

UKRI Metascience Unit AI early career fellowships

Distributed Peer Review – Rules and Guidelines

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These guidelines were compiled with reference to DPR Rules and Guidelines set out by the European Southern Observatory (ESO) and the Volkswagen Stiftung Foundation

1 Introduction

The <u>Independent Review of Research Bureaucracy</u> 2022 recommended that funders should consider innovative models of application assessment to improve and simplify processes. Subsequently, the <u>Review of Peer Review</u> 2023 study specifically explored the use and effectiveness of peer review mechanisms in grant-making processes, recommending that funders use of a range of review interventions in order to vary their assessment processes i.e. application, review, and decision-making processes should be tailored for each scheme.

Distributed peer review (DPR) is one such review intervention. In DPR, applicants are also assessors and review other proposals submitted to the same funding opportunity to decide who gets funding. By submitting a proposal, applicants agree to act as reviewers and to have their proposal reviewed by their peers. This innovative approach has produced positive results so far, including in applications to the European Southern Observatory (ESO) and for the Volkswagen Stiftung foundation's <u>Open Up</u> funding. The Dutch Research Council (NWO) are also trialing DPR for their <u>Open Competition Domain Science – XS</u>.

DPR has the potential to democratise the peer review process by improving the speed and quality of feedback available to applicants, as well as increasing the consistency and expertise of reviews, since a larger pool of reviewers are available, and each proposal is reviewed a greater number of times. DPR lessens the administrative burden on external peer reviewers and shortens the review process, by removing the need to recruit and run external review panels.

1.1 Why the Metascience Unit is trialling DPR for the Metascience AI early career fellowships

The UK Metascience Unit was established in 2024 to identify more effective ways of conducting, funding, and supporting research and innovation. This includes trialling innovations in how research funding opportunities are designed and delivered.

The Metascience Unit have selected the AI early career fellowships as a suitable funding opportunity to trial DPR. In a volatile and fast-moving field, we aim to democratise funding and empower researchers to shape their field beyond their own projects. We are also funding in an emergent research area that lacks a deep pool of established figures to draw from in a review process. We therefore believe applicants may be the best placed to judge other applications.

Traditional peer review places a considerable burden on researchers and funders, and it is considered prudent to distribute this burden among a larger set of people who are already deeply familiar with the opportunity's scope and criteria.

The DPR process and outcomes will be evaluated by the Metascience Unit. Applicants will be approached for feedback following the process.

2. Rules and guidelines for applicants

2.1 General

All applications for the UKRI Metascience AI early career fellowships will undergo DPR.

By submitting an application, applicants accept the following terms and conditions:

- All applicants will receive on average 8 applications to review.
- Failing to provide the reviews by the deadline will lead to the automatic rejection of the application submitted by the given applicant.
- The reviewer is expected to carefully read all the assigned applications, rate them and provide feedback to the applicants following the rules and guidelines.
- If an applicant's set of reviews are found to be of consistently poor quality (for example, they do not justify the overall scores given), their own application may not proceed.

A common concern with DPR is that applicants may give tactically lower scores, in order to improve their own relative position. The Metascience Unit would like to reassure applicants that protections are in place to ensure that it is extremely difficult for applicants to 'game' the system. For example:

- 1) Reviewers will be assigned to different pools from the applicants they review. As a result, they are not 'competing' against the applicants whose proposals they review.
- 2) No two applicants from the same institution will receive each other's application.

3) To mitigate against collusion, we will use an allocation algorithm that avoids having any reciprocal pairs / triads within which reviewers review one another.

The Metascience Unit will use independent moderators to check that reviewers have adhered to the guidelines for this funding opportunity. If an applicant does attempt to 'game' the overall scoring system (for example, by giving consistently negative reviews and low scores without clear justification), their own application may not proceed. The independent moderators will advise on any reviews that should be excluded from the assessment process.

2.2 Submission of an application

In order for an application to be considered, UKRI's Funding Service online application system must be used. When you write your application, you must adhere to the questions stated. You must also adhere to the conditions for the maximum number of words and pages.

