**TECHNICAL PROPOSAL - DESCRIPTION OF THE ACTION – FORM B1**

1. Concept and approach (max 30 pages )
   1. **Concept**

Please describe how the project is relevant for the main objectives of the call (see section 2.1 in the Call for proposals document) and in particular describe the concept of:

* Consolidating a specific OSNMA concept of use compatible with the target consumer/mass market grade use case/application.
* Designing, development and testing of a consumer/mass market grade and battery-sustained receiver/terminal enabled with OSNMA capability.
* Assessment and validation of the performance of such receiver/terminal in an operational scenario.
  1. **Approach**

Applicants shall include a detailed description of the proposed implementation of the project, including, as minimum:

1. The overall approach and methodology, at least including: related to the following points (see also section 2.2. of the Call for proposals document):

* Description of and reasoning for consolidation of a specific OSNMA concept of use compatible with the target consumer/mass market grade use case/application (to be critically assessed within the project as described in the section 2.2 of the Call for proposal), including preliminary definition of the requirements of the GNSS low-end power-restrained consumer grade receiver/terminal;
* the description of the process to design, develop and test/verify the GNSS low-end power-restrained consumer grade receiver/terminal according to the previously defined requirements;
* Approach to validate and demonstrate the GNSS low-end power-restrained consumer grade receiver/terminal both in simulated environment and on a target platform representative of the actual class of the target mass-market device);
* If that is considered relevant for the application’s expected threats, provide the description of the exploitation of the unpredictability of the OSNMA protocol to build anti-replay protection;
* All other information requested within the Call for proposal document at the proposal stage.

*Please note that the GNSS low-end power-restrained consumer grade receiver/terminal shall be designed and developed in compliance with the requirements imposed by Galileo OSNMA User ICD for Test Phase (v1.0) [RD2] and Galileo OSNMA Receiver Guidelines for Test Phase (v1.0) [RD3 - especially chapter 2 on receiver requirements]). If the design and development is deviating or adding additional requirements other than those from Receiver Guidelines to cope with the proposed innovative Concept of Use, it has to be duly explained and justified.*

In addition, the applicants shall include in the proposal number of preliminary versions of deliverables (as per Call for Proposals document, section 2.4) in the technical annexes section of this document:

* Work plan (as part of section 3 below)
* Justification file for the selected target application(s)
* Risk assessment
* Requirements document
* Receiver/terminal functional verification and performance validation – Test plans, cases and procedures
* Business plan (as part of section 2 below – Expected Impact)
* Dissemination Plan (as part of section 2 below – Expected Impact)

1. Expected Impact (max 10 pages)
2. Describe how your project will contribute to the maximisation of the benefits to citizens by the adoption of the proposed solution in the market.
3. Elaborate a preliminary Business plan.
4. Provide a preliminary Dissemination plan for the results in the best interest of the European Union.
5. Implementation (MAX 20 pages)
   1. **Work plan**

Please provide the following:

* + 1. **Overall structure of the work plan**
* brief presentation
  + 1. **Timing of the different WPs and their components**
* Gantt chart or similar
  + 1. **List of work packages.**

The proposals must also include a major sub-division of the proposed project into work packages, numbered 1 through ‘n’ (this might include the indication of part of the activities subcontracted or carried out by third parties).

Please provide the list of work packages, using the table below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **List of work packages** | | | | | |
| **Work package No** | **Work Package Title** | **Lead Participant No** | **Lead Participant Short Name** | **Start Date\***  **(T0 + X)** | **End Date\***  **(T0 + Y)** |
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\*Please do not indicate specific calendar months; instead use the format T0 + X/Y, where T0 is the month in which the project will be kicked-off and X/Y is the number of months from the date on which the project was kicked off.

* + 1. **Work package description.**

Please provide the description of each work package listed above, using the table below.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Work package description** | | | | | | | | | |
| **Work package number** |  | | **Start Date or Starting Event** | | | |  | | |
| **Work package title** |  | | | | | | | | |
| **Participant number** |  |  | |  |  |  | |  |  |
| **Short name of participant** |  |  | |  |  |  | |  |  |

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| **Objectives** |

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| **Description of work** (where appropriate, broken down into tasks), coordinator and role of co-applicants. |

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| **Deliverables of the WP** (brief description and month of delivery) |

* + 1. **List of major deliverables.**

A deliverable refers to a distinct and tangible output of the project, meaningful in terms of the overall objectives, generally related to a specific objective and related set of activities and constituted by a report, tool, etc. The following table must list all planned deliverables with a short description of the content and its link with the project plan and the expected delivery periodicity. For each deliverable a dissemination level (public or confidential) shall be added.

Please provide the list of deliverables (in accordance with section 2.4 of the Call for Proposals), using the table below.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Deliverables** | | | | | | | |
| **ID** | **ID as per Call for Proposal**  (section 2.4) | **Title** | **Short description** | **Periodicity**  (a) | **Type**  (b) | **Distribution**  (c) | **WP Ref.**  (d) |
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Notes:

* 1. Periodicity may include: Annual, Quarterly, Monthly, ad-hoc, etc.
  2. R = Report; SP = Specification, T= Tool, O = Other.
  3. P = Public, open for public dissemination (public deliverables shall be of a professional standard in a form suitable for print or electronic publication);

CO = Confidential under conditions to be set out in the Grant Agreement. Irrespective of the status, all reports and deliverables must be made accessible to the other project participants, and to EUSPA.

