



# European Science Foundation (ESF)

## Guidelines for ESF Reviewers

**This document is intended for the [Reviewers\\*](#) who take part in research assessment and grant evaluation processes carried out by ESF, to highlight our principles and quality standards.**

The first section outlines the guiding principles for research assessment and grant evaluation to be followed by ESF's reviewers. The second section outlines the main steps and procedures of the review process. The third section provides guidance on implicit biases and possible ways to mitigate these.

\* In this context, Reviewers are defined as international experts invited to provide a remote review of a research proposal closely related to their field of expertise.

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## ESF Role in Research Assessment & Grant Evaluation

The [European Science Foundation](#) (ESF) is an independent, non-governmental, non-profit organisation that has been implementing scientific and research related processes since 1974.

ESF carries out [qualitative assessment of a wide range of research projects](#) and applications to support organisations in identifying and funding the best research. Our partners include research funding organisations, philanthropies, universities, EU-funded projects and programmes. The type of applications assessed range from research or R&D project proposals to (post-)doctoral fellowships and researchers' academic profiles.

[ESF College of Experts](#) unites 10,500+ researchers across various scientific disciplines in 90+ countries. Their expertise and participation are instrumental for the quality of the grant evaluation processes.

ESF is committed in ensuring high-quality peer review processes by developing and setting up fairer assessment approaches in line with [the reform on research assessment promoted by the Coalition for Advancing Research Assessment \(CoARA\)](#) for which ESF hosts and operates the secretariat since December 2022.

In providing expert reviews of research proposals, ESF's efforts and the work of its reviewers are guided by the following values and principles which build on:

- [European Peer Review Guide](#) (ESF, 2011)
- [Statement of principles of peer/merit review](#) (Global Research Council, 2018)
- [Recommendations on Research Assessment Processes](#) (Science Europe, 2020)
- [Agreement on Reforming Research Assessment](#) (CoARA, 2022)

**1 Expert assessment:** Reviewers should have sound expertise in the relevant topic to provide a high-quality review of the research proposal and its potential contribution to the relevant discipline and beyond.

**2 Trust:** The evaluation process is built on trust between all stakeholders (applicants, funders, ESF and its reviewers) and should demonstrate a high-level of integrity. Reviewers are trusted to handle research proposals under evaluation in confidence and not to take undue or calculated advantage of knowledge they may have obtained from those proposals.

**3 Impartiality:** Reviewers are trusted to exercise their judgment independent from any interests and obligations that might interfere with the exercise of that judgment. Reviewers should read and respect ESF's Conflict of Interest (CoI) rules and procedures as to how to disclose and manage real, potential or perceived Conflicts of Interest, as well as ESF's guidelines in relation to implicit bias.

**4 Transparency:** Applications must be assessed on similar grounds within the same funding programme, and ESF ensures that all reviewers are provided with clear and concise guidance on the objectives and evaluation criteria. A full and fair review requires that its outcome can be justified by evidence of thorough assessment with respect to the evaluation criteria. It is important that feedback provided to the applicants is similarly structured around the programme's evaluation criteria.

**5 Responsible research evaluation:** Evaluation of research quality needs to be based on standards of quality within the relevant discipline and definition of excellence of the specific funding programme. When assessing applicants' achievements, reviewers should consider a variety of relevant research outputs and activities. If any metrics are provided in the application, these should be used with care: no single indicator can fully reflect the quality of an applicant or their research and should not be used as the only or main basis of judgement<sup>1</sup>.

**6 Respect:** Reviewers are expected to present their views in a measured, factual and neutral manner, with respect for the applicant, their discipline and ideas and offer polite and constructive feedback. It is perfectly acceptable, and indeed, expected, that a review provides an honest assessment of the proposal, and any serious concerns should be voiced. However, how those concerns are voiced does matter – especially for early-career researchers.

**7 Timeliness:** Efficiency and speed are among the pillars of good practice in peer review. As peer review reports often serve as support for other steps in the evaluation process, it is of utmost importance that reviewers respect the deadlines they commit to when accepting the invitation from ESF.

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<sup>1</sup> See the [Bibliometrics: Leiden Manifesto for Research Metrics](#) (Hicks et al., 2015) and the [San Francisco Declaration on Research Assessment](#) (DORA, 2012).

