## Swiss Roadmap for Research Infrastructures 2027 (in view of ERI Dispatch for 2029-2032)

Process coordination guide

05.02.2025

#### 1. Context

#### 1.1 Introduction

SERI organises the planning processes for national and international research infrastructures (pursuant to Art. 41 of the Research and Innovation Promotion Act, RIPA) and publishes the results of this planning process in roadmaps that it sends at regular intervals to the Federal Department of Economic Affairs, Education and Research (EAER). These planning processes are derived from different legal provisions and are intended to serve different purposes (coordination and/or funding). One of the processes includes coordination of 'national research infrastructures' (incl. Art. 41 RIPA, esp. para. 4). There are a number of other provisions on the funding/coordination of international research infrastructures: these include Switzerland's participation in large-scale international research facilities (referred to as Type a in this guide and in internationally coordinated research infrastructures (referred to as Type b in this guide) as mentioned in Art. 28, para. 2, let. b RIPA. Both types must be listed in the overall roadmap submitted to the EAER.

In this guide for the Roadmap 2027, the various roadmap processes are presented in parallel.

Roadmap process

	Phase 1	Phase 2	Phase 3	
National Research Infrastructures	Coordination and first selec- tion by ETH Board / swis- suniversites <sup>1</sup>	Review by SNSF	Selection for Roadmap Report by ETH Board / swissuni- versities <sup>2</sup>	Report by SERI
International Research Infrastructures	Coordination and selection by SERI	Review by SNSF	Assessment by SERI	of Roadmap
Update of existing Research Infra- structure from pre- vious roadmap re- ports	·	ERI obtains up-to-date information from universities in- olved in the respective infrastructures		

<sup>&</sup>lt;sup>1</sup> In consultation with the responsible HEIs

#### 1.2 Legal mandate, objective

The mandate to create a Swiss Roadmap for Research Infrastructures is set out in the RIPA. Education, Research and Innovation (ERI) partners have different mandates and objectives with regard to the research infrastructure roadmap process: Pursuant to Art. 41 RIPA and Art. 55 of the Research and Innovation Promotion Ordinance (RIPO), the State Secretariat for Education, Research and Innovation (SERI) is legally required to report on the status and development of research infrastructures. Drafted periodically or as needed, these roadmaps focus in particular on Swiss participation in international, high-cost research facilities and in internationally coordinated research infrastructures.

The results presented in the comprehensive roadmap provides additional material that SERI can use to prepare the ERI Dispatch for 2029–2032 (for areas falling under federal funding authority). The roadmap also provides an overview of planned and existing national research

<sup>&</sup>lt;sup>2</sup> On the basis of the financial feasibility assessment and in consultation with the responsible HEIs

infrastructures at cantonal higher education institutions (hereinafter referred to as 'cantonal HEIs' and understood to mean **cantonal universities and universities of applied sciences**) and institutions of the ETH Domain, as well as international research infrastructures<sup>1</sup> that Switzerland deems important in terms of research policy.

Cantonal higher education institutions and institutions of the ETH Domain are encouraged, via a SERI-led process, to coordinate research infrastructures.

The next report (2027 Swiss Roadmap for Research Infrastructures, 'Roadmap 2027') will cover the following:

- The results of the process for national research infrastructure projects (for cantonal HEIs and institutions of the ETH Domain).
- Switzerland's participation in international research organisations and research infrastructure networks.

The present guide for the 'Roadmap for Research Infrastructures in Switzerland 2027' defines the overarching framework to coordinate the selection process for new national research infrastructure (RI) projects and major upgrades of existing research infrastructure of cantonal HEIs and institutions of the ETH Domain. The guide also describes the process for Swiss participation in international research infrastructure networks and international research organisations. The responsible bodies (swissuniversities, ETH Board) have established their own processes for selection (Phase 1) and for feasibility assessment (Phase 3). These processes are not covered in the present guide.

