

Fundamental Elements

INDUSTRY DAY WORKSHOP

Developing cutting-edge services for
emergency response

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Agenda



Introduction to FE R&D funding
Scope of the Calls for proposal
How to prepare your application
Participation and evaluation
Grant agreement
Guidelines to fill in the financial proposal
Q&A

Introduction



This webinar aims to present an overview of the **Open calls for proposal** of the **Second FE programme** underlying the **scope** of the calls, the **objectives** as well as the the **foreseen results** in terms of technologies readiness of the solutions and their **benefits** to the related **market segment**. Details on the budget and the planned maximum number of projects to be awarded is also provided.

An overview of the main **Financial and Legal rules** to bear in mind for the correct submission of the proposal is also presented, helping the participants during the submission process.

Fundamental Elements 2 - continues the successful work of FE1

New development of receivers, antennas and enabling users technology:



Continue to be **driven by user needs** and **oriented for a commercial use**:

- Priorities on specific segments driven by market needs, consultation with Users, with MS, with Industry/Academia
- Clear-cut from prototype receiver developments needed to leverage new services



Operational **implementation of current differentiators**:

- E.g. OSNMA and HAS, multi frequency



Prepare for commercial implementation of **new differentiators**:

- Early Warning Service, CAS, ARAIM, ...



Develop **emerging, disruptive technologies**:

- E.g. leveraging Machine Learning and Artificial Intelligence



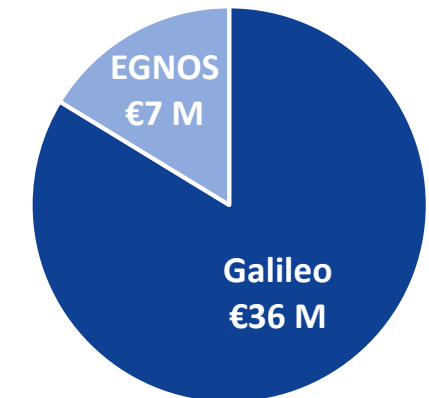
Explore **synergies with other space systems** on user technology:

- E.g. Copernicus, SatCom

Allocated EC budget for FE2

€43* million

2021-2027




* Indicative budget


New SAR beacons for maritime - Scope of the Call for Proposal

Indicative #of projects: up to 3
Maximum budget: **4.0M€**
EU co-financing rate: **70%**
Deadline: **31 May 2023**

Objectives

- 
- Design, development and testing the **new Galileo SAR beacons** with **remote activation capability** implemented and/or with activated beacon detection capability implemented
 - Support the **definition of appropriate protocols and tests for RBA (Remote Beacon Activation)** within the different standardization and certification bodies depending on the use case, including conformity procedures (e.g., standardization and certification)

Foreseen results

- 
- **Commercial beacons optimizing the RBA implementation for maritime** users for SSAS, EPIRBs and PLBs
 - Assessment of the performance in laboratory and in the field, with the aim to characterize the **benefits of RBA for the target use cases**

