

Call for proposals: Evaluation of the Unified Evaluation Procedure and the CV format

The Swiss National Science Foundation (SNSF) invites tenders for analysing the adoption and implementation of the Unified Evaluation Procedure (UEP) and the new CV format in its evaluation procedures.

The unified evaluation procedure and the new CV format significantly changed the SNSF evaluation process in aiming to harmonize processes and to remove the use of a wide range of formats and methods across all SNSF funding instruments. While both changes were informed by evidence and aimed to reflect international best-practice, the SNSF wants to evaluate their implementation; to gain a better understanding of the acceptance and the use of the two measures in the scientific community; and to determine if they are fit for purpose in helping the SNSF to meet its responsibilities in funding research of the highest international excellence. The results will serve as a basis for the SNSF for the future development of the two measures.

1 Background

Mandated by the Federal Government, the Swiss National Science Foundation (SNSF) supports basic science in all academic disciplines, from history to medicine and the engineering sciences. The SNSF aims to be a funding body that funds excellent research. It therefore sets itself very high standards in terms of the quality, independence and fairness of its evaluation procedures. In addition, as a signatory of the DORA declaration and as a member of the Coalition for Advancing Research Assessment, the SNSF is committed to the assessment of the quality of research and researchers that recognizes the diverse outputs, practices and activities, supported by responsible use of quantitative indicators where appropriate. Accordingly, the SNSF has introduced two measures to improve the evaluation process, one being the Unified Evaluation Procedure (UEP; introduced in 2022) and the other being the new standardized CV format (introduced in autumn 2022).

UEP relies on four central elements consisting of (i) an individual voting system where each panel member casts an anonymous vote in the panel, supported by (ii) a single linear numeric rating scale, (iii) a strict separation of the scientific evaluation from the funding decision, and (iv) the possibility to apply a random selection if proposals cannot be differentiated by evaluation criteria. The central aim of UEP is to ensure quality and efficiency across the various funding instruments at the SNSF.

Evaluating the track record of researchers is an integral part of the scientific assessment at the SNSF. However, the structure and content of CVs submitted to the SNSF was very heterogeneous and often times contained citation metrics, journal rankings, institutional rankings, or other proxy indicators of scientific quality, which was suboptimal for an equal and fair comparison of applicants and which often allowed non-DORA compatible evaluations (e.g. counting of publications) The new CV format aimed to provide information about career trajectory, academic age and major achievements in a standardized structure, with a focus on information pertinent to the assessment of the applicants status and standing



as a researcher. The aim was that the new CV format would increase DORA-compliance and to focus on the actual work of an applicant - its content and quality - rather relying on quantitative metrics in respect to the research outputs. These standardized and transparent ways of showcasing researchers' qualifications and achievements, these types of CVs aim to remove potential biases and barriers that could hinder the recognition and funding of talented individuals from diverse backgrounds. Additionally, by emphasizing the quality and impact of research rather than relying rather on traditional metrics, structured CVs with a focus on quality aim to contribute to a more holistic evaluation process that values the unique contributions and perspectives of researchers from different backgrounds and disciplines and have the long-term and overarching aims to foster a more inclusive and equitable research system.

2 Scope

Regarding UEP, a comprehensive assessment is essential, encompassing a thorough examination of the strengths and weaknesses of its individual modules as well as the effectiveness of the interaction of these elements within the entire evaluation process, across different funding instruments and panel systems. Key points that would enhance the efficiency and the effectiveness of the UEP should be identified. Importantly, input from evaluators and applicants should be sought on the UEP in general, on the four core elements identified above as well as specifically on the transparency of the evaluation process. The analysis should assess the efficacy of the combination of the rating scale, the individual voting system (every panel member casts a vote) and the Bayesian method to establish the final ranking from the individual panel member scores. In more detail, the analysis should scrutinize aspects such as the range of scores given, differences in scoring behavior among panel members, and the calibration of the scale to ensure consistency. Furthermore, voting patterns and differences between panel and referee votes should be investigated. Adequate attention should be given to how the UEP, including the scale, is introduced to panel members and external experts, and whether there is sufficient training provided in its application.

