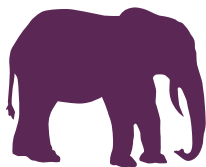


FNR
CORE MULTI-ANNUAL
THEMATIC RESEARCH
PROGRAMME

FONDS NATIONAL DE LA RECHERCHE

*Application
guidelines*



www.fnr.lu/core

APPLICATION GUIDELINES

CORE 2022 CALL

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

Please also refer to the [CORE Programme Description](#) which has to be read in conjunction with the present document. Please do not hesitate to contact the FNR staff for any further explanation.

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The CORE 2022 call deadline: Thursday 21st April 2022 (14.00 CET).

Changes to the previous call:

- **Extension of international collaborations:** CORE International.
- The FNR is collaborating with the **Fondation Cancer** to jointly support research projects that fall within the priorities defined in the National Cancer Plan (Plan Cancer). All proposals subject to this collaboration have to be submitted as **CORE or (newly introduced also as) CORE International projects** and will be evaluated within the usual selection process, together with the other submitted proposals.
- The FNR has **streamlined the financial regulations for applicants and beneficiaries for all FNR funding schemes in one document**. The details on the eligibility of costs are available in the [Financial Regulations](#) (relating to the methods of awarding grants from the National Research Fund (FNR)) applicable as of 1 January 2022.

1 Project Characteristics

1.1 Project Duration

The project must have a duration of **2 to 3 years**. In case funding for a PhD candidate 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.

1.2 Number of Project Proposals per PI

Up to two project proposals may be submitted per PI (as PI or Co-PI or as a mix of both).

Only **one application** is allowed for CORE junior track applicants. A CORE junior PI cannot be a Co-PI on another project. No Co-PIs are allowed on CORE junior projects (see section 2.2 for details on Co-PI).

1.3 Formal requirements

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

The Project Description Form is limited to a fixed number of characters.

1.4 Resubmission and Follow-up

The FNR only allows **one resubmission** for each application. Projects which have been submitted to FNR in previous CORE calls and have not been retained for funding may be resubmitted **once** and only after the project has undergone substantial revision. The proposals need special care in view of updating the current state of art as things change over the years. Furthermore, it is absolutely necessary to take the previous reviews and panel conclusion into consideration and to summarise the changes/modifications in comparison to the former application. The FNR reserves the right to exclude projects which have not undergone substantial changes in the resubmitted application. Please note that disguised resubmission can be rejected as well.

For **follow-up** projects, tangible outputs must be presented for the referenced ongoing project(s). If no tangible output is available, the new project should not be labelled as follow-up. In addition, the PI has to clearly state the innovation in the new proposal and the added value for the current state of the art in the field.

2 Research Project Consortium and Human Resources

2.1 Principal Investigator (PI)

The PI is the researcher having the scientific lead of the research project, taking the responsibility for designing, managing and executing the project on a daily basis. The PI is responsible for controlling the implementation and scientific 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 principal author

of the proposal submitted to the FNR and is expected to be involved in the project in a significant manner. The PI listed in the application form will be the corresponding PI for the FNR and is in charge of submitting the application and reports.

In order to be eligible as PI, researchers must comply with the [FNR requirements for principal investigators and supervisors](#).

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. Even PIs with a solid track record who enter a new research topic need to clearly demonstrate how they will use their expertise and knowledge to tackle a new field. PIs that have been leading FNR-funded projects must demonstrate compliance with the recommendations issued at the reporting stage of their previous projects. A CORE junior PI must hold a doctoral degree and have ideally gained some postdoctoral experience.

2.2 Co-Principal Investigator (Co-PI)

To acknowledge and foster the potential of collaborative science between different research units in Luxembourg as well as to facilitate interdisciplinary research, the FNR formally allows to name up to one “Co-PI” in a CORE project application. The **PI and Co-PI** have complementary expertise and **must be from different research units** (within the same or different FNR-eligible Luxembourg-based institutions, i.e. contracting partners). Both must fulfil the FNR requirements for PIs.

