



Brussels, 15.3.2024  
C(2024) 1702 final

## **COMMISSION IMPLEMENTING DECISION**

**of 15.3.2024**

**on the financing of the European Defence Fund established by Regulation (EU) 2021/697 of the European Parliament and the Council and the adoption of the work programme for 2024 - Part 2 and amending, concerning the provision of business coaching services, the Commission Implementing Decision C(2021) 4910 final on the adoption of the work programme for 2021, the Commission Implementing Decision C(2022) 3403 final on the adoption of the work programme for 2022 - Part II and the Commission Implementing Decision C(2023) 2296 final on the adoption of the work programme for 2023 - Part II**

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, hereafter referred to as the 'TFEU',

Having regard to Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012<sup>1</sup>, hereafter referred to as the 'Financial Regulation', and in particular Article 110 thereof,

Having regard to 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<sup>2</sup>, hereafter referred to as the 'EDF Regulation', and in particular Article 24 thereof,

Whereas:

- (1) In order to ensure the implementation of the European Defence Fund for the year 2024, it is necessary to adopt a financing decision, which constitutes the annual work programme for 2024. Article 110 of the Financial Regulation establishes detailed rules on financing decisions.
- (2) The envisaged assistance is to comply with the conditions and procedures set out by the restrictive measures adopted pursuant to Article 215 of the TFEU.
- (3) Pursuant to Article 62(1)(c) of the Financial Regulation, indirect management is to be used for the implementation of the programme.
- (4) The Commission is to ensure a level of protection of the financial interests of the Union with regards to entities and persons entrusted with the implementation of Union funds by indirect management as provided for in Article 154(3) of the Financial Regulation. To that end, such entities and persons are to be subject to an assessment of their systems and procedures in accordance with Article 154(4) of the Financial Regulation and, if necessary, to appropriate supervisory measures in accordance with Article 154(5) of the Financial Regulation before a contribution agreement can be signed.

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<sup>1</sup> OJ L 193, 30.7.2018, p.1

<sup>2</sup> OJ L 170, 12.5.2021, p.149

- (5) It is necessary to allow for the payment of interest due for late payment on the basis of Article 116(5) of the Financial Regulation.
- (6) In order to allow for flexibility in the implementation of the work programme, it is appropriate to determine the changes, which should not be considered substantial for the purposes of Article 110(5) of the Financial Regulation.
- (7) In order to help reduce the time needed to take the results of R&D-funded actions to the next stage, business coaching services have been offered to SMEs under previous EDF work programmes, but only for non-thematic calls. However, in the light of the experience gained in the implementation of these business coaching services, it has been concluded that, in order to further promote the EDF objectives of supporting SMEs as much as possible, the business coaching services proposed in the EDF annual work programmes should be extended and thus offered to all beneficiary SMEs. The Commission Implementing Decisions C(2021) 4910 final, C(2022) 3403 final and C(2023) 2296 final and their annexes with work programme for 2021, work programme for 2022 – Part II, and work programme for 2023 – Part II, should therefore be amended accordingly.
- (8) The measures provided for in this Decision are in accordance with the opinion of the EDF Programme Committee, established by Article 34 of EDF Regulation.

HAS DECIDED AS FOLLOWS:

*Article 1*  
*The work programme*

The annual financing decision, constituting the annual work programme for the implementation of the European Defence Fund for 2024 – Part 2, as set out in the Annex 1 and further elaborated in the two subsequent annexes, is hereby adopted.

*Article 2*  
*Union contribution*

The maximum Union contribution for the implementation of the programme for 2024 – Part 2 is set at EUR 681 322 804, and shall be financed from the appropriations entered in the following lines of the general budget of the Union:

- (a) budget line 13.0201 - Capability development: EUR 361 173 311;
- (b) budget line 13.0301 - Defence research: EUR 320 149 493.

The appropriations provided for in the first paragraph may also cover interest due for late payment.

*Article 3*  
*Methods of implementation and entrusted entities or persons*

The implementation of the actions carried out by way of indirect management, as set out in the Annex 1, may be entrusted to the entities or persons referred to or selected in accordance with the criteria laid down in that Annex 1.

*Article 4*  
*Flexibility clause*

Cumulated changes to the allocations to specific actions not exceeding 20% of the maximum Union contribution set in the first paragraph of Article 2 of this Decision shall not be considered to be substantial for the purposes of Article 110(5) of the Financial Regulation, where those changes do not significantly affect the nature of the actions and the objective of the work programme.

The authorising officer responsible may apply the changes referred to in the first paragraph. Those changes shall be applied in accordance with the principles of sound financial management and proportionality.

*Article 5*  
*Financial instruments*

An amount of EUR 20 000 000 from the European Defence Fund in 2024 shall be allocated to actions under blending operations as set out in Annex 1.

Blending operations shall be implemented under indirect management by the European Investment Fund.

*Article 6*  
*Business coaching services for SMEs*

- (1) The Annex 1 to the Commission Implementing Decision C(2021) 4910 final on the financing of the European Defence Fund and the adoption of the work programme for 2021 is hereby amended as follows:
- (a) In Section 1, “Successful SME beneficiaries in all EDF calls may be offered business coaching sessions.” is added before the penultimate paragraph.
  - (b) In Section 3.17.1., “Successful SME beneficiaries may be offered Business Coaching, to reduce the time of bringing the results to the next phase, e.g. development.” is deleted.
  - (c) In Section 3.17.2., “Successful SME beneficiaries may be offered Business Coaching, to reduce the time of bringing the results to the next phase, e.g. development.” is deleted.
  - (d) In Section 3.17.3., “Successful SME beneficiaries may be offered Business Coaching, to reduce the time of bringing the results from the SME-specific projects to the next phase, whether the next phase being further development or the market.” is deleted.
  - (e) In Section 3.18. “Business Coaches in the European Defence Fund”,
    - First paragraph, “to the SME beneficiaries under the SME-calls” is replaced by “to the successful SMEs beneficiaries under all EDF calls for proposals”.
    - “In addition, such business coaching will also be proposed to SMEs involved in the awarded actions under the open disruptive research call.” is deleted.

- (2) The Annex 1 to the Commission Implementing Decision C(2022) 3403 final on the financing of the European Defence Fund and the adoption of the work programme for 2022 – Part II is hereby amended as follows:
- (a) In Section 1, “Successful SME beneficiaries in all EDF calls may be offered business coaching sessions.” is added before the penultimate paragraph.
  - (b) In Section 3.2.1.1., “Successful SME beneficiaries may be offered Business Coaching, to reduce the time of bringing the results to the next phase, e.g. development.” is deleted.
  - (c) In Section 3.2.2.1., “Successful SME beneficiaries may be offered Business Coaching, to reduce the time of bringing the results to the next phase of development.” is deleted.
  - (d) In Section 3.3.2.,
    - First paragraph, “To provide an easy entrance into participating in the European Defence Fund, non-thematic calls focused on SMEs have been introduced. To reduce the time of bringing the results from the SME-specific actions to the next phase, whether the next phase being development or the market, the European Commission will provide business coaching to the selected SMEs’ entities under these calls.” is replaced by “To reduce the time of bringing the results of R&D funded actions to the next phase, whether the next phase consists of development or bring the final product to the market, the European Commission will provide business coaching to the successful SMEs beneficiaries under all EDF calls for proposals.”
    - “In addition, such business coaching will also be proposed to SMEs involved in the non-thematic topic EDF-2022-LS-RA-DIS-NT.” is deleted.
- (3) The Annex 1 to the Commission Implementing Decision C(2023) 2296 final on the financing of the European Defence Fund and the adoption of the work programme for 2023 – Part II is hereby amended as follows:
- (a) In Section 1, “Successful SME beneficiaries in all EDF calls may be offered business coaching sessions.” is added before the penultimate paragraph.
  - (b) In Section 3.2.1.1., “Successful SME beneficiaries may be offered Business Coaching, to reduce the time of bringing the results to the next phase, e.g. development.” is deleted.
  - (c) In Section 3.2.2.1., “Successful SME beneficiaries may be offered Business Coaching, to reduce the time of bringing the results to the next phase of development.” is deleted.
  - (d) In Section 3.4. “Business Coaches in the European Defence Fund”,
    - First paragraph, “To provide an easy entrance into participating in the European Defence Fund, non-thematic calls focused on SMEs have been introduced (EDF-2023-LS-RA-SMERO and EDF-2023-LS-DA-SME). To reduce the time of bringing the results from the SME-specific actions to the next phase, whether the next phase being development or the market, the Commission will provide business coaching to the selected SME entities under these calls” is replaced by “To reduce the time of bringing the results of R&D funded actions to the next phase, whether the next phase consists of development or bring the final product to the market, the

European Commission will provide business coaching to the successful SMEs beneficiaries under all EDF calls for proposals.”

- “In addition, such business coaching will also be proposed to SMEs involved in the non-thematic topic EDF-2023-LS-RA-DIS-NT.” is deleted.

Done at Brussels, 15.3.2024

*For the Commission*  
*Thierry BRETON*  
*Member of the Commission*



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ANNEX 1

**ANNEX**

*to the*

**Commission Implementing Decision**

**on the financing of the European Defence Fund established by Regulation (EU) 2021/697 of the European Parliament and the Council and the adoption of the work programme for 2024 - Part 2 and amending, concerning the provision of business coaching services, the Commission Implementing Decision C(2021) 4910 final on the adoption of the work programme for 2021, the Commission Implementing Decision C(2022) 3403 final on the adoption of the work programme for 2022 - Part II, and the Commission Implementing Decision C(2023) 2296 final on the adoption of the work programme for 2023 - Part II**

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## 1. INTRODUCTION

The European Union (EU) is faced with increasing geopolitical instability and a complex set of conventional and new threats while the defence sector is fragmented and lacks investments in important research and capability development projects. Therefore, the EU is taking steps to bear more responsibility for its security and defence, including in its neighbourhood, to contribute to its strategic autonomy and freedom of action and to assist in creating a more competitive and integrated European defence technological and industrial base, thus reducing its dependencies. Following the Preparatory Action on Defence Research (PADR) and the European Defence Industrial Development Programme (EDIDP), the European Defence Fund (EDF) has been created to foster competitiveness, efficiency and innovation capacity of the defence technological and industrial base throughout the EU. It should complement, leverage, and consolidate collaborative efforts and cross-border cooperation between legal entities in developing defence capabilities that respond to security challenges while strengthening and improving the agility of both defence supply and value chains. The defence capability needs and shortfalls remain significant throughout the EU, in particular regarding next generations of large-scale capabilities, but also in critical cross-cutting and enabling areas such as space and cyber. This includes making best use of existing EU/European space systems by contributing to the development of their military applications. The EDF should also foster better exploitation of the industrial potential of innovation, research and technological development at each stage of the industrial life cycle of defence products and technologies, including through cross-fertilisation with civilian innovations in various domains such as digital, artificial intelligence and cyber.

In addition, the ecological transition is likely to reshape geopolitics, including global economic, trade and security interests. State and non-state actors compete for the access to the scarce resources (e.g., critical raw materials). This affects the EU and require a common response in order to avoid crises and conflicts. In this context, the EU has adopted a new Circular Economy Action Plan (CEAP) as one of the main blocks of the European Green Deal, Europe's new agenda for sustainable growth. CEAP can deliver substantial material savings throughout value chains and production processes, generate extra value and unlock economic opportunities. Therefore, defence activities, notably those supported by the EDF, need to address, wherever relevant, the reduction of waste by developing and integrating innovative technologies (e.g., waste management, safe use of chemicals, component tracing, environmental protection, water management) and green military components through design, maintenance, repair, reuse, remanufacturing, refurbishing and recycling.

