

# PROSSE - PRODEX FOR SCIENCE IN SPACE EXPLORATION

**REGULATION** 

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# REGULATION

# PROdex for scientific projects in Space Exploration (PROSSE)

In the context of the PROSSE (PROdex for Science in Space Exploration) initiative, the Portuguese Space Agency will fund science projects in the domain of space exploration.

PROSSE initiative is anchored to the Portuguese subscription to the European Space Agency (ESA) PRODEX programme. Therefore, funding and contractual aspects related to selected projects will be done under the scope of the PRODEX programme.

# 1. APPLICATIONS

All application procedures, including submission, evaluation, communication of the results and clarification, will be done online through the <u>Portuguese Space Agency website</u> or via the email address indicated upon submission.

Researchers and associated entities can submit more than one application and be granted more than one project in the same call period.

The inclusion of false information or plagiarism will result in the automatic exclusion of the application.

# 2. Typology and duration of the projects

PROSSE initiative funds science projects in the domain of space exploration. In particular, the following areas are eligible for funding:



- Science performed in terrestrial or suborbital infrastructures relevant to space exploration.
- Science performed on board Space Rider, the International Space Station, or other orbital platforms relevant to space exploration or for other sectors of society at large.
- Science carried out on the Moon or Mars.

Activities related to the use of space analogues, microgravity and altered gravity platforms, radiation facilities, space medicine and other relevant domains are included.

Projects funded under this initiative must be entirely performed in Portugal, except for those elements that, due to their nature, can only be done abroad or supplied by foreign entities.

The maximum recommended duration of the projects is 36 months. If the nature of a project (e.g., implementation limitations) requires the project to span longer than this period, this aspect will have to be duly justified upon submission of the application. Nonetheless, the Portuguese Space Agency reserves the right to consider the deselection of projects exceeding this recommended duration.

#### 3. Beneficiaries and admissibility

PROSSE initiative is designed for public and private entities based in Portugal.

The following entities are eligible for funding if the projects have science/research purposes:

- Research Centres;
- High education Institutions.

The maximum funding for a project to be eligible is 280.000€ per project. Applications for funding larger than this value will be automatically excluded in Phase 0. Chapter 5 details the evaluation criteria, namely concerning the requested budget.

# 4. APPLICATION FORMS AND DOCUMENTS

The Announcement of Opportunity specifies the general information to be submitted for each project.



Besides general information, submissions will have to include the following documents in PDF format and **English language**:

Part A – Scientific Excellence (max. 3 pages), with the inclusion of at least the following information in separate chapters:

- A1: State of the art, innovation, rationale, and objectives of the project.
- A2: Relevance of space.
- A3 (optional): Support to the project by other entities.

Part B – Impact (max. 3 pages), with the inclusion of at least the following information in separate chapters:

- B1: Impact of the project to society.
- B2: Communication and dissemination plan.

Part C – Implementation plan (max. 6 pages), with the inclusion of at least the following information in separate chapters:

- C1: Team experience (include in Annex the CV of all participants).
- C2: Work plan with identification of activities, tasks, and deliverables, to be carried by each participating entity, timeline, interfaces with external entities and project risk assessment.

Part D – Requested budget as per Annex 1 tables.

# 5. EVALUATION

# 5.1. EVALUATION PROCESS

Project evaluation will be done in three distinct phases:

• Phase 0: Eligibility check.



- Phase 1: Pre-selection.
- Phase 2: Final selection.

# 5.1.1. Phase 0

Phase 0 of the evaluation is carried out by the Portuguese Space Agency and consists in a check of eligibility criteria for all applications, namely:

- Requested funding.
- Location of the participating entities recipient of funding.
- Scope of the proposal.

The possible outcomes of Phase 0 will be:

- Project eligible.
- Project not eligible.

# 5.1.2. Phase 1

The Portuguese Space Agency coordinates Phase 1 of the evaluation and will rely on the support from external international experts in the different domains. Evaluation in this phase will be done as per of the following criteria:

• Criterion A. Science excellence (max. 25 points)

The following sub criteria (SC) will be evaluated:

o SC A1 State of the art (15 points).

