[Project Name]

ESA Phi-Lab Norway

Research Proposal

[Company Logo(s)]

\*\*Please delete the guidance notes associated with each section prior to submitting\*\*

[Sender: Name]

[Company Name]

[Address]

[E-Mail]

[Web Site]

ESA Phi-Lab Norway

Kongsberg Satellite Services

Prestvannvegen 38

9011 Tromsø

Norway

For the attention of Andreas Hay Kaljord

SUBJECT: Application for ESA Phi-Lab Norway

REF: [please insert your own reference number here]

Dear Madam, dear Sir,

In response to the Permanent Open Call for Proposals for ESA Phi-Lab issued by Kongsberg Satellite services, managing the ESA Phi-Lab Norway, [Company Name] is pleased to submit **our proposal** for the project named [insert project name].

Please find included the following information:

* Requirements Checklist
* Executive Summary
* R&D and Potential Impact Proposal
* Activity and Management Proposal
* Annexes

1. We hereby declare that the Application is **compliant with the Requirements** set out in the Call for Proposals as shown in the Requirement Checklist below.

2. We hereby confirm that the **contract conditions have been read, understood and accepted, and any of the Applicant’s terms and conditions do not apply**.

Any queries relevant to the proposal are to be addressed to the attention of:

[Name(s)]

[Address(es)]

[Phone]

[E-Mail]

Contact information of the person(s) who will be in charge of the day-to-day management:

[Name(s)]

[Address(es)]

[Phone]

[E-Mail]

Contact information of the legal representative who will be signing the contract:

[Name(s)]

[Address(es)]

[Phone]

[E-Mail]

**Signature(s): Date:** [insert date of submission]

|  |  |  |
| --- | --- | --- |
| **ESA Phi-Lab General Application Requirements:** | | **Compliance statement** |
| 1 | The application proposal does not exceed the page limit for each section (as stated in the application template). | [compliant/non-compliant] |
| 2 | All sections of the Application template have been answered | [compliant/non-compliant/] |
| 3 | The proposed Research activity is in line with the focus and objectives defined by the Call | [compliant/non-compliant] |
| 4 | The proposal is signed by a representative of the Legal Entity that will sign the contract | [compliant/non-compliant] |
| 5 | The Applicant has been in dialogue with ESA Phi-Lab Norway prior to submitting the application | [compliant/non-compliant] |
| 6 | The Applicant is a legal entity (a public law company / a private law company / an association / a foundation, etc.) registered under the laws of an ESA Member State, Associate Member, or European Cooperating State (specify Country) | [compliant/non-compliant] |
| 7 | The Applicant is fully compliant with Norway tax and social security obligations | [compliant/non-compliant] |
| 8 | The Applicant does not conduct business activities promoting, or being related to, the production nor exploitation of alcohol, tobacco, pornography, gambling or internationally controlled substance(s) under United Nations drug conventions. The Applicant’s business activities shall also refrain from addressing topics related to war**,** religion, politics, intolerance, violence, and obscenity | [compliant/non-compliant] |
| 9 | The Applicant is able to communicate in English. | [compliant/non-compliant] |
| 10 | The Applicant states that the terms and conditions of the Draft ESA Phi-Lab Contract are accepted without any reservations. | [compliant/non-compliant] |
| 11 | The funding request is within the budget limits set in the Open Call | [compliant/non-compliant] |
| 12 | The Funding is exclusively dedicated to completing the work packages of the ESA Phi-Lab Research project. | [compliant/non-compliant] |
| 13 | The activities proposed under the submitted ESA Phi-Lab project are not and have not been funded, even partially, through other means, e.g. ESA R&D programmes such as Discovery, Preparation, TDE, GSTP (pls check nebula.esa.int, activities.esa.int), ESA Business Incubation, ESA Business Applications, European Commission, etc.) | [compliant/non-compliant] |
| 14 | The Funding is granted in net amounts (not including VAT). | [compliant/non-compliant] |
| 15 | The information provided in the application and in the supplementary data sheet is binding and forms the basis of the funding granted. Any changes in this information must be reported immediately and are subject to approval. | [compliant/non-compliant] |
| 16 | Each consortium member is applying to max 2 projects on this call. The prime applicant (consortium member) of this project is not a Phi-Lab composing entity, and is not the prime applicant of another project on this call. | [compliant/non-compliant] |

I hereby declare that my application is compliant to the ESA General Application Requirements.

