



FCT

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

EVALUATION GUIDE

FCT Evaluation of R&D Units 2013

31 July 2013



FCT

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

Contents

1. Introduction	4
FCT mission.....	4
Funding of R&D Units	4
2. 2013 Evaluation of R&D Units.....	6
Objectives and main criteria.....	6
Main features	6
Application Components	7
3. Evaluation Criteria and Scoring System.....	8
General Evaluation Criteria	8
Application Components	9
Scoring System.....	10
4. Evaluation Committees and Stages	12
Feedback to the Applicants.....	18
FCT Evaluation Webpage	19
Evaluation Timeline	20
5. Confidentiality and Conflicts of Interest.....	21
Confidentiality	21
Conflict of interest (Col)	21
6. Annex I – Scientific Domains and Areas.....	23
Life and Health Sciences	23
Exact Sciences and Engineering	23
Natural and Environmental Sciences	23
Social Sciences and Humanities.....	24
7. Annex II – Core Funding	25
8. Annex III – Mission Statements	26
Life and Health Sciences	26
Exact Sciences and Engineering	26
Natural and Environmental Sciences	26
Economic and Social Sciences.....	27
Arts and Humanities.....	27
9. Annex IV – Research Outputs	28



FCT

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

Life and Health Sciences	28
Exact Sciences and Engineering	28
Natural and Environmental Sciences	28
Economic and Social Sciences	28
Arts and Humanities	29
10. Annex V – Laboratory Intensity Levels.....	30



FCT

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

1. Introduction

FCT 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 science and technology policy of the Portuguese government.

FCT promotes excellence, innovation and international competitiveness across all areas of scientific research.

FCT supports, funds and assesses the brightest minds, ground-breaking ideas and internationally competitive research centres. FCT aims to create a talent-base of researchers through sustainable advanced training and science 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; allow access of the scientific community to state-of-the-art infrastructures and support the development of internationally leading research centres.

FCT's main functions are:

- to promote, evaluate, fund and accompany research units, programmes, projects, advanced education and training and science careers;
- to promote and support infrastructures for scientific research and technological development;
- to promote the diffusion of scientific and technological culture and knowledge;
- to stimulate availability, interconnection and reinforcement of up-to date science and technology information sources.

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

Funding of R&D Units

Most of the Portuguese scientific research is carried out in R&D Units (of which some have the statute of Associate Laboratories) funded and evaluated by FCT. There are currently 293 R&D Units and 26 Associate Laboratories, where over 22 000 researchers develop their work.

The research carried out at these institutions encompasses all fields of science and is organized in 47 scientific areas that cover the 4 **scientific domains** corresponding to the Scientific Councils of FCT (cf. Annex I):

- Life and Health Sciences;

- Exact Sciences and Engineering;
- Natural and Environmental Sciences;
- Social Sciences and Humanities.

R&D institutions are regularly evaluated by FCT, with a periodicity of about 5 to 6 years. Evaluation involves international panels of scientists recognized in their fields of research. The results of each evaluation determine the funding of the R&D Units.

Each evaluation process entails a public announcement detailing specific aspects of the call including requirements that applicants should fulfil and the evaluation criteria to be applied. The rules under which the applications and the accepted proposals are governed are stated in public documents available on the [FCT website](#).

2. 2013 Evaluation of R&D Units

Objectives and main criteria

The 2013 R&D Units evaluation call is the FCT's foremost funding instrument for promoting quality in research performed in Portugal. Establishing R&D Units with long-term and stable funding gives the institutions an opportunity to restructure their research activities and develop new collaborative relationships to enhance their position on the international research front.

A high level of scientific merit, by international standards, is the main criterion used to assess and to prioritise funding. This criterion applies to the past and future planned research activities as well as to the R&D Unit's research team.

Main features

The 2013 evaluation process will consist of a complete assessment of all R&D Units in order to ensure the funding model of these institutions. The allocated funding is intended to guarantee the concretion of activities that can enhance the R&D Units and establish or broaden the conditions for a better achievement of their goals, to strengthen the strategic activities of the R&D Units of recognized merit, and to financially complement the research and development activities developed by each R&D Unit.