#### 1.3 Competences, roles and tasks

For new national RI projects, the roles, responsibilities and tasks of the various partners, including the Confederation, are described below:

- The ETH Board is responsible for coordinating and selecting the RI projects from ETH Domain institutions. The ETH Board and the ETH Domain institutions decide how their research infrastructure budgets should be allocated. The corresponding investments are drawn from federal funds (credits earmarked by the Confederation up to the expenditure ceiling specified for the ETH Domain for 2029-2032) and thirdparty funds.
- Under Art. 41 ff. of the Higher Education Act (HEdA) the Confederation provides funding to cantonal HEIs. The Confederation uses reference costs to cover a statutorily specified share of the core subsidies for teaching and research. In this context, cantonal HEIs mostly use the 2027 Roadmap as a coordination tool. No additional/further funding is expected from the Confederation. swissuniversities is mainly responsible for managing the coordination between cantonal HEIs.
- In addition to the responsibilities described below for institutions of the ETH Domain and cantonal HEIs, the **Confederation** is responsible for Swiss participation in international RIs subject to international agreements (Art. 28 RIPA) and for subsidiary funding of research facilities of national importance (Art. 15 RIPA). The specific amount of funding requested in the relevant ERI Dispatch is the deciding factor (procedure separate from the one used for the Roadmap 2027).
- For its part, the **Swiss National Science Foundation (SNSF)** may also provide subsidiary support for research infrastructures that are not in the remit of the Confederation or Higher Education Research Centres (Art. 10, para. 3 RIPA). The **SNSF** has a

If Switzerland's participation in an international research infrastructure is subject to an international agreement, then legal and foreign policy aspects are added to the parameters to be considered, thus requiring more extensive planning and coordination.

mandate to evaluate infrastructure projects for the Roadmap 2027. It has no funding role in the process.

SCNAT has received a mandate to prepare thematic roadmaps (as part of a preparatory process) to identify the needs of the respective research communities. These subject-specific roadmaps are provided to cantonal HEIs and institutions of the ETH Domain for use in their priority-setting and selection processes.

#### 1.4 Coordination with European and international planning

The Roadmap 2027 also serves as a basis for aligning national projects for participation in European and international RIs that are planned at European and international levels. SERI is responsible for coordinating Switzerland's participation in international RIs (see below).

Art. 28, para. 2, let. a, RIPA draws a distinction between two types of international research infrastructure subject to international agreements:

**Type a:** *'international research facilities'* are **centralised installations** that are built, developed and maintained for the purpose of enabling outside scientists to use them to generate research findings. Such facilities require substantial long-term investments and contributions for operation and maintenance from their member states. Given their costly and long-term nature, Switzerland's participation in each international RI of this type requires allocation of a specific credit requested in the corresponding ERI Dispatch or in dedicated dispatches. Typical examples from the Roadmap 2023: CERN, ESO, EMBL.

**Type b:** *'internationally coordinated research infrastructures'* are **distributed installations** that are combined and coordinated by a national node. In principle, Switzerland's financial participation takes place through the Swiss institution representing the national node. If necessary, federal funding is also drawn from the 'international cooperation in research and innovation' credit administered by SERI or the Swiss National Science Foundation (SNSF). Typical examples from the Roadmap 2023: EPOS, ECRIN, ACTRIS, ICOS.

Both types of RI are planned at international level, in particular at European level via the roadmap drafted by the European Strategy Forum on Research Infrastructure (ESFRI). The Confederation examines the conditions whereby Swiss endorsement (Expression of Support letter) can be given for projects included in international planning. Clear support<sup>2</sup> from responsible institutions is required in order for the Confederation to provide such political backing<sup>3</sup>.

In order to include an international research facility (Type a) or a new internationally coordinated research infrastructure (Type b, as a Swiss node) in the Swiss Roadmap, interested scientists and institutions must submit their project directly to SERI.

