Roadmap for Research Infrastructure 2020

Call for proposals

October, 2019
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1. Introduction and scope of the call

Introduction

The Danish Agency for Science and Higher Education (DAFSHE) is commencing the process for drawing up a new Danish Roadmap for Research Infrastructure and invites Danish research institutions to submit proposals for national research infrastructures. The purpose is to identify the nationally and strategically most important proposals for research infrastructures embedded in broad institutional partnerships.

The new roadmap will present a catalogue of selected proposals for national research infrastructures and will serve as the foundation for funding decisions from the National Fund for Research Infrastructures in the period 2020-2023.

The current Danish roadmap for research infrastructures published in 2015 contains 22 proposals for national research infrastructures and has been the basis for funding of 12 proposals in the period 2015-2019. Thus, 2-3 new research infrastructures have been funded each year from the current roadmap. In the new roadmap the intention is to fund 1-3 research infrastructure annually, thereby giving the opportunity to also fund even larger and more costly national research infrastructures than in previous years. In 2020 the National Fund for Research Infrastructures has a proposed budget of approximately DKK 80 million.

The new roadmap is expected to be published in December 2020. With the shorter time span and the possibility to fund larger and more costly national research infrastructures, the roadmap will expectedly contain fewer proposals than previous Danish roadmaps. The number of research infrastructure proposals is anticipated to be between 12 and 16.

Scope of the call

The roadmap will include proposals for the construction and establishment of new national research infrastructures and significant upgrades of existing national research infrastructures. Research infrastructure proposals for all types of research infrastructures (single-site, distributed and virtual), from basic to applied research within all scientific disciplines can be submitted. The roadmap will present the proposals for research infrastructures using the five scientific areas: Social Sciences and Humanities, Energy, Climate and Environmental Sciences, Biotech, Health and Life Sciences, Materials Technology and Nanotechnology, and Physical Sciences.
Proposals in the current Danish roadmap from 2015 that have not been funded can be submitted as proposals to the new roadmap on equal terms as new proposals if they fall within the scope of this call.

The proposed research infrastructures for the roadmap must have national added value defined as:

- The research infrastructures must have **widespread national interest**. This means that establishing the research infrastructures must be of interest to Denmark as a whole. It also entails that national strategic priorities may be taken into consideration.
- The research infrastructures must be **national scientifically leading or part of world scientifically leading** research infrastructures.
- The research infrastructures must aim to **include all relevant and interested Danish national institutions in the partnerships** of the research infrastructures.
- The research infrastructures must be **accessible to all interested researchers and other relevant users regardless of their institutional affiliation** when established. This includes access to the physical and virtual research infrastructure laboratories, instruments and equipment as well as access to data provided from the research infrastructures, depending of the type and purpose of the specific research infrastructures.

The above definition implies that research infrastructures that are of institutional interest but not widespread national interest do not fall within the scope of this call.

The proposals must be for research infrastructures feasible to be constructed and established within a five-year period from the time of funding in case they are funded in the period 2020-2023. The research infrastructures must be permanent or long-term.

As a general rule, the research infrastructures should solely be available in one or a few locations in Denmark. However, this does not preclude distributed research infrastructures if there are well-founded scientific reasons for their distribution across more locations. Distributed infrastructures should, nonetheless, have a single point-of-entry for users.

In chapter 3 of this call, the specific requirements and expectations for the research infrastructure proposals are described.
2. Eligible proposers

Proposals must be submitted by broad institutional partnerships that include all Danish national institutions relevant and interested in the specific proposed research infrastructures. Proposals must be submitted by a main proposer and include co-proposers both as defined below. Proposals must be submitted by the senior management of the main proposer (rector or similar).

If the main proposer is not a university, at least two universities must be co-proposers. This is in order to ensure that the research infrastructures contribute to research based education.

All main proposers and co-proposers must submit commitment letters signed by their senior management (rector or similar) with the proposals. The specifications for the commitment letters are detailed in chapter 3 of this call.

