



CORE

MULTI-ANNUAL THEMATIC
RESEARCH PROGRAMME

Application Guidelines

APPLICATION GUIDELINES

CORE 2014 CALL

These guidelines provide practical information to potential applicants in preparing and submitting an application to the FNR's 'CORE Multi-Annual Thematic Research Programme'.

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What is new in the CORE 2014 Call?

- One stage submission procedure;
- PIs must hold a doctoral degree at submission deadline;
- POLLUX (INTER scheme) has been incorporated into CORE;
- New rules for overhead costs apply.

Further call information, forms and guidelines are available on the FNR webpage:
www.fnr.lu/CORE

1. Introduction

1.1. General Principles

The research activities under the CORE programme should fulfil the following general principles:

- Research activities should respect fundamental **ethical principles**, including those which are reflected in the Charter of Fundamental Rights of the European Union. If necessary, the approval of the Comité National d'Éthique de Recherche (CNER) and/or the Commission Nationale de la Protection des Données (CNPd) need to be sought prior to the launch of the project. In case the project has ethical implications, it is mandatory to join a plan explaining how these implications will be dealt within the proposal.
- **Research misconduct** e.g. provision of false information, plagiarism or falsification of data, may result in a rejection of the proposal. The FNR reserves the right to pursue further steps according to the 'Research Integrity Guidelines'. Applicants must comply with the 'FNR Research Integrity Guidelines' accessible under: [www.fnr.lu/en/Calls, Forms & Guidelines/General Guidelines](http://www.fnr.lu/en/Calls_Forms_and_Guidelines/General_Guidelines).
- The FNR attaches great importance to the **impact of research results** on science, industry, policy makers and the society in general. The FNR expects results to be published in peer-reviewed publications¹. The FNR also encourages the protection and the economic exploitation of research results when it is possible and applicable. Besides, the FNR also encourages the dissemination of research towards the general public and the media. Thus activities aimed at generating impact need to be foreseen from the initial project planning on under all thematic priorities.
- Financial support from FNR must be acknowledged in all publications and other forms of media communication, including media appearances, press releases and conferences.
- In the **implementation of the research activities**, adequate attention needs to be paid to gender mainstreaming, as well as to, inter alia, working conditions, transparency of recruitment processes, and career development as regards the researchers recruited on CORE projects. In this matter, the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers² offer a reference framework.

¹ The FNR considers the following as peer-reviewed publications:

- A publication in a journal of the list of journals with impact factors published yearly by ISI Thompson,
- A publication in the journal index established by SCOPUS, or
- A monograph with a review board.

² The European Charter for Researchers and the Code of Conduct for their recruitment can be downloaded from <http://ec.europa.eu/euraxess/rights>

1.2. Eligibility

1.2.1. Eligibility of Beneficiary Organisations

Funds provided by the FNR in the framework of CORE are aimed at **beneficiary organisations** as specified in article 3 of the law creating the FNR, namely:

- a public research centre or the CEPS/INSTEAD;
- the University of Luxembourg;
- public bodies, departments or establishments authorised in their respective fields to undertake research activities, and to develop and transfer technology with a view to furthering scientific progress or technological innovation.

Each proposal must be accompanied by the approval of the person authorised to legally commit the institutions of the involved researchers.

'Contracting Partners' are institutions which are eligible for funding and which seek direct financial support from the FNR.

Among those, the PI's host institution is referred to as **'Coordinating Institution'**.

'Non-contracting Partners' are organisations or individuals from the public or private sector (within Luxembourg or abroad) participating in the project without direct financial support from the FNR.

'Subcontractors' are not considered as partners (contracting or non-contracting) in the project.

1.2.2. Principal Investigator (PI)

The PI is the researcher having the scientific lead of the project on a daily basis. He is responsible for controlling the implementation and academic quality of the project, and for ensuring that the project is carried out in compliance with the terms, conditions, and policies of the FNR and those of the partner institutions. The PI is assumed to be the author of the proposal.

To be eligible for CORE funding, the PI has to fulfil the following criteria:

- The PI must **be employed at an eligible beneficiary organisation** at the time of the start of the project and for the full duration of the research project.
- The PI must be an experienced researcher who holds a **doctoral degree** (date of submission deadline counts, valid for CORE and CORE Junior).

For PIs not holding a doctoral degree equivalent research experience might be accepted. The coordinating institution is expected to provide documentation demonstrating the PIs research and project management experience. In any case, the internal rules of the coordinating institution need to be respected. The appropriateness of the PI to successfully lead the project is an essential element of the evaluation procedure. PIs are advised to submit proposals that are appropriate to their track record and experience. Applicants with a shorter research and project management track record are encouraged to submit their

project application through the optional “CORE Junior Track” (see details in **1.3. CORE Junior Track**).

Besides the above-mentioned eligibility criteria, self-employed, retired and emerited persons are not eligible to apply as PIs, even if the beneficiary organisation can establish the contractual framework enabling the person to take the lead of a project within the institute. Such persons may only contribute to a project as non-contracting partners. Thus PIs entering retirement before the end of the project are therefore not eligible.

As an exception to the general rule, a PI seconded from a different institution (e.g. hospital, administration, institute abroad) to perform research at a beneficiary organisation is eligible as applicant providing that:

1. the secondment (the detachment of a person from his/her regular organisation for a temporary assignment elsewhere) is contractually agreed between all three parties (PI, beneficiary organisation and seconding institution³),
2. the purpose of the secondment is to enable the PI to conduct a long-term research programme at the beneficiary organisation (the secondment agreement should therefore last for the full duration of the proposed project),
3. there are valid reasons why the PI cannot be employed directly by the beneficiary organisation.

The FNR can cover the personnel costs of the seconded PI provided that formal arrangements on who pays the salary of the PI exist and that this arrangement does not lead to a double financing.

1.2.3. Domain coverage

With CORE, the FNR provides funding for high quality research projects in the following 5 priority domains selected in the foresight exercise of 2005 and retained by the government:

- Innovation in Services;
- Sustainable Resource Management in Luxembourg;
- New Functional and Intelligent Materials and Surfaces and New Sensing Applications;
- Biomedical and Health Sciences;
- Societal Challenges for Luxembourg.

In the ‘CORE programme description’, the 5 priority domains are elaborated in detail.

Funding for emerging research areas in Luxembourg currently not covered by the 5 CORE domains is provided by the OPEN programme (www.fnr.lu/OPEN).

³ In the special case of the secondment of a person having a civil servant status, a statutory ruling from the authority may replace the contractual agreement.

1.3. CORE Junior Track

In view of providing non-established PIs with an adequate framework for first project applications, the FNR has developed a 'Junior Track' within CORE. The CORE Junior Track targets early career-stage researchers who have been awarded little or no own project funding as yet but who wish to establish their independent research line⁴.

The 'Junior Track' applications are processed and evaluated like standard CORE proposals, the same high peer-review standards apply. The reviewers will take into account however that these starting investigators do not have an extensive track record concerning project management and generally have no or little preliminary data related to the proposed project. To off-set the inexperience of the PI, Junior Track projects are **restricted in magnitude** and foresee guidance through a **local scientific advisor and a mentor abroad**. The mentor is an established foreign researcher who will provide independent advice on the scientific orientation of the project and career development as well as help establish an international network. It is also understood that the PIs will work on their CORE Junior project for a large percentage of their time.

Characteristics of CORE Junior Track:

- CORE Junior Track projects should help inexperienced PIs to establish their own independent research lines;
- The ambition and thus the feasibility of the project should be commensurate with the experience of the PI;
- The PI should work at least 50% on the project;
- Human resources are limited to 2 FTE persons (including the PI's own contribution);
- Besides the local scientific advisor, a mentor abroad is mandatory;
- Extra funding is granted for mentoring and additional training;
- The project should be initiated by the Junior PI and should be hosted within an existing research group. The experienced local scientific advisor and mentor fulfil a role of guidance but provide sufficient freedom to the Junior PI to pursue his/her own research ideas;
- Maximum 1 national or international collaboration (in addition to the mentor).

1.4. International Co-Funding

Through a set of cooperation agreements with foreign funding agencies, the FNR intends to facilitate the **funding of bi-lateral projects** between Luxembourg researchers and their colleagues abroad. These agreements are based on the **Lead Agency** principle: both agencies base their funding decision on the results of one single evaluation procedure managed by one of the funding organisations (the so-called Lead Agency). In general, this is done by the country where the main research effort in terms of human resources is accomplished.

⁴ Non-established PIs may consult the publication 'Navigating the research funding environment' available under www.info.funding.scival.com/documents/files/overall/pdf/whitepaper.pdf.

Applicants within the CORE programme, may request funding of their foreign colleagues by the following funding agencies:

- Deutsche Forschungsgemeinschaft (DFG, Germany);
- Schweizerischer Nationalfonds (SNF, Switzerland);
- Fonds zur Förderung der wissenschaftlichen Forschung (FWF, Austria);
- European Molecular Biology Laboratory (EMBL);
- National Centre for Research and Development of Poland (NCBR, Poland).

DFG, SNF and FWF

Collaborative projects requesting funding from these three agencies, may be submitted to all five CORE domains. Projects where the main research effort lies in Germany, Switzerland or Austria should be submitted to the respective funding agency.

EMBL

The cooperation with EMBL is restricted to the domain of Biomedical and Health Sciences, and the FNR will always be the evaluating agency i.e. the Lead Agency.

