Instructions for reviewing – The FIRI2021 call for research infrastructures on the 2021–2024 roadmap and Finland’s memberships in international research infrastructures (FIRI2021 Roadmap and international memberships)

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1  Role of experts and the Academy of Finland

The Academy of Finland promotes scientific research of a high standard through long-term, quality-based research funding.

The Finnish Research Infrastructure (FIRI) Committee monitors and develops Finnish and international research infrastructure activity and provides funding to infrastructures at universities and research institutes.
In the Strategy for National Research Infrastructures in Finland 2020–2030, the Academy of Finland defines the long-term development directions of Finnish RI policy.

The FIRI2021 call for infrastructures included in Finland’s roadmap for research infrastructures 2021-2024 is based on open competition and independent peer review. Experts are invited to review the submitted applications. The applications cover all scientific disciplines. Panellists are therefore also asked to read and give a draft review regarding some applications that do not represent the field of their own specific area of expertise.

A rebuttal process is applied in this call. After the panel has given its review report, the Academy will send the report to the applicant for potential comments. This stage helps in correcting any factual mistakes or misunderstandings in the review report. The applicants have one week to comment on any misunderstandings they identify (no more than two pages). Both the review reports and the applicants’ comments are in use when the Research Infrastructure Committee (FIRI Committee) makes the funding decisions.

The FIRI Committee will make the final funding decisions after receiving the panel review reports, ranking and rebuttals. The decisions are based on the panel review and ranking and on the prioritisation of the hosting organisations and comments from the Academy’s Research Councils. Additionally, factors related to science policy may also influence the decisions. An example of such a factor is the national importance of the research infrastructure.

2 Secrecy and ethics

According to the Finnish Act on the Openness of Government Activities, research plans, abstracts, progress reports and reviews are documents subject to professional secrecy.
Application documents should therefore be handled and stored with due care and confidentiality.

The Academy of Finland is committed to following the guidelines of the Finnish Advisory Board on Research Integrity for responsible conduct of research. The guidelines also apply to reviewing funding applications, research programmes and scientific disciplines.

All reviews must be handled confidentially, competently and impartially, based on the criteria set for the review process. Care must be taken to ensure that the review complies with general stipulations about conflicts of interest. Prior notice must be given if a reviewer has economic or other affiliations or significantly different schools of thought in relation to the applicant under review. This is a way to avoid conflicts of interest.

As a reviewer, you are not allowed to disclose any information concerning application documents or reviews to outsiders, nor are you allowed to use this secret information to your own benefit or anyone else’s benefit or disadvantage. You may not reveal to outsiders that you are assessing the research plan of a particular researcher. If you are contacted by anyone, including the applicant, who has questions about the application or reviews, please advise them to contact the Academy of Finland.

Confidentiality must also be maintained after the review process has been completed. Reviews are documents subject to professional secrecy, but applicants will have access to the panel review reports on their own application after the funding decisions have been made. An applicant shall not disclose to third parties secret information obtained on the basis of party status and concerning other persons than the party himself or herself. The draft reviews and external draft reviews are also documents subject to professional secrecy unless otherwise stated in the applicable legislation or required by court order.
Reviewers are guilty of research misconduct if they misappropriate research ideas from applications. The quality of the review is not a research-ethical issue unless the review has been conducted carelessly, which may give an appearance of a review that deliberately either underrates or overrates the applicants under review.

Disclosing the contents of research plans to third parties or contacting applicants personally without explicit agreement to do so are also regarded as instances of inappropriate behaviour on the part of reviewers.

Once the review has been completed, you are required to destroy all application documents and any copies made of them.

After the funding decisions have been made, the Academy will publish a list of names, current positions and institutions of all individual reviewers and panel members used in the call. In addition, the applicants will see the names of all panel members in the panel review report. If requested, the names of reviewers that have supplied the draft reviews will also be disclosed to the applicant (under the Finnish Act on the Openness of Government Activities).

### 3 Conflicts of interest

As a reviewer you are required to declare any personal interests according to the criteria below. You must disqualify yourself if you can in any way benefit from the approval or rejection of the application. You must also disqualify yourself in the following circumstances:

- You have collaborated with the applicant (e.g. you have co-authored and published an article or manuscript with the applicant in the past three years, been involved in the
preparation of the application, or are involved in the publication or application of the results).