Eligible main proposers:
- Danish universities
- Danish higher education institutions within the fine arts
- Danish sector research institutes
- Danish public research institutions including those within the organisation of Danish ministries, including Danish museums, archives and libraries
- Danish university hospitals

Eligible co-proposers:
- The main proposers as listed above
- Danish government institutions
- Danish applied technology institutes
- Danish hospitals
- University colleges

In addition to the main proposer and co-proposers, other interested parties may be listed in the proposal template. These can include the institutions listed above as well as other parties, e.g. private companies, organisations and foundations and public or private research institutions not based in Denmark.
3. Content of proposals and guide to the proposal template

All proposals must contain the following parts:
A. Completed proposal template.
B. Required annexes:
   B.1. Completed budget template
   B.2. Signed commitment letters (using the mandatory template) from the main proposer and all co-proposers
   B.3. CVs for scientific leader and other key persons
   B.4. Organisation chart (if not included in the completed proposal template)
   B.5. Declaration from DeiC regarding high performance computing and data storage needs (if there are needs for computing and storage)

Only the required annex B.1.-B.5 are allowed to be included in the proposal. Any other annexes will not be considered in the evaluation.

The mandatory templates for part A and annex B.1. and B.2. can be downloaded here.

Proposals must be written in English. However, the short description of the proposal must be provided in both English and Danish. This short description will be used in the published roadmap if the proposal is accepted in the roadmap.

Ad A: Proposal template

Proposals must be completed using the proposal template with all mandatory fields completed.

The final completed proposal template must not exceed 20 pages. Any text beyond the 20 pages will not be taken into consideration in the evaluation.

Please note that proposals for Danish research infrastructures that is to be part of an international research infrastructure, e.g. as a Danish node to a European Strategy Forum on Research Infrastructures (ESFRI) research infrastructure, must also complete section 3. For these proposals, section 1 and 2 should be completed specifically for the Danish part of the research infrastructure, i.e. the expected Danish users, the Danish institutional partnership and organisation, the timeline for the Danish part, etc. An account of the international or European dimension will be covered by section 3.
1. Description of the research infrastructure

1.1 Purpose and context

In this section the proposer must describe the purpose and context of the research infrastructure. The aim is to demonstrate that the research infrastructure has widespread national interest (as defined under national added value in the scope of this call).

This section should include a description of:

- The context, national relevance and topicality of the research infrastructure, including how the research infrastructure is of national importance and as a consequence thereof requires national commitment and funding, how the research infrastructure fits in the current landscape of existing national and international research infrastructures and which relevant research areas that are expected to benefit from the research infrastructure.
- The purpose of the research infrastructure, including which high quality scientific physical or virtual laboratories, instruments and/or equipment and/or data and associated services that the research infrastructure will provide and how these will benefit Danish researchers and other relevant users.

1.2 Scientific quality and impact

In this section the proposer must describe the scientific quality, impact and importance of the research infrastructure for the relevant Danish scientific communities. The aim is to demonstrate that the research infrastructure is a national scientifically leading and/or part of a global scientifically leading research infrastructure, and that the research infrastructure will position Denmark internationally. The aim is also to demonstrate that the research infrastructure is expected to facilitate high scientific impact and will support the execution of excellent and/or ground-breaking science and, finally, that the research infrastructure is of great scientific importance and will benefit all relevant and interested Danish researchers and research based education.

This section should include a description of:

- The scientific quality of the research infrastructure and how it is expected to position Denmark internationally in the relevant research areas.
- The research infrastructure’s expected contribution to the advancement of Danish research, including the anticipated research impact, e.g. measured by an expected increase in number of citations or publications within high ranking journals by the research infrastructure’s users.
- The potential scientific users of the research infrastructure. This should include the expected number of scientific users when the research infrastructure is established and the users’ distribution across disciplines and institutions as well as the number of top scientists expected to be users of the research infrastructure.
- The research infrastructure’s expected contribution to research based education and, if relevant, the number of expected student users.
- Expected research impact in collaboration with industry and public institutions.
1.3 Socio-economic impact

In this section, the proposer must describe the expected socio-economic impact of the research infrastructure. The aim is to demonstrate that the research infrastructure will have an important national impact not only for Danish research but also more broadly for Danish society, e.g. an impact on tackling societal and environmental challenges, on innovation and economic growth, on informing public policy decisions, etc.