To nominate a Co-PI out of the applicant team is the decision of the applicants, and should only be done if it reflects the needs of the proposed research project. The PI listed in the application form will be the corresponding PI for the FNR and is in charge of submitting the application and reports. The PI and Co-PI are key personnel with similar responsibilities in the research project. Both are required to submit a narrative CV. Having a Co-PI from Luxembourg is not possible in “CORE international” proposals and CORE junior track applications.

2.3 Consortium Agreement and Intellectual Property Rights (IPR) Management

The partners should agree on the sharing of authorship rights before starting the project. All partners (even those not funded by FNR) must agree that the project has to comply with FNR rules and policies.

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 partners 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.

3 CORE Junior Track

In order to reinforce the national research and innovation system, the development of a sustainable research workforce is vital. Within the CORE programme, the FNR offers the possibility, for promising starting PIs to compete for their first own project funding by submitting a proposal in the **CORE junior track**. Obtaining their first project grant and successfully leading a research project as a PI, substantially contributes to the development of a future career as independent researcher, be it in Luxembourg or abroad.

The CORE junior track is an integral part of the CORE programme and applications need to reply to the same quality standards and application requirements as the regular CORE proposals. They also undergo the same rigorous peer review as their regular counterparts and the same selection criteria apply. The reviewers will take into account, however, that these starting investigators do not have an extensive track record concerning project management and scientific achievements. Generally, junior PIs have less preliminary work related to the proposed project, however there must be sufficient evidence (from preliminary studies or from literature) to demonstrate that the project concept is feasible.

The CORE junior track is principally targeted at researchers at the R2 career stage¹, i.e. recognised researcher (PhD holders or equivalent who are not yet fully independent), ideally having already some postdoctoral experience. It is open to researchers already in the Luxembourg system or researchers wishing to integrate the Luxembourg research system. It is also open to researchers with non-linear careers or career breaks, wishing to re-enter academic research.

¹ <https://euraxess.ec.europa.eu/europe/career-development/training-researchers/research-profiles-descriptors>

The CORE junior PI is the project owner and intellectual authority of the project idea. The ambition/size of the project should be tailored to the level of experience of the junior PI. Projects requiring the management of a large consortium of human resources and collaborations should be avoided. It is understood that the PIs will work on their CORE junior project for a large percentage of their time. To off-set the lack of project management experience of the PI, junior track projects are restricted in magnitude.

Requirements for a CORE junior track proposal:

- The junior PI works at least 50% on the project;
- Human resources are limited to max. 2 FTE (including the PI's own contribution as well as FNR funded and not FNR funded staff). For a PhD candidate, 36 person months are counted (i.e. the additional up to 12 person months for the 4th year's PhD extension are not counted to the 2 FTE limit). Any advisory or mentorship activities should not be counted to the 2 FTE limit either.
- The number of non-contracting partners is limited to maximum 1 national or international partner (excluding the optional mentor).
- CORE junior applications need to comply to special financial rules (section 5).
- PIs on a CORE junior track are limited to one application per Call. They cannot have a Co-PI on the project and cannot be Co-PI on another project. The junior PIs cannot submit a proposal in the frame of international collaborations.

Junior PIs can request extra budget for training activities.

For CORE junior track PIs wishing to train PhD candidates within their project, the FNR expects prior supervision experience/training by the PI.

Any first-time project leader is confronted with a number of scientific or practical questions throughout the designing phase and later on in the implementation phase of the project. Some of these issues may have a significant impact on the progress and success of the project (i.e. budget questions, risk management, choice and management of partners, staff recruitment, delays and prioritisations, etc.).

Next to providing sufficient freedom to junior PIs to pursue their own research idea and to develop their independence, it is equally important that they are **well embedded within their hosting groups** and assisted with guidance to avoid common pitfalls and implement their projects as efficiently as possible.

Mentorship (optional)

In general, junior PIs are strongly encouraged to seek additional support by an external mentor, who may further broaden the junior PI's scientific horizon, who extends the junior PI's international network and who can help with the PI's career development. The mentor should ideally be a leading figure in the PI's domain of expertise and/or have a good mentoring track record. Mentorship by the former PhD supervisor should be avoided, to allow the PIs to develop their own independence.