In March 2024, the Commission launched the Strategic Technologies for Europe Platform (STEP) to boost investments in critical technologies in Europe: clean technologies, deep and digital technologies and biotechnologies. STEP will mobilise funding from existing EU programmes to support the development and manufacturing of these critical technologies, while safeguarding and strengthening the respective value chains, as well as associated services critical for and specific to the development and manufacturing of the final products. In particular, the European Defence Fund will benefit from a reinforcement of EUR 1.5 billion under STEP for the period 2024-2027, which will be used to fund research and development of critical technologies in the defence sector.

The EDF is implemented through annual work programmes from 2021 to 2027. Priorities identified in the annual work programmes are in line with the EU capability priorities

commonly agreed by Member States, in particular through the Capability Development Plan (CDP)<sup>1</sup>. Due consideration has been given to legacy PADR and EDIDP work programmes, to existing proposals from the Permanent Structured Cooperation (PESCO) framework, and to the Common Security and Defence Policy (CSDP) capability shortfalls.

This work programme sets out in detail the actions to be financially supported by the Fund in the year 2024 (see table below) through calls for proposals.

- The work programme identifies 16 thematic *categories of actions*, among which research and development topics are identified, where appropriate.
- The contribution of each *category of actions* to the three *fields* defined in the EDF Regulation<sup>2</sup> is also indicated.

EDF thematic <i>categories of actions</i>	<i>Fields covered</i>		
	(a)	(b)	(c)
1. Defence medical response, Chemical Biological Radiological Nuclear (CBRN), biotech and human factors	X		
2. Information superiority		X	
3. Advanced passive and active sensors	X	X	
4. Cyber		X	
5. Space		X	
6. Digital transformation	X	X	
7. Energy resilience and environmental transition	X		
8. Materials and components	X	X	X
9. Air combat	X		X
10. Air and missile defence	X	X	X
11. Ground combat	X	X	X
12. Force protection and mobility	X	X	
13. Naval combat	X	X	X
14. Underwater warfare	X	X	
15. Simulation and training	X		
16. Disruptive technologies	X	X	X

In addition to the calls for proposals addressing these thematic *categories of actions*, there are:

- Non-thematic calls for proposals focused on SMEs targeting research and development actions, to foster innovation as a key objective of the EDF.
- Calls for proposals targeting other types of actions.

<sup>1</sup> The purpose of CDP is to increase coherence between Member States' defence planning and to encourage European cooperation by looking at future operational needs and defining common Capability Development Priorities. The latest version of CDP was endorsed by the EDA Steering Board in Capability Directors formation in June 2018.

<sup>2</sup> Pursuant to article 24(3) the research topics and categories of actions shall cover products and technologies in the fields of:

- (a) preparation, protection, deployment and sustainability;
- (b) information management and superiority and command, control, communication, computers, intelligence, surveillance and reconnaissance (C4ISR), cyber defence and cybersecurity; and
- (c) engagement and effectors.

Successful SME beneficiaries in all EDF calls may be offered business coaching sessions.

Each *category of actions* may be addressed through one or more *calls for proposals*, as described in Appendix 1. The list of *calls for proposals* and associated *topics* addressed in this annual work programme is defined in section 1.

Each *topic* targets one or more *activities*, in accordance with Article 10(3) of the EDF Regulation. The table below indicates which *activities* are eligible for research actions and for development actions. A given topic can focus more specifically on one or more mandatory *activities* but can allow additional optional *activities* that would lead to (“*upstream activities*”) or result from (“*downstream activities*”) these *activities*.

Types of activities		Short name	Coverage	
			Research action	Development action
(a)	Activities that aim to create, underpin and improve knowledge, products and technologies, including disruptive technologies for defence, which can achieve significant effects in the area of defence	Generating knowledge	Eligible	Not eligible
(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	Eligible	Eligible
(c)	Studies, such as feasibility studies to explore the feasibility of new or upgraded products, technologies, processes, services and solution	Studies	Eligible	Eligible
(d)	The 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 tests for risk reduction in an industrial or representative environment	Design	Eligible	Eligible
(e)	The system prototyping of a defence product, tangible or intangible component or technology	System prototyping	Not eligible	Eligible
(f)	The testing of a defence product, tangible or intangible component or technology	Testing	Not eligible	Eligible
(g)	The qualification of a defence product, tangible or intangible component or technology	Qualification	Not eligible	Eligible
(h)	The certification of a defence product, tangible or intangible component or technology	Certification	Not eligible	Eligible
(i)	The development of technologies or assets increasing efficiency across the life cycle of defence products and technologies	Increasing efficiency	Not eligible	Eligible

## 2. LEGAL BASIS

All actions that will be funded under this work programme have their legal basis in Regulation (EU) 2021/697 (EDF Regulation). In addition, some of the actions specifically identified in this work programme will contribute to the STEP objectives as defined in Regulation (EU) 2024/795 (STEP Regulation).

## 3. ACTIONS IMPLEMENTED UNDER THE WORK PROGRAMME IN 2024

This section lists the *calls for proposals* and their associated *topics*, together with their main characteristics. These *calls for proposals* and *topics* result from a discussion with the EDF Programme Committee composed of representatives from the Member States and EDF Associated Countries (Norway).

### Management mode:

As per Article 8(1) of the EDF Regulation and unless otherwise provided for in the present work programme, the actions set out in this work programme shall be implemented in direct management by the Commission.

By way of derogation, in accordance with Article 8(2) of the EDF Regulation, specific actions may, in substantiated cases, be carried out under indirect management by bodies as referred to in point (c) of Article 62(1) of the Financial Regulation, for example in case of complex actions where a project manager has been appointed by Member States, taking into account in particular the complexity of the action and the experience of the proposed body.

The change of management mode set in the present work programme will be assessed after the selection of proposals retained for funding and be subject to the prior assessment of the bodies in accordance with Article 154 of the Financial Regulation in order to ensure the protection of the financial interest of the EU. The responsible Authorising Officer is authorised to conclude a contribution agreement with entities that have satisfactorily passed the priori assessment referred to in Article 154 of the Financial Regulation. If the terms of a contribution agreement cannot be successfully agreed with a pillar assessed entity in due time, the concerned project(s) may be managed in direct management by the Commission.

### Calls for proposals:

Six calls for proposals will be launched in 2024, covering the 16 thematic categories of actions, in addition to two calls for proposals not related to thematic categories of actions as set out in section 3.2:

#### 1) EDF-2024-RA:

- **Targeted type of actions:** Research actions
- **Form of funding:** Actual costs grants following the call for proposals
- **Targeted type of applicants:** Any eligible consortium as defined in Articles 9 and 10(4) of the EDF Regulation

- **Indicative budget for the call:** EUR 154 500 000<sup>3</sup> for 8 call topics addressing 7 categories of actions.
- 2) EDF-2024-RA-SI:
- **Targeted type of actions:** Research actions
  - **Form of funding:** Actual costs grants following the call for proposals
  - **Targeted type of applicants:** Any eligible consortium as defined in Articles 9 and 10(4) of the EDF Regulation.
  - **Specific provisions for the call:** The proposals need to build upon or integrate results that have been achieved within one or several projects that had been funded under an EU programme call with a focus on civil applications. This previous project(s) may be completed or may still be active. The submitting consortium does not need to be constituted or even to include a participant or result owner 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).
  - **Indicative budget for the call:** EUR 25 000 000 for one call topic addressing one category of actions.
- 3) EDF-2024-LS-RA-DIS:
- **Targeted type of actions:** Research actions (dedicated to disruptive technologies for defence)
  - **Form of funding:** Lump sum grants following the call for proposals
  - **Targeted type of applicants:** Any consortium of eligible entities as defined in Article 9 of the EDF Regulation and involving at least two legal entities established in at least two different Member States or EDF Associated Countries. At least two of the eligible legal entities established in at least two Member States or EDF Associated Countries shall not, during the entire period in which the action is carried out, be controlled, directly or indirectly, by the same legal entity, and shall not control each other.
  - **Indicative budget for the call:** EUR 40 000 000 for two call topics addressing one category of actions
- 4) EDF-2024-LS-RA-CHALLENGE:
- **Targeted type of actions:** Research actions (technological challenges)
  - **Form of funding:** Lump sum grants following the call for proposals
  - **Targeted type of applicants:** Any eligible consortium as defined in Articles 9 and 10(4) of the EDF Regulation

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<sup>3</sup> The budget earmarked on 2024 appropriations for this call may be complemented by an amount of up to EUR 44 500 000 from 2025 appropriations. This 2025 complementary budget is subject to the adoption of a separate financing decision.

- **Indicative budget for the call:** EUR 52 000 000 for 4 call topics addressing two categories of actions
- 5) EDF-2024-DA:
- **Targeted type of actions:** Development actions
  - **Form of funding:** Actual costs grants following the call for proposals
  - **Targeted type of applicants:** Any eligible consortium as defined in Articles 9 and 10(4) of the EDF Regulation
  - **Indicative budget for the call:** EUR 310 000 000<sup>4</sup> for 14 topics addressing 9 categories of actions
- 6) EDF-2024-DA-EUCI:
- **Targeted type of actions:** Development actions (EU classified information)
  - **Form of funding:** Actual costs grants following the call for proposals
  - **Targeted type of applicants:** Any eligible consortium as defined in Articles 9 and 10(4) of the EDF Regulation, but, given the highly sensitive nature of information which will be EUCI in the context of this call, each member of the consortium must provide a Facility Security Clearance at SECRET UE/EU SECRET level or equivalent issued by the national security authorities of the EU Member State or EDF Associated Country of establishment, at the time of submission of the proposal which must be classified at the level of SECRET UE/EU SECRET.
  - **Specific provisions for the call:**

The foreground information generated during the implementation of the proposals selected for EU funding will be entirely or partly classified at the same level, under Commission's responsibility (Commission Decision (EU, Euratom) 2015/444 and implementing rules).

In accordance with abovementioned Commission Decision and national security rules, Personnel Security Clearance at the same level of SECRET UE/EU SECRET or equivalent issued by the national security authorities of the EU Member State or EDF Associated Country of establishment, is required for personnel involved in the preparation of the proposals and, if selected for EU funding, subsequent implementation of the action.
  - **Indicative budget for the call:** EUR 8 400 000<sup>5</sup> for one topic addressing one category of actions

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<sup>4</sup> The budget earmarked on 2024 appropriations for this call may be complemented by an amount of up to EUR 269 000 000 from 2025 appropriations. This 2025 complementary budget is subject to the adoption of a separate financing decision.

<sup>5</sup> The budget earmarked on 2024 appropriations for this call may be complemented by an amount of up to EUR 69 600 000 from 2025 appropriations. This 2025 complementary budget is subject to the adoption of a separate financing decision.

## STEP:

The work programme identifies 15 actions in support to STEP objectives, for which proposals meeting the minimum requirements indicated in the specific call conditions will receive a Sovereignty Seal. A summary table with these actions and associated indicative budget can be found in Appendix 4.

### **3.1. Actions to be funded through grants and related to the categories of actions**

#### **3.1.1. Defence medical response, Chemical Biological Radiological Nuclear (CBRN), biotech and human factors (MCBRN)**

This *category of actions* will be addressed through the implementation of the Framework Partnership Agreement (FPA) related to a defence medical countermeasures Alliance.

