



European Strategy Forum  
on Research Infrastructures

# THE EUROPEAN STRATEGY FORUM ON RESEARCH INFRASTRUCTURES (ESFRI)

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RICH SYMPOSIUM

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# MISSION



ESFRI shall continue to support a coherent and strategy-led approach to policy-making on research infrastructures in Europe, and facilitate multilateral initiatives leading to the better use, development and impact of research infrastructures across their life-cycle, at EU and international level. These core activities will also foster ESFRI's strategic impact on ERA.

*Credit: ESO: B. Tafreshi*



# VISION

ESFRI shall provide a long-term strategic vision and safeguard a long-term European strategic planning of RIs that meet the needs of European research communities and serve the European society at large. ESFRI shall provide evidence-based input to the coordination of European investments in large scale RIs, by following the development of the entire eco-system and by monitoring the implementation and evolution of existing RIs.

*Credit: ESO: José Francisco Salgado*



# MAIN OBJECTIVES OF ESFRI

ESFRI was established 2002 with a mandate from the EU Council to:

- support a **coherent and strategy-led approach** to policy-making on research infrastructures in Europe
- facilitate multilateral initiatives leading to the better use and development of research infrastructures
- to establish a **European Roadmap for Research Infrastructures** for the coming 10-20 years

**ESFRI brings together representatives of Ministers of the 28 Member States, 12 Associated States, and of the European Commission**

- Acts as an **incubator** for pan-European and global RI (RM 2006/2008/2010/2016/2018)
- Facilitates **decisions on implementation** and ensures follow-up after assessment
- **Monitors state of Innovation Union** and provides input as appropriate to the development of ERA Framework (Council of EU in 2010), is part of the ERA Governance structure (ERAC) (CC in 2018)
- **Prioritizes projects** (Council of EU in 2012) *ex-ante* condition for funding (in several countries)
- **Provides advice on RI related issues including e-RI** (Council of EU in 2015)
- Provides **advice on RI related policies e-RIs** (CC of EU 2015), LTS of RIs (CC of EU 2015), SoEI, ...
- **Monitors the operational RIs** (LM) (Council of EU in 2018)
- Identifies potential **actions to better align national priority** setting and funding decisions

# ESFRI ORGANISATION

ESFRI FORUM

EXECUTIVE BOARD

STRATEGY  
WORKING  
GROUPS

IMPLEMENTATION  
GROUP

AD-HOC EXPERT  
WORKING  
GROUPS

# The Roadmap – Strategic report

Upon mandates of EU Competitiveness Council ESFRI has completed the ESFRI Roadmaps 2006, 2008, 2010, 2016, and the **ESFRI Roadmap 2018**. The Roadmap

- identifies **new pan-European Research Infrastructures and the evolving role of RIs**, corresponding to the needs of European research communities in the next 10 to 20 years, in all fields of research
- identifies the **ESFRI Landmarks** that are implemented projects leading in their domain and structuring the European and global landscape.
- indicate strategies for the necessary major financial investment (~20 b€) and long term commitment for operation (~2 b€/year).
- deals with LTS and innovation oriented approaches,

## Landscape Analysis

- **Survey and analysis of the context, in each domain**, of the operational national or international research infrastructures open to European scientists and technology developers through peer-review of competitive science proposals.
- Identifies the **existing resources**, the **gaps** and the potential evolution of each field in the foreseeable future.
- **Monitoring of implemented RIs (landmarks)**
- **Coordinatinon in HPC and data infrastructures (under discussion - WG Digit)**



# CHALLENGES FOR THE FUTURE

## ESFRI Roadmap 2021

The image shows the cover of a report titled 'STRATEGY REPORT ON RESEARCH INFRASTRUCTURES'. The cover is blue with a pattern of concentric circles and lines, resembling a network or infrastructure map. The text is white and centered.

STRATEGY REPORT  
ON RESEARCH  
INFRASTRUCTURES

- Next **Roadmap** being prepared for 2021
- **Information Day in September** will provide a complete description of the requirements and methodology of selection of proposals
- Besides the Roadmap ESFRI will elaborate on a **monitoring methodology of Landmarks** and **help projects move towards succesful implementation** and ensure their **long-term sustainability** development

## ESFRI: Future Directions

- The discussion on future directions of ESFRI follows the conclusions of the “ESFRI: Future Directions” **workshop, which was held in London in January 2019**
- The reflection proces will continue **throughout the whole year 2019**
- **Key question is how to enhance ESFRI’s strategic role** and further **evolution** of the **ESFRI Roadmaps**
- **Future ESFRI discussion** is closely connected to the **New concept of ERA (post 2020)**
- Discussion will materialise in a formal outcome of **White Paper in December 2019**

# CHALLENGES FOR THE FUTURE

## ESFRI and EOSC

- ESFRI organised on 30 January 2019 a workshop on ESFRI Research Infrastructures and the EOSC, which served as a **platform for exchange of information on the ongoing and planned activities**
- Agreement on the **need for intensified collaboration and coordination of the different initiatives**, facilitated by ESFRI and the EOSC Secretariat
- ESFRI **Task Force on EOSC was created**



## ESFRI in Future ERA

- ESFRI is part of the ERA Governance structure/ one of the ERA Related Groups
- In the context of the expected new **Commission Communication in 2020** ESFRI launched an **internal reflection process** on its future **role in the ERA**
- All ERA-related groups were **asked to report on the implementation status of their priority** by June 2019
- EC communication on ERA to be prepared by mid-2020





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Thank you !