As for the CV format, it will be important to assess the usability of the CV format from the perspectives of both applicants and reviewers and it should focus primarily on whether or not the CV is fit for the purpose of evaluating applicants in ways that are compatible with the SNSF's stated policies, notably DORA. This should include assessment of the different CV elements, how the format aligns with international practices and if it is understood and adhered to by applicants, taking into account various factors, such as career stage, research discipline, research institution, etc. In addition, the analysis should investigate how and why applicants choose which elements to include in their CVs and which to omit, as well as how reviewers (external reviewers, panel members and research councilors) utilize the new CVs and how their evaluation experience differs based on more traditional CVs. This should go along with an examination of the range of cited outputs and achievements in the narratives and the works section to get a better understanding of the breadth of the selected researcher's contributions. Analyses related to the overarching goals are not in the scope as a thorough examination of the content and utilization of the new CV format has to be conducted first. Only after examining how applicants engage with the SNSF CV format and how evaluators incorporate it into their assessments can the potential impacts on its broader goals within the research community be assessed.



For both topics a wide range of funding instruments and calls need be included into the analysis to encapsulate the diversity of the scientific communities and the SNSF funding portfolio.

3 Objective

The objective of this study is to draw conclusions regarding the concept, implementation and use of the UEP and the standardised CV, and to propose actions for (i) further support of the aims of the two measures and for (ii) correcting gaps and weaknesses. Appropriate methods and analyses will need to be applied in order to address the following points (in the context of the above-mentioned scope):

Effectiveness Assessment	The evaluation should determine the extent to which the new measures have contributed to their intended goals within the first two years after implementation. It aims to answer questions about whether the measures are achieving their desired outcomes and producing the expected (short-term) results, including whether or not they are fit for purpose.
Identify Strengths and Weak- nesses	The evaluation should identify the strengths and weaknesses of the new measures and of their implementation. This includes identifying aspects that are working well and areas that require improvement or adjustments.
Identify Barriers and Facilitators	The evaluation should (i) identify the factors that facilitate or hinder the successful implementation or uptake of the measures and (ii) assess the usability of the two measures among applicants and evaluators. Understanding these barriers and facilitators can help inform strategies for modifying and improving them.

The proposal should therefore address the following points:

- Identification of relevant metrics and indicators, aligned with the state of the art.
- Data collection and survey methods: External partners should use appropriate evaluation methods
 and tools that align with the evaluation objectives. This will include a combination of quantitative
 and qualitative approaches to capture various aspects of the implementation process and its impacts.
- Validity and Reliability: The evaluation findings should be valid and reliable, based on robust data
 collection and analysis methods. The evaluation team should ensure that the data collected accurately reflects the reality of implementation; that the analysis is consistent; and that it is sufficiently
 inclusive, in-depth and that it is trusted by the SNSF community (applicants, reviewers, panel members and scientific officers).
- Definition of outcomes: The evaluation should provide actionable recommendations and insights
 that can inform decision-making and improve future implementations. The findings should be relevant, practical, and aligned with the needs of the SNSF.
- Sample size consideration and statistical power.

3.1 Guiding questions

The following questions can guide the interested parties in drafting their proposal and in selecting the appropriate methods:



Unified Evaluation Procedure:

- How do evaluators assess the usability and suitability of the UEP across funding instruments, panel systems, and disciplines?
- Are suitable trainings and guidelines available for panel members and external reviewers?
- Are there weaknesses and can the UEP be made more effective and efficient?
- How is the rating scale used across evaluation panels (range of the scale used, differences between panel members, calibration, etc.)?
- Does the rating scale have appropriate granularity and guidance?
- Are there patterns in the scoring data (voting patterns in panels, difference between panel votes
 with referee and external reviewer scores, correlations with parameters such as proposal budgets)?
 If so, what are the potential reasons and effects?
- To what extent does the individual voting system contribute to the effectiveness of the evaluation process by itself and in combination with the rating scale and the Bayesian ranking method?
- Has the scientific evaluation been successfully separated from the funding decision?
- Are the random selection groups of appropriate size?
- How do applicants rate the transparency of the whole UEP, including the random selection?