##### *3.1.1.1. EDF-2024-RA-SGA-MCBRN-MCM-STEP: Defence medical countermeasures Alliance – Research actions*

Within the FPA following the call topic EDF-2022-FPA-MCBRN-MCM to establish and support the EU defence medical countermeasures Alliance, the selected consortium will be invited to submit a proposal that will implement the research actions of the action plan defined in the above FPA.

The scope and targeted activities will be as defined in the FPA.

The standard EDF eligibility criteria, evaluation criteria, thresholds and weighting will apply according to the research nature of the action.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of biotechnologies.

**Type of action:** Specific grant agreement awarded without call for proposals in relation to a Framework Partnership Agreement.

**Indicative budget:** EUR 15 000 000 for this topic.

##### *3.1.1.2. EDF-2024-DA-SGA-MCBRN-MCM-STEP: Defence medical countermeasures Alliance – Development actions*

Within the FPA following the call topic EDF-2022-FPA-MCBRN-MCM to establish and support the EU defence medical countermeasures Alliance, the selected consortium will be invited to submit a proposal that will implement the development actions of the action plan defined in the above FPA.

The scope and targeted activities will be as defined in the FPA.

The standard EDF eligibility criteria, evaluation criteria, thresholds and weighting will apply according to the development nature of the action.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of biotechnologies.

**Type of action:** Specific grant agreement awarded without call for proposals in relation to a Framework Partnership Agreement.

**Indicative budget:** EUR 10 000 000 for this topic.



### 3.1.2. Information superiority (C4ISR)

This *category of actions* will be addressed through one *call for proposals* in 2024, namely EDF-2024-DA, and proposals will be called for each of the following four topics, including the one for actions to be implemented under indirect management as referred to in section 3.3.

#### 3.1.2.1. EDF-2024-DA-C4ISR-AIMA-STEP: AI-based multifunctional aperture and transceiver

Multifunctionality is a concept to be exploited in current defence systems and imposed by the need to achieve better performance, higher reliability, lighter weight, more efficient use of the spectrum and lower life-cycle costs. The new possibilities provided by Artificial Intelligence (AI), novel methods of signal processing and miniaturisation allow the control and management of Radiofrequency (RF) signals for very different purposes, minimising Size Weight and Power (SWaP) of the platforms and components of defence weapon/surveillance systems.

This topic aims to implement the multifunctionality concept through the development of new generation scalable and cognitive (AI-controlled) multifunctional software defined (SD) transceiver for military use in manned and unmanned platforms, with a view to provide functionalities such as: secure communications, data links, positioning and navigation, blue force tracking (BFT), identification friend or foe (IFF), radar and electronic warfare (EW) with electronic support measures (ESM), electronic protection (EP), and electronic attack (EA).

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Studies, design, system prototyping and testing, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 45 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

#### 3.1.2.2. EDF-2024-DA-C4ISR-COMS-STEP: Defence multi-dimensional communication standard

To ensure a technological edge in military use of 5G, it is important to capitalise on the continued momentum of new releases and associated features relevant for military operations. This topic focuses on system level integration and orchestration of 5G technologies for seamless interaction of military 5G and public 5G communication systems, including support for services with satellite components in the 3GPP<sup>6</sup> ecosystem (5G NTN<sup>7</sup>).

The overall objective is to support the need for an always connected concept enabling military applications to roam securely through a mix of private and public networks.

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<sup>6</sup> 3<sup>rd</sup> generation partnership project

<sup>7</sup> Non-terrestrial networks

This topic therefore aims to study, develop and demonstrate a solution for the military to exploit seamless and uninterrupted transfer of secure applications and services in a coverage area served by a mix of private and public 5G networks.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Studies, design, system prototyping and testing, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 25 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### *3.1.2.3. EDF-2024-DA-C4ISR-SEEU-STEP: Small enhanced European UAS<sup>8</sup>*

Despite the extensive use of COTS<sup>9</sup> UAS in recent conflicts and continuous technological developments in this field, a significant capability gap remains at tactical level for most of the European countries, while operational needs for real-time imagery intelligence, target acquisition and kinetic capabilities are increasing.

This topic aims to build on mature and already proven solutions, when available and applicable, with a view to developing a state-of-art small UAS, with advanced ISTAR capabilities, such as real-time imagery intelligence, target acquisition and possibly kinetic capabilities, capable of operating in support of the widest possible range of military operations.

To make the development of such a small UAS efficient, an Interoperable Modular and Scalable Architecture (IMOSA) approach should be used to allow interchangeability of components and interoperability among the different solutions, including a “plug and play” capability for sensors and effectors.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Studies, design, system prototyping and testing, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 11 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### *3.1.2.4. EDF-2024-DA-C4ISR-MALE: Medium altitude long endurance RPAS*

See Section 3.3.1

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<sup>8</sup> Unmanned aerial systems, including Remotely Piloted Aircraft System

<sup>9</sup> Commercially available off-the-shelf

### 3.1.3. Advanced passive and active sensors (SENS)

This *category of actions* will be addressed through two *calls for proposals* in 2024, EDF-2024-RA and EDF-2024-LS-RA-CHALLENGE, and proposals will be called for each of the following three topics:

#### 3.1.3.1. EDF-2024-RA-SENS-ART: Advanced radar technologies

New types of threats are difficult to detect and track, in particular when using technologies such as those with stealth characteristics, hypersonic speeds, slow airborne motion and saturation attack tactics are used. Facing such threats, existing surveillance radar systems are reaching their limits in terms of detection range, angular domain coverage, tracking and recognition capabilities. Consequently, the objective of this topic is to mature the required technologies and concepts to cover the need for situational awareness by achieving advanced high-performance and a highly integrated multifunction system that may support radar, electronic warfare (EW) and possibly communications functions when feasible and advantageous, enabled through the development of active electronically scanned array (AESA) antennas.

The aim is to render radars highly versatile and adaptive, while being compatible with operational constraints in terms of performance, size, weight, power consumption and cost.

**Targeted types of activities:** Generating knowledge, integrating knowledge, studies and design.

**Indicative budget:** EUR 35 000 000 for this topic under the call EDF-2024-RA.

**Indicative number of proposals to be funded:** Several actions may be funded for this topic.

#### 3.1.3.2. EDF-2024-LS-RA-CHALLENGE-SENS-RADNP: Multi-sensor integration for robust autonomous drone navigation – Participation in a technological challenge

Unmanned aerial systems (UAS) demonstrate exceptional capabilities in a large range of operational scenarios, due to their versatility, operational availability and easy deployment. However, they will operate in battle-intensive, contested and denied environments. The next generation of UAS will be driven by the need to increase the level of autonomy and the application of concepts such as manned-unmanned teaming and swarming. Their effective deployment necessitates key features of self-organisation, of deciding among the machines themselves, of scheduling reconnaissance or targeting priorities and of navigating to position when GNSS availability is contested or lost and more generally in non-permissive environments. These technical and operational challenges can be tackled by the integration and data fusion of various types of sensor payloads (e.g. optical video, night vision, infrared, hyperspectral, radar, lasers, LIDAR, acoustic, signals intelligence, geoinformation data generator, etc.)

This topic addresses the development of a new multi-sensor robust and reliable perception system for UAS, with on-board processing and communication units, enabling autonomous navigation, cooperation and self-organisation, decision-making and distribution of commands, including advanced data fusion algorithms for an improved situational awareness. The solutions should meet the need for an efficient payload of cooperative sensors, able to be used on a wide range of unmanned assets, including in swarm formations, while having a low SWaP (Size, Weight and Power) for vehicle management systems and being cyber-resilient.

These solutions should be tested under realistic scenarios in a comparable and objective manner. For that purpose, each consortium supported through this call topic will benefit from a common testing environment set up in the framework of a technological challenge and will have to participate in the experiment campaigns organised with this objective.

**Targeted types of activities:** Generating knowledge, not excluding downstream activities eligible for research actions.

**Indicative budget:** EUR 20 000 000 for this topic under the call EDF-2024-LS-RA-CHALLENGE.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

**Range of financial contribution of the European Union per proposal:** The requested funding cannot exceed EUR 5 000 000.

#### *3.1.3.3. EDF-2024-LS-RA-CHALLENGE-SENS-RADNO: Multi-sensor integration for robust autonomous drone navigation – Organisation of a technological challenge*

The effective deployment of unmanned aerial vehicles (UAVs) requires key features of self-organisation, of deciding among the machines themselves, of scheduling reconnaissance or targeting requirements and of navigating to predetermined position in non-permissive environments. These technical and operational challenges can be tackled by the integration and data fusion of various types of sensor payloads (e.g. optical video, night vision, infrared, hyperspectral, radar, lasers, LIDAR, acoustic, signals intelligence, etc.)

This call topic aims at setting up a testing environment and organising a technological challenge, to which research teams will participate, supported through another topic (EDF-2024-LS-RA-CHALLENGE-SENS-RADNP) and possibly other sources of funding. The testing environment should enable objective comparisons between different approaches. Data should be collected during field tests, annotated and shared, to enable the validation of the UAS performances based on precise evaluation criteria and plan, to be provided as part of the call document.

**Targeted types of activities:** Integrating knowledge, not excluding upstream and downstream activities eligible for research actions.

**Indicative budget:** EUR 7 000 000 for this topic under the call EDF-2024-LS-RA-CHALLENGE.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic.

#### **3.1.4. Cyber (CYBER)**

Cyberspace is highly contested and digitalisation brings new challenges. There is a growing collective need to strengthen the EU's resilience to emerging, growing and evolving cyber threats. In particular, while cyber is recognised as a military operational domain in its own right, it is also an integral and critical dimension of various key defence capabilities. The EU's Cyber Defence Policy (adopted in November 2022) emphasises the need to invest in our cyber defence capabilities, including the development of a full spectrum cyber defence capability. R&D activities on cyber security and cyber defence under the EDF will strengthen the EU's cyber resilience and cyber operational capabilities, as well as cooperation and joint capability building, thereby enhancing interoperability and efficiency of military operations.

This *category of actions* will be addressed through one *call for proposals* in 2024, EDF-2024-DA, and proposals will be called for the following topic:

#### 3.1.4.1. EDF-2024-DA-CYBER-NGCR-STEP: Next-Generation Cooperative Cyber Range

Cyber range technologies have seen notable uptake over the last decade. They form a cornerstone of cyber defence training and testing. The objective of this topic is to develop further cyber range technology by designing and implementing next-generation solutions. The key consideration is on the cooperative approach in developing and using those cyber range technologies, thereby facilitating joint capability development. Technological investments and developments have so far mostly focused on various fundamental needs such as visualisation, scoring, realistic scenarios, and federation. Separate mature technological building blocks exist in modern cyber and IT solutions. However, these developments have yet to be consolidated into the context of cyber ranges for defence purposes.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Studies, design, prototyping, testing and qualification, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 48 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

#### 3.1.5. Space (SPACE)

The EU is funding and running the space flagships Galileo and Copernicus and is further developing new initiatives (EU-SST, GOVSATCOM, Secure connectivity), all being of dual-use interest. At the same time, the commercial sector is booming with a growing number of projects from both established actors and newcomers proposing disruptive concepts and services (*e.g.*, constellations of small satellites) whose potential for defence applications is not fully explored yet. Military operations rely heavily on space-based or space-enabled capabilities, including dual-use ones. Space capabilities provide fast, continuous and discreet services for situational awareness worldwide (including in space itself), as well as support to decision making, conduct of military operations and the assessment of their specific results. In particular, military-class space capabilities have to provide secure, available and high-performance services in an evolving threat environment. In the context of the EDF, joint R&D actions in the Space category will allow consolidation of the demand of capabilities, access to higher-performance services (*e.g.*, increased bandwidth, increased areal-access, continuity of surveillance), increased interoperability while contributing to the development of a European space culture and the reinforcement of the strategic autonomy of the EU.

