# **FCT** Fundação para a Ciência e a Tecnologia

MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA



Guide for writing and submitting proposals for SR&TD projects



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# I. INTRODUCTION

This guide to writing and submitting proposals for SR&TD projects is designed to explain the submission process, to facilitate and guide the proposal writing process and to provide information about the evaluation, notification of decision and appeal processes.

It brings together information that is available on the FCT website, on the application form and in the applicable legislation. It does not override the legislation governing the process, but rather highlights important information that the Principal Investigator should be aware of.

At <u>http://www.fct.pt/apoios/projectos/concursos/index.phtml.en</u> you will find a list of recent and currently open calls for R&D project grants. The link for each call leads to the official announcement of that call. The page that displays the official announcement also gives you access to the regulations and the online platform for submitting project grant proposals.

# **Abbreviations**

- FCT Fundação para a Ciência e a Tecnologia [Foundation for Science and Technology]
- PI Principal Investigator
- PC Principal Contractor
- MEC Ministério da Educação e Ciência [Ministry of Education and Science]

# **II. PRIOR TO SUBMISSION**

# CHANGES REGARDING THE 2013 CALL FOR PROJECT GRANTS IN ALL SCIENTIFIC DOMAINS

• The 2014 call for projects in all scientific domains includes a single type of grant, for **Scientific Research and Technological Development Projects**.

# FEATURES THAT HAVE BEEN MAINTAINED, FROM THE 2013 CALL FOR PROJECT GRANTS IN ALL SCIENTIFIC DOMAINS

- The <u>Regulations Governing Access to Funding for Scientific Research and</u> <u>Technological Development Projects – 2010</u> are applicable to the 2014 call. Applicants are advised to should read the regulation, which applies to all calls opened as of 2 August 2010.
- Only one application per Principal Investigator is allowed.
- A **minimum allocated time of 35%** for the PI, and of **15%** for **ALL** the remaining team members, as in the previous call.
- The rule stating that the Acceptance Agreement shall not be made available for signing for any project grant recommended for funding in which any member of the research team exceeds 100% (FTE) dedication, at the onset of the project.
- In case of re-submissions of applications that were submitted in previous calls and not recommended for funding, the reference of the application and a detailed comment to the evaluation panel should be included, with clear indication of the changes introduced in the new proposal. Substantive arguments should be used to objectively address the scientific arguments used by the reviewers in the previous evaluation. Avoid any direct response to the evaluator since he/she will, most likely, not be the same as for the previous applications.
- Up to three names of evaluators that constitute a clear conflict of interest with the current application, may be provided. Criteria for classification of conflicts of interest are listed in the FCT Guide for Peer Reviewers,
- Projects that are still under review in other calls are **not admissible** in this call.
- **Multiple proposals of the same project are not admissible, in accordance** with no. 5 of Article 3 of the <u>Regulations</u>. The application form explicitly requests information concerning situations which may be considered as falling under this rule.
- No application in which the Principal Investigator is in a situation of unjustified noncompliance with the regulatory requirements with respect to submission of scientific reports from previously completed projects will be accepted.
- No application in which the Principal Contractor is in a situation of unjustified noncompliance with the regulatory requirements with respect to submission of

financial reports or return of unused balances from previous projects with the same Principal Investigator **will be accepted**;

- FCT will consider as **invalid** any application for which the **Declarations of Commitment have not been electronically submitted,** or that show **nonconformities** (unduly filled in, incorrect signatures, ...).
- The curricula vitæ of all members of the research team will be copied to the evaluation area immediately when the proposal is locked. Therefore, for the evaluation of the proposal, each curriculum vitæ submitted when the proposal is sealed is what counts, although each researcher may continue to update his/her curriculum vitæ on his/her management page.

# SUGGESTIONS BASED ON THE EXPERIENCE GAINED ON PREVIOUS CALLS

- Even though the PI's minimum allocation time is 35%, a larger allocation is important, as it emphasizes a larger commitment of the PI to the project he/she proposes to lead, and will be seen in a positive light by the evaluation panel.
- Each PI should obtain the agreement for the association of each team member to the project as well as his/her time allocation.
- Please check in time if all the institutions are listed on the FCT database, remember that you should not delay filling out the Pre-registration of Institutions form to request the inclusion of an institution. The new institution will be added to the list of choices within two working days after submission of the form.
- Many evaluation panels from previous calls mentioned that the CVs of the PIs and project key-elements were not sufficiently concise, making it difficult to find the relevant information. We recommend that PIs heed this comment, in particular as regards distinguishing the most important publications and the most relevant activities in recent years. We also suggest that the PI reads and checks all the CVs of the research team members, in particular with regard to the core CVs.
- The field for the **Name in Publications** should be filled in on the FCT-SIG platform. If you do not use the same name in all your publications, just fill it in with the name that is most frequently used or most recent. This information will simplify search of your publications by the evaluators.
- We recommend special attention to the choice of **keywords** that characterise the application considering the **importance of this choice for the evaluation process** and in **the identification of areas/topics of scientific research in Portugal** (see Chapter III of this guide).
- We recommend a careful preparation of the proposal (see the section "How to write a good proposal") to catch the attention of the evaluation panel and to positively respond the highly competitive nature of these calls. FCT's decision to open this type of call on a yearly basis increases the opportunities for submission of proposals but does not decrease the inherently high competitiveness. The comments of the

evaluation panel that are conveyed to the PIs contains, in general, useful guidelines for improvement of the proposals.

- If a proposal is a continuation of previous or ongoing work, this should be clearly stated in the scientific component of the proposal.
- Many proposals tend to request the maximum permissible funds for each grant, that is set out in the Official Announcement, expecting that, even with the possible reductions proposed by the evaluation panels, the approved funds will still be close to the maximum allowed. Overestimated requested funds that are not fully justified are detrimental to the proposal's final score.

# The FCT proposal submission system

The Calls for Project Proposals Portal gives you access to the following sections:

List of projects Proposal form Project summary Sections of the proposal form Overview of the proposal Validate and seal the proposal Instructions for completing the form News Sample overview of the form Sample Declaration of Commitment

The various sections can be accessed from the bar that appears on the left side of the pages. Changes can generally be made to information submitted by clicking on the buttons labeled "Change", "Cancel", "Delete", etc. that appear on the right side of the page. These changes are transmitted to the FCT server by clicking on the buttons labeled "Guardar / Save" located at the bottom of the page. This enables you to work on the application form over several sessions until you consider it complete. Once all of the validation tests have been passed, the proposal is **sealed**, thereby completing the submission process.

Not all of the sections are accessible at the same time. They become accessible as you progress through the form, and sections may be hidden at times so as not to overload the interface.

During the first few days of the call, some sections may not be available, such as "Overview of the proposal" or Validate and seal proposal". Should this occur, FCT will likely be finetuning some of the details in these sections.

# What you should do before submitting a proposal

# **Official Announcement and Regulations**

Before beginning to prepare your proposal, make sure you are well informed of the rules and requirements of the call to which you are submitting a proposal by reading the documents containing this information. This is for the most part administrative and financial information contained in the <u>Regulations</u>, in the <u>Announcement of Call for Proposals</u> and in the <u>Budget</u> <u>Execution Norms</u>.

# No information contained in this Guide is intended to replace or override any stipulations set forth in the <u>Regulations</u> or in the <u>Announcement of the Call for</u> <u>Proposals</u>.

The terms of admissibility of proposals for funding of RS&TD projects, as well as the rules and requirements to be observed in the different phases of the proposal process and execution of the project, should it be approved, are set forth in:

- <u>Regulations Governing Access to Funding for Scientific Research and Technological</u> <u>Development Projects - 2010</u>, which set forth the general terms under which funding may be granted to support scientific and technological research projects through national funding sources and, when eligible, co-funded by the European Regional Development Fund (ERDF) and managed by the Fundação para a Ciência e a Tecnologia (FCT).
- <u>Announcement of Call for Proposals</u>, which sets forth technical stipulations not defined in the regulations or limits the general terms set forth in the regulations. Generally the Announcement of the Call establishes the financial envelope of the call, the maximum amount of funding for each project, the deadlines for submission and the criteria used to evaluate the proposals.

If you intend to include individual grant recipients in your proposal once it has been approved, please consult the following:

- Research Grants in the Framework of R&D Projects

Grant amounts must correspond to the <u>table of fellowship and grant amounts</u> for grants awarded directly by the FCT within Portugal and any other requirements or supplements set forth in the <u>Regulations for Research Fellowships of Fundação para a Ciência e a Tecnologia - 2013</u>.

# **Registering on the Projects Portal**

The PI must be registered on the FCT CV Portal (FCTSIG – Management Information System) in order to submit a proposal. For detailed information on how to register, or how to recover your user name and password if you have lost them or they no longer work, please see the <u>Instructions</u>.

# **Application Form and General Recommendations**

The application form is organized in such a way as to provide the international evaluators with relevant information.

Learn about the structure of the application form and the information it asks for before you begin filling it out. As Principal Investigator you will have to gather information from other colleagues and participating organizations, e.g. their public keys. Get this information early on. If you wish to include a recipient institution that is not available at the base of FCT, remember that you should not delay to fill out the Pre-registration of Institutions form to request that addition. The new institution will be added to the list of choices within two working days after the completion of that form.