## When approached to perform a review

While performing the reviewers' identification, ESF's scientific staff consider the relevance of the reviewer's expertise to the proposal topic, their expertise and past contributions, as well as available information on potential Conflicts of Interest (e.g., co-publications with the applicant, etc.). As not all the information may be fully available in the application, it is important that, before accepting to review a proposal, reviewers self-evaluate their suitability to act as a reviewer for each application.

- **Self-evaluating the relevance of one's expertise to the topic of the evaluated proposal**

When invited to perform a review, reviewers should check that they have research background in a relevant discipline(s) and that the topic of the evaluated proposal is within their area of expertise. For the most part, there are two or more independent assessments sought for each proposal, and the disciplinary perimeter of the evaluators invited will correspond to the disciplinary coverage of the application considered. This is particularly important for inter-, multi-, cross-disciplinary applications for which assessments covering the various disciplinary perspectives will be sought. For such proposals, reviewers may be approached because of their expertise in one specific discipline or because of their interdisciplinary expertise.

- **Checking, declaring and managing Conflicts of Interest (Col)**

Reviewers are instructed to follow the ESF conflict of interest guidelines provided for each assessment exercise. These are meant to help reviewers identify and declare cases of actual, perceived, or potential Cols, which inevitably affect reviewers from time to time.

*A Col is a situation in which financial or personal considerations have the potential to compromise or bias the professional judgement and objectivity of an individual who is in a position to directly or indirectly influence a decision or an outcome<sup>2</sup>.*

Before reviewing a proposal, reviewers are invited to complete the Col declaration in the ESF online platform. Reviewers should assess whether their circumstances conflict - or have the potential to conflict with - reviewing of a specific proposal or could be reasonably perceived as a Col. In case of a Col, reviewers should abstain from reviewing the proposal. In cases where the nature of a Col is less strong or less clear, reviewers are asked to inform the ESF to consider the existence and the nature of a Col.

- **Confidentiality**

Before having full access to applications and peer review documents, reviewers are asked to declare that they will treat all information provided as strictly confidential and will be asked to sign a non-disclosure agreement. Using Artificial Intelligence (AI) tools for writing or enhancing the language of the review or uploading any parts of the application into AI tools is strictly prohibited.

- **Timely response**

When invited to perform a review by ESF, reviewers are asked to respond to the invitation in a reasonable timeframe and confirm if they can or cannot perform a review. For process quality control purposes, reviewers are invited to provide a reason for declining (e.g., Conflict of Interest, or Out of Expertise). It is highly appreciated if names of alternative reviewers are suggested.

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<sup>2</sup> [European Peer Review Guide: Integrating Policies and Practices into Coherent Procedures \(2011\)](#), European Science Foundation (ESF).

## When performing the review

- **Reading proposal and guidance materials carefully**

Reviewers are expected to read the applications, and all guidance documentation provided by ESF carefully. If any part of the application is missing or not readable, reviewers should notify ESF. Should reviewers become aware of any potential Col or potential bias that they could not identify before accessing the application, or if they realise that they do not have sufficient expertise to perform an informed review, they should inform ESF without delay.

- **No contact with applicants**

Reviewers should not contact the applicants. In case a reviewer is contacted by the applicant, please refer them to ESF and inform ESF about this contact.

- **Providing the review in a personal capacity**

Reviewers are invited to provide the review in a personal capacity. Therefore, reviewers should not involve other researchers, including those under their supervision, in the provision of the review. Using Artificial Intelligence (AI) tools for writing or enhancing the language of their review or uploading any parts of the application into AI tools is strictly prohibited.

- **Providing the review in a timely manner**

It is of utmost importance, to ensure the quality of the evaluation process, that reviewers respect the deadline for submitting their assessment report, which they commit to when accepting the invitation from ESF.

- **Quality requirements for assessment reports**

Assessment reports are to be submitted via an online assessment form that includes the evaluation criteria, scoring options and open fields to include comments. Unless specified otherwise, assessments are to be provided in English.

Assessment reports (anonymised) are generally provided as feedback to the applicants or as input to the review panels, and therefore should be drafted with care – these should be **substantial, unbiased, succinct, and respectful**.