CV format (see also Strinzel et al., 2022¹ for more background on the CV):

- To what extent does the CV format as conceived by the SNSF compare with current international practices?
- How do applicants evaluate the usability of both the CV format and its individual elements, and what are the reasons behind their assessments?
- How do applicants rate the clarity and usefulness of the guidelines and instructions provided by the SNSF?
- How and why do applicants choose achievements and works from their career to highlight them in the CV?
- Which elements do applicants omit, despite their potential usefulness for evaluation and why?
- What is the range of types of achievements and works mentioned in the CV?
- Are there gender-, discipline-, funding instrument-, academic age-specific effects on the content and self-representation of researchers in the CV?
- How do evaluators (external experts, panel members, research councilors) find the usability of both the CV format and its individual elements (major achievements, net academic age, ORCiD, etc.), and what are the reasons behind their assessments?
- How does the evaluators' experience with the SNSF CV differ from other scientific evaluations that rely on traditional CVs or other narrative CVs?
- Are the CV elements and additional relevant information in the application (e.g. in the research plan) suitable for assessing the scientific qualifications of the applicants (taking into account funding-specific criteria) both in conducting high quality research and in conducting the proposed project?

¹Strinzel, M., Kaltenbrunner, W., Weijden, I. van der, Arx, M. von, & Hill, M. (2022). SciCV, the Swiss National Science Foundation's new CV format (p. 2022.03.16.484596). bioRxiv. https://doi.org/10.1101/2022.03.16.484596



4 Deliverables, schedule, budget and further information

4.1 Deliverables and timing

The SNSF will review the tenders and issue the mandate in April 2024. A project start is aimed for beginning of May 2024. Regular informal meetings and close collaboration with SNSF, as well as information on progress is mandatory for the whole duration of the project.

Deliverables

- Report (max 40 pages, unless justified and addressed during the project), including executive summary (max 2 pages),
 - conclusion (max 2 pages), and a
 - _set of recommendations for the UEP and CV
 - _annex for supplementary material (not included in the page count)
- · Presentations of the results and report to the SNSF
- Underlying datasets; prepared and documented according to FAIR principles, ready to be shared on a data repository²

Expected Timeline

- Beginning of May: Start of mandate, kick-off
- Mid-May: Final study design, data collection instruments and methods, defined milestones
- Mid-June: Progress update
- Mid-August: Progress update
- Beginning of October: Draft report and presentation
- End of October: Final report
- December: Consultation meeting SNSF Presiding Board

4.2 Budget

The SNSF sets a maximum budget of CHF 150'000 for all work/tasks described in this call for tenders. A cost ceiling will be agreed upon for the execution of the work.

4.3 Available data

Besides the generation of new data for certain tasks, the evaluation shall be carried out on existing data. Please consult the annex for an overview on the types of data, which will be provided by the SNSF.

4.4 Qualifications expected

Tendering groups should have documented expertise and experience in complex data analyses, in the conduct and analysis of surveys and semi-structured interviews, and a good overview on current international research assessment developments and trends, especially on the topics of evaluation procedures and structured narrative CVs.

² See for example: von der Heyde 2019a, 2019b, 2019c



4.5 Selection criteria

The tenders shall be evaluated according to the following criteria:

- General quality of proposal;
- · Scope of services;
- · Focus and plausibility of the methodology proposed;
- In-depth knowledge of statistical analyses, methodological approaches, surveys and interviews;
- · References based on previous projects;
- Competences and in-depth knowledge of the team in the thematic area of research on research;
- · Cost efficiency.

4.6 Conflict of interest

In order to avoid conflicts of interest, members SNSF bodies are excluded from submitting an offer and from collaborating in a team implementing the proposed study. The tender issuer will make a corresponding declaration in the contract.

4.7 Tender

Interested parties are requested to indicate by 16.03.2024 whether they wish to submit a tender. Letters of intent can be sent to evaluation@snf.ch.

Tenders must be submitted in writing by 02.04.2024 to evaluation@snf.ch.