The FCT website has an overview of the proposal form available in pdf format.

Read the section on <u>General Recommendations</u> of this chapter, and try to follow these recommendations while you are preparing and submitting your proposal.

#### How to write a good proposal

This guide offers suggestions on how to write a good scientific proposal. Before you start, read the subsection <u>How to write a good proposal</u> and the explanations given in each field of the <u>Scientific Component</u> of the application form. Take note of the instructions regarding the desired content and focus for each of the various fields on the form.

# Who may submit proposals

The proposal must be submitted by the Principal Investigator (PI).

The conditions that the PI must satisfy are set forth in the <u>Regulations</u> and, when applicable, in the <u>Announcement of Call for Proposals</u>.

The recipient entities, i.e. those applying for funding, the role (principal contractor or participating organizations) each plays in the project and the conditions they must satisfy in order to qualify are set forth in the <u>Regulations</u> and, when applicable, in the <u>Announcement of Call for Proposals</u>.

# **General recommendations**

The FCT organizes calls for proposals with a broad range of characteristics. Some involve thousands of applicants. This page contains suggestions for candidates submitting proposals in these calls.

- Probably the best advice we can give any candidate to a major call where proposals are submitted online, such as some of the FCT calls for project proposals, is: **plan and complete your proposal process as early as possible.** That way you can ensure that in the event it is needed, the FCT can provide you the best possible assistance. Don't find yourself in the situation illustrated in the graph below showing when candidates sealed their applications for the call of projects in 2010.
- Answers to emails to support addresses for large calls are only considered until noon of the last day of the call.
- Check out all the sections of the form in advance so you will have an idea of what is being asked for and to give yourself time to gather all the information required for submission (e.g. public keys of colleagues and advisors).

- Read the instructions for filling out the form given in this guide and on the form itself carefully. Also check the list of FAQs. Many of your questions or doubts will be answered in this information. Do this before contacting the FCT with your questions.
- The <u>Announcement of Call for Proposals</u> and the <u>Regulations</u> contain important information that you should be familiar with before you begin to submit your project proposal. Read them carefully.
- Read the <u>News</u> section on the projects portal regularly.
- Create a document in Notepad or another word processor with the contents that you
  will later copy and paste into the application form text fields. This way you will be
  able to fill out the form more quickly and won't run the risk of your session expiring
  before you are able to save the data.
- The proposal **should not** be fully prepared in a word processor and copied to the form only after that. The text should be directly input in the form or, you can copy, paste and save to the form sub-components previously prepared with a word processor. You can always globally visualize the contents of the form, and validate each of its sections thus reducing the errors during project preparation.
- Do not use quotation marks (") to embrace parts of your text. Some types of quotation marks (") may determine that the text after them is ignored. Please verify if your saved text corresponds to what you have planned.
- As you save the data in different fields on the application form, the system will alert you if there are errors; correct the errors as you go along during the proposal writing process. Trying to correct all the errors just before the deadline for submission can be a difficult task or may even disqualify your proposal.
- The system provides an **explanation for each error detected**. Read and interpret this message carefully and proceed accordingly. It is much faster to do this than to contact the FCT to report the error messages you get when you have made a mistake completing the form.
- There is usually a final verification process before <u>sealing</u> the proposal which may detect additional problems. Waiting until the last minute to make corrections can be risky.
- Do not assume that a form or the rules for submission are the same as they were the last time you submitted a proposal for the same type of call.

# How to write a good proposal

This guide provides information on how to write a good R&TD project proposal. This first section gives some general guidelines, which are described in more detail in <u>Section 3 –</u> <u>Scientific Component</u> of the application form.

Write in such a way as to convince a top expert in your field that your ideas deserve to be funded. At the same time, you must convince someone who is scientifically literate, but may not have specific background in your area. The aim of your proposal is to convince the evaluators that the ideas you are proposing are so important that you should be entrusted with the taxpayers' money to develop them. You can also point out the importance of the project in terms of specific national interests should this be the case.

While you are writing the proposal, remember that your goal is to convince the evaluators of the merit of the ideas you hope to develop in the project. You will have to prove that your project is worthy of being funded. Remember that the proposal also represents a commitment in terms of time and involvement and cost, not only on your part as principal investigator, but also on the part of the entire team. Be positive and optimistic, but also realistic in terms of your expectations. If your proposal is approved, you must ensure that the team is capable of carrying out the project as described in the proposal.

**Avoid the temptation to repeat the same text or entire paragraphs in different sections**. The evaluators can always go back and read these paragraphs. Word for word repetitions of portions of text will not advance your proposal in the eyes of the evaluators.

A careful review of the evaluation criteria listed in the <u>Announcement of Call for Proposals</u> will give you a good idea of how the proposal will be evaluated. Read these criteria carefully and make sure that your proposal addresses each one positively.

If you provide the URLs of bibliographic references or other relevant material, **make sure that the links remain active for the duration of the evaluation process**. You must understand that an inactive link will not be viewed favorably by a dedicated evaluator and will be interpreted as evidence of a lack of commitment to the proposal.

Just as in writing good scientific articles, writing a good proposal is an interactive learning process. If your proposal is not successful, don't give up on a good idea – persistence is the name of the game. After venting your frustration, carefully read over the evaluations, assimilate the feedback given by the evaluators and try to answer the following questions: Why wasn't the proposal funded? What can we do differently next time? If your proposal is not funded, it will not be for lack of attention on the part of the evaluators, but rather for lack of good ideas or because the proposal did not communicate your ideas adequately, or because execution of your project may not be compatible with the level of funding of the call for proposals in question.

# How to direct questions to the FCT

Further information on each call may be requested by e-mail, to the address provided in the <u>Announcement of Call for Proposals</u>.

# **III. PREPARATION AND SUBMISSION OF THE PROPOSAL**

The application form has 10 sections:

- 1. <u>Identification of the project</u>
- 2. Institutions involved
- 3. Scientific component
- 4. <u>Research team</u>
- 5. <u>Funded projects</u>
- 6. Outcome indicators
- 7. <u>Budget</u>
- 8. <u>Justification of the budget</u>
- 9. Appendices
- 10. Conflicts of Interest

All fields must be filled out in English, except where indicated otherwise.

In the following subsections of this guide, the content requested in each of the 10 sections of the form, and in particular in Section 3 - <u>Scientific Component</u> is described, and suggestions for writing a good technical/scientific proposal are given.

Many of the fields on the form have character limits. Try to be concise.

Once you enter the <u>projects portal</u>, you will have the option of editing a proposal that has already been created or registering a new proposal, provided that there are calls for proposals underway. If you choose the latter option, you will have access to all the calls for project proposals that are open on that day. Choose the call an/or the scientific domains to which you would like to submit a proposal.

In this phase you will have to fill out:

- Title of the project (in Portuguese and in English)
- Main scientific domain choose from among the options available, which depend on the scientific field to which you are applying

The content of these three fields **can be changed at a later time when you fill out Section 1** - <u>Identification of the project</u> of the application form.

# Identification of the project

When you access this menu for the first time after you have registered your proposal:

- The reference code for the project is automatically generated. This will be the **FCT's unique identification code for the project** until all activities are completed.
- Funding in the amount of 0.00€ is being requested. This amount is updated as you fill out the fields in Section 7 <u>Budget</u>.
- The main scientific domain and the title (in Portuguese and English) will be filled with the data provided by the PI when the project was created. You can change these from this menu.

# Main scientific domain

The main and secondary scientific domains and, if applicable, their sub-domains, must be chosen from among the options available, beginning with the main scientific domain.

The main scientific domain and sub-domain, should there be one, will determine which panel will be in charge of the evaluation.

The secondary scientific domain is optional.

For each call for proposals, a list of domains and sub-domains will be given in the Announcement of the Call in Chapter V of this guide and whenever justifiable (e.g., in the calls in all scientific domains), this list may consulted at

http://www.fct.pt/apoios/projectos/concursos/2012/docs/Dominios e Areas Cientificas C20 12 EN.pdf

# Title of the project (in Portuguese and in English)

The title should be brief and to the point, and should be understandable to a reader with a general scientific background and suitable for public dissemination.

#### Acronym of the project

You can assign an acronym for identification of your project, which should not exceed 15 characters.

#### Keywords (in Portuguese and English)

**Importance in the evaluation process** - must be chosen in order to characterize briefly the scope of the project and assist the FTC in the proper selection of experts that will evaluate it.

**Importance in the identification of areas/topics of scientific research in Portugal** - If the project is related to research in one or more rare diseases, you should indicate as keyword "Rare Disease" followed by the respective Orpha number that identifies the disease and can be found on the website of ORPHANET <a href="http://www.orpha.net/">http://www.orpha.net/</a>

# **Project start date**

Enter in "day-month-year" format. The date may be changed in projects recommended for funding during the Acceptance Agreement signature phase, in accordance with the rules set forth in the <u>Regulations</u>.

#### **Duration in months**

Check the <u>Regulations</u> for the call and the Announcement of the Call to find out the maximum number of months allowed for the project.

# **Institutions Involved**

This section identifies the institutions involved in the project from an administrative and financial standpoint and a scientific standpoint.