The mentor may be involved from the moment when the project proposal is drafted, but must not take an active role in the implementation of the research project (i.e. not as non-contracting partner, not as work package leader, not as external PhD supervisor).

The FNR offers extra funding for external mentorship of the junior PI. The support by an external mentor is optional. It plays no part in the evaluation of the proposal.

4 International and National Co-Funding within CORE

4.1 International Co-Funding within CORE (CORE international)

Through a set of cooperation agreements with foreign funding agencies, the FNR intends to facilitate the **funding of bilateral and trilateral projects** between Luxembourg researchers and their colleagues abroad.

By signing the **Weave² agreement** in 2020, the collaboration possibilities of Luxembourg based researchers have been greatly expanded. Please check the Weave [website](#) for further details.

These agreements are based on the **Lead Agency Procedure** principle: allowing for a single evaluation of joint collaborative proposals: The funder that receives the proposal (the so-called Lead Agency) evaluates the proposal according to its internal rules set out for its respective national or regional programme. The funding recommendation is then communicated to the other funders involved (so-called Partner Agencies), for approval and budgetary purposes. Researchers are financed by the funders for whose support they are eligible. Funders will only provide funding within their national or regional borders.

To submit a proposal, all participating researchers need to be eligible for funding at their respective funding agencies. The team of applicants determine a coordinating applicant, who submits the joint proposal to the respective Weave funding organisation in his/her country. The other applicants (co-applicants) have to submit a copy of the proposal within one week to their respective funding agencies (Partner Agencies).

In case the research consortia choose the FNR as lead-agency (i.e. the coordinating applicant is based in Luxembourg and eligible for FNR funding), joint proposals have to be submitted to the CORE programme (i.e. as “CORE international” in the grant submission platform), respecting all rules of the call. All “CORE international” proposals will be evaluated within the normal CORE selection process, together with the other submitted proposals.

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

- Deutsche Forschungsgemeinschaft (DFG, Germany), (Weave partner);
- Schweizerischer Nationalfonds (SNF, Switzerland), (Weave partner);
- Fonds zur Förderung der wissenschaftlichen Forschung (FWF, Austria), (Weave partner);
- Fonds de la Recherche Scientifique (FRS-FNRS, Belgium), (Weave partner);
- Research Foundation Flanders (FWO, Belgium), (Weave partner);
- European Molecular Biology Laboratory (EMBL);
- National Centre for Research and Development of Poland (NCBR, Poland);

² Weave is a bottom-up cross-European initiative developed by European research funders to support excellent collaborative research projects across borders. By end of 2020, the agreement has been signed by 12 research funders. More information available on www.weave-research.net.

- Autonomous Province of Bolzano - South Tyrol;
- Czech Science Foundation (GACR, Czech Republic), (Weave partner);
- National Science Centre (NCN, Poland), (Weave partner);
- Swedish Research Council for Sustainable Development (Formas, Sweden), (Weave partner).

Specific rules for researchers co-funded by the above agencies may apply. Co-applicants in these countries are advised to check with their respective agencies. Thematic restrictions are in place for researchers applying for funding from Formas (Sweden): to be eligible for funding, co-applicants from Sweden must adhere to the eligibility rules and thematic restrictions set out by Formas.

For joint proposals with Weave partners (DFG, Formas, FRS-FNRS, FWF, FWO, GACR, NCN, and SNSF):

For proposals submitted to CORE, **bilateral and trilateral research teams** composed of researchers eligible for funding by their respective Weave partners (in the above list) may apply for funding. Applicants in Luxembourg can submit their proposal for a “Joint Project” with partners from **either one or two of the countries/regions** listed above to the FNR (i.e. the FNR acts as lead-agency), with the only exception for projects with GACR. In 2022, GACR allows for trilateral proposals submitted to FNR jointly with researchers funded by either FWF, DFG, NCN, or SNSF.

