# FCT Fundação para a Ciência e a Tecnologia

MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E ENSINO SUPERIOR



# CALL FOR SR&TD PROJECTS UNDER THE COOPERATION AGREEMENT BETWEEN PORTUGAL AND THE EUROPEAN LABORATORY FOR PARTICLE PHYSICS (CERN) – 2017

# **Guide for Peer Reviewers**

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#### **ABOUT FCT**

Fundação para a Ciência e a Tecnologia, I.P. (FCT), the Portuguese Foundation for Science and Technology, is the public agency responsible for implementing the Portuguese government's on Science and Technology policy.

FCT started its operations in August 1997, and succeed the previous equivalent agency, JNICT, created in the 1980s.

FCT's mission is to continuously promote the advancement of scientific and technological knowledge in Portugal, exploring opportunities to attain the highest international standards in the creation of knowledge in any scientific or technological domain, and to stimulate the diffusion of that knowledge and its contribution to improve education, health, the environment, and the quality of life and well-being of citizens.

FCT pursues its mission by funding fellowships, studentships and research contracts for scientists, research projects, internationally competitive research centres and state-of-the-art infrastructures, via competitive calls with international peer-review. FCT ensures Portugal's participation in international scientific organizations, fosters the participation of the scientific community in international projects and promotes knowledge transfer between R&D centres and industry. Working closely with international organisations, FCT coordinates public policy for the Information and Knowledge Society in Portugal and ensures the development of national scientific computing resources.

#### FCT's main roles are:

- to promote, finance, monitor and evaluate science and technology institutions, programmes, projects and training of human resources;
- to promote and support infrastructures for scientific research and technological development;
- to promote the diffusion of scientific and technological culture and knowledge, especially when relevant for educational purposes in close collaboration with the Ciência Viva agency;
- to stimulate the updating, interconnectivity, strengthening and availability of science and technology information sources.

FCT funds all areas of knowledge, including exact, natural and health sciences, engineering, social sciences and humanities.

#### THE 2017 CALL FOR SR&TD PROJECTS - CERN

The Public Announcement of the Call is published on the FCT website.

This Call aims to finance SR&TD projects in the field of the High Energy Physics, and other relevant fields for the Portuguese participation in the European Laboratory for Particle Physics (CERN), with scientific collaborations recognized by CERN, as well as technology-based projects in applied sciences with collaborations in activities supported by the same Laboratory.

Priority should be given to the projects with long-term collaborations with CERN or with the use of its experimental facilities.

It should also be privileged projects that foster the technology transfer generated at CERN, or actions that promote the execution of research and experimental development projects with the participation of companies, in collaboration with CERN.

#### **SUBMISSION**

Applications are submitted online via a specially designed FCT Web application.

The Principal Investigator (PI) should indicate up to 4 keywords which characterise the proposed scientific activity. This will facilitate the assignment of applications to specific reviewers.

It is important to underscore that:

- each researcher may only submit one proposal as PI;
- each PI should indicate a co-PI that replaces the PI in his/her absences and impediments.

#### **MAIN RULES**

According to the Regulations governing access to funding of Scientific Research and Technological Development projects:

- The content of the application **should be written in English**, and a version in Portuguese of the Title and the Summary is also required.
- The **funding conditions** for this Call establish 24 months as maximum duration of the grant, eventually extended up to 36 months.
- The recipient entities and the PI must agree to comply with the applicable national and European community norms, namely as regards competition, environment, equal opportunity and gender, and public contracting whenever applicable. In cases of projects involving:
  - Animal experimentation the PI must vouch for the research team's compliance with EU directives and the relevant Portuguese laws regarding the protection of animals used for experimental and other scientific purposes;

- Regarding the donation, procurement, testing, processing, storage, distribution and preservation of human tissues and cells, the PI must vouch for the research team's compliance with EU directives and the relevant Portuguese laws on standards of quality and safety;
- The dissemination strategy of research outputs of the projects, including considerations of open access, shall be taken into account in the evaluation.

#### • Funded items (cf. Regulations):

Expenses with Human Resources dedicated or related to the development of R&D activities related
to the project execution in all mandatory components by the applicable labour legislation,
including charges with grant holders directly supported by the beneficiaries.