- You have been a superior, subordinate or instructor of the applicant in the past three years.
- You are applying for the same post as the applicant.
- You are applying for funding from the Academy from the same funding instrument.
- The applicant is a close person to you. A close person is:
  a) your spouse (also de facto), child, grandchild, sibling, parent, grandparent or a person otherwise close to you (e.g. fiancé/e or a close friend), as well as their spouses (also de facto)
  b) a sibling of your parent or his/her spouse (also de facto), a child of your sibling, or your previous spouse (also de facto)
  c) a child, grandchild, sibling, parent or grandparent of your spouse as well as their spouses (also de facto), or a child of a sibling of your spouse
  d) or a half-relative comparable to the above-mentioned persons.

You are also disqualified if your impartiality may be endangered in any other way, or if you feel that you have a conflict of interest and are therefore disqualified to review the application.

If you identify any conflicts of interest, please notify us as soon as possible.

4 Reviewer’s declaration

Please acknowledge that by accepting the task of a reviewer you guarantee not to disclose the information you receive and not to use it for anybody’s benefit or disadvantage as stated in section 2 above (Secrecy and ethics). Further, you affirm that you will immediately notify the Academy if you have a conflict of interest in one or more applications.
5  Expert panel meeting

Before the meeting takes place, each application is assigned to at least two panel members who then prepare draft reviews. All draft review reports will be made available to the panel members before the meeting.

At the meeting, the panel will review all applications assigned to it and rank them in groups. The panel prepares one joint panel review report on each application based on the discussions and the draft reviews. The reviews are finalised in the panel meeting and Academy staff will assist the panel in preparing the panel review reports. Panel members have access to all applications assigned to the panel, barring conflicts of interest (see above).

6  How to review applications in the Academy’s online services

Please use the Academy of Finland’s online services to prepare draft reviews. Final panel review reports are completed in the online services as well. You can access the items of the action plan directly from the corresponding review form questions. You can find the review instructions and all our review forms under Guides for reviewers on our website.

Written reviews: Evaluative comments are particularly valuable to the decision-making bodies and applicants. After the decisions have been made, the applicants get access to the panel review report of their own application. The review provides applicants with important feedback. Reviewers should therefore:

• write evaluative rather than descriptive comments (avoid copying text from the application directly)
• write comments under each sub-item
• write coherent comments in the passive voice that can be used, if agreed, as such in the panel review report.

**Numerical evaluations:** The consistency between the numerical rating and the written comments is particularly important. The numerical evaluation of the sub-items and final rating is made with a rating scale ranging from 6 (outstanding) to 1 (insufficient).

<table>
<thead>
<tr>
<th>Rating</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>6 (outstanding)</td>
<td>Demonstrates extremely high novelty and/or innovation; has potential to substantially advance science at global level; presents high-gain plan that may include risks</td>
</tr>
<tr>
<td>5 (excellent)</td>
<td>Is very good in international comparison – contains no significant elements to be improved</td>
</tr>
<tr>
<td>4 (good)</td>
<td>Is in general sound but contains some elements that should be improved</td>
</tr>
<tr>
<td>3 (fair)</td>
<td>Is in general sound but contains important elements that should be improved</td>
</tr>
<tr>
<td>2 (poor)</td>
<td>Contains flaws; is in need of substantial modification or improvement</td>
</tr>
<tr>
<td>1 (insufficient)</td>
<td>Contains severe flaws that are intrinsic to the proposed project or the application</td>
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7 Review criteria
A project of a national research infrastructure that is on the roadmap must fulfill the following criteria.

All funding-instrument-specific review criteria and review instructions are presented in Appendix 1.

- The research infrastructure and its services
- Scientific and educational significance
- Wide and versatile impact
- Competence and know-how of staff
- Services and use
- Digital platforms and data
- Responsible science
- Budget and funding
- Risk management

Academy of Finland is a signatory of DORA (DORA - San Francisco Declaration on Research Assessment), which makes recommendations for improving research assessment practices. Academy of Finland is also committed to follow the national recommendation Good practice in researcher evaluation. The Academy adheres to the recommendations in its peer review processes. In particular, you are asked to consider the content and quality of publications, rather than their number or venue of publication, or the impact of the journals in which they were published.

