

Peer review handbook

International postdoc (IPD) 2024 Natural and engineering sciences

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Foreword

This review handbook is intended to function as an aid for you in your assignment as an expert reviewer for our call for International Postdoc. The aim of the call is to support newly qualified researchers who wish to proceed further in their careers, and give them the opportunity to start exciting research projects of the highest quality at a foreign host university.

As well as instructions for the various steps in the process, this peer review handbook also includes information on the Swedish Research Council's principles and guidelines for peer review, as well as our conflict of interest policy and gender equality strategy. Practical instructions on the grading of applications are included, as are instructions on how final statements to be sent to applicants shall be written. Please read both the instructions and the appendices carefully, so that you are well prepared for your review work.

The work of scrutinising applications constitutes the foundation for the work of the Swedish Research Council, and your assignment as a member of one of our review panels is an important position of trust. I would therefore like to take this opportunity to welcome you as an expert reviewer for the Swedish Research Council.

Mattias Marklund

Secretary General, Natural and Engineering Sciences

Introduction

The grant type International Postdoc (IPD) is aimed at recently qualified researchers with a doctoral degree from a Swedish university. It aims to give them the opportunity to conduct research at a foreign host university, and in this way broaden their competences and develop their networks. The grant is also intended to promote the quality and renewal of Swedish research.

This handbook is designed to reflect the review process step by step. We want to make it easy for you as a panel member to find the information you need for the tasks to be carried out in each step.

New features in the review process 2024

Additional information regarding the applicant's competence and merits

A new contextualising part has been introduced in the application, which should be seen as a complement to the other parts of the application that deal with the applicant's competence. In this part, the applicant must describe how the merits that has been indicated in the CV and under "Publications and other research output" show the competence to carry out the proposed research.

Publications and other research outputs

The list of publications in the application is now called "Publications and other research outputs." It consists of two parts where the applicant must separate between publications and research outputs that are peer-reviewed and not peer-reviewed.

Important starting points and principles

Peer review

The Swedish Research Council regards peer review as a guarantor that our support goes to research of the highest scientific quality in all scientific fields. The Board of the Swedish Research Council has formulated guidelines for peer review based on eight principles. Read the guidelines for peer review.

Conflict of interest

To avoid any conflict of interest situation, we have established strict guidelines. Read the Swedish Research Council's conflict of interest policy and guidelines for managing conflicts of interest.

If you have a conflict of interest, you must not take part in the handling or assessment of that application during any part of the process. The following applies for panel members:

- Any application where you are the applicant or co-applicant must not be reviewed by your review panel.
- Any application where a close relative of yours is the applicant (does not apply to co-applicants) must not be reviewed by your review panel.

You are obliged to notify any conflict of interest for all applications handled by your review panel.

Gender equality

The Swedish Research Council aims to ensure that women and men have the same success rates and receive the same average grant amounts, taking into account the nature of the research and the form of support. The review panel shall calculate the approval rate in the proposal and refer to, and possibly comment on, how this impact the gender equality.

Confidentiality and integrity

Handle the applications and the review of them in a confidential manner:

- Do not disseminate documents that you get access to.
- Delete documents that relate to the review work after completing the task.
- Do not speak to outsiders about what was discussed during the review.
- Do not use information in the application for personal gain.
- Let the Swedish Research Council personnel manage all communications with applicants.

Roles in the review process

Chair and vice chair

The role of the chair is to lead and coordinate the work of the panel. The vice chair's task is to stand in for the chair of the review panel in situations where they cannot or should not take part, such as when the chair has a conflict of interest.

Panel member

As a panel member, you may be a reviewer or a rapporteur. In both roles, you shall read and grade the applications ahead of the review panel meeting. As rapporteur, you are responsible for starting the discussion of the application at the meeting, and for writing a final statement on the application after the meeting.

Observer

An observer from the scientific council will monitor and safeguard the quality of the review panel's work. The observer reports back to the scientific council and the secretary general responsible after the review.

Swedish Research Council personnel

The research officer and senior research officer responsible administer the review and support the chair and panel members in the process.

Secretary general for scientific council

The secretary general has overall responsibility for the review process and for questions of a scientific nature. The secretary general also handles any complaints following the grant decision.