Grants within research projects may be of the following types (whose nature is explained in section Glossary and Translations of this guide):

- BCC Invited Scientist Grant
- BPD Post-doctoral Grant
- BI Research Grant
- BIC Scientific Initiation Grant
- BTI Research Technician Grant

For all grants, the monthly amount to be paid to the grant holder is fixed and established by FCT. The cost considered in each application automatically assumes the authorized monthly cost of the grant, with the number of months fixed by the PI.

- Missions (travel, accommodation, registration fees, etc.) in Portugal and abroad;
- **Acquisition of scientific and technical tools and equipment** indispensable to the project if used within the project during their useful lifetime;
- Depreciation of scientific and technical tools and equipment indispensable to the project and of which the useful lifetime falls within the execution period of the project, but does not end within that period;
- **Subcontracts** directly related to the project scientific tasks' execution;
- Expenses related to the national and foreign registration of patents, copyrights, utility models and designs, national models or brands associated with other forms of intellectual property protection, namely fees, research as to the status of the technique and consulting fees;
- Expenses with the **demonstration, promotion and disclosure of project's outputs**, namely dissemination fees within the fulfilment and pursuant to national policies of open access;
- Adaptation of buildings and facilities when indispensable to the project execution for environmental and safety reasons, provided that these costs do not exceed 10% of the total eligible cost of the project. The percentage bound in this item is automatically checked by the submission tool. Applications cannot be locked if this condition is not verified.
- Acquisition of goods and services and current expenses directly related to the execution of the project, including consultants' costs that do not constitute subcontracts;

- **Indirect costs**, with a **flat rate of 25% of eligible costs**, excluding subcontracting and resources provided by third parties. The percentage bound in this item is automatically checked by the submission tool. Applications cannot be locked if this condition is not verified.
- All members of the research team involved in the application must submit their CV in English and follow a set of rules when writing it (cf. Guide for the Elaboration and Submission of R&D Project Applications).

#### **EVALUATION CRITERIA**

The evaluation and selection process is based on the following main four review criteria:

- A. Scientific merit and innovative nature of the project from an international standpoint in the scientific area and within the goals of the call;
- B. Scientific merit of the research team;
- C. Feasibility of the work plan and reasonability of the budget;
- D. Contribution to the body of knowledge in the field and improvement in the competence of the scientific community and potential economic value of the technology.

Application of these 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 given scientific area and previous work done by the proposing team) in the scientific area and within the goals of the call;
- 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 contribute to benefits to society or to the business sector.

#### B. For criterion B:

- i.) Scientific productivity of the team evaluated according to criteria accepted internationally by the
  different scientific communities (ranging from references to publications and citations in published
  works as used by the basic and engineering sciences, to performance and artistic work in the arts, or
  monographs and books in the humanities and social sciences);
- 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 internationalization of the team;
- vi.) Degree of success in previous projects of the 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.) Level of commitment of any companies participating in the project (if applicable). 1

#### 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 participating entities, in particular of the Principal Contractor (PC) (technical-scientific, organizational and managerial and, where appropriate, co-funding capacity on the part of companies);
- iii.) Reasonability of the budget.

#### D. For criterion D:

i.) Contribution to the body of knowledge and competence of the National Science and Technology System (expected effects and results) and potential economic value of the technology (if appropriate), namely in terms of its impact on the competitiveness of the national socio-economic system.

 $<sup>^{\</sup>mathrm{1}}$  The application overview has the indication if a participating entity is a for profit organization.

