



**INVESTIGADOR  
FCT**

**2015 FCT INVESTIGATOR GRANTS**

**EVALUATION GUIDE**

## 1. INTRODUCTION

This document outlines the review process of the FCT Investigator call and defines the responsibilities of the participants in the process. It details a number of important issues, such as: the mission of FCT; goals of the present call and application components; evaluation criteria; scoring system; the evaluation process; feedback to applicants; confidentiality and conflict of interests.

### The mission of FCT

*Fundação para a Ciência e a Tecnologia, I. P.* (FCT) is the Portuguese public research council that funds all areas of science and technology.

FCT promotes excellent science, technology, innovation and international competitiveness across all areas of scientific research.

FCT supports and funds people (awarding fellowships, studentships and contracts), ideas (through research grants) and internationally competitive research centres. FCT aims to: promote research talent through sustainable advanced training and scientific careers of excellence, foster international competitiveness and visibility of scientific research and innovation carried out in Portugal, encourage knowledge transfer between R&D centres and businesses, facilitate access of the scientific community to state-of-the-art infrastructures and support the development of internationally leading research centres.

FCT funds all areas of knowledge: Exact Sciences and Engineering, Life and Health Sciences, Natural and Environmental Sciences and Social Sciences and the Humanities.

## 2. FOR THE FCT INVESTIGATOR GRANTS

As part of its strategy to promote scientific excellence, FCT launched international calls for the recruitment of researchers (FCT Investigator Grants) in 2012, 2013 and in 2014. In the three calls a total of 597 FCT Investigators have been selected.

The typical profile of the FCT Investigator corresponds to highly motivated scientists seeking to develop, carry out and coordinate top quality research in Portugal.

This call is aimed at researchers holding a PhD degree. The grants are divided into **three levels**, corresponding to different career stages:

- a) **Starting grant** - aimed at PhD holders with more than three years and less than eight years of post-doctoral experience at the time of application, with no need for prior scientific independence;
- b) **Development grant** - aimed at PhD holders with a curriculum of exceptional merit and experience as an independent researcher;
- c) **Consolidation grant** - aimed at PhD holders with a curriculum of exceptional merit, experience as an independent researcher and evidence of scientific leadership in a particular area of knowledge.

Independent researchers are scientists who have already established themselves as internationally recognised experts or leaders in their own right, often as Principal Investigators or Group Leaders, supervising a research team, and, furthermore, have attracted funding in competitive grant applications, either from FCT or other national and international funding agencies.

Each applicant may not submit more than one application and it is the applicant's responsibility to choose the appropriate position level to which he/she applies.

### Components of the Application

Applications are submitted online via a dedicated FCT Web application. A single submission of the full application is followed by a two-stage evaluation process.

The application consists of three main items: *curriculum vitae*, a research project proposal and a career development plan. All of these elements will be evaluated.

The application form is organised into the following sections:

#### A. General description of the application

- A.1 Position level
- A.2 Title of the project
- A.3 Orcid-ID
- A.4 Scientific areas
- A.5 Conflict of interests (optional)
- A.6 Date of PhD completion
  - A.6.1 Justification for deviations, Maternity
  - A.6.2 Justification for deviations, Paternity
  - A.6.3 Justification for deviations, Long-Term-Illness
- A.7 Keywords
- A.8 Are you eligible for an exploratory research project? (optional)
  - A.8.1 Budget
- A.9 Declaration of disability (if applicable)

**B. Synopsis of the application**

- B.1 Major contributions/highlights
- B.2 Synopsis of the CV
- B.3 Synopsis of the research project and career development plan

**C. Full description of the application**

- C.1 Research project
  - C.1.1 Background
  - C.1.2 Research plan and methods
  - C.1.3 Expected outcomes / impact
  - C.1.4 References
- C.2 Career development plan

**D. Ethical and legal issues**

**E. Host institution**

- E.1 Select the host institution
- E.2 Description of the host conditions

The extended CV, submitted/updated on the [FCT-SIG Information System](#) is an integral component of the application.

Applicants will identify, from the list provided ([OECD's revised Field of Science and Technology - FOS](#), adapted to Portugal), the primary and secondary scientific areas of the project. **Each secondary scientific area is associated to a specific evaluation panel, as described in Appendix I.** The applicants should also indicate five keywords that most accurately reflect the scientific content of the proposed research project.



It is the applicant's responsibility to identify the **host institution** and to obtain the agreement required to carry out the scientific research project and the career development plan. The host institution must commit to provide all resources, including materials, support services, critical mass and institutional policies to ensure the implementation of the research project and career development plan.

There is **no pre-established structure to describe the research project and career development plan**, which may be different for different career paths and research profiles. To facilitate the application and evaluation processes, the form contains predefined text boxes that describe the key points of the application.



