

EVALUATION GUIDE STIMULUS OF SCIENTIFIC EMPLOYMENT, INDIVIDUAL SUPPORT 2018 CALL



1. INTRODUCTION

This document outlines the evaluation process adopted in the 2018 call for the Stimulus of Scientific Employment – Individual Support launched by the *Fundação para a Ciência e a Tecnologia, I. P.* (FCT) on Dec 14, 2018.

FCT is the Portuguese public agency that supports science and technology in all areas. FCT aims to promote research talent through sustainable advanced training and consolidation of scientific careers, to support the development of internationally leading research centres, to foster international competitiveness and visibility of research and innovation carried out in Portugal, to facilitate access of the scientific community to state-of-the-art infrastructures, and to encourage knowledge transfer between R&D centres and businesses.

FCT funds people (by awarding fellowships, studentships and scientific employment contracts), ideas (through research project grants), research centres and infrastructures, as well as international cooperation.



2. STIMULUS OF SCIENTIFIC EMPLOYMENT – INDIVIDUAL SUPPORT

Strengthening scientific employment in Portugal is central to the evolution of the Portuguese science based innovation and growth strategy, and requires specific stimulus in the form of a financial support to encourage hiring new researchers and promoting scientific and academic employment, thereby providing institutional rejuvenation while providing an appropriate professional context for scientists.

FCT issued in 2017 the Regulation of Scientific Employment (REC) by which two instruments were created to promote scientific employment: an **individual support** for the direct hiring of doctoral researchers by research units supported by FCT, and an **institutional support**, for the development of scientific employment and careers by R&D oriented institutions.

The present call is aimed at providing **individual support** for contracting researchers holding a PhD degree in any scientific area. The profile of the candidates should correspond to highly motivated scientists seeking to develop, carry out and coordinate research in Portuguese research units as host institutions.

The host institutions eligible for this call are the research units financed by FCT, I.P. or, whenever they do not constitute a legal entity with the capacity to sign a contract with FCT, their legal hosting institution which might include all public or private institutions that have R&D activities as their main objective, including higher education institutions, state laboratories and international laboratories located in Portugal, research institutions, associated laboratories and collaborative laboratories.

The research contracts to be funded under this call consider **four levels**, corresponding to different career stages:

- a) **Junior researcher**: Ph.D. holders with limited post-doctoral experience in the scientific area of application;
- b) **Assistant researcher**: Ph.D. holders with more than 5 years of post-doctoral research, with relevant experience in the scientific area of application and limited scientific independence;
- c) **Principal researcher**: Ph.D. holders with more than 5 years of post-doctoral research, with relevant experience in the scientific area of application and demonstrating scientific independence for the last 3 years;
- d) **Coordinating researcher**: Ph.D. holders with more than 5 years of post-doctoral research, holders of a title of *agregação* or *habilitação*, with relevant experience and demonstrating scientific independence and recognized leadership in the scientific area of application.

Research independence is demonstrated through scientific competence, originality and international recognition, by experience in doctoral or post-doctoral supervision, or by competitive research funds attracted at national or international level.

Scientific leadership requires the demonstration of innovative research and technological development of recognized merit and quality, the contribution to the advancement of knowledge or its application, and the acknowledgement of his/her role as a national or international reference in his/her scientific area. Examples



of scientific leadership include the coordination of research groups or centres, of international research projects, or the delivery of plenary talks in high level events.

Each applicant can only submit one application and it is the applicant's responsibility to choose the most suitable research contract level to which he/she applies.



3. COMPONENTS OF THE APPLICATION

Applications are submitted online via a dedicated FCT web application.

The application comprises the following parts to be evaluated:

- a) Research plan, including title, summary and a rigorous selection of the main activities to be developed, the expected results and the clear identification of a mission and scientific challenges to be considered in the framework of one or more of the 17 UN Sustainable Development Goals (2030 Agenda);
- b) Synopsis of the scientific and curricular path, highlighting the main activities and results obtained in the last 5 years;
- c) Curriculum vitae;
- d) Motivation letter, identifying up to two main contributions of the candidate in the last 5 years and the expected main contributions for the next years;
- e) Synopsis of the host conditions and description of the integration of the proposed research plan into the strategy of the associated research unit.