This section should include a description of one or more of the following, as relevant to the specific research infrastructure:

- The expected contribution to tackling societal challenges, including those defined by the United Nations as the UN Sustainable Development Goals such as affordable and clean energy and climate action.
- The expected impact on innovation and/or economic growth, e.g. by development of new technologies or patents with a commercial use, by industrial users of the research infrastructure or expected collaborative projects with industry, etc. If relevant, the expected number of industrial users should be included.
- The anticipated scientific support to public policy-making and cultural development.

1.4 Access model and data management

In this section, the proposer must describe the access model for the research infrastructure, including how different types of users can gain access to the research infrastructure's physical or virtual laboratories, instruments and/or equipment as well as data provided from the research infrastructure and/or associated services. Please note that for industrial users, the EU state aid rules may apply. The proposer must also describe the data management of the research infrastructure. The aim is to demonstrate that the research infrastructure is accessible by all relevant and interested researchers regardless of their institutional affiliation as well as by other relevant users such as student and/or industrial users and that data generated and accumulated at the research infrastructure follow the FAIR principles (Findable, Accessible, Interoperable and Reusable). As written in the first chapter national accessibility to the research infrastructure and its data is an integral part of what gives national added value to a research infrastructure.

This section should include a description of:

- The location(s) and host institution(s) of the research infrastructure and the deliverables for the users, e.g. services and physical and/or virtual laboratories, instruments and/or equipment as well as data.
- The access model of the research infrastructure, including how scientific and other relevant users can access services, laboratories, instruments, equipment, data, etc. The access model must be based on fair and transparent principles (e.g. peer review, open booking system, online database etc. User fees may be applied to cover part of the operation of the research infrastructure) to the research infrastructure, including its physical and/or online facilities and data generated and accumulated at the research infrastructure. Distributed research infrastructures
must have a single entry for access. If the research infrastructure and/or generated and accumulated data from the research infrastructure is not accessible to all interested users this must be thoroughly explained.

− The data management plan of the research infrastructure and how this will follow the FAIR principles whereby data should to the largest possible degree be Findable, Accessible, Interoperable and Reusable.

2 Establishment and organisation of the research infrastructure

2.1 Organisation and management

In this section, the proposer must describe how the research infrastructure and the institutions involved in the research infrastructure will be organised and how the research infrastructure will be managed. The aim is to demonstrate that the research infrastructure is embedded in a strong yet open national institutional partnership with a well-defined organisation and capable management and that the construction and establishment of the research infrastructure is feasible within five years.

This section should include a description of:

− All involved parties in the partnership, including both the participating research institutions and other interested parties (including applied technology institutes and private companies, if relevant) that will be involved in the establishment and operation of the research infrastructure with legal and/or economic responsibilities. All relevant and interested national partners should be included in the partnership and the description should include how future interested national institutions not yet involved in the research infrastructure partnership can become involved.

− The planned organisation of the research infrastructure during establishment and operation. An organisation chart should be included (can either be included as annex B.4. or within the proposal template under this section) which should outline the expected structure of the decision bodies (e.g. steering committee or board), advisory bodies (e.g. scientific, industrial or other advisory committees), daily management (e.g. scientific leader or facility manager) and other relevant bodies (e.g. user committee). A description of the different organisational bodies and how they relate to one another including division of labour and in the decision-making processes should also be included.

− The number of employees (both full and/or part time) expected to work at the research infrastructure during its establishment and operation. This could include scientific, technical and administrative personnel and should, if possible, be stated as full time equivalents for the total annual time the employees are expected to work at the research infrastructure.

− Any other initiatives planned for the research infrastructure to address responsibility towards society such as climate and environmental concern (e.g. energy consumption and waste management), diversity, ethics or other relevant issues for the specific research infrastructure. This includes how to minimise the carbon footprint of the research infrastructure.
2.2 Time schedule for the establishment

In this section, the proposer must describe the time schedule for the research infrastructure’s establishment. The aim is to demonstrate that the research infrastructure can be both scientifically and technically operational within five years after being funded.

This section should include a description of:

- The time schedule for establishing the research infrastructure within a maximum of five years, including the planned start date for the establishment and operation and important milestones for the establishment. This includes the deliverables by the host and other participating institutions in the partnership.
- An account of the most important risks that could potentially occur during the establishment period related to, for instance, technical challenges or construction of buildings.