### 3. EVALUATION CRITERIA

In the first stage of evaluation two components of the application will be assessed:

- The synopsis of the CV - relative weight 50%
- A synopsis that combines the research project and career development plan - relative weight 50%

In the second stage of evaluation three components of the application will be assessed:

- Full version of the CV (FCT-SIG) - relative weight 50%
- Extended version of the Research Project - relative weight 40%
- Career development plan - relative weight 10%

Assessment of the **scientific merit of the applicant** should take into consideration, but not be limited to, the following:

- Scientific output of the applicant, evaluated according to criteria which are internationally accepted by the different scientific communities;
- Abilities and skills to adequately perform the proposed research project;
- Degree of internationalisation;
- Innovative and creative nature of the achievements listed by the applicant.

For the **development and consolidation grants** the following should also be considered, in addition to the above:

- Experience of doctoral and post-doctoral supervision;
- Degree of success in previous calls for grant applications;
- Evidence of leadership and independent scientific work.

Assessment of the **scientific merit, innovative nature and feasibility of the research project** should take into consideration, but not be limited to, the following:

- Relevance and innovative nature of the proposed research project (based on the state-of-the-art in a given scientific area and previous work carried out by the applicant);
- Objectives that allow progress beyond the current state-of-the-art;
- Adequacy of the methodology adopted, feasibility of the work plan and quality of the host conditions;
- Production of innovative knowledge that may contribute benefits to society or to the business sector.



Assessment of **the career development plan and the conditions for independent research** should take into consideration, but not be limited to, the following indicators:

- i) Organisation and structure of the career development plan;
- ii) Adequacy of the career development plan and prior achievements towards research independence.

Indicators for the **scientific merit of the applicant** include the main academic and professional degrees, publications in top speciality peer-review journals and/or in major multidisciplinary international peer-review journals. Equivalent contributions/indicators from areas where international peer-review publications are not available or are not common practice should be provided and explained (for example, peer-reviewed conference proceedings and/or monographs in specific research fields). Other relevant indicators include competitive funding from national and international funding agencies, granted patents, chapters in books, performances and exhibitions (to the extent that they embody research), supervision of doctoral and post-doctoral students, prizes, honours and awards.

The applicant should also provide objective information that may help the panel to assess if and for how long he/she has been working as an independent investigator.

## 4. SCORING SYSTEM

The current FCT scoring system uses a 9-point scale:

Impact	Score	Additional Guidance on Strengths/Weaknesses
High	9	Exceptionally strong with essentially no weaknesses
	8	Extremely strong with negligible weaknesses
	7	Very strong with only some minor weaknesses
Medium	6	Strong but with numerous minor weaknesses
	5	Strong but with at least one moderate weakness
	4	Some strengths but also some moderate weaknesses
Low	3	Some strengths but with at least one major weakness
	2	A few strengths and a few major weaknesses
	1	Very few strengths and numerous major weaknesses

**A score of 9 indicates an exceptionally strong application with essentially no weaknesses. A score of 1 indicates an application with serious and substantive weaknesses and very few strengths; 5 is considered an average score.**

The impact scale considers the likelihood of the research project and the career development plan to have a sustained, powerful influence or strong impact on the research field(s) involved:

- High impact = 7 to 9;
- Medium impact = 4 to 6;
- Low impact = 1 to 3.

## 5. EVALUATION PROCESS

Eligible applications are assessed in a two-stage evaluation process. A full version of the CV (FCT-SIG) will be available to reviewers in both stages.

The first stage comprises pre-selection of the applicants, based on the **assessment of the synopsis of the application**.

In the second stage the **full application is evaluated**. A ranked list of all applications is produced. From that overall list, those with the highest scores, equal to or above 7, are selected for funding, up to the number of available positions for each evaluation panel.

The order of the second stage ranking will be set considering the following priority order: overall, average, CV and research project scores.

There will be seven evaluation panels (Appendix I). The panel members of the second stage will be selected from the list of panel members that participated in the first stage, according to the topics and number of applications that were pre-selected.

The chairs of the evaluation panels will lay down the procedures to be followed and the tasks of the respective members. The panel members will have access to all the applications to their panel, as well as to the respective mail reviewers' reports for the second stage of evaluation.

### *1<sup>st</sup> Stage of Evaluation*

In the first stage of evaluation, the panels will be responsible for the preliminary assessment of the applications.

At this stage each eligible application will be reviewed by three panel members prior to the panel meeting, one of which is the lead reviewer. The two components under review will be the synopsis of the CV and the synopsis of the research project and career development plan.

Each of the two components of the application is rated using the 9-point scale with whole numbers only (no decimal ratings). The average score (to one decimal place), followed by the CV score will be used to rank the applicants. The scores (CV, research project and average) will be conveyed to the applicant together with a first-stage panel report, containing substantiated comments that justify the marks given to each component of the application.

The number of applications that are selected to go through to the second stage is up to four times the number of positions available.

Applications scored below 7 will not be admitted to the second stage of evaluation, irrespectively of the number of positions available.

## *2<sup>nd</sup> Stage of Evaluation*

The full applications (i.e. the extended versions of the CV, the research project and the career development plan) selected to go to the second stage of evaluation will each be assessed by at least two mail reviewers and three panel members. One of the panel members will be appointed as lead reviewer and will, therefore, be responsible for drafting the evaluation panel report based on the input received from mail reviewers and his/her own judgement on the application. Evaluation reports produced by mail reviewers will be made available to all panel members in preparation for the panel meeting.

