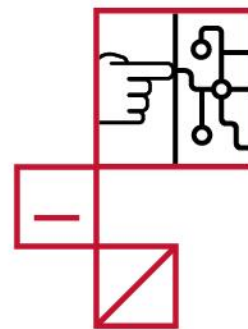
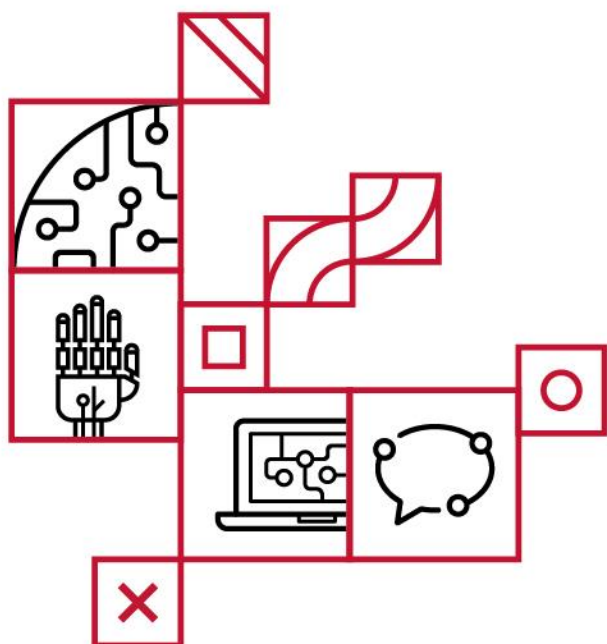


# ERPs 2021



Terms of Reference for  
the 2021 Call for  
Exploratory Research  
Proposals (ERPs)  
under the Carnegie  
Mellon Portugal Program



**FCT** Fundação  
para a Ciência  
e a Tecnologia  
**Carnegie  
Mellon**  
**Portugal** 

# Terms of Reference for the 2021 Call for Exploratory Research Proposals (ERPs) under the Carnegie Mellon Portugal Program

## 1. Summary

The Carnegie Mellon Portugal Program (CMU Portugal) is a platform for advanced education, cutting-edge research, and global innovation that brings together Carnegie Mellon University (CMU) and several Portuguese universities, research institutions, and companies.

The CMU Portugal Program activities are funded by the Fundação para a Ciência e a Tecnologia (FCT), supported by the Conselho de Reitores das Universidades Portuguesas (CRUP), co-funded by industry partners and by Carnegie Mellon University. CMU Portugal Program's mission is to foster industry-science relationships as agents of change in the area of Information and Communication Technology (ICT).

Exploratory Research Projects (ERPs) are designed to assist teams of researchers from Portuguese institutions, Carnegie Mellon University, and industry partners to bootstrap high-impact potential research activities of strategic relevance for the Carnegie Mellon Portugal Program, namely in the area of ICT, with a focus on the opportunities provided by the data economy as a driver of growth and change. The proposals should be high-risk/high-reward and show promise and a strategy for significant future expansion of the project's goals.

The ERP should value impact, e.g., by building systems that addresses real-world problems beyond just research papers. While the inclusion of industry partners is not mandatory, it is beneficial to the proposal's overall evaluation to show some degree of cooperation with industry affiliates of the program and/or other key companies in the ICT field.

The Call is open to all faculty and researchers affiliated collaborating with Portuguese institutions of higher education and research and faculty and research staff at CMU, including the Silicon Valley campus. The total funding available for Portuguese research institutions in this Call will be up to €400,000 (four thousand Euros). The project duration is limited to one (1) year. Proposals are required to be collaborative, involving one or more Portuguese Universities through their Higher Education Institutions, Institutes or R&D centers, Associated Laboratories, State Laboratories and one CMU research team. The

participating CMU research teams' research activities will be funded by the CMU Portugal Program at Carnegie Mellon University at a level similar to the Portuguese team level. The task's description and research plan should reflect the involvement of both teams in the project.

ERPs will often be aimed at formulating and launching longer-term projects, i.e., they will not be required to achieve, within their scope, the fully developed and ambitious final results that will be typical of longer-term projects. However, the proposals must be very concrete on the activities and outcomes that the consortium proposes to carry out and achieve within the ERPs' scope and link them to its longer-term objectives. The deadline for submissions is 30 June 2021 at 17:00pm Lisbon time. For more information, please contact [research@cmuportugal.org](mailto:research@cmuportugal.org) (scientific information) or [concursoprojetos@fct.pt](mailto:concursoprojetos@fct.pt) (specific information related to application submission).