Your complete application must have been received before the deadline via UKRI's Funding Service. After this deadline, you can no longer submit an application. By applying for this scheme, you are consenting to take part in a trial of Distributed Peer Review (DPR). Please do not apply for this particular opportunity if you would prefer not to take part in the DPR process.

Please note that you cannot submit more than one proposal.

2.3 Assessment criteria

Examination of applications: All applications will be examined to ensure they meet the eligibility criteria and scope of the funding opportunity. If your application is outside the scope, you will be advised by email, and we will not assess your application. We aim to notify you of this around six weeks after the closing date.

Assessment criteria:

- vision for the fellowship
- approach to the fellowship (how you are going to deliver the proposed work)
- your capability to deliver the fellowship
- career development
- host organisation support
- resources requested to do the fellowship
- ethical and responsible research and innovation considerations

2.4 Anonymisation

Single-anonymous peer review ensures applicants will not know who is reviewing their application.

Applications will be divided into two groups with reviews allocated (using a ring allocation method) from the other group to ensure that their own relative position is unaffected by the scores they give someone else.

3 Review system

Reviews are performed using the UKRI Funding Service, our online funding application system.

When you are invited to review your allocated applications, you will receive email notifications from UKRI.

The email will contain:

- a summary of the application
- details of the applicant involved so you can identify any <u>conflicts of interest</u>
- a 'respond now' button which you will need to use to set up your account on the Funding Service
- the button to respond will take you to the UKRI Funding Service to accept (or decline) the invitation

You do not need to sign in or create an account to accept reviews. You can accept reviews through the button in the invitation email.

Once you accept an invitation to review, you can either:

- start your review immediately
- come back to the UKRI Funding Service later to start your review

4 Rules and guidelines for reviewers

4.1 General

• By submitting an application, you have accepted to review on average 8 applications submitted by your peers. As such, you are expected to deliver the evaluations and the comments by the deadline (see timetable). You will have 4 weeks to complete your reviews. Failing to submit the assigned reviews on time will lead to the automatic rejection of the proposal in which you are the applicant.

• During the whole review process, you are expected to behave ethically. This covers confidentiality matters but also the feedback you will be providing for each of the applications you are assigned. Any attempts to 'game' the system i.e. by providing consistently bad reviews and low scores without justification will lead to the rejection of the application in which you are the applicant.

• As a reviewer, you are supposed to provide constructive feedback, using appropriate, factual, and non-offensive language. In doing this, keep in mind that your comments will be passed unedited to the applicants. UKRI will take seriously possible cases of offensive and inappropriate language used by the reviewers.

• We will consider obvious conflicts of interest when matching proposals to reviewers.

During the initial phase of the DPR you will have the possibility of declaring conflicts of interest. Note that you should restrict yourself to those where you feel you are not in a position to express an objective opinion. Conflict flagging must not be used to reduce the number of reviews you have to deliver by the given deadline. In instances where a conflict has been identified, the Metascience Unit will likely reassign applications to you.

• The UKRI Funding Service does not currently allow the anonymisation of applications. During the review you should be objective and focus on the strengths and weaknesses of the proposal.

• As a reviewer, you must provide your feedback in a completely anonymous way. The phrasing must be neutral and must not disclose, directly or indirectly, your identity.

• The use of generative models (ChatGPT, CoPilot etc.) in the preparation of reviews is not permitted in view of the confidentiality of the review process. Documents provided for review are confidential and may not be used as input for generative models. Please refer to the <u>UKRI Policy on the use of generative AI in applications</u>

• No filtering will be applied during the proposal-reviewer assignment. The level of expertise of the reviewers will reflect that of the underlying applicant population.

Important note on confidentiality:

As a reviewer you will have access to information which is covered by intellectual property.

None of that information can be disseminated, copied or plagiarised. Should you have downloaded or printed the proposals which were assigned to you, you must remove/destroy them at the end of the review once the process is completed. UKRI will take violations of the non-disclosure agreement seriously. Please refer to the <u>UKRI Peer review service standards and code of practice</u> for further information.

4.2 Application review and grading

Your Funding Service account will list your allocated reviews and the deadlines for these.

Before you start a new review you will be asked to read and confirm that you accept the <u>reviewer</u> <u>protocols</u>. These are the rules you must follow when carrying out your review.