2.3 Digital infrastructure

In this section the proposer must describe the digital research infrastructure the research infrastructure will need in order to operate. This could include digital infrastructure for computing and/or storing data. The aim is to demonstrate that the proposers of the research infrastructure have carefully considered its needs in terms of digital infrastructure.

National access to computing and storage can be provided via the Danish e-infrastructure Collaboration (DeiC) or can be covered by the institutional capacity within the partnership.

The Danish universities and DAFSHE have agreed to reform and strengthen DeiC, and therefore, as a point of departure proposers cannot include new investments in high performance computing (HPC) and data storage in the budget.

However, as the process is currently ongoing it is not possible to foresee all future developments at the national level in terms of capacity for computing and storage.

Therefore, exceptionally, proposers can include new investments in high performance computing (HPC) and data storage in the budget (either applied for or as co-funding), if a letter from the Director of DeiC stating that the needs fall outside DeiC’s technical capacity. Requests for such a letter with the draft proposal enclosed should be sent to DeiC at sekretariat@deic.dk and no later than 1 March 2020.

This section should include a description of:

- The research infrastructure’s need for computing and data storage resources, including an account of how already existing national and/or institutional computing and/or data storage facilities can cover the needs (coordinated with DeiC) or whether new national digital research infrastructure facilities are deemed necessary (only in exceptional circumstances where the needs cannot be covered by the institutions or DeiC).
3 Danish part of an international research infrastructure

This section should only be completed if the proposal is for a Danish research infrastructure that is to become part of an international research infrastructure, e.g. as a Danish node to an ESFRI research infrastructure. See also chapter 7 for more information about ESFRI’s new roadmap.

In this section, the proposer must describe the plan for the research infrastructure to become part of the international research infrastructure and the development of the international research infrastructure if this is not yet fully established. The aim is to demonstrate that it is feasible that the national research infrastructure will become part of the international research infrastructure.

This should include a description of:

- The Danish contribution and involvement in the international research infrastructure cooperation.
- The expected contribution of the Danish part to the international research infrastructure as a whole and how Danish users are expected to benefit from Denmark being part of the international research infrastructure.
- The plan, timeline and prerequisites for Danish participation in the international research infrastructure, including e.g. membership fees.

Ad B: Annexes

The proposer must provide the following annexes:

B.1. Completed budget template
B.2. Signed commitment letters (using the mandatory template) from the main proposer and all co-proposers
B.3. CVs for the scientific leader and other key persons
B.4. Organisation chart (if not included in the proposal template)
B.5. Declaration from DeiC regarding high performance (HPC) computing and data storage needs (if needs for computing and storage are included in the proposal).

For annexes B.1. and B.2. the required templates must be used.

Annex B.1. Budget

The proposer must complete all parts of the budget template.

The template should include:

- Part 1: An overall budget for the research infrastructure, including construction/establishing and operation.
- Part 2: A more detailed budget for the construction and establishing of the research infrastructure. Part 2 is divided into 3 sub-parts:
  - 2.1: A budget for the construction and establishing of the research infrastructure split into funding from the ministry and co-funding from the partners involved in the research infrastructure.
• 2.2.: A budget for the construction and establishing of the research infrastructure split into funding from the different partners involved in the research infrastructure (main proposer, co-proposers etc.)
• 2.3.: A detailed description of the budget items listed in part 2.1 and 2.2.

Part 1: Overall budget

In part 1 the proposer must complete an overall indicative budget for the research infrastructure. This should include:

− The construction and establishing period which can be funded by the ministry with up to 50 pct. and must be funded with a minimum of 50 % from the institutions in the partnership for the research infrastructure.
− The operation period where the costs must be covered 100 pct. by the proposers and co-proposers (user fees can contribute to operation costs).

Part 2: Detailed budget for the construction and establishing

The ministry is solely able to contribute to funding construction and establishing costs of the research infrastructure.

Funding of the establishment should, thus, be split into funding from the ministry and from the proposers and co-proposers. Funding from the ministry must be maximum 50 pct. of the total budget for the establishment of the research infrastructure for a period of maximum 5 years. Funding from the proposers and co-proposers must be at least 50 pct. of budget for the establishment of the research infrastructure for a period of maximum 5 years and minimum for the period corresponding to that of the ministry’s funding.