NCBR

The cooperation with NCBR is restricted to the domain of Innovation in Services, and the FNR will always be the evaluating agency i.e. the Lead Agency.

Further international co-funding with funding agencies other than the above can be applied for through the FNR INTER programme (www.fnr.lu/Inter). The application and review processes will though differ from the CORE process.

1.5. Project characteristics

1.5.1. Project duration

The project must have a duration of **2 to 3 years**. In case funding for a PhD student is foreseen to be covered by the CORE project budget, the project duration must be 3 years.

In case PhD candidates are foreseen on the project, the FNR gives the possibility of an up to one-year extension period to finalize their thesis. The costs for this extension have already to be requested at submission stage. Later applications for extensions for PhD candidates funding will not be considered.

Please note that the FNR reserves the right to review any offer of support if the start of the project is delayed for more than six months after the organisation has received the written confirmation of the FNR support.

1.5.2. Number of project proposals per PI

Up to two project proposals may be submitted per PI. However, the experience of the previous CORE calls shows that PIs should concentrate their efforts on a single application.

Only **one application** is allowed for CORE Junior Track applicants.

1.5.3. Language of proposal

All application documents have to be written in **English**.

1.6. Evaluation Criteria

The scientific merit of the proposal is assessed based on the following selection criteria. For CORE Junior track proposal, the assessment of the criteria has to take into account the specifics detailed in chapter 1.3.

1. Innovativeness of idea and scientific relevance

The FNR expects:

- High scientific quality, competitive at an international level,
- Research question(s) and/or hypotheses are original, and are formulated clearly in the proposal,
- Project of high scientific relevance for the research field,
- Direct contribution to advancements of the current state-of-the-art.

By thus:

- Strengthening of the capacities of the research groups in their field of research,
- Increasing their international visibility within the research community.

2. Appropriateness of the approach

Methods proposed have to be:

- Sound,
- Rigorous,
- State-of-the-art, and
- Appropriate for the proposed investigation.

3. General feasibility of the project

- Project carried out and led by an experienced researcher with a proven track record in the field,
- Applicant team with the expertise and complementary knowledge required for the execution of the proposed project,
- Project plan needs to be efficient and ambitious, but feasible during the proposed timeframe,
- Allocated human resources and budget need to be appropriate (Reviewers should rather assess the cost effectiveness of the project in terms of person*months engaged on the project and the proposed costs of equipment and consumables),
- Main infrastructure, necessary for the successful execution of the project, should be available at the start of the project,
- PhD projects must be clearly described and feasible,
- Collaborations with partners from the public or private sector are encouraged but not explicitly requested. In any case, the added value of the collaborations needs to be justified

4. Expected outcome and impact of results

- Scientific publications,
- Patents (if applicable),
- Doctoral and other training: Supervisory skills and available learning environment for PhD or Post-doc training,
- Development of core competences of the research group in view of gaining international visibility and critical mass,

- Dissemination of the research results among the wider public,
- Planned strategies for generating impact during and after the project as well as the description of how potential users are to be involved in the project in view of exploitation of the results (i.e. exploitation of intellectual property generated, raising of scientific awareness, improvement of quality of life, etc. only if applicable),
- Value of intended economic, environmental and societal impacts.

5. In addition, for CORE Junior: Contribution to advancement of career

- Track record of the mentor and of the hosting group,
- Contribution of the mentor and of the hosting group to the advancement of the Junior PI's autonomous research career,
- Training and mentoring plan: contribution towards the development of the Junior PI's own research line and project management skills,
- Feasibility: ambition of the project matches the Junior PI's experience in research.

1.7. Ethical Issues

The present **Ethical Issues Table** from the ERC grant proposals provides a guide to what are considered to be ethical issues. If the answer to any of the questions of the Ethical Issues Table is YES, the applicant must provide a brief description of the ethical issue involved and how it should be dealt with appropriately in the relevant section of the Application. The applicant should outline the benefit and burden of such research, the effects it may have and how the ethical issues will be managed. Ethical issues need to be considered for the whole project and not only for the activities executed in Luxembourg.

The application should specify any already existing authorisation or permission for the proposed work and include copies (the copies do not count towards the page limit). On this basis, a proper ethical screening is possible if the proposal is considered for funding.

Ethical Issues Table

Research on Human Embryo/Foetus
Does the proposed research involve human Embryos?
Does the proposed research involve human Foetal Tissues/Cells?
Does the proposed research involve human Embryonic Stem Cells (hESCs)?
Does the proposed research on human Embryonic Stem Cells involve cells in culture?
Does the proposed research on Human Embryonic Stem Cells involve the derivation of cells from Embryos?
DO ANY OF THE ABOVE ISSUES APPLY TO MY PROPOSAL?
Research on Humans
Does the proposed research involve children?
Does the proposed research involve patients?
Does the proposed research involve persons not able to give consent?
Does the proposed research involve adult healthy volunteers?
Does the proposed research involve Human genetic material?
Does the proposed research involve Human biological samples?
Does the proposed research involve Human data collection?
DO ANY OF THE ABOVE ISSUES APPLY TO MY PROPOSAL?

Privacy
Does the proposed research involve processing of genetic information or personal data (e.g. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)?
Does the proposed research involve tracking the location or observation of people?
DO ANY OF THE ABOVE ISSUES APPLY TO MY PROPOSAL?
Research on Animals
Does the proposed research involve research on animals?
Are those animals transgenic small laboratory animals?
Are those animals transgenic farm animals?
Are those animals non-human primates?
Are those animals cloned farm animals?
DO ANY OF THE ABOVE ISSUES APPLY TO MY PROPOSAL?
Research Involving Developing Countries
Does the proposed research involve the use of local resources (genetic, animal, plant, etc)?
Is the proposed research of benefit to local communities (e.g. capacity building, access to healthcare, education, etc)?
DO ANY OF THE ABOVE ISSUES APPLY TO MY PROPOSAL?
Dual Use
Research having direct military use
Research having the potential for terrorist abuse
DO ANY OF THE ABOVE ISSUES APPLY TO MY PROPOSAL?
Other Ethical Issues
Are there OTHER activities that may raise Ethical Issues?
If YES please specify:

The following special issues should be taken into account:

Informed consent: When describing issues relating to informed consent, it will be necessary to illustrate an appropriate level of ethical sensitivity, and consider issues of insurance, incidental findings and the consequences of leaving the study.

Data protection issues: Avoid the unnecessary collection and use of personal data. Identify the source of the data, describing whether it is collected as part of the research or is previously collected data being used. Consider issues of informed consent for any data being used. Describe how personal identify of the data is protected.

Use of animals: Where animals are used in research the application of the 3Rs (Replace, Reduce, Refine) must be convincingly addressed. Numbers of animals should be specified. Describe what happens to the animals after the research experiments.

Human embryonic stem cells: Research proposals that will involve human embryonic stem cells (hESC) will have to address all the following specific points:

- the applicants should demonstrate that the project serves important research aims to advance scientific knowledge in basic research or to increase medical knowledge for the development of diagnostic, preventive or therapeutic methods to be applied to humans;
- the necessity to use hESC in order to achieve the scientific objectives set forth in the proposal. In particular, applicants must document that appropriate validated alternatives (in particular, stem cells from other sources or origins) are not suitable

and/or available to achieve the expected goals of the proposal. This latter provision does not apply to research comparing hESC with other human stem cells;

- the applicants should take into account the legislation, regulations, ethical rules and/or codes of conduct in place in the country(ies) where the research using hESC is to take place, including the procedures for obtaining informed consent;
- the applicants should ensure that for all hESC lines to be used in the project were derived from embryos;
- the donor(s)' express, written and informed consent was provided freely, in accordance with national legislation prior to the procurement of the cells;
- that result from medically-assisted in vitro fertilisation designed to induce pregnancy, and were no longer to be used for that purpose;
- the measures to protect personal data and privacy of donor(s), including genetic data, are in place during the procurement and for any use thereafter. Researchers must accordingly present all data in such a way as to ensure donor anonymity;
- the conditions of donation are adequate, and namely that no pressure was put on the donor(s) at any stage, that no financial inducement was offered to donation for research at any stage and that the infertility treatment and research activities were kept appropriately separate.

In case of multi-national projects, identify the countries where research will be undertaken and which ethical committees and regulatory organisations will need to be approached during the life of the project.

1.8. Consortium agreement and Intellectual Property Rights (IPR) management

Experience has shown that the signing of agreements governing intellectual property rights between all parties is a time consuming process. Therefore fully fledged agreements should only be signed when absolutely necessary. A Consortium Agreement and an Intellectual property rights agreement is mandatory in the following cases:

- If intellectual property goes beyond simple authorship rights and a protection via patenting of the project results is probable and/or there may be possible commercialisation of the project results;
- A company or private institution is part of the consortium;
- One of the parties involved explicitly requests such an agreement.

Consortium constellations that do not require fully fledged agreements:

- If intellectual property is limited to scientific publications (and data sets), the consortium (in this case the consortium is usually composed of universities and public research institutions in and outside of Luxembourg) should:
 - At least indicate in the relevant section of the project description, how the authorship of the publications and the management and access to the data sets are settled amongst the project partners;
 - Indicate any other statement agreed between the parties or;
 - Sign a consortium agreement (only if it is specifically requested by the parties).

Consortium agreement (CA): Agreement governing the approach and rights and obligations among the members of the consortium including authorship rights of publications.

