prefinancing — (x) additional prefinancing payment(s) — (x) interim payment(s) — final payment

Lump Sum Grants for Development Actions

Description: Lump Sum Grants (LS-DA) reimburse a general lump sum for the entire project and the consortium as a whole. The lump sum is fixed ex-ante (at the latest at grant signature) on the basis of a methodology defined by the granting authority (either on the basis of a detailed project budget or other pre-defined parameters). The lump sum will cover all the beneficiaries' direct and indirect costs for the project. The beneficiaries do not need to report actual costs, they just need to claim the lump sum once the work is done. If the action is not properly implemented, only part of the lump sum will be paid.

Lump Sum Grants for Development Actions cover the same type of activities as Development Actions and follow — where relevant — similar rules (*e.g. for funding rates, etc.*).

Funding rate: variable per activity (rates depend on activity and bonuses for SME and mid-cap participation and PESCO)

Payment model: Prefinancing — (x) additional prefinancing payment(s) — (x) interim payment(s) — final payment

Framework Partnerships (FPAs) and Specific Grants (SGAs)

FPAs

Description: FPAs establish a long-term cooperation mechanism between the granting authority and the beneficiaries of grants. The FPA specifies the common objectives (action plan) and the procedure for awarding specific grants. The specific grants are awarded via identified beneficiary actions (with or without competition).

Funding rate: no funding for FPA

SGAs

Description: The SGAs are linked to an FPA and implement the action plan (or part of it). They are awarded via an invitation to submit a proposal (identified beneficiary action). The consortium composition should in principle match (meaning that only entities that are part of the FPA can participate in an SGA), but otherwise the implementation is rather flexible. FPAs and SGAs can have different coordinators; other partners of the FPA are free to participate in an SGA or not. There is no limit to the amount of SGAs signed under one FPA.

Funding rate: depending on the type: 100% or variable per activity

Payment model: Prefinancing — (x) additional prefinancing payment(s) — (x) interim payment(s) — final payment

Annex 2

Guarantees pursuant to Article 9(4) of the EDF Regulation

All calls under the EDF Programme are subject to ownership control restrictions, meaning that they exclude the participation of legal entities which are established in the EU territory or in an EDF associated country, but are controlled by a non-associated third country or non-associated third country legal entity.

Thus, for the purposes of participating in EDF actions, beneficiaries, affiliated entities, associated partners and subcontractors involved in the action must not be subject to control by a non-associated third country or non-associated third-country entity and undergo an ownership control assessment procedure before grant signature.

Entities that do not comply with this requirement may however exceptionally nevertheless participate, if they can provide guarantees approved by the Member State/EDF associated country in which they are established. Such guarantees must be provided at the latest by grant signature.


The guarantees must provide assurance to the granting authority that the participation of the entity will not contravene the security and defence interests of the EU and its Member States as established in the framework of the Common Foreign and Security Policy (CFSP) pursuant to Title V of the TEU, or the objectives set out in Article 3 of the EDF Regulation. They must also comply with the provisions on ownership and intellectual property rights (Articles 20 and 23 of the EDF Regulation).

They must in particular substantiate that, for the purposes of the action, measures are in place to ensure that:

- **control** over the legal entity is not exercised in a manner that would restrain or restrict its ability to carry out the action and to deliver results, that would impose restrictions concerning its infrastructure, facilities, assets, resources, intellectual property or knowhow needed for the purposes of the action, or that would undermine its capabilities and standards necessary to carry out the action
- **access** by a non-associated third country or non-associated third-country entity to sensitive information relating to the action is prevented and the employees or other persons involved in the action have national security clearance issued by a Member State or an EDF associated country, where appropriate
- **ownership** of the intellectual property arising from, and the results of, the action remain within the beneficiary or affiliated entity during and after completion of the action, are not subject to control or restriction by a non-associated third country or non-associated third-country entity, and are neither exported outside the EU/EDF associated countries nor accessible from outside the EU/EDF associated countries without the approval of the Member State/EDF associated country in which the legal entity is established and in accordance with the objectives set out in Article 3 of the EDF Regulation.