The application form includes the following sections that are relevant for the evaluation:

A. General description of the application

Research contract level to which the candidate is applying; Title of the project; Orcid-ID; Scientific areas (main and secondary); Keywords; 2030 Agenda goals addressed; Date of PhD completion; University of PhD award; Conflict of interests (optional).

B. Description of the application

Research plan, including: Summary; Background; Research plan and methods; Expected outcomes; Eventual ethical issues related with the research plan activities and results, and how they will be addressed; Succinct justification of the alignment of the mission and scientific challenge identified in the research plan with the framework of any of the 2030 Agenda goals; References.

C. Synopsis of the applicant's CV

Synopsis of the scientific and curricular path; Main activities and results obtained in the last 5 years.

D. Motivation letter

The letter should include up to two of the main contributions in the last 5 years and the expected future main contributions.



E. Host institution

Host institution; Succinct description of the host conditions; Integration of the research plan into the host institution's strategy

The CV should be submitted/updated on the <u>CIÊNCIAVITAE</u> and/or on <u>FCT-SIG Information System</u>, and is an integral component of the application.

The applicants identify, from the list provided (Appendix I - OECD's revised Field of Science and Technology FOS), the most relevant scientific area (primary and secondary) of the research plan. The applicants should also indicate 5 keywords that most accurately reflect the scientific content of the proposed research plan as well as the most relevant 2030 Agenda Goal(s) addressed.

It is the applicant's responsibility to identify the research unit supported by FCT that will constitute the host institution and to obtain the agreement required to carry out the scientific research plan. The host institution must commit itself to provide all resources, including materials, support services, critical mass and institutional policies to ensure the implementation of the research plan.

There is no pre-established structure to describe the research plan, the synopsis of the scientific and curricular path, the motivation letter, and the host conditions. To facilitate the application and evaluation, the form contains predefined text boxes that describe the key points of the application.



4. EVALUATION CRITERIA

The evaluation of the application will focus on the relevance, quality and up-to-date of the following criteria:

- A. Merit of the candidate
- B. Merit of the proposed research plan

The assessment of the **merit of the candidate** is based on the curriculum vitae and motivation letter with emphasis on the scientific, technological, cultural or artistic achievements and the applied research or research based in practice, that the applicant considers as most relevant or more impactful. This criterion also considers other activities considered relevant by the applicant, such as management of science, technology and innovation programmes or projects, scientific supervision and outreach activities and dissemination of knowledge, namely for the promotion of culture and scientific practices. The evaluation must take into account the career level selected by the applicant, namely regarding the evaluation of scientific independence (for principal and coordinating researchers) and of scientific leadership (for coordinating researchers). While taking into account the full professional path of the applicant, the evaluation should be focused on the last 5 years (or eventually less, for junior researchers, or more under specific conditions, such as maternity/paternity or serious illness that impacted on his/her scientific activity - this should be referred to in the synopsis of the cv).

The assessment of **the merit of the research plan** should take into consideration the following aspects: the relevance and innovative nature of the proposed research plan (based on the state-of-the-art in a given scientific area and previous work done by the applicant); progress beyond the current state-of-the-art; adequacy of the methodology adopted, feasibility of the work plan and quality of the host conditions and fit into its R&D strategy; the clarity of the identification of a mission and scientific challenges addressed by the research plan and its alignment with the framework of any of the 2030 Agenda goals.

The assessment of the integration of the proposed research plan into the strategy of the associated research unit takes into account the description provided for the host conditions and research strategy, and how the proposed research plan, the expected results and the applicant's motivations contribute to it.

If the applicant considers that the area of his/her research plan is not fully described by the list of subareas given in Appendix I, he/she should state so in the motivation letter.



5. SCORING

The scoring system uses a 10-point scale, using 0.1 increments. The highest score is 10 and the lowest is 1.