The FNR is responsible for the evaluation of the proposal (i.e. will act as lead-agency), but an eligibility check is performed by all funding agencies involved (i.e. the partner-agencies). If one applicant of a consortium fails to meet the eligibility criteria, the entire project will be rejected without further evaluation.

If the same or similar projects have been submitted to various lead-agencies in parallel (i.e. proposals submitted when the evaluation results of the first project submission have not been published) will be rejected without further evaluation.

Collaborative projects requesting funding from these agencies may be submitted to any National Research Priority Area. In general, within Weave, funders aim to support proposals that belong **to the top 20% of all submitted proposals** in the evaluation (i.e. of all CORE & CORE international proposals submitted to the CORE call 2021). In addition, bilateral proposals submitted in collaboration with DFG or SNSF might be accepted if they are recommended for funding by the FNR but do not belong to the top 20% of the call.

If the coordination of the project links with an applicant from outside Luxembourg, the joint proposal has to be submitted to a funding agency abroad, who will be in charge of the evaluation. In that case, the Luxembourg based researcher has to submit an INTER application to the FNR (see FNR [INTER programme](#)). Please check the FNR INTER website as well as the WEAVE website to explore further funding possibilities of cross-border collaboration.

EMBL and South Tyrol

The cooperation of the FNR with EMBL as well as with South Tyrol is open to all National Research Priority Areas, and the FNR will always be the evaluating agency (i.e. the Lead Agency). Bilateral research teams (FNR-EMBL or FNR-South Tyrol) are eligible to apply, a specific success rate will not apply. While applicants should strive for balanced projects, the majority of research effort (counted in Human resources involved in person*months) has to be

in Luxembourg. Co-applicants from South Tyrol are expected to upload additional documents to the CORE application (template “Finanzplan”).

NCBR

In the cooperation with NCBR the FNR is always the lead agency, i.e. joint bilateral proposals have to be submitted to the FNR CORE programme. While applicants should strive for balanced projects, the majority of research effort (counted in Human resources involved in person*months) has to be in Luxembourg. Only proposals fitting in the National Research Priority Area “Industrial and Service Transformation” and therein to the following subdomains are eligible:

- Trusted data-driven economy and critical systems
 - Security and cybersecurity, reliability and trust
 - Cyber-physical systems
- Future computer & communication systems
- Autonomous and intelligent systems and robotics for earth and space
- Fintech/RegTech and transformative applications of distributed ledger technologies
- Fundamental tools and data-driven modelling and simulation

Further international co-funding with funding agencies other than the above can be applied for through the FNR [INTER programme](#). Application and review processes will though differ from the CORE process.

4.2 National Co-Funding within CORE

Fondation Cancer Luxembourg

The FNR is collaborating with the **Fondation Cancer** to jointly support research projects that fall within the priorities defined in the National Cancer Plan (Plan Cancer). All proposals subject to this collaboration have to be submitted as CORE or CORE international projects and will be evaluated within the usual selection process, together with the other submitted proposals. Fondation Cancer can send an observer to meetings of the selection panel. The FNR may share project proposals and reviews with the Fondation Cancer as per the terms of the cooperation agreement between FNR and Fondation Cancer.

Projects applying to this collaboration can have an international partner with co-funding (i.e. the above mentioned "CORE International").

5 Financial Regulations

5.1 Funding

The overall funding budget of the CORE call is 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 Evaluation Criteria in the Programme Description) in relation to the intended outcomes.

The details on the eligibility for the various budget categories are available within the [Financial Regulations](#) (relating to the methods of awarding grants from the National Research Fund (FNR)) applicable as of 1 January 2022.

5.2 External Financial Contribution

Sources of funding outside of the CORE programme and the contracting institution should be indicated. Other FNR grants are considered an external source of funding for the project. 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 Overall costs of the project (FNR funding + other funding, including own contributions) for Coordinating Institution and Contracting Partners of the Online Form.

5.3 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 Budget Non-Contracting partners/International Co-funding partner of the Online Form.

If you apply for 'International Co-funding' (i.e. CORE international) indicate the name of the International Funding Agency in the relevant section of the Online Form.

