



Call for SR&TD Projects under the Cooperation Agreement between Portugal and the European Laboratory for Particle Physics (CERN) - 2015

Guide for Peer Reviewers

January 2015



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1. INTRODUCTION

FCT's mission

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 policy on Science and Technology.

As of August 1997, FCT succeeded the previous national funding agency, JNICT, created in the 1980s.

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

This mission is accomplished through peer-review-based funding of applications presented by institutions, research teams or individuals in public calls, through cooperation agreements and other forms of partnerships with universities as well as other public or private institutions, both in Portugal and abroad.

FCT's main functions are:

- to promote, finance, accompany and evaluate science and technology institutions, programmes, projects and qualification of human resources;
- to promote and support infrastructures for scientific research and technological development;
- to promote the dissemination of scientific and technological culture and knowledge;
- to stimulate maintenance of up to date science and technology information sources, as well as their strengthening, availability and interconnections.

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

2. THE 2015 CALL FOR SR&TD PROJECTS - CERN

The Public Announcement of the Call is published on the FCT website and disseminated by a mass email to all researchers registered on FCT databases.

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 should be emphasized that **each researcher can only submit one proposal as PI**.

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 Portuguese version of the Title and the Summary are also required.
- Projects whose approval would make the PI or any member of the team exceed 100% full time equivalent (FTE) of time dedicated to FCT research projects will not be funded. This condition is to be verified by FCT.
- Each PI should have a minimum of 35% of his/her time allocated to the project. For the remaining research team members a minimum percentage of 15% applies (these conditions are automatically verified during submission of the application).
- 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](#)):

- **Human Resources**, including grants associated with the project (not applicable to public servants) or contracts specially signed for the project; 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 grant schemes, 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.

Salaries of public servants are not funded.

- **Missions;**

- **Consultants;**

- **Acquisition of goods and services and other current expenses** directly related to execution of the project, and the intervention of licensed auditors or accountants;

- **Registration of patents, copyrights, utility models and designs**, national models or brands associated with other forms of intellectual property, namely fees, prior art searches and consultants' fees;

- **Adaptation of buildings and facilities** when essential to carrying out the project including installation of equipment and other resources, 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 scientific and technical instruments** essential to the project and which shall remain attached to the project during the period of its execution.

- **Overheads** up to 20% of the funding for direct costs.

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](#)).

3. EVALUATION CRITERIA

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

- A. Scientific merit and innovative nature of the project from an international standpoint;
- 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;
- E. 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);
- 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

¹ The application overview has the indication if a participating entity is a for profit organization.

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).

D. For criterion D:

- i.) Contribution to the body of knowledge and competence of the National Science and Technology System (expected effects and results);.

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.

4. EVALUATION PROCESS AND PROCEDURES

General information

- **Applications will be assessed by an evaluation panel.**
- The evaluation panel consists of a number of experts appointed by the Board of Directors of FCT.
- 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 and its composition will be published on the FCT website.
- **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.
- The distribution of the applications by the panel members will consider Potential Conflicts of Interest and 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 identification of the external reviewers will not be made public.
- The first time a reviewer logs in the evaluation web page, he/she has to sign a [Confidentiality Statement](#), and prior to every individual online review all panel members have to sign an acknowledgement of the Terms of Reference for the evaluation exercise.

- During the panel meeting, **all applications will be discussed, a ranking list will be prepared** and a **panel evaluation** 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 Panel

- The constitution of the evaluation panel will take into consideration the number of applications, a good gender balance as well as a fair geographic and institutional distribution of evaluators; the involvement of experts from industry, active in research, may also be considered.
- 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 Chair will have a reduced number of proposals to evaluate.
- 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 five evaluation criteria;
 - an overall rating of the project;
 - 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 explanatory comment for each criterion 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;

- comments 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 overall rate of the project should be based on the reviewer's own judgment of the merit of the overall application without resorting to any sort of quantitative algorithms;
- the global explanatory comment for the project 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 Report² 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.
- It is the duty of the **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 submits 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 five criteria to be transmitted to the PI;
 - the overall rating of the project, 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.