Intellectual property rights agreement (IPRA): All rights to technical solutions, methods, processes and procedures, regardless of whether or not these are or may be patented, as well as all copyrights and other rights to trademarks, authorship rights of publications, design, plant species, databases, integrated circuit layout designs, drawings, specifications, prototypes, company-internal secrets and the like.

In order to shorten the proposals, the applicants should refrain from adding complete template versions of CA or IPRA but state only the principles that govern these agreements.

If the applicants have further questions to this issue, they should contact the administration of their host institution and the FNR.

2. The selection process

2.1. CORE Evaluation

The CORE Peer Review process guarantees an independent, state-of-the-art evaluation of the application which has the objective to select the research projects that reflect the highest **scientific quality**. The CORE review process consists of several stages:

- Proposals undergo an administrative eligibility check,
- Eligible proposals are peer-reviewed by independent, international researchers,
- A thematic expert panel rates the proposals and recommends funding,
- The FNR decision bodies select the projects to be funded based on the recommendation by the thematic expert panel,
- The funding decision is communicated to the applicants.

2.2. Administrative eligibility check

In order to be eligible, the proposals must fulfil all of the following criteria:

- Proposals must be submitted before the deadline,
- Proposals must be complete (i.e. all of the requested components and forms must be included),
- Proposals must respect the requested format and maximum length and have to be written in English,
- Proposals must be submitted by an eligible FNR beneficiary organisation,
- PI must fulfil the eligibility criteria (set out in chapter **1.2. Eligibility**),
- The proposed research topics must fit into the CORE thematic domain.

Applications not conforming to one of these elements are rejected at this stage without further evaluation. Ineligible applicants are informed **within 2 months after the submission deadline of the proposal**.

2.3. Evaluation

Each eligible proposal is usually sent to at least **three reviewers** who are asked to complete a written evaluation according to the following selection criteria (explained in detail in chapter **1.6. Evaluation Criteria**):

- Innovativeness of idea and scientific relevance,
- Appropriateness of the approach,
- General feasibility (Competence of the PI and applicant team; research plan; institutional infrastructure, research environment),
- Expected outcome and impact of results,
- For CORE Junior only: Contribution to advancement of the career.

In a second step an **expert panel** assesses the proposals based on the written evaluations, gives a funding recommendation and summarises the main arguments supporting the funding recommendation in a report (**Panel Conclusion**).

Proposals not fulfilling the minimal quality criteria (with low scorings by all reviewers) do not need to be discussed in the panel meeting but the justification of the low scoring will be checked by the panel.

In the last step, the **FNR decision bodies** (Scientific Council and Board) select the proposals to be funded based on the recommendation of the expert panel.

After the funding decision, applicants receive feedback from the FNR together with the full anonymous written evaluations of their proposal and the 'Panel Conclusion'

2.4. Peer-review process

A detailed description of the review process and the selection criteria can be found in the '**Peer Review Guidelines**' available on the FNR webpage: www.fnr.lu/CORE.

The applicant has the possibility to send an email to the FNR with a list of **maximum 3 experts who should not be contacted as reviewers** for the specific project to submission@fnr.lu before the submission deadline. The email has to explain why this/these expert(s) should not be contacted. The FNR however reserves the right to make the final selection of the reviewers.

3. Applying for the CORE call

3.1. Submission deadline

Proposals must be submitted by the coordinating institutions' administrations (not by the PI) in electronic format to the online submission system (FNR Grant Management System) <https://grants.fnr.lu> no later than **14:00 (CET) on the 29 April 2014**.

3.2. FNR Grant Management System

All FNR Grants, including the CORE 2014 Call are managed through an **online submission system** (FNR Grant Management System) accessible via <https://grants.fnr.lu>. This system provides applicants a web services interface for automated submission and further monitoring of completed grant applications and related services (acknowledgement emails, notifications and reminders).

The system guides the applicants through the different steps of the application procedure. All forms have to be filled in online and submitted in electronic format.

The font and page limitations indicated in the application forms have to be respected, otherwise the FNR may decide to not further process the application or to shorten it to the indicated page limit.

The publication '**e-Tutorial: Online Application**' explaining how to log into the system and how to create a new application can be downloaded from the FNR webpage: www.fnr.lu/CORE.

For technical questions regarding the 'FNR Grant Management System', the FNR can be contacted by email at tech-support@fnr.lu or call our Help Desk at +352 26 19 25 51.

3.3. The Application

The CORE Proposal Application consists of 2 different steps:

- **Step 1: Completing the Online Application Form**
- **Step 2: Submitting the Online Application Form**

CORE Applications consist of **different elements**:

- The '**Online Application Form**' is completed in the FNR's online 'Grant Management System' and contains the general administrative and budgetary details of the application;
- The '**Project Description Form**' contains more detailed information on the proposed research project, i.e. on its scientific content as well as the organisation of the tasks to be undertaken. This Word file has to be downloaded to the applicant's own desktop and completed off-line before being converted to PDF and uploaded. The number of pages indicated in the template must be respected. The '**Project Description Form**' is part of a web-based online application and cannot be submitted alone;
- A **Recent Curriculum Vitae of the PI** (no template provided);
- **Recent Curricula Vitae of the Main Researchers** in the Project (no template provided);
- The **Project Plan** contains the graphical representation of the project plan including human resources planning;

- For CORE Junior projects: support letter by the mentor abroad (no template provided);
- For projects requesting international co-funding: additional forms need to be completed.

An **e-Tutorial** for the 'Grant Management System' is available in the 'Help' section of the online submission system and on the FNR website. Information on how to prepare the proposal is given on the following pages in *blue italic characters* inside the forms.

An Excel sheet named 'CORE 2014 Budget.xls' is available for guiding through the calculation of the project costs under www.fnr.lu/CORE. An upload of that sheet is not required at application stage but a detailed justification of the costs is to be provided in the appropriate section.

For further advice and support can be obtained by contacting the FNR Programme Assistant.

3.4. Step 1: Completing the Online Application Form

Step 1 of the CORE Proposal Application consists of 4 different tasks, which are presented as a 'To Do' list:

- **Task 1: Consult the Application Guidelines**
- **Task 2: Download the Project Description Form from the FNR Website**
- **Task 3: Online Application Form - CORE**
- **Task 4: Generate PDF**

After completion of each task, the button 'Done' validates the completion of the task and removes it from the 'To Do' list.

The first task named '**Consult the Application Guidelines**' consists in reading the present document (from cover to cover) guiding the applicant through the application stages.

The second task named '**Download the Project Description Form from the FNR Website**' requires to download a WORD document, named '**Project Description Form**'. This document should be saved to the desktop and completed off-line. A detailed description of the form is available in **section 3.4.6. Attachments**.

The third task '**Online Application Form - CORE**' is divided into 6 sections which can be accessed individually:

- **Section 1. Principal Investigator and Coordinating Institution**
- **Section 2. Research Project**
- **Section 3. Research Project Consortium and Human Resources**
- **Section 4. Legal and Ethical Requirements**
- **Section 5. Financial Part**
- **Section 6. Attachments**

The forms may be saved at any time and completed later. Before submitting the completed form, applicants need to make sure that all mandatory questions (marked with *) have been filled out. Explanations on how to complete the '**Online Application Form**' are provided in the sections below (sections 3.4.1 to 3.4.6).

3.4.1. Principal Investigator and Coordinating Institution

Section 1.1. Principal Investigator (PI)

- Application ID: *Generated automatically*
- First Name: * *May only be modified through your profile.*
- Family Name: * *May only be modified through your profile.*
- Gender: * *Select from list Male/Female*
- Title: * *e.g. Dr, Prof., etc.*
- Category of Position: * *e.g. Head of Unit, Head of Department, Assistant Professor, etc.*
- Do you hold a Doctorate (PhD): * *Select Yes/No*
- Discipline of Doctorate (PhD): * *If no doctoral title please write 'none'*
- University/Institution Issuing the Doctoral Certificate: * *If no doctoral title please write 'none'.*
- Date of the Doctoral Certificate:
- Email: * *May only be modified through your profile*
- Phone Number:
- Date of Birth: *
- Nationality: *

Section 1.2. Coordinating Institution

- Name of Coordinating Institution: * *Name of the Luxembourgish institution where the PI works (select from drop-down menu)*
- Department: * *Official name (and acronym) of the department and research group*
- Website of Group:

To validate this section and jump to the next one, click the button 'Save draft and continue to next section'!