The funding of the R&D Units will be divided into two major components:

- (1) A **core funding component**, to be allocated to R&D Units classified as "Good" or above according to the classification obtained by each R&D Unit in the evaluation process, indexed to the size of the R&D Unit (considering the number of integrated PhD researchers) and to a correction factor corresponding to the level of laboratory intensity. (Please see Annex II).
- (2) A **strategic funding component**, to be allocated to R&D Units classified as "Exceptional", "Excellent" or "Very Good" according to the recommendations of the evaluation panels.

The current periodic evaluation of each R&D Unit should take into account two major aspects:

- (1) The scientific and technological activities undertaken since the last periodic evaluation (2007/2008);
- (2) The research strategies and planned work for the next six years, which should be consolidated as a strategic programme.

All R&D Units are expected to meet the **Mission Statements** (see annex III) of their corresponding scientific domain with the highest possible standards. Consequently, it is expected that all R&D Units selected for funding in the evaluation process meet these standards.

After completion of the whole evaluation process, the assessment of R&D Units is valid for a period of six years. However, all R&D Units will be subject to mid-term evaluations that can result in a proposal to change the obtained classification and therefore, the attributed funding.

The Public Announcement of the evaluation process is publicized on FCT's website and disseminated by a mass email to all R&D Units directors.

Application Components

Applications are submitted online via a specially designed [FCT Web application](#). A single submission of the full proposal is followed by a two-step evaluation process. 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 two main elements to be provided in the application are the R&D Unit's **Performance Indicators for 2008-2012 and the Strategic Programme for 2015-2020**. All elements will be subject to evaluation in regards to these two main elements.

3. Evaluation Criteria and Scoring System

General Evaluation Criteria

The evaluation process is based on the following main criteria:

- A. Productivity and contribution to the National Scientific and Technological System (NSTS);
- B. Scientific and technological merit of the research team;
- C. Scientific merit and innovative nature of the strategic programme;
- D. Feasibility of the work plan and reasonability of the requested budget;
- E. Impact of the scientific, technological and cultural output¹.

Application of these criteria shall take into account, among other considerations, the following aspects:

A. For **criterion A**:

- i.) Research outputs²; knowledge and technology transfer activities, when applicable, giving particular importance to the registration and value of patents, models or other relevant innovation indicators;
- ii.) Contribution to the accumulation of knowledge and skills of the National Science and Technology System (expected effects and results); contribution to the advanced training of researchers; contribution to the promotion and dissemination of scientific and technological research; dissemination of results and actions to promote scientific culture, as well as participation in activities designed to promote public understanding of science, technology, art and culture; relationship between available past funding and output;
- iii.) Degree of multidisciplinary and of internationalization, when relevant.

B. For **criterion B**:

- i.) Scientific productivity and merit of the results of the Unit's research, taking into account the relevance of both current and planned research, as well as the level of internationalization of scientific activities, including publications and citations of published works or other relevant aspects;
- ii.) Skills and composition of the research team to adequately execute the proposed program;
- iii.) Ability to successfully compete for national and international research grants and contracts, including contracts with companies.

C. For **criterion C**:

- i.) Relevance, originality and impact of the proposed strategic programme;
- ii.) Contribution of the scientific, technological, artistic or cultural activities of the proposed programme for a smart specialization strategy of the region in which the R&D Unit is incorporated;

¹ Criterion E only applies to the 2nd stage of the evaluation process.

² For the definition of **Research Output**, please see Annex III.

iii.) Degree of multidisciplinary and of internationalization, when relevant.

D. For **criterion D**:

- i.) Organisation of the programme in terms of the proposed objectives and resources (budget, duration, infrastructures); organisation and work environment, with special focus on the adequacy of the research team's critical mass to perform the proposed objectives and on the management of resources directed to research activities, which includes supervision of post-graduate students and post-doctoral involvement in R&D activities;
- ii.) Adequacy of proposed budget to accomplish the proposed strategic programme;
- iii.) Institutional resources (technical, scientific, organisational and managerial) of the participating entities. The commitment of the host institution in providing the manpower and material resources to implement the proposed programme is especially valued.

E. For **criterion E**:

- i.) Production of knowledge likely to stimulate a knowledge-based economy and likely to be used by the productive structures, when applicable;
- ii.) Contribution of the R&D Unit to the national and regional economic growth and development;
- iii.) Knowledge and technology transfer and its dissemination.

The relative weighting of the subcriteria within **Criteria A to E** will depend on the specific research profile(s) of the R&D Units (basic research or applied research/experimental development).