The Principal Contractor and the national Participant Organizations, as entities that may receive funds upon the project approval, must have a NIPC (Collective Person Identification Number, Número de Identificação de Pessoa Colectiva in Portuguese). The name under which they apply must be the official designation associated with the referred NIPC.

The foreign institutions, which do not have a NIPC, may apply as Participant Organizations even though with a zero requested budget. The application form presents the NIF or NIPC as being 0 (zero).

Exceptional situations relative to foreign institutions are stated in nº6, Article 2 of the Regulations.

To add an institution, whatever role it plays in the project, click on "Add". Then choose the desired institution from the pull-down list of those available. If you begin to write the first few letters of the name of the institution, the choice of institutions will be narrowed.

If the **institution** meets the requirements but **is not on the list**, yo**u must fill out the Pre-registration of Institutions** form to request that addition. The institution will be added to the list of choices **within two working days**. In this case, you will need to come back to this section of the form to add a new institution to the project.

To change or delete an institution, start by clicking on the name of the institution, then click on "Change".

To save your changes, click on "Change / Modify".

# **PC – Principal Contractor**

It should be an incorporated entity, i.e., having a NIPC (Identity Number that uniquely identifies the institution relative to Social Security and Finances).

This should be one of the following types of institutions:

- Institutions of higher education, their institutes and R&D centers;
- Associated Laboratories;
- State Laboratories and other public services that carry out R&D activities;
- Private not-for-profit institutions whose primary object is S&T activities;
- Other public and private not-for-profit organizations that carry out or participate in scientific research activities;
- Companies (only in special cases can a company be a Principal Contractor, as set forth in the <u>Announcement of Call for Proposals</u>).

The PO must be an institution belonging to the national science and technology system and must be headquartered in Portugal.

The PO is the recipient entity that serves as project leader. In addition to coordinating the project, the Principal Contractor is responsible for communicating with the FCT on behalf of all the partners. The PO will receive all payments for the project, after which it will have to transfer the corresponding amounts to partner institutions.

After sealing the application, the head of the Principal Contractor chosen by the PI will have to sign a Declaration of Commitment which is pre-filled with data input by the PI. **Please be sure that you choose the correct Principal Contractor** and that you know it requirements (if any) to play the role of Principal Contractor. **Errors detected after sealing are very difficult to solve**.

We suggest that the contents of the Declaration of Commitment are presented to the head of the Principal Contractor quite in advance of sealing.

# Description of the principal contractor or participating organisation (1,500 characters max.)

Brief description of the principal contractor or participating organization, its objectives, activities and mission, with an emphasis on R&TD activities.

# **Participating Organisation**

<u>Incorporated entity, i.e., having a NIPC (Identity Number that uniquely identifies the institution before Social Security and Tax authorities).</u>

Any institution that meets the criteria for principal contractor can be a participating organization. The following may also be eligible:

- Companies, provided that they are integrated into projects in which the Principal Contractor is a public or private not-for-profit R&D institution, or another company that meets special criteria set forth in the <u>Announcement of Call for Proposals</u>;
- Foreign entities, provided that they are not budgeted, except when indicated otherwise in the Announcement of the Call.

After sealing the application, the heads of the Participating Organizations chosen by the PI will have to sign a Declaration of Commitment which is pre-filled with data input by the PI. **Please be sure that you choose the correct Participating Organizations** and that you know their requirements (if any) to play the role of Participating Organization. **Errors detected after sealing are very difficult to solve**.

We suggest that the contents of the Declaration of Commitment are presented to the head of the Participating Organizations quite in advance of sealing.

# Principal research unit

The research unit that the Principal Investigator is affiliated with.

# Additional research unit

A research unit that another member of the research team is affiliated with. Filling out this field is optional. Together with the information regarding the principal research unit, it serves to inform the evaluators of the R&D units that key members of the research team belong to. The form allows the inclusion of a maximum of three units of additional research.

# Host institution

University, faculty or other organization that plays the role of host institution for the principal research unit under the FCT's Multi-Year Funding Program.

You are not required to name the host institutions of other research units (if they exist).

# Scientific Component

The Scientific Component of the project is the central nucleus of the proposal and the section that will be subject to the closest scrutiny by the evaluation panel to determine its scientific merit.

This section is organized into the following subsections:

- Summary
- Technical Description
  - Literature Review
    - Research Plan and Methods
    - o Tasks
  - Project Schedule and Management
- References
- Previous Publications

The fields in the scientific component should be filled in text format. It is neither simple nor possible to include mathematical formulas, chemical structures, musical scores or other technical communication methods with special typesetting requirements. For this purpose, and to support the text inserted in the fields of Section 3, you may wish to create a PDF file to be uploaded in Section 9. However, you should not limit your presentation to these files, neglecting the text to be included in Section 3.

# Summary (5,000 characters max.)

The summary should be the central point of the argument designed to win the evaluator over to the research ideas proposed and the methods to be used. Unlike a conventional introduction, this should be an analysis that focuses more on the state of the art, the main problems that need to be solved, the knowledge and know-how the group brings to the project, the strategy and methods to be used, the novelty of the project and the expected results.

If the summary is too ambitious for the length of time or the human resources and funding requested for the project, this may weigh in on the negative side when the proposal is evaluated. A good summary should be positive and supported by solid references and key observations that will make the proposed work stand out from other research being conducted in the same field.

The references cited in this section, as well as any in the other sections of the form, must be included in the subsection <u>References</u>, using the citation scheme chosen by the PI.

It should be also fill out a **summary** that can be used by FCT for the **purpose of publicizing** the project. This summary may be exactly the same as submitted in the previous field or slightly modified, for confidentiality reasons. The content of this field will always be a decision of the responsibility of the PI.

This field should be written in **English** and **Portuguese**.

**NOTICE:** If you submit more than one project to the call (refer to the conditions set out in the <u>Announcement of Call for Proposals</u>), make sure that the international evaluation panel has access not only to the entire contents of the project they have been assigned to evaluate, but also to proposals for projects submitted in the same call by the same PI or by other members of the research team, even if these are in other scientific fields.

# **Technical Description**

This subsection should answer the question "Why should public funds be spent on this project?" Your description should be written in a positive tone and explain in detail what you intend to do in the project, what objectives you hope to achieve and the reasons why these are important.

You are expected to describe **in detail** the problem to be researched, the challenges it poses, and the approaches and methods to be used to achieve the objectives. You must also convince the evaluators that the PI and the research team are capable of achieving these objectives. You should show that the proposed methodologies are appropriate for achieving the objectives.

Specific details are required. General statements of objectives that are not properly substantiated or ideas not shown to be *new* ideas of the PI and his/her team are neither useful nor sufficient. The PI's goal is to convince the evaluation panel that he/she has the potential to contribute to progress and not just to the "status quo".

This subsection is not only technical - it should also address organizational considerations. It should show that the PI has a well conceived plan to achieve the objectives (including, if needed, alternative methodologies if the proposed methods prove to be unfruitful), that he/she knows how to predict results, that the temporal planning and management are adequate and that resources are well distributed.

It should contain a brief description of how the PI proposes to organize the work into various tasks, the interaction between the various tasks, the role of each participant and what each of the research groups involved will do, the schedule, and a set of milestones with which to judge how the work is progressing.

This subsection is organized in four parts:

- <u>Critical Review of the Literature</u> here you make the team's previous work known, you show your knowledge of the state of the art and you explain the innovative nature of your proposal;
- <u>Research Plan and Methods</u> here you describe, in detail, the research plan you intend to carry out, the methodologies to be adopted, the expected results and how the activities will be divided into tasks;
- <u>Tasks</u> here you describe, in detail, the methods to be used and expected results for each of the tasks in the plan of work, along with the resources needed, the duration of each task and the roles of the various participants;
- <u>Project Scheduling and Management</u> here you describe the management of the project, how team members will be coordinated and the planned reports.

# LITERATURE REVIEW (6,000 CHARACTERS MAX.)

The goal of this section is to describe the group's previous work and the methodologies that compete with those proposed in this project, and to justify the need for the proposed innovation. The literature review should be critical. Simply referring to previous work without commenting of the contribution the work makes to the approach proposed in your project or without mentioning its limitations is neither significant nor useful. Previous results of the PI and the research team are viewed favourably. The evaluators look at this section to evaluate the vision and the knowledge that the PI has regarding the state of the art and the reasons why the PI believes that the methodologies proposed will perform the best. The PI must convince the evaluators that he/she and the research team have the background needed and understand the open problems in the field of research in which the proposal falls.

The references cited in this section, as well as those in other sections of the proposal, must be fully identified in the <u>References</u> section, using a method of cross-referencing chosen by the PI.

# RESEARCH PLAN AND METHODS (10,000 CHARACTERS MAX.)

Based on the critical review of the literature presented above, describe the proposed research plan and methods to be used, focusing on the following questions:

- What is the problem to be investigated; what are its challenges and what is the "great idea" that the PI and his/her team have to overcome them?
- Why is the problem important and interesting?
- What points of view and methods are to be adopted?
- How will the project advance the state of the art, and what are the new basic ideas that will enable the team to reach their goal?
- What important ideas do the PI and his/her team have for achieving these ends?
- What results can be expected from the project?
- What is the nature of the collaboration between the various partners and what role is played by each one?