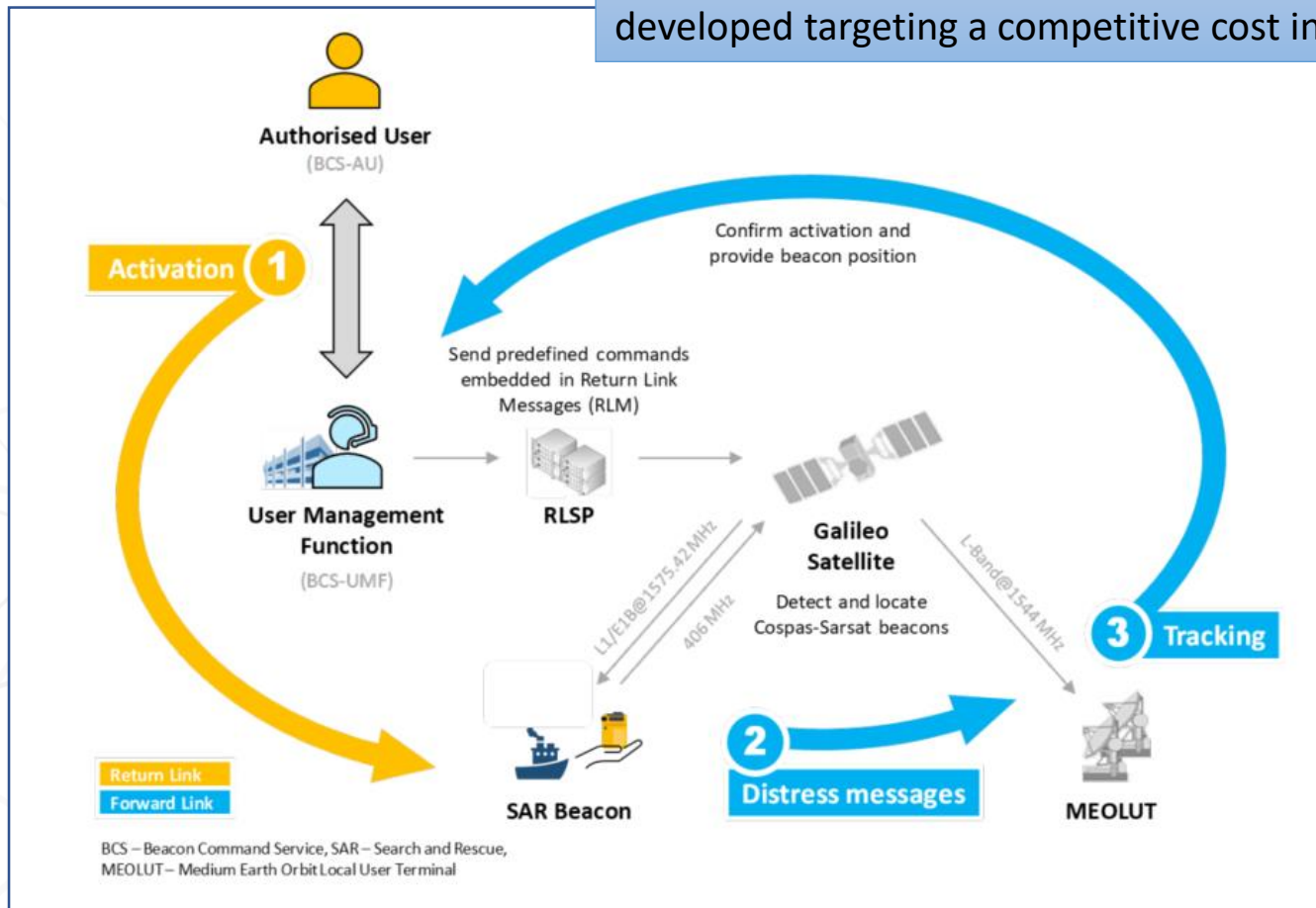
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Operational concept and technological challenges

The target **TRL shall be, at least, 7** and the end-products shall be developed targeting a competitive cost in the respective markets.



Main challenges of the Galileo SAR beacon:

- there are situations where the search and rescue beacons are not manually or automatically activated and because of that the rescue teams are not able to find the person/people in distress on time
- necessity to know how and where to display the information received to make the user aware, and thus to initiate a contact with the competent SAR Forces in the area to support potential rescue activities

Minimum functionalities to be implemented for the new Galileo SAR beacons:

- capacity to be **continuously reading the Galileo return link messages** embedded in the navigation message
- capacity to be **remotely activated and deactivated when receiving such a command via the return link** messages embedded in the navigation messages

The beacon to be developed shall not be a general-purpose hardware (typically suitable only for testing activities).