The proposers are advised to make sure that proposals are in line with the cap set for investments by state-funded/supported, self-governing institutions that was introduced with the Budget Act 2017v.

Eligible costs for construction and establishing are costs that are directly related to and necessary for the construction/establishing of the research infrastructure. All costs must fall within the construction and establishing period. Eligible costs could include:

− Salaries for scientific personnel: coordination, establishment, calibration, commissioning, development of services et. al. of the research infrastructure.
− Salaries for technical and/or administrative personnel: non-scientific support for the coordination, establishment, calibration, commissioning, development of services et. al. of the research infrastructure.
− Capital investments: purchase, acquisition and/or construction of equipment, instruments and materials. This also includes services and instruments etc. required via sub-suppliers.
− Other expenses necessary for construction/establishment: E.g., water, electricity or other supplies, travel costs, etc.

In part 2.3 of the budget, the proposer must include a detailed description and justification of the budget items that are included in part 2.1 and 2.2 and specify who will fund different items. If costs for salaries are included in the budget, it must be explained how the salaries relate to the establishing/construction of the research infrastructure.
Specifically, if the proposal is for a Danish research infrastructure that is to become part of an international research infrastructure, the budget should be completed only for the Danish part of the research infrastructure.

The following costs (not exhaustive) are not eligible and must not be included in the budget:

- Costs related to operations and decommissioning
- Scientific/academic salaries for research incl. grants for PhD- and postdoctoral students
- Regular housing and rental costs
- Overhead/administration expenses
- Costs that incur either before or after the expected project period of a grant

**Annex B.2. Commitment letters**

The main proposer and all co-proposers must, as a minimum, provide commitment letters containing commitments from their institutions.

The commitment letters for a given proposal must commit in total to co-finance at least 50 pct. of the construction/establishment of the research infrastructure and 100 pct. of the operation of the research infrastructure for a period of at least an additional five years from finished construction/establishment.

The letters must be completed in the mandatory commitment letter template and signed by senior management of the institutions (rector or similar).

**Annex B.3. CVs**

CVs (maximum five pages) of the scientific leader and of other key persons for the research infrastructure must be provided.

**Annex B.4. Organisation chart**

If an organisation chart is not included in the proposal template it can be submitted as an annex. Please see section 2.1 of the guide to the proposal template for more details about the organisation chart.

**Annex B.5 Declaration from DeiC**

If needs for (HPC) computing and data storage are included in the proposal, a declaration from the Director of DeiC stating that the needs in the proposal fall outside the technical capacity of DeiC must be submitted as annex B.5 to the proposal.
4. Evaluation criteria

Proposals will be evaluated on the basis of the four criteria described below. These criteria correspond to the scope of the call detailed in chapter 1 and the content of the proposal template described in chapter 3. The following criteria will be taken into account in the evaluation of the proposals:

**Scientific quality and impact**

To what degree the proposed research infrastructure:
- Is a national scientifically leading and/or part of a global scientifically leading research infrastructure.
- Positions Denmark internationally.
- Facilitates high scientific impact and will support the execution of excellent and ground-breaking science.
- Is of great scientific importance and expected to benefit all relevant and interested Danish researchers.
- Benefits research based education.
- Benefits research based collaboration with industry and public organisations.

**National added value**

To what degree the proposed research infrastructure:
- Has widespread national interest and is solely available in one or few locations in Denmark as described in the scope of this call.
- Is of high national importance and should therefore require national commitment and funding.
- Is accessible for all relevant and interested researchers regardless of their institutional affiliation as well as to other relevant users and that data generated and accumulated at the research infrastructure follow the FAIR principles.
- Involves all relevant and interested national institutions and other parties in the research infrastructure partnership.

**Socio-economic impact**

To what degree the proposed research infrastructure:
- Is expected to have an important national impact to society by tackling societal and environmental challenges, by contributing to innovation and economic growth or by contributing to informing public policy-makers.
Feasibility

To what degree the proposed research infrastructure:

− Is embedded in a strong yet open national institutional partnership with a strong institutional commitment, a well-defined organisation and a capable management.