The guarantees may refer to the fact that the legal entity's executive management structure is established in the EU/EDF associated country or, if considered appropriate, to specific governmental rights in the control over the legal entity.

If considered appropriate by the Member State/EDF associated country, additional guarantees may be provided.

 For more information, see also [Guidance on participation in DEP, HE, EDF and CEF-DIG restricted calls](#).

Annex 3

Security aspects

Introduction

Pursuant to Article 27(4) of the EDF Regulation, in case the implementation of the grant involves the handling of classified information, Member States on whose territory the beneficiaries and affiliated entities are established must decide on the originatorship of the classified foreground information (results) generated in the performance of the project. For that purpose, those Member States may decide on a specific security framework for the protection and handling of classified information relating to the project and must inform the granting authority. Such a security framework must be without prejudice to the possibility for the granting authority to have access to necessary information for the implementation of the action.

If no such specific security framework is set up by those Member States, the security framework will be put in place by the granting authority in accordance with Decision 2015/444.

In either case, the security framework will be put in place at the latest by the signature of the Grant Agreement.

The applicable security framework will be detailed in the security aspect letter (SAL) which will be annexed to the Grant Agreement.

When you implement a classified grant, please bear in mind the following key rules.

Access to classified information

The creation, handling or access to information classified CONFIDENTIAL or SECRET (or RESTRICTED where required by national rules) on the premises of a participant is only possible if a valid Facility Security Clearance (FSC) at the appropriate level exists for the premises. This FSC must be granted by the National Security Authority (NSA/DSA) of the participant concerned.

The participant must hold a duly confirmed FSC at the appropriate level. Until a secured area is in place and accredited by the national NSA, the handling of classified information above RESTRICTED level on their premises is not allowed.

Access to and handling of classified information for the purposes of the project must be limited to individuals with a need-to-know and which are in possession of a valid personnel security clearance.

At the end of the Grant Agreement when EUCI is no longer required for the performance of the grant, the participant must return any EUCI they hold to the contracting authority immediately. If authorised to retain EUCI after the end of the grant, the EUCI must continue to be protected in accordance with Decision 2015/444.

Marking of classified information

Classified information generated for the performance of the action must be marked in accordance with the applicable security framework, as described in the SAL.

Grants must not involve information classified 'TRES SECRET UE/EU TOP SECRET' or any equivalent classification.

Other provisions

Where a participant has awarded a classified subcontract, the security provisions of the grant agreement must apply *mutatis mutandis* to the subcontractor(s) and their personnel. In such case, it is the responsibility of the participant to ensure that all subcontractors apply these principles to their own subcontracting arrangements.

All security breaches related to classified information will be investigated by the competent security authority and may lead to criminal prosecution under national law.

Table of equivalent security classification markings

	Secret	Confidential	Restricted
EU	SECRET UE/EU SECRET	CONFIDENTIEL UE/EU CONFIDENTIAL	RESTREINT UE/EU RESTRICTED
Austria	GEHEIM	VERTRAULICH	EINGESCHRÄNKT
Belgium	SECRET (Loi du 11 Dec 1998) or GEHEIM (Wet van 11 Dec 1998)	CONFIDENTIEL (Loi du 11 Dec 1998) or VERTROUWELIJK (Wet van 11 Dec 1998)	(Note 1, see below)
Bulgaria	СЕКРЕТНО	ПОВЕРИТЕЛНО	ЗА СЛУЖЕБНО ПОЛЗВАНЕ
Croatia	ТАЈНО	POVJERLJIVO	OGRANIČENO
Cyprus	ΑΠΟΡΡΗΤΟ ABR:(ΑΠ)	ΕΜΠΙΣΤΕΥΤΙΚΟ ABR:(ΕΜ)	ΠΕΡΙΟΡΙΣΜΕΝΗΣ ΧΡΗΣΗΣ ABR:(ΠΧ)
Czech Republic	TAJNÉ	DŮVĚRNÉ	VYHRAZENÉ
Denmark	HEMMELOGT	FORTROLIGT	TIL TJENESTEBRUG
Estonia	SALAJANE	KONFIDENTSIAALNE	PIIRATUD
Finland	SALAINEN or HEMLIG	LUOTTAMUKSELLINEN or KONFIDENTIELL	KÄYTTÖ RAJOITETTU or BEGRÄNSAD TILLGÅNG

