

FRONTEX RESEARCH GRANTS PROGRAMME

CALL FOR PROPOSALS **2022/CFP/RIU/01 – NOVEL TECHNOLOGIES FOR BORDER MANAGEMENT (OPEN THEME)**

Annex 3.1 - Model Grant Agreement for mono-beneficiary action

Annex I – Description of the Action

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# Summary of the action

|  |  |
| --- | --- |
| **Project Title** | Max 200 characters (including spaces). Must be as short as possible and understandable for non-specialists in your field. |
| **Project Acronym** | Max 8 characters (all capital letters) – please include here the acronym for your project. |
| **Identity of the beneficiary** | Please insert here the name of the beneficiary |
| **Duration (in months)** | Duration of the project in full months, as stated in the Grant Agreement. |
| **Starting date** | Starting date of the project [dd/mm/yyyy], as stated in the Grant Agreement. |
| **Total estimated eligible costs declared on the basis of lump sums (EUR)** | Indicate here the **Total estimated eligible costs declared on the basis of lump sums**  as in the Estimated Budget (Annex III) – section 7. |
| **Maximum amount of the grant (in EUR)** | Indicate here the “maximum amount of the grant”, as stated in the Grant Agreement. This shall correspond to the **Total estimated Frontex contribution reimbursing eligible costs (EUR)** as in the Estimated Budget (Annex III) – section 8.  This value cannot exceed 60,000 EUR and cannot exceed 90% of the Total estimated eligible costs declared on the basis of lump sums (indicated in the previous line). |
| **Keywords** | Enter any keywords you think may give detail on the scope of your project (max 200 characters with spaces). |
| **Abstract** | |
| Max 1000 characters including spaces.  The abstract should provide the reader with a clear understanding of the objectives of the proposed action, how they will be achieved, and their relevance to the Call for Proposals. This Abstract will be used as the short description of the project in communications to any interested parties. It must therefore be short and precise and should not contain confidential information. Use plain typed text, avoiding formulas and other special characters. | |

# Excellence

## Objectives

The following information shall be included, and the corresponding guidelines observed, when drafting this paragraph:

* **Description**: Briefly describe the main scientific objectives and expected results of your proposed work. Objectives are intended as the goals of the work performed within the project (e.g. tackling specific research questions or demonstrating the feasibility of an innovation), in terms of its research and innovation content. Through the project execution, these will be translated into the project’s results.
* **Pertinence, measurability and achievability**: Explain why and how your objectives are:
  + pertinent to the subject of the Call;
  + measurable and verifiable;
  + realistically achievable.
* **State-of-the-Art**: Briefly describe what is the state-of-the-art in the proposed research topic and how your project goes beyond the state-of-the-art. You should demonstrate your knowledge and understanding of what is at the forefront of innovation in the target research area.
* **Novelty and alternatives**: Indicate any novel concepts, approaches or new products that your research will target, comparing them with what is already available in the research domain or on the market.
* **Prior art**: If possible, provide reference to any patent or publication search that you carried out, or to patents and publications that you already contributed in the field (only the few most relevant).

## Research Methodology

The following information shall be included, and the corresponding guidelines observed, when drafting this paragraph:

* **Description**: Describe and explain the overall methodology you intend to use to conduct your research, including the concepts, models and assumptions that underpin the methodology. The methodology must clearly describe the logical pathway that you intend to adopt from defining the technical requirements of the envisaged technological solution to delivering the goals of the project.
* **Challenges**: Explain any important challenges you may have identified in the chosen methodology and how you intend to overcome them.

