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Benefiting people and society

RESEARCH INFRASTRUCTURE
Large equipment and facilities 2024

Information and guidelines for applicants

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Information about the call

Grant capital:
From DKK 5 to 25 million per grant, for a period of up to six years.
The total grant capital in 2024 is expected to be DKK 135 million.

Application form opens:
11 October 2023

Application deadline:
11 January 2024, 2 pm (CET)

Applicant notification:
- April 202
- September 2024

Earliest start date:
1 January 2025

Latest start date:
31 December 2025

Review committee:
Internal committee and international peer review

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Guidelines version:
2024.01

1 RESEARCH INFRASTRUCTURE
Large equipment and facilities 2024

Please read these guidelines carefully before initiating the application process, as they contain the complete call text as well as instructions regarding the completion of the application:

- **Section 1** describes the overall frame and conditions of the call, eligibility criteria, and evaluation process.
- **Section 2** provides technical guidance for how to access and navigate in the application and grant management system NORMA.
- **Section 3** gives essential information regarding the requirements to content, structure, and budget of the application.

Novo Nordisk Fonden (NNF) will treat all applicant and application information confidentially. Read more about how NNF processes personal data under 'privacy & security' in the online application system, NORMA. Furthermore, please read 'General Terms and Conditions' for grants from NNF that all Grant Recipients must comply with:
http://www.novonordiskfonden.dk/en/content/conditions-grants.

1.1 PURPOSE
With the Research Infrastructure Programme, the NNF wishes to strengthen the Danish research environment by supporting the establishment and maintenance of open-access infrastructures needed to achieve excellence in research and innovation.

The goal of the programme is to:
- Ensure that researchers have access to state-of-the-art research facilities, including the latest and most advanced equipment.
- Ensure that users have access to qualified technical assistance on the use of the facilities and/or equipment.
- Ensure that the research infrastructure is continuously developed and maintained, also after its implementation.
- Boost other research environments, local, national, or international, including companies (e.g., small and medium-sized enterprises (SMEs) and incubators), that cannot invest in this to the same extend.

1.2 AREAS OF SUPPORT
The infrastructure applied for should enable research and development within NNF's strategic focuses on biomedicine and health sciences, sustainability and biotechnology, and natural and technical sciences as well as data science.

Specific overarching research fields include:
- Biomedicine
- Clinical and translational medicine
- Industrial and environmental biotechnology

- Plant science, agriculture, and food biotechnology
- Natural sciences with potential applications in health or sustainability
- Technical sciences with potential applications in health or sustainability
- Computational science, including data science, with potential applications in health or sustainability.

Applications for the Research Infrastructure Programme within natural, technical, or computational sciences must explicitly describe how the research enabled by the research infrastructure may have potential future applications in health or sustainability.

1.3   ELIGIBILITY

The applicant, who should hold a PhD, must be employed and have his/her primary affiliation as senior scientist, academic technical staff ("AC-TAP"), associate professor, or professor in a time-unlimited position, at a university or other not-for-profit research institution in Denmark. The applicant must be able to account for own salary during the grant. The applicant must document expertise at the highest level within the relevant research field.

The research infrastructure must be anchored at a Danish research institution with expertise within the relevant field. This is to ensure that the infrastructure develops in parallel with the scientific progress in the area, and that there are qualified personnel to operate and maintain the equipment, as well as to supervise others in its use.

Besides the applicant, there must be 3-5 core users associated with Danish research environments, committed to use the equipment or facility. Core users signify researchers for whom no funding is requested in the budget, but who will be among the drivers of the research supported by the infrastructure. In this context, an industrial partner may also be a core user. Other users relevant for the infrastructure may be mentioned in the project description, e.g., international users, but these should *not* provide letter of support or CV. It is considered an advantage, if the core users include researchers from national research institutions outside the main applicant's research institution.

Does the project involve development of instrumentation and/or methodology not commercially available? Please consider the new NNF programme launched in October 2023: the "Exploratory Research Instrumentation Programme".