Application Components

The evaluation will entail an assessment of the **performance indicators** since the last evaluation exercise, as well as the merit of the **strategic programme**. The evaluation and selection process will use diverse criteria for these 2 components of the application under evaluation. The **Mission Statements** (Annex III) of each scientific domain should be taken into account for the evaluation of both components.

The table below presents the relevant criteria for each of the different components of the application:

Application components	Evaluation criteria
Performance Indicators	A. Productivity and contribution to the National Scientific and Technological System (NSTS)
	B. Scientific and technological merit of the research team
	E. Impact of the scientific, technological and cultural outputs (only applies to the second stage of the evaluation)
Strategic Programme	B. Scientific merit of the research team
	C. Scientific merit and innovative nature of the strategic programme
	D. Feasibility of the work plan and reasonability of the requested budget
	E. Impact of the scientific, technological and cultural output (only applies to the second stage of the evaluation)



FCT

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

Scoring System

1ST STAGE OF THE EVALUATION

In the 1st stage of the evaluation process, the different evaluation criteria are rated using a **5-point scale** (5 being the maximum and 1 being the minimum scores) weighted as follows:

Criterion A – 25%

Criterion B – 25%

Criterion C – 25%

Criterion D – 25%

2ND STAGE OF THE EVALUATION

In the 2nd stage of the evaluation process, the different evaluation criteria are rated using a **10-point scale** (10 being the maximum and 1 being the minimum scores) weighted as follows:

Criterion A – 20% to 35%

Criterion B – 20 %

Criterion C – 20%

Criterion D – 20 %

Criterion E – 5% to 20%

The relative weighting of **Criteria A and E** depends on the specific research profile(s) of the R&D Units (basic research or applied research/experimental development). Therefore, R&D Units with a basic research profile will be assessed with a lower weighting in criteria E (i.e. 5%), which will be balanced by a higher weighting in criteria A.

In both stages, reviewers must identify strengths and weaknesses (if any) for each criterion and should provide context for their comments.

QUALITATIVE OVERALL GRADING

For the purpose of funding, all R&D Units will also be given a qualitative overall grading at the end of the evaluation process.

In the **1st stage of the evaluation process**, a qualitative overall grading should be immediately attributed to the R&D Units whose applications are not pre-selected to the 2nd stage. In this case, the grading is arithmetically calculated according to the overall sum of all four evaluation criteria ratings (see table below).

In order to qualify for the 2nd stage of the evaluation process, R&D Units must receive a rating of ≥ 15 .

In the **2nd stage of the evaluation process**, the qualitative overall grading should be based on the evaluation committee's own judgment of the general merit of each R&D Unit, after the visit/interview, without resorting to any sort of quantitative algorithms based on the ratings attributed to each individual criterion.

Grade	Description	1st Stage Cumulative Score
Exceptional	R&D Unit recognized as an international reference for its scientific and technological output and exceptional contributions to its area of research	$\geq 15^1$
Excellent	R&D Unit distinguished by the high quality and international merit of its scientific and technology output and with significant contributions to its area of research	$\geq 15^1$
Very Good	R&D Unit with high quality and national merit and with significant contributions of international relevance in its area of research	$\geq 15^1$
Good	R&D Unit with quality at the national level, reduced internationalization and some contributions to its area of research	< 15 $> 12^2$
Fair	R&D Unit without significant contributions to its area of research	≤ 12 $> 11^3$
Poor	R&D Unit without contributions to its area of research and with other weaknesses.	< 11

1 Additionally the application must score at least 4 points in each of the ratings of criteria A and C, and it must also score at least 3 points in each of the ratings of criteria B and D.

2 Additionally the application must score at least 3 points in any of the four evaluation criteria ratings.

3 Additionally the application must score at least 3 points in each of the ratings of criteria A and C, and it must also score at least 2 points in each of the ratings of criteria B and D.

4. Evaluation Committees and Stages

The evaluation process of eligible applications comprises two stages. At each stage different subcommittees carry out differentiated assessments towards a final evaluation.

1ST STAGE OF THE EVALUATION

The first stage of the evaluation process focuses only on the **application forms** submitted by each R&D Unit and it consists on a **pre-selection procedure** to identify the R&D Units that gather the minimum requirements for the more detailed assessment that takes place in the second stage of the evaluation. The 1st stage of the evaluation will also serve as a preparation for the 2nd stage for the R&D Units that are pre-selected to go through.