# Scope of the research

The following information shall be included, and the corresponding guidelines observed, when drafting this paragraph:

* **Nature of the envisaged technological solution and technical specifications:** Clearly and concisely provide the following information:
  + A definition of what your main technological product will be. If it is a combination of several components, please provide a concise description of them.
  + Clearly state if the targeted solution will be a new solution, an improvement of an existing solution, or an existing solution re-adapted for a new function.
  + Describe the main technical characteristics of the technological solution to be developed in the project, including at least its foreseen functionalities, general design concept and targeted performance specifications.
* **Contribution to the General Objectives of the Call:** Describe concisely how your research project contributes to the General Objectives of the Call, as described in the Call for Proposals – paragraph 2.1.
* **Contribution to the Specific Objectives of the Call:** Describe concisely how your research project contributes the Specific Objectives of the Call, as described in the Call for Proposals – paragraph 2.2.
* **Matching the Themes of the Call:** Describe concisely how your research project matches the Themes of the Call, as described in the Call for Proposals – paragraph 2.3.
* **Targeting the Priorities of the Call:** Describe briefly how your research project targets all the Priorities of the Call, as described in the Call for Proposals – paragraph 2.4:
  + Priority 1: Focus on applied research
  + Priority 2: Present innovation potential
  + Priority 3: Realise viable technological solutions
  + Priority 4: Contribute to the Thematic Categories

With reference to the Priority 1, please make sure you also describe where the proposed work is positioned in terms of R&I maturity, i.e. where it is situated in the spectrum from TRL 2 to TRL 7, providing clear explanation of:

* + the initial TRL (TRL before starting this project), bearing in mind that this must be consistent with the description of the state-of-the-art;
  + the target (final) TRL to be achieved through the implementation of the project;
  + how the implementation of the project will enable the developments needed to evolve from the initial to the target TRL.

Remember that the technological solution to be developed through the project must have already passed the fundamental research stage (TRL 1) at the date of submission of the project proposal, and your ambition shall be to bring it to a maturity level not exceeding the stage of a system prototype demonstration (TRL 7) by the end of the implementation period.

* **Producing the Expected Outputs of the Call:** Briefly indicate how in your project, and at which stage, you intend to deliver results in line with the Expected Outputs of the Call, as described in the Call for Proposals – paragraph 2.5.
* **Other information (optional):**
  + Only in case relevant for your project, please indicate the possible synergies or complementarities with foreseen, ongoing or completed research projects conducted in the MSs/SACs in the field of border security, notably EU-funded actions under Horizon 2020 and Horizon Europe[[1]](#footnote-2) (possibly exploiting the results of such actions if already available) or the most recent research studies conducted by Frontex: [“Artificial Intelligence - based capabilities for European Border and Coast Guard The European”](https://frontex.europa.eu/media-centre/news/news-release/artificial-intelligence-based-capabilities-for-european-border-and-coast-guard-1Dczge), [“The Green Deal and the European Border and Coast Guard](https://frontex.europa.eu/future-of-border-control/eu-research/news-and-events/frontex-publishes-the-green-deal-report-14GwRK)” and the “[Technology Foresight on Biometrics for the Future of Travel](https://frontex.europa.eu/future-of-border-control/eu-research/news-and-events/frontex-publishes-technology-foresight-on-biometrics-for-the-future-of-travel-us6C6v?fbclid=IwAR2snOEDw3qQx0ddlnRMMGEUsmieWcBlyIUOOJx2A8QCsPcBd3ajbqiS_0o)”.
  + If this project is part of a larger-scale research initiatives that you are conducting or to which you are taking part, which is funded by other sources, please provide concise information on such initiative.

# Implementation

## Work plan

The following information shall be included, and the corresponding guidelines observed, when drafting this paragraph (for definitions, please refer to those given in the bullet points under “Description of each Work Package”):