Preparations



Prisma

As a reviewer, you work in the web-based system Prisma. The first thing to do is to create an account in Prisma, if you do not already have one. Make sure all your account information and personal data are correct. You must also decide whether or not you want to receive remuneration for your review work. Follow the instructions in Prisma's user manual.

If you have any technical questions and cannot find the answer in Prisma's user manual, please contact the research officer responsible.

Reporting any conflict of interest

Once you have been notified that the applications are accessible in Prisma, you must report any conflict of interest. You should therefore check who the project leader and participating researchers are for all applications allocated to the review panel. Please contact the Swedish Research Council personnel and/or the review panel chair if you have any questions about conflict of interest. If you discover later on in the process that you have a conflict of interest, this must be reported as soon as possible to the chair and the administrator responsible.

Reviewers and rapporteurs

When all review panel members have reported any conflict of interest, the chair will allocate the applications to members of the review panel. Each application shall be read by at least three reviewers, one of which is given the role of rapporteur. The rapporteur is responsible for presenting the application for discussion at the meeting. As rapporteur, you are also responsible for summarising the review panel's statement on the application after the meeting.

Technical preparations

The review panel meeting will be held via the digital platform Zoom. <u>Download</u> Zoom Desktop client to your computer before the meeting.

Make sure you have access to a stable network connection. Your computer also needs to have a built-in or external camera and microphone. We strongly recommend that you use a headset with a microphone, as this provides the best sound, both for yourself and for other participants. If you do not have access to one, you may buy one at the Swedish Research Council's expense, at a

maximum cost of 50 EUR or equivalent. We also recommend that you use a large screen next to your laptop computer, if possible.

Preparations: summary

What you need to do	When
☐ Provide account information in Prisma.	Before the first digital meeting
☐ Download Zoom and check your technical equipment.	Before the first digital meeting
☐ Reporting any conflict of interest.	Before the deadline in Prisma

Review



During the review period, you shall:

- read the applications allocated to you,
- write assessments and preliminary statements,
- grade and rank the applications you have reviewed.

Once the review process has ended, you will get access to all members' assessments in Prisma. Prepare for the review panel meeting discussion by reading the other panel members' assessments.

Individual review

Each application is reviewed and graded by at least three members of the review panel: one rapporteur and two further reviewers. If you are the rapporteur, you shall write a *preliminary statement*. This shall consist of a numerical grade and detailed written comments on all evaluation criteria. The comments shall highlight strengths and weaknesses in the project described.

In the role as reviewer, you shall write an *assessment*. The assessment shall consist of a numerical grade and written comments, but the comments do not have to be detailed. Your notes will be a support in the discussion during the review panel meeting, and also after the meeting, when the rapporteur writes the statement. You should therefore get used to ending your review of each application by listing the strengths and weaknesses that your assessment is based on.

Deviations in the application

If you suspect that the content of an application does not follow good research practice, please inform the Swedish Research Council personnel as soon as possible. Continue with the review unless we notify otherwise. The Swedish Research Council is responsible for further investigation in cases of deviations in the application.

Irrelevant information

Base your assessment only on the contents of the application itself. Irrelevant information must not impact on the assessment. Disregard facts that you believe you know despite them not being included in the application.

Ask for advice from others only in exceptional cases

You must not disseminate information about the applications or applicants outside the review panel. Only in exceptional cases may it be justified to ask a colleague about any specific information, for example relating to the use of statistics or new research findings, on condition that you do not show them the application itself.

Ethical aspects

The applicant shall state whether there are any requirements for permits and approvals for the research planned. If there are such requirements, the applicant shall also describe how the permits and approvals will be obtained. If parts of the research will be conducted abroad, the applicant must be able to describe how this impact any requirement for permits or approvals. Necessary permits and approvals must be in place when the research begins. The assessment of legal and formal requirements is a part of the feasibility criterion.

The assessment of ethical aspects also includes examining how applicants reflect on ethical considerations. The evaluation of ethical considerations is part of the criterion for the scientific quality of the project.

Sex and gender perspectives

The assessment of scientific quality includes scrutinising how sex and gender perspectives are included in the applications. The applicant shall justify their answer, irrespective of whether it is relevant or not. Read the instructions for applicants.

