

Guidelines for reviewers and referees

SNSF evaluation procedure

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1 Introduction

Most of the instructions for evaluators are provided directly in the header area of the evaluation forms. These guidelines provide additional information about your role as a reviewer or referee, giving an overview of SNSF evaluation procedures and the handling of conflicts of interest and DORA (Declaration on Research Assessment). Please refer to this information before beginning your assessment.

2 Role and tasks of reviewers and referees

2.1 Role and tasks of external reviewers

External reviewers assess every proposal in relation to the criteria defined by the SNSF. They apply each criterion to the proposal and deliver a criteria-based assessment. Proposals are not compared with each other at this stage.

The SNSF chooses external reviewers on account of their expertise and knowledge of the latest international developments in the relevant research field and generally seeks to engage experts based outside Switzerland. Reviewers are expected to deliver a detailed and well-founded analysis of the proposals.

External reviewers are generally not remunerated by the SNSF. Exceptions are made for reviewers who assess very long proposals (e.g. Sinergia programme) or a significant number of proposals in the same year.

Before starting to review a proposal, external reviewers should clarify the following points:

- If there is any suspicion of scientific misconduct related to the proposal, this should be communicated in advance directly to the Administrative Offices of the SNSF (email address is indicated in the invitation to review). Reviewing may turn out to be redundant if the suspicion is confirmed.
- If there is a clear conflict of interest with regard to a proposal or its applicants (see 4. Conflicts of interest), the relevant persons should not accept the SNSF's invitation to review the proposal. In case of doubt, please contact the Administrative Offices or use the comment box in the form.

2.2 Role and tasks of referees

Members of the evaluation panel assume the role of referees and are in charge of evaluating proposals. They are elected on the basis of their general experience and knowledge as researchers as well as their expertise in their field; they do not represent their institutions. The Administrative Offices assign individual proposals to the members of the evaluation panel based on the discipline as well as the keywords and summary entered by the applicants. As far as possible, the Administrative Offices take account of individual workloads when assigning proposals.

Each proposal is assigned to at least two referees. Their initial task is to check, evaluate and complete the criteria-based assessments of the external reviewers for the proposals assigned to them. Subsequently, they assess each proposal for which they are responsible. Depending on the funding scheme and the stage of evaluation, the external reviews may be optional or mandatory. If no external reviews are required, the proposals are evaluated on the sole basis of the submitted data.

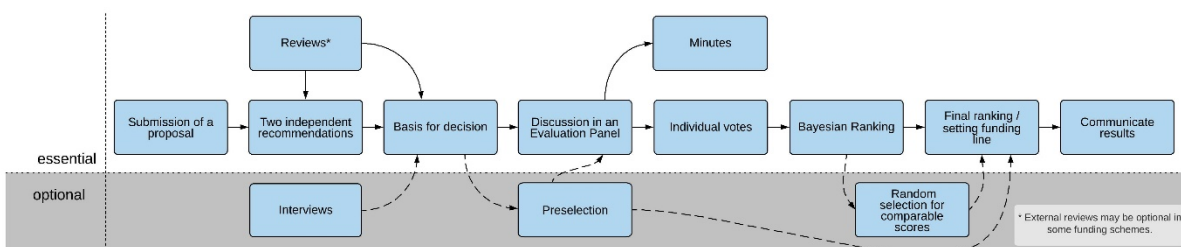
The written and independent recommendations provide the basis for an informed decision in the evaluation panels. If a preselection process is carried out, at least two written and independent referee recommendations are required to determine which proposals will not be discussed in the evaluation meeting.

In case a proposal is rejected, a summary of the reasons is forwarded to the applicant, without disclosing the referees' identities.

3 Evaluation procedure

The SNSF has standardised its evaluation processes to ensure that the evaluation is fair, transparent and efficient. Due to its modular and flexible form, the evaluation process can be applied to all funding schemes and evaluation panels at the SNSF. The evaluation procedure starts with the submission of a proposal to a given call and ends with the communication of the evaluation outcomes to the applicants. Some elements are applied in all funding schemes, whereas others, such as interviews, preselection and random selection are optional. This document focuses on the different steps of the evaluation procedure, from external peer review through to the final decision on which proposals to fund.

SNSF Evaluation Procedure



3.1 The rating scale

Throughout the evaluation process, the following numeric rating scale is used. It provides clear guidance for external reviewers and for members of the evaluation panels on how to grade the proposals. Moreover, it enables the use of statistical procedures to generate a final ranking based on the grades.

Assessment of the proposed research approach

To what extent are the research approach, methodology and organisation sound and convincing? To what extent is the proposed schedule realistic?

To what extent is the level of risk balanced with the anticipated goals of the project? Which are the riskiest and most critical parts of the project that may lead to failures?

