Swiss Research Infrastructures Roadmap 2019: scientific evaluation

1. Aim and scope

In view of the next ERI Dispatch 2021-2024, the State Secretariat of Education, Research and Innovation (SERI) prepares a “Swiss Roadmap for Research Infrastructures 2019” (Roadmap 2019). The SERI has defined a procedure to select research infrastructures (RI) that are included in the Roadmap 2019. The first of the three stages of the procedure is completed: a strategic pre-selection of potential new RI or major upgrades of RI by the responsible bodies (ETH Board and swissuniversities).

The scientific coordinators of the RI selected are eligible to submit full applications to the second stage of the selection procedure: the scientific evaluation performed by the SNSF. The present document describes this second stage.

The third and last evaluation step will cover an in-depth analysis of the feasibility and funding for the ERI budgetary period 2021-2024. More details on this last stage are again on the SERI website.

2. Eligibility

Only research teams of applications with a positive first stage assessment are eligible. The responsible bodies (ETH Board and swissuniversities) informed the corresponding research teams.

3. Legal framework

The SERI mandated the SNSF to conduct the scientific evaluation of the applications with a positive first stage assessment. The mandate is based on the Federal Act on the Promotion of Research and Innovation (RIPA; SR 420.1), the corresponding ordinance (V-FIFG; SR 420.11), the service level agreement 2017-2020 (Item 4 in the annex: “Research Infrastructure”) as well as the following documents elaborated by the involved partners (SNSF, ETH-Board and swissuniversities):

4. Applications and their submission

4.1 Formal requirements

All application documents must be written in English with 11 pt font size and 14 pt line spacing.

Submission of project plans is possible as of 1 November 2017 until the deadline of 8 January 2018 (17:00 Swiss local time).

One member of the leading research team acts as its scientific coordinator. The scientific coordinator contacts the SNF via email: supportIR2019@snf.ch and receives further technical instructions on the submission of the research infrastructure project plan.¹

The project plans must be in accordance with the requirements stipulated by the SNSF and contain the following data and documents:

- Letter of commitment from host institution
- One-page summary description of the new RI
- 2-page CV and a 2-page short list of major scientific achievements of each member of the leading research team; research output list of the last five years (s. guidelines)
- Details regarding the following points (maximum 10 pages)

1. Scientific relevance, state of the art and potential

Scientific relevance of the RI for future research developments and trends in the national and international context taking into account the existing RIs.

2. Uses, functions, access

Direct and prospective users (please detail institutions and research fields, as well as the access policy of the new RI).

3. Scientific feasibility

Potential scientific collaborations and appropriateness of the scientific management and leadership in line with planned infrastructure goals.

Additionally, the following documents must be submitted:

- a 1-page description of finances (use table “Cost Estimate & financing scheme”)
- a 5-page description of planning, governance and management, and finances evaluated by responsible body (except for feasibility which is evaluated by both, the SNSF and responsible body)

¹ In mySNF, the scientific coordinator corresponds to the role of the responsible applicant. All other members of the leading research team act as further applicants. All research team members need an individual mySNF user account.
5. **Procedure and evaluation criteria**

5.1 **Procedure**

The SNSF sets up an international panel and a steering committee.

*Panel.* The administrative office and the National Research Council of the SNSF identify candidates for the Panel based on the fields of the applications with a positive first stage assessment. The Presiding Board of the SNSF approves the candidate list. Subsequently, the administrative office sets up the Panel based on this list and the availability of the international experts.

*Procedure.* Each application is assigned to two members of the panel who act as Referee and Co-Referee, respectively. The Referee and Co-Referee independently write a recommendation and propose a rating (A, B, C) according to the criteria listed in section 5.2 and on the basis of

- the submitted project plan documents
- at least two external reviews
- an overview of existing infrastructures in Switzerland (Landscape Analysis)
- the ESFRI analysis

During the Panel Meeting, the Referee and Co-Referee present their recommendation. The Panel and the steering committee then discuss and either accept or modify the recommendation during the meeting. If a consensus is not possible, a decision is taken by a majority vote. In the case of equality of votes, the chair of the Panel has a second vote.