In this component, the PI should present an overview of the methodologies to be adopted, which will be elaborated on in detail for each task in the following subsection.

Please also notice the following that in this field you must justify the innovative character of the idea and the respective scientific potential of the **Exploratory research project**.

# TASKS

For each task into which the project's activities are organized, the following information should be provided:

#### **Task denomination**

Task denominations should be self-explanatory.

#### Start date for the activity

In "day-month-year" format.

#### Duration of the task (in months)

Self-explanatory.

#### Person\*month

The amount in full months equivalent to the total work of an investigator during the course of the project. To calculate this, begin by estimating the percentage of a full-time week of professional work that the investigator will dedicate to project-related tasks in each phase of the project.

Examples:

- 1 person at 50% for 6 months = 3 person\*months
- 1 person at 30% for 6 months = 1.8 person\*months
- 1 person at 50% for 15 days = 0.25 person\*months

The total number of person\*months in the project for an investigator is obtained by adding up the amounts obtained for all of the phases of dedication to the project that need to be considered.

#### **Description of task and expected results (4,000 characters max.)**

In connection with the content of subsection 3.2.2 <u>Research Plan and Methods</u>, describe, in detail, for each task:

- the objectives, in the context of the project;
- the methods and approaches proposed to achieve them;
- the expected results of the task, and how these results are prerequisites for the tasks to follow;
- how they articulate with the other tasks;
- the role each partner and institution will play in the task.

Justification of the resources, both human and material, needed to achieve the expected results of the task should be included. You will be asked for an overall justification of the resources required for the project in Section 8 - <u>Justification of the budget</u>.

#### Members of the research team who will participate in the task

After saving the contents of the previous fields, the members of the research team who will participate in the task should be entered. To do this, click on the task name to access the menu "Members of the research team participating in the task".

The first time you access this menu, only the name of the PI will appear. With the "add" button, you can link other members of the team to the task. These should be chosen from among the members indicated in Section 4 - <u>Research team</u> for the project. You will therefore have to first fill out the fields in Section 4 - Research team, as well as the <u>Justification of Human Resources</u> section if you intend to contract personnel or award individual grants from project funds.

# PROJECT SCHEDULE AND MANAGEMENT

The PI should indicate a timeline and describe the management structure to be adopted in the project, in particular with respect to coordination between participants, any meetings to be held and the reporting structure. A list of "milestones" should also be indicated.

#### Description of the management structure (3,000 characters max.)

In this section you should describe the management structure to be adopted, in particular the coordination among partners, the planned meetings, and the reporting process. The relevance of this item will depend on the dimension of the project, in particular, the number of participating research units.

#### List of milestones

A milestone or marker is a date by which a certain objective should be achieved or a phase should be completed. Enter a scheduled list of milestones that will allow independent evaluators to verify whether or not the project work is progressing towards the objective stated in the proposal.

For each milestone, include a name (60 characters max.), a date and a description (300 characters max.) of what can be demonstrated or reported by that date. Milestone dates should be entered in the timeline graph described below. Example:

Milestone M1 Date: Month 8 Name: Preparation of a test or questionnaire Description: Validation of the measuring tool Milestone M2 Date: Month 19 Name: Automatic counting system

Description: system that automatically counts the number of parts in the transporter and marks those that have manufacturing defects by analyzing data from infrared sensors.

The milestones should be mentioned in the progress reports to be submitted on the FCT website.

The maximum number of Milestones is 6.

#### Timeline

Include a chart showing the schedule of tasks and milestone dates. You can use suitable software tools to generate this or adapt an Excel spreadsheet as shown in the example available, which is available for downloading in Section 3.4.2c of the application form. Generate a file in pdf format with the name timeline.pdf and upload it into Section 9 - <u>Appendices</u>.

A sample timeline is shown below:



When filling the timeline,

- in the field "Partner responsible for task" you should include the acronym of the institution responsible for the task;

- in the field "Acronyms of partners involved in task" you should mention the acronyms of all the institutions that will participate in the task, including the one responsible for it.

We recommend that you fill out and validate the tasks on the application form before creating this additional file. That way any incongruence in the dates of the project and its tasks will be detected.

# References

Include the references cited in the technical and scientific description of the proposal, using a method of cross-referencing chosen by the PI. Include the title, authors' names in the order they appear in the publication, name of the book or periodical, publisher's data when applicable, volume number, page numbers and year of publication. If a publication is available online, you may include the respective URL **even though it is not mandatory**.

The maximum number of entries in this field is 30.

The items in the application form are:

Reference Year URL Publication

Example:

For the publication

Silva, N., Costa, R., Elgart, R.A., Murt, C. (2007) High speed and robust controller for a non-linear system. Journal of Control Theory 57, 121-134.

you could use

Reference: [SiCoElMu07]

Year: 2007

URL

Publication: Silva, N., Costa, R., Elgart, R.A., Murt, C. (2007) High speed and robust controller for a non-linear system. Journal of Control Theory 57, 121-134.

and, in the proposal, the cross reference will be used, for example, as: "The controller proposed in [SiCoElMu07] has recently been ...."

There are situations (e.g., whenever an author yields to a publishing company the rights of a publication) where it is not possible to make the publication available on-line without violating the law. In these cases we suggest that you use the web server of your school or research unit to create an area of restricted access through username and password. If you consider this solution, create a document authentication.pdf file to be include in Section 9. with this information. The members of the evaluation panel will receive instructions to use its contents to access the restricted area and not divulge the material beyond what is strictly needed for this evaluation.

# **Previous Publications**

Under the heading "Previous Publications", you may include references for up to 5 articles, books or monographs published or accepted for publication, authored or co-authored by members of the research team, which you consider relevant for evaluating the scientific quality of the demonstrated by the team for the project in question. Include the title, authors' names in the order they appear in the publication, name of the book or periodical, publisher's data when applicable, volume number, page numbers and year of publication.

It is highly recommended that the evaluators can access these 5 publications. These articles may be **uploaded to a website**. The URL addresses provided must be complete, and it is the PI's responsibility to make sure that the links remain active.

- until the evaluation process is completed;
- until the project is completed in the case of projects that are approved.

The fields to fill in the application form are the same as mentioned previously in References.

There are situations (e.g., whenever an author yields to a publishing company the rights of a publication) where it is not possible to make the publication available on-line without violating the law. In these cases we suggest that you use the web server of your school or research unit to create an area of restricted access through username and password. If you consider this solution, create a document authentication.pdf file to be include in Section 9. with this information. The members of the evaluation panel will receive instructions to use its contents to access the restricted area and not divulge the material beyond what is strictly needed for this evaluation. This indication does not apply to the references in the field References.

#### **Re-submissions of applications**

It must be **indicated** if the present proposal is the **re-submission of an application** previously submitted by the same PI to FCT and not recommended for funding, indicating the reference of the application (applications submitted to FCT from the year 2006 inclusive).

Additionally you must complete a field with a **comment to the panel evaluation that evaluated the application**, as well as **summary identifying**, in a clear and unambiguous way, **the main changes introduced in the new proposal**. Substantive arguments should be used to objectively direct to the scientific arguments used by the evaluators. **Avoid a direct response to the evaluator** that, almost certainly, will not be the same who evaluated the previous application.

# **Research Team**

# 4.1. List of members

The information on the Principal Investigator (Name, Position and Academic Degree) will be automatically filled in. This is the information that the PI entered in his/her **curriculum vitæ** on the site <u>https://sig.fct.pt/fctsig/cv/</u>. The percentage of full time dedicated to the project should be filled in on the application form. You can access this field by clicking on the link associated with the PI's name.

Read the <u>Regulations</u> and the <u>Announcement of Call for Proposals</u> carefully for the requirements regarding minimum allocation amounts for PIs.

**Each research team member** to include (except for individual grant recipients or other personnel contracted specifically for the project) is required to supply his/her FCT association key (**and no other FCT supplied credentials**) to the Principal Investigator as a means of confirming the intent to participate in the project. Association keys are issued after completing the registration process in the FCT Management area in <a href="https://sig.fct.pt/fctsig/">https://sig.fct.pt/fctsig/</a> and can be consulted there.

Notice that it shall also be indicated a **percentage of dedication to the project compatible with the overall maximum of 100% at the time the acceptance agreement is signed**. The FCTSIG management area also offers the means for each researcher to easily check all current and planned percentages of dedication in FCT projects.

The names of all members of the team entered in the FCTSIG management area should be written just as they appear on the individual's national identity card or passport, and these should be updated whenever there are changes.

Investigators may choose to include DeGois curricula instead of FCTSIG/cv. In this case, they shall communicate to the PI their DeGois key (a number with 16 digits which is also part of the URL of your public curriculum DeGois).

It is the responsibility of each team member, as well as being in his/her best interest, to update his/her **curriculum vitæ** at <u>https://sig.fct.pt/fctsig/cv/</u> or <u>http://www.degois.pt</u>, since the existing information on that site on the date the proposal is sealed is what will be available to the evaluation panel.