− Can be constructed and established scientifically, technically and financially within five years after being funded (if it is funded in the new roadmap period of 2020-2023) and will become a permanent or long-term research infrastructure.

− Will have access to sufficient digital research infrastructure capacity to match its needs.

− Realistically can become part of the suggested international research infrastructure (only relevant if the proposed research infrastructure is a Danish part of an international research infrastructure).

NUFI, DAFSHE and the Danish Minister for Higher Education and Science may also apply horizontal considerations on proposals that have been positively evaluated across the above-mentioned evaluation criteria. This could include the number of proposals in the roadmap and the balance between scientific areas (as listed in the first chapter) and, for DAFSHE and the Minister, also national strategic initiatives may be taken into consideration such as prioritising research infrastructures that supports a green transition.
5. Process

Submission of proposals

Proposals must be sent to DAFSHE electronically as one pdf-file, including the completed proposal template and all annexes to the following e-mail address: sfu-infrastruktur@ufm.dk The acronym of the research infrastructure should be in the file name.

The deadline for submitting proposals is 1 April 2020 at 12.00 pm.

Following submission of proposals 1 April 2020, no time slot is included in the time line to allow for mergers of proposals. Thus, it is up to the proposers to ensure that all relevant partners are included in the proposals and thereby minimise the risk for competing proposals.

Proposals received before the deadline will be processed and evaluated in the following steps:

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Proposals failing to meet the minimum requirements in the administrative check, cf. the details below, may not be submitted to step 2-4.

Eligibility check

Proposals must meet a number of eligibility criteria before being subjected to the international peer review, the evaluation by the National Committee for Research Infrastructure (NUFI) and by DAFSHE. Thus, these are requirements necessary for proposals to be given active consideration. DAFSHE will perform the eligibility check to ensure that proposals live up to the following criteria:

- The proposal is submitted via the email address before the deadline on 1 April 2020.
The proposal is submitted by an eligible main proposer.

The proposer has used the mandatory proposal template completing all mandatory spaces.

The proposal is written in English, including a short summary in both Danish and English.

The proposal includes all required annexes, including:
- Budget, using the mandatory budget template;
- Commitments letters, using the mandatory letter template for both main and co-proposers. All commitments letters are signed senior management (rectors or similar).
- CV for the scientific leader.
- Organisation chart (if not included in the proposal template).
- Declaration from DeiC regarding high performance (HPC) computing and data storage needs (if needs for computing and storage are included in the proposal).

DAFSHE may ask proposers to submit additional documentation in case proposals do not fully meet all criteria. If proposers fail to submit additional documentation within a given deadline or proposals still do not meet all criteria after submitting additional documents, DAFSHE may choose to administratively reject the proposals. This will be an administrative rejection and the proposal will not continue to the following evaluation and decision steps.

International peer review

Proposals that meet the eligibility criteria will be submitted to international peer review that will evaluate the proposal according to the evaluation criteria listed in chapter 4 with special emphasis on the criteria of scientific quality and impact.

After the international peer review, DAFSHE will hear the main proposer about the written outcome of the review.

Evaluation by NUFI

Following the international peer review, the proposal – along with the written outcome of international review and the result of the hearing of the main proposer – will be submitted for evaluation by the National Committee for Research Infrastructure (NUFI) vii.

NUFI will evaluate the proposals according to the evaluation criteria listed in chapter 4 with special emphasis on the national added value of the proposals. NUFI will also perform a cross-cutting evaluation among all the proposals to consider the balance between different scientific areas and the number of proposals.

After the evaluation by NUFI, DAFSHE will hear the main proposer about the written outcome of the NUFI evaluation.
Evaluation by DAFSHE and decision by the Danish Minister for Higher Education and Science

Based on the international peer review and the evaluation by NUFI plus the results of the two hearings of the main proposers, DAFSHE will perform a horizontal evaluation of all the proposals.

DAFSHE will then advice the Danish Minister for Higher Education and Science about which proposals to include in the roadmap after which the minister will decide which proposals to include in the roadmap.