**Signature(s): Date:** [insert date of submission]

**DATA PROTECTION**

By submitting the application for ESA Phi-Lab Norway, the Applicant gives by signing beneath this statement, free, specific, informed and unambiguous consent to Kongsberg Satellite Services with the controlling of the personal data contained in the proposal and business application in relation to this Permanent Open Call and for the purpose of possible selection for ESA Phi-Lab Norway upon fulfilment of all requirements set in the Open Call. Such consent to the controlling of the personal data shall be permitted only for a necessary period up to a maximum duration of 1 (one) year upon signature of the present consent.

The Applicant shall have the right to information and the right of access to its personal data, right to rectification and erasure (right to be forgotten), right to restriction of processing, right to data portability, right to object, right not to be subject to a decision based solely on automated processing. The particularities of these rights are stipulated in the Regulation (EU) 2016/679 of the European Parliament and the Council.

The data subject shall have the right to withdraw its consent at any time. Such withdrawal of consent shall not affect the lawfulness of processing based on consent before its withdrawal. It shall be as easy to withdraw as to give consent.

The data subject has moreover the right to lodge a complaint with a supervisory authority established in each of the EU Member State as indicated in the GDPR legal framework.

I hereby give full consent to the above statement.

**Name(s) and Signature(s):[[1]](#footnote-2) Date:**

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# **Executive Summary**

The Executive Summary shall provide the following information in **maximum 1 page**:

* Entities involved in the activity.
* Potential targeted market segment, customers/users, the need/problem to be addressed; significance of serving this need in enabling or disrupting the market, and socio-economic impact.
* Brief description of the proposed activities; the new capabilities they aim to achieve, and how significantly those contribute to solve or alleviate the problem addressed; relevance of the proposed activities for the objectives of the Open Call.

# **R&D and Potential Impact Proposal**

All sub-sections included within the R&D and Potential Impact Proposal should be completed in a **maximum total of 10 pages.**

## **Background and Experience**

#### **Team composition:**

Please describe the overall team composition, including participants from all subcontractors, if any, including all key personnel (i.e. having a major role within the team and/or being responsible for one or more tasks) and their position within his/her own entity’s structure. Present the role of each team member in the activity and their credentials to fulfil that role.

#### **Background of the entities involved:**

Please describe briefly the relevant experience of the Applicant and consortium partners for the performance of the proposed work, including experience with the envisaged target markets. Please provide the rationale for the involvement of the proposed consortium partners in the activity.

#### **Partnerships and Support Entities:**

Please describe briefly the partnerships that are required (at the time of the project execution or after its completion). Please add as annex any Support Letter received from relevant Entities. These may include potential customers or commercial partners.

#### **Vision:**

Please describe how this activity fits into the vision of the Applicant and proposal partners (e.g. alignment with medium- or long-term objectives, synergies with other activities, etc.).   
Please provide an overview of the broader implementation plan of the product/service (including the key steps to have a fully-fledged offer and roll-out the product/service to the potential market, as well as follow-up actions to this activity (e.g. apply for further ESA or non-ESA funding, spin-off creation, licensing, commercial efforts, etc.).

## **Research and Technology Developments**

#### **R&D objectives, scope and significance:**

Please describe the new (market disrupting) capabilities that are enabled as the result of this project;

Summarize the scope and objectives of the proposed research; briefly describe the approach and steps to achieve those objectives, incl. research, development and verification / validation;

Explain how (and how significantly) this project contributes to achieving the target capabilities.

#### **Relevance for the Call:**

Please clearly discuss how the activity is in line with the objectives and expertise / capabilities of the Phi-Lab and more specifically with the objectives of the Call.

#### **Technical value and novelty**

Please present the current State of the Art (SoA) in the technical domain of this project; provide a prospective analysis of likely evolutions of competing technologies.

Discuss how the technology you intend to mature leverages on the SoA. In particular include an explanation whether and how the proposed research is related to past and ongoing ESA R&D activities (<https://nebula.esa.int> , <https://activities.esa.int>). Explain how and how much the proposed research represent a step forward from the SoA?