* **Presentation of the work plan:** Please provide a brief presentation and overview of the overall structure of the work plan and the logics behind it.
* **List of Work Packages, Deliverables and Milestones**: Define the project activities which you intend to conduct and subdivide them into work packages (WPs) following the logical structure of the project, associating to each of the WPs the foreseen deliverables and a single milestone. Please provide the list of work packages, deliverables and milestones using as a template **Table 1** below. Depending on the complexity of your work plan, the proposed project activities might consist of only one WP; is also recommended to include not more than 10 WPs to keep the workplan to an acceptable level of complexity.
* **Gantt chart (optional):** Please include a simple Gantt chart suitable to visually show the timing of the different work packages and associated tasks, milestones and deliverables.
* **Description of each Work Package**: Please provide a description of each work package using as a template **Table 2.X** below and taking into account the following definitions and guidelines for filling-in the different sections of the table:
  + **Work Package (WP)**: is intended as a single task or a group of related tasks to be conducted within the project to achieve a certain intermediate result. Define the WPs on the basis of the logical structure of your project and the stages in which it must be carried out. Make sure the number of work packages is less than 10 and proportionate to the scale and complexity of your project.
  + **Work Package No:** this is simply the sequential number of the WP, e.g. 1, 2, 3, etc. Please structure the sequence of WPs following the order of their start month.
  + **Work Package Title:** this is simply the title you assigned to the work package within your work plan, for example “*Fabrication of the* *prototype*”.
  + **Person-Months:** time (human effort) that the key personnel of the beneficiary are foreseen to devote to the execution of the WP. The following convention is applied: 1 working day = 8 hours of full-time work; 1 year = 220 working days; 1 month = 220/12 = 18.33 working days. 1 person-month corresponds to the effort equivalent to 1 researcher working for a month full-time on the WP. For example: if 2 researchers work on the WP, one full-time for 3 months, the other full-time for 5 months, then the total human effort for the WP will be 8 person-months. Please make sure the information in this section matches the costs of personnel for the specific WP as stated in the Estimated Budget - Table 1 under category “1. Costs of personnel” (Annex III).
  + **Start Month:** month, calculated from the day the project starts, in which the WP is foreseen to start. Please indicate this as M1, M2, M3, etc. For example, M1 indicates that the WP is foreseen to start within the 1st month (30 calendar days) from the day the project starts.
  + **End month:** month, calculated from the day the project starts, in which the WP is foreseen to be completed. Please indicate this as M1, M2, M3, etc. For example, M3 indicates that the activities in the WP are foreseen to be completed within the 3rd month (90 calendar days) from the day the project starts.
  + **Objectives:** Briefly explain what you want to achieve as result of the work performed in this WP.
  + **Description of work:** Provide a concise description of the work to be performed within the WP. You should give enough details, to justify the proposed human and material resources to be allocated, and quantified information so that progress during project implementation can be monitored, including by Frontex. Keep in mind that resources assigned to a work package (and their costs as detailed in Estimated Budget) should be in line with its objectives and deliverables.
  + **Deliverables:** In a WP, deliverables are intended as tangible products (if there are) created during the execution of a WP. For example, these might consist in a document (e.g. a report on specific activities or results, a summary of technical requirements, or a plan), or a physical proof-of-concept or a prototype. You are free to decide whether or not to include any deliverables in the description of a WP, as this depends on how you organised your project and the way you want to monitor its execution and produce results. However, there is a **mandatory deliverable that shall be obligatorily included in your workplan and made available to Frontex at the end of the project**: the **Research Report** (see the Call for Proposals – paragraph 11.6.1).

Deliverables can be of 2 types:

* + - Sensitive (SE): if they contain sensitive information[[2]](#footnote-3);
    - Public (PU): i.e. fully open, e.g. publishable on the beneficiary’s and/or Frontex’s websites.

In the section “Deliverables” of Table 2.X, please list the Deliverables in order of delivery date and provide a very concise description of them using the following convention:

D<WP number>.<progressive number of deliverable within that WP> - <deliverable name> - <type PU or SE> – <delivery date in calendar months from the project start date>: <brief narrative description>.

Example: for Deliverable n. 2 in WP 3, called “Test Report”, sensitive, to be delivered in month 7, please write:

“D3.2 – Test Report – SE – M7: This report will contain the results of the test campaign conducted on the prototype to verify if it fulfils its specified technical requirements.”