## **2. Award information**

### **2.1. Regulations and Guidelines**

- Regulations governing access to funding are available at:
  - <https://www.fct.pt/apoios/projetos/regulamentofundosnacionais.phtml.en>
  - [https://dre.pt/web/guest/legislacao-consolidada/-/lc/124281176/201908280100/diploma?did=58216179&LegislacaoConsolidadaWAR\\_drefrontofficeportlet\\_rp=indice](https://dre.pt/web/guest/legislacao-consolidada/-/lc/124281176/201908280100/diploma?did=58216179&LegislacaoConsolidadaWAR_drefrontofficeportlet_rp=indice)
- The announcement of the opening of this Call is available [here](#)
- The guidelines for writing and submitting proposals are available [here](#)
- [Guide for Peer Reviewers](#)
- [CIÊNCIAVITAE Guide](#)
- [Ethics Self-Assessment Guide](#)

### **2.2. Estimated number of awards and funding amount**

Depending upon the quality of the proposals, a maximum of eight (8) new ERPs awards are expected to be financed, pending on the budget. The total funding available for Portuguese research institutions in this Call will be up to €400.000 (four hundred thousand euros) to ERPs starting in 2021.

Research activities at Carnegie Mellon University (CMU) will be covered independently and at a comparable level through the CMU Portugal Program at Carnegie Mellon University.

The maximum funding for Portuguese research institutions in each ERP cannot exceed 70.000,00 euros for consortia with more than one Portuguese research institution, or 50.000,00 for consortia with a single research institution.

An advance payment of 75% of the funding approved for the financed projects will be made by FCT, I.P. after returning the acceptance documents. Until the approved funding, the remaining amount will be paid after the project's scientific and financial components are closed and through a final refund payment. The expenditure justification should be made via electronic submission of only one payment request, in a specific form provided through the FCT, I.P internet Portal.

FCT will not fund the involved companies or other independent non-academic organizations.

### **2.3. Duration**

A typical proposal should cover efforts for a period of up to 12 calendar months or less, intended to commence in 2021.

### **2.4. Supported Entities**

Only research teams from the following Portuguese entities may apply for funding:

- Higher Education Institutions, their institutes, and R&D units;
- State or International Laboratories with head offices in Portugal;
- Non-profit private institutions whose main objective is R&D activities;
- Other non-profit private and public institutions which are developing or participating in scientific research activities.

### **2.5. Application and deadline for receipt of full applications**

Applications must be submitted online through the FCT website <https://concursos.fct.pt/projectos/> following the announcement of the Call for Proposals.

The Call is open from 19 May to 30 June 2021 at 17:00 Lisbon time.

### **2.6. Format requirements**

Full applications must fulfil the following requirements:

**2.6.1 Completion of the FCT online form, available at the FCT platform (<https://concursos.fct.pt/projectos/>), according to the [CMU Portugal ERP Proposal Submission Guide](#) and the following documents, also submitted electronically:**

- The document that certifies the PhD degree of the lead Portugal Principal Investigator;

- A statement from the PI at CMU confirming that he/she will be the lead PI from CMU and that he/she holds a faculty appointment at CMU;
- Timeline file of project tasks, including the ones allocated to the Portuguese and the CMU's teams.

A scan of the Declaration of Commitment of each Application (signed by the Principal Investigator and the Supported Entities) must be submitted on the [FCT platform](#) until 14 July 2021 at 17:00 Lisbon time.

The PI, co-PI, the core elements, as well as the remaining elements of the research team, are responsible for submitting an updated version of their CV in English on the CIÊNCIAVITAE platform.

Important note: All sections of the FCT form must be filled. Except where mentioned otherwise, all the requested information needs to be in English. Please make sure that the text entered in the online form is formatted and comprehensive.

## **2.7. Review of applications**

Projects will be selected on a competitive basis. Applications will be reviewed by an international panel of independent experts, as organized by FCT. The review panel will be responsible for evaluating the merit of each proposal. The selection for funding is based on the criteria presented in section 4.

The applications must follow the guidelines provided in these Terms of Reference and the FCT online tools for filling in the Application, namely instructions guidelines:

<https://www.fct.pt/apoios/projectos/concursos/instrucoes>

## **2.8. Notification, the start of the activity, and reporting**

The applicants will be notified according to Article 15 of the Regulations for Projects Exclusively Funded by National Funds. Funded applications are planned to start in 2021.

A final report of the Exploratory Research Project will be delivered, to be reviewed by the Board of Directors and by FCT. The Board of Directors and FCT may request that a panel of experts reviews the Exploratory Research Project at any point in its progress and at its end. Periodic status updates of the project may be requested at the discretion of the Board of Directors, FCT, or the Carnegie Mellon Portugal Program's Directors.

## **3. Eligibility information**

### **3.1. Requirements for participating institutions**

The proposals must have research consortia, including at least:

- One or more Portuguese research institutions from different entities as identified in section 2.4;
- One partner from the CMU faculty team.

One of the Portuguese research institutions is the lead institution in Portugal. The CMU faculty team is the lead at CMU.

In addition to the entities mentioned above, the consortia may include other public or private entities, profit or non-profit, that may also invest in the exploratory project, bringing relevant competencies to the project. However, such entities will not be funded by this Call.

### **3.2. Principal Investigator (PI) limit**

The lead Portugal PI should be a faculty member with a doctoral degree relevant to ICT, or a PhD in a field with potential impact on ICT transformation, and/or extensive demonstrated accomplishment. The document certifying the doctoral degree must be attached to the Application. The lead Portugal PI should have an employment contract or grant contract with the Principal Contractor. In the absence of such a link, at the time of the Acceptance Document, a written agreement between the parties must be submitted, according to point c) of item 1 of article 6 of FCT's Project Regulations.

