

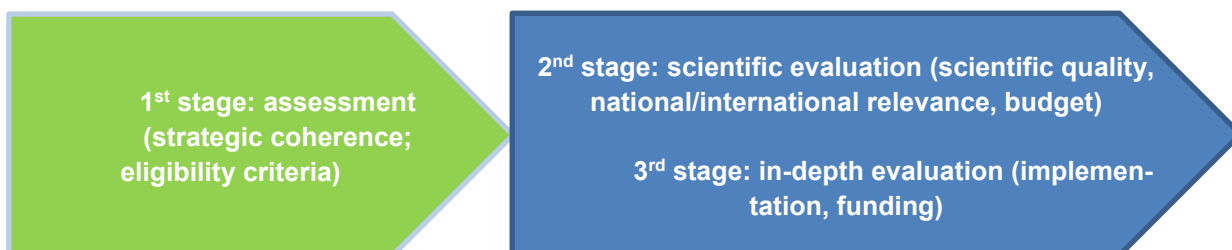


FORM FOR SUBMISSION OF APPLICATIONS FOR SWISS RESEARCH INFRASTRUCTURES ROADMAP 2023

Preface

The evaluation procedure for **national project applications** for the Swiss Research Infrastructures Roadmap 2023 (CH RI Roadmap 2023) is realized in the following three stages:

1 st stage: assessment by the responsible bodies (Phase 1)	Mar-Dec 2021
2 nd stage: scientific evaluation by the SNSF (Phase 2)	Jan-Jul 2022
3 rd stage: in-depth evaluation by the responsible bodies (Phase 3)	Jul-Dec 2022



In the first half of 2021 the responsible bodies (ETH Board, swissuniversities) will conduct a survey of applications for new research infrastructures or substantial upgrades to existing infrastructures in their area of competence. Submissions consist of a two-page summary and presentation of formal requirements (Ch. 3.1 of the guidelines (in [German](#), in [French](#)), see reference document). Project summaries will be reviewed to check that they fulfil the formal requirements and that the new infrastructure or the substantial upgrade is coordinated with the strategic plans of the higher education institutions and of the research institutes in the ETH Domain involved (Phase 1). The outcome of the review will lead to a preliminary selection of research infrastructure projects, which will be evaluated at greater length under the National Roadmap process (Phases 2 and 3).

The responsible bodies will notify the scientific coordinators of the selected research infrastructure and invite them to submit a full application of the planned new research infrastructure or substantial upgrade to an existing infrastructure. This template sets out the requirements in Phases 1 to 3 for national projects. For **international project applications** see Part 1B.

Reference document:

- All relevant information is given in the SERI guidelines for the Swiss roadmap, see <https://www.sbf.admin.ch/sbf/en/home/research-and-innovation/research-and-innovation-in-switzerland/uebersicht-forschungsinfrastrukturen.html>.

Short Guide

- The responsible bodies (ETH Board or swissuniversities) provide the relevant information to SERI in the 1st assessment stage (selection of RIs eligible for the second stage).
- The scientific coordinator submits the RI application via mySNF. Application via mySNF can be submitted from 1.11.2021 to 31.12.2021.

PHASE 1	WHO	TIMELINE	PAGE
Part 1A: New national infrastructures			
Pre-information for <u>national</u> research infrastructures	Responsible body to SERI (pre-information, project titles*) The scientific coordinator has submitted to the responsible body (ETH board or swissuniversities) according to internal deadline	ETH Board: 31.08.2021 swissuniversities: 30.09.2021	4-5
Outcome 1 st assessment stage	Responsible body to SERI The scientific coordinator has submitted to the responsible body (ETH board or swissuniversities) according to internal deadline	01.11.2021	6
Mandate to SNSF (scientific evaluation of national projects)	SERI to SNSF	Sept. 2021	7
Part 1B: New international infrastructures			
Information for <u>international</u> research infrastructures	Scientific coordinator to SERI directly (pre-information, project titles*)	31.08.2021	8
Submission for international research infrastructures	Scientific coordinator to SERI directly (specific template for international infrastructures)	31.12.2021	8
Mandate to SNSF (statement on participation to international projects)	SERI to SNSF	Sept. 2021	8

* This information is needed to prepare the SERI mandate to SNSF (scientific evaluation of national infrastructures and statement on international infrastructures)