* + **Milestone:**  In general, a milestone is intended as a control point that helps to verify progress marking the achievement of a key result within the WP, allowing the next phase of the work to begin. As indicated in the Call for Proposals - paragraph 11.4, for each WP a **single milestone** must be defined which will mark the completion of the WP. In the section “Milestone” of Table 2.X, please indicate this milestone and provide a concise description of the means of verification (in such a way that will enable Frontex to easily verify it) using the following convention:

ML<WP number> - WP <WP number> Completed – <due date in calendar months from the project start date>: <Brief narrative description of means of verification>.

Example: for the single Milestone that marks the completion of “WP 3 (Laboratory test)”, to be achieved in month 6, please write:

“ML3 – WP 3 Completed – M6: Test campaign in laboratory completed, measurement data collected and verified to be complete and correct.”

| **List of Work Packages, Deliverables and Milestones** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| WP No | Work Package Title | Deliverables[[3]](#footnote-4) | Milestone[[4]](#footnote-5) | Start Month | End Month | Person-Months |
| WP 1 |  |  |  |  |  |  |
| WP 2 |  |  |  |  |  |  |
| WP 3 |  |  |  |  |  |  |
| … |  |  |  |  |  |  |
| WP n |  |  |  |  |  |  |
| Total Person-Months | | | | | |  |

**Table 1 – List of Work Packages, Deliverables and Milestones** (add/delete as many lines as needed, but do not exceed 10 lines, i.e.10 WPs).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Work Package  No |  | Work Package  Title |  | Person-Months |  |
| Start Month |  |
| End month |  |
| Objectives | | | | | |
|  | | | | | |
| Description of work | | | | | |
|  | | | | | |
| Deliverables | | | | | |
|  | | | | | |
| Milestone | | | | | |
|  | | | | | |

**Table 2.X – Description of Work Package** (table to be replicated for each WP changing the numbering i.e. Table 2.1 for WP 1, Table 2.2 for WP 2, etc.)**.**

## Risk analysis

Please list, using the **Table 3** below, the critical risks that the stated project's objectives may not be achieved during project implementation, taking into account the following definitions and guidelines for filling-in the different sections of the table:

* **Critical risk:** is a plausible event or issue that could have a significant adverse impact on the ability of the project to achieve its objectives. Please restrict the list of risks only to the most relevant technical ones.
* **L - Level of likelihood to occur (value must be L (low) / M (medium) / H (high)**: is the estimated probability that the risk will materialise even after taking account of the mitigating measures put in place.
* **S - Level of severity (value must be L (low) / M (medium) / H (high):** is the relative seriousness of the risk and the significance that its negative effects might realistically have on the achievements of project’s objectives should the risk materialise.
* **Risk mitigation measures**: briefly describe the preventative actions you intend to put in place during project implementation for reducing the level of likelihood of the risk.
* **Contingency measures**: briefly indicate which corrective actions you would put in place if the hypothetical risk becomes a reality, in order to minimise its adverse effects on achieving the project’s objectives.

| **List of critical risks** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| No | Description of critical risk | L | S | WPs involved | Risk mitigation measures | Contingency measures |
| R1 |  |  |  |  |  |  |
| R2 |  |  |  |  |  |  |
| R3 |  |  |  |  |  |  |
| … |  |  |  |  |  |  |
| Rn |  |  |  |  |  |  |

**Table 3 – List of critical risks** (add/delete as many lines as needed)**.**

## Operational Capacity

The following information shall be included, and the corresponding guidelines observed, when drafting this paragraph (relevant definitions are given in the bullet points):

* **Organisation**
  + please provide a brief description of your organisation, giving information on how the proposed research project fits with your mission and the research activities you currently perform.
* **Know-how**
  + **List of scientific achievements:** Please provide the list of not more than 5 most relevant scientific achievements of your organisation relevant to the Call’s content, obtained in the last 5 years (i.e. within years 2018 to 2022) in the field covered by the project using as a template **Table 4** below. With this, you must prove to be able to carry out all tasks in the relevant areas of activities of this project.