* 1. Corresponding to the specific WP ID they refer to.
     1. **Graphical presentation of the components showing how they inter-relate.**
* Presented in Gantt chart or similar
  1. **Management structure and procedures**
     1. **Organisational structure and related milestones**

Describe the organisational structure and the decision-making (please include a list of milestones as in the table below). Explain why the organisational structure and decision-making mechanisms are appropriate to the complexity and scale of the project. Describe, where relevant, how effective innovation management will be addressed in the management structure and project plan.

| **Milestones** | | | | |
| --- | --- | --- | --- | --- |
| **Milestone number** | **Milestone name** | **Related work package(s)** | **Estimated date** | **Means of verification** |
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* + 1. **Risks and mitigation measures**

Describe any critical risks, relating to project implementation, that the stated project objectives may not be achieved. Detail any risk mitigation measures. Please provide the following risk register table with critical risks identified and mitigating actions.

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| --- | --- | --- |
| **Risks** | | |
| **Description of risk** | **Work package(s) involved** | **Proposed risk-mitigation measures** |
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* 1. **Consortium as a whole[[1]](#footnote-2)**

Describe the consortium. How will it match the project’s objectives? How do the members complement one another (and cover the value chain, where appropriate)? In what way does each of them contribute to the project? How will they be able to work effectively together? Please note that the individual members of the consortium are described in the form A4. There is no need to repeat that information here.

Describe the industrial/commercial involvement in the project to ensure exploitation of the results and explain why this is consistent with and will help to achieve the specific measures which are proposed for exploitation of the results of the project.

* 1. **Resources to be committed**

Please make sure the information in this section matches the costs as stated in the budget table in form C1 of the administrative forms, and the number of man-days, shown in the detailed work package descriptions.

Please provide the following:

1. **Summary of planned staff effort**

Proposals must include an aggregated overview of planned efforts, described as number of man-days over the whole duration of the planned work, for each work package, for each participant. Identify the work-package leader for each WP by showing the relevant man-day figure in bold.

Please follow the structure below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Planned Staff Effort** | | | | | | |
| **Work package No** | **Work Package Title** | **Co-ordinator** | **Participant 2** | **Participant 3** | **…** | **Total**  **man-days** |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
| **Total Man-days** | |  |  |  |  |  |

1. **Other direct costs.**

Provide justification of the Other direct cost items (travel, equipment, goods and services, etc.) for all applicants (as stated in cost category 2 of their C1 form).

|  |  |  |
| --- | --- | --- |
| **Other direct costs** | | |
| ***Applicant Name: […]*** | **Cost in EUR** | **Justification** |
| ***Travel*** | As in C1[[2]](#footnote-3) form | *<Please specify the number of meetings; place of meetings – i.e. inside/outside EU; number of persons attending a meeting, purpose of the meeting>* |
| ***Equipment*** | As in C1 form |  |
| ***Goods and services*** | As in C1 form |  |
| ***…*** | As in C1 form |  |

1. **Subcontracting**

Provide list of subcontractors involved in the project including the company to be subcontracted (if known), description of subcontracted activities and estimated budget. If an applicant is planning to use more than one subcontractor each one should be listed separately.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of applicant** | **Subcontractor company name (if known)** | **Estimated costs in EUR** | **WP** | **Description of subcontracted activities** |
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|  | **Total[[3]](#footnote-4):** |  |  |  |

1. **Unit costs**

In case the direct personnel costs are going to be budgeted as unit costs please fill in the below table. One example is provided – please delete it when filling in the table.

If no unit costs are budgeted, please leave the table blank.

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| --- | --- | --- | --- |
| **Country of the beneficiary for which the unit costs apply** | **Estimated number of units/hours to be worked on the project** | **Unit rate (taken from Annex IX of this Call for Proposals)** | **Total costs in EUR (no. of units \* unit rate)** |
| *<Italy>* | *<240>* | *<35.63>* | *<8,551.20>* |
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| **Total[[4]](#footnote-5):** | | |  |

1. TECHNICAL ANNEXES

<to be added if needed>

|  |  |
| --- | --- |
| **OPERATIONAL CAPACITY – Form B2** | |
| **Organisation Legal Name** |  |
| **Legal Status** |  |

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| --- |
| Description of the profile of the people primarily responsible for managing and implementing the activities including description of its relevant competences, previous experience (according to their profiles or CVs), previous experience in similar projects and describing the ability to carry out the objectives of this Call of Proposals.  Please note that, in particular   * The team responsible for the activities must have a relevant technical competence, * Applicant(s) shall have a high degree of specialisation in the areas pertaining to the activities subject to the proposal * Applicant(s) shall have relevant experience in the design, development, integration, demonstration and/or manufacturing of GNSS-based products/solutions, and/or possess knowledge in signal processing, cryptography techniques and/or assessment of anti-spoofing capability, and/or providing expertise in the field of GNSS R&D |
|  |
| Description of the operational capacity of each applicant (coordinator, co-applicants and affiliated entities) |
| *Include any other operational capacity requirement* |

1. To be filled in only in case of consortium application [↑](#footnote-ref-2)
2. This total should appear in C1 form in Category 2.1 [↑](#footnote-ref-3)
3. This total should appear in C1 form in Category 2.8 [↑](#footnote-ref-4)
4. This total should appear in C1 form in Category 1.3 [↑](#footnote-ref-5)