This *category of actions* will be addressed through two *calls for proposals* in 2024, EDF-2024-LS-RA-CHALLENGE and EDF-2024-DA, and proposals will be called for each of the following three topics:

### *3.1.5.1. EDF-2024-LS-RA-CHALLENGE-SPACE-MSIAP: Multi-source satellite image analysis – Participation in a technological challenge*

This topic aims to improve the automatic detection, identification and characterisation of relevant information from multi-source satellite images, in particular by taking advantage of the complementarity of optical and radar images. Advanced AI and deep learning techniques as well as novel fusion approaches should be investigated.

The technologies should be tested in a comparable and objective manner on data that are representative of defence use cases. For that purpose, each consortium supported through this call topic will benefit from a common testing environment set up in the framework of a technological challenge (supported through topic EDF-2024-LS-RA-CHALLENGE-SPACE-MSIAO) and will have to participate in the evaluation campaigns organised in this framework.

Resulting technologies should be integrated into demonstrators that can be tested by representative defence users on their own data, preparing the ground for integration into future Earth observation capabilities.

**Targeted types of activities:** Generating knowledge, not excluding downstream activities eligible for research actions.

**Indicative budget:** EUR 15 000 000 for this topic under the call EDF-2024-LS-RA-CHALLENGE.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

**Range of financial contribution of the European Union per proposal:** The requested funding cannot exceed EUR 5 000 000.

### *3.1.5.2. EDF-2024-LS-RA-CHALLENGE-SPACE-MSIAO: Multi-source satellite image analysis – Organisation of a technological challenge*

Progress in space imagery processing technologies relies on the availability of representative databases and objective performance evaluation. The goal of this topic is to set up a testing environment to evaluate the performances of multi-source satellite image analysis systems. This includes the collection, annotation and distribution of data, and the writing of the evaluation plans. Representative defence users should be involved to contribute to the definition of the use cases and associated data, test the demonstrators produced by the participating teams and provide feedback.

**Targeted types of activities:** Integrating knowledge, not excluding upstream and downstream activities eligible for research actions.

**Indicative budget:** EUR 10 000 000 for this topic under the call EDF-2024-LS-RA-CHALLENGE.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic.

### *3.1.5.3. EDF-2024-DA-SPACE-EPW-STEP: Secure waveform for satellite communications*

This topic aims at further bridging a shared and recognised gap in terms of European interoperable protected waveform for satellite communications in military applications, including in joint operations. The scope also addresses complementary ancillary technologies to provide an

integrated multi-layered security and resilience approach for military satellite networks. These developments may have positive externalities on the IRIS<sup>2</sup> EU initiative.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** System prototyping and testing, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 25 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### 3.1.6. Digital transformation (DIGIT)

Digital transformation, due to the production and use of ever larger amounts of data and the increasing involvement of artificial intelligence (AI) in defence systems and decision-making processes, is becoming critical for defence operations. While AI is a dual-use technology, defence application-driven R&D is essential to steer progress toward military needs and more generally to strengthen the innovation ecosystem.

This *category of actions* will be addressed through one *call for proposals* in 2024, namely EDF-2024-RA , and proposals will be called for the following topic:

#### 3.1.6.1. EDF-2024-RA-DIGIT-ASMEP: Automated structural modelling for effect prediction

This topic addresses the automated modelling of structures such as building, plants, etc., for effect prediction. This is important for the detection and identification of targets as well as for assessing the vulnerabilities of own infrastructures, and more generally contributes to operational planning and decision-making. This involves imagery collection and annotation, advanced image processing, machine learning and artificial intelligence (AI).

**Targeted types of activities:** Generating and integrating knowledge, not excluding downstream activities eligible for research actions.

**Indicative budget:** EUR 15 000 000 for this topic under the call EDF-2024-RA.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

### 3.1.7. Energy resilience and environmental transition (ENERENV)

As stated in the EDF Regulation, the EDF should contribute to the mainstreaming of climate actions in Union policies and to the achievement of an overall target of 30 % of the EU budget expenditure supporting climate objectives. The EDF Regulation also states that relevant actions will be identified during the EDF preparation and implementation. The Commission embarks on twin ecological and digital transitions, which are clear challenges in the field of energy and environmental transition when conducting defence affairs.

This *category of actions* will be addressed through one *call for proposals* in 2024, namely EDF-2024-DA, and proposals will be called for the following topic:

### 3.1.7.1. EDF-2024-DA-ENERENV-EEMC-STEP: Energy-independent and energy-efficient systems for military camps

In order to further develop an innovative solution for energy-independent and energy-efficient systems for deployable military camps, this topic aims to design and set-up a full-scale operational demonstrator of a deployable military camp with a view to validate the concept in operational conditions and support the development of a new advanced European capability for supplying electric energy on the battlefield.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of clean technologies.

**Targeted types of activities:** Studies and design, system prototyping, testing and qualification, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 40 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### 3.1.8. Materials and components (MATCOMP)

Materials and components are enablers for a large spectrum of solutions at the core of the development of military capabilities. Access to critical materials and components is a challenge common to space, defence and security sectors. This category supports technologies for a large spectrum of products and systems strongly linked with other categories of EDF work programme.

The sustainability of strategic supply chains in the fields of critical materials and components is challenging and new materials have been identified as one of the technologies able to influence the reshaping of defence markets.

This *category of actions* will be addressed through one *call for proposals* in 2024, EDF-2024-RA-SI, and proposals will be invited for the following topic:

#### 3.1.8.1. EDF-2024-RA-SI-MATCOMP-EC-STEP: Electronic components

European competitiveness is increasingly dependent on the development of electronics. In recent years, the opportunities offered by Systems-On-a-Chip have become very apparent in many different technology sectors such as telecommunications, military, automotive, financial, medical research, and others.

Fundamental to this development is the integration of processing hardware, embedded programming software and firmware and analogue high-speed digital-to-analogue and analogue-to-digital technology with low power consumption technology into a single component.

There is a need to invest in a European RF-CMOS supply chain and measures to mitigate the risk of export limitations connected to military applications. Building on the lessons learned from the GaN-supply chain cooperation, and based on the growing demand for integrated circuits, a European supply chain initiative, catalysed by military needs, can become a very important tool for future European prosperity and for ensuring a long-term strategy of non-dependency for critical defence technologies.



This topic aims 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.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Generating and integrating knowledge, studies and design.

The proposals need to build upon or integrate results that have been achieved within one or several projects funded following an EU programme call with a focus on civil applications and for which applicants will have the necessary rights to use and commercialise the results.

**Indicative budget:** EUR 25 000 000 for this topic under the call EDF-2024-RA-SI.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

### **3.1.9. Air combat (AIR)**

This *category of actions* will be addressed through two *calls for proposals* in 2024, EDF-2024-RA and EDF-2024-DA, and proposals will be called for the following three topics:

#### *3.1.9.1. EDF-2024-RA-AIR-AAM: Concept study on advanced air-to-air missiles*

Air-to-air combat is a challenging and interdisciplinary field in a very dangerous and time-critical environment. The air-to-air missiles currently in service are generally of a good technological standard. However, the requirements for all aspects of such missiles are constantly increasing in number and complexity. Against this background, it is likely that future air-to-air missiles will need to be designed and operated differently.

This topic aims at feasibility studies to define and consolidate the requirements for a Future Short-Range Missile (FSRM) that will primarily be used on combat aircraft for air-to-air applications, as well as a modular interceptor concept to minimise impact on aircraft integration and maximise internal carriage capacity, with a possible use of the missile or its components in a Ground Based Air Defence application, including against high speed manoeuvring threats.

**Targeted types of activities:** Studies, not excluding upstream and downstream activities eligible for research actions

**Indicative budget:** EUR 35 000 000 for this topic under the call EDF-2024-RA.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

#### *3.1.9.2. EDF-2024-RA-AIR-UCCAS-STEP: Unmanned collaborative combat aircraft (U-CCA) systems*

This topic aims to explore technologies, concepts, products, processes and services related to U-CCA systems in different possible configurations, with a view to the development an UAS characterised by a high degree of autonomy and operational effectiveness, a large reconfigurable payload capacity and a flight envelope that allows teaming with fighters, including but not limited to with 5<sup>th</sup> and 6<sup>th</sup> generation, and support to other future aerial platforms in the context of a SoS approach for future combined air operations, including its

expendability in specific imputable scenarios. This topic would therefore contribute to more effective multi-role and networked operations, including manned-unmanned teaming (MUM-T) and swarming formation in demanding denied/contested environments.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Studies and design, not excluding upstream and downstream activities eligible for research actions

**Indicative budget:** EUR 15 000 000 for this topic under the call EDF-2024-RA.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

#### *3.1.9.3. EDF-2024-DA-AIR-NGRT: Next generation rotorcraft*

This topic aims to a step improvement in EU VTOL<sup>10</sup> capability with a view to future EU/NATO rotorcraft programmes (EIS 2035/2040+), possibly also usable for upgrades of legacy platforms, where applicable. This topic therefore aims to develop future technologies and rotorcraft architectures with a view to the launch of a new European collaborative capability development programme in the field of next generation rotorcraft by 2030.

**Targeted types of activities:** Studies, design and increasing efficiency, not excluding other activities eligible for development actions.

**Indicative budget:** EUR 100 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### **3.1.10. Air and missile defence (AIRDEF)**

This *category of actions* will be addressed through one *call for proposals* in 2024, namely EDF-2024-DA, and proposals will be called for the following topic:

#### *3.1.10.1. EDF-2024-DA-EUCI-AIRDEF-CHGV: Countering hypersonic glide vehicles*

This topic aims to design a representative hypersonic glide vehicle (HGV) model together with a simplified basic HGV demonstrator to be tested in flight in the context of a testing environment aiming at collecting relevant signatures and kinematic data for the validation of the designed representative HGV model.

The outcomes of this topic could inter alia eventually contribute to the development of more effective counter measures against hypersonic threats, including cruise missiles.

**Targeted types of activities:** Integrating knowledge, studies and design, not excluding downstream activities eligible for development actions

**Indicative budget:** EUR 78 000 000 for this topic under the call EDF-2024-DA-EUCI.

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<sup>10</sup> Vertical take-off and landing

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### **3.1.11. Ground combat (GROUND)**

This *category of actions* will be addressed through two *calls for proposals* in 2024, namely EDF-2024-RA and EDF-2024-DA, and proposals will be called for the following four topics:

#### *3.1.11.1.EDF-2024-RA-GROUND-IWAS: Intelligent weaponry and ammunition systems*

In the context of future armed conflicts, greater focus is expected to be placed on the precision, effectiveness and affordability of ammunition and missiles in order to increase the capacity to neutralise adversary forces, while avoiding unintended casualties and collateral damages among friendly units and non-combatant third parties. In addition, extending the range of ground artillery, rockets and missiles, while increasing their precision, is likely to be requested on the battlefield.