#### **EVALUATION PROCESS AND PROCEDURES**

#### **GENERAL INFORMATION**

- Applications will be assessed by an evaluation panel.
- The evaluation panel, according with the Agreement between Portugal and CERN, consists of three members appointed by the CERN Director General and two by FCT, one of whom will chair the panel.
- The experts will be of recognized competence in the scientific areas of the applications to be evaluated.
- The panel is headed by the Panel Chair.
- The Panel Chair is identified in the internet FCT, I.P website up to the limit date to submit applications. The remaining panel members are identified after the assessment process conclusion.
- The identification of the reviewers external to the panel, if any, will not be made public.
- All panel members have to sign an acknowledgement of the Terms of Reference for the evaluation exercise.
- Each application will be remotely and individually evaluated by two panel members. One of the panel members will be appointed as the first reader for the application.
- Distribution of the applications to panel members, which is done by the Panel Chair, will take into consideration any Conflict of Interest, as well as the matching of scientific competences.
- Whenever a particular expertise is not covered by the panel members, external reviewers may be invited to provide an assessment of the application in consideration.
- The first time a reviewer logs in the evaluation web page, he/she has to sign a Confidentiality Statement.
- Prior to accessing each application, the reviewer has to declare whether or not a conflict of interest is identified for that particular application.
- During the panel meetings, all applications shall be discussed. A ranking list and a panel evaluation report (for each application) will be produced.
- The panel must issue a panel meeting report on its activities.
- There is an allocated FCT team for the evaluation panel, which is the contact point for the reviewers.

#### STAGES OF EVALUATION

Evaluation of the research applications involves the following stages:

#### **Setting-up Evaluation Panels**

• The panel chair will be a regular member of the panel with the added duties of moderating the panel meeting and conveying the results of the discussions to the Board of Directors of FCT.

• The panel members might be asked to give support to FCT during the period spanning from the evaluation meeting to the final decision (e.g., review of eventual preliminary hearings comments presented by the PI).

#### **Pre-Meeting Activities (Individual Reviews)**

- Each application will be remotely and individually evaluated by two panel members.
- Both panel members must submit their individual evaluation for each proposal in the Individual Evaluation Form and lock the review.
- Reviewers must submit their assessment for each proposal in the **Individual Evaluation Form**, including:
  - the rating and comments for each of the four evaluation criteria;
  - a general comment on the application;
  - funding recommendation, without specifying the amount;
  - confidential comments to the evaluation panel, if necessary.
- The assessment should take into account the following guidelines:
  - the <u>explanatory comment for each criterion</u> should be succinct but substantial. This comment should address the relative importance of the criterion and the extent to which the application actually meets the criterion;
  - <u>comments</u> should also be impeccably polite. If so decided by the panel, the comments may be reproduced totally or partially in the feedback to applicants.
  - the <u>global explanatory comment for the project</u> should be substantial and fully explain the reviewer's judgment on the application stating recommendations regarding the research work and the project organization;
  - possible modifications to the work plan may be recommended, with proper justification;
  - confidential comments to the evaluation panel may be provided;
  - comments and grades should be in agreement and support each other.
- Both ratings and comments are critically important. The individual review ratings and comments are the starting point for the panel discussions and for the panel final rating.
- For each application, one of the panel members will be designated as the **first reader**. Based on the two individual reviews, the first reader will submit and lock a proposal for the **Compilation Report**<sup>2</sup> **before the panel meeting**.

#### **Meeting Activities (Panel Evaluation)**

• During the panel meeting all applications of the panel and their evaluation reports will be available to all panel members and must be discussed by the panel.

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<sup>&</sup>lt;sup>2</sup> Consensus Report

- It is the duty of each evaluation panel to:
  - elaborate the **Panel Evaluation** for each application (to be transmitted to the applicants) based on the Compilation Report and panel discussions;
  - generate a Ranking List of all evaluated applications.
  - prepare a **Panel Meeting Report** with a summary of the meeting and comments regarding the evaluation process;
  - close the panel.
- The first reader must submit the panel assessment (comments to be transmitted to the applicants) in the **Panel Evaluation Form**, including:
  - the rating and the comments for each of the four criteria to be transmitted to the PI;
  - a general comment on the application to be transmitted to the PI;
  - recommended amount for funding to be transmitted to the PI (when the application is recommended for funding).
  - confidential comments to FCT, if necessary.
- The final panel assessment should take into account the following guidelines:
  - All comments should take the form of a statement with respect to the criteria under evaluation; the general comment should specify the key strengths and weaknesses (if any).
  - Panel Members shall:
    - o avoid comments that give a description or a summary of the application;
    - avoid the use of the first person or equivalent: "I think..." or "This reviewer finds...";
    - always use dispassionate and analytical language: avoid dismissive statements about the PI, the proposed science, or the scientific field concerned;
    - o avoid asking questions, as the PI will not be able to answer them;
    - o evaluate the proposed work and not the work you consider should have been proposed.
- The **Panel Meeting Report**, with a summary of the meeting and comments regarding the evaluation process, should be organized in two main parts:
  - Part I Evaluation, including, but not limited to:
    - working methodology adopted by the panel;
    - identification of potential Conflicts of Interest issues and their resolution.
  - **Part II Confidential Recommendations to FCT**, on the various aspects of the evaluation that might help FCT to improve procedures in future calls. Please refer, among other considered important:
    - comments on the material available to the panel members, in particular the guide for Peer Reviewers;
    - strong and weak aspects of the evaluation web application;