SERI will notify the responsible bodies (swissuniversities and the ETH Board) of the requests submitted by their institutions by the end of January 2026. In order to be included in the Roadmap 2027, projects that have been endorsed by the Confederation for submission to the 2021 ESFRI Roadmap or 2026 ESFRI Roadmap must also be submitted to SERI (the ESFRI process does not replace Switzerland's own national roadmap process). Any financial contribution from the Confederation (generally limited to membership fees for Type b RIs) will need to be proposed as part of the ERI Dispatch for 2029-2032. At some point during the

The HEI (or consortium) submitting the request demonstrates that it is involved in the preparation and governance of the RIs, that it is making a financial commitment or that it will supply delegates and experts (in areas for which the Confederation has funding authority).

<sup>&</sup>lt;sup>3</sup> For information on how new international research infrastructures can be included in the ESFRI Roadmap, see: <u>guideline request esfri roadmap 2026 en.pdf.</u>

procedure, the SNSF will have already drafted a position paper on whether Swiss participation in the given RI is important (see below).

The Confederation is responsible for international RIs that Switzerland already participates in. SERI therefore provides an overview of these in the Roadmap 2027.

#### 1.5 Thematic roadmaps developed by research communities

SERI has commissioned the Swiss Academy of Sciences (SCNAT), in collaboration with the research communities concerned, to update certain sections of the thematic roadmaps published in 2021 and 2022 by December 2024.<sup>4</sup> Their role is to determine what RIs the research communities concerned consider to be important with regard to ensuring that Switzerland remains on top.<sup>5</sup>

These thematic roadmaps provide an overview of future needs from the perspective of the research communities concerned, taking into account existing RIs (which should be upgraded where needed). The reports provide information and serve as a reference document for cantonal HEIs, for institutions of the ETH Domain and for the responsible bodies that decide on the funding and development of research infrastructures. The SNSF takes these into account wherever possible when reviewing RI projects.

#### 2. Eligibility principles for the Roadmap 2027 process

The Roadmap 2027 is based on the European definition of RIs<sup>6</sup>. This includes equipment (large instruments and others), data, information and service infrastructures as well as technical infrastructures. In principle:

- the research infrastructure has the potential to make a significant contribution to the development of a field of research (scientific 'added value');
- the research infrastructure is likely to be used intensively by researchers in Switzer-land (national importance);
- access to research infrastructure is provided for both national and international research communities;
- projects using research infrastructures must comply with FAIR principles<sup>7</sup>;
- the research infrastructure may be located at a single site or organised as a centrally managed network of several sites.

To be considered as part of the Roadmap 2027 process, RIs (as defined above) must satisfy the following three principles:

New RIs or major upgrades: these are new RIs or major upgrades of existing RIs. Major upgrades to existing RIs can be taken into account if they satisfy the European definition criteria (ESFRI)<sup>8</sup>.

See https://scnat.ch/en/for a solid science/networks and infrastructures/research infrastructures

The updates concern seven thematic roadmaps (biology, chemistry, geosciences, particle physics, astronomy, photonic science and neutron science). There have been discussions on developing thematic roadmaps for the fields of medicine and of human and social sciences. These discussions have not yet been finalised, so it will not be possible to consider any corresponding roadmaps for these fields in the Roadmap 2027.

<sup>&</sup>lt;sup>6</sup> See https://www.esfri.eu/sites/default/files/ESFRI Roadmap2021 Public Guide.pdf

FAIR (Findable, Accessible, Interoperable, Reusable. See, for example: <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC4792175/pdf/sdata201618.pdf">https://pmc.ncbi.nlm.nih.gov/articles/PMC4792175/pdf/sdata201618.pdf</a>

See <a href="https://www.esfri.eu/sites/default/files/ESFRI">https://www.esfri.eu/sites/default/files/ESFRI</a> Roadmap2021 Public Guide.pdf: 'A major upgrade is any modernisation of an operational RI with the goal of delivering a transformative effect to its scientific outputs, or a substantial change of technical approach and does not involve routine maintenance or incremental gains. To that end, any applications to the Roadmap, which come under the category of upgrade, will be required to include robust justification describing the degree of upgrade. An existing RI planning a major upgrade can submit a proposal to become a project.'