The lead PI at CMU must hold a faculty appointment at CMU. A confirmation statement should be attached to the Application.

The lead PI in Portugal must identify a co-responsible for the project, the Co-Principal Investigator (Co-PI), that will replace the PI when he/she is unable to fulfil his/her duties.

Proposals will not be accepted from lead Portugal PIs affiliated with institutions in a situation of unjustified fault with FCT requirements regarding the delivery of scientific and/or financial execution reports from previously financed projects.

Proposals will also not be accepted from lead Portugal PIs who have been PI of any project with a final scientific report rejected within two years before the opening of the Call, for reasons attributable to them.

### **3.3. PI and researchers' dedication**

The remaining members of the Portugal research team shall be dedicated to the project according to their participation.

### **3.4. Limit on number of proposals per organization**

There is no limit to the number of proposals to be submitted by a lead research institution, and there is no limit on the number of partnerships a partner research institution may join.

### **3.5. Limit on number of proposals per PI and researchers**

The lead Portugal PI may only submit one proposal as PI in this call. Researchers may be listed as co-PIs or senior researchers in multiple proposals.

## **4. Evaluation and selection criteria**

Applications will be reviewed by an international panel of independent experts, as organized by the Directors of the Program and FCT.

The selection and ranking of the applications will be based on the following criteria, further detailed in the Regulations Governing Access to Funding for Scientific Research and Technological Development Projects and in the Guide for Peer Reviewers:

- A. Scientific merit and innovative nature of the project from an international standpoint, and alignment with the goals of Phase III of the CMU Portugal Program;
- B. Scientific merit of the research team;
- C. Impact of the project results in a real-world problem and potential for opening longer-term research avenues;
- D. Feasibility of the work plan and reasonableness of the resources and budget.

The overall merit of the project is given by:

$$\text{MP} = 0.45 \text{ A} + 0.2 \text{ B} + 0.2 \text{ C} + 0.15 \text{ D}$$

Each criterion is scored using a 9-point scale system (1 – minimum; 9 – maximum) and rated using this scale with 0.1 increments. The final score of MP is rounded to two- decimal places. If the information made available in the Application does not allow for evaluating a given criterion, then the respective criterion will receive a score of 1 (one). For a proposal to be eligible for funding, a minimum score of MP equal or higher than 5.00 points is required.

For selection and decision-making regarding funding, projects will be ranked by the MP score obtained in the review process in decreasing order. In case of ties (projects with the same MP score), the ratings assigned to criteria A, B, C and D will be used sequentially and by descending order to provide the final ranking of the projects.

### **4.1 Criterion A**

- I. Relevance and originality of the project proposed project (based on the state-of-the-art in a determined scientific area and previous work done by the proposing team);

- II. Suitability of the project to the goals of Phase III of the CMU Portugal Program;
- III. Articulation of the research plan between Portugal and CMU;
- IV. Adequacy of the methodology adopted for carrying out the project;
- V. Expected results and their contribution to scientific and technological knowledge;
- VI. Resulting publications and articles;
- VII. Degree of internationalization of the team;

#### **4.2 Criterion B**

- I. Scientific productivity of the team (references to publications and citations in published works, other relevant indicators);
- II. Abilities and skills to adequately execute the proposed project (team configuration, PI's qualifications);
- III. Ability to involve young researchers in training;
- IV. Availability of the team and non-duplication of objectives in relation to other projects underway;
- V. Degree of success in previous projects in relation to the Principal Investigator (PI) (in the case of young PIs, this requirement must be assessed based on the potential revealed by the PI's curriculum vitae in the absence of prior concrete accomplishments).

#### **4.3 Criterion C**

- I. Contribution towards promoting and disseminating science and technology;
- II. Contribution to the body of knowledge and competence of the National Science and Technology System (expected effects and results);
- III. The potential economic value of the technology (if appropriate), namely in terms of its impact on the competitiveness of the national socio-economic system;
- IV. Production of knowledge that can contribute to benefits to society or to the business sector;
- V. Potential to lead to a longer-term research agenda.

#### **4.4 Criterion D**

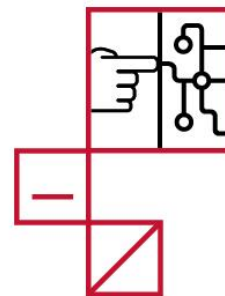
- I. Organization of the project in terms of the proposed objectives and resources (duration, equipment, size of the team, institutional and management resources);
- II. Institutional resources of the proposing and participating entities (technical-scientific, organizational and managerial and, when appropriate, co-funding capacity on the part of companies).

### **5. ADDITIONAL INFORMATION**

For inquires of a scientific nature, please contact the Carnegie Mellon Portugal Program at [research@cmuportugal.org](mailto:research@cmuportugal.org).

For specific information related to application submission, please contact [concursoprojetos@fct.pt](mailto:concursoprojetos@fct.pt).





**Carnegie  
Mellon**   
**Portugal**

[www.cmuportugal.org](http://www.cmuportugal.org)