# The curriculum vitæ:

- Should be **brief**, emphasizing relevant information, and should be written in English;
- Fill in the field **Name in Publications**;
- Should not include references to articles submitted for publication or presentation, nor to R&D projects currently in the proposal phase. Only articles published or accepted for publication and projects approved for funding should be mentioned;
- Should follow reverse chronological order when presenting lists;
- When mentioning projects, indicate the project title, the entity funding the project, the period in which the project was executed and your role in the project (e.g., Principal Investigator, team member);
- In the field "Other skills/activities" under "Current research interests", mention activities such as serving as associate editor for journals, member of the technical committee for international conferences, person in charge or jointly in charge of organizing scientific events;
- In the field "Experience as advisor", mention only doctoral or master's theses that have already been completed. For each student, enter their name, title of the dissertation, year completed and the student's current job position. List doctoral dissertations first, followed by master's dissertations. Do not include dissertations currently underway;
- The field "Field of Specialization" under "Current research interests" must be filled out.

# Important notes:

- The previous notes have been prepared from the standpoint of a curriculum in FCTSIG/cv. They are valid for what is relevant to a curriculum DeGois.
- The evaluation panel will examine with particular interest the CVs of the PI and key members of the research team (up to two) chosen by the PI. This choice is made in Section 4 <u>Research Team</u>.
- All members of the research team, but particularly the PI and key members indicated by the PI, should pay particular attention to the directions given above for completing the CV in the FCTSIG (Information Management System).
- The **curricula vitæ** of all members of the research team will be copied at the moment the proposal is sealed to the evaluation area. Therefore, for the purposes of evaluation of the proposal, the state of each **curriculum vitæ** at the moment the proposal is sealed is what counts, although each researcher can continue to update his/her **curriculum vitæ** on the management page.

#### % of Time

This field should be filled with the mean time of each team member during the entire time duration of the project.

We remind that a **minimum allocation time** of **35%** is specified for the **PI** and for **ALL** the remaining members of the team a minimum of allocation of time of **15%** is requested.

#### Example 1:

In a project with duration of 36 months (3 years), if a team member is involved during 12 months (1 year) allocating during that period 45% of his/her time, the filed % of time should be filled with 15%.

#### Example 2:

In a project with duration of 36 months (3 years), if a team member is only involved in two tasks, with a time allocation of 15% in a task that develops in years 1 and 2, and an allocation of 15% in a task that occurs in years 2 and 3, the team member has a medium allocation to the project of 60%/3=20%.

# 4.2. List of members to be hired during execution of the project

This field is only displayed if you have indicated that there will be individual grants awarded or hiring of other team members under the heading of "Human Resources" in Section 8 - <u>Justification of the Budget</u>. It will be filled in automatically, and the amounts shown here will be those that the PI entered in Section 8.

# **Funded projects**

This component is designed to evaluate the success of previous work that was led by the same PI as the current proposal. It serves as an indicator of the quality of research already carried out and the ability of the PI to organize and plan research activities and produce results. The evaluators will look at this component to determine the likelihood that the current proposal will be successful. Indicate projects, approved after a peer-review process, that were begun within the last 5 years, are completed or currently underway, as well as any pending projects, i.e., projects approved for funding but not yet started.

In this item you should consider among your projects as a PI, those that were funded after a peer-review process. Even though there is no limitation in the number of projects to be included in this section, it is the PI's responsibility to choose the projects to include, given their perceived importance and relevance for the evaluation. Remaining funded projects for which you were a PI could be (and must be) included in your CV.

The evaluation panels will take into account the situation of PIs who have held their doctoral degrees for less than 5 years, taking into consideration the potential for success rather than past proof of success.

For FCT funded projects, enter the full reference code and click on "search". The fields on the menu will be automatically filled in except for the "Results" field.

For projects funded by other institutions, enter the reference code and fill in the following information.

# Project reference code

Project code as it appears on the funding award contract, regardless of the funding source.

For **each project** entered, the following information will be required:

#### State of the project

The following options are available: Underway, Completed, Pending.

#### Title of the project (in Portuguese and in English)

Self-explanatory. You may include an acronym before the title (i.e., Acronym - title).

#### **Funding entity**

Choose from among the options available. If the entity that funded the project does not appear on the list, write its name.

#### **PC – Principal Contractor**

This is the institution leading the project. Choose from among the options available. If the entity that funded the project does not appear on the list, write its name.

#### Funding

Amount, in euros, of funding for the project (if already completed), or the budget for projects underway.

Start date

Self-explanatory.

**Duration (in months)** Self-explanatory.

Abstract Self-explanatory.

#### **Total Person\*Months**

Total involvement of human resources in the project calculated as shown in the description of Tasks in Section 3 - <u>Scientific Component</u>.

#### **Total Person\*Months on this team**

Indicate any members of the research team for the proposal you are submitting now who were involved in the project in which you were or are PI that you are describing in this section.

#### Results (5,000 characters max.)

Provide a complete list of the results achieved in the project, systems/prototypes built, patents obtained from the results of the project, academic degrees obtained by students who participated in the project. Publications resulting from the project are entered in another field.

Use this field to also indicate:

- how the funded project in which you were/are PI is related to the research team associated with the current proposal;
- how the funded project in which you were/are PI is related to the research topic of the current proposal.

#### Is this project related to the current research team?

If yes, explain the relationship in the "Results" field.

#### Is this project related to the current research topic?

If yes, explain the relationship in the "Results" field.

After saving the data entered in the previous fields, you will be taken to a menu where all of these data are displayed. Here you should enter the members of the research team for the current proposal who participated in the previously funded project that is being described, as well as any publications that came out of this project.

#### Members of the research team who participated in this project

Select from the list of all members of the research team that you already entered for the current proposal.

#### Publications resulting from this project

Include the title, authors' names in the order they appear in the publication, name of the book or periodical, publisher, volume number, page numbers and year of publication.

These articles may be **uploaded to a website**. The URL addresses provided must be complete, and it is the Principal Investigator's responsibility to make sure that the links remain active until the evaluation process is completed.

#### Other proposals

It is compulsory to refer any other candidacy similar to the one under preparation and that may configure, if both were accepted, an irregular situation. The form interface is similar to the one used for funded projects.

See nº 5 of Article 3º of the Regulations.

# **Outcome Indicators**

#### **Outcome indicators for the project**

In the proposal phase, this list represents a commitment to carrying out the project. The deliverables achieved as a result of the project activities must be described in progress reports and in the final report and will be subject to scrutiny in the final evaluation.

Be positive, but also realistic in terms of your expectations. If your proposal is approved, you must ensure that the team is capable of carrying out the project as described in the proposal.

The minimum number of indicators is 5.

#### **Dissemination of scientific activity**

Although it is important to carry out initiatives to disseminate scientific activity, in the proposal phase, this indication expresses intent to do so. Actions of this nature during the execution of the project should be described in the progress and final reports and will be subject to scrutiny by the evaluators after the work has been completed.

This item is not mandatory. Actions of scientific dissemination may not be adequate for the characteristics of the project, or, even if they are, the PI may consider not organizing them. In any case, it is advisable for the PI to include an explanation for the absence of this type of activities.

# Budget

The per project funding limit is set forth in the respective <u>Announcement of Call for</u> <u>Proposals</u>. A budget table must be filled out for the Principal Contractor and for each Participating Organization. The total of all the tables represents the sum of funding requested, which is calculated automatically and shown in the table "Overall Budget".

For all institutions, except for-profit organizations, the budget equals the funds requested from FCT as eligible expenses are funded at a 100% rate. In the case of for-profit organizations such as companies, eligible expenses are funded at a 50% rate. Hence the budget in this table should be 50% or less of the full budget. The remaining budget should presented in an additional table.

The budget should be distributed over the different years taking into account the number of months in each calendar year of the project. If the project is approved, there is a possibility that changes will be made to the budget distribution schedule based on observations of the evaluation panel or when the project is approved. See the <u>timeline</u> for the evaluation and decision process.

The expense categories that appear in this menu are those set forth in the <u>Regulations</u> and in the <u>Announcement of Call for Proposals</u>. It is not an error if the numbering of the different types of expenses is not sequential. This is a limitation of our web application which can be used for different types of calls.

In the "Funding Plan" table indicate, whether there is any self funding, other public funding or other private funding coming from any of the principal contractor and participating organizations. The total cost of the project is the sum of all the components indicated in the Funding Plan table.

# Human resources

Human resources dedicated to the project's R&TD activities, including costs of individual grant recipients and contracts. The funding of these grants shall comply with the (<u>Research</u> <u>Grants in the Framework of R&D Projects</u>).

# Travel

Expenses resulting from project-related participation in conferences travel for fieldwork, meetings and visits in Portugal or abroad. Example: Travel expenses, registration fees, daily allowances, and accommodation.

# Consultants

Consulting expenses for project support. Foreign scientists residing outside Portugal may collaborate on the project and receive financial support for travel to Portugal and accommodation and may be paid for consulting work done on behalf of the project.

# Acquisition of goods and services

Expenses related to acquisition of goods or services for the project and which can be documented by: "Green" receipts, receipt for an "Isolated Act" or an Invoice/Receipt.

Also included in this category are other current expenses directly related to execution of the project (e.g., consumables, reagents, etc., and acquisition of books and subscriptions to scientific journals when these fall within the scope of the project) and expenses paid to licensed auditors or accountants.