² Consensus Report

- The final panel assessment should take into account the following guidelines:
 - All comments including the general comment, should take the form of a statement with respect to the criteria under evaluation and specify the key strengths and weaknesses (if any).
 - Panel Members shall:
 - 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;
 - avoid asking questions, as the PI will not be able to answer them;
 - evaluate the proposed work as presented 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 and criticism on the application form, with suggestions for possible improvements;
- 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).

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 <https://sig.fct.pt/evaluation/> 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.

5. SCORING SYSTEM

The FCT grant application scoring system uses a 9-point scale (1 - minimum; 9 - maximum).

Each of the five criteria is rated using this 9-point scale with whole numbers only (no decimal ratings). Reviewers have to identify strengths and weaknesses (if any) for each criterion and should provide context for their comments based on the application.

Reviewers give an **overall rating** to each application which is based on their own judgment of the merit of the overall application without resorting to any sort of quantitative algorithms. **The overall rating should reflect the reviewer’s overall evaluation, not a numerical average of individual criterion scores.** An application does not need to be strong in all criterion scores to be judged likely to have major impact. The overall rating is also expressed as a scope mark from 1 to 9. Reviewers should provide a paragraph summarizing the factors that informed their overall rating.

Each review criterion should be assessed based on how important each review criterion is to the work being proposed. As a result, a reviewer may give only moderate scores to some of the review criterion but still give a high overall impact/priority score because the one review criterion critically important to the research is rated highly; or a reviewer could give mostly high criterion ratings but rate the overall impact/priority score lower because the one criterion critically important to the research being proposed is not highly rated.

Accordingly, the ranking of **applications with the same overall rating** takes into account the following order of importance for each criterion:

- A - 35%
- B - 25%
- C - 15%
- D - 15%
- E - 10%

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

6. 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 text to be accepted, which appears the first time each reviewer uses his/hers username and password 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 (Col)

Reviewers that have submitted any **applications to the present Call**, both as PI or team member, **have to decline** participating in the evaluation process.

Circumstances that could be interpreted as a **disqualifying conflict of interest** are laid down in the following criteria:

1. First-degree relationship, marriage, life partnership, domestic partnership;
2. Personal interest in the application's success or financial interest by persons listed under no.1;
3. Current or planned close scientific cooperation;

4. Dependent employment relationship or supervisory relationship (*e.g.* teacher-student relationship up to and including the postdoctoral phase) extending five years beyond the conclusion of the relationship;
5. The affiliation or pending transfer to the Principal Contractor or to a Participating Institution;
6. Researchers who are active in a council or similar supervisory board of the applying institution are excluded from participating in the review and decision-making process for applications originating from this institution;

A **potential conflict of interest** may exist, even in cases not covered by the clear disqualifying conflicts indicated above, in the following circumstances:

7. Relationships that do not fall under no. 1, other personal ties or conflicts;
8. Financial interests of persons listed under no. 7;
9. Participation in university bodies other than those listed under no. 6, *e.g.* in scientific advisory committees in the research environment;
10. Research cooperation within the last three years, *e.g.* joint publications;
11. Preparation of an application or implementation of a project with a closely related research topic (competition);
12. 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 Col 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 case of a strong conflict of interest. In this case the individual reviewer is required to inform the FCT team of the situation, for project re-allocation. The final panel meeting report must mention all Potential Col declared.

Should a Col emerge for any **panel member**, the Panel Chair should solve it supported by the FCT team and make an explicit mention of it on the **panel meeting report**.

7. GLOSSARY AND TRANSLATIONS

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 place 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 (1st 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.

NUTS = Nomenclaturas de Unidades Territoriais para fins Estatísticos - Denomination of the Territorial Units for Statistical purposes

Glossary

Associate Laboratory = Private not-for profit and public research institutions together with State Laboratories can join in an association, named Associate Laboratory, aiming at the achievement of special objectives of the national science and technological policy. The status of Associate Laboratory is granted by the Ministry of Science, Technology and Higher Education, for periods not exceeding 10 years, upon recognition of their Excellence.

Autonomous Regions = Madeira and Azores Islands

FTE = Full Time Equivalent

MEC = Ministry of Education and Science

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