If the main focus of the application to upgrade or continue existing research infrastructure funded by a NNF Research Infrastructure – Large Equipment and Facilities grant? Please consider the new NNF programme launched in October 2023: the NNF Equipment Upgrade Programme.

Special rules for applications:
a) An applicant may submit only one application per call to any of the 'Exploratory Research Instrumentation", "Research Infrastructure", or "Equipment Upgrade" programmes. These three programmes are evaluated in parallel.
b) As the Research Infrastructure grant does not allow funding for the applicant's salary, the applicant must be able to account for own salary during the entire grant period applied for.

c) NNF does not allow double funding of project-specific expenses. If an applicant has applied for, or has received, funding for the project or parts of the project from others, this must be detailed in the budget of the application. If the applicant receives funding for the project or parts of the project from other sources following submission of the NNF application, NNF should be contacted immediately.

d) It is not possible to hold more than one active Research Infrastructure grant. Researchers with an active grant may apply for a new Research Infrastructure grant during the final year of the grant, however, a new grant cannot be activated until the existing grant is completed and no longer active.

e) It is not possible to hold both an active NNF Research Infrastructure Grant- Large Equipment and Facilities and an active NNF Equipment Upgrade Grant. The principal investigator of a currently NNF funded research infrastructure may, however, apply for an NNF Equipment Upgrade Grant, which is planned to start immediately after the end of the corresponding Research Infrastructure Grant.

f) It is permitted to hold two or more active NNF grants of different types, i.e., researchers with an active Research Infrastructure grant may apply for a new grant of a different type, e.g., a Project grant or an Investigator grant.

g) The general conditions that apply when receiving a grant from the NNF can be found on our webpage.

1.4   FUNDING

A total of up to DKK 135 million is available for Research Infrastructure grants between DKK 5 - 25 million for a period of up to 6 years.

Applicants may apply for funding for the following types of expenses (see section 3.4 for details):
- Equipment
- Establishment and installation of the infrastructure
- Operating expenses
- Salary for academic or technical personnel supporting the Research Infrastructure (AC TAP or TAP)
- Bench fee for personnel whose salary is covered by the grant
- Training of technical personnel and users
- Data management
- Direct administrative expenses

The call does not support salary for scientists or research activities.

Co-funding is not mandatory. Any potential co-funding of the infrastructure during the project period must be described in the budget.

NNF will not award funding for:
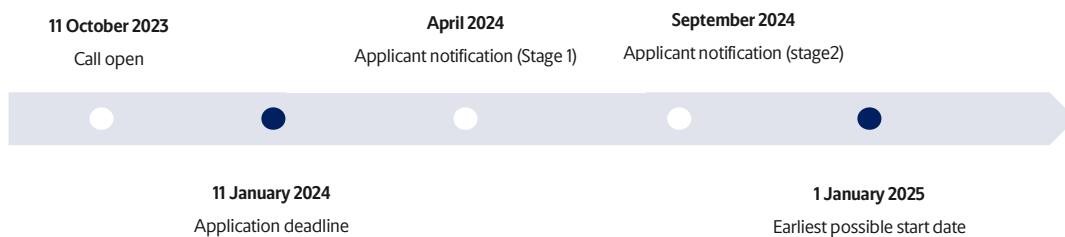- commercial activities
- overhead

1.5   LANGUAGE

The application and any additional uploads must be written in English.

1.6   APPLICATION PROCESS

The application must be completed and submitted using NNF's online application and grant management system, NORMA.

Further information on how to access and navigate in NORMA can be found in chapter 2 and information about the required application content can be found in chapter 3. **Please read Chapter 3 for detailed information on expected format of the application, budget, and required uploaded documentation.**

11 October 2023		**April 2024**	**September 2024**	
Call open		Applicant notification (Stage 1)	Applicant notification (stage2)	
	●	○	○ ●	
	11 January 2024		**1 January 2025**	
	Application deadline		Earliest possible start date	

Applicants that are not selected for a stage 2 evaluation after the initial stage 1 will be notified in April 2024. Following stage 2 evaluation, the remaining applicants will be notified in September 2023 about whether they have been awarded a grant as well as be offered detailed feedback on their application. The notification e-mail will be sent from noreply@norma.novonordiskfonden.dk to the e-mail address entered on initial registration.

