## Project description template for research infrastructure of national importance

**The project description template consists of**

**A:** an overview of the chapters and sections to be used as structure in the project description

**B:** content guidance for each chapter and section

### Chapters and sections to be used in the project description

### National importance and relevance to the call

### Excellence

#### Contribution to research and innovation

#### Quality and uniqueness of the research infrastructure

#### Ethical, legal and environmental considerations

### Impact

#### Potential impact

#### Measures for communication, accessibility and utilisation

### Implementation

#### Project partners, management and organisation

#### Plans for establishment/upgrade and operation

#### Technical solutions

#### User guidance and support

#### Cost- and funding plan

### Guidance

**Please note:**

Complete all chapters and sections in the template, following the order of content as given in part A, and delete the guidance boxes, except the tables. The template is designed to address all elements of the evaluation criteria. The applicant is nevertheless strongly advised to read the evaluation criteria carefully, both for the expert evaluation and the strategic administrative evaluation.

Project period, progress plan including main activities and milestones, budget, dissemination plan and more, are all part of the electronic grant application form and are not included in the project description. The project description is intended for a more detailed description of the objectives, the background for the project and how it will be carried out. A complete list of mandatory attachments is given in the call for proposals, and these provide more details about the project.

The proposed research infrastructure should be presented clearly using a language that is understandable also to individuals with a general scientific understanding of the field.

The project description is not to exceed 15 pages, including the list of references. The page format must be A4 with 2 cm margins, single spacing and Arial, Calibri, Times New Roman or similar 11-point font. It is permitted to use 9-point font for the list of references and figure captions. Links listed in the project description will not be included in the assessment.

### National importance and relevance to the call

* This chapter should describe national importance of the proposed research infrastructure and how the infrastructure is relevant for the call. Describe the infrastructure's relevance to relevant national strategies and specify how the planned infrastructure relates to the government's long-term plan for research and higher education and relevant portfolio plans[[1]](#footnote-2).
* Name sub-areas in the Norwegian Roadmap for Research Infrastructure for which the planned research infrastructure is relevant.
* Describe how the infrastructure will support the Research Council’s center schemes[[2]](#footnote-3)
* If relevant, describe how the infrastructure meets the needs described in the recent national subject assessments of life sciences (EVALBIOVIT, EVALMEDHELSE), natural sciences (EVALNAT), mathematics, ICT and technology (EVALMIT).

### Excellence

* This chapter should provide a description of the planned research infrastructure, and the research and technology challenges it addresses to enable an assessment of its state of the art and novelty.
* For international projects, describe the added value for Norwegian research communities as well as the international consortium of the project applied for.
	1. **Contribution to research and innovation**
* State the overall project objectives and aims, and its contribution to excellence in science, technology development and innovation. Describe the research challenges the new or existing research infrastructure will be able to address, and - if applicable - the inter- or multidisciplinary scope.
* Describe how the research infrastructure will provide services that respond to the needs of relevant research communities and research areas and, if appropriate, to other user communities.
	1. **Quality and uniqueness of the research infrastructure**
* Describe the uniqueness of the infrastructure and position it in the landscape of infrastructures the proposed infrastructure will operate in (local, national and international). Describe how the proposed infrastructure addresses a gap, need or synergy in the current landscape in Norway (and beyond).
* Give a description of the research infrastructure (physical, technological etc.) and highlight any particularly novel, original or ambitious aspects of the project (“state-of-the-art”).
* If the proposal concerns an upgrade of an existing research infrastructure, describe the added value of the upgrade (accomplishments of the existing infrastructure should be described in a specific attachment to the proposal).

**2.3 Ethical, legal and environmental considerations**

* Describe how ethical and legal issues raised by the project will be addressed and how this is adequate for the research field.
* Describe how potentially undesirable effects from carrying out the project, on human and animal health, climate and the environment and society at large, can be avoided.

**For international research infrastructure cooperation:**

* Describe the international research infrastructure and the Norwegian contribution.
	+ If the research infrastructure is a Norwegian node of a distributed international research infrastructure, describe the Norwegian node and how this contributes to the international project. Emphasize also the importance of the Norwegian node for Norwegian research and innovation landscape.
* When applying for an upgrade of an existing Norwegian node to a distributed research infrastructure, indicate consequences for the membership if the upgrade is declined.

**Excellence -** **please note:**

Make sure that the choice of technical solutions is well accounted for and described, and that it is clear how these are adequate for addressing the project objectives and aims.