Tasks and core activities

1

Task 1: Technology and Application selection: Identify market segment(s) addressed (e.g. vessels under the safety of life at sea regulations (SOLAS), fishing vessels, aquaculture support vessels, leisure vessels, other non-SOLAS vessels) and the type of beacon(s) to be developed (e.g. Ship Security Alert System (SSAS), Emergency Position Indicating Radio Beacon (EPIRB), Personal Locator Beacon (PLB))

2

Task 2: Design and development: Based on the previous task, the applicant shall design and develop the proposed SW and HW solutions considering the application(s) selected. The applicant shall provide to EUSPA one (1) prototype of the fully-fledged implemented device

3

Task 3: Test, verification and validation: The applicant shall define the tests, implementing the current protocols defined in [AD-2] and [AD-3]

- the capacity of the beacon to be monitoring continuously all return link messages (RLM) provided by all satellites in view
- the capacity of the beacon to start transmitting immediately after reception of a request of activation
- the capacity to stop transmitting immediately after reception of a request of deactivation

The applicant shall implement the protocols and the tests defined first in the laboratory and then in an operational environment

4

Task 4: Exploitation and dissemination: Definition of a business plan; definition of a proper dissemination plan (activities and resources); support EUSPA in the preparation of technical papers; demonstration validating the operational concept involving the necessary stakeholders; dissemination material;

Core activities

For the purpose of this call the following **activities are considered core to the project:**

- ☐ Management and coordination;
- ☐ User requirements definition;
- ☐ Design and development of beacon architecture;
- ☐ Testing and validation plan;
- ☐ Business strategy definition and implementation;
- ☐ Final demonstration

Suggested planning for the submission of the deliverables

Deliverable	KO	SRR	PDR	CDR	TRR	FR
Project Management Plan	X	X	X			X
Application selection and user requirements document		X	X			X
System/device requirements document		X	X			X
Preliminary architecture document				X		X
Detailed architecture and design justification file			X	X		X
Test plan, cases and procedures				X		X
Test report					X	X
Device prototypes and operations manual						X
Business Plan			X			X
Dissemination Plan		X				X
Demonstration material					X	X
Dissemination material				X	X	X

Award criteria

AWARD CRITERIA	MAX. SCORE
1. Relevance of the proposal to the objectives of the call, credibility of the proposed approach and innovation level of the solution proposed;	50
<i>Relevance of the selected target application(s) and type(s) of beacon for the implementation of remote beacon activation capability with respect to other existing solutions in the market.</i>	20
<i>Relevance and quality of the proposed technologies and services to be implemented in the beacon in terms of innovation to cope with the main challenges identified</i>	20
<i>Effectiveness of the methodology for testing, verification and validation of the proposed solution</i>	10
2. Impact in terms of economic and public benefits derived from the proposal	20
<i>Scope and expected benefits for the target market and society as a whole</i>	10
<i>Effectiveness, coherence and viability of the business plan including plan for the commercialisation of the results, management of IPR and business risk assessment</i>	10
3. Credible and effective dissemination plan for the results in the best interest of the European Union	10
4. Coherence and effectiveness of the work plan and appropriateness of the allocation of tasks and resources	20
<i>Appropriateness of the management structure and effectiveness of the work plan, including risks</i>	10
<i>Appropriateness and justification of the level of the effort involved and its distribution within the proposed tasks and consortium participants, including complementarity of the proposed resources' skills</i>	10
Maximum total score	100

IMPORTANT NOTE: If a total score lower than **60** points or a score lower than **60%** for **any of the above four criteria** is obtained, the proposal will not be evaluated further and will be rejected.

Emergency Warning Satellite Service (EWSS) - Galileo Devices

Indicative #of projects: up to **2**
Maximum budget: **1.0M€**
EU co-financing rate: **70%**
Deadline: **31 May 2023**

Objectives



- To design, develop and test **Galileo enabled devices** (e.g., mass market, sports, automotive, agriculture, maritime, aviation, etc.) for the **reception and notification of Emergency Warnings based on Galileo EWSS**

Foreseen results



- **Prototype receiver/device optimizing implementation of Galileo EWSS** in target use cases