**Ranking applications**

After the panel has completed the review of the applications within a funding instrument during the panel meeting, it will also be asked to rank the applications (or some of the applications)
within each instrument. The applications are ranked in groups based on the review criteria used and the instrument-specific objectives (see Appendix 1) – no additional criteria are used.

8 Responsible science

8.1 Research ethics

The Academy of Finland requires that the Finnish Advisory Board on Research Integrity guidelines Responsible conduct of research and procedures (link takes you to the Board’s webpage) for handling allegations of misconduct in Finland is followed in all Academy-funded research. We also require that researchers follow ALLEA’s (All European Academies) European Code of Conduct for Research Integrity (link takes you to ALLEA’s webpage) when engaging in international collaboration.

The Academy will not process a funding application if the applicant has been found guilty of research misconduct in the three years preceding the year of the call. If the Academy finds out about the misconduct during the funding period, whatever is left of the funding period will be added to the three-year limit. If the applicant appeals the decision on the misconduct, and the appeal is successful, the Academy will process the applicant’s new applications following normal procedures. More about the ethical questions on Academy of Finland’s webpages.

8.2 Equality and non-discrimination

The Academy of Finland’s research funding promotes equality and non-discrimination as a part of responsible science. To secure responsible reviews and decision-making, the Academy is, in accordance with its Equality and non-discrimination plan 2019–2020, committed to define the means to support combining work and family life and the research careers of women in all funding opportunities. Therefore, career breaks that might be caused by family leaves cannot be evaluated negatively in the evaluation process.
The Academy requires that all Academy-funded research promotes gender equality and non-discrimination. Academy reviews and decision-making emphasise the importance of promoting equality and non-discrimination either in the suggested project or in the society as a whole. Gender is not part of the information in the applications for review.

When reviewing the applications, the Academy of Finland asks the reviewers to pay attention to the unconscious bias which affects us all. Unconscious bias means positive bias towards our “ingroup” and a negative bias towards our “outgroup”. For example, when you evaluate if the research might be ground-breaking and whether the applicant is competent enough to carry out the proposed project, pay special attention to the possible unconscious biases that you might have and which could have an impact on your evaluation. The very act of realizing hidden biases makes them less powerful.

In review (especially in panel work), it is easier to detect unconscious bias in others than in yourself. We ask you to be prepared to call out bias when you see it.

### 8.3 Open Science

The Academy of Finland is committed to promoting the principles and practices of open science to improve the quality, responsibility, and social impact of science. The goal is to make all outputs produced and used in research (research publications, data, methods, and metadata) widely available for reuse. The principles of open science must be pursued with due attention to good scientific practice and law. The degrees of data openness may justifiably vary, ranging from fully open to strictly confidential. More information on [Academy of Finland’s open science policy](https://www.aka.fi/en/okea) on our webpage.
Academy of Finland is a member of cOAlition S and uses Plan S principles and practices in its funding guidelines. In addition, Academy of Finland uses the National Policy for Open Access to Scholarly Publications.

When reviewing applicants' presentations on data management and open access to research data, reviewers are asked to take note of Academy of Finland's research data policy and value the applicants’ effort to open the research data.

**8.4. Sustainable development**

One of the objectives of the Academy of Finland is to increase awareness of the principles of sustainable development and to highlight their significance in research funding and scientific research. We make use of active communications to draw attention to how research can contribute to promoting sustainability.

Academy of Finland is committed to the principles of sustainable development and aims to highlight their significance in research funding and scientific research.

Research-based knowledge plays a key role in ensuring sustainable development and protecting the welfare of future generations. The Academy of Finland funds research across all scientific disciplines and thereby promotes the attainment of these objectives.

We require that Academy-funded projects consider the principles of sustainable development when following good scientific practice. When applying for funding, researchers should include in their societal impact descriptions an account of how the project will promote sustainable development. In the final reports, in turn, they should describe how the project and its results succeeded in this task.
We also consider the principles of sustainable development when planning calls for Finnish research infrastructures and the contents of thematic funding opportunities for research infrastructures.

Appendix 1

Review form for the FiRI2021 call for infrastructures included in Finland’s roadmap for research infrastructures 2021-2024 and international memberships (FiRI2021 Roadmap and international memberships)