Applicants may propose up to three names of experts whom they consider to be qualified to assess the application.

Evaluation Panels and Working Groups

- All applications will be subjected to scientific evaluation distributed by four panels, which are responsible for the preliminary remote reviewing of all applications. This distribution is in accordance with the four major scientific domains under the aegis of the Scientific Councils of FCT.
- The constitution of the evaluation panels will take into consideration the number of applications for each scientific domain, a good gender balance as well as a fair geographic and institutional distribution of evaluators. The composition of the evaluation panels will be published in the FCT website.
- The members of each panel will, in turn, be distributed by **several workgroups of four elements** each. Every workgroup will be responsible for the remote assessment of about **10 proposals** in a given scientific area.
- All workgroups members should consider possible conflicts of interest and observe the confidentiality statements (see section 5. "Confidentiality and Conflicts of Interest").
- One member of each workgroup will be designated the coordinator of the workgroup. Optimally the workgroup coordinator will also be a member of one of the evaluation panels of the 2nd stage of the evaluation.
- R&D Units that have explicitly indicated an interdisciplinary profile in the application form will be remotely reviewed by more than one workgroup.

Individual Reviews

- Up to **5 individual reviews** will be remotely prepared for each application, according to the evaluation criteria of the 1st stage of the evaluation (see section 3. “Evaluation Criteria and Scoring System”).
- All 4 members of the workgroup will remotely elaborate an individual review for each one of the 10 proposals assigned to the workgroup.
- One of the three experts indicated by each R&D Unit will be invited by FCT to elaborate a individual review.
- Both workgroup members and experts must submit their individual reviews for each proposal in the **Individual Reviewer Evaluation Form** and lock them. These should include:
 - the rating (on a scale of a minimum of 1 to a maximum of 5) and comments for each of the four evaluation criteria;
 - a general comment on the application;
 - specific directions and suggestions for the 2nd stage of the evaluation.

The reviews 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 workgroup, individual comments may be reproduced totally or partially in the feedback to the applicants;
- confidential comments to the workgroup can also be provided.

Both ratings and comments are critically important. The individual review ratings and comments are the starting point for the consensus report.

Consensus Reports

- One member of the workgroup will be designated the coordinator of the workgroup, while the remaining three members will be designated to elaborate the consensus reports for a given number of applications (the experts suggested by each R&D Unit will not coordinate nor write the consensus reports, but should also take part in the discussions).
- Each member of the workgroup designated for this task should prepare a **consensus report** based on the individual reviews submitted beforehand and on their remote discussion by the different reviewers. These reports, which will constitute the 1st stage feedback to the applicants, should be submitted in the **Consensus Report Evaluation Form**, and should include:
 - the rating (on a scale of a minimum of 1 to a maximum of 5) and the comments for each of the four criteria;

- the validation of the research profile(s) (basic research, applied and/or experimental development research) indicated by each R&D Unit in the application form;
- the validation of the laboratorial intensity levels (see Annex V) indicated by each R&D Unit in the application form since it will have direct implications on the core funding component awarded;
- a general comment on the application, to be transmitted to the applicants, and which can include questions to be answered in the 2nd stage of the evaluation;
- specific directions and suggestions for the evaluation panels of the 2nd stage of the evaluation (which will not be transmitted to the applicants, but will serve to elaborate the schedules for the visits to the R&D Units or interviews with the applicants in the 2nd stage);
- confidential comments to FCT, if necessary;
- 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).

Both ratings and comments are critically important. The consensus reports' comments will constitute the feedback to be transmitted to all applicants in the 1st stage of the evaluation process.

- The coordinator of the workgroup will be in charge of arbitrating the discussions of each application and the corresponding consensus reports.

Results and Rebuttal

- All applicants will receive the consensus reports comments, regardless of being pre-selected or not to the 2nd stage of the evaluation process. The candidates whose applications will not be selected for the 2nd stage of the evaluation will also receive the individual ratings attributed to each evaluation criteria in their corresponding consensus report.
- The R&D Units whose applications are selected for the 2nd stage will only receive their qualitative overall grading at the end of the whole evaluation process. In order to be **selected for the 2nd stage** of the evaluation process, an application must:
 - (a) Score at least 15 points in the overall sum of all four evaluation criteria ratings;
 - (b) Score at least 4 points in each of the ratings of criteria A and C;
 - (c) Score at least 3 points in each of the ratings of criteria B and D.