Please see the ethical guidelines of the Research Council when preparing the grant application:

<https://www.forskningsradet.no/forskningspolitisk-radgivning/forskningsetiske-krav/> (Norwegian)

<https://www.forskningsradet.no/en/Adviser-research-policy/Ethical-standards-in-research/> (English)

### Impact

This chapter should describe the importance of anticipated short- and longer-term outcomes and impacts of the research infrastructure in terms of science, society and/or industry. The chapter should also specify the planned measures for access to and utilisation, communication and dissemination of the research infrastructure for relevant user groups.

**3.1 Potential impact of the proposed research infrastructure**

* Building on the description in chapter 2, describe clearly anticipated short- and longer-term outcomes and impact of the infrastructure on the following areas:
* Science i.e. excellence in research, education and training, recruitment to science, internationalisation of Norwegian science
* Society i.e. contribution to societal challenges identified and UN Sustainable Development Goals
* Innovation and industry i.e. value creation and national competitiveness
* Other user groups outside of academia

**3.2 Measures for communication, accessibility and utilisation**

Describe:

* access plan for the infrastructure (e.g. web contact, personnel for user contact- and coordination, prioritisation of access capacity issues, how price policy will be established).
* how information about the research infrastructure related services will be disseminated (eg website, newsletters, teaching, seminars)
* the management of generated knowledge e.g. how knowledge will be made available for research and innovation, how knowledge and results will be transferred to academic and industrial users, and to the public.

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**Impact - please note:**

The description of the potential impact should be specific for the planned research infrastructure. General elaborations on the benefits of the research infrastructure in a wider context should be avoided.

The 17 UN sustainable development goals (SDGs) provide a global roadmap for a better future for all ([Link](https://www.un.org/sustainabledevelopment/)). If relevant for your project, describe how the outputs generated in this project can contribute to solving challenges and/or shed light on important issues related to one or more of the UN SDGs.

### Implementation

This chapter should provide a description of the management and organisation, partners, project team, work plan, and task allocation.

#### 4.1 Project partners, management and organisation

**Partners**

Describe:

* the consortium as a whole and its capability to implement and host the national research infrastructure and why this consortium is the best suited to host the national research infrastructure. Justify the suggested localisation(s) and host institution(s).
* the project partners, the scientific and technological competence and expertise of each partner, and the partner’s role and responsibilities in the project.
* each partner’s responsibilities for operation and upgrade of the research infrastructure subsequent to the project period and how the research infrastructure fits into the host institutions’ long-term planning and research strategy.

**Management and organisation**

Describe:

* the expertise and experience of the project manager and work package leaders in the context of the proposed project, to complement the information in the CVs.
* the competence of the operational management in terms of operating advanced research infrastructure.
* the project organisation and management structure and procedures in the establishing phase of the national research infrastructure.
* the plan for management and organization of the national research infrastructure in the operational phase, including after the funding from the Research Council is terminated.
* the governance model, including reporting lines, steering committee and any advisory committees.

For international projects (e.g. ESFRI), please describe:

* the international consortium
* the role of the Norwegian node in the consortium and it’s management

**4.2 Plans for establishment, upgrade, operation and termination**

**Workplan and deliverables**

Describe the workplan, major deliverables and milestones by including;

* a brief outline of the overall structure of the work plan (a detailed description of work packages is to be given in the attachment "Work packages")
* timing of the different work packages and their components (Gantt chart or similar) and a presentation of how the components interrelate (Pert chart or similar)
* a long-term operation plan for the lifetime of the infrastructure beyond the project period

**Utilisation**

* Describe relevant stakeholders (e.g consortium members, external Norwegian and international research groups, industrial users, public sector projects etc.), elaborate on strategies and plans to obtain their commitment and engagement in the development of the infrastructure, and estimate the total usage of the research infrastructure Existing research infrastructures applying for an upgrade or further development should describe the present degree of utilisation.
* Specify the management of intellectual property rights (also related to external users).

**Termination**

If relevant, describe a preliminary plan for decommissioning parts of, or the whole infrastructure.

**Data management**

* Describe the plans to manage research data and ensure its accessibility, quality and reusability through
	+ Storage and archiving solutions
	+ Sharing and access policy
	+ Curation, formatting and metadata
	+ Compliance with relevant domain standards
	+ Expertise and services for appropriate, secure and quality data management
* Describe how the research infrastructure will provide guidance to the users on how to make their data FAIR[[3]](#footnote-4)
* Describe e-infrastructure(s) the project intends to use, and the needs they meet. For example, infrastructures for storage, computing, networking or services like security, access, data management or otherwise.