Comments * (8000 Characters)	<input type="text"/>
Specific strengths * (4000 Characters)	<input type="text"/>
Specific weaknesses * (4000 Characters)	<input type="text"/>

Please provide a rating on the following scale. Use 5 as the entry point from which to develop your arguments to grade lower or higher.

Rating *

- 9 Strong in all relevant aspects. No or negligible weaknesses.
- 8
- 7 Strong in most relevant aspects. Few clearly identified weaknesses.
- 6
- 5 Strong in several relevant aspects. Some clearly identified weaknesses.
- 4
- 3 Some strengths in relevant aspects. Several clearly identified weaknesses.
- 2
- 1 Few or no strengths in relevant aspects. Many serious weaknesses.

External reviewers and members of the evaluation panels are asked to provide a rating on the numeric rating scale for their criteria-based assessment as well as for their overall assessment of a given proposal. When doing so, external reviewers and members of the evaluation panels are asked to describe the specific strengths and weaknesses. A rating of 5 should be considered as the entry point to the scale, from which arguments to grade a proposal lower or higher should be developed.

Before the evaluation meeting

3.2 External peer review

The external peer review may be optional or not required in some funding schemes.

In the first stage of the evaluation procedure, peer reviews are performed by several external experts ("peer reviewers") who evaluate a proposal in terms of the evaluation criteria specified by the SNSF. For each proposal, at least two external reviews are required.

3.3 Assessment by members of SNSF evaluation panels (referees)

Peer reviews are checked for their usefulness by the responsible referees and weighted accordingly. The most important criteria for usefulness are the comprehensibility as well as the clarity and concreteness of the review texts.

The referees confirm, supplement or critically comment on the reviews by adding their own criteria-based assessment. In doing so, they rate the proposals based on the evaluation criteria and using the numeric rating scale described above.

In the case of a resubmission, the referees assess the extent to which the criticisms of the previous proposal have been taken into account. Any new points of criticism by the external reviewers are weighed against these.

In most funding schemes, the referees also assess whether the requested budget is appropriate. Expenses may be reduced if they are not necessary for achieving the proposed research objectives and doing so does not impact the scientific quality of the research.

Lastly, referees assess the proposal as a whole (overall assessment). In doing so, they grade the proposal on the numeric rating scale and then report their findings to the evaluation panel via written recommendations. The referees base their assessment on the strengths and weaknesses of the proposal and state the most important reasons for their assessment.

Usually, two or more referees assess a proposal (written co-examination). In the event of a rejection, the reasons for the negative assessment of the proposal are communicated to the applicant.

3.4 Two-step evaluation procedures and optional interviews

There are two types of evaluation procedures: one-step and two-step. Two-step procedures are used in some funding schemes (e.g. Doc.CH, Ambizione, PRIMA, Eccellenza), allowing evaluators to carry out a preliminary selection of projects or candidatures during step 1.

- In some funding schemes (e.g. National Research Programmes), short project outlines are submitted initially, and the full research proposals are submitted and evaluated in the same way as in the one-step procedure once they have passed a preliminary selection stage.
- A call for proposals may feature project presentations as part of the evaluation procedure (e.g. BRIDGE or some National Research Programmes).

Unless otherwise specified in the various funding schemes, proposals that are admitted or invited to the second step are submitted to peer reviewers for a criteria-based assessment. The reviews are checked for their usefulness and weighted by the referees responsible. Based on the peer review, the referees in turn submit a written recommendation with their assessment to the evaluation panel. For funding schemes involving an interview or project presentation, the presentation and discussion session with the applicant or project team are also included in the assessment by the evaluation panel.

During the evaluation meeting

3.5 Basis for decisions

The two written and independent recommendations from the referees provide the basis for an informed decision in the evaluation panels. During the evaluation meetings, factsheets for each proposal, containing information on the applicants, the external reviews, the referee assessments, the budget, as well as other indicators (use-inspired, lead agency, etc.) ensure a fair discussion and informed decision on each proposal.

If a preselection process is applied, two written and independent referee recommendations are required to determine which proposals will not be discussed in the evaluation meeting.

3.6 Preselection (optional)

Preselection can be applied across funding schemes to reduce the workload associated with a large number of proposals. The Research Council divisions or Specialised Committees decide whether they will apply the proposed shortened procedure according to the following minimum conditions:

1. **Request for discussion.** The Administrative Offices provide all evaluation panel members with a list of proposals that will undergo the shortened procedure. A short synopsis of the two referee recommendations is added to the factsheet to ensure an informed decision by the panel members. Every member, as well as the Administrative Offices, can request discussion of a proposal.
2. **Number of proposals.** It is recommended that evaluation panels discuss at least 50% of all proposals. Furthermore, the expected funding line should be roughly centred among the discussed proposals. The Research Council divisions or Specialised Committees define and document how to identify the relevant proposals.
3. **Quality.** In general, the preselection process should be applied for uncompetitive proposals of low quality (preselection for rejection).