France	SECRET SECRET DÉFENSE <i>(Note 2, see below)</i>	CONFIDENTIEL DÉFENSE <i>(Notes 2 and 3, see below)</i>	<i>(Note 4, see below)</i>
Germany <i>(Note 5, see below)</i>	GEHEIM	VS - VERTRAULICH	VS - NUR FÜR DEN DIENSTGEBRAUCH
Greece	ΑΠΟΡΡΗΤΟ ABR:(ΑΠ)	ΕΜΠΙΣΤΕΥΤΙΚΟ ABR:(ΕΜ)	ΠΕΡΙΟΡΙΣΜΕΝΗΣ ΧΡΗΣΗΣ ABR:(ΠΧ)
Hungary	TITKOS!	BIZALMAS!	KORLÁTOZOTT TERJESZTÉSŰ!
Ireland	SECRET	CONFIDENTIAL	RESTRICTED
Italy	SEGRETO	RISERVATISSIMO	RISERVATO
Latvia	SLEPENI	KONFIDENCIĀLI	DIENESTA VAJADZĪBĀM
Lithuania	SLAPTAI	KONFIDENCIALIAI	RIBOTO NAUDOJIMO
Luxembourg	SECRET LUX	CONFIDENTIEL LUX	RESTREINT LUX
Malta	SIGRIET	KUNFIDENZJALI	RISTRETT
Netherlands	Stg. GEHEIM	Stg. CONFIDENTIEEL	Dep. VERTROUWELIJK
Poland	TAJNE	POUFNE	ZASTRZEŻONE
Portugal	SEGRETO	CONFIDENCIAL	RESERVADO <i>(Note 6, see below)</i>
Romania	STRICT SECRET	SECRET	SECRET DE SERVICIU
Slovakia	TAJNÉ	DÔVERNÉ	VYHRADENÉ
Slovenia	TAJNO	ZAUPNO	INTERNO
Spain	RESERVADO <i>(Note 6, see below)</i>	CONFIDENCIAL	DIFUSIÓN LIMITADA
Sweden	HEMLIG	KONFIDENTIELL	BEGRÄNSAT HEMLIG

Notes:

Note 1 Belgium: 'Diffusion Restreinte/Beperkte Verspreiding' is not a security classification in Belgium. Belgium handles and protects RESTREINT UE/EU RESTRICTED information and classified information bearing the national classification markings of RESTRICTED level in a manner no less stringent than the standards and procedures described in the security rules of the Council of the European Union.

Note 2 France: Information generated by France before 1 July 2021 and classified SECRET DÉFENSE and CONFIDENTIEL DÉFENSE continues to be handled and protected at the equivalent level of SECRET UE/EU SECRET and CONFIDENTIEL UE/EU CONFIDENTIAL respectively.

Note 3 France: France handles and protects CONFIDENTIEL UE/EU CONFIDENTIAL information in accordance with the French security measures for protecting SECRET information.

Note 4 France: France does not use the classification 'RESTREINT' in its national system. France handles and protects RESTREINT UE/EU RESTRICTED information in a manner no less stringent than the standards and procedures described in the security rules of the Council of the European Union. France will handle classified information bearing the national classification markings of RESTRICTED level in accordance with its national rules and regulations in force for 'DIFFUSION RESTREINTE'. The other Participants will handle and protect information marked 'DIFFUSION RESTREINTE' according to their national laws and regulations in force for the level RESTRICTED or equivalent, and according to the standards defined in the present document.

Note 5 Germany: VS = Verschlusssache.

Note 6 Portugal and Spain: Attention is drawn to the fact that the markings RESERVADO used by Portugal and Spain refer to different classifications.