<u>If awarded a Research Infrastructure grant:</u>
The successful grantee will be asked to develop an impact framework that contains milestones, key performance indicators, deliverables, and a business plan, including a sustainable user business model for the infrastructure. This impact framework is anticipated finalised during project year 1. During the entire grant period the infrastructure will be asked to contribute to NNF project monitoring activities. This includes a site visit from NNF to the completed infrastructure (tentatively project year 2), a midway status report based on delivery on impact framework (1-2 years before end of the grant period), and annual reporting in the NNF monitoring tools. Grant recipients will receive more detailed information about reporting and monitoring from NNF.

1.7   ASSESSMENT CRITERIA

Applications are evaluated by external peer review by international experts in the relevant fields. The applications will primarily be assessed based on the following criteria:

- Scientific need for the infrastructure.
- State-of-the-art and novelty of the requested equipment.
- Feasibility and suitability of the proposed organisational set up for the infrastructure, including expected use and maintenance.
- Plan for accessibility to the infrastructure for the surrounding research community, including internal, external, or industrial users, as well as a clear plan for how to grant access in an open and transparent manner for external users. (*NB: infrastructures with*

open access are prioritised. If open access is not offered, this must be justified in the application).
- Scientific, technical, and managerial qualifications of the applicant.
- Reasonability of the applied for budget.

If you have an active grant from NNF, this may be taken into consideration in the evaluation of your application for a new grant. In general, it is recommended that the Grant Recipient has delivered results on the active grant(s) before submission of a new application to NNF. If you apply, while having an active grant from NNF, you must describe how the project you propose in this application is different from and/or coherent with the project(s) already funded and briefly describe the progress of the already funded project(s).

2   THE APPLICATION AND GRANT MANAGEMENT SYSTEM – NORMA

Sections 2 and 3 provide guidance on completing and submitting an application through NNF's online application and grant management system NORMA. Section 2 contains general technical information, while section 3 contains information specific to the individual call. All the fields of the application form must be completed in accordance with these guidelines and the instructions in NORMA.

2.1   USER REGISTRATION

NORMA can be accessed through links on NNF's website or directly at:
https://norma.novonordiskfonden.dk

Before you begin, please read the instructions on the login page.

If you do not have a user profile in NORMA, you can register by clicking REGISTER from the login-page. Here you can also retrieve forgotten passwords by clicking the FORGOT PASSWORD-link. The main applicant should only have one user profile. Please use your work e-mail address for registration. After registration, you will receive an e-mail with your username and a temporary password, which you can then use to log in to NORMA. After logging in for the first time you will be asked to provide a password of your own choosing.

A registered user who submits an application is legally responsible for the truthfulness of the content of the application.

If you experience technical problems, please contact NORMA Support:
norma-support@novo.dk.

> ⚠️ An applicant cannot change the e-mail address provided at registration. Please contact NORMA Support if you need to change your e-mail address.

2.2   CREATING AN APPLICATION

Initiate an application by finding the call you wish to apply for in the OPEN CALLS-section on the Applicant Portal in NORMA. Use the search filters at the top of the section to filter by, e.g., overall funding area, and initiate an application by clicking APPLY NOW next to the relevant call.

Applications can be edited up until the deadline. A draft application can be saved by clicking SAVE DRAFT and may be cancelled at any time up until the deadline by clicking CANCEL APPLICATION. An application is not submitted to NNF until an applicant has clicked SUBMIT and has received confirmation that the application has been successfully submitted.

You can review the application at any time by reopening from within NORMA. Opening the application will also allow you to download the application in its entirety as a PDF. Make sure the PDF is readable and formatted appropriately before submitting your application.

2.3   TEXT AND ILLUSTRATIONS

For all applications, the individual fields must be completed in accordance with these guidelines and the instructions supplied in NORMA.

> ⚠️ To prevent loss of data, it is essential to press SAVE DRAFT before you leave NORMA or navigate in the system.