5.4 Budget Summary

An Excel sheet named '[CORE Budget Form](#)' is available for guiding through the calculation of the project costs. An upload of that sheet is not required at application stage but a detailed justification of the costs is to be provided in section Financial Part of the Online Form. For CORE International proposals a detailed justification of the budget of all partners is required.

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.

6 Applying for the CORE Call

6.1 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 **21 April 2022, 14:00 (CET)**.

6.2 Eligibility of Applications

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

- Proposals must be submitted in electronic format to the online submission system before the deadline,
- Proposals must be complete (i.e. all of the requested components and forms must be included),
- Proposals must respect the maximum length and have to be written in English,

- Proposals must be submitted by an eligible FNR beneficiary organisation,
- All contracting partners must be eligible, and where necessary, be in possession of an accreditation by the Ministry of Higher Education and Research and have registered at the FNR's online system,
- PI and Co-PI must fulfil the eligibility criteria,
- The proposed research topics must fit into the National Research Priorities for Luxembourg,
- In case of CORE international: all participating researchers and the proposals submitted need to be eligible for funding at their respective funding agencies. Specific rules for researchers outside Luxembourg funded by an international partner agency may apply. Each international partner agency involved in a CORE international proposal is asked complete an eligibility check of their participants,
- Compliance with any other obligation listed in the present document or in the [CORE Programme Description](#).

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**.

6.3 FNR Grant Management System

All FNR Grants, including the CORE Calls 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 character and page limitations indicated in the application forms have to be respected, otherwise the FNR will decide to not further process the application.

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 +352 691 36 28 16.

6.4 How to Apply

The CORE Proposal Application consists of 2 different steps:

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

6.4.1 Step 1 Completing the Online Application Form

The CORE Application consists 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. The 'Project Description Form' is part of a web-based online application and cannot be submitted alone.
- The **Bibliography**.

- The **Recent CV of the PI**: Consisting of an updated ORCID profile and completed CV following the FNR's [Narrative Profile template](#). It is mandatory to use this template otherwise the application will be considered ineligible for evaluation. In addition, the PI is strongly recommended to ensure that his/her ORCID profile is updated.
- The **Recent CV of the Co-PI (if applicable)**: Consisting of an updated ORCID profile and completed CV following the FNR's Narrative Profile template. It is mandatory to use this template, and proposals not following this will be considered ineligible for evaluation. In addition, the Co-PI is strongly recommended to ensure that his/her ORCID profile is updated.
- The **Project Plan** contains the planning in time of the work packages and tasks.
- **If applicable, International Co-Funding**

In the case that a co-funding of international research partner(s) is required by partners eligible at funding agencies abroad (section 4.1.), 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. More information on international cofunding is available on the website.

If you have finished filling in the different sections of your 'Online Application Form' in Step 1, please click on the button 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.

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.

6.4.2 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 make sure that the "To Do's" list is empty, then proceed to Step 2 on the same screen and click the button '**Proceed to institutional validation**'.

The application 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. Information on how to prepare the proposal is given in ANNEX 1 and 2 in *blue italic characters*.

ANNEX 1 Application Documents

Annex 1.1 Online Application Form

The CORE Proposal Application consists of 7 different activities, which are presented as a 'To Do' list:

- **Application form - Consortium**
- **Application form – Key Contacts**
- **Application form – Project / Activity**
- **Application form – Legal and Ethical Requirements**
- **Application form – Financial Data**
- **Application form – Attachments**
- **Generate PDF**

After completion of each activity, the task is removed from the 'To Do' list.

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.

Annex 1.2 Online Application Form – Attachments

The attachments to be uploaded together with the online application form consist of the following documents.

Support letters are not required. They will be taken out by the FNR if submitted.

Section 1.1. Project Description

The '**CORE Project Description Form**' is a Word document that can be downloaded on the [CORE website](#). The document may be saved to the applicant's desktop and completed offline.