#### Patent registration

Registration **abroad** of patents, copyrights, utility models and designs, national models or brands when associated with other forms of intellectual property, namely fees, prior-art searches, consultant's fees.

#### Adaptation of buildings and facilities

Adaptation of buildings and facilities when essential to carrying out the project, namely for environmental and safety reasons, provided that these costs do not exceed 10% of the total eligible cost of the project.

#### Equipment

Expenses related to obtaining instruments and equipment, provided they are directly and unequivocally used by the project and remain tied to the project during the period of its execution. Indicate the phase of the project in which they are to be acquired.

#### Overheads

Overheads incurred due to execution of the project are imputable to it on a pro-rated basis up to a limit of 20% of **ALL** eligible direct costs of the project.

As the budget is presented by civil year, the above referred limit of 20% also applies for each year.

Since there were doubts about whether the costs of overheads also concerned about the direct costs of equipment, we clarify that the costs of overheads relate to **ALL** (including equipment) the direct costs.

# Justification of the budget

#### Justification of human resources

In this field you will justify the funding requested under the category of human resources.

You must relate to the objectives of the project, in a detailed way, the need for the requested resources.

For individual grants, chose from the list of types of grants that can be awarded in the framework of projects. The monthly amount will be entered automatically in accordance with the <u>current stipend values</u>.

Steps:

– Select the type of grant.

- Enter the number of grants of the type requested.
- Enter the duration of the grant, in months.
- Enter other costs
  - For BPD grants, consider an additional amount of €750, spread out in a single payment, to pay for a trip to a conference.
  - According to the <u>Research Fellowship Holder Statute</u>, "the grant holders not covered by any social security system may subscribe to the voluntary social insurance (SSV-Seguro Social Voluntário). The funding institution should pay the costs corresponding to the 1st tier of the SSV.
  - It is suggested to estimate the SSV associated costs, in case the grant holder decides to subscribe, and to include them in the Human Resources budget, in Other Costs. This value is indexed to the national minimum wage and consequently a realistic annual update should be considered.

If you want to have a contract, choose the option "C-Contracts" and:

- Enter the number of contracts;
- The duration (in months) of the contracts;
- The corresponding cost (it will commonly be equal to number of contracts \* duration \* monthly cost);
- Other costs.

# Justification of travel

Expenses resulting from project-related participation in conferences, meetings and visits in Portugal or abroad. Ex: Travel expenses, registration fees, daily allowances, accommodation, etc.

When justifying missions to scientific events it is not required the indication of the particular event which might not even be known. Given the difference of costs, what should be stated is the event location, distinguishing among events in Portugal, in Europe, or outside Europe.

# Justification of consultants

Given the importance of consultants in the evaluation of the project and the team, the names and institutions given should be clear and complete, so that they can be easily identified by the evaluation panel. We suggest that a brief, up-to-date and easy to locate public CV be made available on the Internet.

If the consultant has filled out his/her CV in the FCTSIG, you need only enter the public key.

# Justification of goods and services

Self-explanatory. See description under <u>Budget</u>.

# Justification of patent registration

Self-explanatory. See description under <u>Budget</u>.

# Justification of adaptation of buildings and facilities

You must explain the need for these expenses, taking into account the provisions set forth in the <u>Announcement of Call for Proposals</u> and the <u>Regulations</u>.

# **Justification of Equipment**

This point has two parts:

- Equipment already available for execution of the project
  - Type of equipment, manufacturer, model and year
- Description of equipment to be acquired
  - Type of equipment, manufacturer, model and year
  - Justification of the equipment requested

You must relate to the objectives of the project, in a detailed way, the need to purchase the equipment required.

# APPENDICES

If necessary you may attach the following types of documents to your proposal: formulas, schematics, diagrams, charts or images. You will have to attach a timeline file (timeline.pdf) as described in Section 3.2.4. You might need to include an authentication.pdf file as previously stated relative to restricted distribution items referred in the References and Previous Publications sections.

No other documents besides those mentioned above will be considered in this section. The maximum disk space reserved for each proposal is 5 MB. Acceptable formats are:

- GIF (Graphics Interchange Format)
- JPEG (Joint Photographic Experts Group)
- PDF (Portable Document Format)

# **CONFLICTS OF INTEREST**

In this field you may identify up to five names of evaluators that, according to the criteria for classification of conflicts of interest listed on the FCT Guide for Peer Reviewers, constitute a clear conflict of interest concerning the evaluation of the present application.

For each conflict of interest reported you must fill in the following fields: **Name, Institution** and **Motive for mentioning each conflict of interest**. The indication of the Email and CV (URL) are optional fields.

# IV. OVERVIEW, SEALING AND COMMITMENTS

The <u>Project Summary</u> link gives you access to the following options:

- End Session
- List of projects
- Project form
- Overview of the proposal
- Validate and seal the proposal

# **Overview of the proposal**

The overview of the proposal displays the contents of the proposal fields in a single window, which includes links to the CVs of the PI and the other members of the research team. You can view the details of a single section of the form or a group of sections.

Using the "Print" option in your browser, you can generate a pdf file with the contents of this window.

Notice: The aforementioned pdf file will NOT, in any circumstances, be accepted as a substitute for submitting the proposal by completing the form and sealing it online.

# Validate and seal the proposal

Sealing is preceded by an automatic procedure that validates the proposal and checks for errors.

We suggest that you run the validation procedure, available for each section, periodically as you fill out your form. This way, you will eliminate errors at an early stage (e.g. in the text fields of the scientific component). After the application is complete, click on "Validate and Seal" to validate the entire proposal. When no errors are detected, the program will ask the PI to confirm that he/she indeed wishes to seal the proposal.

If there are errors, a list of the problems detected is generated on the application form showing the section and field where the error occurred, along with a brief description of the problem that led to the error. The existence of **errors prevents sealing**.

The **warnings** issued during the validation **do not prevent sealing**. Only the existence of errors prevents sealing. When the PI seals the proposal he/she will receive guidance on how to proceed with the warnings. Many of them are related to lack of information concerning the applicant and participating institutions, and these will be required to provide the missing information.

The **warnings** relative to the Social Security and Tax of institutions mean that FCT does not have the corresponding certificates or the ones available will expire in the indicated date. These warnings should not be considered by institutions that authorized FCT to analyze their

status on-line through official portals. To overcome these problems the institutions will be contacted by FCT.

The error related with the legal characterization of the involved institutions (only an alert in case of institutions with zero budget) refers to the absence of information on whether the institution is a Government Agency, a private not-for-profit or a for-profit organization. We recommend that the PI contact the institution's Board or Management, to provide information on the legal status of the institution by e-mail, to the support e-mail for the call.

#### The proposal can only be sealed after the form has been completed validated. Reread the <u>General Recommendations</u> and **do not wait until the deadline for the call draws near to do the validation**.

Once a proposal is sealed, or after the closing date for the call, you will not longer have access to the application form, but you may view its contents in the Overview of the Proposal.

# **Declarations of commitment**

After sealing, and to complete your proposal, you will need to upload on the FCT website a declaration of commitment in digital format which is made available after the sealing.

In certain calls, some of the declarations of commitment for the PI may be activated by clicking on a check-box on the form itself.

After sealing your proposal, print out the declaration of commitment, have it signed by someone authorized to do so, scan it and submit it.

# The deadline for submitting this document is set forth in the <u>Regulations</u>. Noncompliance with the regulations will nullify the proposal.

A careful reading of the contents of the Declarations of Commitment is suggested. Additionally, for those projects that might involve animal experimentation or the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells and for which specific questions are asked, we suggest a reading of the legislation that applies before answering the questions on the Declaration of Commitment.

# V. SCIENTIFIC AREAS AND DOMAINS

# Life and Health Sciences

Scientific Area	Scientific Sub-area	Acronym
	Neurosciences - Molecular and Cellular	NEU-NMC
Neurosciences, Ageing	Neurosciences - Systems, Clinical and Behavioral	NEU-SCC
Diseases	Scientific AreaScientific Sub-areaArosciences, Ageing Degenerative asesNeurosciences - Molecular and CellularNNeurosciences - Systems, Clinical and BehavioralNBiology of AgeingNOrgans and Systems DegenerationNnunology and ctionImmunology and InflammationINMicrobiology and InflatmationINMicrobiology and InfectionINPublic Health and Environmental FactorsDPublic Health and Environmental FactorsDPharmacology of Exercise and Sport SciencesDClinical ResearchDMechanisms of DiseaseBMetabolism and NutritionBRegenerative MedicineBGenetics and GenomicsB	NEU-BEN
		NEU-OSD
Immunology and	Scientific Sub-areaNeurosciences - Molecular and CellularNeurosciences - Systems, Clinical and BehavioralBiology of AgeingOrgans and Systems DegenerationImmunology and InflammationMicrobiology and InfectionEpidemiologyPublic Health and Environmental FactorsPharmacology and ToxicologyPhysiology of Exercise and Sport SciencesClinical ResearchOncobiologyMechanisms of DiseaseMetabolism and NutritionRegenerative MedicineGenetics and GenomicsCellular and Molecular BiologyDevelopmental Biology and Bioinformatics	IMI-IMU
Infection	Microbiology and Infection	IMI-MIC
	Epidemiology	DTP-EPI
	Public Health and Environmental Factors	DTP-SAP
Diagnostic, Therapies and	Pharmacology and Toxicology	DTP-FTO
	Physiology of Exercise and Sport Sciences	DTP-DES
	Physiology of Exercise and Sport Sciences Clinical Research	
	Scientific Sub-areaScientific Sub-area9Neurosciences - Molecular and CellularN9Neurosciences - Systems, Clinical and BehavioralNBiology of AgeingNOrgans and Systems DegenerationN0rgans and Systems DegenerationNMicrobiology and InflammationIIMicrobiology and InfectionIIPublic Health and Environmental FactorsDPharmacology and ToxicologyDPharmacology of Exercise and Sport SciencesDClinical ResearchDOncobiologyBMechanisms of DiseaseBMetabolism and NutritionBRegenerative MedicineBCellular and Molecular BiologyBDevelopmental Biology and BioinformaticsB	BIM-ONC
Diamadiaina		BIM-MEC
biomedicine		BIM-MET
	Regenerative Medicine	BIM-MED
	Genetics and Genomics	BEX-GMG
Every antal Dialogy	Cellular and Molecular Biology	BEX-BCM
Experimental Biology	Developmental Biology	BEX-BID
	Computational Biology and Bioinformatics	BEX-BCB

