

The World of Research Infrastructures

FORS Lunch Seminar

4 May 2021

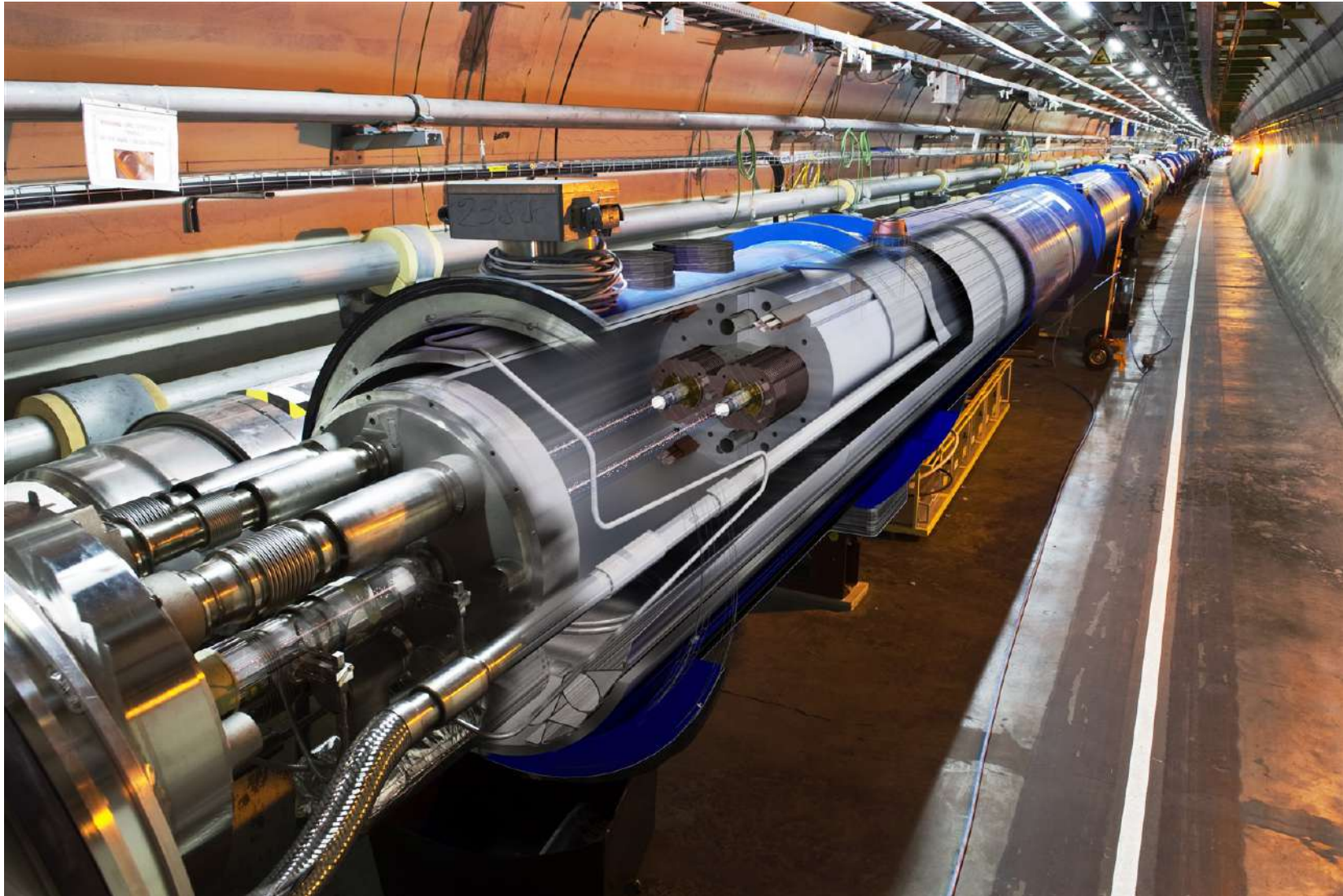
Georg Lutz

Table of content

1. What are research infrastructures
2. ESFRI and the Roadmap Process
3. EU Horizon Europe Infrastructure funding opportunities
4. The national roadmap process
5. The relevance for FORS

The many faces of research infrastructures









FORS ⁺

FORS



explore.understand.share.