Clarify the dimension(s) for which the technology would enable a performance leap (e.g. cost, compactness, energy efficiency, speed, etc.). Benchmark the technology against current or emerging alternative technologies across the main relevant dimensions.

Explain the novelty and depth of the technical innovation that will be developed in the project, e.g. is the technology based on a recent or under-exploited scientific discovery? Does it constitute a paradigm shift in addressing the target application(s)? Is it directed to solving unprecedented technical challenges, or to enabling a performance leap? Can the technology serve as a base technical layer up which third parties can build new products or services?

#### **Involvement in other publicly (co-) funded activities**

Identify other publicly (co-) funded activities (related to the R&D topic of this proposal) that any of the consortium partners are (or were) engaged with. For each, explain briefly the scope and main objectives, and describe the overlap with the proposed activity, if any. In the case of ESA activities, please provide the contract number.

#### **Maturity of the technology, feasibility of the proposed research:**

Please present the maturity of the technology, including current TRL; discuss the challenges of the proposed research, and assess the feasibility of achieving the new targeted capabilities. Please provide information on the means of access to data/asset/facilities needed for the proposed R&D.

## **Commercial Opportunities and Potential Socio-Economic Impact**

The following subsections are intended as a preliminary analysis. If selected the Applicants will be supported by the Phi-Lab to mature this analysis during the Activity

#### **Potential application(s) and target market(s):**

Describe the application(s) and market(s) that the new capability could disrupt or unlock.

For each, please explain:

* Who are the potential users/customers? What products could they develop based on the technology?
* What is the current (dominant) use case scenario and associated concerns?
* How critical and urgent those problems are for the users and other impacted stakeholders?
* How well may the new technology enable products/services that solve those challenges?

#### **Hurdles, risks and roadmap**

Provide a preliminary account on possible difficulties and risks in the way of the R&D and commercialisation of the technology into new products / services, and associated mitigation e.g.

* Resistance to adoption by potential customers, e.g. large cost of adoption; threatening of the core business of incumbent players; conflict is widely adopted industrialized standards.
* Ease of integration into existing value chains.
* Feasibility of developing new products based on this technology; feasibility of industrialization and scaling.
* Critical dependency on key resources (e.g other technologies, infrastructure, material, supplier) and ease of access to such resources.
* Certification complexity.

Provide a preliminary roadmap with key steps and time frame for the commercialization of a key product that would be enabled by the technology.

#### **Market disruption, industrial transformation and Socio-Economic Impact**

Explain how the market and industrial ecosystem may be impacted, e.g.

* Demand market: Growth of demand, thanks to reduced costs? Enabling of completely new services, and creation of new markets? etc.
* Supply market: Opportunity for new entrants? Threatening of incumbent’s core business by making their solutions obsolete? Loss of control over key segments of the value chain? How can they possibly respond to it? Etc.
* Does the technology enable new business model(s) in the target sector(s), incl. different pricing, delivery, or ownership model?

Provide a preliminary analysis on the significance of those changes / disruptions, and in turn their socio-economic impact.

#### **IPR strategy:**

Please describe the initial plans (if any) for protecting the innovation resulting from the activity.

The background Intellectual Property Rights (IPR) status of the technology/asset(s) involved shall be identified and described incl. ownership, type of protection, rights of use by 3rd parties, etc.).

If applicable, applicants should include (a) letter(s) from the owner(s) of the background IPR confirming that the Applicant will have access to the relevant IPR during the project.

A description of any limitation or condition in the access and exploitation of the background IPR (for this project, follow up developments, and the commercialization phase) shall also be presented.

# **Activity and Management Proposal**

All sub-sections included within the Activity and Management Proposal should be completed in a maximum total of 12 pages.

## **Milestone Planning**

Please, present in chart form (Gannt or similar) the initial planning of the activity, including the overall duration, the planning and duration of each tasks, and the major milestones (e.g. kick-off, progress updates with Local ESA Phi-Lab Manager, Preliminary, Mid-Term and Final Review). Note: The duration of the Phi-Lab activity shall not exceed 24 months, unless otherwise specified in the Open Call.