**Below are some of ESF's general quality requirements for assessment reports:**

- Following the evaluation criteria and the scoring grid provided for a specific programme; assessing all the required criteria and do not adding any considerations that are irrelevant to those.
- Ensuring that scores and comments are consistent; all scores should be justified in the written comments, bearing in mind any special instructions from the funder. When assigning scores, it is recommended to use the full range of the scoring grid.
- Considering a variety of research outputs and activities relevant for the nature of the proposed research. When evaluating the applicant's publications, considering the quality of the publications rather than their quantity, or the journals in which these were published.
- Supporting all judgement with arguments and evidence from proposal or elsewhere (e.g., provide references). Quantitative indicators and author-based metrics (e.g., h-index) should be used with care: these should not be the only measure for quality/impact.
- Avoiding providing lengthy descriptions or summaries of a proposal or including any but very short quotations.
- Providing constructive and evidenced criticism, and if specifically asked, feedback that would be useful for the applicant to improve their proposal.
- Writing in a clear and simple language, avoiding lengthy sentences.

- Avoiding dismissive statements about the applicant, their proposed research, or research field.
- Avoiding reference to the applicant's age, nationality, or gender. Being aware of unconscious bias and gender issues and avoid biased language.
- When evaluating more than one proposal under a given call, reviewers should not include any references or make any comparisons to the other proposals or applicants.
- Not providing direct comments on the evaluation process or the evaluation form format in the evaluation form. Instead, reviewers should contact ESF to provide their feedback.

- **Evaluation criteria and responsible research evaluation**

The examples of the evaluation criteria for research grant proposals include the research quality of the proposal, the applicants' research competences and achievements, project's feasibility and potential impact – both scientific and societal, depending on the objectives and specificities of the funding programme.

**It is important to read programme-specific guidelines provided to the reviewers by ESF, as the research quality of a research proposal should be evaluated in line with the definition of research quality or excellence in the context of a given programme or call.** Excellence is a multi-dimensional concept and can cover such aspects as progress beyond the state-of-the-art, originality or innovation, scientific approach, clarity of research objectives and methodology. Additional aspects may be covered, such as the added value of interdisciplinarity or collaboration.

**When evaluating the applicant or teams,** their expertise, competences and contributions, it is important to take into consideration their career stage and academic age, as opposed to actual age. Reviewers need to take into consideration any legitimate factors or career breaks (e.g., due to parental leave, health issues, part-time work, intersectoral mobility) that may have affected the applicant's record of outputs.

When evaluating the applicant's publications, reviewers should base their views on the content and quality of the publications rather than the journal in which these were published or the publisher's reputation (for monographs), aggregate metrics (in particular, Journal Impact Factor), or the number of publications<sup>3</sup>. For early-career researchers, this is particularly important. If metrics (e.g., H-index, number of publications or citations) are provided in the application and CVs, reviewers should use these with due care, based on what is reliable and acceptable within their discipline or field; no single indicator can fully reflect the quality of an applicant or their research.

In addition to publications, it is important to consider various research profiles and **various other types of research outputs** which may include, e.g., software, patents, datasets, policy impact, societal outreach, etc. For academic career promotion schemes, it would also be important to evaluate the candidate's educational achievements and pedagogic skills.

In line with the principles of Open Science<sup>4</sup> and the need to better reward **open science practices**<sup>5</sup> (e.g., OA publishing, data sharing, collaboration, stakeholder engagement, etc.), it is important to pay attention, whether the planned research outputs would be shared and available for reuse. Some funders include Open Science practices as part of the research quality and methodology criterion.

- **Considering research ethics and integrity**

The ethics review of research grant proposals is typically conducted by the funding organisations in parallel to or shortly after the scientific peer review. Unless specifically required, reflections on ethics are not part of the evaluation. Nonetheless, if a reviewer believes a research proposal raises serious ethical concerns, they can include this in their assessment report and flag this to ESF so that the funding partner is also made aware of these concerns.

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<sup>3</sup> *San Francisco Declaration on Research Assessment (DORA, 2012)*

<sup>4</sup> *UNESCO Recommendation on Open Science (2021), UNESCO.*

<sup>5</sup> *Evaluation of Research Careers fully acknowledging Open Science Practices; Rewards, incentives and/or recognition for researchers practicing Open Science (2017), European Commission.*

Should reviewers come across what they think may be a breach of research integrity (e.g., fabrication, falsification, plagiarism, including misrepresentation of authorship), they should notify ESF. As with the rest of the evaluation process, these concerns need to be kept confidential. ESF will provide this information to the funding organisation who will then decide on the appropriate action based on the established institutional procedure.

#### ○ **Considering gender dimension in research**

The gender dimension of research can be asked to be considered by reviewers when assessing the research quality of a funding proposal, if research that deals with humans as objects of research (e.g., as in biomedical or social sciences research) and/or users (e.g., as in technological research). That means that – where it is of relevance to the type of research being proposed – reviewers should assess whether **sex and/or gender analysis** is integrated into the proposed research plan.