**Risk and mitigation measures**

* Clearly identify major risks involved (scientific, technological, political, financial, research security, etc.) and describe appropriate mitigation strategies, including technical solutions, competence in establishing and operating the research infrastructure, and funding of the establishing and operating phase.
* The template given in table 3 should be used for the Risk analysis.

In table 1, likelihood is the estimated probability of unwanted incidents (without taking measures to prevent them from materialising) and consequence is the anticipated consequence for the project if the risks materialise. The scale for likelihood is "Low likelihood", "Likely" and "Highly likely" and for consequence the scale is "Minimal", "Moderate" and "Severe".

### Table 1: Risk analysis and mitigation measures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description of risk** | **Likelihood (Low / Likely / Highly likely)** | **Consequence (Minimal/ Moderate/ Severe)** | **Work package(s) involved** | **Proposed risk mitigation measures** |
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* 1. **Technical solutions**
* Based on chapter 2, describe briefly the technical solutions to be offered by the infrastructure, their novelty and market availability.
* Specify whether an existing suitable site is available for the new or upgraded research infrastructure. If new and costly technical solutions are needed to adapt existing sites for the implementation of the infrastructure or there is a need to build a new site, specify the costs that will be covered by the project and other sources.
	1. **User guidance and support**

Describe how the infrastructure will provide user guidance and user support during the lifetime of the infrastructure.

* 1. **Cost- and funding plan**

The excel form that is available in the call for proposals must be used for the cost and funding plan.

Applied funding from the Research Council should be kept within 60 mill kroner. We encourage description of a stepwise upgrade or development of the infrastructure. Funding for more than 60 million kroner must be clearly described and justified (eg expensive single investment or critical investments ensuring sufficient utilisation of the research infrastructure). Based on the figures in the excel spreadsheet, please describe the following aspects:

**Cost center(s)/rental premises for the research infrastructure**

* Define the cost center(s) for the infrastructure. Clarify whether the cost center includes already existing equipment or is restricted to the infrastructure applied for in this proposal.

**Costs and funding sources for establishment of the research infrastructure**

* Describe the total costs for investments and the funding sources for the establishment or upgrade of the research infrastructure.
* Please specify the following:
	+ total costs for investments in equipment/instruments, installation, work-months for development of the research infrastructure etc.

**Cost and funding sources for operation of the research infrastructure**

* Specify the following for the running and operation of the infrastructure for a period of 10 years (including the project period):
	+ costs related to technical and other personnel, technical laboratory running costs, upgrades, equipment, services etc.
	+ funding sources for the running costs of the research infrastructure (to secure operation of the research infrastructure after the funding from the Research Council is terminated
	+ Annual income from projects
	+ If the budget includes membership costs for international projects such as ESFRI this must be specified.
* Research infrastructures that will make use of services from other existing national research infrastructures e.g. data storage, computing and tools for data management, must describe associated costs and how this will be financed.

**Implementation - please note:**

Avoid repeating information already contained in the CVs. Focus on the concrete roles and tasks, and how the project team, including key collaborators, is suitable and adequate for the establishing/upgrading and operating the research infrastructure.

The work plan, work packages and tasks should present a realistic and feasible approach for achieving the objectives as presented in the first chapter. A work package on management should be included. The ambitions and workload should be realistic in terms of resources such as personnel, expertise, research infrastructure, etc. Please notice that details concerning work packages are to be included in the mandatory attachment.

The plan for access to the research infrastructure may be based on elements from the [European Charter for Access to Research Infrastructures](https://op.europa.eu/en/publication-detail/-/publication/ec4692ae-ac6f-11ef-acb1-01aa75ed71a1). Several of the elements of this document are relevant for national research infrastructures.

For information about data management plans, please see the information on the Research Council [website](https://www.forskningsradet.no/en/apply-for-funding/writing-grant-applications/general-application-requirements/).

**Partners** are institutions, businesses and enterprises that will participate in the project with professional and/or financial resources.

**Cost center(s)/rental premises** for the research infrastructure: distributed infrastructures may have more cost centers. If the infrastructure is located or owned by one institution, the cost center is generally the host institution.

1. [Portfolios](https://www.forskningsradet.no/en/Portfolios/) [↑](#footnote-ref-2)
2. [Forskningssentre](https://www.forskningsradet.no/finansiering/hva/forskningssentre/) [↑](#footnote-ref-3)
3. The international FAIR Principles have been formulated as a set of guidelines for the reuse of research data. The acronym FAIR stands for findable, accessible, interoperable and reusable. Research data must be of quality that makes them accessible, findable and reusable. The concept interoperable entails that both data and metadata must be machine-readable and that a consistent terminology is used. [↑](#footnote-ref-4)