You can use the Funding Service to:

- read the full applications online in your browser
- see the questions and assessment criteria for each application section
- open and download any attachments uploaded by the applicant
- view the full application as a PDF to read offline or print out

Write and submit your review

To provide your review you can either:

 write your review using the text box in the Funding Service – you can save your unfinished review to come back to later use an alternative writing tool such as Word to write your review and then copy it into the text box

You will need to structure each of your reviews using the assessment criteria as subheadings. Remember that your feedback will be passed on to the candidates unedited and that you are solely responsible for the content and integrity of your comments.

Assessment criteria:

- vision for the fellowship
- approach to the fellowship (how the applicant is going to deliver the proposed work)
- their capability to deliver the fellowship
- career development
- host organisation support
- resources requested to do the fellowship
- ethical and responsible research and innovation considerations

Scoring:

You also need to score each application from 1 (poor) to 6 (exceptional). The scoring range definitions are as follows:

6 Exceptional: the application is outstanding. It addresses all of the assessment criteria and meets them to an exceptional level.

5 Excellent: the application is very high quality. It addresses most of the assessment criteria and meets them to an excellent level. There are very minor weaknesses.

4 Very good: the application demonstrates considerable quality. It meets most of the assessment criteria to a high level. There are minor weaknesses.

3 Good: the application is of good quality. It meets most of the assessment criteria to an acceptable level, but not across all aspects of the proposed activities. There are weaknesses.

2 Weak: the application is not sufficiently competitive. It meets some of the assessment criteria to an adequate level. There are, however, significant weaknesses.

1 Poor: the application is flawed or of unsuitable quality for funding. It does not meet the assessment criteria to an adequate level.

There is guidance in the funding service to help you write a good review and decide the score.

You can preview and check reviews before submitting them. When each review is finished, submit it to UKRI. Please note that once submitted, reviews cannot be edited.

4.3 Decision making

The final ranking of applications will be determined by the average of the overall rating. In the unlikely event of a tie in the final ranking of two or more applications, a lottery will be used.

UKRI will make the final funding decisions. UKRI reserves the right to take a portfolio approach to ensure disciplinary coverage.

4.4 Feedback to applicants

As the DPR is intended to provide feedback, it is particularly important that you, as a reviewer, provide comprehensive and constructive feedback to your peers. In this process, it greatly helps keeping in mind that you should provide feedback of the same quality you are expecting from your peers. Keep in mind that your feedback is going to be passed unedited to the applicants, and that you are responsible for the content of the comments and their integrity. Also, consider that the main purpose of the feedback is to describe the strengths and weaknesses of applications, in a constructive manner.

The following points should help you to write good reviews:

- Familiarise yourself with the specified assessment criteria and scoring system.
- Bear in mind that you may be reviewing applications from different disciplines to you own.
- Provide comments and recommendations that are consistent with, justify, and explain your scores.
- Ensure your comments are comprehensive but concise.
- Be objective and as specific as possible when commenting on the proposal. Avoid generic statements that could apply to most proposals.
- You do not need to summarise the proposal: the applicants know it very well. If useful, start with a brief outline of the application.
- Clearly identify the major strengths and weaknesses of the application in a constructive manner, to help the applicant understand which aspects of their proposal are strong, and which could be improved.
- Take care to ensure that the strengths and weaknesses you identify do not contradict each other.
- Do not ask questions: this is not an iterative process. If the question stems from a weakness, state the weakness explicitly.
- All reviews should be impersonal, critiquing the proposal and not the applicant. For example, do not write "The applicant did not [...].", but instead write "The proposal did not [...]".
- Write in plain English, avoiding jargon.
- Use complete sentences when writing your reviews. Try to use correct grammar, spelling, and punctuation.

- Do not use inappropriate, offensive, sarcastic and/or insulting language, even if you think a proposal could be greatly improved.
- Once you have completed your assessments, re-read your comments as if you were the recipient. If they do not sound useful and/or constructive, edit them.
- Check that the strengths and weaknesses identified are consistent with the assigned grade. Definitely avoid cases in which you do not list any weakness but give a poor grade.