3.4.2. Research Project

Section 2.1. Research Project

- Project Title: * *Should not be longer than 200 characters.*
- Project Acronym: * *The short title or acronym is used to identify the proposal efficiently. Should not be longer than 10 characters.*
- Project Start: * *Latest start of the project is 1 May 2015. The start of the project must occur six months after the organisation has received written confirmation of FNR support (end of October 2014) at the latest, otherwise the FNR might withdraw any offer of support.*
- Project Duration (in months): * *Expected project duration. Projects should have a duration of 2-3 years. In case funding for a PhD student is foreseen to be covered by the CORE project budget, the project duration must be 3 years.*
- CORE Junior Track: * *Select Yes/No*
- Resubmission or Follow Up: * *Select Yes/No*
- If "yes", provide more details: * *Funding period and reference*

Section 2.2. Research Priority in FNR Call

One of the following research priorities should be selected from the list in the online system:

- Innovation in Services
 - Development and Performance of the Financial Systems
 - Business Service Design
 - Information Security and Trust Management
 - Telecommunication and Multimedia
- Sustainable Resource Management in Luxembourg
 - Water Resources under Change
 - Sustainable Management and Valorization of Bioresources
 - Sustainable Building and Bioenergy
 - Spatial and Urban Development
- New Functional and Intelligent Materials and Surfaces and New Sensing Applications
 - New Functional and Intelligent Materials and Surfaces
- Biomedical and Health Sciences
 - Regenerative Medicine in Age-related Diseases
 - Translational Biomedical Research
 - Public Health
- Societal Challenges for Luxembourg
 - Social and Economic Cohesion
 - Education and Learning
 - Identities, Diversity and Interaction

Accordance with CORE thematic research priorities: *

Explain how your proposal fits into the context of the FNR CORE thematic research priorities (cf. CORE 2014 Programme Description, chapter 4). Proposals not clearly related to the FNR CORE thematic programme will not be considered for funding (max. 0,5 page).

Section 2.3. Project Summary

- Key words characterising the Research Project: * *3-8 key words considered sufficient to characterise the scope of the proposal.*
- Publishable Project Abstract (max. 0,5 page): * *Scientifically oriented executive summary. This abstract should provide a clear understanding of the prime objectives of the proposal and how they will be achieved. The Project Abstract should be concise, clear, informative, self-contained and may not include any confidential information as it may be used by FNR staff when contacting external scientific experts. The Project Abstract will not be published on the FNR website without prior approval by the applicant.*

Section 2.4. Primary and Secondary Domains of the Research Project

- Life Sciences (LS)
 - LS1 Molecular and Structural Biology and Biochemistry
 - LS2 Genetics, Genomics, Bioinformatics and Systems Biology
 - LS3 Cellular and Developmental Biology
 - LS4 Physiology, Pathophysiology and Endocrinology
 - LS5 Neurosciences and neural disorders
 - LS6 Immunity and infection
 - LS7 Diagnostic tools, therapies and public health
 - LS8 Evolutionary, population and environmental biology
 - LS9 Applied life sciences and biotechnology
- Mathematics, Physical Sciences, Information and Communication, Engineering, Universe and Earth Sciences (PE)
 - PE1 Mathematical foundations
 - PE2 Fundamental constituents of matter
 - PE3 Condensed matter physics
 - PE4 Physical and Analytical Chemical sciences
 - PE5 Materials and Synthesis
 - PE6 Computer science and informatics
 - PE7 Systems and communication engineering
 - PE8 Products and process engineering
 - PE9 Universe sciences
 - PE10 Earth system science
- Social Sciences and Humanities (SH)
 - SH1 Individuals, institutions and markets
 - SH2 Institutions, values, beliefs and behaviour
 - SH3 Environment and society
 - SH4 The Human Mind and its complexity
 - SH5 Cultures and cultural production
 - SH6 The study of the human past

A list with the descriptions of the Domains (Subdomains) is provided on the FNR website.

To validate this section and jump to the next one, click the button 'Save draft and continue to next section'!

3.4.3. Research Project Consortium and Human Resources

Section 3.1. Contracting Partners (only institutions different from the Coordinating Institution)

A 'Contracting Partner' is an institution which is eligible for funding and which is seeking financial support from the FNR, e.g. the University of Luxembourg, the CRPs, the CEPS/INSTEAD or other public-sector research organisations eligible at the FNR. *Do not add the Coordinating Institution here as this information has already been communicated under 1.2.*

Mandatory information:

- Institution
- Department
- Researcher in Charge
- Web Address.

Click the 'Add' button to validate and/or add new partners.

Section 3.2. Non-contracting Partners / International Co-funding Partner (International Funding Agency)

A 'Non-contracting Partner' is an organisation or individual from the public or private sector (from Luxembourg or abroad) participating in the project without financial support from the FNR, e.g. company or foreign university .

An 'International Co-funding Partner' is a foreign institution applying for co-funding at the 'International Funding Agency' in his country; the FNR being the 'Lead Agency'.

- Are you requesting funding by an International Funding Agency? **Select Yes/NO*
- If yes, which is the International Funding Agency? *None/DFG/SNF/FWF/EMBL/NCBR*

Mandatory information:

- Institution (International Funding Agency): *'Name of the Non-contracting Partner'. If applicable add the 'International Co-funding Partner' followed by its 'International Funding Agency' in brackets e.g. Universität Trier (DFG)*
- Department:
- Researcher in Charge:
- Web Address:

Click the 'Add' button to validate and/or add new partners.

Section 3.3. List of Human Resources *

The items in the table should be filled in for each human resource position. For each position type involving less than 3 person*months per project, the different researchers have to be grouped into one single item (e.g. three technicians working each 1 person*month on the project should be grouped in one line). In case PhD candidates are foreseen, their funding for 48 months must already be requested at this stage. Later applications for extensions for PhD candidates funding will not be considered.

Institution(s)	Position type	Qualification level	Name(s) of researchers hired for this type position	Person* months	Person* months Financed by FNR	Total estimated amount of the salary costs to be covered by FNR
<i>Institution where the researchers will be working</i>	<i>Group leader, student, technician</i>	<i>MSc, PhD, Professor, etc.</i>	<i>Name(s) of the researchers, N.N. if the name is not available yet</i>	<i>Person* months on project</i>		

- Total Effort (Person Months): * *'Person*months' is the metric for expressing the effort (amount of time) PIs and other personnel devote to a specific project. The effort is based on the presumption that each fulltime member of staff can work 12 person*months per calendar year. Please give a total person*months needed for the duration of the project.*
- Total Effort to be Financed by Project (Person Months) * *person*months for which you intend to request FNR funding.*
- Total Effort PI (Person Months) * *The total person*months you intend to work on the project as PI.*
- Total Number of PhD candidates financed by Project (for contracting partners only): * *Select relevant number*

Section 3.4. PhD Candidates

For each PhD candidate, please fill in the following items:

- First Name of PhD Candidate *First name of the candidate, N.N. if the name is not available yet.*
- Last Name of PhD Candidate *Last name of the candidate, N.N. if the name is not available yet.*
- Title of Thesis *or draft title*
- Name of Academic Supervisor *Name of the Professor who will supervise the PhD. (needs to be known at submission)*
- Institution issuing the PhD *Name and country of the institution. (needs to be known at submission)*
- Expected Start Date: *PhD candidates funded by the project should work 100 % on the project, and their thesis should start at the beginning of the project at the latest. Please note that their funding for 48 months must already be requested at this stage. Later applications for extensions for PhD candidates funding will not be considered.*
- Expected Award Date *Approximate date when candidate will be awarded his/her PhD.*
- AFR Grant Code *(if applicable)*

Click the 'Add' button to validate each candidate.

To validate this section and jump to the next one, click the button 'Save draft and continue to next section'!

3.4.4. Legal and Ethical Requirements

Section 4.1. Legal and Ethical Requirements

- Does the Project give rise to Ethical Issues? *Yes/No*
- Does the Project need to be submitted to the 'Commission Nationale de la Protection des Données (CNPd)' and/or 'Comité National d'Éthique de Recherche (CNER)' for approval? *Yes/No. More info on www.cnpd.lu and www.cner.lu. If applicable, approval(s) is/are required before the start of the project.*
- If 'Yes', how will Ethical Issues be addressed? *If the project gives rise to ethical issues, please briefly indicate what they consist in and how they will be addressed. Ethical issues are not limited to issues handled by the 'Commission Nationale de la Protection des Données' and/or the 'Comité National d'Éthique de Recherche' (for more details see chapter 1.7. Ethical Issues). The PI is advised to contact the department in charge of ethical issues in its research institution for support.*

To validate this section and jump to the next one, click the button 'Save draft and continue to next section'!

3.4.5. Financial Part

For completing the sections below, please consult the Financial Guidelines in Annex 1 describing the rules for eligibility of costs to be respected. In addition an Excel sheet named 'CORE 2014 Budget.xls' is available for calculating the project costs under www.fnr.lu/CORE. An upload of that sheet is not required at application stage but a detailed justification of the costs is to be provided in the appropriate section below. The feasibility of the project will be evaluated by reviewers based on that information.

Section 5.1. Funding requested from FNR (Coordinating Institution and Contracting Partners)

For the **Coordinating Institution and each Contracting Partner**, insert the amounts for the following items: *Provide an estimation for each cost category. Do not use points or commas as decimal separators. Make sure that the indicated numbers are correct and well justified since they form the basis for the evaluation and the possible later negotiation.*

Cost category	Coordinating Institution	Contracting Partner
Personnel		
Equipment		
Consumables		
Travel Costs		
Other Costs		
Total of direct costs	<i>Automatically filled in</i>	<i>Automatically filled in</i>
25% Overheads (indirect costs)	<i>Automatically filled in</i>	<i>Automatically filled in</i>

Total of direct costs plus overheads (not including subcontracting)	<i>Automatically filled in</i>	<i>Automatically filled in</i>
Subcontracting		
Total Costs	<i>Automatically filled in</i>	<i>Automatically filled in</i>

Requested Funds from FNR	<i>Automatically filled in (sum of the total costs of each contracting partner)</i>
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Please note that overheads (indirect costs) cannot be claimed by public administrations (see financial guidelines in Annex 1). The amount for the overhead costs indicated for public administrations in the table above will be deducted from the total by FNR after submission.