FORS 



Definition

“Research Infrastructures are facilities that provide **resources and services for research communities to conduct research and foster innovation**. They can be **used beyond research** e.g. for education or public services and they may be **single-sited, distributed, or virtual**.

They include

- major scientific equipment or sets of instruments
- collections, archives or scientific data
- computing systems and communication networks
- any other research and innovation infrastructure of a unique nature which is open to external users”

Source:

https://ec.europa.eu/info/research-and-innovation/strategy/european-research-infrastructures_en

Why Research Infrastructures?

Research Infrastructures (RIs) have become more and more important over the last 30 years, due to some larger trends:

- Global science competition requires large and long-term investments, that cannot be handled with traditional funding mechanisms
- Research becomes more collaborative in many disciplines and also across countries and in some cases also long-term

Defining features of RIs:

- Long-term focus, beyond the scope of usual funding instruments
- Often comparative and collaborative
- Relatively large, funding required from different countries
- Inclusive, open and broader governance (instead of individual PI)

Single site vs. distributed RIs

Single-sited RIs are central facilities geographically localised in a single site or in a few dedicated complementary sites designed for user access, whose governance is European or international.

A **distributed RI** consists of a Central Hub and interlinked National Nodes.

- > Require high level of integration of National Nodes,
- > Open to external use, clear access policy

The key challenges

- Traditional **bottom-up science funding** mechanism are **not adapted** to fund and govern long-term research infrastructures
- **Science policy makers** have **problems** developing infrastructure **strategy and prioritising** projects

Solutions (in Europe):

- Establishing **ESFRI and the roadmap process**
- **National roadmap processes**, often now aligned to the ESFRI process
- Establishing different **funding and governance models**
- Establishing a legal structure for Ris -> **ERIC** = European Research Infrastructure Consortium

Roadmap processes are **planning instruments**, not funding instruments! Funding for ERICS come from many different sources, however largely from member countries.

Roadmaps process are a **dialogue between scientific and strategic science policy making**

Table of content

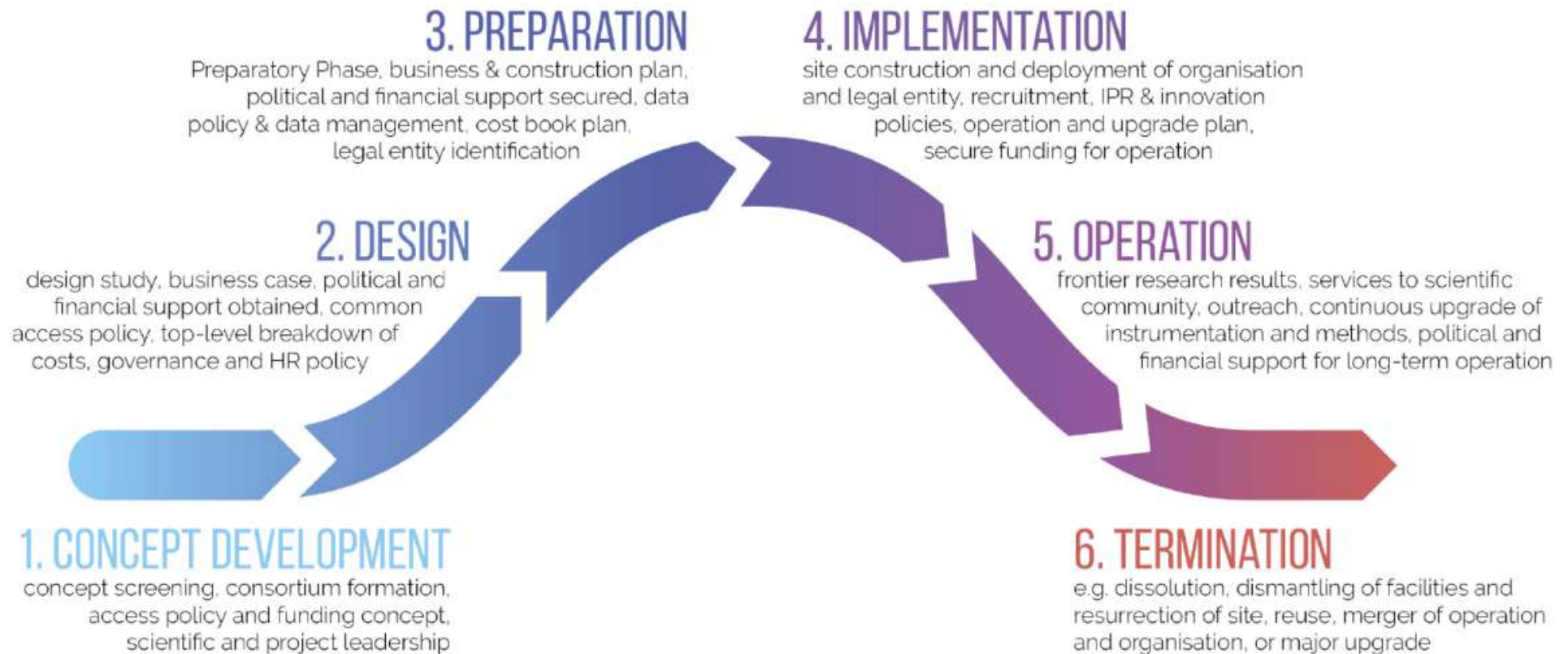
1. What are research infrastructures
2. ESFRI and the Roadmap process
3. EU Horizon Europe Infrastructure funding opportunities
4. The national roadmap process
5. The relevance for FORS