- Degree of maturity: this refers to RIs for which planning has already reached a sufficiently advanced stage (i.e. 'preparation phase', including Phase 3 according to ESFRI) and are currently ready to enter the 'implementation phase' (Phase 4 according to ESFRI)<sup>9</sup>. This effectively excludes 'pilot' or 'concept' studies from eligibility for the Roadmap 2027. This limitation does not apply to Swiss participation in international RIs (for which an application can be submitted at an earlier stage).
- Minimum cost: the total cost of the RI (investments and operating costs for 2029-2032) is demonstrably and justifiably at least CHF five million. This limitation does not apply to Swiss participation in international RIs.

#### 3. Process: procedural steps

The Roadmap 2027 process for national research infrastructures consists of three phases, which should take place according to the timetable below. A detailed description of the actions to be taken and the necessary documents is presented in the annex.

# 3.1 Coordination and selection of RI projects by responsible bodies (Phase 1, December 2024 – January 2026)

In Phase 1, the responsible bodies invite their institutions (cantonal HEIs in the case of swissuniversities and institutions of the ETH Domain in the case of the ETH Board) to submit project outlines for new RIs (including major upgrades of existing RIs). The responsible bodies assess these preliminary proposals following their own internal procedures. Among other things, they take into account the eligibility principles described in Section 2 above.

Once this assessment has been completed, the ETH Board will decide which RI projects from the ETH Domain will be submitted to the SNSF for review. For its part, swissuniversities will also prioritise the various projects for cantonal HEIs, which will decide which projects will be submitted to the SNSF for review. The ETH Board and swissuniversities will forward the list of projects that they have identified or prioritised for participation in the Roadmap process to SERI and the SNSF by 01.10.2025.

#### 3.2 Scientific review by SNSF (Phase 2, February 2026 - August 2026)

At the request of SERI, the SNSF conducts a general review of the new RIs during Phase 2 (see criteria in Annex B) to assess scientific excellence and feasibility, researcher access, data management and national/international scope. Where possible, it considers any thematic roadmaps drafted by the various research communities in its review.

The SNSF awards each new national RI project one of three excellence priorities (A / B / C). It submits the review's results in a report to SERI who will then send a complete report to the responsible bodies (swissuniversities and ETH Board). swissuniversities and the ETH Board will inform their institutions of the results of the review. Applicants will be asked to give their consent via mySNF that their project applications and assessment results can be disclosed to the ETH Board and/or swissuniversities as well as to the management of cantonal HEIs and institutions of the ETH Domain. Researchers will also have access to the details of the review on mySNF.

The SNSF will take position on the plausibility of RI costs. This is not part of the review and thus not taken into account in determining the excellence priority of the RI (A / B / C).

With regard to international RIs (Types a and b), the SNSF takes position on whether Swiss participation is of national importance and whether planning is sufficiently mature.

<sup>&</sup>lt;sup>9</sup> See Annex C for information on the ESFRI's phases model.

Only RI projects ranked at the highest excellence priority (A) will be examined in depth during Phase 3 of the Roadmap process (see below).

#### 3.3 In-depth assessment of feasibility/availability of funding, carried out by responsible body (Phase 3, September 2026<sup>10</sup> – January 2027, or December 2027)

The ETH Board and swissuniversities, together with institutions of the ETH Domain and cantonal HEIs, respectively, thoroughly assess the feasibility and financial sustainability of the RIs shortlisted by the SNSF as being at the highest level of excellence.

For institutions of the ETH Domain, the ETH Board will notify SERI of the results of this assessment and provide it with the list of RIs that should be included in the Roadmap. This will be done by 1 February 2027.