They should include:

- Approaches and methods, including sampling, data collection approaches, surveys, semi-structured interviews, etc.
- Practicalities of study execution and data collection to be considered, including comments on expected response rates.
- Information and resources required from the SNSF
- Conditions of cooperation between eventual project partners: respective roles in study design, communication, reporting etc.
- A timeline, including availability in respect to the timing mentioned under 4.1. and milestones
- Budget, structured according to subtasks/analyses, with hourly rates and cost ceiling.
- Presentation of project team, references, project portfolio.

Compelling offers will be invited for an interview. The interview will last a maximum of 45 min, including presentation, questions and discussion. Interviews will be online and will take place on the morning of April 15, 2024. The final decision will be communicated by April 22, 2024. This invitation for tenders will be re-issued if proposals are insufficient in number or content.

4.8 Contact

For further information please contact:

- Janine Bühler, contact point UEP, janine.buehler@snf.ch, Tel. +41 308 22 98
- Martin von Arx, contact point CV, general inquiries, martin.vonarx@snf.ch, Tel. +41 31 308 21 89



5 Annex

5.1 Available data

In addition to the generation of new data for certain tasks (for example from surveys), the evaluation shall be carried out on existing data. Here is an overview of the available data, which can be provided by the SNSF in anonymous form (if deemed necessary according to the study design proposed by the bidding party; additional data requests can be discussed together with the SNSF later in the tender evaluation process).

Unified Evaluation Procedure

- General data about proposals
- Anonymized data about reviewer and referee grades per proposal
- Outcome/status per proposal (funded, rejected, preselection, random selection group)
- Data on individual proposals such as disciplines, budget, and corresponding evaluation panel.
- Documents about evaluation preparation guidelines

5.1.1 CV format

- Individual data on applicants and their respective CVs
- Content included in the section "Major Achievements"
- Types and numbers of "Works"
- Contact data of applicants, external experts and panel members

5.2 General information

The following (non-exhaustive) information may be helpful for submitting a tender as well as for conducting the evaluation.

5.2.1 About the SNSF in general

- SNSF Website: http://www.snf.ch/en/Pages/default.aspx
- Mission Statement of the SNSF: http://www.snf.ch/en/theSNSF/profile/mission-state-ment/Pages/default.aspx

5.2.2 About the Unified Evaluation Procedure

- SNSF Evaluation Website: https://www.snf.ch/en/6cs2wnfJtcfFDL6o/page/evaluation-procedure
- Guidelines for reviewers and referees: https://www.snf.ch/media/de/Zp5e2ubmtSKEEYYz/snsf-guidelines-for-reviewers-and-referees.pdf
- Fact sheet Unified Evaluation Procedure: https://www.snf.ch/media/de/aabREb-voVD287rKr/UEP Factsheet.pdf
- Heyard R., Ott M., Salanti G.& Egger M. (2022) Rethinking the Funding Line at the Swiss National Science Foundation: Bayesian Ranking and Lottery, Statistics and Public Policy, 9:1, 110-121, DOI: 10.1080/2330443X.2022.2086190

5.2.3 About the CV format:

SNSF CV Website: https://www.snf.ch/de/gKcnwW6aEft4bMPF/seite/ihr-lebenslauf-alles-zum-cv-format



- Fact sheet SNSF CV format: https://media.snf.ch/8dHT6CwXAd5JLY8/CV Factsheet Final.pdf
- Report SNSF CV pilot project: Strinzel, M., Kaltenbrunner, W., Weijden, I. van der, Arx, M. von, & Hill, M. (2022). SciCV, the Swiss National Science Foundation's new CV format. bioRxiv. https://doi.org/10.1101/2022.03.16.484596
- Other initiatives related to narrative CVs:
 - _Shared Evaluation Framework: Joint Funders Group, & Alternative Uses Group. (2023). Résumé for Research and Innovation (R4RI)-like narrative CV: Shared Evaluation Framework (2.0). Zenodo. https://doi.org/10.5281/zenodo.8060614
 - _Luxembourg National Research Fund CV reports: <u>https://www.fnr.lu/narrative-cv/#report-onimple</u>
 - _Research on Research Institute "Narratives"-project: https://researchonresearch.org/project/narratives/ (SNSF is among the project partners)