- strong and weak aspects of the FCT team;
- strong and weak aspects on logistic aspects (travel, hotel, meeting, etc if applicable).

This report must be signed by all evaluation panel members.

#### **FCT EVALUATION WEBPAGE**

The username and password sent to each individual reviewer gives access through <a href="https://sig.fct.pt/evaluation/">https://sig.fct.pt/evaluation/</a> to the list of projects under evaluation by the corresponding reviewer. Please see the Instructions on the top of the menu.

For each application, the following is available and indispensable:

- a statement on Conflict of Interest;
- all information submitted in the application form. In this form, the name of each team member has a link to his/her CV and the financed projects by the same PI have a link to the project description and results;
- the information in the application form can be printed and a pdf file can be generated with it. See the links on "Print this page" and "Instructions to view and print this page" for this purpose.
- different applications by the research team members (even in different scientific areas), for the sake of detecting superposition of objectives or resources;
- the Individual and Compilation Report Forms;
- the possibility to SAVE the submitted evaluation report. This means that the uploaded information will be kept for future revision;
- the need to LOCK the submitted evaluation report. This means that the reviewer will no longer be able to modify the uploaded information;
- an indication of the work done and yet to be done by the reviewer.

#### **EVALUATION TIMELINE**

The evaluation timeline is established by FCT's Board of Directors and conveyed to the evaluation panel chair and members. The date of the final meeting of the evaluation panel is established in advance by FCT that carries out all logistic arrangements.

#### **SCORING SYSTEM**

The selection method and ranking of projects is based on the indicator Merit of the Project (Overall Rating), which is determined by the four evaluation criteria described in Section 3.

The Overall Rating of the Project is calculated as:

#### Overall Rating = 0.50 A + 0.20 B + 0.10 C + 0.20D

For the purpose of selection and decision-making regarding funding, projects will be ranked by score obtained in the review process in decreasing order.

The FCT grant application scoring system uses a 9-point scale (1 – minimum; 9 – maximum), and each of the four criteria is rated using this scale with whole numbers only (no decimal ratings).

Reviewers have to identify strengths and weaknesses (if applicable) for each criterion and should provide context for their comments based on the application.

In case of equal ratings, the locking date of the proposals in the FCT's electronic system will be taken into consideration for the raking list.

Each review criterion and the associated reviewers' comments should take into account the goals and priorities expressed in the call, and listed also in section 2 of this guide for Peer Reviewers.

#### **CONFIDENTIALITY AND CONFLICT OF INTEREST**

#### CONFIDENTIALITY

The confidentiality of written applications must be protected. All reviewers involved in the evaluation are asked not to copy, quote or otherwise use material contained in the applications. All reviewers are requested to sign a statement of confidentiality relative to the contents of the project applications and to the results of the evaluation.

The statement that needs to be accepted, which appears the first time the reviewer uses the individual credentials to access the evaluation area, is the following:

#### STATEMENT OF CONFIDENTIALITY

Thank you for accepting to participate in the scientific evaluation of Research Projects submitted to the Portuguese Foundation of Science and Technology (*Fundação para a Ciência e a Tecnologia*, I.P.) – FCT.

The reader of this message pledges, on his/her honour, not to quote or use in any way, the contents of the project applications, nor to make available, other than to FCT or the evaluation panel, the results of the evaluation of project applications.

#### **CONFLICT OF INTEREST (COI)**

Reviewers that have submitted any **applications to the present Call**, both as PI or team member, **have to decline** participating in the evaluation process. Reviewers with first-degree relationships, married to or cohabiting with the PI or any team member are also precluded from being a panel member or remote evaluator.