Each criterion is scored individually. The final score (CF) is given by the following formula: CF = 0.7A + 0.3B.

The minimum merit threshold for a proposal to be considered for funding is 8.0.

In cases of ties, the score awarded to criterion B will be considered for tie-breaking purposes. If a tie remains, the birth date of the applicant will be applied by selection of the younger candidate. In case of a still remaining tie, the date of application submission will be used for the tie-breaking.



6. EVALUATION PROCESS

Applications will be evaluated by evaluation panels according to the scientific area identified by the candidates. The evaluation panels will be formed as follows: a) each secondary scientific area (Appendix 1) is assigned to an individual evaluation panel; b) secondary scientific areas with less than 100 applications may be merged with other secondary scientific areas (Appendix 1); c) each panel has a chair, which is appointed by FCT among its members; d) the chairs of all evaluation panels constitute the coordinating evaluation panel, which will be chaired by the global evaluation coordinator appointed by FCT.

Each evaluation panel will have access to all the applications submitted to the corresponding scientific area(s). Eligible applications are assessed by the evaluation panels based on the information provided by the candidate. Each application will be assessed by at least two reviewers. One of the panel members will be appointed as lead reviewer for each application. If considered necessary by the chair of the evaluation panel, external experts may be called to support the evaluation process, as reviewers.

The evaluation made by the individual reviewers includes:

- Rating each of the two criteria using the 10-point scale with 0.1 increments, considering the level of
 requirements adequate for each category (from junior researcher to coordinating researcher). The
 weighted score of each application will be calculated taking into account the weight given to each
 component of the application;
- Providing overall comments, which should fully explain the judgment on the application for the specific career level and the score given. These comments should be objective and substantial, highlighting the strengths and weaknesses for the specific career level.

The lead reviewer shall compile a consensus report based on the individual reviews to be submitted to the panel.

Each evaluation panel will meet, in presence or remotely, under the coordination of the panel chair, to proceed with the following activities:

- Ensure that each application receives a fair judgment and is discussed appropriately;
- Compile the evaluation panel report for each application, based on the respective draft prepared by the lead reviewer, and check for inconsistencies;
- Compile the scoring of all applications making sure the criteria adopted are coherent within and across each research contract level;
- Prepare a ranked list of the applications for each of the four levels;
- Prepare a panel report to be analysed by the coordinating evaluation panel.



The coordinating evaluation panel brings together the global evaluation coordinator and the chairs of each evaluation panel in a meeting that will take place in FCT's premises. The meeting activities include:

- Calibrate the scoring across panels;
- Approve the final evaluation report for each application, ensuring that, for each application the scoring is consistent with the report;
- Establish the rationale for distributing the positions by panel and contract level;
- Generate a consolidated ranking list of all applications for each position level;
- Prepare the evaluation meeting report with a summary of the meeting, the ranked lists by panel and contract level, the consolidated ranking list per contract level, and comments regarding the evaluation process.

The ranked list of the applications is produced by the coordinating evaluation panel for each of the four research contract levels open under this call. From that list, those with the highest scores, equal to or above 8.0, are selected for funding, up to the number of available positions.



7. FEEDBACK TO APPLICANTS

Reviewers should comply with the following additional guidelines in the evaluation reports:

- Avoid comments that give a description or a summary of the application;
- Never use the first person or equivalent (e.g., "I think...", "This reviewer finds..."); instead, expressions such as "The panel..." or "It is considered..." should be used;
- Always use dispassionate and analytical language: avoid dismissive statements about the applicant, the proposed science, or the scientific field concerned;
- 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 (with spaces) is required. The use of standard comments is strongly discouraged.



8. CONFIDENTIALITY AND CONFLICT OF INTERESTS

Confidentiality

The confidentiality of the applications must be protected. 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 relative to the contents of the applications and to the results of the evaluation. The first time a reviewer has access to the evaluation area, he/she will have to confirm the following statement:

STATEMENT OF CONFIDENTIALITY

Thank you for accepting to participate in the scientific evaluation of the Stimulus of Scientific Employment – Individual Support submitted to the *Fundação para a Ciência e a Tecnologia, I.P.* (FCT, I.P.).