Assessment criteria

You shall assess the scientific quality of the application based on four basic criteria:

- Scientific quality of the project
- Novelty and originality
- Merits of the applicant
- Feasibility

The purpose of using several basic criteria is to achieve a multi-faceted assessment. In addition to the four basic criteria, you shall also assess the applications using an additional criterion: internationalisation and research environment. The criteria are evaluated on a seven-degree or a three-degree scale.

Please use the guiding questions we have produced for each criterion to support the assessment of the application.

Guiding questions

Scientific quality of the project (1–7)

An assessment of the quality of the project's research question and methodology, including its potential for future research.

- To what extent does the proposed research address important challenges in relation to existing knowledge and ongoing research worldwide?
- To what extent is the project structured so that it can result in significant progress in addressing these challenges?
- When applicable, how are issues relating to sex and gender perspectives justified and handled in the research plan?
- When applicable, are the ethical considerations for the proposed project properly described and addressed? Does the applicant adequately consider potential suffering of humans and animals, and the balance of risk and value to nature and/or society?

Novelty and originality (1–7)

An assessment of how well new theories, concepts, methods and questions are implemented and developed.

- To what extent are the objectives novel, original and beyond the state of the art?
- To what extent does the research involve development of novel concepts and approaches, or development between or across disciplines?

Merits of the applicant (1-7)

The assessment should concern the merits of the applicant to perform the proposed project.

- How significant is the applicant's scientific productivity, impact and other
 merits in a national and international perspective, in relation to the research
 area, and the applicant's career age?
- What is the applicant's scientific potential within the research area of the application?

Feasibility (1–3)

- To what extent is the outlined scientific approach feasible considering the degree to which the proposed research is high risk / high gain?
- To what extent are the proposed research methodology and working arrangements (including access to infrastructure, equipment and other resources) appropriate to achieve the goals of the project?
- To what extent does the applicant and the project group have the required scientific expertise and capacity to successfully execute the project?
- To what extent are the proposed timescales and resources adequate and properly justified?

 Does the applicant adequately consider relevant legal and formal requirements for the proposed research, such as ethical permits and guidelines?

Internationalisation and research environment (1–7)

An assessment of the opportunities for the applicant to develop their research network and their competence as a researcher and if the project promotes mobility. Identify strengths and weaknesses.

- To what extent does the project contribute to the applicant's ability to develop new competences and their research network, and thereby enhance their independence?
- To what extent does the foreign host institution seem relevant for the research the application concerns? When applicable, to what extent does the Swedish host institution seem relevant for the research the application concerns?
- When applicable, to what extent is the Swedish research environment suitable for the applicant's ability to develop their career as an independent researcher?
- To what extent does the stay abroad and the project contribute to Swedish research?

Overall assessment (1–7)

The various sub-criteria are weighed together into an overall grade reflecting the collected evaluations of the review panel. The overall grade is formed without a pre-determined numerical weighing of the basic criteria. As a guidance for the review panel's assessment, the scientific quality of the proposed research and the merits of the applicant are the two most important criteria. Internationalisation and research environment and Novelty and originality should also be considered in the assessment, but should be given lower weight than the quality of the project and the merits of the applicant. The feasibility shall be weighed into the overall rating of the application if it deviates from the grade "Feasible".

Grading scales

The assessment of the scientific quality of the application, novelty and originality, merits of the applicant and internationalisation and research environment is done on a seven-degree scale.

Grade Explanation Outstanding Exceptionally strong application with negligible weaknesses Excellent Very strong application with negligible weaknesses Very good to excellent Very strong application with minor weaknesses

Grade Explanation

- 4 Very good Strong application with minor weaknesses
- 3 Good Some strengths, but also moderate weaknesses
- Weak A few strengths, but also at least one major weakness or several minor weaknesses
- 1 Poor Very few strengths, and numerous major weaknesses

The assessment of feasibility is done on a three-degree scale.

Grade	Explanation
3	Feasible
2	Partly feasible
1	Not feasible

For all criteria, you can also mark "Insufficient", if you consider that the application lacks sufficient information to allow you to make a reasonable assessment of the criterion. Please note that any such mark should only be used in the individual review before the review panel meeting, and not in the final grade.