ESFRI

- ESFRI «European Strategy Forum on Research Infrastructure»
- Established 2002 to coordinate infrastructure development
- **Members = Countries** (EU & 16 Associated countries (incl. Switzerland))
- **Governing bodies** composed of «senior science policy officials or equivalent, representing the Minister(s) responsible for Research in each of those States»
- Scientific tasks:
 - 6 “**Strategic working groups**”, organized along disciplines, for SSH “Social and Cultural Innovation”, usually scientist also involved in research or research infrastructures, in some cases from funding agencies or ministries
 - **Implementation group**: Analyses the maturity features or RIs
 - **Ad Hoc Groups**: Ex. “Monitoring” in charge of developing Key performance indicators

First roadmap 2006, followed by roadmaps in 2008, 2010, 2016, 2018 and

The ESFRI project life cycle approach



-> However, Social Science and Humanities often in different phases at the same time

The 2021 roadmap process

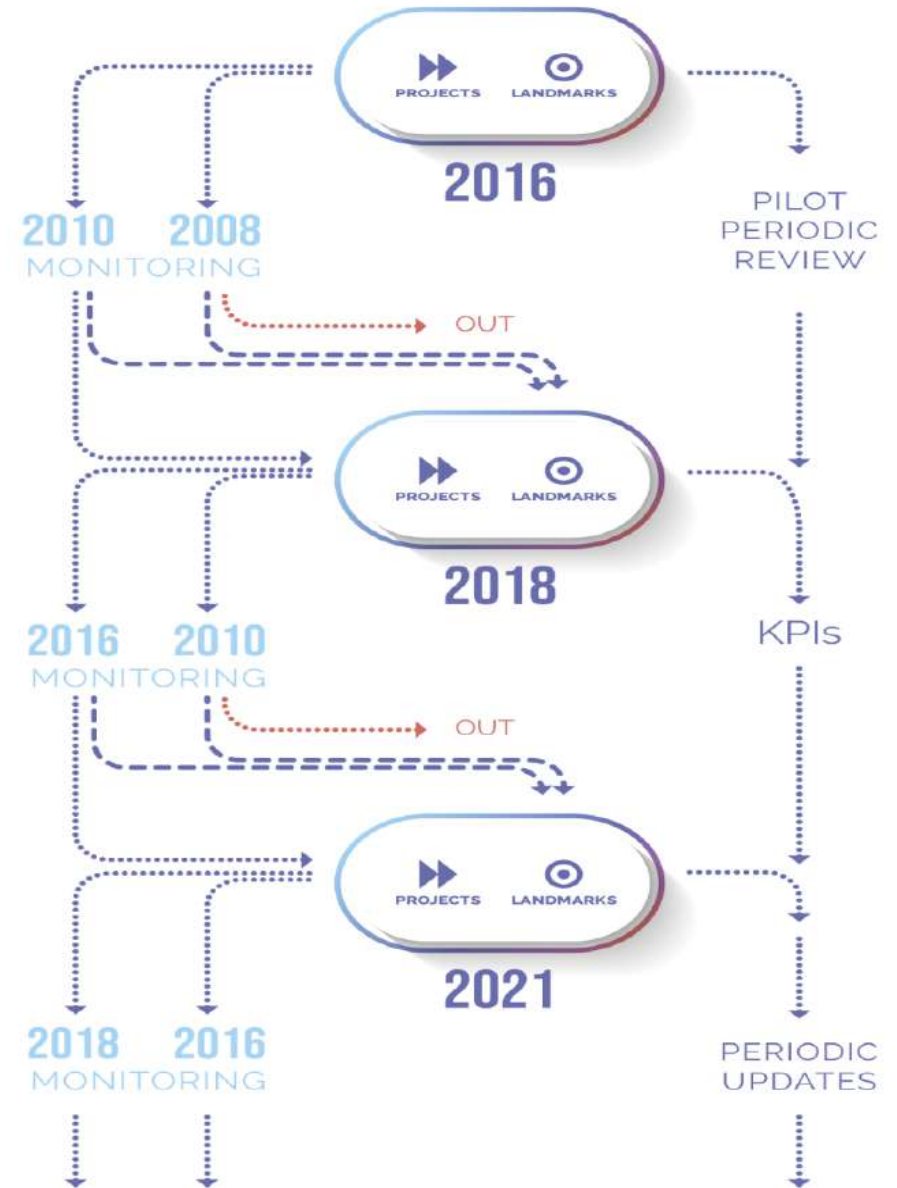
ESFRI Projects = RIs in the Preparation Phase.

ESFRI Landmarks = RIs that were implemented or reached the Implementation Phase

-> Social Science Landmarks: CESSDA, SHARE, ESS

Parts of the roadmap process:

- Landscape analysis = overview of the European RI ecosystem, gaps etc.
- Monitor all 2010 and 2016 projects
- Evaluate new project proposals



What does it take to get on the ESFRI roadmap?

- A strong **scientific case**: scientific excellence, pan-European relevance, socio-economic impact, user strategy and access policy, e-needs
- A **lead country**
- **Political support** from at least 3 countries, **Funding commitment** from at least 1 country
- And many other things...
 - An inter-institutional and multi-lateral agreement usually in the form of an MoU
 - A design and feasibility study final report
 - If available, a socio-economic ex-ante impact study
 - A table describing quantitatively the targeted user community in terms of scientific field
 - A quantitative description of the services (including access modes and funding)
- The **process**:
 - External reviews
 - **Scientific Evaluation** by Strategic Working Group
 - **Implementation case** by Special Implementation Group
 - Decision by ESFRI Board