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 the FCT, I.P. or the Evaluation Panel, the results of the evaluation.

Conflict of Interests (Col)

Researchers with first-degree relationships, domestic partnership or married to an applicant are hindered from being a member of the panel to which the application was submitted. Any CoI must be declared prior to the evaluation process.

Disqualifying conflict of interests

In case a disqualifying CoI is identified for an application, the panel member cannot evaluate it nor participate in its discussion. Circumstances that should be interpreted as a disqualifying CoI are laid down in the following criteria:

- 1. Personal or financial interest in the application's success;
- 2. Current or planned close scientific cooperation;
- 3. Research cooperation (*e.g.*, joint publications) within the last 3 years before the opening date of the call;
- 4. Dependent employment relationship or supervisory relationship (e.g., teacher-student relationship up to and including the post-doctoral phase), within the last 5 years before the opening date of the call;



- 5. Affiliation, or pending transfer, to any of the departments or research centres involved in the application;
- 6. Be an active member in a council or similar supervisory board of the department or research centre to which the applicant has been affiliated to within the last 3 years or will be connected to in the scope of the application;

Potential conflict of interests

In the case of a potential CoI, the panel member should notify FCT and clarify if he/she considers to be able to perform an unbiased evaluation or if the conflict should rather be considered as disqualifying. FCT will make a decision whether the situation in question constitutes an actual CoI or no CoI exists. A potential CoI exists in the following circumstances:

- 7. Relationships other than first-degree, marriage or domestic partnership; other personal ties or conflicts;
- 8. Professional relationships, other than those listed under no. 4;
- 9. Participation in university bodies other than those listed under no. 6, *e.g.*, scientific advisory committees in the research environment;
- 10. Involvement in a project with a closely related research topic (competition issues);
- 11. Participating in an on-going scientific or inter-personal conflict with the applicant.

Before starting the evaluation of each application, and in order to access the evaluation form, the reviewer needs to complete a CoI declaration, where a disqualifying or potential CoI should be clarified. In case of a disqualifying CoI, the reviewer will not be able to proceed with the evaluation and should immediately inform the Panel Chair and the FCT team, so that the application may be reassigned. The panel meeting report must mention all declared CoI.



APPENDIX I – FIELDS OF SCIENCE AND TECHNOLOGY CLASSIFICATION

OECD's revised Field of Science and Technology Classification - FOS

Main scientific area	Secondary scientific area
1. Natural sciences	1.1 Mathematics
	1.2 Computer and information sciences
	1.3 Physical sciences
	1.4 Chemical sciences
	1.5 Earth and related environmental sciences
	1.6 Biological sciences
	1.7 Other natural sciences
2. Engineering and technology	2.1 Civil engineering
	2.2 Electrical engineering, electronic engineering, information engineering
	2.3 Mechanical engineering and engineering systems
	2.4 Chemical engineering
	2.5 Materials engineering
	2.6 Medical engineering
	2.7 Environmental engineering
	2.8 Environmental biotechnology
	2.9 Industrial biotechnology
	2.10 Nano-technology
	2.11 Other engineering and technologies
3. Medical and health sciences	3.1 Basic medicine
	3.2 Clinical medicine
	3.3 Health sciences
	3.4 Medical biotechnology
	3.5 Other medical science
4. Agricultural and veterinary sciences	4.1 Agriculture, forestry, and fisheries
	4.2 Animal and dairy science
	4.3 Veterinary science
	4.4 Agricultural biotechnology
	4.5 Other agricultural sciences
5. Social sciences	5.1 Psychology and cognitive sciences
	5.2 Economics and business
	5.3 Education
	5.4 Sociology
	5.5 Law
	5.6 Political science
	5.7 Social and economic geography
	5.8 Media and communications
	5.9 Other social sciences
6. Humanities and the arts	6.1 History and archaeology
	6.2 Languages and literature
	6.3 Philosophy, ethics and religion
	6.4 Arts (arts, history of arts, performing arts, music)
	6.5 Other humanities