PHASE 2 and 3 via <i>mySNF</i>	WHO	TIMELINE	PAGE
Part 2: Scientific evaluation			
Submission for scientific evaluation	Scientific coordinator to SNSF via <i>mySNF</i>	31.12.2021	9-11
Start of the SNSF evaluation	SNSF	01.01.2022	12
Outcome scientific evaluations (national projects) and statements (international participations)	SNSF to SERI	15.07.2022	12
Part 3: Implementability and Financing Scheme			
Submission for implementability and financing scheme	Scientific coordinator to SNSF via <i>mySNF</i>	31.12.2021	9, 13-15
Outcome evaluation of feasibility	Responsible body to SERI	31.12.2022	16

Part 1A: New national infrastructures

The general information in Part 1A allows the responsible bodies to conduct an eligibility check, to summarize the outcome of their 1st assessment stage and to inform SERI about the content of the project. It consists of three subparts:

- 1) General information for national research infrastructures
- 2) Outcome of 1st assessment stage
- 3) SERI mandate for the scientific evaluation to SNSF

1) General information for national research infrastructures

The responsible bodies transmit **the two-page summary to SERI and add a cover page with the following information:**

NAME

- FULL NAME OF THE RI
- ACRONYM

TYPE

- SINGLE-SITE
- DISTRIBUTED

CLASS

- MAJOR UPGRADE OF EXISTING RI
- NEW RESEARCH INFRASTRUCTURE

SCIENTIFIC COORDINATOR AND INSTITUTIONS INVOLVED

Please provide details of the scientific coordinator in Switzerland responsible for preparing the RI application:

- NAME MAIN INSTITUTION
- NAME OTHER INSTITUTIONS INVOLVED
- CONTACT SCIENTIFIC COORDINATOR
- EMAIL & TELEPHONE

PLANNED LIFECYCLE

Indicate the timeline of the lifecycle of the RI:

- DESIGN FROM <YYYY> TO <YYYY>
- PREPARATION FROM <YYYY> TO <YYYY>
- IMPLEMENTATION (INVESTMENT): FROM <YYYY> TO <YYYY>
- OPERATION: FROM <YYYY> TO <YYYY>

FOR RI IN THE DOMAINS OF BIOLOGY, CHEMISTRY, GEOSCIENCES, PHYSICS:

Please indicate if the proposed infrastructure is listed on the corresponding roadmap of the scientific communities published by the Swiss Academy of Sciences (SCNAT).

Structure of two-page summary (Phase 1, national infrastructures)

1. Abstract
2. Description of the RI
 - 2.1 Strategic relevance / coordination with the strategic planning of the responsible body and feasibility
 - 2.2 National and international importance (including national and international collaborations and national and international context, differences with existing RI)
3. Financial overview (please also specify costs for 2021-2024 if applicable)

I. Cost estimate (Millions CHF)	2021-2024	2025-2028	2029-2032	Later (specify)
a. Investments				
b. Operating costs				
c. Other costs				
Total costs (sum a through c)				

See also page 15 regarding special support through Art. 47, para. 3 HEdA.

2) Outcome of 1st assessment stage

The responsible bodies (ETH Board, swissuniversities) summarize the outcome of the 1st stage assessment for every national research infrastructure project.

RESPONSIBLE BODY

- NAME BODY
- LEGAL REPRESENTATIVE
- NAME AND ACRONYM OF RI
- EMAIL & TELEPHONE

ELIGIBILITY CRITERIA

Demonstrate that the proposed RI complies with the formal eligibility criteria (criteria B1-B3 for German version or criteria C1-C3 for French version, chap. 3.1 Guidelines (in [German](#), in [French](#)) for Swiss Roadmap)

COHERENCE WITH STRATEGIC PLANNING

Demonstrate the coherence of the proposed RI with the strategic planning

FINANCIAL COMMITMENT

Submit letter of support for financial commitment by the leading institution

DATE AND SIGNATURE

Insert date, place and signature of the outcome of the 1st stage assessment:

- <DD><MM><YYYY>
- <PLACE>
- <SIGNATURE>

3) SERI Mandate for scientific evaluation to SNSF

SERI mandates the SNSF to execute the scientific evaluation of new national projects.

MANDATE

Description of the mandate

The SNSF will perform a scientific evaluation according to the criteria set out below. In addition the SNSF write will a comment on the budget in terms of its plausibility.