- The remaining applications **will not be selected to the 2nd stage** of the evaluation process and their corresponding R&D Units will immediately receive a qualitative overall grading (see section 3. “Evaluation Criteria and Scoring System”), according to the following standards:
 - a R&D Unit will be graded as “**Good**” if its application:
 - (a) Scores 13 or 14 points in the overall sum of all four evaluation criteria ratings;
 - (b) Scores at least 3 points in any of the four evaluation criteria ratings.
 - a R&D Unit will be graded as “**Fair**” if its application:
 - (a) Scores 11 or 12 points in the overall sum of all four evaluation criteria ratings;
 - (b) Scores at least 3 points in each of the ratings of criteria A and C;
 - (c) Scores at least 2 points in each of the ratings of criteria B and D.
 - a R&D Unit will be graded as “**Poor**” if its application:
 - (a) Scores less than 11 points in the overall sum of all four evaluation criteria ratings;
 - (b) Scores less than 3 points in each of the ratings of criteria A and C;
 - (c) Scores less than 2 points in each of the ratings of criteria B and D.
- After the end of this 1st stage of the evaluation exercise, all applicants will have the opportunity to prepare responses to the assessments and comments contained in the received consensus reports (**rebuttal phase**). When applicable, these responses should be taken into account by the evaluation committees of the 2nd stage of the evaluation.
- In accordance with the Portuguese law, the candidates will also have the right to submit a prior hearing, within 10 days after notification of the results, which should be answered before the beginning of the 2nd stage of the evaluation process.

2ND STAGE OF THE EVALUATION

The second stage of the evaluation process consists mainly on a more detailed assessment – preferentially undertaken under the form of site visits or through interviews with the Unit directors – to all the R&D Units that have been pre-selected in the first stage of the evaluation, and the corresponding reports and final qualitative overall grading.

Evaluation Panels

- Site visits to all R&D Units, or an interview with their representatives, will be undertaken by specialized evaluation panels. The distribution of the panels will take in account the main scientific areas of the R&D Units.
- Each evaluation panel will be composed by **4 or 5 specialists** of internationally recognized merit and competence. The constitution of the evaluation panels will take into consideration the number of applications for each scientific area, a good gender balance as well as a fair

geographic and institutional distribution of evaluators. The composition of the evaluation panels will be published in the FCT website.

- The coordinators of the workgroups of the 1st stage of the evaluation process should be part of the evaluation panels of the 2nd stage.
- Each evaluation panel will visit **up to 10 R&D Units** or perform interviews with their directors and representatives.
- One of the members of each panel will be designated the **panel chair**. The panel chair will be a regular member of the panel with the added duties of coordinating and moderating the site visits or interviews, of elaborating the panel reports, and of conveying the results of the discussions to the Board of Directors of FCT. In designating the panel chairs, preference will be given to coordinators of the workgroups of the 1st stage of the evaluation process.
- FCT will also designate **one or more observers** for the 2nd stage of the evaluation process. The observers will not take part in the assessment of the R&D Units, nor will he or she be integrated in any evaluation panel, but will work in close contact with the evaluation panels chairs. The role of the general observer will be to ensure the consistency of the process and to advise the panel chairs and members, if needed. The general observer will also coordinate the preparation of an overall final report with the results of the evaluation and selection process.

Preliminary Procedures

- All panel members should consider possible conflicts of interest and observe the confidentiality statements (see section 5. “Confidentiality and Conflicts of Interest”).
- All panel members should read all the applications submitted by the R&D Units they will assess, as well as the consensus reports of the 1st stage of the evaluation process and the responses elaborated by the corresponding applicants during the rebuttal phase.
- If considered desirable, the panel chairs should request additional relevant material to the R&D Units before the site visits or interviews take place.
- The detailed procedures for the site visits and interviews will be decided in a preliminary meeting of all panels’ chairs with the Board of Directors of FCT and will be published before the beginning of the 2nd stage of the evaluation process.
- Each panel chair is responsible, alongside the FCT personnel, to draft a short agenda for each site visit or interview, according to the specificities of each R&D Unit.