This topic aims to pave the way for the development of an autonomous European state-of-the-art capability in the field of high precision weaponry, such as guided mortar and artillery ammunition (shells and rockets), missiles, and other munitions with loitering capabilities. Such systems should aim to increase precision in Global Navigation Satellite System (GNSS)-contested/denied environments, reduce dependency on non-EU satellite navigation, and improve terminal guidance and effects on targets at extended ranges, as well as providing more affordable solutions. The use of data fusion techniques and high accuracy Micro-Electro-Mechanical Systems for Inertial Measurement Units (MEMS IMU) should be considered.

**Targeted types of activities:** Studies and design, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 30 000 000 for this topic under the call EDF-2024-RA.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

#### *3.1.11.2.EDF-2024-DA-GROUND-UGS-STEP: Multipurpose unmanned ground systems*

The use of Unmanned Vehicles (UxVs) in military operations represents one of the most important innovations of recent years. Undoubtedly, UxVs exploitation will grow in the coming years with the massive introduction of other autonomous systems in different domains (land, air, sea, space, cyber) and the increase of capabilities to work collaboratively between systems (swarms) and operators.

The aim of this topic is therefore to develop an unmanned modular ground system of systems that is capable of supporting dismounted, mechanised and motorised infantry in all types of European geographic and operational land environments, including denied environments, in adverse light and weather conditions with evolving levels of autonomy and robustness.

The overarching goal is to contribute to the maturing, testing and verification of the Unmanned Ground Systems (UGS) capability, so that the technology is expected to be ready for integration into the European armed forces by 2030.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Studies, design and increasing efficiency, not excluding other activities eligible for development actions

**Indicative budget:** EUR 50 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

#### *3.1.11.3.EDF-2024-DA-GROUND-BLOS: Beyond the line-of-sight close combat*

The performance of land combat systems has proved decisive in recent conflicts, since the availability of mobile (tactical and strategical mobility) precision systems able to provide the necessary high degree of accuracy, efficiency and reactivity, are becoming increasingly important to avoid widespread collateral damage and reduce exposure of friendly forces. In particular, it is essential for Member States' and EDF Associated Countries' armed forces to provide combat units with increased engagement capabilities without being spotted and with a high level of success and survivability. Beyond Line Of Sight (BLOS) engagement is the capability of firing at a target not directly seen by the effector, based on information given by a remote sensor.

**Targeted types of activities:** Integrating knowledge, studies and design, not excluding upstream and downstream activities eligible for development actions

**Indicative budget:** EUR 25 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

#### *3.1.11.4.EDF-2024-DA-GROUND-AIFV: Next generation armoured infantry fighting vehicle*

Armoured Infantry Fighting Vehicle (AIFV) remains a pivotal element of land military manoeuvre, both in a conventional warfare context as well as in the asymmetric one, thanks to the combination of protection, mobility, and firepower. Nonetheless, AIFVs currently numbered in the fleet inventories of the EU Member States and EDF Associated Countries are to some extent either ageing or obsolete and, therefore, the same face the compelling need to modernise their in-service platforms and replace those of them approaching the end of their operational life. Against this background, the upgrade of current and development of next generation armoured infantry fighting vehicle, capable of outstanding operational effectiveness and mission success in all possible future scenarios, are highly necessary.

**Targeted types of activities:** Studies, design, not excluding upstream and downstream activities eligible for development actions

**Indicative budget:** EUR 25 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### 3.1.12. Force protection and mobility (PROTMOB)

This *category of actions* will be addressed through one *call for proposals* in 2024, namely EDF-2024-RA, and proposals will be called for the following topic:

#### 3.1.12.1. EDF-2024-RA-PROTMOB-FMTC: Future mid-size tactical cargo aircraft

This topic aims to mature technology and capability key elements required for the future development of a joint Future European Mid-Size Tactical Cargo Air System. It is hence to complement activities foreseen under the call topic EDF-2022-RA-PROTMOB-FMTC by consolidating the aircraft architecture and concepts and by implementing new trends for data management and in-service support.

**Targeted types of activities:** Studies and design, not excluding upstream activities eligible for research actions.

**Indicative budget:** EUR 30 000 000 for this topic under the call EDF-2024-RA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### 3.1.13. Naval combat (NAVAL)

This *category of actions* will be addressed through one *call for proposals* in 2024, namely EDF-2024-DA, and proposals will be called for the following topic:

#### 3.1.13.1. EDF-2024-DA-NAVAL-FNP: Functional smart system-of-systems under an integral survivability approach for future naval platforms

With a view to contribute to the development of the next generation of European naval platforms, hence creating clear added value through a deeper integration of all technologies working together, while focusing on improving survivability, interoperability, and collaborative features, this topic will contribute to develop a common European approach for system architecture and modularisation, including the definition of interfaces. The aim is to achieve supplier-independent modularisation, assuming that specific systems will have a much shorter lifetime than the overall system of systems. All resources, both inside and outside the main platform should be integrated in a “plug and play” manner into a system configuration that can adapt to changes in the operational mission and to new technology developments. It should cover five main areas including four pillars (i.e., Combat System, Communication & Information System, Enhanced Platform Management System, and Navigation System) and one transversal area (i.e., Survivability Advisory System Foundation).

**Targeted types of activities:** Integrating knowledge, studies and design, not excluding downstream activities eligible for development actions.

**Indicative budget:** EUR 45 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### 3.1.14. Underwater warfare (UWW)

Recent hostile activities against critical underwater infrastructure have underlined that naval capabilities for the protection of seabed infrastructure and for freedom of action remain key aspects of naval capabilities and constitute a cornerstone of maritime security and freedom of movement for the EU. This requires enhanced underwater situational awareness and engagement capabilities. Solutions utilising uncrewed systems with autonomous features are foreseen to be a technological multiplier in this area. These include operational features bringing forth significant synergies with the EU-wide need for enhanced protection of critical underwater infrastructure.

This *category of actions* will be addressed through two *calls for proposals* in 2024, namely EDF-2024-RA and EDF-2024-DA, and proposals will be called for each of the following two topics:

#### 3.1.14.1. EDF-2024-RA-UWW-SACOM-STEP: Secured and adaptive underwater communications for UUSs

Efficient, robust, and secured underwater communication is a key enabler for maritime uncrewed systems (MUS), including the use of uncrewed underwater systems (UUS). There is a need for exchange of classified information in MUS. Identification, authentication and authorisation are important functionalities in the field of digital trusted gateways. Further research needs to be done to overcome the physical characteristics of the underwater environment that limits the possibility of having wireless communication systems with sufficient robustness and bandwidth required by many underwater warfare functions.

The specific objective of this topic is to design and demonstrate feasibility of secured underwater (network) communication solutions (acoustic, optical, or other modalities) for UUSs designed for military needs.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Integrating knowledge, studies and design, not excluding upstream activities eligible for research actions.

**Indicative budget:** EUR 24 000 000 for this topic under the call EDF-2024-RA.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

#### 3.1.14.2. EDF-2024-DA-UWW-AHMS: Autonomous heavy minesweeping system

Currently, most of the minesweeping systems and concepts are based on small drones (up to 12m length), with integrated or towed sweeping gear and relying on remote control rather than a certain level autonomy. Typically, these drones and their sweeping gears have limited endurance and are only suitable for inshore conditions (harbours and ports). They employ sweep systems with limited output and performance, only efficient against mines posing a threat to military vessels with reduced underwater signatures or smaller civilian vessels. For minesweeping operations aimed at reducing the risk for larger vessels in demanding environment (open seas, exposed to wind and waves, arctic conditions) a system (drone with sweeping gear) with long endurance, enhanced seaworthiness and additional capability of towing heavy mine sweeping equipment is required.

This topic therefore aims to investigate and develop capable and cost-effective technical solutions with a view to a minesweeping system (platform/drone and payload designed for it) capable of operating in an open sea, as well as confined and shallow environment in moderate to rough sea state.

**Targeted types of activities:** Studies and design, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 30 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### **3.1.15. Simulation and training (SIMTRAIN)**

This *category of actions* will be addressed through two *calls for proposals* in 2024, namely EDF-2024-RA and EDF-2024-DA, and proposals will be called for each of the following two topics:

#### *3.1.15.1.EDF-2024-RA-SIMTRAIN-BRG-STEP: Methods for bridging reality gaps*

This topic addresses research activities related to a common simulation framework for wargames/combat simulations, with AI-enabled battlespace simulations, bridging/using simulated and/or real forces, to support mission planning and execution in order to facilitate and reinforce learning–support in mission planning and execution.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Studies and design, not excluding upstream activities eligible for research actions.

**Indicative budget:** EUR 15 000 000 for this topic under the call EDF-2024-RA.

As it is related to EUDIS, this topic will support, in addition to the research activities, the creation of an innovation test hub in the field of simulation and training. To achieve this objective, financial support to third parties (cascade funding) will be included as part of the grant. This should increase the opportunities for various smaller actors, including those not previously active in the defence sector, to adapt innovative simulation technologies for defence applications and to identify potential business opportunities in the defence sector.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

#### *3.1.15.2.EDF-2024-DA-SIMTRAIN-STME-STEP: Simulation and training for medical emergencies*

This topic addresses development activities related to the current operational challenges that military medical personnel are facing in the EU Member States and EDF Associated Countries. The EU has already started its efforts to develop military medics' innovative training solutions.

In order to take full advantage of military medics training simulation, additional operational scenarios and functionalities in a virtual reality environment have to be further developed.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Design and system prototyping, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 10 000 000 for this topic under the call EDF-2024-DA.

**Indicative number of proposals to be funded:** One proposal is to be funded for this topic. However, depending on the quality of the submitted proposals and the available budget, more than one proposal may ultimately be funded for this topic.

### **3.1.16. Disruptive technologies (DIS)**

This *category of actions* will be addressed through one *call for proposals* in 2024, EDF-2024-LS-RA-DIS, and proposals will be called for the following two topics:

#### *3.1.16.1.EDF-2024-LS-RA-DIS-QUANT-STEP: Quantum technologies*

Quantum technologies are among the most important emerging and disruptive technologies for defence capabilities. Within these quantum technologies, Quantum Sensing (QS) is the most mature domain and has the potential to have a significant impact on defence operations. However, significant technical challenges remain before operational systems can be developed. Further research is therefore required in a number of QS areas, such as quantum sensors for Positioning, Navigation and Timing (PNT), optronics and RF sensing. In addition, with the possible emergence of quantum computers, current technologies for secure communication are at risk of being compromised and need to be upgraded. There is therefore a need for research into future-proof communication technologies, such as quantum communication or quantum-resistant cryptography.

This topic contributes to the STEP objectives as defined in STEP Regulation, in the target investment area of deep and digital technologies.

**Targeted types of activities:** Generating and studies, not excluding other eligible activities for research actions.

**Indicative budget:** EUR 24 000 000 for this topic under the call EDF-2024-LS-RA-DIS.

**Indicative number of proposals to be funded:** Several proposals may be funded for this topic.

#### *3.1.16.2.EDF-2024-LS-RA-DIS-NT: Non-thematic research actions targeting disruptive technologies for defence*

See Section 3.3.4

## **3.2. Actions to be funded through grants but not related to the categories of actions**

Two calls for proposals not related to the categories of actions will be launched in 2024:

### **3.2.1. EDF-2024-LS-RA-SMERO: Call for proposals dedicated to SMEs and research organisations**

- **Targeted type of actions:** Research actions (dedicated to SMEs and research organisations).