Applications with an overall score below 7 will not be funded.

### **Individual mail reviews include:**

- Ratings for each of the three components, using the FCT 9-point scale with whole numbers only (no decimal ratings). The weighted score of each application will be calculated taking into account the weight of each component of the application.
- Overall comments, which should fully explain the judgment on the application. **These comments should be substantial, highlighting the strengths and weaknesses of the application.**

### **Reviews of individual panel members include:**

- Rating for each of the three components, using the FCT 9-point scale with whole numbers only (no decimal ratings). The weighted score of each application will be calculated taking into account the weight of each component of the application.
- An overall score, which reflects the global judgment on the application but does not necessarily need to result from any arithmetic formula applied to the scores given to each component.
- Overall comments, which should fully explain the judgment on the application. **These comments should be substantial, highlighting the strengths and weaknesses of the application.**

**Meeting activities include:**

- Ensuring that each application receives a fair judgment and is discussed appropriately;
- Generating a consolidated ranked list of all applications, considering the following order, by priorities: overall, average, CV and research project scores;
- Selecting the top applicants for the number of positions available;
- Preparing an evaluation panel report for each application, based on the corresponding draft prepared by the lead reviewer;
- Preparing a panel meeting report with a summary of the meeting and comments regarding the evaluation process.



## **6. FEEDBACK TO APPLICANTS**

All reviewers are encouraged to observe the **following additional guidelines**:

- 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 applicant, about the proposed science, or about the scientific field in question;
- Always use impeccably polite language;
- Avoid asking questions, as the applicant will not be able to answer them;
- Evaluate the proposed work and not the work you consider should have been proposed.

**The evaluation comments may be succinct but should be substantial, highlighting the strengths and weaknesses of the application. A minimum of 1000 characters is required. The use of standard comments is strongly discouraged.**



## 7. CONFIDENTIALITY AND CONFLICT OF INTERESTS

### Confidentiality

Confidentiality of the applications must be safeguarded. All experts involved in the evaluation are asked not to copy, quote or otherwise use material from the applications. Experts are also requested to sign a statement of confidentiality regarding the contents of the applications and the results of the evaluation. The first time each reviewer has access to the evaluation area, he/she will have to approve the following statement:

#### STATEMENT OF CONFIDENTIALITY

Thank you for accepting to participate in the scientific evaluation of FCT Investigator Grants submitted to the *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 applications, nor to make available, other than to FCT or to the Evaluation Panel, the results of the evaluation.

### Conflict of interests (Col)

Any Col must be declared prior to the evaluation process. No reviewer shall make an individual review of an application if he/she has declared Col with it.

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 post-doctoral phase) extending five years beyond the conclusion of the relationship;
5. Affiliation with a participating institution with one pending transfer to;

6. Researchers who are active in a council or similar supervisory board of the applicant's institution are excluded from participating in the review and decision-making process for applications coming from that institution.

A **potential conflict of interests** may exist, even in cases not covered by the clearly 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;
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).

For all potential conflict of interests, FCT will make a decision whether the situation in question constitutes an actual Col or whether no Col exists.

## APPENDIX I - EVALUATION PANELS

PANEL	SECONDARY SCIENTIFIC AREA
<b>1 - Exact Sciences</b>	Chemical sciences
	Computer and information sciences
	Mathematics
	Physical sciences
<b>2 - Engineering and Technology</b>	Chemical engineering
	Civil engineering
	Electrical engineering, electronic engineering, information engineering
	Industrial biotechnology
	Materials engineering
	Mechanical engineering
	Medical engineering
	Nano-technology
	Other engineering and technologies
<b>3 - Medical and Health Sciences</b>	Basic medicine
	Clinical medicine
	Health sciences
	Medical biotechnology
	Other medical sciences



<b>PANEL</b>	<b>SECONDARY SCIENTIFIC AREA</b>
<b>4 - Environmental and Agricultural Sciences</b>	Agricultural biotechnology
	Agriculture, forestry and fisheries
	Earth and related environmental sciences
	Environmental biotechnology
	Environmental engineering
	Other agricultural sciences
<b>5 - Biological and Animal Sciences</b>	Animal and dairy science
	Biological sciences
	Veterinary science
	Other natural sciences
<b>6 - Social Sciences</b>	Economics and business
	Educational sciences
	Law
	Media and communications
	Political science
	Psychology
	Social and economic geography
	Sociology
	Other social sciences



PANEL	SECONDARY SCIENTIFIC AREA
<b>7 - Humanities</b>	Arts (art, history of arts, performing arts, music)
	History and archaeology
	Languages and literature
	Philosophy, ethics and religion
	Other humanities

Note: The names of the panels do not coincide with the FOS main scientific areas



**INVESTIGADOR  
FCT**

**[WWW.FCT.PT](http://WWW.FCT.PT)**