For cantonal HEIs, swissuniversities will notify SERI of the results of its assessment by December 2027 so that these can be aligned with the strategic and financial planning of cantonal HEIs and their relevant authorities. When preparing the consultation draft of the ERI Dispatch, SERI will therefore include all cantonal HEI projects that the SNSF has determined to be at the highest level of excellence, swissuniversities will then submit the final list in December 2027, in time for the drafting of the ERI Dispatch for parliamentary debate.

It should be noted that the responsible bodies and, where applicable, cantonal HEIs and institutions of the ETH Domain are responsible for the final decision to implement a RI listed on the Roadmap. Changes in decisions of implementing RI projects are therefore still possible even after publication of the Roadmap 2027.

For Type a international RIs (see 1.3 above), SERI will decide on a case-by-case basis who is responsible for carrying out the in-depth review (universities on their own, universities and Confederation together or Confederation on its own).

#### 3.4 Drafting and publication of Roadmap 2027 (February – April 2027)

SERI drafts the Roadmap, including the selected RIs, and sends it to the Head of the Department of Economic Affairs, Education and Research (EAER).

RIs mentioned in the Roadmap that require direct or indirect federal funding will be included in the ERI Dispatch for 2029-2032 in line with the Federal Council's decision. As such, they will be taken into account in budget planning as well as in the budget proposals submitted to Parliament.

### 4. Content of Roadmap 2027

The Roadmap 2027 lists the infrastructure projects that the relevant institutions have selected/coordinated and entered into the process.

In addition, and as an update, it presents the progress made on national and international RIs mentioned in the Roadmap 2023. This includes the new national and international RIs mentioned in the Roadmap 2023 as well as those in its annexes (from the 2019 Roadmap and the 2023 Roadmap).

The purpose of the update is to *document the status (state of implementation)* of the RIs concerned. SERI obtains the necessary information – **separately**<sup>11</sup> from the procedure used to

For organisational reasons, Phase 3 may actually start before the end of Phase 2, depending on the calendar of the responsible bodies.

<sup>11</sup> The updates will take place around mid-2026. Budgets may be adjusted up to the end of 2026.

identify new RIs – from universities and research institutions, in consultation with the responsible bodies.

As mentioned above, the 2027 Roadmap also mentions existing international RIs subject to an international agreement (identified by SERI).

However, the Roadmap 2027 does not mention the existing national RIs that were identified in the inventory section of the Annex B of the 2015 Roadmap.

## Annex A: Detailed procedure for research infrastructure projects

### National research infrastructure projects

Phases 1-3 of the procedure are described in Section 3.

→ National research infrastructure projects: Actions to be taken and timetable for each of the stakeholders involved in Phases 1 to 3

	For researchers			
	Actions	Documentation	Calendar	
Phase 1	Based on the information, internal procedure and calendar of the responsible bodies (swissuniversities and ETH Board)	Based on internal procedure of the responsible bodies	Based on the internal calendar of the responsible bodies	
Phase 2	Submission to SNSF of research infra- structure projects. Submission possible by invitation only	Template available on <i>mySNF</i> (see Annex B)	15.10.2025 until 23.01.2026	
Phase 3	Based on the internal procedure and calendar of the responsible bodies (swissuniversities et Conseil des EPF)	Based on internal procedure of the responsible bodies	Based on the internal calendar of the responsible bodies	

	For swissuniversities and ETH Board			
	Actions	Documentation	Calendar	
Phase 1	Send preliminary information (title of projects) to SNSF and to SERI	List of planned pro- jects	01.06.2025	
Phase 1	Submit the results of project selection (Phase 1) to SERI and to SNSF	Confirmation that eligibility principles have been taken into account for each of the projects and that a letter of support from a sponsoring institution has been provided	01.10.2025	
Phase 3	Submit the results of the in-depth review (Phase 3) to SERI	Confirmation, for each project, that an indepth assessment took place	ETH Board: 01.02.2027 swissuniversities: 31.12.2027	

	For SNSF			
	Actions	Documentation	Calendar	
Phase 2	Review projects and submit report to SERI	Report	14.08.2026	

#### Projects to participate in international RIs

The State Secretariat for Education Research and Innovation (SERI) is responsible for Swiss participation in international RI 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).

