Information and Communication Technologies Institute

Carnegie Mellon | PORTUGAL

AN INTERNATIONAL PARTNERSHIP

Terms of Reference

for the

Early Bird Projects

Call for Proposals

November 2013

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FCT Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA

1 Introduction

1.1 Background

The Carnegie Mellon Portugal Program is an education, research, and innovation platform that connects Portuguese research institutions, universities and companies in cooperation with Carnegie Mellon University (CMU). The partnership was launched in 2006 to create new knowledge in key focused areas of Information and Communications Technologies (ICT) by means of cutting-edge research, world-class graduate education, and a close connection with Portuguese industry, aiming at placing Portugal at the forefront of science and innovation. In order to support the emergence of new high-impact initiatives within its scope, the Program is establishing a line of funding for Early Bird Projects.

1.2 Initiative description

Early Bird Projects are designed to assist small teams of researchers from Portuguese institutions, Carnegie Mellon University and industry partners, to jumpstart high-impact potential activities of strategic relevance for the Program.

The proposals should be high-risk/high-reward and show promise and a strategy for significant future expansion of project goals and support from government agencies, companies, industry consortia, foundations or financial investors. Priority will be given to proposals featuring one or more of the following characteristics: multidisciplinarity, industry involvement, co-funding, inclusion in the team of at least one young researcher, e.g., a graduate student.

The projects must aim at stimulating and promoting Portuguese innovation in Information and Communication Technologies (ICT) as such, or as enabling technologies in application sectors. The analysis of the societal, policy and managerial implications of ICT-enabled scientific and technological breakthroughs naturally also fits within the scope of these projects. Priority will be given to proposals that address the key strategic areas of the Carnegie Mellon Portugal Program (please refer to the Roadmap for Phase II of the Carnegie Mellon Portugal Program) and/or the scientific areas of its Ph.D. and Professional Masters programs (please refer to the Carnegie Mellon Portugal Program's website).

In line with the range of activities and objectives of the Carnegie Mellon Portugal Program, Early Bird Projects may be focused on setting off new advanced education activities, new research collaborations and areas, or new technology commercialization initiatives, among others.

Proposals that seek funding to enhance scholarship or faculty professional development are not eligible as Early Bird Projects. The Carnegie Mellon Portugal Program provides other opportunities to address these topics, such as its Faculty Exchange Program.

Early Bird Projects will often be aimed at formulating and launching a longer term project, i.e., they will not be required to achieve, within their own scope, the fully developed and ambitious final results that will be typical of longer term projects.

1.3   Illustrative examples of Early Bird Projects

The following is a list of multiple potential Early Bird Project configurations, for illustrative purposes:

- Development of new and innovative high-risk/high-reward research directions.
- Development of new productive research collaborations.
- Technology proof-of-concept to enable seeking sponsored research funding.
- Technical validation to move a technology towards commercialization, including exploratory experiments, data gathering, and/or the development of a working prototype of an invention.
- Business validation to move a technology towards commercialization, including the development of go-to-market strategies and initial development of business plans.
- Preparation of new advanced courses, materials and textbooks, based on recent, state of the art research advances.

The configurations in this list should not be considered as the only formats that an Early Bird Project can adopt, but instead as an illustration of the possibilities for activities that can jumpstart high-impact potential activities of strategic relevance for the Program.

2   Award information

2.1   Regulations and guidelines

Regulations governing access to funding are available at:

> http://www.fct.pt/apoios/projectos/regulamento
> http://www.fct.pt/apoios/projectos/normasexecucaofinanceira
> http://www.fct.pt/apoios/bolsas/normasbolsasemprojectosunidades

The announcement of the opening of this call is available at:
> http://www.fct.pt/apoios/projectos/concursos

The guidelines to writing and submitting proposals are available at:
> http://www.fct.pt/apoios/projectos/concursos/docs/guiao
> Guidelines for Early Bird Projects Proposals Writing

The roadmap for Phase II of the Carnegie Mellon Portugal Program is available at:
> http://www.cmuportugal.org/uploadedFiles/resources/CMU_Portugal_Phase2_v21MAY2012.pdf

2.2   Duration and estimated number of awards and funding amount

The awards will be effective for projects lasting 18 calendar months or less, starting in early 2014. Priority will be given to projects lasting 12 calendar months or less.
Depending on the quality of the proposals, five to ten new awards are expected to be financed.

Approximately € 300,000.00 is expected to be available to support new Early Bird Projects. From the total funding, € 150,000.00 will be available to support resources and activities in Portuguese research institutions. The other half of the total funding will be available to support complementary activities at Carnegie Mellon University. The participating researchers from Carnegie Mellon University may be funded by the Information and Communication Technologies Institute (ICTI), at Carnegie Mellon University.

The maximum budget for Portuguese research institutions in each project will be € 30,000.00.

2.3   Application and deadline for receipt of full applications

Applications must be submitted online through the FCT website following the Announcement of the Call for Proposals. Solicitations will be open from November 7 and 5pm (Lisbon time) of December 18, 2013.