# THE FIFTH ESFRI ROADMAP AND STRATEGY REPORT



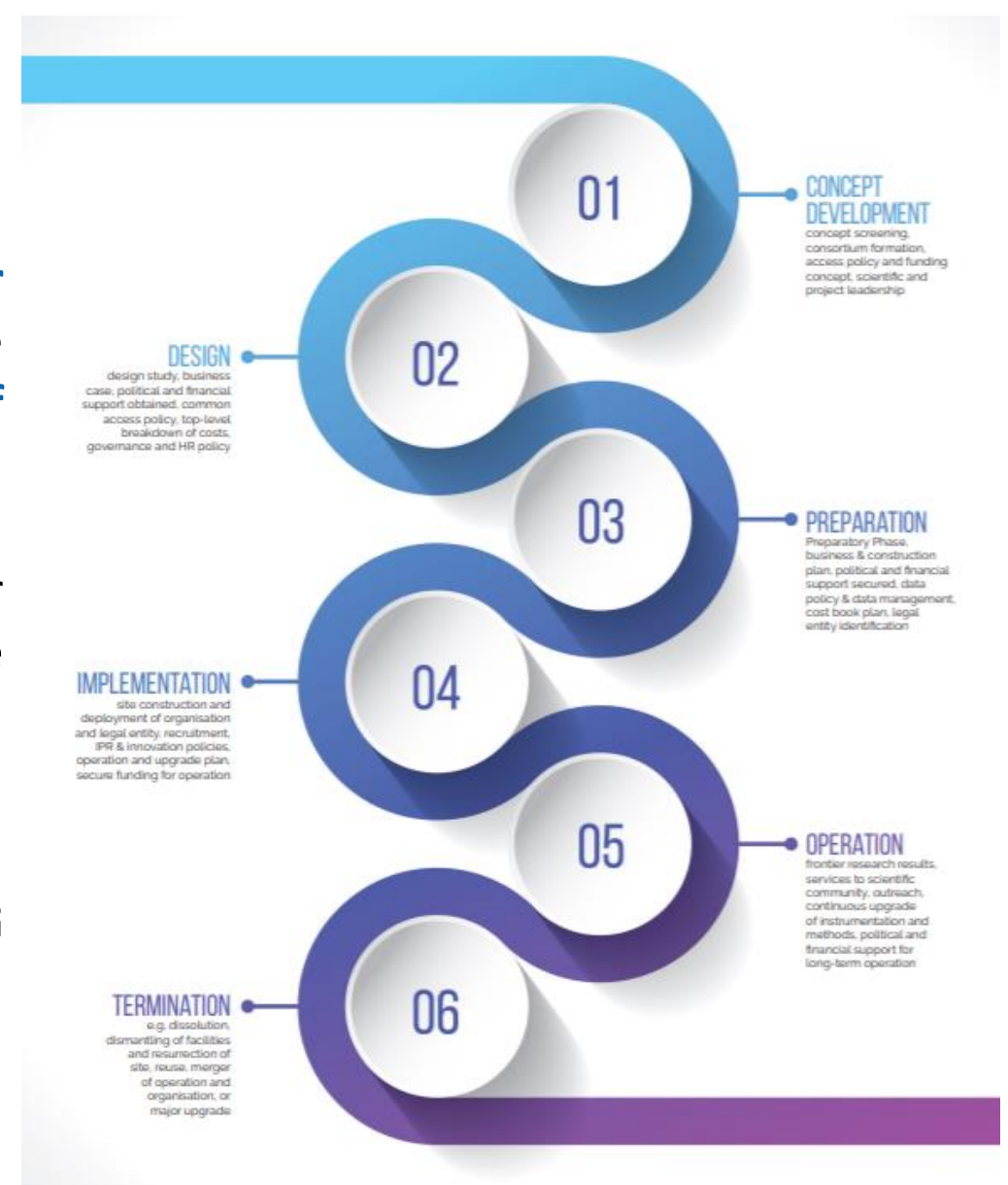


# LIFECYCLE APPROACH

ESFRI Landmarks are RIs projects that **were implemented or reached an advanced Implementation** phase under the Roadmap and **that represent major elements of competitiveness of the ERA.**