To bid for a consideration in the Swiss Research Infrastructures Roadmap 2027, participants in international RI 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 take a position (SERI mandate to SNSF) on the strategic importance of Swiss participation in the international research infrastructure. Depending on the availability and quality of the scientific review 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 review and determine the importance of Swiss participation. For its part, SERI will assess the political priority and feasibility of the international infrastructure. The Roadmap 2027 will only include those RIs that the SNSF considers to be of the highest scientific importance and for which SERI gives a positive assessment on the political feasibility.

#### → <u>International RI projects</u>: Actions to be taken and timetable for each of the stakeholders involved

For researchers				
Actions	Documentation	Calendar		
Submit a project for participation in an international research infrastructure (preliminary information) to SERI	See below	01.06.2025		
Submit a project for participation in an international research infrastructure to SERI	See below	19.12.2025		

The scientific coordinator will provide SERI with the following information:

#### **Preliminary information:**

- Title of project
- Brief description (1 page), no form available

#### Submitting a participation project:

- Project Questionnaire Part A for ESFRI Roadmap
- Specific template for international RIs (contact 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).

For the SNSF				
Actions	Documentation	Calendar		
Take position on why participation in the international infrastructure is important for Switzerland and submit report to SERI	Report on position taken	14.08.2026		

#### Annex B: Instructions for Phase 2 and Phase 3

#### 1) Information on how to submit descriptions of projects (Phase 2)

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

- 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 achievements

## For Phase 2

- 3. Research output list of the last five years of the scientific coordinator4. 1-page summary description of the new RI
  - 5. Max 10-page in-depth description of the research infrastructure with focus on quality of the infrastructure and research; national and international scientific relevance and future potential; users and access; feasibility; data management/open research (see below "Evaluation procedure and review criteria by SNSF

in Phase 2")

## For Phase 3

- 6. 5-page description with focus on planning, governance and management, and finances of the research infrastructure (see below "Evaluation procedure and assessment criteria by the responsible bodies in Phase 3").
- 7. 1-page description of finances (use table "Cost estimate & finance scheme")

→ The SNSF will scientifically review (Phase 2) the description of the project (documents 1-5) and comment on the budget (document 7). The responsible institutions and bodies will assess the feasibility and financial viability of the project in Phase 3 (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 projects that have received a positive rating after Phase 1 by responsible bodies (ETH Board, swissuniversities).

#### How to apply?

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

#### Where to apply?

The project descriptions must be submitted via the mySNF platform by **23 January 2026.** Submissions will be possible as of 15 October 2025 (Roadmap RI 2027).

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

#### 2) Evaluation procedure and assessment criteria by SNSF in Phase 2

#### **Evaluation procedure by SNSF (Phase 2)**

The ETH Board and swissuniversities will inform the SNSF and SERI no later than **1 June 2025** about the subject areas and the respective numbers of approved projects in Phase 1 (keywords).

The SNSF will set up an expert panel.

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

The SNSF writes a final report for SERI and the responsible bodies (August 2026).

#### Assessment criteria for the scientific review by SNSF (Phase 2)

The assessment is based on the following criteria:

#### a. Quality of the infrastructure and research:

Does the infrastructure correspond to the state of the art in research and development in terms of its conceptual, technical and logistic aspects? Are the research questions and approaches that can be addressed with the use of the infrastructure scientifically significant and original? Is there an added value in using the infrastructure, rather than using alternative options? Does the use of the infrastructure foster scientific collaborations and/or interdisciplinary or transdisciplinary activities?