This SC evaluates the contribution of the project to expanding the state of the art. The understanding of the start of the art and how the project contributes to extending scientific



knowledge in the corresponding domain is evaluated together with the degree of innovation of the project.

o SC A2 Relevance of space for the investigation (10 points).

This SC evaluates the relevance of space, or space analogues, to attain the objectives of the project. It also evaluates the way the project contributes to science for space exploration and/or the way space is relevant for non-space science.

o SC A2 Support from relevant entities (5 extra points).

This SC evaluates the support of the project from relevant external entities (e.g., ESA and others).

• Criterion B. Impact (max. 25 points)

The following sub-criteria will be evaluated:

o SC B1 Impact of the research on society (15 points).

This SC evaluates the impact of the results of the project to society at large, in the mid to long term. It also evaluates the plan to maximize the project's impact and the relevance of the indicators used.

o SC B2 Communication and dissemination plan (10 points).

This SC evaluates the communication and dissemination plan of the project during the whole duration of the activity.

• **Criterion C.** Implementation plan (max. 30 points)

The following sub-criteria will be evaluated:

o SC C1 Experience of the team (15 points).

This SC will evaluate the experience of the research team. The following aspects will be evaluated:

Scientific experience (7 points)



- Communication and dissemination experience (4 points)
- Project management experience (4 points)
- o SC C2 Work plan (15 points).

This SC evaluates the project's work plan in terms of ambition and feasibility.

• Criterion D. Budget (max. 20 points)

The evaluation of this criterion will be the following one:

- 20 points if the requested budget ≤ 70k€
- o 16 X if the budget ∈  $(70k \in -140k \in ]$  being X = 2 \* (budget  $70k \in )$  /  $70k \in ]$
- o 10 X if the budget > 140k€ where X = 10 \* (budget 140k€) / 140k€

Criterion D evaluation in graphical form is the following one:



Figure 1. Grading function for criterion D.

Each application will be evaluated independently by, at least, two experts following the last evaluation criteria. The grading of the applications during Phase 1 will be the arithmetic average of the individual evaluations. In case significant differences in evaluation scores amongst different experts are detected, a consensus meeting will take place to discuss the individual evaluations.



The minimum grading for a project to be selected is 70 points, being the minimum grading for each criterion the following one:

- Minimum score criterion A: 15 points.
- Minimum score criterion B: 15 points.
- Minimum score criterion C: 20 points

Projects will be ranked from the highest to the lowest score and they will receive one of the following outcomes:

- Project preselected.
- Project in reserve list (up to 50% of the preselected budget).
- Project below budget availability.
- Project below threshold.
- Project non eligible (discarded in Phase 0).

In case several projects get the same final score, criterion A will determine the ranking, followed by criterion B in case of draw, and then criterion C. In case two or more projects get the same score in all criteria, the project submitted the earliest will take preference.

Preselected projects as well as reserve list projects will be sent to ESA PRODEX office to carry out Phase 2 evaluation.

# 5.1.3. Phase 2

Phase 2 of the evaluation will be performed by ESA PRODEX office and has two main objectives:

- Confirm the technical feasibility of the project.
- Confirm in detail the requested budget adequacy of the project.

During this phase, ESA PRODEX office may interact with proposing teams from preselected and reserve list projects to ask for clarifications. Projects evaluated in Phase 2 may obtain one of the following outcomes:

Project selected without modifications.



- Project selected with modifications.
- Project not selected.

#### 5.2. EVALUATION PANEL

The evaluators at the different phases of the selection process are the following ones:

Table 1. Composition of the evaluation panel in each phase.

Phase	Evaluators
Phase 0	Portuguese Space Agency
Phase 1	Portuguese Space Agency and international experts
Phase 2	ESA PRODEX

Prior to becoming part of the evaluation panel on Phase 1, international experts will sign a Non-Conflict of Interest and Non-Disclosure Agreement with the Portuguese Space Agency. To ensure fairness during the evaluation, personal data of the evaluators will not be publicly disclosed.