Section 5.2. Overall costs of the project (FNR funding + other funding, including own contributions) for Coordinating Institution and Contracting Partners

For the **Coordinating Institution and each Contracting Partner**, insert the amounts for the following items: *Provide an estimation for each cost category. Do not use points or commas as decimal separators. Make sure that the indicated numbers are correct and well justified since they form the basis for the evaluation and the possible later negotiation.*

Cost category	Coordinating Institution	Contracting Partner
Personnel		
Equipment		
Consumables		
Travel Costs		
Other Costs		
Total of direct costs	<i>Automatically filled in</i>	<i>Automatically filled in</i>
Overheads		
Total of direct costs plus overheads (not including subcontracting)	<i>Automatically filled in</i>	<i>Automatically filled in</i>
Subcontracting		
Total Costs	<i>Automatically filled in</i>	<i>Automatically filled in</i>

Overall project costs (for all contracting partners)	<i>Automatically filled in (sum of the total costs of each contracting partner)</i>
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Section 5.3. Justification for the requested funding

- Common justification for the requested funding for equipment; consumables; travel, other costs and subcontracting: * *Justify the project's costs (above figures). The FNR may not fund all costs if the justification is not precisely given. Explain the distribution of costs amongst the partners and the different cost categories (For further information see also Annex 1 of these guidelines). A detailed explanation on the personnel involved is to be provided in section 4 of the project description.*

Section 5.4. Budget Non-contracting Partners / International Co-funding Partner (International Funding Agency)

For each 'Non-contracting Partner' (if applicable also for the 'International Co-funding Partner') insert the following items:

Name of non-Contracting Partner	Overall project costs for each non-contracting partner	Funding requested from International Funding Agency (if applicable)
Personnel (total person*months)		
Total Costs		

Overall project costs (for all non-contracting partners)	<i>Automatically filled in (sum of the total costs of each non-contracting partner)</i>
--	---

Section 5.5. Overall Budget *

- Requested Funds from FNR: * *The funds you intend to request from FNR. Do not use points or commas as decimal separators. For control purposes, please copy to this section the figure automatically calculated by the system in the table in section 5.1.*
- Overall project costs (for all contracting partners): * *Total budget of the project for the contracting partners. Do not use points or commas as decimal separators. For control purposes, please copy to this section the figure automatically calculated by the system in the table in section 5.2.*
- Overall project costs (including non-contracting partners): * *Total budget of the project for all partners, contracting and non-contracting. Do not use points or commas as decimal separators. For control purposes, please copy to this section the figure automatically calculated by the system in the table in section 5.4., if applicable.*

To validate this section and jump to the next one, click the button 'Save draft and continue to next section'!

3.4.6. Attachments

Section 6.1. Project Description

The '**CORE Project Description Form**' is a Word document that can be downloaded by clicking on the respective hyperlink in the FNR online submission system. The document may be saved to the applicant's desktop and completed offline.

This '**Project Description Form**' is part of a web-based online application and cannot be submitted alone. **The page limits of each section should be respected; otherwise the FNR may decide to only forward the first pages within the page limits to the external evaluators.** The **format instructions** given in the '**Project Description Form**' have to be respected. After completion of the Word document, please convert it to PDF and upload it into the system (**no scanned PDF version**). *Only PDF files can be uploaded!*

To replace a file already uploaded, the old file should be REMOVED before uploading the new file to the system.

Ideas and/or text belonging to others must be properly referenced, based on international standards. All applications are checked for plagiarism and any misconduct may result in the immediate disqualification of the application.

In case of a resubmission, modifications should be integrated in the appropriate section of the 'Project Description'. Reviewers' comments can be more specifically addressed in section 5 of the 'Project Description Form'.

Please find hereafter the explanation of the different fields of the '**Project Description Form**':

1. Description of the Proposed Research Project. (max. 7 pages for 1.1. - 1.4.)
1.1. Introduction
<i>Short introduction to intended research project. In case of a follow-up project, please indicate the title and code of the project, specify the link between both projects and justify the need for a follow-up project.</i>
1.2. Relevant state-of-the art and your own contribution to it
<i>Based on a thorough and up-to-date literature survey, please describe the current scientific state-of-the-art and ongoing developments in fields relevant to your proposal including your own previous work. Provide an assessment of further research needs (what are the main ideas that led you to propose this work?).</i>
1.3. Hypotheses, project objectives and contribution to knowledge development in the research field
<i>Outline your project's contribution to the research needs identified above. State your (testable) hypotheses. Clearly define the objectives to be achieved by the project in a realistic and, as far as possible, measurable form.</i>
1.4. Methods and approach
<i>Describe the methods and procedures you will use in order to reach the objectives defined above. Summarise/analyse the underlying theory/theories. Quote the relevant references in Bibliography (section 6).</i>

2. Project plan (3 to 10 pages)

Present a detailed work plan, suitably broken down into an appropriate number of steps (work packages, milestones, scientific objectives or other) which would permit the monitoring of progress during the implementation of the project.

Start with a brief description of the whole project plan (max 1 page) followed by a more detailed explanation for each step.

For each of the steps in the workplan:

- Indicate timing for its completion,
- Provide a brief description of the work to be undertaken (including methods to be applied where appropriate) making reference to the previous sections wherever necessary to avoid redundancy within the text,
- Clearly identify the partners and personnel involved and specify their contributions,
- List, specify and quantify deliverables (e.g. prototype, survey results) and milestones (e.g. prototype tested, patient cohort established),
Describe how you intend to assure the quality of your work (e.g. definition of milestones for measuring project progress, regular joint progress evaluation, cross-checking of intermediate reports or results, etc.) and how you will monitor and mitigate risks identified for the project.

A suggestion on how you could structure your project is provided in Annex 2 (description of Work packages) and as download from www.fnr.lu/CORE. In any case, all the information has to be provided within this section, respecting the given page limit.

In addition, provide a detailed **overall risk assessment** and mitigation strategy directly related to you proposed project. Review the risks identified and describe how you will monitor and mitigate them. Mention any significant external factor (assumptions = positively phrased, risks = negatively phrased) that are not under the control of the project and may determine whether the intended project 1) may start as planned, 2) may be implemented as planned and/or 3) may achieve its intended objectives. (Example for an assumption: "Delayed equipment delivery."). In this section you should go beyond the description of how you want to tackle risks emerging in the project, e.g. regular consortium meetings.

Moreover, **a graphical representation** (e.g. Gantt Chart) of the structured work plan described here (including the personnel involved and timing) needs to be uploaded to section 6.4 of the Online Application Form.

For a suggestion on how the workplan could be presented, please consult Annex 2 or the FNR website (www.fnr.lu).

3. Project Outputs

3.1. Impact of research results (max 2. pages)

Describe:

- your **scientific dissemination strategy** (provide a realistic overview of the envisaged scientific peer-reviewed publications, international conference participations as well as other tangible outputs (e.g. prototypes, databases). The list should address the type of publication category as well as the targeted level of publication – please note that if the intended outlet is much better than the average journal the applicant team has published in so far, the PI should explain why they think they can publish there now but have not done that before);
- how you will **involve potential stakeholders** from the national and/or international private and public sector (if applicable);
- the planned **strategy for exploitation** (economic or socio-economic) of your results, if applicable (e.g. What are the expected results? What will be the strategy of protection (patent, trademark, design, copyrights)? What will be the strategy of

exploitation (licensing, start-up, etc.)? What is the project's potential to generate intellectual property and the possible exploitation of the IPR? (only applicable for research projects intending economic valorisation in the short- to medium term);

- the **outreach activities** foreseen in order to increase public awareness among the **general public** and the understanding of the research topic by a wider (lay) audience (e.g. publications, public conferences, interactions with pupils, and other activities).

By thus:

- Describe the contribution to the advancement of the development of the involved researchers and the partners' organisations.

The above should be considered in short as well as in the medium to long term.

Please keep in mind that the outputs described in this chapter should be realistic in relation to the size of the project (funding and staff effort). Nevertheless the outputs should be ambitious (within the level of risk that is inherent to a challenging research project) and at an international level of standard in your scientific domain.

The intended outputs described will serve as measure to assess the ambition of the project during peer review and as a benchmark for evaluation in the final report.

3.2. PhD student supervision and research lines (only if applicable, 1 page/PhD candidate)

Provide a short description of the PhD project(s) by making reference to the project description and work plan.

Include the following information:

- title of the PhD project;
- research question;
- methodology;
- envisaged outcome;
- number of publications foreseen (at least one 1st author publication expected);
- academic PhD supervisor and degree awarding institution (including details about how the supervision and training of the candidate is organised);
- description of the profile of the candidate you wish to employ for this PhD position.

At submission deadline: The academic PhD supervisor has to provide a support letter (not required if the PI is the academic supervisor).

3.3. In addition, for CORE Junior Track: Advancement of the Junior PI's research career (max. 2 pages)

Summarise how the project will contribute to the advancement of the Junior PI's research career.

Describe:

- The contribution of the project towards establishing an own autonomous research branch
 - How the CORE Junior project fits into the research line of the hosting group;
 - How the CORE Junior project differs from the research line of the hosting group and mentor and will contribute to establishing the own research line of the Junior PI.
- A training and mentoring plan that will help to develop the Junior PI's research career:
 - Training stays, mentoring sessions, networking activities, etc.;
 - The contribution of the mentoring to the development of her/her research and project management skills;
 - The contribution of the training planned within the frame of the project towards to the development of her/his research and project management skills.