Ranking applications

Rank every application in relation to the other applications you have reviewed. The ranking is a supplement to the grading when the review panel's applications are compared with each other. You shall rank all the applications you have been allocated, both those that you are rapporteur for, and the other ones you have reviewed. Ahead of the review panel meeting, the individual rankings of all the reviewers are weighed together into a preliminary ranking factor for each application. For instructions, please see Prisma's user manual.

External reviewers

External review may come into question if the scientific character of an application means that the joint competency of the review panel is not sufficient for a thorough review, or if the conflict of interest situation within the panel makes an application difficult to evaluate. In normal cases, the administrator responsible at the Swedish Research Council will contact the external reviewers.

Sifting

A proportion of the applications with the lowest grades are sifted, which means that they are not discussed in detail at the review panel meeting, and therefore do not receive any specific written comments on the grades. This process enables more in-depth discussion of the applications that have a reasonable chance of being funded.

The chair produces a proposed list of the applications to be sifted. The proposed list is based on the review panels' joint preliminary ranking of the applications. The chair identifies a break-off point on the list where it is reasonable to assume that applications below the break-off point will not be considered for funding.

The chair also identifies any applications that, despite having a low ranking, should still be discussed at the meeting, for example where the rankings or gradings by the three reviewers differ considerably.

Around 50 per cent of the applications shall be discussed at the review panel meeting, but the exact percentage may vary from one call to another. The applications that are listed for discussion at the review panel meeting shall include both women and men to such an extent that there is a good chance of achieving a gender-equal outcome in relation to the number of applications received.

Ahead of the meeting, you as a member will read the sifting proposal, including proposed grades. You can then decide whether any of the sifted applications should be brought up for discussion at the meeting nevertheless.

Review: summary

W	hat you need to do	When
	Grade and write detailed comments (preliminary statement) on all applications for which you are the rapporteur.	Before the deadline
	Grade and write comments (assessment) on all applications for which you are a reviewer.	Before the deadline
	Rank all applications allocated to you.	Before the deadline
	Prepare for the meeting by reading other panel members' comments and any external assessments.	Before the meeting
	Prepare a brief presentation of strengths and weaknesses in the applications for which you are the rapporteur.	Before the meeting

W	hat you need to do	When
	Check the list of sifted applications and decide whether any of the sifted applications should be brought up for discussion at the meeting.	Before the meeting
	Contact the Swedish Research Council personnel and the chair if you discover during the review that you do, after all, have a conflict of interest with any of the applications, or if you discover any problem with an application.	As soon as possible
	Contact the Swedish Research Council personnel if you suspect any deviation from ethical guidelines or good research practice.	As soon as possible

Review panel meeting



Sifted applications

At the start of the review panel meeting, you as a member have the opportunity to bring up applications that have been sifted, so that they are included among those discussed at the meeting. Decisions on the grading of sifted applications are made during the review panel meeting.

Discussion of applications

The chair leads the discussion of the applications that have not been sifted. As a rule, the rapporteur begins by presenting an application's strengths and weaknesses. Thereafter, the other members give their assessments. The chair is responsible for ensuring any external assessments are included in the discussion.

For each application discussed at the meeting, the panel shall agree on subsidiary grades and an overall grade. The rapporteur shall take notes to support the wording of the panel's statement.

All applications shall be treated equally

The review panel is responsible for ensuring each application is assessed on its own merits.

- Irrelevant information shall not be discussed.
- The panel's applications shall compete with each other on equal terms.
- No application shall be given a higher or lower grade because it belongs within a certain subject area.
- The panel shall not carry out any quota-based allocation between the scientific disciplines included in the panel.
- An application is guaranteed a new assessment under each call even if it has been submitted in conjunction with previous calls.
- A balance shall be found in the time the panel allocates to each application.

Conflict of interest during the review meeting

Persons who have a conflict of interest in relation to an application shall leave the room or the digital meeting while the application is discussed. A person who has a conflict of interest in relation to an application shall not take part in the discussion of that particular application. If you discover any possible conflict of interest (your own or another's) during the meeting, you should bring this up with the chair and the Swedish Research Council personnel in private.