TEXT FIELDS
Text from Microsoft Word or comparable word processors can be copied and pasted into most text fields of the application. It is, however, important to check that formatting, special characters, and symbols have not been converted or lost in the text fields after copying and pasting. If the formatting looks wrong in NORMA or in the PDF, try changing all text to *Normal* using the FORMAT dropdown. It is the responsibility of the applicant to ensure that the pdf looks correct before submitting.

The available options for formatting text are at the top of the text fields. Some shorter text fields do not have the option to use rich text formatting.

> ⚠️ For readability purposes, standard fonts, font size 11-12, and line spacing between 1.0 and 1.5 must be used.

ILLUSTRATIONS
Illustrations such as figures, charts, tables, images, etc. related to the project description can be uploaded under PROPOSAL. A maximum of four illustrations are allowed. The illustrations will be placed on a separate page in the application PDF but can be referenced throughout the project

proposal as needed. For readability, please name the files numerically by the order in which they are referenced.

The following file formats for illustrations are accepted in the system: JPG, JPEG, PNG, and BMP. The maximum accepted size for each illustration is 1050*1650 pixels.

> ⚠ Please remember to check that the PDF version of the application is legible and contains all data and uploads before submitting.

2.4   SUBMITTING THE APPLICATION

The application in its entirety must be submitted electronically via the application system by clicking SUBMIT. It is not possible to submit an application or any part of it by standard mail or e-mail. Any material submitted outside the application system will not be included in the evaluation and will not be returned.

All applicants must read and accept NNF's Standards for Good Research Practice before submitting the application. Further, the applicant must declare that the information provided in the application is true and accurate.

An application cannot be submitted unless all the required fields have been completed. Applications can be cancelled at any time before submission. If you need to withdraw an application after the deadline, please get in touch with NNF via e-mail, using the contact information on page 3.

> ⚠ A list of any incorrect or incomplete entries will be generated at the top of the screen when you click SUBMIT. Clicking one of these error messages will take you to the relevant field. Amending incorrect or incomplete entries can be time-consuming, so we recommend submitting applications well before the deadline.

3   APPLICATION CONTENT

This section provides guidelines on the content required in the sections of the online application form for this call, and best practice of how to apply for this specific call.

3.1   APPLICANT

The applicant tab contains various sections with information about the main applicant:
- Personal information
- Educational information
- Current institution
- Experience

- Previous and Current Grants from NNF

After filling in all mandatory fields, the applicant should complete the task to save the details.

Please note the following requirements:
- o **CV** can be maximum 4000 characters (including spaces, line breaks and special characters). Please include in the CV a short bibliographic overview summarising total number of peer-reviewed publications, number of first authorships and corresponding authorships, number of citations and *h*-index. If relevant, kindly include a description of the technologies that the applicant has contributed to developing and the applicant's role in this development.
- o **Publication list** can be a maximum of 5.000 characters (including spaces, line breaks and special characters). Include the 10 most relevant products (publications, patents, software or similar) and briefly motivate the choice of these in relation to the current application. Include the name of all authors/contributors for each product with your own name highlighted. You are strongly encouraged to include a link to an updated profile (with full publication list) in ORCID, Google Scholar, Web of Science, Scopus, or similar.
- o **Previous and current grants from NNF:** If you have previously submitted other applications within the last year, summarise how these applications are related to the current application. If you have received any grants from NNF as an applicant or a co-applicant within the past five years, you must provide the application number, project title, grant period (in years), grant amount and the percentage share of the grant (100% if there is no co-applicant). Briefly summarise how any of the grants are related to the current application.

Please note that invitation of co-applicants is not possible within this call.

3.2 INSTITUTION

Please provide information about the institution where the grant will be administrated. This institution is where the infrastructure will be anchored during the grant period and the institution which will be responsible for budgeting, accounting, and staff supported by the grant.

Registering a new administrating institution in NORMA can take up two working days. The application can be edited but cannot be submitted before this information is registered. We therefore recommend that you register an administrating institution in good time.

3.3 PROPOSAL

Describe the infrastructure using the following fields on the PROPOSAL tab:

PROJECT TITLE
Please provide a short title for the infrastructure (maximum 150 characters, including spaces).