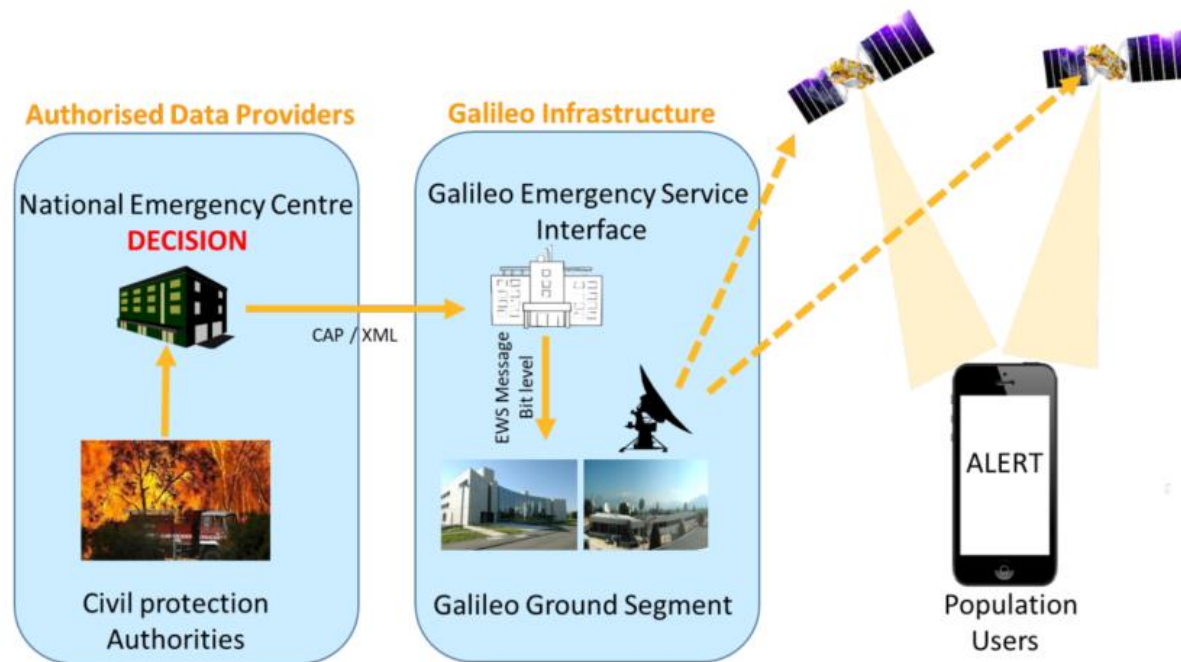
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Operational concept and technological challenges

The target **TRL shall be, at least, 7** and the end-products shall be developed targeting a competitive cost in the respective markets.



Galileo EWSS Operational Concept

Main challenges of the Galileo EWSS:

- Limited bandwidth: Galileo makes use of a pre-defined guidance-to-react database of generic instructions stored in the receiver. The instructions shall be self-explanatory and consistent with the instructions provided by other means and media. Free-text messages with customized guidance (e.g., to indicate evacuation routes) within the Galileo signal are not possible
- Battery consumption: To avoid the need for continuous reading of the Galileo Navigation Message, the GNSS receiver may implement a logic to only switch on the GNSS engine when the regular channels used by civil protection authorities for sending alerts (e.g. cell networks or internet) are not available and thus establishing a duty-cycle
- No indoor reception, as the power of GNSS signals is very low

Minimum functionalities to be implemented is the Galileo EWSS-enabled device:

- capacity to **read the emergency warning message** embedded in the Galileo I/NAV navigation
- capacity to **alert the user when receiving the emergency warning message**

The Galileo EWSS-enabled device to be developed shall not be a general-purpose hardware (typically suitable only for testing activities).

Tasks and core activities

1

Task 1: Technology and Application selection: the applicant shall describe the market segment selected (e.g. mass market, automotive, sports, agriculture, other transportation means, etc.) and the type of device to develop (e.g. handheld devices, bike computers, smartwatches, smartphones, navigators, etc.).