In the case of a **disqualifying conflict of interest**, those panel members and remote reviewers cannot remotely evaluate the respective applications. Such panel members are also not allowed to participate in the panel meeting discussion of these applications. Circumstances that could be interpreted as a **disqualifying conflict of interest** are set forth in the following criteria:

- Life partnership, domestic partnership;
- 2. Personal interest in the application's success or financial interest by persons listed under no.1;

In case of a potential conflict of interest, panel members should notify FCT if he/she is able to perform as unbiased evaluation or if the conflict should rather be considered as disqualifying. A potential conflict of interest exists in the following circumstances:

3. Relationships that do not fall under no. 1, other personal ties or conflicts;

- 4. Financial interests of persons listed under no. 3;
- 5. Preparation of an application or implementation of a project with a closely related research topic (competition);
- 6. Participating in an on-going scientific or inter-personal conflict with the applicant(s).

Before starting the evaluation of each application, and in order to be able to access the evaluation form, the individual reviewer needs to complete a CoI Declaration, as follows:

#### **Conflict of Interest Declaration**

#### Please state:

- No, I have no conflict
- Yes, I have a strong conflict (see Disqualifying Col)
- It is possible that I have a conflict (see Potential Col)

Add any comments below.

The **individual reviewer** will not be able to proceed in the presence of a strong conflict of interest. <u>In this case the individual reviewer is required to inform the Panel Chair and the FCT team of the situation</u>, so that the application may be reassigned. The final panel report must mention all declared Col.

#### PORTUGUESE TO ENGLISH TRANSLATION AND EXPLANATIONS

Agregação = Aggregation. This is an academic title. It attests

- i.) the quality of the academic, professional, scientific and pedagogical curriculum
- ii.) the capacity to carry out research work
- iii.) the capability to coordinate and carry out independent research work,

and is issued to PhD holders after a public exam by a jury. The exam is required by the candidates and takes places during two days.

Doutoramento = PhD, doctoral degree

Mestrado - Master's degree

**Licenciatura** = BA (3, 4 or 5 years graduate course)

Bolsa = Grant, fellowship

Bolseiro = Grant Holder, fellow

**BCC** = Bolsa de Cientista Convidado = Invited Scientist Grant

- Invited scientist grants are designed for doctoral degree holders with scientific curricula of notable merit, for the purpose of developing and carrying out research activities in Portuguese science and technology institutions, including directing and coordinating of research projects.
- The total duration of this type of grant can vary between one month and three years.

**BPD** = Bolsa de Pós-Doutoramento = Post-doctoral Grant

 Post-doctoral grants are intended for individuals who have already completed a doctoral degree, preferably within the last five years, for the purpose of carrying out advanced research in Portuguese or foreign scientific institutes of recognized merit.

BI = Bolsa de Investigação = Research Grant

- These research grants are available for bachelor, graduation or master degree holders for the purpose of obtaining scientific training in research projects or in Portuguese science and technology institutions.
- These grants are, in principle, one year in length, renewable for up to a total of three years, and cannot be awarded for periods of less than three consecutive months.

BIC = Bolsa de Iniciação Científica = Scientific Initiation Grant

- Scientific initiation grants are designed primarily for students who have completed at least 3 years of higher education (1<sup>st</sup> cycle or equivalent) for the purpose of obtaining scientific training by participating in research projects in Portuguese institutions.
- These grants are, in principle, one year in length, renewal for up to two years, contingent on good scholastic performance. They cannot be awarded for periods of less than three consecutive months.

BTI = Bolsa de Técnico de Investigação = Research Technician Grant

- Research technician grants are designed to provide for additional specialized training of technicians to support the operation and maintenance of scientific laboratory equipment and infrastructures and other activities relevant to the Portuguese scientific and technological system.
- The length of this type of grant varies, up to a total of five years, and cannot be awarded for periods of less than three consecutive months.

## **GLOSSARY**

FTE = Full Time Equivalent

**MCTES** = Ministry of Science Technology and Higher Education

**Postdoctoral fellow** = a PhD holder that has a Post-doctoral grant