2.4   Format requirements

Full applications must fulfill the following format requirements:

- Completion of the on-line FCT form, available through the [FCT platform](#), according to the [Guidelines for Early Bird Projects Proposals Writing](#).
- As Annex to Application, include:
  - A cover page (not exceeding one page, Arial regular font, 11 point)
    The cover page includes the title of the project, the contact information of the PIs, a list of Co-PIs and other key personnel, the duration of the project, the total budget amount (requested amount and co-funding), five keywords, a synopsis of the proposed project, and a brief description of how the proposal meets the objectives of the CMU Portugal Program.
  - A project description (not exceeding three pages, Arial regular font, 11 point)
    The description should include sufficient detail that the reviewers can evaluate the appropriateness and feasibility of the proposed plan. The contributions of each member of the team must be delineated. The description should be as specific as possible about future expansion of project goals and support from government agencies, companies, industry consortia, foundations or financial investors.
  - The CV and publication list of the principal applicant and each co-applicant (for each applicant, a maximum of 2 pages, Arial regular font, 11 point, including a list of up to 10 of the most relevant papers).
  - Support letter(s) (for each organization, a maximum of 1 page, Arial regular font, 11 point) Letters from any source(s) of matching funds must be included. Other letters of support may be included.

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 on-line form is formatted and comprehensive.

2.5   Review of applications

The applications must follow the guidelines provided in these Terms of Reference and in the FCT on-line tools for general information on application filing, namely the instructions guidelines: http://www.fct.pt/apoios/projectos/concursos/instrucoes.phtml.pt.

Applications will be reviewed by international panels 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.

2.6   Notification and reporting

The applicants will be notified in accordance with article 11 of the Regulations Governing Access to Funding for Scientific Research and Technological Development Projects.

A final report of the Early Bird Project will be delivered, for review by the Board of Directors of the Carnegie Mellon Portugal Program and by FCT. The Board of Directors and FCT may request that a panel of experts reviews the Early Bird Project, at its end.

Periodic status updates of the project may be requested at the discretion of the Board of Directors, FCT, or the Directors of the Carnegie Mellon Portugal Program.

3 Eligibility information

3.1 Organization limit and requirements

The proposals must have at least one partner Portuguese research institution and at least one CMU faculty team.

Portuguese research institutions, mentioned in article 2, number 1 of the Regulations Governing Access to Funding for Scientific Research and Technological Development Projects, may submit proposals in partnership with a CMU faculty team, and possibly company teams. One of the Portuguese research institutions is the lead institution in Portugal. The CMU faculty team is the lead at CMU.

3.2 Principal Investigator (PI) limit

The lead Portugal Principal Investigator (PI) should have a doctoral degree relevant to ICT, or substantial career experience relevant to ICT. The lead PI at CMU must hold a faculty appointment at CMU.

3.3 PI and researchers dedication

The lead Portugal PI shall be dedicated to the project, according to the duration of the proposed activities, at no less than 10%. The remaining members of the research team shall be dedicated to the project, according to their participation, at no less than 5%.

3.4 Limit on number of proposals per organization

There is no limit on the number of proposals a lead research institution may submit. There is no limit on the number of proposals in which a research institution and a single researcher may participate.

3.5 Limit on number of proposals per PI and researchers

A researcher may be identified as PI in at most one proposal. Researchers may be listed as co-PIs or senior researchers in multiple proposals.

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4 Evaluation and selection criteria

The selection and ranking of the applications will be based on the following criteria, detailed in the Regulations Governing Access to Funding for Scientific Research and Technological Development Projects:
  A. Scientific merit and innovative nature of the project from an international standpoint;
  B. Scientific merit of the research team;
  C. Feasibility of the plan of work and reasonableness of the budget;
  D. Contribution to the body of knowledge and competence of the National Science and Technology System;
  E. Potential economic value of the technology.

Application of these evaluation criteria shall take into account, among other considerations, the following:
  a. For criterion A:
      i. Relevance and originality of the project proposed (based on the state-of-the-art in a determined scientific area and previous work done by the proposing team);
      ii. Methodology adopted for carrying out the project;
      iii. Expected results and their contribution to scientific and technological knowledge;
      iv. Resulting publications and articles;
      v. Contribution towards promoting and disseminating science and technology;
      vi. Production of knowledge that can be incorporated into and applied to the business sector, if applicable;
      vii. Relevance towards obtaining comparative advantages for Portugal, in accordance with the objectives of the Carnegie Mellon Portugal Program.
  b. For 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, Principal Investigator's (PI) 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. The degree of internationalization of the team;
      vi. 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 PIs curriculum vitae in the absence of prior concrete accomplishments);
      vii. Relevance of the Portugal PI's doctoral degree and/or career experience to ICT;
      viii. Accomplishments in prior experience with the Carnegie Mellon Portugal Program (if applicable);
      ix. Level of commitment of any companies participating in the project (if applicable);
      x. Level of multidisciplinarity.

c. For criterion C:
   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).
d. For criterion D:
   i. Contribution to the body of knowledge and competence of the National Science and Technology System (expected effects and results);
   ii. Clear and specific strategy and opportunity for future expansion of project goals and support from government agencies, companies, industry consortia, foundations or financial investors;
   iii. Enhancement of partnerships for research, education and innovation.
e. For criterion E:
   i. Potential economic value of the technology (if appropriate), namely in terms of its impact on the competitiveness of the national socio-economic system.

Although applications are rated in each of the five criteria, the overall rating is concerned with the overall merit of the application. For the assessment of this overall merit, the relative importance of the criteria will be tuned to the specific nature of each proposal.