- **Form of funding:** Lump sum grants following the call for proposals.
- **Targeted type of applicants:** Any eligible consortium as defined in Articles 9 and 10(4) of the EDF Regulation. Members of the consortium need to be SMEs (as defined in Commission Recommendation 2003/361/EC) or research organisations. The coordinator of the consortium needs to be an SME. The budget allocated to research organisations cannot exceed 40% of the total requested grant amount.
- **Indicative number of proposals to be funded:** Several proposals may be funded following this call (see Section 3.3.2).
- **Range of financial contribution of the EU per proposal:** The requested funding cannot exceed EUR 4 000 000.

### 3.3.2. EDF-2024-LS-DA-SME: Call for proposals dedicated to SMEs

- **Targeted type of actions:** Development actions (dedicated to SMEs).
- **Form of funding:** Lump sum grants following the call for proposals.
- **Targeted type of applicants:** Any eligible consortium as defined in Articles 9 and 10(4) of the EDF Regulation. Members of the consortium need to be SMEs (as defined in Commission Recommendation 2003/361/EC).
- **Indicative number of proposals to be funded:** Several proposals may be funded (see Section 3.3.3).
- **Range of financial contribution of the EU per proposal:** The requested funding cannot exceed EUR 6 000 000.

### 3.3. Actions implemented under indirect management

The following four topics may lead to actions to be implemented under indirect management:

#### 3.3.1. EDF-2024-DA-C4ISR-MALE: Medium altitude long endurance RPAS

The development of a European MALE RPAS with an innovative Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) and armed ISTAR capability that will exceed the capabilities of comparable systems is one of the key elements to strengthen European sovereignty.

This topic aims to cover the detailed design activities between the Preliminary Design Review (PDR) and the System Test Readiness Review (STRR) of the European MALE RPAS, as well as the design of a prototype for a common sensor pod.

**Management mode:** Action implemented in indirect management by the Organisation Conjointe de Coopération en Matière d'Armement / Organisation for Joint Armament Co-operation (OCCAR).

**Form of funding:** Contribution Agreement.

#### Entrusted tasks:

**Implementation of actual cost grants** following a competitive call.

**Targeted types of activities:** Studies, design, system prototyping, testing, qualification, certification, not excluding upstream and downstream activities eligible for development actions.

**Indicative budget:** EUR 101 650 000 to support this topic following the call EDF-2024-DA, including up to EUR 1 650 000 for the remuneration of the entrusted entity.

### **3.3.2. EDF-2024-LS-RA-SMERO-NT: Non-thematic research actions by SMEs and research organisations**

This topic addresses innovative defence technologies, materials and solutions, including those that can improve readiness, deployability, reliability, safety and sustainability of EU forces in the entire spectrum of tasks and missions, for example in terms of operations, equipment, infrastructure, basing, energy solutions, new surveillance systems.

The proposals could address any subject of interest for defence, such as, but not limited to, the following areas:

- Measurement and monitoring of physiological and cognitive state
- Optimisation of cognitive performance in human-machine interaction, including for human-robot teaming
- Blockchain applications (e.g. for Identification of Friend or Foe)
- Tools and applications improving cybersecurity talents screening
- Artificial intelligence and robotic autonomous systems
- System health monitoring and through life-cycle interoperability
- Solutions for mechanical and “green” chemical recycling of waste of soldier individual equipment (uniforms, helmets, boots, rucksacks, plastic elements, harness, etc.)
- Concepts and corresponding technologies to ensure a safe water reuse throughout the entire water cycle of a deployable camp or a deployed combat group, including with microbial safety and hygiene considerations
- Synthetic fuel production from waste and biomass for military use
- High Power Microwave (HPM) Electronic Waveform Technology countering electronic systems
- Technologies for advanced Printed Circuit Boards (PCB) for defence electronics

In addition, in order to best complement R&D efforts already targeting civil applications and to encourage the efficient spinning-in of knowledge and innovative solutions to the defence sector, this topic also welcomes proposals for add-on research actions to adapt solutions originally developed for civil applications to defence requirements. The proposals should drive forward or integrate results of projects funded under EU programme calls with a focus on civil applications and under the provision that the applicants have the necessary rights to access and commercialise the results of the precursor project.

**Management mode:** Action implemented in indirect management by the European Defence Agency.

**Form of funding:** Contribution Agreement.

**Entrusted tasks:**

**Implementation of lump sum grants**, as decided by the Commission at the time of the awards following the competitive call EDF-2024-LS-RA-SMERO.

**Targeted types of activities:** Any activities eligible for a research action. However, proposals must not be limited to studies.

**Indicative budget:** EUR 34 815 000 to support this topic, including up to EUR 815 000 for the remuneration of the entrusted entity.

### **3.3.3. EDF-2024-LS-DA-SME-NT: Non-thematic development actions by SMEs**

This topic addresses innovative defence products, solutions, materials and technologies, including those that can improve readiness, deployability, reliability, safety and sustainability of EU forces in the entire spectrum of tasks and missions, for example in terms of operations, equipment, infrastructure, basing, energy solutions, new surveillance systems.

The proposals could address any subject of interest for defence, such as, but not limited to, the following areas:

- Measurement and monitoring of physiological and cognitive state
- Optimisation of cognitive performance in human-machine interaction, including for human-robot teaming
- Blockchain applications (e.g. for Identification of Friend or Foe)
- Tools and applications improving cybersecurity talents screening
- Artificial intelligence and robotic autonomous systems;
- System health monitoring and through life-cycle interoperability
- Solutions for mechanical and “green” chemical recycling of waste of soldier individual equipment (uniforms, helmets, boots, rucksacks, plastic elements, harness, etc.)
- Concepts and corresponding technologies to ensure a safe water reuse throughout the entire water cycle of a deployable camp or a deployed combat group, including with microbial safety and hygiene considerations
- Synthetic fuel production from waste and biomass for military use
- High Power Microwave (HPM) Electronic Waveform Technology countering electronic systems
- Technologies for advanced Printed Circuit Boards (PCB) for defence electronics

In addition, in order to best complement R&D efforts already targeting civil applications and to encourage the efficient spinning-in of knowledge and innovative solutions to the defence sector, this topic also welcomes proposals for add-on development actions to adapt solutions originally developed for civil applications to defence requirements. The proposals should drive forward or integrate results of projects funded under EU programme calls with a focus on civil applications and under the provision that the applicants have the necessary rights to access and commercialise the results of the precursor project.

**Management mode:** Action implemented in indirect management by the European Defence Agency.

**Form of funding:** Contribution Agreement.

### Entrusted tasks:

**Implementation of lump sum grants**, as decided by the Commission at the time of the awards following the competitive call EDF-2024-LS-DA-SME.

**Targeted types of activities:** Any activities eligible for a development action. However, the proposals must address at least one activity among design, system prototyping, testing, qualification, certification and increasing efficiency.

**Indicative budget:** EUR 33 770 000 to support this topic, including up to EUR 770 000 for the remuneration of the entrusted entity.

#### **3.3.4. EDF-2024-LS-RA-DIS-NT: Non-thematic research actions targeting disruptive technologies for defence**

The proposals should primarily consist of activities aiming to create, underpin and improve disruptive technologies that can achieve significant effects in the area of defence.

The proposals must substantiate their disruptive impact and could address disruptive technologies in any area of interest for defence, such as, but not limited to, the following ones:

- Measurement and monitoring of physiological and cognitive state
- Optimisation of cognitive performance in human-machine interaction, including for human-robot teaming
- Blockchain applications (e.g. for Identification of Friend or Foe)
- Tools and applications improving cybersecurity talents screening
- Artificial intelligence and robotic autonomous systems
- System health monitoring and through life-cycle interoperability
- Solutions for mechanical and “green” chemical recycling of waste of soldier individual equipment (uniforms, helmets, boots, rucksacks, plastic elements, harness, etc.)
- Concepts and corresponding technologies to ensure a safe water reuse throughout the entire water cycle of a deployable camp or a deployed combat group, including with microbial safety and hygiene considerations
- Synthetic fuel production from waste and biomass for military use
- High Power Microwave (HPM) Electronic Waveform Technology countering electronic systems
- Technologies for advanced Printed Circuit Boards (PCB) for defence electronics

**Management mode:** Action implemented in indirect management by the European Defence Agency.

**Form of funding:** Contribution Agreement.

### Entrusted tasks:

**Implementation of lump sum grants**, as decided by the Commission at the time of the awards following the competitive call EDF-2024-LS-RA-DIS:

- **Indicative number of proposals to be funded:** Several proposals may be funded.
- **Range of financial contribution of the EU per proposal:** The requested funding cannot not exceed EUR 4 000 000.

**Targeted types of activities:** Generating and integrating knowledge, not excluding downstream eligible activities for research actions.

**Indicative budget:** EUR 16 373 000 for this topic, including up to EUR 373 000 for the remuneration of the entrusted entity.

### 3.4. Other actions

#### *EDF outreach, IT systems and studies*

- As referred to in Article 32(3) of the Regulation (EU) 2021/697 (EDF Regulation), EDF outreach actions will contribute to communication activities on the political priorities related to the EDF, dissemination activities, matchmaking events, awareness-raising activities. EU Member States and EDF Associated Countries, as well as the recipients of EDF funding as referred to in Article 32(1) of the Regulation, should aim at implementing similar communication efforts.
- Development and support of IT systems adapted to EDF specificities.
- Support to matchmaking for investors, SMEs and Mid-Caps, allowing all these entities to showcase their innovative products and services to end-users in the EU Member States and EDF Associated Countries, as well as to large corporates and investors. The matchmaking will strengthen the companies' development by facilitating access to follow-up financing, government contracts or corporates' supply chains.
- Study analysing young people's perceptions and attitudes regarding working in the defence industry, followed by outreach activities throughout the EU, with a view to raising the attractiveness and importance of the defence sector.
- Studies on how EUDIS support to defence innovation could be shaped in the future to increase its relevance to the defence/dual-use innovation ecosystem and to military end-users in EU Member States and EDF Associated Countries.
- Studies with regards to the interim evaluation of the implementation of the EDF.
- Studies related to EDF impact assessment and EDF strategic perspective, in view of the preparation of legislative proposals under the next EU multiannual financial framework.

<b>Form of funding</b>	Public procurements
<b>Indicative budget</b>	EUR 2 023 399

#### *External expertise and audits*

- Recruitment of external expertise necessary for the evaluation of proposals submitted following the EDF calls for proposals: contracts of remunerated experts referred to in Article 237 of the Financial Regulation.
- Cost arising for the performance of the audits referred to in Article 30 of the EDF Regulation (contracts).

<b>Form of funding</b>	Contracts
<b>Indicative budget</b>	EUR 1 300 000

***Indirect management***

- Remuneration of entrusted entities in case of change in the management mode for specific actions, following the evaluation of the proposals submitted.

<b>Form of funding</b>	Contribution agreements
<b>Indicative budget</b>	EUR 848 000

***Business Coaching in the European Defence Fund***

Small and medium-sized enterprises (SMEs) play a role in achieving more innovative solutions. To reduce the time of bringing the results of R&D funded actions to the next phase, whether the next phase consists of development or bring the final product to the market, the European Commission will provide business coaching to the successful SMEs beneficiaries under all EDF calls for proposals. This action will support:

- The setting up of a pool of experts that can provide targeted business coaching;
- A mechanism for matching between the skills offered by the coaches, the requirements for coaching by the SME, and the actual assignment of the coaches.

<b>Form of funding</b>	Public procurement
<b>Indicative budget</b>	EUR 1 600 000

***Business accelerator for the European Defence Fund***

The business accelerator aims to improve SMEs, including start-up and scale-up companies' abilities to achieve sustained commercial growth by strengthening their business development and go-to-market capabilities, improving their access to risk financing, and strengthening their networks to other markets, larger companies and end-users.