2

Task 2: Design and development: Based on the previous task, the applicant shall design and develop the proposed SW and HW solutions considering the application(s) selected. The applicant shall provide to EUSPA one (1) prototype of the fully-fledged implemented device

3

Task 3: Test, verification and validation: The applicant shall define the tests, implementing the current protocols defined in [AD-2] and [AD-3]

- The capacity of the device to be monitoring, continuously or based on duty cycle, the long return link messages (RLM) that will contain the emergency warning message (EWM) provided by all satellites in view; This is especially critical for those devices that will use a battery as a power source, facing the challenge of satellite connection versus battery drain.
- the capacity of the device to alert the user/citizens by means of a notification (e.g. visual notification, voice notification, etc.). The applicant shall implement the protocols and the tests defined first in the laboratory and then in an operational environment

The applicant shall implement the protocols and the tests defined first in the laboratory and then in an operational environment

4

Task 4: Exploitation and dissemination: Definition of a business plan; definition of a proper dissemination plan (activities and resources); support EUSPA in the preparation of technical papers; demonstration validating the operational concept involving the necessary stakeholders; dissemination material;

Core activities

For the purpose of this call the following **activities are considered core to the project:**

- ☐ Management and coordination;
- ☐ User requirements definition;
- ☐ Design and development of Galileo EWSS-enabled device architecture;
- ☐ Testing and validation plan;
- ☐ Business strategy definition and implementation;
- ☐ Final demonstration.

Suggested planning for the submission of the deliverables

Deliverable	KO	SRR	PDR	CDR	TRR	FR
Project Management Plan	X	X	X	X	X	X
Application selection and user requirements document		X	X			X
Assessment of technical viability and market uptake potential (input to the Business Plan)		X	X			X
System/device requirements document		X	X			X
Preliminary architecture document				X		X
Detailed architecture and design justification file			X	X		X
Test plan, cases and procedures				X		X
Test report					X	X
Device prototypes and operations manual						X
Business Plan			X			X
Dissemination Plan		X				X
Demonstration material					X	X
Dissemination material				X	X	X

Award criteria

AWARD CRITERIA	MAX. SCORE
1. Relevance of the proposal to the objectives of the call, credibility of the proposed approach and innovation level of the solution proposed;	50
<i>Relevance of the selected target application(s) and type(s) of device for the implementation of Emergency Warning Satellite Service capability with respect to other existing solutions in the market to alert the user/citizens.</i>	40
<i>Relevance and quality of the proposed technologies and services to be implemented in the Galileo EWSS-enabled device in terms of innovation to cope with the main challenges identified (power source and antenna). Proposals with solutions for mass-market mobile devices will be preferred and advantaged.</i>	
<i>Effectiveness of the methodology for design, development, testing, verification and validation of the proposed solution</i>	10
2. Impact in terms of economic and public benefits derived from the proposal	20
<i>Scope and expected benefits for the target market and society as a whole</i>	10
<i>Effectiveness, coherence and viability of the business plan including plan for the commercialisation of the results, management of IPR and business risk assessment</i>	10
3. Credible and effective dissemination plan for the results in the best interest of the European Union	10
4. Coherence and effectiveness of the work plan and appropriateness of the allocation of tasks and resources	20
<i>Appropriateness of the management structure and effectiveness of the work plan, including risks</i>	10
<i>Appropriateness and justification of the level of the effort involved and its distribution within the proposed tasks and consortium participants, including complementarity of the proposed resources' skills</i>	10
Maximum total score	100

IMPORTANT NOTE: If a total score lower than **60** points or a score lower than **60%** for **any of the above four criteria** is obtained, the proposal will not be evaluated further and will be rejected.

Preparation and structure of the proposals, forms and supporting documents

Administrative Proposal (A1-A5)	Technical Proposal (B1,B2)	Financial Proposal
A1: Consortium composition A2: Coordinator profile A3: Co-applicant profile A4: Declaration of honor A5: Financial capacity rations Relevant supporting documents	B1: Technical proposal B2: Operational capacity form	C1: Preliminary estimated budget

The technical proposal (B1-B2 Forms) constitutes the **core of the proposal**. These forms shall be submitted using the template provided with this call.