#### b. Scientific relevance and future potential:

How does the proposed infrastructure fit into the existing national and international research infrastructures landscape? Does it contribute to the visibility of its research field(s) in Switzerland? Will it contribute to promote its research field(s) nationally and/or internationally? What developments for future activities are foreseen?

#### c. User groups and access management:

How many users and which user groups is the infrastructure reaching and what are their main sectors of activity? What is the access policy (access priority and selection of users, access costs)? How many potential users do you expect and in which research sectors? How do you identify and assess the needs of the users? If applicable, how did the research community participate in the development of the infrastructure?

#### d. Feasibility:

Does the management have the required leadership and infrastructure management capabilities (scientific and managerial skills)? Are the deliverables and milestones (described in documents 6-7) plausible from a scientific perspective? Are the technical and logistical conditions (described in documents 6-7) in line with the proposed infrastructure?

#### e. Data management and Open Research Data implementation:

Does the infrastructure follow the recommendations of the national Open Research Data Strategy regarding Open Access and Open Data? What is the management strategy of FAIR data? Is it aligned with the national Open Research Data strategy? What measures are in place and/or planned towards findability, accessibility, interoperability and reusability of data? What are your main challenges towards reaching the FAIR aspects? Are there collaborations on these aspects with other existing data infrastructures?

#### Plausibility of the costs:

For the comment on the budget, the SNSF will use the information submitted in documents 6-7. The criterion is the plausibility of the investment, operating and other costs for the project (if possible, considering similar national and/or international research infrastructures). Each project 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 review.

# 3) Evaluation procedure and assessment criteria by the responsible bodies in Phase 3

#### **Evaluation procedure by the responsible bodies (Phase 3)**

The responsible bodies will define their procedures and assessment criteria for Phase 3 review.

In particular, the responsible HEI and bodies will examine the feasibility and financial viability of the project in Phase 3 (see above documents 6 and 7). These documents (5-page description and finance table) focus on:

#### 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 organisational aspects associated with preparation – and if possible, for 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 organisational aspects 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).

#### Assessment criteria for the in-depth review by the responsible bodies (Phase 3)

The responsible bodies will define their procedures and assessment criteria for the Phase 3 review and will inform the scientific coordinators.

# Cost estimate and financing scheme for Phases 2 and 3 (Institutions of the $\overline{\text{ETH}}$ $\overline{\text{Domain}}$ )

I. Cost estimate (Millions CHF)	2025-2028	2029-2032	2033-2036	Later (specify)
a. Investments				
b. Operating costs				
c. Other costs				
Total costs (sum a through c)				

II. Financing scheme (Millions CHF)	2025-2028	2029-2032	2033-2036	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 2029-2032 or				
later)				
Total financing (sum A through D)				

# Cost estimate and financing scheme for Phases 2 and 3 (<u>cantonal universities</u> and universities of applied sciences)

I. Cost estimate (Millions CHF)	2025-2028	2029-2032	2033-2036	Later (specify)
a. Investments				
b. Operating costs				
c. Other costs				
Total costs (sum a through c)				

II. Financing scheme (Millions CHF)	2025-2028	2029-2032	2033-2036	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				
Total financing (sum A through C)				

## Annex C: Life cycle from ESFRI perspective<sup>12</sup>

ESFRI considers the following six life cycle phases for RIs, each generating their own specific costs.

1. Concept devel- Development of the concept

opment Planning and analysis phase, planning costs (incl. pilot studies)

2. *Design* Preparatory phase, <u>costs associated with preparation</u>

3. Preparation Construction phase, investments

4. Implementation Operation phase, operating costs + maintenance costs

5. Operation Decommissioning/dismantling phase, cost associated with de-

6. Termination commissioning and dismantling

The 2027 Roadmap only presents projects that are 'ready for implementation' (Phase 3 included). For this reason, documentation for each phase must be included when submitting projects.

<sup>2021</sup> Roadmap Public Guide https://www.esfri.eu/sites/default/files/ESFRI Roadmap2021 Public Guide.pdf