CONTEXT INFORMATION

Summary with context information

DATE AND SIGNATURE

Insert date, place and signature of the decision of SERI:

- <DD><MM><YYYY>
- <PLACE>
- <SIGNATURE>

Part 1B: New international infrastructures

The State Secretariat for Education Research and Innovation (SERI) is responsible for the international infrastructure projects for which membership at the level of a State is foreseen. Swiss participants submit information directly to SERI (SERI will inform the responsible bodies). Part 1B consists of two subparts:

- 1) *General information for international research infrastructures*
- 2) *SERI mandate to SNSF for a statement about the importance of a Swiss participation*

1) General information for international research infrastructures

To bid for a consideration in the Swiss Research Infrastructures Roadmap 2023, participants in international infrastructure projects for which membership at the level of a State is foreseen must submit an application to SERI. A formal letter of support from the home institution of the participants to SERI shall be enclosed. However, those participants having joined an international bid for a consideration in the ESFRI Roadmap on the basis of an Expression of Support issued by SERI only need to enclose this Expression of Support.

The Swiss National Science Foundation (SNSF) will make a statement (SERI mandate to SNSF, see below) on the strategic importance of a Swiss participation in the international infrastructure. Depending on the availability and quality of the scientific evaluation already performed at international level, for instance in the ESFRI Roadmap context, it will be decided on a case-by-case basis whether there is a need to ask the SNSF to perform a full scientific evaluation in addition to the assessment of the importance of a Swiss participation. On its side, SERI will assess the political priority and feasibility of the international infrastructure. Only infrastructures with the highest scientific importance according to the statement from the SNSF and a positive assessment by SERI on the political feasibility will be listed on the Swiss Research Infrastructures Roadmap 2023.

Pre-information to be submitted to SERI until 31.08.2021:

- Project title
- Short description (1 page)

Information to be submitted to SERI until 31.12.2021:

- Proposal Questionnaire Part A for ESFRI Roadmap
- Specific template for international infrastructures (contact the SERI for this template).
- Formal letter of support to SERI from the home institution of the applicant (or Expression of Support already issued by SERI, if available).

2) SERI mandate for statement about the importance of a Swiss participation to SNSF

The SERI mandates the SNSF to make a statement about the importance of a Swiss participation in the international infrastructure.

This mandate will be part of the SERI mandate to SNSF as described under Part A 3) above.

Overview full application (Part 2 and Part 3)

Content

Scientific coordinators whose RI projects were selected by the responsible body after the 1st stage will submit a full application with the following content on *mySNF*:

- | | |
|---------------|--|
| Part 2 | <ol style="list-style-type: none">1. Letter of commitment from each participating institution (one single PDF with all letters)2. 2-page CV and a 2-page short list of major scientific achievements3. Research output list of the last five years of the scientific coordinator4. 1-page summary description of the new RI5. 10-page in-depth description of the research infrastructure with focus on scientific relevance, uses, functions and access as well as scientific feasibility (see p10-11 for structure and assessment criteria) |
| Part 3 | <ol style="list-style-type: none">6. 5-page description with focus on planning, governance and management, and finances of the research infrastructure (see p.13).7. 1-page description of finances (use table “Cost estimate & finance scheme”) |

→ ***The SNSF (Phase2/Part 2) will evaluate scientifically the application (documents 1-5) and comment on the budget (document 7). The responsible bodies (Phase3/Part 3) will examine the implementability of the project (documents 6 and 7). Please note that in Phase 2 all documents 1-7 are available to SNSF. Similarly, in Phase 3 all documents 1-7 are available to the responsible bodies.***

Who can apply?

The SNSF only considers applications with a positive 1st stage assessment by responsible bodies (ETH Board, swissuniversities).

How to apply?

Applications must be submitted by the scientific coordinators via the web platform of the SNSF (www.mySNF.ch).

Where to apply?

The applications must be submitted via the mySNF platform by **31 December 2021**. Submissions will be possible as of 1 November 2021 (Roadmap RI 2023).

All documents must be written in English. Please use 11 pt as font size and 14 pt as line spacing.

Part 2: Scientific Evaluation

This Part 2 serves for the 2nd stage scientific evaluation of the proposed RI by the SNSF and consists of two sub-divisions:

- *Part 2.1: Application and evaluation on scientific quality (excellence), user groups and access, and national (and international) relevance to be completed by the scientific coordinator. This part has to be completed at the same time as part 3.1*
- *Part 2.2: Outcome of 2nd stage scientific evaluation and recommendation on budget to be completed by the SNSF.*

Part 2.1: Application and evaluation on scientific quality (excellence), user groups and access, and national (and international) relevance

Application specifications

- **Letter of commitment from each participating institution**
- **CV and major scientific achievements of leading research team; research output list** (see guidelines in [German](#) or [French](#)).
- **One-page summary description of the new RI**
- **Details regarding the following points** (maximum 10 pages)
 1. **Quality of the infrastructure and research**
 2. **National and international scientific relevance and future potential**
 3. **Users and access**
 4. **Scientific feasibility**

Procedure and assessment criteria

Procedure

The ETH Board and swissuniversities will inform the SNSF and SERI no later than **1 November 2021** about the subject areas and the respective numbers of approved 1st stage projects (keywords).