Here is a brief explanation about the data to be included in the form:

* + - **Type of achievement**: might consist in publications, previous or currently on-going projects (of a similar, or larger, scale and complexity) or research activities, datasets, software, apparatus, or any other scientific achievements relevant to the call content or connected to the subject of this action.
    - **Short description**: please provide a short description of the key elements of the listed achievement, making evident the relevance to the call content or the connection to the subject of this action.
* **Qualifications and Experience**
  + **Project Team**: Please provide the list of the Researchers responsible for managing and implementing the proposed project who will form your **Project Team**, using as a template **Table 5** below. Please include only the researchers that will be involved in the project. You do not need to include in the table the identity of other persons involved in the project who are not researchers. “Researchers” are professionals engaged in the conception or creation of new knowledge. They conduct research and improve or develop concepts, theories, models, techniques instrumentation, software or operational methods[[5]](#footnote-6).

Take into account the following definitions for filling-in the different sections of the table:

* + - **Category**: can be one of the following[[6]](#footnote-7):
      * Category A – *Top grade researcher*: the single highest grade/post at which research is normally conducted. Example: ‘Full professor’ or ‘Director of research’.
      * Category B – *Senior researcher*: Researchers working in positions not as senior as top position but more senior than newly qualified doctoral graduates[[7]](#footnote-8). Examples: ‘associate professor’ or ‘senior researcher’ or ‘principal investigator’.
      * Category C – *Recognised researcher*: the first grade/post into which a newly qualified doctoral graduate would normally be recruited. Examples: ‘assistant professor’, ‘investigator’ or ‘post-doctoral fellow’.
      * Category D – *First stage researcher*: Either doctoral students who are engaged as researchers, or researchers working in posts that do not normally require a doctorate degree. Examples: ‘PhD students’ or ‘junior researchers’ (without a PhD).
    - **Position**: Please indicate the role of the Researcher in your organisation (e.g. Postdoctoral Researcher in the Biometrics Group – Department of Electronics).
    - **Role in the project**: very briefly explain the role of the researcher in the project.
  + **Curricula Vitae**: For each of the Researchers listed in table 5, please provide a very brief CV using as a template **Table 6.X** below. Here is a brief explanation about the data to be included in the form:
    - **General Overview**: please provide here a general overview of the profile of the Researcher.
    - **Education and Training:** provide a short list of the main qualifications awarded and/or scientific/technical trainings received;
    - **Professional experience:** provide concise information on the professional experience in conducting research activities in scientific domains relevant for the proposed project, giving details about the duties, activities, responsibilities and main achievements.

Bear in mind that you must prove that the Project Team members have a relevant technical competence and a high degree of specialisation in the areas pertaining to the activities subject to this project.

* **Research Infrastructures**
  + Provide a short description of any significant research infrastructure relevant to conduct the proposed research work. Use as a template **Table 7** below. Here is a brief explanation about the data to be included in the form:
    - **Name of infrastructure**: shortly identify the relevant infrastructure; in general, this might consist in a facility (e.g. office, laboratory, assembling and testing capability), asset or resource (e.g. technical equipment, tool or software) at the disposal of the beneficiary.
    - **Location**: please indicate where the infrastructure is physically located;
    - **Short description**: give a concise description of the listed infrastructure, providing key information on its relevance for the implementation of the project.