# Exact Sciences and Engineering

Scientific Area	Scientific Sub-area	Acronym
	Biomaterials	CTM-BIO
Scientific AreaBiomaterials Ceramics an Materials for Nanomateria Polymers an Structural M Biological Err Metabolic Err Systems and Biotechnology and Biote	Ceramics and Glass	CTM-CER
	Materials for Energy Production and Storage	CTM-ENE
	Nanomaterials and Devices	CTM-NAN
	Polymers and Composites	CTM-POL
	Structural Materials	CTM-MAT
	Biological Engineering	BBB-EBI
	Metabolic Engineering and Microbial Physiology	BBB-MET
	Systems and Synthetic Biology	BBB-BSS
Scientific Area         Scientific Sub-area           Biomaterials         Ceramics and Glass           Materials Science and Engineering         Materials for Energy Production and Storage           Nanomaterials and Devices         Polymers and Composites           Structural Materials         Biological Engineering and Microbial Physiology           Systems and Synthetic Biology         Systems and Synthetic Biology           Bioengineering, Biotechnology and Biochemistry         Biotechnology and Biostensors           Biomedical Engineering         Biotechnology           Biochemistry         Biomedical Engineering           Biotechnology and Biochemistry         Biomedical Engineering           Biomedical Engineering         Biomedical Engineering           Biomedical Engineering         Biomedical Engineering           Biochemistry and Biophysics         Structures           Transports         Urbanism           Geotechnics         Hydraulics           Constructions         Mining Engineering           Mining Engineering         Signal Processing           Electrical Engineering         Signal Processing           Telecommunications         Programming Science and Technology           Software Engineering         Automation Systems           Intelligent Systems         Signal Processing<	BBB-EBB	
	Cell and Tissue Engineering	BBB-ECT
Scientific AreaBiomaterials Ceramics and Glass Materials for Energy P Nanomaterials and De Polymers and Compos Structural MaterialsMaterials Science and EngineeringBiological Engineering Metabolic Engineering Systems and Synthetic Biotechnology and Biotechnology and Biotechnology and Biotechnology and 	Biotechnology	BBB-BIO
	Nanobiotechnology and Biosensors	BBB-NAN
	Biomedical Engineering	BBB-BMD
	Imaging and Biosignals	BBB-IMG
	Biomechanics	BBB-BMC
	Structural Biology and Proteomics	BBB-BEP
	Biochemistry and Biophysics	BBB-BQB
	Structures	ECM-EST
	Transports	ECM-TRA
	Urbanism	ECM-URB
Civil and Mining Engineering	Geotechnics	ECM-GEO
	Hydraulics	ECM-HID
	Constructions	ECM-COM
	Mining Engineering	ECM-MIN
	Automation, Control and Robotics	EEI-AUT
	Electronics and Computers	EEI-ELC
Scientific AreaScientific Sub-areaAMaterials Science and EngineeringBiomaterials Ceramics and GlassCTMaterials Science and EngineeringMaterials for Energy Production and StorageCTNanomaterials and DevicesCTPolymers and CompositesCTStructural MaterialsCTSystems and Synthetic BiologyBEBiological EngineeringBiotogical EngineeringBiotogical Engineering and Microbial PhysiologyBESystems and Synthetic BiologyBEBiotechnology and 	Power Systems	EEI-EEL
	EEI-PRO	
Electrical Engineering and	ientific Area Scientific Sub-area Biomaterials Ceramics and Glass Ceramics and Glass Ceramics and Composites Structural Materials and Devices Polymers and Composites Structural Materials C Polymers and Composites Structural Materials C Biological Engineering and Microbial Physiology Bioprocesses Engineering and Biocatalysis Cell and Tissue Engineering Biotechnology and Biosensors Biomechanics Structural Biological Engineering Bionechanics Structural Biology and Biosensors Biochemistry and Biodephysics Structural Biology and Proteomics Biochemistry and Biotechnics Structures Constructions Constructions Constructions Constructions Constructions Constructions Electonics Signal Processing Electonics Constructions Constructions Cellean Information Systems Electonics Signal Processing Cell and Information Systems Electonics Constructions Cellean Computers Power Systems and Robotics Electonics Constructions Cellean Computers Cellean Computers Constructions Cellean Computers Constructions Cellean Computers Constructions Cellean Computers Cellean Computers Cellean Computers Cellean Computers Cellean Computers Constructions Cellean Computers Cellean Comp	EEI-TEL
Scientific AreaScientific Sub-areaA4aterials Science and ingineeringBiomaterials Ceramics and GlassCIMaterials for Energy Production and StorageCINanomaterials and DevicesCIPolymers and CompositesCIStructural Materials for Energy Production and StorageCIStructural Materials for Energy Production and StorageCIStructural MaterialsCIBiological EngineeringBiological EngineeringBiological Engineering and Microbial PhysiologyBiologrocesses and Synthetic BiologyBiotechnology and Siotechnology and Biotechnology and BiosensorsBiomedical EngineeringBiomedical EngineeringCivil and Mining EngineeringGeotechnicsCivil and Mining EngineeringEcCivil and Mining EngineeringEcConstructionsEcConstructionsEcConstructionsEcConstructionsEcAutomation, Control and RoboticsEcElectronics and ComputersEcPower SystemsEcSignal ProcessingEcTelecommunicationsEcProgramming Science and TechnologyEcMechanical ProjectEcMechanical T	EEI-CTP	
	Software Engineering and Information Systems	EEI-ESS
	Scientific AreaBiomaterialsCerials Science and ineeringBiomaterials and GlassCMaterials for Energy Production and StorageCNanomaterials and DevicesCPolymers and CompositesCPolymers and CompositesCStructural MaterialsCBiological EngineeringBMetabolic Engineering and Microbial PhysiologyBBioprocesses EngineeringBBiotechnologyBBiorectenology and themistryBioprocesses Engineering Biomedical EngineeringBBiomedical EngineeringBBiochemistry and BiophysicsBBiomedical EngineeringBBiomedical EngineeringBBiorechnicsBConstructionsCPower SystemsCBiogeneringBPower SystemsCSignal ProcessingCProgramming Science and TechnologyCPorgaraming Science and TechnologyC <td>EEI-SII</td>	EEI-SII
	Organisation of Computing Systems and Networks	EEI-SCR
	Automation Systems and Robotics	EMS-CRO
	Industrial Management	EMS-GIN
	Energy and Environment	EMS-ENE
Bioengineering, Biotechnology and Biotechnology and Biotechnology and BiosensorsBiomedical EngineeringBiotechnology and BiosensorsBiomedical EngineeringBiomedical EngineeringCivil and Mining EngineeringStructuresEiCivil and Mining EngineeringGeotechnicsEiUrbanismEiEiCivil and Mining EngineeringEiGeotechnicsEiHydraulicsEiConstructionsEiMining EngineeringEiHydraulicsEiComputer Engineering and Computer EngineeringEiPower SystemsEiSignal ProcessingEiTelecomunicationsEiProgramming Science and TechnologyEiSoftware Engineering and Information SystemsEiIntelligent Systems, Interfaces and MultimediaEiIntelligent Systems and RoboticsEiIntelligent SystemsEiMechanical ProjectEiMechanical ProjectEiMechanical TechnologyEiPhysicsNuclear Physics, Elemental Particles and High EnergiesPhysicsPiasmas and Nuclear PhysicsFiAutomation Alolecular PhysicsFiPotics	EMS-PRO	
and Engineering Systems	Mechanical Technology	EMS-TEC
	Transports	EMS-TRA
	Engineering Systems	EMS-SIS
	Nuclear Physics Elemental Particles and High Energies	FIS-NUC
	Atomic and Molecular Physics	FIS-ATO
Physics	Plasmas and Nuclear Fusion Physics	FIS-PI A
Biochemistry       HandbulcetInitidity and biosensors         Biomedical Engineering         Imaging and Biosignals         Biomechanics         Structural Biology and Proteomics         Biochemistry and Biophysics         Structural Biology and Proteomics         Biomechanics         Structural Biology and Proteomics         Biochemistry and Biophysics         Structures         Transports         Urbanism         Geotechnics         Hydraulics         Constructions         Mining Engineering         Automation, Control and Robotics         Electrical Engineering and Computers         Power Systems         Signal Processing         Telecommunications         Programming Science and Technology         Software Engineering and Information Systems         Intelligent Systems, Interfaces and Multimedia         Organisation of Computing Systems and Networks         Automation Systems and Robotics         Industrial Management         Energy and Environment         Mechanical Engineering         Mechanical Technology         Transports         Engineering Systems         Industrial Management         Energy an	FIS-NAN	
	Ontics and Photonics	FIS-OPT
		115 01 1