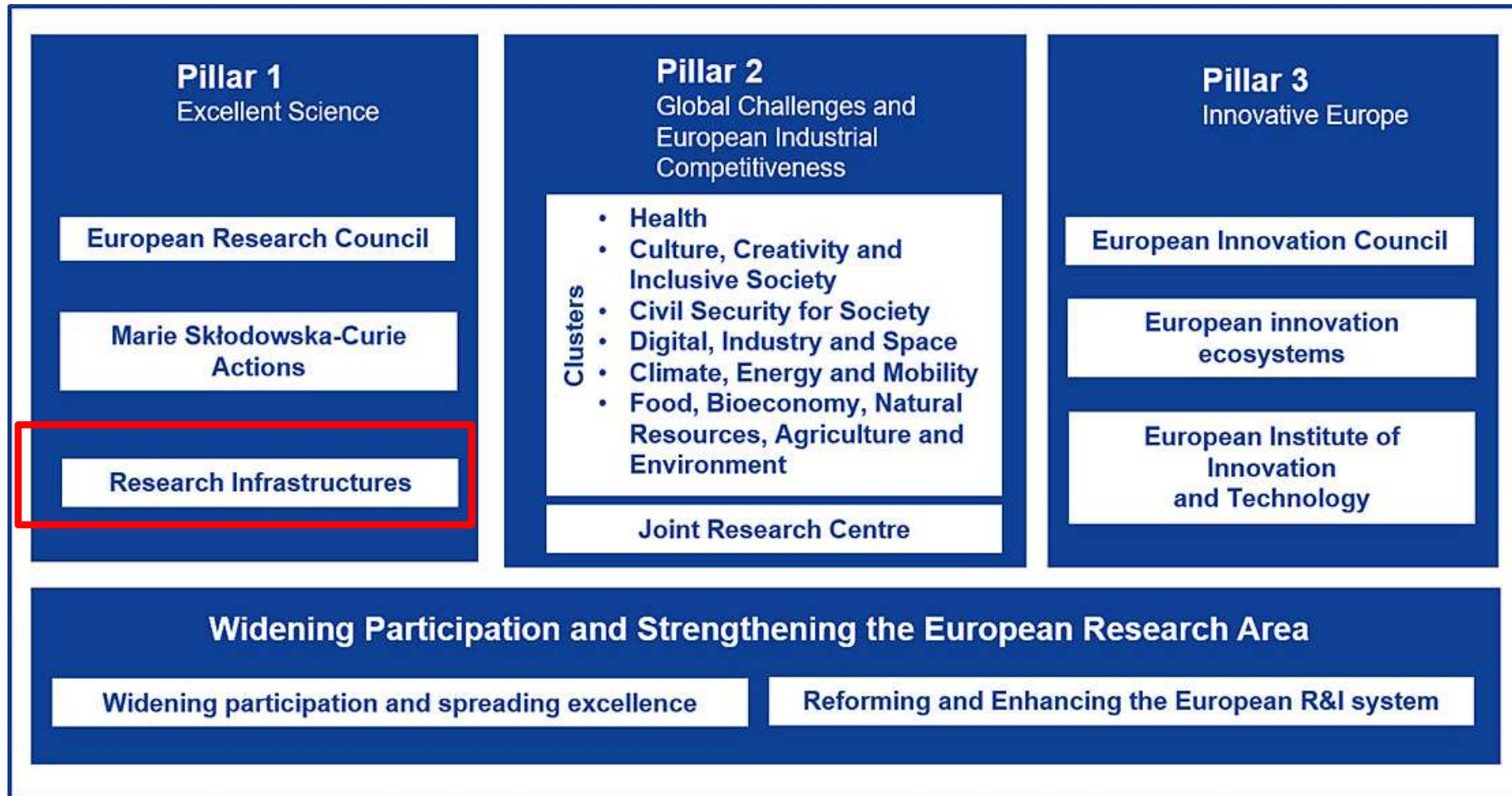
FORS in ESFRI

- Membership and currently vice-chair in «Strategic Working Group Social and Cultural Innovation» -> Delegated from SERI/SNF
- Representation in GA of CESSDA, ESS (Georg), SHARE (Boris) -> Delegated from SERI/SNF
- National Nodes for CESSDA, ESS (and SHARE)

Table of content

1. What are research infrastructures
2. ESFRI and the Roadmap process
- 3. EU Horizon Europe Infrastructure funding opportunities**
4. The national roadmap process
5. The relevance for FORS

Horizon Europe



Funding Total: €95,5 Billion, of which €2,4 Billion for Research Infrastructures (€53,3 Billion for Pillar 2)

Table of content

1. What are research infrastructures
2. ESFRI and the Roadmap process
3. EU Horizon Europe Infrastructure funding opportunities
4. The national roadmap process
5. The relevance for FORS