Site Visits and/or Interviews

- The detailed procedures for the site visits and/or interviews will be published before the beginning of the 2nd stage of the evaluation process. These should include, among others, meetings with the directors, research leaders and PhD students of each R&D Unit, inspections of the main facilities, observations of work routines, etc.
- All the members of each evaluation panel are supposed to participate in the site visits or interviews, which should be coordinated by the panel chair and supported by staff from FCT.
- At this stage, the evaluation panel should be able to verify and revalidate the research profile(s) (basic research, applied and/or experimental development research) indicated by each R&D Unit in the application form. At this stage, the evaluation panel should also be able to verify and revalidate the laboratorial intensity levels (see Annex V) indicated by each R&D Unit in the application form.

Final Reports and Grading

- One of the evaluation panel members will be designated by the chair to elaborate the final report for each R&D Unit; according to the evaluation criteria of the 2nd stage (see section 3. “Evaluation Criteria and Scoring System”).
- The **final report** should substantiate the overall assessment of the R&D Unit, and should take into account:
 - the conclusions drawn by the panel from the site visit or interview;
 - the consensus reports of the 1st stage, which should be consolidated at this stage;
 - the overall merit of the R&D Unit.
- The final report should be submitted in the **Final Report Evaluation Form**, and should include:
 - the rating (in a scale of a minimum of 1 to a maximum of 10) and the comments for each of the four criteria;
 - budget recommendations (including human resources);
 - a general comment on the application, to be transmitted to the applicants;
 - confidential comments to FCT, if necessary;
 - 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);
 - additionally, the final report should include a brief presentation of the strengths, weaknesses, opportunities and threats of each R&D Unit. This will complete the assessment of each R&D Unit and the corresponding feedback to provide to the applicants, and may also be a concrete starting point for interim evaluations.

Both ratings and comments are critically important. The final reports comments and ratings will constitute the feedback to be transmitted to all applicants in the 2nd stage of the evaluation process.

- The final report should also contain the **qualitative overall grading** to be attributed to the R&D Unit (see section 3. “Evaluation Criteria and Scoring System”), and which will determine the core funding to be awarded. This qualitative overall grading should be based on the evaluation panel’s own judgment of the general merit of the R&D Unit in question, without resorting to any sort of quantitative algorithms based on the different ratings attributed to each individual evaluation criterion (even if these can serve as guidelines).
- If considered necessary, the general observer for the 2nd stage of the evaluation can still decide to schedule a **final meeting** with all the evaluation panel chairs in order to validate and ensure the consistency of the qualitative overall grading of all the assessed R&D Units.
- At the end of the 2nd stage of the evaluation, each panel chair will also be responsible for elaborating a **Panel Report**, with a summary of the assessment steps and comments regarding the evaluation process, and which 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 – Recommendations to FCT, on the various aspects of the evaluation that might help FCT to improve procedures in future evaluation processes. 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 evaluation guide;
- strong and weak aspects of the evaluation web application;
- strong and weak aspects of the FCT team;
- strong and weak aspects on logistic aspects.

Feedback to the Applicants

After the 1st stage of the evaluation process, all candidates will receive the full comments included in the consensus reports on their applications, but only those whose application have not be selected to the 2nd stage will receive the individual ratings attributed to each evaluation criteria. The candidates whose applications are not pre-selected for the 2nd stage will also receive the qualitative grade attributed to their R&D Unit. The candidates whose applications are pre-selected to the 2nd stage will merely receive this additional information.

After the 2nd stage of the evaluation process, all candidates receive the full comments included in the panel reports on their applications, as well as the individual ratings attributed to each evaluation criteria. Additionally, the candidates will also receive the qualitative grade attributed to their R&D Unit.

Members of the evaluation committees are encouraged to observe the following additional guidelines regarding their reports:

- Avoid comments that give a description or a summary of the proposal;
- 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, the proposed science, or the scientific field concerned;
- Evaluate the proposed elements and not the elements that you consider that should have been proposed.

FCT Evaluation Webpage

On both stages of the evaluation process, the username and password sent to each individual reviewer or evaluation panel gives access, through the webpage <https://www.fct.mctes.pt/evaluation> to the list of projects under evaluation and the corresponding evaluation forms. 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.
- the Individual/Panel Evaluation Form;
- 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 or panel members.