The minister is expected to publish the roadmap in November or December 2020. Before the publication of the roadmap, DAFSHE will inform the main proposers about whether or not their proposal(s) are included in the roadmap. If the proposal is not included, this will encompass a short justification for the reasons it has not been included.

After the publication of the roadmap: Allocations for proposals in the roadmap

The Minister for Higher Education and Science allocates the National Fund for Research Infrastructure on annual appropriations in the National Budget. The expectation is that the roadmap will serve as a priority-setting tool for decisions on funding allocations from 2020 until 2023. 1-3 proposals will expectedly be funded annually.

The following process for allocation of funding is expected:

1. Every year, starting in 2021 (2020 excluded, as proposals are expected to be sufficiently up-to-date this year), DAFSHE will ask the main proposers of the remaining, not funded proposals in the roadmap to submit a short description of the status of the proposals. The status can include whether any changes are expected regarding e.g. the institutions involved in the proposal, the budget or the timeline for construction. It can also include any developments (scientific, technical, societal, etc.) that are relevant to consider regarding the timing of funding.

2. Every year, based on the status description and advice from NUFI and DAFSHE, the minister chooses a number of proposals from the roadmap prioritised for funding that year. The number of proposals selected per year depends on how much funding is available in that particular year.

3. According to the minister’s decision, DAFSHE initiates a dialogue with the main proposer behind the selected proposals for the purpose of funding. During the dialogue process, DAFSHE will likely request new materials such as updated and detailed budgets, timetables, descriptions of the proposals, etc., from the proposers.

4. When the dialogue process with the selected proposals has been successfully completed, the final decision on funding will be made by the minister, and it will be publicly announced which proposals receive funding in the year of question.

Proposals in the roadmap are not guaranteed funding. The evaluation criteria for funding are the same as the criteria for inclusion in the roadmap.
6. Contact information

Questions regarding the call for proposals may be addressed to:
- Katinka Stenbjørn, kas@ufm.dk, +45 72 31 82 89
- Thomas Midtgaard, thmi@ufm.dk, +45 72 31 82 92
7. The next European Roadmap

The European Strategy Forum for Research Infrastructures (ESFRI) launched the process for updating the European roadmap for research infrastructure in September 2019. As part of the exercise, ESFRI calls for new proposals for European research infrastructures and requests an update of research infrastructures divided into projects and landmarks based on their degree of implementation – on the current roadmap.

ESFRI was set-up in 2002 as an informal Forum composed of representatives of national authorities of the Member States and Associated Countries of the European Union and the European Commission. One of ESFRI’s primary instruments is to develop a European Roadmap for Research Infrastructures. ESFRI published its first roadmap in 2006 and it has been updated several times since – last time in 2018.

New proposals

ESFRI’s guide for applicants can be found [here](#) and stakeholders are strongly encouraged to consult the guidelines. The information below describes the Danish process and requirements for engaging in new proposals.

Eligible proposers

Danish participation in European proposals needs to be based on broad institutional partnerships that includes all Danish national institutions relevant and interested in the specific proposed research infrastructures. The Danish partnership consists of a main proposer and includes co-proposers.

The proposal itself will be drafted by the Danish partnership in collaboration with their European colleagues, and DAFSHE will play no role in this part. However, as part of the proposal process DAFSHE – in its capacity as representing Denmark in ESFRI – formally has to approve of the Danish participation in terms of commitment and support.

Upon request, DAFSHE can offer one of two types of support as validation:

- Financial commitment to financially contribute to the proposal. This support can only be given to proposals that have been funded on the previous Danish roadmap for research infrastructure 2015 or are fully funded from other side.
Political support with the intend to participate in the proposal. This support can be given to other proposals than mentioned above.

Potential Danish proposers are encouraged to establish contact with DAFSHE as soon as possible. For contact details see chapter 6.

**Content of proposals**

All proposals must contain the following parts to be submitted to DAFSHE, cf. below:

a) Draft application for ESFRI that respects the criteria and demands stipulated in the guide.

b) The main proposer and all co-proposers must, as a minimum, provide commitment letters with commitments from their institutions.
   - If the request is for a financial support, the letters of commitments must document that to the funding of the first 10 years of the research infrastructure is in place.
   - If the request is for political support, the letters of commitments must document that the Danish partnership are willing to work for the provision of the funding for the first 10 years of the research infrastructure.
   - The letters must be completed in the mandatory commitment letter template and signed by the senior management of the institutions (rector or similar).

c) CVs (maximum five pages) of the Danish scientific leader and of other key persons for the Danish involvement in the research infrastructure.