Through a multi-year framework contract, the business accelerator will provide seed vouchers for at least one batch of at least 20 companies per year.

<b>Form of funding</b>	Public procurement
<b>Indicative budget</b>	EUR 2 600 000

### ***Defence equity facility under InvestEU for SMEs and Mid-Caps***

The lack of risk capital in the EU for SME or Midcaps developing innovative defence technologies hampers their growth capacity. This market failure has been underlined already in the conclusions of the expert group on the EDF Financial toolbox. In order to tackle this market failure, the “Roadmap on critical technologies for security and defence” released by the Commission on 15 February 2022 announced the creation of a defence innovation scheme, including the establishment of a defence investment blending facility under InvestEU.

The newly established facility will allow the Commission to guarantee equity investments made by private funds into innovative and strategic defence SMEs. The facility will allow the EU, through the EIF, to financially support private funds investing in innovative and strategic defence SMEs across the EU. The facility is without prejudice to EIF/EIB policy and guidelines. This support will be made through direct investments in the funds themselves and crowding-in additional investors through signalling effects associated to the EIF’s investment. It would be created by a “blending operation” as referred to in Article 8.3 of the EDF Regulation and implemented, in indirect management, by the European Investment Fund (EIF) according to InvestEU regulation and investment guidelines.

Enabling a better access to equity funding for innovative defence SMEs and mid-caps would support their growth and finally benefit to the innovativeness of the European defence technological and industrial base (EDTIB). It will also reduce their exposure to non-EU investors and benefit to the EU’s strategic autonomy, in line with EDF’s eligibility criteria. The creation of this facility will send a positive message to private investors on the attractiveness of the defence sector within the EU.

A global contribution of the European Defence Fund of EUR 100 million over the period 2022-2027 is expected, with a contribution of EUR 20 million in 2024. The European Investment Fund will be contributing with its own resources. Financial intermediaries selected by EIF and entrusted with the funds will have to invest a minimum amount in specifically defence-related SMEs, to reach a global volume of EUR 350 million.

The Guarantee Agreement between the Commission and the European Investment Fund will define the terms and conditions according to which (1) The EIF will select financial intermediaries (private funds); (2) The financial intermediaries will implement equity operations. In line with eligibility conditions of the EDF, both financial intermediaries and final beneficiaries will have to be established in the EU and EDF Associated Countries and not controlled by non-associated third-countries entities. Final beneficiaries will also be subject to limitations on the transfer or exclusive licensing of their technology to non-EU and non-associated third-countries entities.

The InvestEU guarantee agreement mirrors the categories of activities of EDF’s annual work programme, ensuring that supported SMEs are relevant to the objective of the programme, and that the competitiveness of the EDTIB is supported.

<b>Form of funding</b>	Blending operations
<b>Indicative budget</b>	EUR 20 000 000



### ***European Defence Fund Hackathon event***

Hackathons are events where individuals from Member States and EDF Associated Countries come together and form teams to develop solutions. In line with the awareness and outreach objectives, the hackathons should promote skills development and attract the next generation of defence innovators and talents for the defence sector; encourage and bridge different relevant communities, e.g., by connecting young researchers and innovators with experts from the defence industry and defence end-users from the Member States and EDF Associated Countries. Additionally, these events aim to provide a stimulating environment for creating innovative defence solutions to support the needs of the Member States/EDF associated countries and EDF objectives with a view to contribute to a more competitive and innovative European defence industrial ecosystem.

The themes for the hackathons will be selected by the Commission, in coordination with Member States, EDF Associated Countries and EDA, in line with the priorities set out in the EDF annual Work Programmes. At least one EUDIS hackathon in multiple locations in Member States/EDF Associated Countries will be organised every year over the period 2024-2027. Each hackathon will be followed by a mentoring programme for the winning teams. In addition, a joint defence and space hackathon (EUDIS and CASSINI) will be organised every year, building on the success of the CASSINI Space for Defence and Security hackathon in March 2023. The EDF funding for the joint hackathon will be required bi-annually, respectively for 2025 and 2027.

<b>Form of funding</b>	Public procurement
<b>Indicative budget</b>	EUR 1 200 000

#### 4. INDICATIVE BUDGET FOR 2024

Reference of the operational budget lines: 13.03 for Research and 13.02 for Development

Union actions	Total budget and percentage of 2024 appropriations (in EUR)					
	Research		Development		TOTAL	
- Grants*	305 500 000	88,57%	351 400 000	50,89%	656 900 000	63,44%
*Among which:						
<i>benefitting the cross-border participation of SMEs</i>	34 000 000	11,13%	33 000 000	9,39%	67 000 000	10,20%
<i>supporting disruptive technologies for defence</i>	40 000 000	13,09%		0,00%	40 000 000	6,09%
<i>for grants implemented under indirect management</i>	50 000 000	16,37%	133 000 000	37,85%	183 000 000	27,86%
- Framework partnership agreement	15 000 000	4,35%	10 000 000	1,45%	25 000 000	2,41%
- Prizes						
- Public procurement	2 476 825	0,72%	4 946 574	0,72%	7 423 399	0,72%
- Blending operations	6 500 000	1,88%	13 500 000	1,96%	20 000 000	1,93%
- Other actions	1 918 000	0,56%	3 838 000	0,56%	5 756 000	0,56%
- Financing Decision 2024 part 1	13 539 879	3,93%	306 816 689	44,43%	320 356 568	30,94%
<b>TOTAL</b>	<b>344 934 704<sup>11</sup></b>	<b>33,31%</b>	<b>690 501 263<sup>12</sup></b>	<b>66,69%</b>	<b>1 035 435 967</b>	<b>100,00%</b>
<i>Among which contribution from Norway</i>	<i>11 245 332</i>		<i>22 511 263</i>		<i>33 756 595</i>	

Appendix 2 to this work programme is providing detailed figures per *category of actions*.

Appendix 3 to this work programme is providing detailed figures per *call for proposals*.

Appendix 5 to this work programme is providing a multiannual indicative budget summary for each *category of actions*.

<sup>11</sup> Including EDF budget reinforcement stemming from STEP

<sup>12</sup> Including EDF budget reinforcement stemming from STEP

## 5. SUMMARY INFORMATION AND FUNDING PRINCIPLES

### Summary information

In 2024, the Commission will run the following actions:

- 8 competitive calls for proposals, among which 5 to support research actions and 3 to support development actions
- Two Specific Grant Agreements (one targeting research actions and one targeting development actions)

Grants will be awarded to consortia after the publication of calls for proposals.

### Funding principles

Pursuant to Article 13 of the EDF Regulation, maximum funding rates that will apply to eligible costs of funded actions will be determined for each activity covered by the action and will be composed of:

- a baseline funding rate (see **Table 1** below);
- an increase in the baseline funding rate ('bonus') where conditions are met (see **Table 2** below).

The overall increase in the baseline-funding rate following the application of the increase of funding rates listed in Table 2 cannot exceed 35% of the total eligible costs of the activity.

The financial assistance of the EU provided under the Programme including the increased funding rates cannot exceed the values provided in **Table 3**.

Indirect eligible costs shall be determined by applying a flat rate of 25% of the total direct eligible costs, excluding direct eligible costs for subcontracting and financial support to third parties and any unit costs or lump sums that include indirect costs.

As an alternative, indirect eligible costs may be determined in accordance with the recipient's usual cost accounting practices on the basis of actual indirect costs provided that those cost accounting practices are accepted by national authorities for comparable activities in the defence domain, in accordance with Article 185 of the Financial Regulation, and that they have been communicated to the Commission by the recipient. By way of indication, this optional regime will be implemented as follows:

- Before the signature of the grant agreement:
  - Usual accounting practices of the opting applicant to calculate its indirect costs to be described in detail in the application,
  - National authority to certify that these accounting practises are accepted at national level for comparable activities in the defence domain,
  - The Commission to check if the indirect costs calculated by the applicant do not contain ineligible costs within the meaning of Article 186 of the Financial Regulation and will make adjustments, where applicable, for the calculation of the maximum grant amount.
- At the end of the action:
  - The opting beneficiary declares its actual indirect costs calculated following the methodology agreed ex ante;

- Financial statement of the opting beneficiary to be accompanied by a Certificate of Financial Statement (CFS) provided by an external auditor as foreseen in the Model Grant Agreement;
- The auditor establishing the CFS will follow the methodology agreed ex-ante to certify the amount of the actual indirect costs.
- Possibility for the Commission to audit the actual indirect costs following the methodology agreed ex ante (internal audit service or external mandated auditors).

The necessary details and forms will be part of the call documents published by the Commission on the website of the institution.

No profit rule: In order to ensure the continuity of the development actions after the period of Union financing provided for in the grant, potential revenue to be generated by these actions will not be taken into consideration in accordance with point (a) of Article 192(3) of the Financial Regulation.

**Table 1. Applicable baseline funding rates**

Types of activities		Baseline funding rate	
		Research action	Development action
(a)	Activities that aim to create, underpin and improve knowledge, products and technologies, including disruptive technologies for defence, which can achieve significant effects in the area of defence	100% of eligible costs	<i>Not applicable</i>
(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	100% of eligible costs	Up to 65% of eligible costs
(c)	Studies, such as feasibility studies to explore the feasibility of new or upgraded products, technologies, processes, services and solution	100% of eligible costs	Up to 90% of eligible costs
(d)	The 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 tests for risk reduction in an industrial or representative environment	100% of eligible costs	Up to 65% of eligible costs
(e)	The system prototyping of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 20% of eligible costs
(f)	The testing of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 45% of eligible costs
(g)	The qualification of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 70% of eligible costs
(h)	The certification of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 70% of eligible costs
(i)	The development of technologies or assets increasing efficiency across the life cycle of defence products and technologies	<i>Not applicable</i>	Up to 65% of eligible costs

**Table 2. Increase of funding rates (bonus) for development actions:**

<b>Condition to be fulfilled to get the corresponding bonus</b>	<b>Bonus</b> (additional number of percentage points to the baseline funding rate)
<b>PESCO bonus</b>	
Action developed in the context of the permanent structured cooperation (PESCO)	+ 10%
<b>SME bonus</b>	
Proportion of eligible costs allocated to SMEs established in the EU (for the activity concerned)	Proportion of eligible costs allocated to non-cross-border SMEs established in the EU (up to maximum 5%) + Twice the proportion of eligible costs allocated to cross-border SMEs established in the EU
<b>Mid-cap bonus</b>	
Proportion of eligible costs allocated to Mid-caps established in the EU (for the activity concerned)	+ 10%

**Table 3. Applicable maximum funding rates**

Types of activities		Maximum funding rate	
		Research action	Development action
(a)	Activities that aim to create, underpin and improve knowledge, products and technologies, including disruptive technologies for defence, which can achieve significant effects in the area of defence	100% of eligible costs	<i>Not applicable</i>
(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	100% of eligible costs	Up to 100% of eligible costs
(c)	Studies, such as feasibility studies to explore the feasibility of new or upgraded products, technologies, processes, services and solution	100% of eligible costs	Up to 100% of eligible costs
(d)	The 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 tests for risk reduction in an industrial or representative environment	100% of eligible costs	Up to 100% of eligible costs
(e)	The system prototyping of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 55% of eligible costs
(f)	The testing of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 80% of eligible costs
(g)	The qualification of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 80% of eligible costs
(h)	The certification of a defence product, tangible or intangible component or technology	<i>Not applicable</i>	Up to 80% of eligible costs
(i)	The development of technologies or assets increasing efficiency across the life cycle of defence products and technologies	<i>Not applicable</i>	Up to 100% of eligible costs