## **Work Breakdown**

Please provide an overview of the Tasks planned within the activity, the expected outputs, and illustrate how the tasks justify the funding requested. Duplicate the table below for each individual Task.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Task #** |  | | **Start date:** | | DD/MM/YY |
| **Task Title** |  | | **End date:** | | DD/MM/YY |
| **Task Manager** |  | | | | |
| **Objective(s)** |  | | | | |
| **Inputs** |  | | | | |
| **Sub-tasks** |  | | | | |
| **Output & Deliverables** |  | | | | |
| **Cost** | **Total Amount** | **ESA Seed Innovation Funding** | | **Other Sources [source and amount]** | |
|  |  | |  | |

## **Cost Planning**

Using the table below, present the total costs for the execution of the activity, and the contribution asked from the ESA Phi-Lab initiative. The value and source(s) of co-funding to be provided can be found in the Open Call for ESA Phi-Lab.

|  |  |  |  |
| --- | --- | --- | --- |
| **Overall Cost** | | | |
| **Task** | **Total Amount** | **ESA Seed Innovation Funding** | **Other Sources [source, value, form of contribution]** |
| **Task 1 + Title** |  |  |  |
| **Task 2 + Title** |  |  |  |
| **Task ….** |  |  |  |
| **Total** |  |  |  |

Please anticipate, if possible, any hardware that is intended to be purchased for the purpose of this R&D activity by using the ESA Innovation Seed Fundings:

|  |  |  |  |
| --- | --- | --- | --- |
| **Hardware** | **Total Cost** | **ESA Seed Innovation Funding** | **Other Sources [source and amount]** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Please provide in the table below a cost break-down across contractors.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Entity name** | **Entity status\*** | **Cost (Euro)** | **Requested funding** | |
| Euro | % of cost |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| TOTAL for contractors |  |  |  |  |

(\*) Options for entity status, and co-funding rules

- SME: Work carried out by SMEs may be funded up to a maximum level of up to 80% of the total allowable cost of the activity [The upper limit can vary Country to Country. Please check the published Open Call for the right percentage]

- UNIVERSITY / RESEARCH INSTITUTION: Work carried out by universities and research institutions involved as subcontractors in a consortium and justifying no further commercial interest in the product or service may be funded to a maximum level of 100% if this funding does not exceed 30% of the total allowable cost of the activity; Should work need to be (sub)contracted for more than 30% of the total eligible costs, such additional share shall be co-funded up to a maximum of 50% of the total eligible costs; Universities and research institutions claiming to have any commercial interest in the future exploitation of the final product or service shall be required to demonstrate this interest. In such a case, the funding level for SME or non-SME shall apply.

- LARGE INDUSTRY: Work carried out by economic operators that are not SMEs nor universities and research institutions may be funded up to a maximum level of 50% of the total allowable cost of the activity.

If applicable, provide below the cost break-down for external services.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Entity name** | **Country** | **Cost (Euro)** | **Requested funding** | |
| Euro | % of total requested funding |
|  |  |  |  |  |
|  |  |  |  |  |
| Total external services |  |  |  |  |

## **Need of ESA Phi-Lab support expertise and facilities.**

Describe specifically the support (and associated expertise) that you would like to receive from the Phi-Lab. This includes technical advisory, as well as research mentoring, business coaching and/or IP support (as relevant). Provide an estimate of support time required.

If applicable, explain which tasks or sub-tasks of your workplan you request the Phi-Lab to perform. Provide an estimate of the task execution time.

Describe the facilities (e.g. laboratory, instruments, workspace, etc.) that you would like to gain access to in order to carry out the proposed R&D activity (if applicable).

Describe the IPR from the Phi-Lab that you would need to leverage on to carry out your R&D activity.

Conclude by explaining how the Phi-Lab environment is beneficial to carrying out the proposed R&D activity.

## **Management**

The Management section should be **maximum 1 page.**

Please present how the management (including the coordination with partners), reporting, meetings and deliverables will be organized during the activity. Provide information on the activities of the Project Manager, the reporting lines within the team and the means for settling disagreements.

# **Annexes**

* Letter(s) of support
* Any other relevant information about the activity or the Applicant, as necessary.

1. Please have the form signed by all natural persons whose personal data is provided as part of the application. [↑](#footnote-ref-2)