It is recommended to follow this structure when presenting the technical content. The templates are designed to highlight those aspects that will be assessed against the evaluation criteria. They cover, among other things, the nature of the proposed work, the participants and their roles in the proposed project, and the impact that might be expected to arise from the proposed work.

Documents access: Documents [AD-2] and [AD-3] are subject to **NonDisclosure Undertaking** and will be available upon request – for details see section 16.1.1 of the Call for Proposal specifications.

Calls Timetable

Stages		Date/time or indicative period
a)	Publication of the call	22 March 2023
b)	Deadline for submitting NDU	28 April 2023
c)	Deadline for request for clarifications	15 May 2023
d)	Publication of the clarifications	22 May 2023
e)	Deadline for submitting applications	31 May 2023
f)	Evaluation period	June-August 2023
g)	Information to applicants on the outcome of the evaluation	September 2023
h)	Signature of the Grant Agreement	October 2023

Indicative duration of the action under (each) grant agreement: **two years**

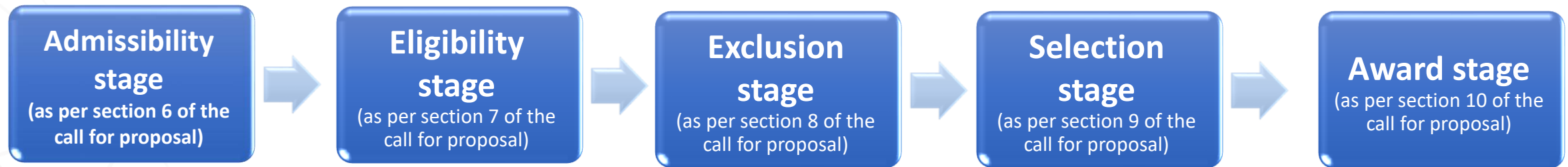
Starting date for the action is the first day of the month following the signature of the Grant Agreement.

How to submit a proposal

FORM	CONTENT	SINGLE APPLICANT/ CO-ORDINATOR	CO-APPLICANT(S)	Affiliated entity(ies)	
A1	CONSORTIUM COMPOSITION	X			ADMIN PROPOSAL
A2	COORDINATOR PROFILE	X			
A3	CO-APPLICANT PROFILE		X		
A4	DECLARATION OF HONOUR	X	X	X	
A5	FINANCIAL CAPACITY	X	X	X	
FIF and supporting documents		X			
LEF and supporting documents		X	X	X	
B1	TECHNICAL PROPOSAL	X			TECHNICAL PROPOSAL
B2	OPERATIONAL CAPACITY	X	X		
C1	PRELIMINARY BUDGET	X	X	X	FINANCIAL PROPOSAL

Evaluation process

Assessment of the call for proposal is done in sequential stages:



- Deadline
- Submission set
- Language
- Max. rate of co-financing

- Eligible applicants (EU MS, Switzerland, Norway)
- Structure of the consortium (at least 2 entities)

- Applicants not in exclusion situation – see for A4
- Misrepresented information
- Involved in preparation of the call
- Are Restricted Person

- Financial capacity
- Operational capacity

- Award criteria

EU funding



Non-cumulative award

Each action may give rise to the award of only one grant from the budget to any partner

Non-retroactivity

No grant may be awarded **retrospectively** for actions already completed

Non-profit rule

Where a profit is made, **EUSPA is entitled to recover the percentage of the profit**

Subcontracting

- ✓ Subcontracting shall **in no case cover core activities**
- ✓ The proposal should clearly **specify the activities that will be subcontracted** and the corresponding **costs must be indicated in the estimated budget**
- ✓ Subcontracting is **not allowed among the beneficiaries** of the proposal

Co-financing

EU financing **may not cover 100% of the total costs** of the action. It may take the form of:

- ✓ Partner's own resources
- ✓ Income generated by the action
- ✓ Contribution from third partners

Balanced budget

The estimated budget of the action is to be attached in excel format to the application form following the model provided in the Form C1. It must have revenue and expenditure in balance. The amounts must be expressed in Euro with maximum two decimals.