The key elements

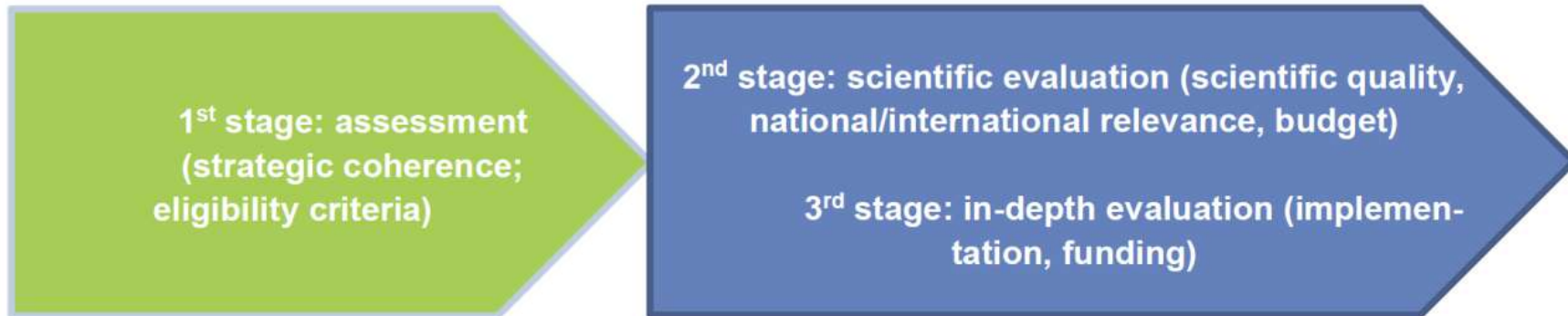
- Switzerland has set up an own national roadmap process which is relevant for two things:
 - National project applications
 - Swiss participation in European projects
 - Key actor: SERI, swissuniversities/ETH-domain
- The 2019 infrastructure roadmap:
 - FORS confirmed as of part national roadmap (already part of the 2015 roadmap) -> Newly funded by SNSF
 - Switzerland participates in ESS, SHARE and CESSDA
 - New projects linguistic Research Infrastructure LiRI

New SNF reflection group on research infrastructures

For national projects

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



- Stage 1 Submission of project ideas : assessment by swissuniversities and ETH Board
- Stage 2 Evaluation by SNF
- *Attention: Costs > 5 Mio, direct funding only to ETH domain (except for high cost infrastructures > 10 Mio, where SERI covers 50%)*

Details see: <https://www.sbfi.admin.ch/sbfi/de/home/forschung-und-innovation/forschung-und-innovation-in-der-schweiz/uebersicht-forschungsinfrastrukturen.html>

Participation in European Projects

- “To bid for a consideration in the Swiss Research Infrastructures Roadmap 2023, participants in inter-national 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.”
- Relevance currently for DARIAH (Humanities”, already in 2019 roadmap) and CLARIN (Linguistic

Table of content

1. What are research infrastructures
2. ESFRI and the Roadmap process
3. EU Horizon Europe Infrastructure funding opportunities
4. The national roadmap process
5. The relevance for FORS

FORS: infrastructure for infrastructures



The comparative candidate survey



Cross-National Equivalent File (CNEF)

CESSDA

Consortium of European Social Sciences Data Archives

FORS ⁺

National surveys

Selects Swiss Election Study

Schweizer Haushalt-Panel
Panel suisse de ménages
Swiss Household Panel

MOSAICH

Data and research information for the social sciences (DARISS)

International surveys

SHARE
Survey of Health, Ageing and Retirement in Europe
50+ in Europe

European Social Survey



European Values Study



SWISS  base

The role of FORS

Objective: FORS hosts major social science infrastructure projects, national or the Nodes of European projects, and supports and develops new projects.

National development projects: VOTO, SWISSUbase, linkhub.ch

Development/Swiss **participation** in new **European projects**

- Monitoring Electoral Democracy (MEDem)
- Gender and Generation Project (GGP)
- GUIDE/EuroCohort : “Growing Up In Digital Europe”

- **Connectivity/Synergies** with other data infrastructures:
 - DASCH, LIRI
 - Around SWISSUbase: switch, SDSC/Renku, Swiss Personalised Health Network, ...
 - Access to admin data: linkubh.ch, collaboration with SFSO
 - At European level: CESSDA, EOSC, CLARIN (via LIRI), DARIAH (via DASCH)

FORS 

explore.understand.share.