Applicants are notified in the decision letters if their proposal has been rejected or approved under the preselection procedure.

3.7 Voting

After the discussion of a given proposal, every panel member electronically casts a vote. The panel members are free to choose a grade from the entire scale. During the casting, the individual votes are hidden. The results of the individual votes, including who voted for which grade, are displayed only after all the members have submitted their votes. This ensures a clear, independent vote based on the recommendations made by the referees, as well as on the information displayed and discussed during the evaluation.

It lies in the nature of the individual voting process that no consensus is needed before voting and that not all panel members vote for the same grade. A voting result that reflects the diversity of opinions is also one of the main advantages of the new voting system and a condition for applying the Bayesian Ranking method. However, if individual votes deviate significantly from what has been proposed by the referees and no justification is given, it remains unclear whether the deviating grades are based on valid arguments. Therefore, we propose the following system:

- All relevant arguments are presented before the vote. This also includes a substantially different weighting of the arguments made (e.g. the impact of lower originality in the case of an otherwise sound project).
- No restrictions apply to voting and the whole scale is available to all panel members.
- If votes deviate three or more points from the recommendations made by the two referees (whichever is closest), and the arguments on which these votes are based are not evident, the panel chair may request that the relevant panel members justify their votes once the voting results have been fully disclosed.

After the evaluation meeting

3.8 Bayesian ranking

The individual votes of the evaluation panel members provide the basis for the final funding decision. Ranking proposals based on their average voting grade can be problematic as this ranking does not take into account random fluctuations and other uncertain factors in the evaluation and voting process. Some panel members may not vote on all proposals due to conflicts of interest, not every proposal receives the same number of votes, and some panel members are reluctant to give high grades while others are less strict in their judgements. To account for the different constellations in which votes are cast, Bayesian ranking (Heyard et al., 2021; Lingsma, Eijkemans and Steyerberg, 2009), which is based on a statistical model flexible enough to account for the different constellations, is applied. Bayesian ranking compares each proposal with every other proposal, correcting for random effects to produce a comparative ranking.

3.9 Setting funding lines and random selection

After the content-based evaluation (by the evaluation panel), the funding line is drawn in a separate step based on the final ranking of the proposals and the available financial resources. If the funding line falls within a group of proposals of similar scientific quality, random selection is applied. Random selection groups are defined based on the BR method. Another option is to refrain from funding the entire group of proposals that cannot be further differentiated.

3.10 Final funding decision

The provisional decisions of the Research Council divisions or Specialised Committees are ultimately submitted to the Presiding Board of the Research Council for approval. If the evaluation procedure is deemed to have been correctly followed in all formal, budgetary and regulatory aspects, the Presiding Board approves the provisional decisions, which are then final.

4 Conflicts of interest

Everyone involved in the evaluation procedure - peer reviewers and members of SNSF evaluation panels - are obliged to declare all potential [conflicts of interest](#). Conflicts of interest are already deemed to exist should an outside observer have reasonable cause to suspect partiality in the evaluation.

Such a conflict clearly exists in situations where someone involved in the evaluation procedure has an interest in the outcome of a decision, in particular where the approval or rejection of a proposal may result in an advantage or disadvantage for the reviewer or the referee. Reviewers and referees must refuse a reviewing request or the assignment of a proposal and recuse themselves (withdraw) if they:

- are applicants of the project to be evaluated or are referred to as partners in a cooperation project - in this case, the member of the evaluation panel must withdraw from the entire evaluation procedure of the relevant call;
- currently work or will in the future work in the same institution as the applicant(s);
- have a close family or personal relationship with the applicant(s) (blood relation, related through marriage, partnership, close friendship);
- professionally depend on or compete with the applicant(s), or have done so until recently or will do so in the foreseeable future;
- have published jointly with the applicant(s) in the past five years, with such publication being an expression of close cooperation;
- fulfil other criteria that cast doubt on their impartiality.

In accordance with good scientific practice, evaluation panel members with a conflict of interest must refrain from all interaction with peer reviewers, other panel members and applicants throughout the evaluation process.

5 DORA (Declaration on Research Assessment)

In an effort to ensure a fair and transparent review process and apply it rigorously, the SNSF is optimising its evaluation procedure. These measures support the [Declaration on Research Assessment \(DORA\)](#), which recommends that funders explicitly set out the criteria used to evaluate the scientific productivity of applicants. DORA promotes the view that scientific quality across a researcher's entire output is much more important than publication metrics or publishing in a prestigious journal. The SNSF signed DORA in 2014.

DORA recommendations for funding agencies:

- Be explicit about the evaluation criteria applied.
- Scientific quality of research output counts.
- Do not rely on journal-based metrics or the reputation of the journal (impact factor or H-index).
- Consider the value and impact of all research outputs (such as datasets, software, patents).