Character limits of the project description:

The project description **must include the exact headings of the form and is limited to a total number of 72.000 characters.**

Exceptions: Additional characters are allowed for the following headings if applicable:

Ethical considerations: 6.000 characters

PhD candidate supervision and research lines: 3.000 characters per PhD candidate

Comments on Resubmission: 3.000 characters

As a recommendation, please use **font types such as Arial, Times New Roman or Helvetica with a font size of minimum 11 points and adequate line spacing and margins.** Pictures and graphs may be included. Scanning of written text is not allowed.

FNR uses the tool [Count Anything](#) to check the number of characters. The **72.000 characters are counted including spaces** (indicated in Count Anything as Chars) and including the headings.

Proposals exceeding the indicated character limits will be rejected without further evaluation.

This '**Project Description Form**' is part of a web-based online application and cannot be submitted alone. 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 have to be integrated in section 6 of the 'Project Description Form'. Reviewers' comments shall be more specifically addressed in this section.

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

1. Description of the Proposed Research Project

1.1 Introduction

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. Tangible outputs must be presented for the referenced ongoing project(s). If no tangible output is available, the new project should not be labelled as follow-up. In addition, the PI has to clearly state the innovation in the new proposal.

1.2 Relevant state-of-the art and your own contribution to it

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?). In addition, please outline the past contributions of the Project PI and Team to the development of knowledge in this field. Provide sufficient detail allowing reviewers to delineate the Project PI & Team's contribution.

1.3 Hypotheses, project objectives and contribution to knowledge development in the research field

Outline your project's contribution to the research needs identified above. Clearly state the Research Question that is being addressed in this project. State your (testable) hypotheses. Clearly define the objectives to be achieved by the project in a realistic and, as far as possible, measurable form. It should be made clear how the proposed approach to tackle the research question is innovative, feasible and appropriate. A clear theoretical framework should be indicated, where appropriate.

1.4 Methods and approach

Describe the methods and procedures you will use in order to reach the objectives defined above. Summarise/analyse the underlying theory/theories.

1.5 Ethical considerations

If the project gives rise to ethical issues, please briefly indicate what they consist in and how they will be addressed. 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. 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'.

2. Project Plan

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 followed by a more detailed explanation for each step.

For each of the steps in the work plan:

- *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 2.1 (description of work packages). In any case, all the information has to be provided within this section, respecting the given page limit.

*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 Attachments of the Application Form.*

For a suggestion on how the work plan could be presented, please consult Annex 2.2 or the FNR website

3. Risk Management and Quality Assurance

Describe how you intend to ensure 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.). 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").

Please note: If serious risks exist (i.e. risks that could cause strong negative impacts and whose probability of occurrence is high), the project design should be reconsidered and/or a "plan B" should be elaborated.

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.

4. Project Outputs

4.1 Impact of research results

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, software development)). Do NOT include journal impact factors or other metrics as a measure of scientific quality;*
- *Open Access and Data Sharing statements are expected.*
- *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).
- 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.

4.2 PhD candidate supervision and research lines (only if applicable)

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);
- supervision set-up and degree awarding institution (including details about how the supervision and training of the candidate is organised); in case the PI's contractual arrangements prevent the PI from ensuring the supervision in the PhD's 4th year, describe the provisions for the PhD's final year supervision;
- description of the profile of the candidate you wish to employ for this PhD position.

5. Project Participants and Management

5.1 Description of the consortium, communication and decision-making

Describe how the participants collectively constitute a cohesive and effective research team capable of achieving the project objectives, amongst others, by highlighting their unique competences and complementarities between them. Describe how the environment of the research teams involved will support the successful execution of this project and its contributions to science and society. CORE junior PIs should specify their embedding in the hosting group and how their hosting environment will support them in the implementation of their project. 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. (Narrative-style CVs of members of the consortium (PI,

Co-PI, as well as international co-applicants in CORE international proposals) are to be provided in the Attachments 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.

5.2 Summaries (term sheets) of the Consortium agreement and/or the Intellectual Property Rights (IPR) agreement

It should summarise the essential terms of the required agreement (see chapter 2.3 '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.