Applicants (and affiliated entities) with general accounts in a currency other than the euro must convert costs incurred in another currency into euro at the average of the daily exchange rates published in the C series of Official Journal of the European Union, determined over the corresponding reporting period.

Eligible costs and payments



Eligible direct costs:

- cost of personnel working under direct contract
- costs of natural persons working under a contract with the beneficiaries other than an employment contract
- unit costs of owners of SMEs who do not receive a salary or natural persons who do not receive a salary
- cost of travel and related subsistence allowance
- costs for equipment and other assets specifically procured for the action (only depreciation costs if assets not procured specifically, but directly used for the action)
- cost of consumable and supplies
- costs arising directly from requirements imposed by the grant agreement (dissemination, audits)
- duties, taxes and charges (ex: non-deductible VAT)

Eligible indirect costs:

A flat-rate amount of 7% of the total eligible direct costs of the action excluding subcontracting costs, (beneficiary's general administrative costs which can be regarded as chargeable to the action/project.)

Non-eligible costs:



- Return on capital or return generated by an investment
- Debt and debt service charges
- Provisions for future losses or debts;
- Interest owed
- Doubtful debts
- Currency exchange losses
- Bank costs charged by the beneficiary's bank for transfers from the EUSPA
- Costs declared by the beneficiaries in the framework of another action receiving a grant financed from the EU budget (including grants awarded by a Member State and financed from the EU budget and grants awarded by the European Commission or other EU bodies than EUSPA for the purpose of implementing the EU budget); in particular, indirect costs shall not be eligible under a grant for an action awarded to a beneficiary which already receives an operating grant financed from the EU budget during the period in question
- Contributions in kind from third parties
- Excessive or reckless expenditure
- Deductible VAT
- Participation by any staff of the European Union institutions in the action
- Costs incurred during the suspension of the implementation of the action
- Cost categories explicitly excluded in the work programme/call.

Subcontracting, equipment and leasing/rental costs

- **Subcontracting** - When the tasks in B1 cannot be done by the consortium
- **Specific Principle:** May only cover a **limited part of the action** and can **not** cover the **core activities**
- **Purchase of equipment** – When achieving the objectives of the action requires the purchase of equipment or the use of equipment already owned by the Beneficiary which is subject to depreciation
- **Leasing or rental costs** – When achieving the objectives of the action requires the use of equipment which is leased or rented
- **Common Principles:**
 - Stated in the proposal (Form C1 and B1)
 - Best value for money or the lowest price
 - No Conflict of Interest
 - Necessary for implementation
 - The Legal Entities signing the Grant Agreement must be the ones who are procuring, implementing and incurring the costs related to the Subcontract, Equipment or Leasing/Rent. **The Grant Agreement does not extend to affiliated entities (Holding Groups, Mother/Sister Companies, Spin-offs), unless they are identified separately as Co-Applicants or Affiliated Entities.**
- **Specific cases**
 - Subcontracting, leasing/renting and purchase of equipment among beneficiaries is not possible
 - Subcontracting, leasing/renting or purchasing equipment from affiliated entities is not possible except in very specific conditions, where the Applicant can prove that the above principles are respected

Admin package – overview of forms



Form A4 & Form A5

FORM A4. DECLARATION OF HONOUR

(TO BE SUBMITTED BY ALL APPLICANTS – INCLUDING AFFILIATED ENTITIES)

- It serves to check the exclusion and selection criteria
- To be filled and submitted by **ALL applicants**
- Generic text used by EU institutions and agencies.
- Consider starting early enough collecting all the evidences; since might be time consuming
- Supporting evidence may be required on the basis of a risk assessment that will be conducted by the EUSPA – possibility for the potential beneficiaries to start collecting all evidence early enough to be assessed by the applicants
- Evidence submitted in another procedure (procurement or grant) less than 12 months before the award of the grant can be re-used (no need of submitting new documents)