4. Project Participants and Management. (max. 2 pages)

4.1. Description of the consortium, communication and decision-making (max. 1 page)

For each participating research group in the proposed project, provide a brief description of the group, the responsibilities within the proposed project, as well as the previous experiences qualifying participants for the task at hand. Describe how the participants collectively constitute a consortium capable of achieving the project objectives, amongst others, by highlighting the complementarities between them. Explain how communication (channels, methods etc.) between all partners will be organised and how decisions will be taken (especially for projects with large consortiums). In addition, describe how the compatibility of data, and the accessibility of results for all members of the consortium will be ensured. (CVs of members of the consortium (main researchers only) are to be provided in the attachment of section 6.3 of the 'Online Form').

If new staff needs to be hired for the project, explain how you will make sure that these people are in place at the start of the project (or of their planned starting date). In addition, provide a short description of the profile of the staff to be hired.

4.2. Summaries (Term sheets) of the Consortium agreement and/or the Intellectual Property Rights (IPR) agreement (max 1 page)

It should summarise the essential terms of the required agreement (see chapter 1.8 'Consortium agreement and Intellectual Property Rights (IPR) management' for more details). Please indicate how the authorship of the publications and the management and access to the data sets are settled amongst the project partners. Note that each PhD within a CORE project is expected to publish at least one peer-reviewed paper. In projects with a potentially commercial orientation, the possibility of using the IPR through patenting or others should be envisaged. Applicants are advised to contact the administration of their institution and the FNR if they have further questions to this issue.

5. Comments on Resubmission (only if applicable, max. 1 page)

Summarise the changes/modifications in comparison to the former application and address points raised in the FNR panel conclusion (or by the external reviews). In case specific issues have not been integrated in the project description, make sure that you justify them here.

6. Bibliography / References (max. 3 pages)

*Please indicate the relevant papers concerning your research question and methodology, as well as the main literature. Please **highlight the most relevant 20 publications** (by printing them in bold).*

Each reference must include the names of all authors, the article and journal title, book title, volume number, page numbers, and year of publication. If the document is available electronically, the website address should be mentioned, too.

Section 6.2. CV of the PI*

Please upload a Recent Curriculum Vitae (in English) of the PI into the system (*max. 3 pages/CV in one PDF File*). *There is no template provided.*

The following information has to be included:

- 1. The number and outcome of supervised doctoral dissertations as supervisor.*
- 2. List of **10 most recent** accepted publications.*
- 3. List of **5 most important** publications.*

4. List of most relevant ongoing and completed projects including funding source.
5. List of own most relevant patents, if applicable.

Section 6.3. CVs of other main researchers*

Please upload a Recent Curriculum Vitae in English of the Main Researchers in the project into the system (*max. 2 pages/CV in one PDF File*). *There is no template provided.*

The following information has to be included:

1. The number and output of supervised doctoral dissertations as supervisor.
2. List of **10 most recent** accepted publications of each of the main researchers.
3. List of most relevant ongoing and completed projects including funding source of each of the main researchers.
4. List of own most relevant patents.

If the name of the researchers is not known at the time of the submission, please include a short description of their profiles (max 1 page/profile).

Section 6.4. Project Plan *

Please upload the 'Project Plan' (*max. 1 page*) into the system.

The 'Project Plan' gives an overview of the project planning and presents graphically the different implementation steps described in section 4. Workplan of the 'Project Description'. The graphical representation has to be coherent with the text description of the workplan and permit monitoring of the progress during the implementation of the project.

The following elements have to be included in the graphical representation:

- *interdependencies between implementation steps;*
- *timing for the different steps;*
- *personel involved in each step;*
- *deliverables for each step.*

For a suggestion on how the workplan could be presented, please consult Annex 2 and the FNR's webpage: www.fnr.lu/CORE where you find a template for a Gantt chart representation.

Section 6.5. International Co-Funding (if applicable)

In the case that a co-funding of a German, Swiss, Austrian or Polish partner is required by the DFG, SNF, FWF or NCBR, please download the additional and country specific documents which are necessary for the partner funding agency. Please complete all necessary forms, convert them to PDF and merge them into one single PDF file and upload them. For more information, see webpage: www.fnr.lu/en/International-Cooperation/Funding.

Section 6.6. Declaration *

Please check "We/I hereby declare that this proposal conforms to the call guidelines and the 'FNR Research Integrity Guidelines'."

To validate this section and jump to the next one, click the button 'Save draft and continue to next section'!

If you have finished filling in the different sections of your 'Online Application Form', please click on the button named **'Form fully completed and ready for PDF generation'**. You may as well choose to modify the entered data by clicking on the button named 'Enter more details now'.

Finally, press the button '**Done**' to validate the completion of the task and make it disappear from your 'To Do' list.

Ensure that you correctly filled all sections of the application form. The system partially warns you of mandatory sections but put a special attention on the completeness of documents that need to be uploaded.

The last task of step 1 is to generate a PDF document which contains all the information of your 'Online Application Form'. Click on the hyperlink named '**Generate PDF**'. The PDF document will appear in the documents list on the right side of the screen. If the document named 'Generated PDF' does not appear in the list after a few minutes, please click on the refresh button of your browser.

3.5. Step 2: Submitting the Online Application Form

The submission of the 'Online Application Form' consists of 2 stages:

- **Submission by the applicant**
- **Validation and submission by the Coordinating Institution**

After having generated the application in PDF format, please open the document and check if it is complete and correct. Especially ensure that the right uploads have been attached. When everything is correct, please click the button '**Submit for Institutional Check**'.

The report will now be accessible to the administration of the 'Coordinating Institution' in Luxembourg. The administration has the possibility to amend and validate your 'Online Application Form' and/or return it to you for changes.

Please note that the 'Coordinating Institution' has to respect the deadline for the final submission of the Proposal.

Incomplete applications, and/or late submissions will make the application non eligible and the application will be turned down without further evaluation!

If you need further advice and support, please contact your FNR Programme Assistant.

Annex 1: Financial Guidelines

These Financial Guidelines describe the rules for eligibility of costs for CORE projects. In addition an Excel sheet named 'CORE 2014 Budget.xls' is available for guiding through the calculation of the project costs under www.fnr.lu/CORE. An upload of that sheet is not required at application stage but a detailed justification of the costs is to be provided in the appropriate section. The feasibility of the project will be evaluated by reviewers based on that information.

1. Funding

The overall funding budget for the five priority domains in the CORE call are indicated in the CORE programme description. There are no funding maxima, except for the limitations of resources for CORE Junior Track proposals defined by the FNR, but the project plan should be cost-efficient (see selection criteria) in relation to the intended outcomes. The funding may not have the purpose or effect of producing a profit for the beneficiary. The funding may in no case result in a duplicate funding of operating costs, acquisition costs or staff costs. The costs listed must be essential for the implementation of the project.

2. Eligibility of Costs

To be considered eligible, costs must be real or based on lump sums (see Annex 1 chapter 5) and flat rates (see Annex 1 chapter 6). Certain types of costs may be indicated on a lump-sum basis (e.g. if they relate to operations routinely performed by the partner in question), provided the cost does not differ significantly from the actual cost and these operations are acceptable to the FNR. Where appropriate, calculations for lump sums need to be provided during negotiation. For future financial reporting the costs must be supported by evidence that they are real (recorded in the accounts of the beneficiary and supported by invoices for example), paid (supported by bank statements for example), and linked to the project.

The FNR distinguishes between direct costs (see Annex 1 chapter 5) and indirect costs (see Annex 1 chapter 6).

For CORE Junior Track proposals: The projects submitted under 'CORE Junior Track' will have to comply with special budgetary rules. If applicable, they are indicated under the appropriate section below.

3. Budgetary Flexibility

Applicants should note that during the course of the project, budgetary flexibility is given in order to allow for appropriate project management.

- 1) A reallocation of funds **within a budget heading** does not require the prior approval of the FNR and does not result in an amendment of the contract, provided the specific rules of the various budget headings are followed (a budget heading is defined as one of the main titles of the budget e.g.: Consumables, Travel, etc.).
- 2) A reallocation of funds **between budget headings** is not subject to the prior approval of the FNR provided that it satisfies the following criterion:
 - The reallocation does not modify the budget heading from which it is taken or transferred to by more than 20%.

The 20% criterion is NOT applicable to:

- increase unit rates applied to personnel costs or modification resulting in changes to profiles of personnel; and
- the budget heading “indirect costs (overhead)” (see chapter 6 of this Annex)

In cases involving a variation greater than 20%, a fully justified request for the modification has to be sent to the FNR at least 30 calendar days before the effective start date of the modification. After approval by the FNR, an amendment of the contract will be prepared if necessary. The amendment will be signed by both parties and will become an integral part of the contract. If the request is deemed unfounded by the FNR, the beneficiary will be advised in writing. The basis for the calculations is the FNR funded budget according to the contract.

Eligible project related costs can be expensed on the project budget until the end of the cost eligibility period that will be defined in the contract.

4. Total budget of a project

Please also refer to the financial guidelines hereafter for specific rules concerning each budget heading.

The Total Budget of a project is defined as follows:

=	Total Budget of a project
+	FNR contribution
+	External financial contribution
+	Institution's (*) own financial contribution

* The FNR assumes that the difference between “the total budget” and “the FNR contribution plus the external financial contribution” is covered by the institution (Institution refers to the contracting partners).