Scientific Area Scientific Sub-area		Acronym
Astronomy and Astrophysics		FIS-AST
	Algebra and Combinatorics	MAT-ALG
	Analysis	MAT-ANA
	Numerical Analysis, Optimization and Mathematical Modeling	MAT-NAN
Mathematics	Calculus of Variations, Differential Equations and Dynamical Systems	MAT-CAL
	Geometry and Topology	MAT-GEO
	Logics and Computing Theory	MAT-LOG
	Statistics, Stochastic Processes and Analysis	MAT-STA
	Chemical Physics	QEQ-QFI
	Organic Chemistry	QEQ-QOR
	Inorganic Chemistry	QEQ-QIN
	Analytical Chemistry	QEQ-QAN
	Supramolecular Chemistry	QEQ-SUP
Chemistry and Chemical	Computational Chemistry	QEQ-COM
Engineering	Medicinal Chemistry	QEQ-MED
	Chemical Reaction Engineering	QEQ-ERQ
	Product Engineering	QEQ-EPR
	Processes and Systems Engineering	QEQ-EPS
	Separation Processes	QEQ-PRS
	Transport Phenomena and Thermodynamics	QEQ-FTT

Scientific Area	Scientific Sub-area	Acronym
	Global Environmental Change	AAG-GLO
Environment and Global	eaScientific Sub-areaGlobal Environmental ChangeSustainable Management of ResourcesEnvironmental TechnologiesEnvironmental Modelling and AssessmentAnimal Production and WelfareAnimal Health and EpidemiologyAnimal NutritionBreeding and GenomicsReproduction TechnologyLivestock Biodiversity and ConservationprestryForest SciencesCrop ProductionBio-based Product TechnologyBiodiversity and ConservationMicrobiologySidiversity and ConservationMicrobiologyAnimal BiololyMeteorology and ClimateGeologyRemote Sensing and GeodesyWide Orean and Deen-sea Systems	AAG-REC
Changes	Environmental Technologies	AAG-TEC
	Environmental Modelling and Assessment	AAG-MAA
	Animal Production and Welfare	CVT-WEL
	Scientific AreaScientific Sub-areaAvironment and Global angesGlobal Environmental ChangeA/angesSustainable Management of ResourcesA/Environmental TechnologiesA/Environmental Modelling and AssessmentA/Animal Production and WelfareCNAnimal Health and EpidemiologyCNAnimal NutritionCNBreeding and GenomicsCNReproduction TechnologyCNLivestock Biodiversity and ConservationCNProcesForest SciencesMicrobiologyA/MicrobiologyBIMicrobiologyBIMicrobiologyBIAnimal BiololyBIMeteorology and ClimateGIGeologyGIRemote Sensing and GeodesyGIMice Sensing and GeodesyGIMire Biotechnology, Fisheries and AquacultureM/	CVT-EPI
Scientific AreaScientific Sub-areaAEnvironment and Global ChangesGlobal Environmental ChangeA/AEnvironment and Global ChangesSustainable Management of ResourcesA/AEnvironmental TechnologiesA/AEnvironmental Modelling and AssessmentA/AAnimal Science and Veterinarian ScienceAnimal Production and WelfareC/AAnimal Science and Veterinarian ScienceAnimal NutritionC/ABreeding and GenomicsC/AReproduction TechnologyC/ALivestock Biodiversity and ConservationC/ASciencesGrop ProductionA/ABiological SciencesBiodiversity and ConservationBIMicrobiologyBIBIMicrobiologyBIBIPant BiologyBIBIPlant BiologyBIArimal BiololyBIMarine SciencesGeophysics and GeochemistryGIGeologyRemote Sensing and GeodesyGIMarine Biotechnology, Fisheries and AquacultureMiMarine Biotechnology, Fisheries and AquacultureMi	CVT-NUT	
	Breeding and Genomics	CVT-GEN
	Reproduction Technology	CVT-REP
	Livestock Biodiversity and Conservation	CVT-LIV
	Forest Sciences	AGR-FOR
Agricultural and Forestry	Crop Production	AGR-PRO
Stichees	Bio-based Product Technology	AGR-TEC
	Biodiversity and Conservation	BIA-BIC
	Microbiology	BIA-MIC
Biological Sciences	Scientific Sub-areaGlobal Environmental ChangeSustainable Management of ResourcesEnvironmental TechnologiesEnvironmental Modelling and AssessmentAnimal Production and WelfareAnimal Health and EpidemiologyAnimal NutritionBreeding and GenomicsReproduction TechnologyLivestock Biodiversity and ConservationForest SciencesCrop ProductionBio-based Product TechnologyBiodiversity and ConservationMicrobiologyPlant BiologyAnimal BiololyMeteorology and ClimateGeophysics and GeochemistryGeologyRemote Sensing and GeodesyWide Ocean and Deep-sea SystemsEstuarine, Coastal and Littoral SystemsMarine Biotechnology, Fisheries and AquacultureEnergy and Marine Technologies	BIA-EVF
		BIA-PLA
	Animal Biololy	BIA-ANM
	Meteorology and Climate	GEO-MET
Casasianasa	Geophysics and Geochemistry	GEO-FIQ
Geosciences	Geology	GEO-GEO
	Remote Sensing and Geodesy	GEO-REM
	Wide Ocean and Deep-sea Systems	MAR-PRO
Wide Ocean and Deep-sea Systems           Estuarine, Coastal and Littoral Systems		MAR-EST
Marine Sciences	Marine Biotechnology, Fisheries and Aquaculture	MAR-BIO
	Energy and Marine Technologies	MAR-TEC

# **Natural and Environmental Sciences**

<b>Social</b>	Sciences	and	the	<b>Humanities</b>

Scientific Area	Scientific Sub-area	Acronym
	Economics	IIM-ECO
Scientific Area         Scientific Sub-area           Individuals, Institutions and Markets         Economics         1           Inance         Management         1           Management         1           Sociology         1           Anthropology         1           Political Science         1           Law         1           Communication and Information Sciences         1           Education and Science Policy         1           History and Philosophy of Science and Technology         1           Social Studies of Science and Technology         1           Environment, Space and Population         Geography         1           Urban and Regional Studies         1           Landscape Architecture         1           Landscape Architecture         1           Landscape Architecture         1           Cognition         1           Educational and Developmental Psychology         1           Community and Health Psychology         1           Inical Psychology         1           Environmental Studies         1           Community and Health Psychology         1           Education Sciences         1           Education Sciences	Finance	IIM-FIN
	IIM-GES	
	Sociology	IVC-SOC
	Anthropology	IVC-ANT
	Political Science	IVC-CPO
Institutions, Values,	Law	IVC-JUR
Beliefs and Behaviour	Communication and Information Sciences	IVC-COM
	Education and Science Policy	IVC-PEC
	History and Philosophy of Science and Technology	IVC-HFC
	Social Studies of Science and Technology	IVC-ESCT
	Geography	ATP-GEO
	Demography	ATP-DEM
Environment, Space and	Urban and Regional Studies	ATP-EUR
Population	Environmental Studies	ATP-EAM
	Architecture	ATP-AQI
	Landscape Architecture	ATP-ARP
	Applied Psychology	MHC-PAP
	Clinical Psychology and Psychological Evaluation	MHC-PCL
	Cognitive Psychology, Neuropsychology and Social Cognition	MHC-PCN
	Educational and Developmental Psychology	MHC-PED
The Human Mind and its	Community and Health Psychology	MHC-PSC
Complexity	Social and Organisational Psychology	MHC-PSO
	Linguistics	MHC-LIN
	Education Sciences	MHC-CED
	Philosophy	MHC-FIL
	Ethics	MHC-ETI
	Religion	MHC-REL
	Literary Studies	CPC-ELT
	Art Studies	CPC-EAT
	Visual Arts	CPC-VIS
	Performing Arts	CPC-PER
Cultures and Cultural	Design	CPC-DES
Troduction	Media Arts	CPC-ARM
	Music and Musicology	CPC-MMU
Music and Musicology Comparative Studies		CPC-CMP
	Art History	CPC-HAT
	Archaeology	EPH-ARQ
The Study of the Human	History	EPH-HIS
Γαοι	Cultural Heritage	EPH-PAT

# VI. TIMELINE - FROM SUMISSION TO APPROVAL

The diagram below shows the timeline for the various steps from submission of the proposal to approval of the project (in Portuguese). It corresponds to the timeline set forth in the Regulations.