FORM A5. FINANCIAL CAPACITY

(TO BE SUBMITTED BY ALL APPLICANTS – INCLUDING AFFILIATED ENTITIES)

Admin package – overview of forms



Form A5: Financial capacity (1/2)

- Filled in with figures from your annual accounts for last 3 years (plus audit report for the last 3 years to be submitted if requested contribution is above 750K EUR) – given the complexity it is recommended to be filled in by a professional accountant / auditor
- EUSPA calculates ratios (e.g. profitability, indebtedness, financial independence)
- Used to assess your financial viability

Not applicable to:
public bodies, international organisations, natural persons receiving educational support or persons in need, persons or entities receiving interest rate rebates and guarantee fee subsidies for the purpose of reinforcing financial capacity

Admin package – overview of forms



Form A5: Financial capacity (2/2)

If outcome of the check is not satisfactory and in any other case EUSPA can:

- request further information
- propose a grant agreement without pre-financing
- propose a grant agreement with a lower percentage of a pre-financing;
- propose a grant agreement with a pre-financing covered by a bank guarantee
- reject the application

Admin package – overview of forms

Form C1: Estimated budget

Funding rate of the action (F. Rate)	<p>The Consortium/Single Applicant must choose a funding rate up to the maximum 70%, which applies to all applicants and to the coordinator regardless of their legal form.</p> <p>Applications must respect the maximum rate for EU co-financing (see Admissibility Requirements)</p>			
Estimated eligible costs of the action and EU contribution (Table 1)				
	Estimated eligible direct costs	Estimated eligible indirect costs	Total estimated eligible costs	Total EU contribution
	(EUR)	(EUR)	(EUR)	(EUR)
	A	B	C = A + B	D = (F. rate) x C
Direct eligible costs (Numbering of categories as in "Eligible Costs for the grants" section 12.2 of the Call for Proposals - apply the rules detailed thereafter)		declared on the basis of flat rate of 1% of 1. + 2. without costs of subcontractors, costs of third parties not working on beneficiary premises, and cost of financial support to 3rd parties		
1. PERSONNEL COSTS				
1.1 Personnel under direct empl. contract	0.00	0.00	0.00	0.00
1.2 Personnel under other than under empl. contract (in-house consultants)	0.00	0.00	0.00	0.00
1.3 Unit costs of owners of SMEs who do not receive a salary or natural persons who do not receive a salary	0.00	0.00	0.00	0.00
Sub-total for cost category 1	0.00	0.00	0.00	0.00
2. OTHER DIRECT COSTS				
2.1 Travel costs	0.00	0.00	0.00	0.00
2.2 Costs for equipment and other assets procured for the action	Not applicable in this call for proposals			
2.2 a) Costs for equipment and other assets procured for the action: Full purchase costs	Not applicable in this call for proposals			
2.2 b) Costs for equipment and other assets procured for the action: Depreciation costs	0.00	0.00	0.00	0.00
2.3 Costs for equipment or other assets not procured but used for the action (depreciation costs)	0.00	0.00	0.00	0.00
2.4 Costs for rental or lease of equipment or other assets only to the portion of use and limited to the duration of the action	0.00	0.00	0.00	0.00
2.5 Costs for use of technical facilities or laboratories	0.00	0.00	0.00	0.00
2.6 Costs for consumables and supplies	0.00	0.00	0.00	0.00
2.7 Costs arising directly from requirements imposed by the grant agreement	0.00	0.00	0.00	0.00
2.8 Costs entailed by subcontracts as described in the proposal	0.00	Not applicable	0.00	0.00
2.9 costs of financial support to third parties	Not applicable in this call for proposals			
2.10 Duties, taxes and charges paid by the beneficiary	0.00	0.00	0.00	0.00
Sub-total for cost category 2	0.00	0.00	0.00	0.00
Total direct eligible costs	0.00			
Total indirect eligible costs		0.00		
Total eligible costs			0.00	
5. Total EU contribution				0.00

Any questions?

Note: All the Q&A (including not answered) will be published as clarifications (by 15 May 2023)



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