Prioritisation

Once all applications have been discussed, and the panel has agreed on a joint grade for each application, a prioritisation shall be carried out of the applications with the highest scientific quality. This prioritisation shall conclude with the review panel's proposal for applications to be awarded grants within the panel's budgetary framework. A prioritisation list with reserves shall also be produced.

The review panel shall take into account the approval rate for women and for men during the summarising prioritisation.

Review panel meeting: summary

What you need to do	When
☐ Agree on grades for sifted applications.	At the review panel meeting
☐ Agree on subsidiary grades and an overall grade for each application discussed.	At the review panel meeting
☐ Agree on a proposal for the applications to be awarded funding within the review panel's budgetary framework.	At the review panel meeting
☐ Agree on a prioritisation list with reserves.	At the review panel meeting

Statement



The rapporteur writes a statement

The discussion at the review panel meeting forms the basis for the review panel's joint statement. The statement is the end product of the review process to which each application is submitted. It forms the Swedish Research Council's basis for decision-making in the matter, and is also sent to the applicant in conjunction with the grant decision being published.

You are responsible for writing statements on the applications for which you have been the rapporteur. After the meeting, you shall modify the *preliminary statement* that you drew up before the meeting so that it reflects the review panel's joint assessment of the application. You usually have one week in which to write statements following the end of the review panel meeting.

Only applications that have been the subject of discussion at the meeting receive a full statement. The sifted applications are instead handled by the Swedish Research Council personnel. These applications receive a standard statement describing the sifting process and gradings for the subsidiary criteria and a summarising grade.

The chair reviews all statements

Once the statements are completed, they are checked by the chair and by the Swedish Research Council personnel. The chair is responsible for ensuring the statements on the applications discussed at the review panel meeting reflect the panel's discussion, and that the written justifications correspond to the grades. In conjunction with the chair's review, you may be asked to supplement or adjust a statement.

General advice and recommendations on statements

The statement shall reflect the review panel's joint and overall assessment, including any external assessments.

Completing the statements, you must

- · focus on describing the main strengths and weaknesses of the application.
- ensure the written justifications correspond to the grading feel free to use the definitions in the grading scale in your written comments.
- consider the guiding questions for the different assessment criteria.

- write concisely, but not too briefly the content is more important than the length of the text.
- comment on whether the review panel has weighed in deviations from the Swedish Research Council's general instructions in the assessment of the application.
- be constructive and factual in your comments.

Completing the statements, you must not

- make a long summary of the contents of the application or the merits of the applicant.
- introduce personal comments the statement shall constitute the review panel's joint assessment.
- state quantifiable data.
- state any personal information about the applicant.
- write any recommendation whether to refuse or approve an application in the statement.
- comment on whether an application belongs in the review panel, as all the applications allocated to the panel shall be assessed.

Statement: summary

\mathbf{W}	hat you need to do	When
	Write the review panel's statement in Prisma on the applications for which you are the rapporteur.	One week after the review panel meeting
	Supplement statements following review by the chair if you have been asked to do so.	After the review panel meeting

Decision and follow-up



Decision

The Board of the Swedish Research Council has delegated to the Scientific Council for Natural and engineering sciences the decision on postdoc grants in this field. The Scientific Council's decision is based on: the priority lists (including reserves) arrived at by the review panels; any justifications from the chairs; and the review panels' statements. The decision is published shortly thereafter on vr.se and in Prisma. In conjunction with the publication, the applicants are informed about the outcome.

Follow-up

Following each review, internal follow-up is also carried out of the process and the outcome. An important starting point for this follow-up is the feedback you provide as a panel member in conjunction with the review panel meeting. We also produce statistics of various kinds.

Complaints and questions

If you as a review panel member receive any question about the assessment of an individual application, you must refer this to us. The Swedish Research Council personnel make sure that all complaints or requests for clarification are registered and handled by the secretary general responsible in consultation with the chair of the review panel. The chair will contact you as necessary.

Decision and follow-up: summary

What you need to d	lo	When
- 1	ions about the assessment of individual he Swedish Research Council personnel.	As they arise
	assist the chair and the secretary general ne event of any questions.	As they arise