The budget must be provided for each contracting partner, giving an estimate of the eligible costs required and the amount of funding expected from the FNR.

Additional justification and information should be given in the respective field in section 5.3. of the ‘Online Form’.

5. Direct Cost

Direct costs are all those eligible costs which can be attributed directly to the project and are supported by an auditable record.

VAT is not an eligible cost in case the institute can recover VAT from the Luxembourg tax authorities in conformity with Luxembourg indirect tax regulation.

The defined FNR direct eligible costs categories are explained hereunder.

5.1. Personnel Costs

This budget line refers to the personnel allocated to the project. The payroll costs of all staff, full or part-time, who directly work on the project, and whose time can be supported by a full audit trail, may be included. The concerned staff must have a work contract with the institution eligible at the FNR. The need for such staff should be justified in the application

form. The FNR will not cover costs of persons already funded by the State or by other funding sources.

The FNR will only finance the profiles of the personnel indicated in section 3.3. Human Resources of the Online Form. Changes of profile (e.g. Post-doc to technician) have to be requested in writing in advance and receive formal approval by the FNR. An amendment of the contract will be prepared if necessary.

Lump sums for staff categories may be used provided these are based on a real-figure calculation.

The salary of PhDs and associated costs (travel, consumables, overhead) may be covered by CORE project funding provided that the PhD works 100% on the project during the whole project duration. Costs for PhD salary and related overhead costs (flat rate, see Annex 1 chapter 6), the project related conferences in Luxembourg and publications can be claimed for up to one year after the CORE project end. The CORE project duration will remain the same as fixed in the CORE project contract.

Other sources of funding for PhDs and Postdocs can be own or third party funds.

In addition, the FNR encourages the involvement of (Bachelor or Master) students in the project in order to strengthen their interest in research.

The FNR expects project staff to use timesheets so that their actual time is recorded against a project to form the basis of the costs charged. Where a person is contracted to work 100% of their time on a single project (whether they are working full-time or part-time), timesheets are not necessary as their costs can only be charged to that activity. In all other cases, timesheets or project time records are required. This includes those who may be contracted to work on two or more projects, since it is essential when charging to have a means of recording and verifying the actual time applied to each activity.

For CORE Junior Track proposals: The total working time to be covered by the CORE Junior PI and other staff should not exceed 2 FTE. It is understood that the local scientific advisor provides guidance to the CORE Junior PI and that his/her contribution as human resource does not have to be listed per se.

5.2. Equipment

This budget line is for new equipment dedicated to the project. This includes, but is not limited to, laboratory/workshop equipment (including computers and servers), software and installation costs.

Please indicate in section 5.3 (Financial Part, justification) of the 'Online Form':

- the precise nature of equipment with specific technical requirements;
- its unit cost and number of units;
- its relevance to the project;
- the necessity of the equipment taking into account the equipment currently available in the institution;
- its useful life according to the institutions' policy, the depreciation method (e.g. straight line);
- the portion of the equipment used on the project, the amount of use (percentage used and time) must be auditable;

- its use beyond the project with the indication of the residual value (if applicable);
- its use by other national or international research groups/institutions (if applicable).

Large equipment which is more expensive than € 25,000 will only be funded to the pro-rata of its use within the project, duly taking into account the depreciation rules within the research organisation.

For example:

- project duration: 3 years
 - equipment acquisition costs: € 50,000 in the first year of the project
 - useful life: 5 years, straight line method (€ 10,000 per year) assuming a residual value of € 0,00
 - portion of the equipment used on the project: 75% of time used (3 years in present example)
- ➔ Eligible costs (pro-rata) amount to € 22,500
 $3 \text{ (remaining years)} \times € 10,000 \text{ (depreciation per year)} \times 75\% \text{ (percentage use)} = € 22,500$

For equipment which is to be developed during the course of the project, or sub-equipment which may not be functional if used individually (for tests, upgrading and trials) and where the development costs exceed € 25,000 (total costs, not individual assembly parts) it is recommended to foresee own institutional co-funding and to indicate the co-funding source for all equipment.

The FNR may decide to limit its funding on a case by case basis.

For equipment costs over € 100,000 (FNR part and own funding combined), a business and/or utilisation plan is required at submission stage.

The FNR will only finance equipment listed in the original proposal. Additional equipment has to be requested in writing in advance and receive formal approval by the FNR. This modification will not result in an amendment to the contract.

5.3. Consumables

This budget line is for consumables necessary for the project realisation. Consumables are goods that can be consumed or spent. They are not individual parts of a prototype, upgrade, parts to extend existing equipment. The applicant needs to indicate the nature (chemicals, Glassware, etc.) of the consumables and justify the estimation of the total costs and requested budget in section 5.3 of the 'Online Form'. The total amount can be indicated as a lump sum in accordance with the institutions' rules.

5.4. Travel Cost

This budget line is for travel and related subsistence costs in relation to the project. The FNR will cover the real costs for travel, training, subsistence and conference participation fees. Expenditures should be in accordance with the institution's own regulations.

To avoid administrative burdening at submission and in order to give the applicant team (including the PhD student) the necessary flexibility, the budget for travel costs, training, subsistence and conference participation fees is calculated on a lump sum basis: € 2,000 per

year and per 12 person*months (in relation to the total project effort). For PhD students a maximum of €6,000 (3 years * €2,000) can be allocated.

It is therefore essential to provide the total person*months effort of all the people working on the project. If the project team requires a higher budget for travel, please justify in detail the amount in section 5.3 (Financial part) of the 'Online Form'.

The FNR expects that all researchers involved in the project (in particular the PhD students) benefit from the travel and training lump sum provided by the FNR.

For CORE Junior Track proposals: The applicant is encouraged to apply for additional travel money to permit additional training sessions in research groups/labs abroad, attendance to specific training programmes and attendance at additional conferences. The total budget for travel is limited to €25,000.

5.5. Subcontracting

This budget line is for costs related to services provided by subcontractors. Contracting partners may subcontract specific services (limited in time and scope) essential for the realisation of the project but not central to it, in case this work cannot be directly undertaken by one of the partners. It is understood that subcontracting cannot be provided by contracting or non-contracting partners of the project (see chapter 1.2. of these guidelines (Eligibility)). This would be regarded as a direct scientific contribution to the project and should be budgeted for the partner in the appropriate budget line. Subcontracting to non-contracting partners is therefore explicitly not possible as it is considered a circumvention of the laws and regulations defining the direct beneficiaries of project funding by the FNR.

All subcontracting costs need to be duly justified. Please describe the service, indicate the price, the duration of the service and specify the reason why you revert to a third service in section 5.3 (Financial Part) of the 'Online Form'.

The FNR limits the subcontracting costs to a maximum of 25% of the FNR requested funding (without indirect costs).

In addition:

1. The subcontractor (person and institution) has no IP rights;
2. The subcontractor has no publication rights on tangible project outputs;
3. Consultancy fees for scientific advisory boards set up by the PI are not eligible project costs.

For CORE Junior Track proposals: Costs associated with mentoring should be budgeted under this budget heading. The total budget for subcontracting is limited to €25,000. For the mentor, **only travel costs for visits in Luxembourg** are eligible.

5.6. Other Costs

This budget line is for costs that cannot be listed within one of the previous budget headings. They include, but are not limited to:

- Organisation of Scientific Conferences held in Luxembourg;
- Scientific Publications (peer reviewed articles, monographs, conference proceedings as well as PhD publications, open access fees) related to the project;

- Documentation (not expected in institutional libraries);
- Initial submission costs for the protection of a patent, license, trademark, etc.;
- Costs generated by the use of existing equipment within partner institutions. This may include rental/access charges for equipment or analysis costs. Please specify in the application form:
 - The type of equipment in question,
 - Justification of the costs,
 - Information on whether the existing equipment was purchased by the State,
 - Its residual useful life, and details of the calculation on which the budget estimate figure is based.
- Field work/fees;
- Recruitment and advertising costs for staff directly employed on the grant;
- Equipment-related items, such as relocation, maintenance (external contracts/agreements).

Depreciation costs of equipment which has been completely funded by the FNR in other projects cannot be included here.

Equipment which is to be developed during the course of the project is not eligible under this heading (see section 5.2. Equipment of the Direct Costs).

The nature of the costs and their relevance to the project has to be explained in detail in section 5.3. Financial Part of the 'Online Form'.

6. Indirect Costs (overhead)

For all newly funded projects as of 1 January 2014, the FNR applies the Full Cost with Flat rate model (FCF), where direct costs are reimbursed on the basis of the actual incurred (real) costs and overheads are reimbursed on the basis of a flat-rate (25% of direct costs minus subcontracting). Overheads cannot be claimed by public administrations.

Indirect costs, also called overheads, are all the structural and support costs of an administrative, technical and logistical nature which are cross-cutting for the operation of the institution's various activities and cannot therefore be attributed in full to the project.

The nature of an indirect cost is such that it is not possible, or at least not feasible, to measure directly how much of the cost is attributable to a single cost objective.

Examples might be, but are not limited to, costs related to the general operation of the institution such as maintenance, insurance, petty office equipment, ... and costs related to horizontal services such as administrative and financial management, human resources, legal advice, etc.