**Danish evaluation criteria**

In addition to ESFRI’s evaluation criteria, DAFSHE expects the following criteria to be met in order to provide support:

**National added value**

To what degree the proposed research infrastructure:
- Has widespread national interest
- Is of high national importance and should therefore require national commitment and funding
- Involves all relevant and interested Danish national institutions and other parties in the research infrastructure partnership.

**Process**

The decision-making process involves a two step-procedure and stakeholders needs to be aware of two deadlines.
National level: 2 April 2020, 12.00 is the deadline for submitting proposals to DAFSHE for consideration of Danish participation. This deadline might differ from deadlines in other ESFRI-countries, cf. ESFRI’s web page.

Proposals must be sent to DAFSHE electronically as a pdf-file, including the completed proposal template and all annexes to the following e-mail address: SFU-infrastruktur@ufm.dk The acronym of the research infrastructure and ESFRI should be in the file name.

DAFSHE is the decision-making authority and will decide upon advice from the National Committee for Research Infrastructures.

If DAFSHE offers political support, DAFSHE will inform the ESFRI-delegation that leads the proposal. If DAFSHE offers financial support, DAFSHE will most likely be the lead-delegation and responsible for submitting the proposal to ESFRI.

European level: 5 May 2020, 18.00 is the deadline for submitting the final application to ESFRI according to ESFRI’s guidelines. This is the responsibility of the, or one of the lead countries that offers financial commitment.

Existing projects and landmarks

Denmark is formally member of a number of research infrastructures currently on ESFRI’s roadmap, see the ministry’s webpage.

ESFRI’s current roadmap also contains a large number of research infrastructures that Denmark currently is not involved in or a formal member of. The full list of research infrastructures can be found at ESFRI’s web page and they are all open for further countries and cooperation.

If there is an interest in participating in other projects/landmarks there are no formal process or deadlines as such and it is encouraged to contact DAFSHE to establish a dialogue on a potential way forward.

The decision to join a project/landmark will be based on the same Danish evaluation criteria that applies for new proposals, cf. chapter 4, and DAFSHE will also consult NUFI in this process.
8. Notes for additional information

i Eligible institutions as proposers:
For a list of the institutions in each of the eligible categories, please see this report by the Danish Ministry of Higher Education and Science pages 45-47.

ii UN Sustainable Development Goals:
For more information about the UN Sustainable Development Goals, please see https://sustainabledevelopment.un.org/sdgs

iii State aid rules:
The establishment of research infrastructures shall take into consideration the state aid rules as they are described in the communication from the European Commission on the framework for state aid for research and development and innovation (2014/C 198/01) from 27 June 2014. This implies, among other, that if more than 20 pct. of the capacity of the research infrastructure is intended and/or expected to be used by private enterprises (for example via contract research, research services, or direct services to industry) the establishment of the research infrastructure will have to be funded with 50 pct. from private enterprises, cf. article 2.1 in the communication.

iv FAIR data principles:
For more information about the FAIR data principles, please see https://www.go-fair.org/fair-principles/

v Cap for investments:
The investment in new assets as a part of the establishment of research infrastructures falls within the cap set for investments by state-funded/supported, self-governing institutions that was introduced with the Budget Act 2017. This implies that the proposers and co-proposers should include the investments in assets in the biannual reporting to the Danish Agency for Institutions and Educational Grants, cf. also the ministry’s webpage.
**Processing of your Personal Data**
Your proposal and the personal data that you provide as part of the proposal will be processed according to the General Data Protection Regulation and the Danish Act on Data Protection. Upon receipt of your proposal, DAFSHE will send you additional information about the processing of your personal data and your rights.

**NUFI**
The National Committee for Research Infrastructure – NUFI is composed of representatives from the Danish universities and the Danish Council for Independent Research, with the Danish National Research Foundation as an observer. For more information about the composition of NUFI, please read more at [the ministry’s webpage](#).