The SNSF will set up an expert panel.

For the scientific evaluation, each application will be assessed on the basis of external reviews (2-4 reviews) and in comparison with the other applications. The evaluation panel will rank each application (A, B, C). This ranking will be approved by the Presiding Board of the National Research Council.

The SNSF writes a final report for the SERI (July 2022). The SERI communicates the results to swissuniversities and the ETH Board (August 2022).

Assessment criteria for the scientific evaluation

The assessment is based on the following criteria:

a. Quality

- *of the infrastructure* (if applicable): does the infrastructure correspond to the state of the art in research and development in terms of its conceptual, technical and logistical aspects?
- *of the research*: Are the research questions and approaches that can be addressed using the infrastructure scientifically significant and original? What would be the added value compared to existing research possibilities? Would it increase scientific collaborations?

b. Scientific relevance: How does the proposed infrastructure fit into the existing national and international RI landscape? Does it contribute to the visibility of this research field in Switzerland? Will it raise the profile of the field nationally and/or internationally? Is there an immediate or potential need for the requested infrastructure, based on the addressed scientific questions and achievable projects?

c. Access and user groups: What is/will be the access policy concerning access costs, access priority and selection of users? Does/will the RI meet the national open access policy ([National Open Access Strategy Schweiz](#))? What is/will be the policy regarding open data? How many potential users do you expect and what are their main sectors of activity? How did the research community participate in the development of the proposed RI?

d. Scientific feasibility: Does the management have the required leadership capabilities (scientific and managerial skills)? Are the deliverables and milestones (described in Part 3) plausible from a scientific perspective? Are the technical and logistical conditions (described in Part 3) in line with the proposed infrastructure?

For the comment on the budget, the SNSF will use the information submitted in Part 3. The criterion is the plausibility of the investment, operating and other costs for the proposed project (if possible considering similar national and/or international research infrastructures). Each application will be assessed on the basis of external reviews (2-4 reviews). This assessment of the budget will not be taken into consideration for the scientific evaluation.

Part 2.2: Outcome of 2nd stage scientific evaluation and comment on budget

In this Part 2.2, the SNSF summarizes the outcome of the 2nd stage scientific evaluation. Please note: these findings will serve as a basis for the A-quality list of the SNSF – to be on it is a pre-requisite for the next step of the evaluation (in depth-evaluation part 3). The SNSF also comments on the plausibility of the budget – independently of the scientific evaluation –and provides a recommendation for the responsible bodies.

SCIENTIFIC QUALITY	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
<ELABORATE CONCLUSIONS, RAISE ISSUES AND PROVIDE RECOMMENDATIONS CONCERNING PROJECT>	
SCIENTIFIC RELEVANCE IN THE NATIONAL AND INTERNATIONAL CONTEXT	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
<ELABORATE CONCLUSIONS, RAISE ISSUES AND PROVIDE RECOMMENDATIONS CONCERNING PROJECT>	
OVERALL FINDINGS SCIENTIFIC EVALUATION	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
<INSERT OVERALL CONCLUSION >	
Supplementary comments	

BUDGET PLAUSIBILITY	
<PROVIDE RECOMMENDATIONS FOR RESPONSIBLE BODIES CONCERNING THE ADEQUACY OF THE BUDGET FOR THE PROPOSED PROJECT>	

Legend:

- A High scientific quality/excellence
- B Medium scientific quality/excellence
- C Low scientific quality/excellence

DATE AND SIGNATURE

Insert date, place and signature of the 2nd stage scientific evaluation:

- <DD><MM><YYYY>
- <PLACE>
- <SIGNATURE>

Part 3: Implementability and Financing Scheme

This Part 3 serves for the 3rd stage in-depth evaluation of the proposed RI by the responsible bodies and consists of two sub-divisions:

- *Part 3.1: Questionnaire on implementation to be completed by the scientific coordinator. This part has to be completed at the same time as part 2.1.*
- *Part 3.2: Outcome of 3rd stage in-depth evaluation to be completed by the responsible bodies informing SERI about their decisions.*

Part 3.1: Application and procedure on implementation and financing scheme

Application specifications (5 pages + 1 page Cost estimate & financing scheme)

- **Planning**

Describe the approved planning for the RI by specifying all phases, deliverables and milestones, including investments decisions and possible updates.