The Panel submits its final recommendation to the Presiding Board of the National Research Council which in turn takes the final decision on all ratings. The SNSF reports the ratings to the SERI and the SERI communicates the results of the second evaluation stage to swissuniversities and the ETH Board.

*Steering Committee.* The steering committee is composed of up to nine members of the Research Council and approved by the Presiding Board of the SNSF. The steering committee members are present in the Panel Meeting and act as observers and advisors. The focus of the advisory role is twofold:

- provide specific knowledge about the situation of the research landscape in Switzerland ("contextualization") and
- ensure that SNSF evaluation standards are respected (e.g. DORA).

5.2 **Evaluation criteria**

The main criteria considered in the scientific evaluation are the

- scientific quality of the research infrastructure and the
- scientific qualification of the researchers involved.

The scientific evaluation also includes scientific relevance for research in Switzerland, feasibility, accessibility and added value/use.
In the following, the scientific evaluation criteria are explained in more detail.

Please refer explicitly to these criteria in the research plan.

**a. Quality**

- *of the infrastructure* (where applicable): To what extent does the infrastructure correspond to the state of the art in research and development in terms of its conceptual, methodical, technical and logistical aspects?
- *of the research*: To what extent are the research questions and approaches that can be tackled via the infrastructure scientifically significant and original? To what extent would added value be generated compared with research already in progress?
- *of the researchers involved*: To what extent do the track records and specialist expertise of the researchers demonstrate that the infrastructure in question will be used for high-quality research?

**b. Scientific relevance**: How does the proposed infrastructure fit into existing RIs (national and international? Does it contribute to the visibility of research in Switzerland? Will it raise the profile of a field nationally and/or internationally? What is the degree of networking and critical mass? To what extent is there an immediate need for the requested infrastructure, based on scientific issues, questions and projects? What is the added value compared to existing research?

**c. Access and user groups**: Will it be accessible and available for a significantly large research community? (please estimate the number of potential users and their sector of activity; briefly describe the policy in terms of access costs, access priority, and selection of users)? How did the research community participate in the development of the proposed RI? Does the RI meet open access (National Open Access Strategy Schweiz D / F / E)? What is the policy of the RI regarding Open data? Which are the main target groups?

**d. Scientific feasibility** *(cf. the submitted 1-page description of finances and the 5-page description of planning, governance and management, and finances):* How do you assess the leadership capabilities (scientific and managerial skills) of the management? Are the deliverables and milestones plausible from a scientific perspective? Are the technical, logistical, financial conditions in line with the proposed infrastructure?

### 6. Timeline

<table>
<thead>
<tr>
<th>When</th>
<th>What</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2017</td>
<td>Election of the panel members by the steering committee</td>
</tr>
<tr>
<td>8 January 2018</td>
<td>Submission deadline</td>
</tr>
<tr>
<td>February/March 2018</td>
<td>External reviewing procedure</td>
</tr>
<tr>
<td>April 2018</td>
<td>Panel meeting</td>
</tr>
<tr>
<td>June 2018</td>
<td>SNSF Presiding Board decides on approval of the RI evaluation</td>
</tr>
<tr>
<td>August 2018</td>
<td>SNSF submits final report to SERI</td>
</tr>
</tbody>
</table>
7. Contact

Please use the following contact for all questions concerning the scientific evaluation performed by the SNSF.

E-Mail  supportIR2019@snf.ch

Katharine Weder  
Humanities and Social Sciences division  
Phone +41 31 308 23 09

Marc André Türler  
Mathematics, Natural and Engineering Sciences division  
Phone +41 31 308 24 14

Barbara Schellenberg  
Biology and Medicine division  
Phone +41 31 308 22 87