# 6. DISSEMINATION OF THE RESULTS

At the end of Phase 1, teams from preselected projects and reserve list projects will be informed of the results at this stage via the email provided in the submission. This information is not public and cannot be publicly disclosed.

The result of Phase 2 will be communicated to all project teams at the end of the evaluation process via the email provided in the submission. The Portuguese Space Agency will publish the list with the final qualitative results for all projects submitted on its website.



### 7. Funding

Total funding for the PROSSE initiative for the period 2023-2025 is 420.000€.

The Portuguese Space Agency expects to mobilize around one third of the total budget each year. However, this yearly value can be reviewed depending on the quality of the projects received (see admissibility and evaluation criteria) and the availability of funding, always subject to the maximum allowed funding per project referred in chapter 3 of this document.

PROSSE initiative may fund the following cost categories:

- Human resources<sup>1</sup>.
- Hardware and software development<sup>2</sup>.
- Travels and meeting / events expenses.
- Intellectual property protection activities.
- Publication of results related expenses.
- Services provided by third parties which are necessary to attain the objectives of the project.
- Others (to be justified in a case-by-case basis).

Funding from PROSSE initiative may be complemented by other funding sources. Nonetheless, PROSSE initiative cannot fund activities or resources that have already been funded by any other funding mechanism. If the Portuguese Space Agency detects any irregularities concerning duplication of funding in any of the above-mentioned categories, the project will be automatically terminated, and the responsible entity will have to return all funding received up to date for that project, without the possibility of appeal.

 $<sup>^{</sup>m 1}$  Human resources funded via PROSSE initiative must reside in Portugal during the duration of the project.

<sup>&</sup>lt;sup>2</sup> In general, preference for goods and services suppliers from Portugal must be given. In case there are no national suppliers, or the associated conditions are very unfavourable (when compared to other international suppliers), preference for goods and services suppliers from Member States of ESA should be given.



#### 8. Information and dissemination of funded projects

All activities from projects directly or indirectly funded via PROSSE initiative, such as communications, publications or scientific documentation must include a reference to the Portuguese Space Agency and the European Space Agency (ESA). In particular, these references must mention that "This project was possible because of the Portuguese contribution to the European Space Agency, articulated via the Portuguese Space Agency". The logo of the Portuguese Space Agency as well as that of the European Space Agency must be included in all the documents from selected projects.

### 9. Non-discrimination policy

The Portuguese Space Agency promotes a non-discrimination and equal access policy. As a result, no candidate must be privileged, benefit from, punished, deprived of any right or exempt from any obligation. This includes origin, age, gender, sexual orientation, civil status, family situation, economic situation, education, social status, genetic inheritance, work disability, chronic disease, nationality, ethnicity, race, language, religion, political or religious beliefs or affiliation to work unions.

# 10. APPLICABLE REGULATIONS

ESA PRODEX regulations are applicable to this initiative, complemented with the current regulation and, eventually for additional details present in the Announcements of Opportunity.



# **ANNEX 1 – BUDGET TABLES TEMPLATE**

Each participating entity must fill-in one Table 1.

#### Table 1

(Name of the entity)						
In Euros	Year 1	Year 2	Year N	Total		
Human Resources - TOTAL						
- Project Manager						
- Senior Researcher						
- Junior Researcher						
- Intern						
Travels						
Minor equipment (< 5000 Euro) to be purchased for the project - TOTAL						
- Equipment 1:						
- Equipment n:						
Major equipment_(> 5000 Euro) to be purchased via ESA - TOTAL						
- Equipment 1:						
- Equipment n:						
External services contracted for the project - TOTAL						
- Intellectual Property						
- Qualification facilities access						
- Publications						
Total Direct Costs						
Indirect Costs						
TOTAL Entity						



Each submission / project must fill-in one Table 2.

#### Table 2.

(Name Project)						
In Euros	Name Ent. 1	Name Ent. 2	Name Ent. N	Total		
Human Resources						
Trips						
Minor Equipment						
Major Equipment						
External Services						
Direct Costs						
Indirect Costs						
TOTAL PROJECT						