Evaluation Timeline

The evaluation timeline is established by the FCT's Board of Directors and conveyed to the evaluation panels' chairs and members. The dates of each visit or interview are established in advance by FCT (which carries out all logistic arrangements).

5. Confidentiality and Conflicts 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 participating in the scientific evaluation of R&D Units submitted to the Portuguese national funding agency *Fundação para a Ciência e a Tecnologia* (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 the evaluation panel, the results of the evaluation.

Conflict of interest (Col)

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 extending five years beyond the conclusion of the relationship;
5. The affiliation or pending transfer to the research unit 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 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 final report.

6.

Annex I – Scientific Domains and Areas

Life and Health Sciences

Scientific Area
Neurosciences, Ageing and Degenerative Diseases
Immunology and Infection
Diagnostic, Therapies and Public Health
Clinical Research
Biomedicine
Biochemical Sciences
Experimental Biology

Exact Sciences and Engineering

Scientific Area
Materials Science and Engineering
Civil Engineering
Electronics and Electrical Engineering
Computer Science and Engineering
Chemistry
Biotechnology
Chemical Engineering
Bioengineering
Nanoscience and Nanotechnology
Mechanical Engineering and Engineering Systems
Physics
Mathematics

Natural and Environmental Sciences

Scientific Area
Animal Science and Veterinarian Science
Agricultural and Forestry Sciences
Bio-Based Product Technology or Food Sciences
Marine Sciences and Technologies
Geosciences
Biological Sciences or Environmental Biology
Environmental Sciences



FCT

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

Social Sciences and Humanities

Scientific Area
Economics
Finance
Business
Geography
Demography
Architecture and Urbanism
Sociology
Anthropology
Political Science
Law
Educational Sciences
Communication and Information Sciences
Linguistics
Archaeology
Philosophy
History
Heritage and Museology
Literary Studies
Art Studies
Design
Psychology

7. Annex II – Core Funding

Distribution of annual core funding according to the laboratory intensity levels, the dimension and to the final grading of the R&D Units

Laboratory Intensity	Dimension	Grade			
		Exceptional (100%)	Excellent (75%)	Very Good (50%)	Good (10%)
High (100%)	Large (100%)	400.000€	300.000€	200.000€	40.000€
	Medium (50%)	200.000€	150.000€	100.000€	20.000€
	Small (25%)	100.000€	75.000€	50.000€	10.000€
Medium (75%)	Large (100%)	300.000€	225.000€	150.000€	30.000€
	Medium (50%)	150.000€	112.500€	75.000€	15.000€
	Small (25%)	75.000€	56.250€	37.500€	7.500€
Low/null (50%)	Large (100%)	200.000€	150.000€	100.000€	20.000€
	Medium (50%)	100.000€	75.000€	50.000€	10.000€
	Small (25%)	50.000€	37.500€	25.000€	5.000€

The R&D Unit's dimension is calculated based on the number of PhD integrated members:

- Small (10 to 40)
- Medium (41 to 80)
- Large (more than 81)

8.

Annex III – Mission Statements

FCT's mission statements aim to guide FCT's action for each scientific domain and to define guidelines for the evaluation of each scientific domain, taking into account its specificities.

Life and Health Sciences

- To promote research that significantly adds to knowledge and critical understanding of biological systems;
- To promote interdisciplinary research that can be translated into the development of innovative tools, strategies and applications for the prevention, diagnostic, treatment and cure of diseases, disabilities or disorders that may affect humankind;
- To produce knowledge that will enhance and extend the quality of life of mankind;
- To promote excellent quality research and development, advanced education and knowledge transfer, interdisciplinarity, ensuring national and international competitiveness in the life and health sciences domain for the benefit of the industrial and health sectors
- To support successful translation of ideas, knowledge, skills and technology arising from research into practical applications that benefit the Portuguese economy and society.

Exact Sciences and Engineering

- To promote research that significantly adds to knowledge and critical understanding of the exact sciences and engineering;
- To promote excellent quality research and development, advanced education and knowledge transfer, interdisciplinarity, ensuring national and international competitiveness in the exact sciences and engineering domain for the benefit of the industrial, health, agricultural and environmental sectors.
- To support successful translation of ideas, knowledge, skills and technology arising from research into practical applications that benefit the Portuguese economy and society.