5.3 Ongoing projects of the PI (and Co-PI, if applicable)

Provide a list and short summary of all third-party funded ongoing projects of the PI (and Co-PI, if applicable), also indicating the PI's involvement therein. Clarify how this proposed project fits within the ongoing activities of the research group(s).

5.4 Ongoing supervision of PhD candidates of PI (and Co-PI, if applicable)

Provide the number of ongoing PhD candidates under the PIs/Co-PIs supervision.

6. Comments on Resubmission

*The FNR only allows **one** resubmission for each application. Projects which have been submitted to FNR in previous calls and have not been retained for funding may be resubmitted **once** and only after the project has undergone substantial revision. It is absolutely necessary to take the previous reviews and panel conclusion into consideration and to summarise the changes/modifications in comparison to the former application. The FNR reserves the right to exclude projects which have not undergone substantial changes in the resubmitted application. Please note that disguised resubmissions can be rejected as well.*

Section 1.2 Bibliography (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). Wherever appropriate, cite primary literature in which observations are first reported rather than reviews in order to give credit where credit is due.

Each reference must include the names of all authors (at least the first 3 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 1.3 CV of the PI

As of 2021, the FNR has introduced a new narrative-style CV ("Individual Narrative Profile") in all its funding programmes, which in conjunction with an updated ORCID profile, allows the full picture of a researcher to be evaluated. The goal is to allow an applicant to be more fairly evaluated on their scientific vision, appropriate experience, and broader contributions to science and society, beyond the limited focus of metrics and quantitative lists.

Please upload a narrative profile based upon the FNR template (in English) of the PI into the system, following the template provided on the FNR CORE website. **Using this [Narrative Profile template](#) is mandatory, and applications not using it will be considered ineligible for evaluation.** Ensure that the PI's ORCID profile is updated as well, so that the full profile is available for evaluation.

Section 1.4 CV of the Co-PI (if applicable)

Please upload narrative profiles based upon the FNR template (in English) into the system, following the template provided on the FNR CORE website. **Using this [Narrative Profile template](#) is mandatory, and applications not using it will be considered ineligible for evaluation.** Ensure that the Co-PI's ORCID profile is updated as well, so that the full profile is available for evaluation.

Section 1.5 Project Plan (gant chart)

Please upload the 'Project Plan' into the system.

The 'Project Plan' gives an overview of the project planning and presents graphically the different implementation steps described in section 2. Project Plan of the Project Description Form. 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;*
- *personnel involved in each step;*
- *deliverables for each step.*

For a suggestion on how the workplan could be presented, please consult Annex 2.2. and the FNR's webpage where you find a [template for a Gantt chart](#) representation.

Section 1.6 International Co-Funding (if applicable)

In the case that a co-funding of an international partner is required, please download the additional and country specific documents which are necessary for the partner funding agency.

Every international co-applicant (i.e. the applicant corresponding to the other funding agency), has to provide a **narrative-style CV based upon the FNR template** (in English), following the template provided on the FNR CORE website (i.e. one narrative profile per international cooperation partner is mandatory). **Using this [Narrative Profile template](#) is mandatory.** Ensure that the researcher's ORCID profile is updated as well, so that the full profile is available for evaluation.

Please complete all necessary forms, convert them to PDF and merge them into one single PDF file and upload them. For more information please consult the website on [international cooperation](#).

Section 1.7 Declaration

Tick box 'We/I hereby declare that this proposal conforms to the call guidelines, especially the FNR requirements for PIs and Supervisors, and the 'FNR Research Integrity Guidelines'.

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.

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 WP	<i>Indicate in months (e.g. M1)</i>	End WP	<i>Indicate in months (e.g. M3)</i>
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
		<i>PhD, Professor etc.</i>	

Annex 2.2 Graphical Overview of the Project Plan (Gantt chart)

The '**Gantt Chart**' gives an overview of the project planning and presents graphically the different implementation steps described in section 2 (Project Plan) of the 'Project Description Form'. 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 Project Plan \(Gantt Chart\)](#)' containing one single worksheet can be downloaded from the FNR's webpage 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 in.

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.