#	FNR eligible costs	Basis
1	Personnel costs	YES
2	Equipment	YES
3	Consumables	YES
4	Travel costs	YES
5	Subcontracting	NO
6	Other costs	YES
A = $\sum(1\text{to}6)-5$	TOTAL	Sum
B = 25% x A	Overheads	25% x Sum

7. External Financial Contribution

Sources of funding outside of the CORE programme and the contracting institution should be indicated. Grants such as 'Aides à la formation-recherche' (AFR) are considered an external source of funding. Please indicate the total of the projected grant support in the appropriate section. Other external financial contribution could be a donation by a charitable organisation, revenues from licenses, etc.

Contributions by non-contracting partners (i.e. the partner's research effort in the frame of the project) are not considered as an external source of funding.

External financial contributions should be indicated in section 5.2. Overall costs of the project (FNR funding + other funding, including own contributions) for Coordinating Institution and Contracting Partners of the 'Online Form'.

8. Contribution by Non-contracting Partners

Please provide an estimation of the contributions of each of the '**Non-contracting Partners**' including **International Co-funding partner(s)** to the project in terms of person efforts and estimated budget in section 5.4. Budget Non-Contracting partners/International Co-funding partner of the 'Online Form'.

If you apply for 'International Co-funding' indicate the name of the International Funding Agency in the relevant section of the online form.

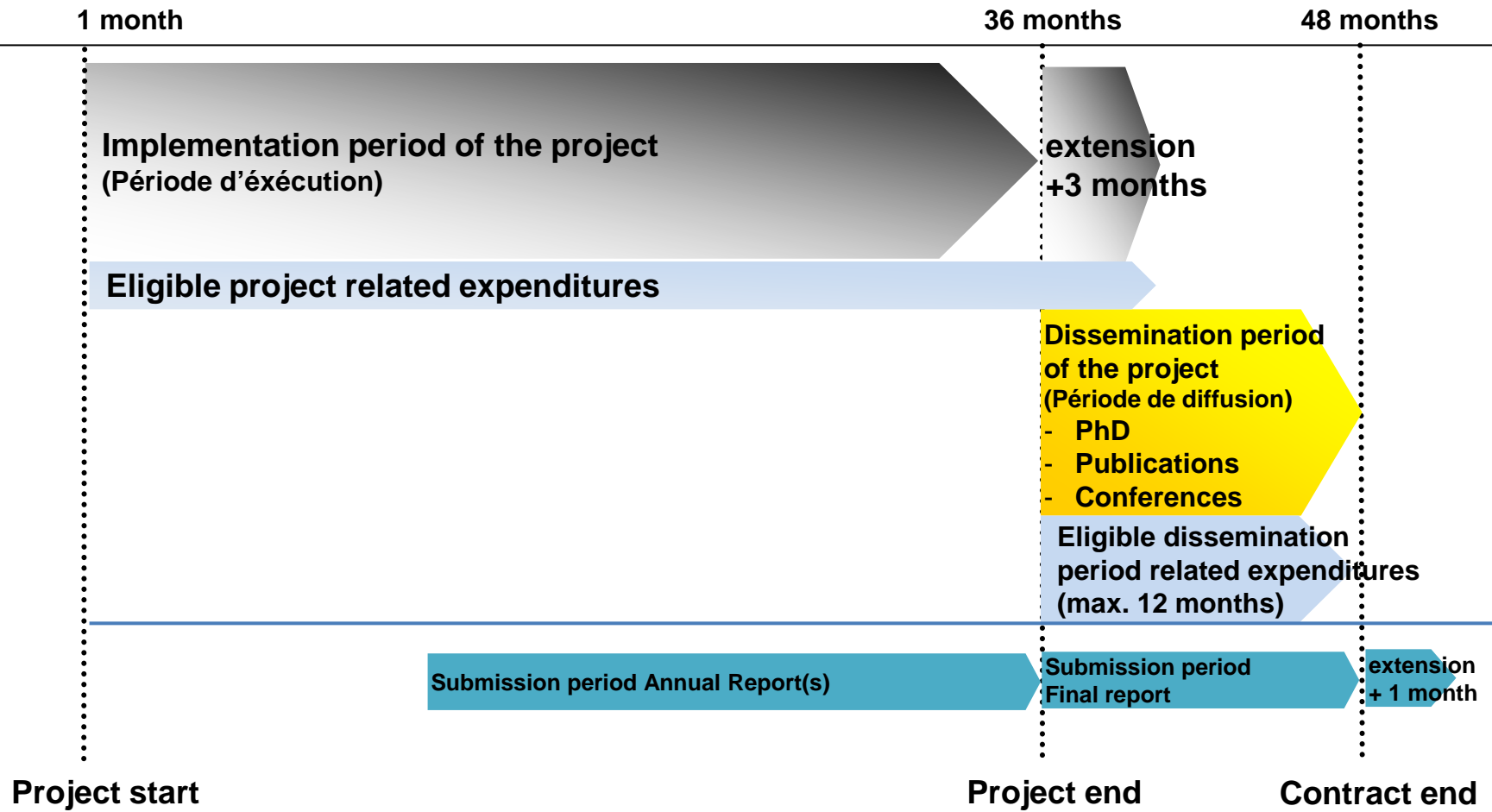
9. Budget Summary

An Excel sheet named 'CORE 2014 Budget.xls' is available for guiding through the calculation of the project costs under www.fnr.lu/CORE. An upload of that sheet is not required at application stage but a detailed justification of the costs is to be provided in the appropriate section.

The worksheet 'Budget Summary' provides an overview of the budgetary and person*months efforts by each project partner.

Note that parts of the worksheet do not have to be completed manually but will be automatically populated with the data filled in the previous sheets.

Timeline and eligible expenditures



Annex 2: Workplan and Work packages

Annex 2.1: Description of Work packages

One possibility of structuring a project is by defining different work packages, as in the example provided below. While the use of the work package structure below is not required, **having a good structure allowing monitoring of the project is mandatory** for all CORE applications.

A template of the work package structure below can be downloaded from the FNR's webpage: www.fnr.lu/CORE

Work Packages (WPs) and tasks (1 page/WP)			
<i>Present the work packages (consistent with the Gantt chart in the 'Project Plan') in detail, using the table provided below. Use one table per work package (please copy the table as many times as you need it). The explanations included in the table have to be sufficient for justifying the proposed effort and allow for progress monitoring.</i>			
WP number	1		
WP title			
WP leader	Only 1 person		
Start date		End date	
Objective			
<i>Provide a general description of the work to be undertaken (including methods to be applied where appropriate), identify the partners involved and specify their contributions.</i>			
Tasks			
<i>Break the work package down into major tasks. Explain the sequence of tasks and explain interdependencies between tasks where necessary.</i>			
Interdependence with other work packages			
<i>Provide a narrative description or/and a graphical presentation of interdependencies between the present work package with other work packages.</i>			
Deliverables and milestones			
<i>A deliverable represents a verifiable output of the work package. Normally, each work package will produce one or more deliverables during its lifetime. List, specify and quantify deliverables (e.g. prototype, survey results). State the project month of delivery (measured in months from the first month the project started). Milestones represent a scheduled event signifying the completion of a major deliverable or a set of related deliverables (e.g. prototype tested, patient cohort established). State the project month of delivery (measured in months from the first month the project started).</i>			
Human resources			
Name of researcher	Partner	Qualification level	Person*months
		PhD, Professor etc.	

Annex 2.2: Graphical overview of the Project Plan (Gantt chart)

The 'Project Plan' gives an overview of the project planning and presents graphically the different implementation steps described in section 4 (Workplan) of the 'Project Description'. The graphical representation has to be coherent with the text description of the workplan description as it will be used for monitoring the progress of the project (if this is accepted for funding by the FNR).

This is a suggestion on how a workplan could be structured. Please note that it is possible to structure the workplan differently as long as it is suited for allowing the proper monitoring of the project. The Excel workbook named 'CORE 2014 Project Plan.xls' containing one single worksheet named 'Project Plan' can be downloaded from the FNR's webpage: www.fnr.lu/CORE if this structure is to be used.

The suggested form is self-explaining and contains several examples. The Excel workbook is write-protected and only white cells can be filled out.

The first part of the form contains the following mandatory fields:

- Project Acronym
- PI Name
- Coordinating Institution
- Start Date
- End Date
- Reference Date (As Of) *Insert the date of your submission*
- Instance (Phase) *Select Submission*

The second part of the form lists the Work Packages (WPs) and planned outputs and presents them in time. It contains the following fields:

- Work Package *WP number*
- Related tasks *Task number*
- Name of Work Packages and related tasks *Should be short enough to enter the available space. Extensive descriptions of the WPs and tasks are already in the 'Full Proposal Form'.*
- Planned start and end date *For each WP and task enter the relevant dates in the format 'dd/mm/yy' or 'dd.mm.dd'. The Excel input and output formats depend on your system and MS office regional settings.*
- Actual start and end date *Used later for annual and final reports*
- Gantt Chart *Will be displayed when you insert the dates.*
- Deliverables *Just list them without description*
- Milestones *Just list them without description*
- Status *Select 'Not started' in the drop down list*
- WP or Task Leader *One single name per WP and task*

The worksheet must contain all work packages and tasks you describe in the Project Description Form. In any case, mention for any output the number(s) of the work packages leading to its completion.

If necessary, you may add additional tasks and work packages. Please refer to the procedure for adding additional WP2 described under the help flag in row 96.