Natural and Environmental Sciences

- To promote research that significantly adds to knowledge and critical understanding of the natural world and the Universe;



FCT

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

- To promote interdisciplinary research that can be effectively applied in the development of innovative tools, strategies and technologies that will allow a new understanding of the atmosphere, hydrosphere, geosphere, and biosphere, and the processes that connect them;
- To produce knowledge that will help sustain the Earth's natural resources;
- To promote excellent quality research and development, advanced education and knowledge transfer, interdisciplinarity, ensuring national and international competitiveness in the natural and environmental sciences domain for the benefit of the industrial, health, agricultural and environmental sectors;
- To support successful translation of ideas, knowledge, skills and technology arising from research into practical applications that benefit the Portuguese economy and society.

Economic and Social Sciences

- To promote research that significantly adds to knowledge and critical understanding of the economic and social sciences;
- To promote the study and understanding of contemporary societies and their public policies, with particular attention to Portugal and to societies with which Portugal has historical relationships;
- To promote excellent quality research and development, advanced education and knowledge transfer, interdisciplinarity, ensuring national and international competitiveness in the economics and social sciences domain for the benefit of the industrial, health, agricultural and environmental sectors;
- To support successful translation of ideas and knowledge that benefit the Portuguese economy and society.

Arts and Humanities

- To promote research that significantly adds to knowledge and critical understanding of the arts and humanities, exploring interdisciplinary and transdisciplinary approaches;
- To enhance the study of Portugal's history, language, arts, and culture, in a comparative and global frame;
- To use the different forms of knowledge in arts and humanities in order to develop a more general scientific culture - inspired by scientific criteria, rigorous methods of inquiry, and creative attitudes of innovative discoveries.

9.

Annex IV – Research Outputs

The research outputs are defined according to each scientific domain.

Life and Health Sciences

- i. Published papers in peer-reviewed international journals;
- ii. Patents and performing patents;
- iii. Books and book chapters of international circulation.

Exact Sciences and Engineering

- i. Published papers in peer-reviewed international journals;
- ii. Patents and performing patents;
- iii. Books and book chapters of international circulation;
- iv. Conference proceedings³;
- v. New materials, devices, products and processes, software, computer code and algorithms.

Natural and Environmental Sciences

- i. Published papers in peer-reviewed international journals;
- ii. Patents and performing patents;
- iii. Books and book chapters of international circulation.

Economic and Social Sciences

- i. Published papers in international peer-reviewed journals;
- ii. (a) Books, including single-authored works (including scholarly editions of oral or written texts and translations with introduction and commentary); (b) works in co-authorship; (c) edited special issues of journals, with substantial research input on the part of the researcher; (d) chapters in books, including contributions to conference proceedings, essays in collections.

³ By "conference proceedings" it is meant "technical paper in the main proceedings," which excludes abstracts, short papers, papers in satellite workshops, posters, introductions, prefaces, editorial material, summaries, etc.



FCT

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

Arts and Humanities

- i. Published papers in international peer-reviewed journals;
- ii. (a) Books, including single-authored works (including scholarly editions of oral or written texts and translations with introduction and commentary); (b) co-authored works; (c) edited special issues of journals or collections of essays, with substantial research input on the part of the researcher; (d) chapters in books, including contributions to conference proceedings, contributions to *festschriften*, essays in collections; (e) creative writing (to the extent that it embodies research); (f) short works, including dictionary entries (to the extent that they embody research); (g) encyclopaedia entries (to the extent that they embody research); (h) audio/visual and electronic/digital materials; (i) other categories, including web-based resources; video and audio recordings (to the extent that they embody research);
- iii. Performances and exhibitions to the extent that they embody research.

10. Annex V – Laboratory Intensity Levels

Level	Description
High	Equipment / laboratory and experimental component
Medium	Archives for public use and database infrastructures of national and European value
Low/Null	Absence of significant levels of the elements mentioned above

- The three levels of weighting should result in clear criteria;
- The weighting should be applied according to the profile of each R&D Unit and not according to scientific or thematic areas;
- Each R&D Unit should indicate and justify at which category it belongs;
- The evaluation panels are free to accept or change the classification proposed by each R&D Unit;
- The level of laboratory intensity, which is to be validated by the evaluation panels, has direct implications in the core funding attributed to the R&D Units.



FCT

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

www.fct.pt