**APPENDIX 1: SUMMARY OF CALL TOPICS PER CATEGORY OF ACTIONS**

<i>Categories of actions</i>	Research call topics	Development call topics
	17	17
<i>1. Defence medical support, CBRN, biotech and human factors</i>	EDF-2024-RA-SGA-MCBRN-MCM-STEP	EDF-2024-DA-SGA-MCBRN-MCM-STEP
<i>2. Information superiority</i>		EDF-2024-DA-C4ISR-AIMA-STEP
		EDF-2024-DA-C4ISR-COMS-STEP
		EDF-2024-DA-C4ISR-SEEU-STEP
		EDF-2024-DA-C4ISR-MALE
<i>3. Advanced passive and active sensors</i>	EDF-2024-RA-SENS-ART	
	EDF-2024-LS-RA-CHALLENGE-SENS-RADNP	
	EDF-2024-LS-RA-CHALLENGE-SENS-RADNO	
<i>4. Cyber</i>		EDF-2024-DA-CYBER-NGCR-STEP
<i>5. Space</i>	EDF-2024-LS-RA-CHALLENGE-SPACE-MSIAP	EDF-2024-DA-SPACE-EPW-STEP
	EDF-2024-LS-RA-CHALLENGE-SPACE-MSIAO	
<i>6. Digital transformation</i>	EDF-2024-RA-DIGIT-ASMEP	
<i>7. Energy resilience and environmental transition</i>		EDF-2024-DA-ENERENV-EEMC-STEP
<i>8. Materials and components</i>	EDF-2024-RA-SI-MATCOMP-EC-STEP	
<i>9. Air combat</i>	EDF-2024-RA-AIR-AAM	EDF-2024-DA-AIR-NGRT
	EDF-2024-RA-AIR-UCCAS-STEP	
<i>10. Air and missile defence</i>		EDF-2024-DA-EUCI-AIRDEF-CHGV
<i>11. Ground combat</i>	EDF-2024-RA-GROUND-IWAS	EDF-2024-DA-GROUND-UGS-STEP
		EDF-2024-DA-GROUND-BLOS
		EDF-2024-DA-GROUND-AIFV
<i>12. Force protection and mobility</i>	EDF-2024-RA-PROTMOB-FMTC	
<i>13. Naval combat</i>		EDF-2024-DA-NAVAL-FNP
<i>14. Underwater warfare</i>	EDF-2024-RA-UWW-SACOM-STEP	EDF-2024-DA-UWW-AHMS
<i>15. Simulation and training</i>	EDF-2024-RA-SIMTRAIN-BRG-STEP	EDF-2024-DA-SIMTRAIN-STME-STEP
<i>16. Disruptive technologies</i>	EDF-2024-LS-RA-DIS-QUANT-STEP	
	EDF-2024-LS-RA-DIS-NT	
<i>Out of the scope of categories of actions</i>	EDF-2024-LS-RA-SMERO-NT	EDF-2024-LS-DA-SME-NT



## APPENDIX 2: 2024 ANNUAL BUDGET ALLOCATIONS PER CATEGORY OF ACTIONS

Categories of actions	Budget (in M€)						
	Research		Development		Research and Development		
	Total		Total		Total		
1. Defence medical support, CBRN, biotech and human factors	15		10		25		
2. Information superiority			181		181		
3. Advanced passive and active sensors	62				62		
4. Cyber			48		48		
5. Space	25		25		50		
6. Digital transformation	15				15		
7. Energy resilience and environmental transition			40		40		
8. Materials and components	25				25		
9. Air combat	50		100		150		
10. Air and missile defence			78		78		
11. Ground combat	30		100		130		
12. Force protection and mobility	30				30		
13. Naval combat			45		45		
14. Underwater warfare	24		30		54		
15. Simulation and training	15		10		25		
16. Disruptive technologies	40				40		
Non- thematic calls for innovative and future-oriented defence solutions focused on SMEs	34		33		67		
Other actions	11.1		22.1		33.2		
<b>TOTAL</b>	<b>376.1**</b>	Among which		<b>722.1**</b>	Among which		<b>1098.2**</b>
		Disruptive	SMEs		Disruptive	SMEs	
		<b>40</b>	<b>34</b>		<b>-</b>	<b>33</b>	
					<b>40</b>	<b>67</b>	

\*\* Including budget complement stemming from 2025 budget, subject to a separate financing decision.

**APPENDIX 3: 2024 ANNUAL BUDGET ALLOCATIONS PER CALL FOR PROPOSALS**

<b>Call ID</b>	<b>Call topic ID</b>	<b>Budget (in M€)</b>
<i>EDF-2024-RA**</i>	EDF-2024-RA-SENS-ART	35
	EDF-2024-RA-DIGIT-ASMEP	15
	EDF-2024-RA-AIR-AAM	35
	EDF-2024-RA-AIR-UCCAS-STEP	15
	EDF-2024-RA-GROUND-IWAS	30
	EDF-2024-RA-PROTMOB-FMTC	30
	EDF-2024-RA-UWW-SACOM-STEP	24
	EDF-2024-RA-SIMTRAIN-BRG-STEP	15
<i>EDF-2024-RA-SI</i>	EDF-2024-RA-SI-MATCOMP-EC-STEP	25
<i>EDF-2024-LS-RA-CHALLENGE</i>	EDF-2024-LS-RA-CHALLENGE-SENS-RADNP	20
	EDF-2024-LS-RA-CHALLENGE-SENS-RADNO	7
	EDF-2024-LS-RA-CHALLENGE-SPACE-MSIAP	15
	EDF-2024-LS-RA-CHALLENGE-SPACE-MSIAO	10
<i>EDF-2024-LS-RA-DIS</i>	EDF-2024-LS-RA-DIS-QUANT-STEP	24
	EDF-2024-LS-RA-DIS-NT	16 + ceiling 4 per proposal
<i>EDF-2024-LS-RA-SMERO</i>	EDF-2024-LS-RA-SMERO-NT	34 + ceiling 4 per proposal
<i>EDF-2024-DA**</i>	EDF-2024-DA-C4ISR-AIMA-STEP	45
	EDF-2024-DA-C4ISR-COMS-STEP	25
	EDF-2024-DA-C4ISR-SEEU-STEP	11
	EDF-2024-DA-C4ISR-MALE	100
	EDF-2024-DA-CYBER-NGCR-STEP	48
	EDF-2024-DA-SPACE-EPW-STEP	25
	EDF-2024-DA-ENERENV-EEMC-STEP	40
	EDF-2024-DA-AIR-NGRT	100
	EDF-2024-DA-GROUND-UGS-STEP	50
	EDF-2024-DA-GROUND-BLOS	25
	EDF-2024-DA-GROUND-AIFV	25
	EDF-2024-DA-NAVAL-FNP	45
	EDF-2024-DA-UWW-AHMS	30
	EDF-2024-DA-SIMTRAIN-STME-STEP	10
<i>EDF-2024-DA-EUCI**</i>	EDF-2024-DA-EUCI-AIRDEF-CHGV	78
<i>EDF-2024-LS-DA-SME</i>	EDF-2024-LS-DA-SME-NT	33 + ceiling 6 per proposal
<i>EDF-2024-RA-SGA</i>	EDF-2024-RA-SGA-MCBRN-MCM-STEP	15
<i>EDF-2024-DA-SGA</i>	EDF-2024-DA-SGA-MCBRN-MCM-STEP	10

\*\* Including budget complement stemming from 2025 budget, subject to a separate financing decision.

#### APPENDIX 4: 2024 EDF CONTRIBUTION TO STEP OBJECTIVES

<i>EDF 2024 Call topic ID</i>	<b>Budget (in M€)</b>	<b>STEP investment area supported</b>
<i>EDF-2024-RA-SGA-MCBRN-MCM-STEP</i>	15	Bio technologies
<i>EDF-2024-DA-SGA-MCBRN-MCM-STEP</i>	10	Bio technologies
<i>EDF-2024-DA-C4ISR-AIMA-STEP</i>	45	Deep and digital technologies
<i>EDF-2024-DA-C4ISR-COMS-STEP</i>	25	Deep and digital technologies
<i>EDF-2024-DA-C4ISR-SEEU-STEP</i>	11	Deep and digital technologies
<i>EDF-2024-DA-CYBER-NGCR-STEP</i>	48	Deep and digital technologies
<i>EDF-2024-DA-SPACE-EPW-STEP</i>	25	Deep and digital technologies
<i>EDF-2024-DA-ENERENV-EEMC-STEP</i>	40	Clean technologies
<i>EDF-2024-RA-SI-MATCOMP-EC-STEP</i>	25	Deep and digital technologies
<i>EDF-2024-RA-AIR-UCCAS</i>	15	Deep and digital technologies
<i>EDF-2024-DA-GROUND-UGS-STEP</i>	50	Deep and digital technologies
<i>EDF-2024-RA-UWW-SACOM-STEP</i>	24	Deep and digital technologies
<i>EDF-2024-DA-SIMTRAIN-STME-STEP</i>	10	Deep and digital technologies
<i>EDF-2024-RA-SIMTRAIN-BRG-STEP</i>	15	Deep and digital technologies
<i>EDF-2024-LS-RA-DIS-QUANT-STEP</i>	24	Deep and digital technologies
<b><i>Total indicative budget</i></b>	<b>382</b>	

**APPENDIX 5: EDF MULTIANNUAL INDICATIVE BUDGET SUMMARY PER CATEGORY OF ACTIONS**

Categories of actions	2021 <sup>22</sup>	2022 <sup>13</sup>	2023 <sup>24</sup>	2024 <sup>24</sup>	2025	2026	2027	Total	
	in M€	in M€	in M€	in M€	in M€	in M€	in M€	in M€	in %
1. Defence medical support, CBRN, biotech and human factors	57.8	24.9	40	25				147.7	3.44%
2. Information superiority	70	68.8	99	181				418.8	9.75%
3. Advanced passive and active sensors	38	40	69	62				209	4.87%
4. Cyber	37.9	69.9	60	48				215.8	5.02%
5. Space	49.4	148.7	125	50				373.1	8.69%
6. Digital transformation	68.5	48.2	45	15				176.7	4.11%
7. Energy resilience and environmental transition	82.8	19.3	25	40				167.1	3.89%
8. Materials and components	34.6	44.9	50	25				154.5	3.60%
9. Air combat	189.8	40	63	150				442.8	10.31%
10. Air and missile defence	100		123	78				301	7.01%
11. Ground combat	154.7	48.7	47	130				380.4	8.86%
12. Force protection and mobility	49.1	30	45	30				154.1	3.59%
13. Naval combat	103.5	130	154.5	45				433	10.08%
14. Underwater warfare		25	90	54				169	3.93%
15. Simulation and training		29.6		25				54.6	1.27%
16. Disruptive technologies	64.5	37.6	41	40				183.1	4.26%
Undefined categories. including SME calls	54.1	25.2	72	67				218.3	5.08%
Other actions	8.1	25	30.6	33.2				96.9	2.25%
<b>TOTAL</b>	<b>1162.8</b>	<b>855.8</b>	<b>1179.1</b>	<b>1098.2</b>				<b>4295.8</b>	<b>100.00%</b>

<sup>13</sup>

Budget including reinforcement from STEP and complements using appropriations from the EDF budget for the subsequent year (top-up budget).