BRIEF PROJECT DESCRIPTION

Please provide a brief stand-alone summary of the infrastructure describing its purpose, target group, and activities (maximum 2000 characters, including spaces). NOTE: The brief project description should be in a format suitable for sharing with potential peer reviewers before disclosing confidentiality.

PROJECT DESCRIPTION

The project description can be a maximum of 30,000 characters. Please address the points below preferable in the order given:

- The need for establishing the infrastructure, including an assessment of the timeliness and how the suggested infrastructure differs from any existing infrastructures available in the research environment.
- The scientific and technical expertise within the relevant field at the research institution where the infrastructure will be established.
- The technical expertise available to ensure qualified operation and maintenance of the infrastructure as well as instruction of new and experienced users.
- The potential user group of the infrastructure. *It is encouraged to provide an estimate of the distribution of expected usage by the applicant, core, and external users. Open access is strongly encouraged (and if the infrastructure is not open access this should be justified).*
- The organisation and governance of the infrastructure, which should include:
  - A realistic timeline for the establishment of the infrastructure that takes into consideration the time needed for acquisition and installation of the equipment as well as hiring of staff, if applicable. Please state when the infrastructure is expected to be installed and provide open access to users. *If relevant, a figures illustrating this may be uploaded as an illustration.*
  - It is encouraged to provide a description of a potential steering committee and its responsibilities.
  - A clear plan for how the infrastructure will be made available for a wider group of scientists, including communication and outreach activities, and access criteria. *Priority will be given to infrastructures with open access for external users, e.g., scientists from other research institutions and universities, SME's or incubators.*
  - A business plan describing how the infrastructure will be embedded, used, maintained, and financed during the grant period including user pricing policy.
  - A clear plan for data management and permits from public authorities needed to establish the infrastructure, if relevant.
  - Identification of the main risks related to establishment and operation of the infrastructure with mitigation plan.

Please limit the use of abbreviations and non-standard acronyms. Abbreviations should be defined at the first use. The application will be assessed by an interdisciplinary committee, which may not be familiar with field-specific acronyms.

ILLUSTRATION UPLOADS

A maximum of four illustrations of 50 MB each can be uploaded here. Accepted formats are .jpg, .png, .gif, .bmp.

LITERATURE REFERENCES

Please provide the reference information for the literature cited in the project description (maximum 8000 characters, including spaces).

LAY PROJECT DESCRIPTION
Please provide a brief summary for non-experts in lay language. If the application is awarded a grant, the text may be used for publication (maximum 1000 characters, including spaces).

⚠️ Please note that the application should address all the assessment criteria listed in subsection 1.7.

3.4 BUDGET

The budget only comprises the information entered in the BUDGET tab. Additional budget information attached under UPLOADS or added under any other tabs than BUDGET will not be considered. The budget must be entered in budget years following the grant period and not calendar years. Notice that the total budget for the grant must be between DKK 5 million and DKK 25 million.

ELIGIBLE BUDGET EXPENSES
Applicants may apply for funding for the following types of expenses:

- **Equipment**: Purchase of equipment for the infrastructure. This is not necessarily a single piece of equipment. However, the intent is that only larger equipment should be put in the Equipment budget category.
- **Establishment and installation of the infrastructure:** This may include minor modifications necessary for establishing and operating the infrastructure.
- **Operating expenses** incl. materials, consumables, and service contracts, directly related to operating and maintaining the infrastructure.
- **Salary for academic or technical personnel (AC-TAP or TAP)** that will run and maintain the equipment. These can also offer research-based training, consultation, data processing, data analysis, data management, software/database development, and dissemination of data/tools. Note that the requested TAP salary can be used for personnel with an academic background but cannot be used for conducting research.
- **Training of technical personnel** relevant for running and maintaining the infrastructure. This includes travel and accommodations.
- **User training activities** targeting groups of PhD students and/or postgraduates including industry. This could, for instance, be realised as on-site training during, workshops or summer schools. Notice that the grant does not directly support expenses for holding workshops or summer schools; the NNF Conferences, Symposia, and Workshops Programme can cover such expenses.
- **Data management** incl. expenses for collecting and storing data.
- **Bench fee** can be included in the budget for support of personnel whose salary is covered by the grant. The Bench fee can cover expenses needed to install, run, and maintain the research infrastructure. Bench fee is calculated per employee actively working on the project and may only be used for expenses that are related to the research infrastructure and which cannot be included within another individual budget category. The budget must specify the expenses covered by the bench fee, which may include:

- Common or shared laboratory expenses and consumables
- Laboratory utilities (electricity, gas, water)
- Maintenance of essential equipment
- Service contracts
- Technical and IT support, library access

Note that bench fee cannot cover rent, administrative support, representation, social contributions etc. To include a bench fee in the budget, the fee must be a part of the general expense policy of the administrating institution, and it must apply for all employees independently of funding source. If applied for, documentation of the host institutions general bench fee policy provided. An unspecified bench fee without documentation will not be accepted. The bench fee can be maximum DKK 8,000 per month per full time employee (FTE) full funded by the project.

- **Direct administrative expenses** for up to 5 % of the funding applied for. The following applies:
  - can cover non-scientific, administrative expenses in relation to the infrastructure, such as accounting, administration related to payment of salaries and purchasing, hiring, as well as auditing and financial reporting on the infrastructure,
  - cannot cover administrative expenses that are not directly related to the infrastructure,
  - is not automatically included in the grant and must be stated/applied for in the application budget but should not be specified in detail.

GRANT PERIOD

Before you can fill in the budget template, start by entering the start and end dates for the grant. NORMA then generates a grant period in whole years, which is reflected in the budget template. The grant period is the duration of NNF's grant for the project, which for this call is up to 6 years.

CREATE BUDGET

After saving the project start and end dates, the budget template will become available to edit. The budget will open in a new tab, in which you will need to add the subcategories you need for your budget. Please follow the instructions at the top of the screen to complete the budget.

Notes:
- The budget continuously saves changes you've made without the need to manually save. You are free to leave the budget at any time and come back at a later point.
- When you are done filling in your budget, please use the SAVE AND CLOSE button. This will check that all information has been filled out correctly and in accordance with the guidelines, saving the budget to your application.
- You can always return to the BUDGET tab. A summary of the budget will be displayed, review it to ensure that it is correct.
- The full budget details can be viewed or edited at any time before submission of the application by reopening the budget template.

Any comments about the budget can be entered in the SUPPLEMENTARY INFORMATION field.

3.5 APPENDICES
- Signed letters of support from 3 to 5 core users stating their contribution and commitment to the infrastructure applied for (max. 1 page each). Please upload these

combined as a single PDF file, with a frontpage indicating the names and affiliations of the 3 to 5 core users. *(Support letters)*
- Short CVs from the core users (max. 2 pages each). *(Short CVs)*
- A signed letter of support from the hosting institution taking responsibility for establishing and embedding the infrastructure within the institution as well as for administrating the grant. The letter should also describe potential institutional co-financing of the infrastructure. *(Hosting letter)*
- Vendor quotes for the major equipment applied for. Please mark quoted equipment in the budget description. (O*ther uploads*)
- Documentation for the bench fee policy at the host institution (if applied for). (O*ther uploads*)

Other collaborators relevant for the infrastructure who are not considered core collaborators, should be mentioned in the project description but should not provide letter of support or CV.

All uploads must be in PDF format. NORMA automatically places these uploads at the end of the application. Please respect the page limitation and the upload requirements stated in the call. Uploads in excess of these limits may not be considered for evaluation.

October 2023

The Novo Nordisk Foundation

The Novo Nordisk Foundation is an independent Danish Foundation with corporate interests. The objective of the Novo Nordisk Foundation is twofold: To provide a stable basis for the commercial and research activities conducted by the companies within the Novo Group and to support scientific and humanitarian purposes.

The vision of the Novo Nordisk Foundation is to contribute significantly to research and development that improves the lives of people and the sustainability of society and the planet.