- **Governance and management**

Describe the project organization for the preparation – and if able for the implementation – of the RI (including the definition of required skills, responsibilities and competences).

Present a chart of the organization structure for the implementation. Elaborate on the chosen or preferred legal structure, how its implementation is foreseen with particular attention to the transition from the project organization to the (final) governance.

Identify the scientific, technological and financial risks that the RI could face in the different phases and describe the strategies foreseen to tackle them.

- **Finances and stakeholder commitment**

Describe the essence of the investment plan – in terms of current level of financial commitments, the (conditional) intentions to (co-) fund the implementation (construction) costs and access, formal investment commitments (in cash and/or in-kind), the plans to fund operating costs (referring to the cost estimate and financing scheme).

Procedure and assessment criteria

The responsible bodies will define their procedures and assessment criteria for the third stage evaluation and will inform the scientific coordinators.

Cost estimate and financing scheme for Phases 2 and 3

I. Cost estimate (Millions CHF)	2021-2024	2025-2028	2029-2032	Later (specify)
a. Investments				
b. Operating costs				
c. Other costs				
Total costs (sum a through c)				

II. Financing scheme (Millions CHF)	2021-2024	2025-2028	2029-2032	Later (specify)
A. Cash contributions:				
A.1) ...				
A.2) ...				
A.3) .				
Total A: Cash contributions				
B. Contributions through research funding channels				
B.1) Research programs [e.g. SNSF, EU]				
B.2) Private sector				
B.3) Other				
Total B: Contributions through re- search funding channels				
C. In-kind contributions:				
C.1) from host/lead institution				
C.2) from participating / other institu- tions [specify]				
C.3) from other Swiss/ international partners [e.g. universities]				
Total C: In-kind contributions				
D. Contribution of Swiss Confeder- ation# (ERI-dispatch 2025-2028 or later)				
Total financing (sum A through D)				

Institutions outside of the ETH domain (e.g. cantonal universities and universities of applied sciences) **must write CHF 0** under D except if they plan to request special support through Art. 47, para. 3 HEa (Higher Education Act) or through Art. 15 RIPA (Federal Act on the Promotion of Research and Innovation). Higher education institutions (ETHZ and EPFL) and research institutes (PSI, WSL, Empa, Eawag) in the ETH Domain must indicate what they will request through the ERI dispatch 2025-2028 or later.

Rules regarding special support through Art. 47, para. 3 HEdA in the case of projects involving institutions from both the ETH domain and cantonal universities (co-lead):

- 1) The total cost of the infrastructure must be at least CHF 10 million. The total cost is calculated by adding the support from the institutions of the ETH domain and the support from the cantonal universities.
- 2) Only cantonal universities can apply for special support through Art. 47, para. 3 HEdA. The maximum support from the Swiss Confederation is 50% (see guidelines (in [German](#), in [French](#)) for other criteria).

Examples:

Institutions	Costs (MCHF)	Possible contribution through art. 47 LEHE
Cantonal universitie(s)	7	Maximum 3,5 MCHF
ETH domain	8	
Total costs	15	

Institutions	Costs (MCHF)	Possible contribution through art. 47 LEHE
Cantonal universitie(s)	12	Maximum 6 MCHF
ETH domain	3	
Total costs	15	

Part 3.2: Outcome of 3rd stage evaluation

In this Part 3.2, the responsible bodies summarize their findings (on the basis of the SNSF A-list) and inform SERI about their decisions for the 3rd selection.

PLANNING	
<ELABORATE CONCLUSIONS, RAISE ISSUES AND PROVIDE RECOMMENDATIONS CONCERNING PROJECT>	
GOVERNANCE	
<ELABORATE CONCLUSIONS, RAISE ISSUES AND PROVIDE RECOMMENDATIONS CONCERNING PROJECT>	
FINANCES	
<ELABORATE CONCLUSIONS, RAISE ISSUES AND PROVIDE RECOMMENDATIONS CONCERNING PROJECT>	
OVERALL FINDINGS IN-DEPTH EVALUATION	1 st /2 nd prioritization
<INSERT OVERALL CONCLUSION>	

The responsible bodies will send a list with all 1st prioritised RIs to the SERI for the final list in the Swiss Research Infrastructures Roadmap 2023.

DATE AND SIGNATURE

Insert date, place and signature of the 3rd stage evaluation:

- <DD><MM><YYYY>
- <PLACE>
- <SIGNATURE>