##### **Relevant questions to ask include:**

- ✓ *Could the proposed research apply to and impact male/females, and/or men/women/non-binary gender groups in potentially different ways?*
- ✓ *How will the proposed research consider and analyse these potential impacts?*
- ✓ *Will the data be collected and systematically disaggregated by sex and/or gender where relevant?<sup>6</sup>*

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<sup>6</sup> European Commission supported projects [GENDER-NET IGAR](#) and [Gendered Innovations project](#) provide useful information, tools and methods for researchers and reviewers to take the gender dimension into account for conducting and evaluating different type of research. This [video](#) by the project explains the impact of 'gender blind' or 'gender biased' research.

**The goal of this section is to raise awareness of potential implicit biases which may affect reviewers and help understand why they matter, and how to mitigate them in the peer review process.**

**Implicit bias**, also referred to as unconscious bias<sup>7</sup>, affects judgement without us realising it. Even reviewers who consider themselves impartial and fair may have implicit biases influenced by past experiences and pervasive to societies and cultures they inhabit, as concerns, for example, **gender, age, nationality, race, language or even the institution** of the applicant or their qualifications.

Implicit bias can refer to a positive bias towards our “ingroup” and a negative bias towards our “outgroup”<sup>8</sup>. Implicit biases can be pervasive in academic settings as concerns publication venues, academic establishments, schools of thought, or whichever ingroup a reviewer may belong to. Independent of the reasons, implicit bias can contribute to diminished career prospects, limited access to research resources, and create barriers to opportunity for some while giving unjust and unearned advantages to others.

Grant evaluation processes are rarely “blinded”, and reviewers usually have access to the applicant’s information, such as gender, age, institution, etc. Thus, it is important to be aware of the possible biases and reflect on how to possibly mitigate their impact both at the level of a reviewer and the funding or evaluation organisation.

ESF is committed to ensuring diversity among the reviewers engaged in its review processes and to raising awareness about implicit bias among its staff and reviewers.

**Some possible good practice guidance for reviewers to mitigate the impact of implicit bias are:**

- Reserving enough time for the review to read the application carefully.
- Applying the same criteria systematically to all applicants when reviewing several applications under the same call.
- Considering all of the applicant’s achievements that are relevant for the evaluation criteria, rather than focusing on one aspect or element (e.g., H-index) when making one’s judgement.
- Supporting one’s judgement with evidence rather than basing judgements on global evaluations, personal preferences or dislikes of specific research questions or methods.
- Focusing on the applicant’s documented achievements, rather than their *potential*, helps to avoid some groups being given the “benefit of the doubt” (e.g., regarding their capabilities to lead a project), while not others.
- Reviewing one’s evaluation report with a critical eye to see if one’s judgement is free from implicit bias as in these examples of bias below:
  - ✓ **Gender:** e.g., evaluating a female applicant in more negative terms compared to their male counterparts, if all indices of applicants’ track record are of similar level; weighting some characteristics or experiences more than others; valuing publication quantity over quality; assuming women will not make good project leaders or will lack ambition.
  - ✓ **Age:** e.g., judging the applicant not to have sufficient experience because of their young age; assuming that someone who entered academe late is inferior to someone who has had a lifetime academic career.

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<sup>7</sup> See a short [video](#) by The Royal Society titled ‘Understanding unconscious bias’.

<sup>8</sup> The Academy of Finland’s definition found in its [“Instructions for reviewing funding applications – individual reviewers”](#), p.10.



- ✓ **Institution:** e.g., judging the applicant's track record or competences based on the reputation of the institution they were trained in or are affiliated to or having been supervised by a leading/known researcher.
- ✓ **Affinity bias:** e.g., giving the applicant an unfair advantage because they happen to have something in common with the reviewer (e.g., graduated from the same institution or are interested in the same topic).
- Avoiding references to the applicant's age, nationality/geographical area, or gender, and avoiding biased language in review reports as it can elicit, reinforce, and perpetuate implicit bias. Even when the gender of the applicant is known to reviewers, it is best to consider and to refer to the applicant in *gender-neutral form* (e.g., as "the applicant" or "Dr. Smith" rather than "She" or "Her record"). Similarly, reviewers should avoid using gendered phrases or words (e.g., chairman), preferring gender-neutral alternatives (e.g., chairperson).