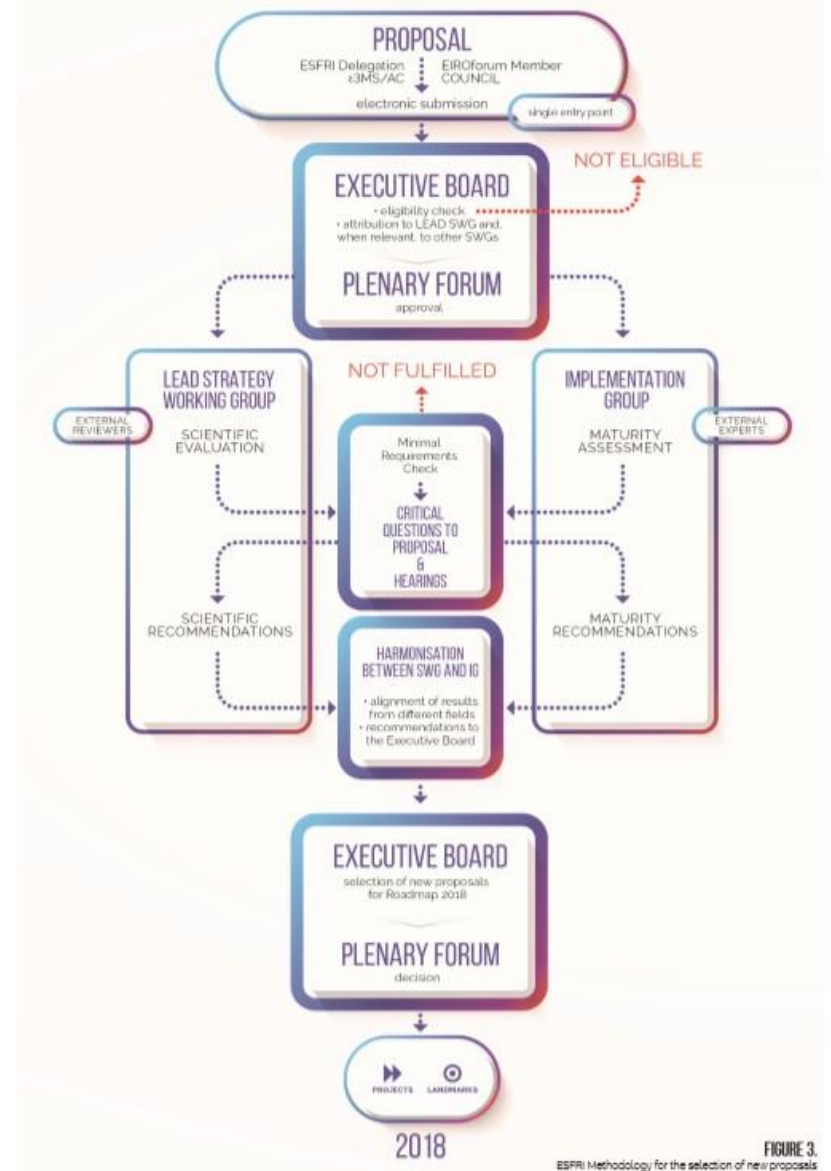
The Landmarks need **continuous support** and advice for successful completion, operation and – if necessary – upgrade to achieve optimal management and maximum return on investment.

- *TEN-YEAR TIME WINDOW IMPLEMENTATION*
- **THE CONCEPT OF LM IMPLIES PERIODIC UPDATING MONITORING THROUGHOUT THE LIFECYCLE (CC 2018)**



# EVALUATION AND ASSESSMENT OF NEW PROPOSALS

- Eligible submitted proposals undergo the **two parallel and independent evaluation processes**
- The **SWGs and IG identify critical questions** about each proposal, and then liaised to achieve a common list of issues
- Proposals that **meet minimal requirements** to be considered for the Roadmap, are **invited to hearing sessions**
- The **harmonisation of the results** on scientific excellence and maturity by WG Chairs and EB and subsequent strategy analysis by the EB leads to **recommendation of new proposals for inclusion in the Roadmap**





# RESEARCH INFRASTRUCTURES

- The Research Infrastructures are **key investments in research in all areas as they meet** both the demand of the scientific community for state-of-the-art resources for supporting excellent science, and the demand of knowledge transfer for innovation at social and economic level.
- RIs **attract and support frontier research** and contribute to **pursue excellence through curiosity-driven research** efforts that push the current limits of knowledge in a discipline.
- In doing so, **RIs address and solve many technological, scientific and organizational issues** that create additional value and knowledge at non primary levels in the disciplinary paradigm.
- The **RIs are often generators of large volumes of data** that have prompted technical and policy solutions to curate, document, preserve and make available these data upon request by other scientists or developers.