Bear in mind that you must prove to have at your disposal research infrastructures with relevant design and/or development and/or testing tools necessary to implement this project.

| **List of scientific achievements** | |
| --- | --- |
| Type of achievement | Short description |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**Table 4 – List of achievements** (delete as many lines as needed)**.**

| **Project Team - List of Researchers involved in the project** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Title | Name | Surname | Category | Position | Role in the project |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Table 5 – List of the Researchers involved in the project (Project Team)** (add/delete as many lines as needed)**.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Curriculum Vitae of Researcher** | | | | | |
| **Title** |  | Name |  | **Surname** |  |
| **General Overview** | | | | | |
|  | | | | | |
| **Education and Training** | | | | | |
|  | | | | | |
| **Professional experience** | | | | | |
|  | | | | | |

**Table 6.X – Template for the CV of Researchers** (table to be replicated for each Researcher changing the numbering i.e. Table 6.1 for Researcher 1, Table 6.2 for Researcher 2, etc.)**.**

| **List of research infrastructures** | | |
| --- | --- | --- |
| Name of infrastructure | Location | Short description |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Table 7 – List of research infrastructures** (add/delete as many lines as needed)**.**

## Budget

The following information shall be included, and the corresponding guidelines observed, when drafting this paragraph:

* **Estimated Budget**: Annex III contains the detailed estimated budget of the project in euros, where all costs and contributions are indicated in balance. The estimated budget shall not be reported here, as it is already contained in the excel file.
* **Cost breakdown per WP**: Using the cost figures resulting under the “*Sub-total for cost category 1 to 6*” and the “*Total estimated eligible costs declared on the basis of lump sums*” for each WP in the “***Estimated Budget***” excel table, please complete the **Table 8.X** below (one table for each work package). Then, for each of the different types of costs, please provide a clear and concise justification of the estimated direct eligible costs.

Costs must be consistent with the research activities described for the WP in [paragraph 3.1](#_Work_plan). As explained in the Call for Proposals – paragraph 11.4, the grant amount will be paid out to the beneficiary only for the completed WPs. The completion of a WP shall be demonstrated through the achievement of the corresponding milestone.

**Note on the period of eligibility of costs:** As stated in the Call for Proposals – paragraph 11.2, eligible costs must be incurred during the duration of the action, with the exception of costs relating to final reports and audit certificates; the period of eligibility of costs will start as specified in the Grant Agreement.

| Work Package No |  | Cost breakdown per WP | |
| --- | --- | --- | --- |
| Direct Eligible Costs | | Sub-total for cost category (EUR) | Justification |
| **1. Costs of personnel** | |  |  |
| **2. Costs of travel and related subsistence allowances** | |  |  |
| **3. Costs of equipment or other assets** | |  |  |
| **4. Costs of consumables and supplies** | |  |  |
| **5. Costs arising directly from requirements imposed by the Agreement** | |  |  |
| **6. Duties, taxes and charges** | |  |  |
| Total estimated eligible costs declared on the basis of lump sums | |  |  |

**Table 8.X – Cost Breakdown per WP** (table to be replicated for each WP changing the numbering i.e. Table 8.1 for WP 1, Table 8.2 for WP 2, etc.)**.**

1. See some examples of EU-funded projects in the field of border security under Frontex EU Research webpage <https://frontex.europa.eu/future-of-border-control/eu-research/horizon-projects/>. [↑](#footnote-ref-2)
2. See definition in the Call for Proposals – Glossary of Terms. [↑](#footnote-ref-3)
3. Here please put only the deliverables abbreviated with the corresponding WP number and progressive number (e.g. D3.2). [↑](#footnote-ref-4)
4. Here please put only the single milestone abbreviated with the corresponding WP number (e.g. ML3). [↑](#footnote-ref-5)
5. See the Frascati Manual 2015 at <https://www.oecd.org/sti/inno/frascati-manual.htm> [↑](#footnote-ref-6)
6. See the Frascati Manual 2015 at <https://www.oecd.org/sti/inno/frascati-manual.htm> [↑](#footnote-ref-7)
7. ISCED level 8 - See definition under this [link](https://www.oecd-ilibrary.org/docserver/9789264228368-13-en.pdf?expires=1653382251&id=id&accname=guest&checksum=6EA978CB3C022CBA2284FFF78C760481). [↑](#footnote-ref-8)