The 2021 RM and ERICs’ role in the new ESFRI Stakeholder Forum

ERIC Forum meeting 2021
26th January 2021

Jan Hrušák
(NEW) ESFRI VISION

Equipping Europe with infrastructures for ground-breaking research
ESFRI (Roadmapping) concept evolution


ESFRI Creation established with a mandate from the Council of the EU

1st ROADMAP for the construction and development of the next generation of pan-European RIs

1st UPDATE Increasing the number of RIs of pan-European relevance

2nd UPDATE focusing on Energy, Food and Biology

Update process identified projects expected to move to implementation in <10 years from their first inclusion on the Roadmap.

Consolidation & incorporation of the mandates of Council: sustainability, innovation, and hub of funders of e-infra

Integration & relevance strategic positioning in ERA; paradigm shift from planning to operation

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ESFRI (Roadmapping) concept evolution

RIs (18 projects and 37 landmarks)
The new ERA vision strongly supports the EU’s wider policy objectives with a special focus on research and innovation performance.

The new emphasis on the socioeconomic goals:

- digitization of European industry
- preservation of biodiversity
- securing water supply and healthy food production
- ensuring of energy security
- mitigating of climate change
- facing aging or societal inequalities
- development of innovative medicines and treatments against infectious diseases

Precondition to achieve these goals:

- Joint strategic efforts aiming for a integrated European research infrastructure Ecosystem
- Culture change in the entire Research infrastructure domain / OS & Data interoperability

ESFRI will support the RIs ecosystem in growing and optimizing its alignment with the European strategic agendas, across borders of sectorial domains and it will voice the RI needs.
The White Paper is ESFRI’s response to the new challenges lying ahead of Europe. It shows how RIs contribute to the main priorities of the renewed ERA such as increasing Europe’s competitiveness and identifying significant solutions to global challenges.

A new ambition of RIs and ESFRI contribution to the ERA discussion

TO WHOM IS IT DEDICATED?

HEALTHY, INTERCONNECTED RI ECO-SYSTEM
EXCELLENT RESEARCH WITH IMPACT
# Main Messages from the White Paper

<table>
<thead>
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<th>1)</th>
<th>RIs as essential pillar of the ERA</th>
<th>(ERA COM, Council Conclusions 12/2020)</th>
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<td></td>
<td>=&gt; Ecosystem striving for scientific excellence, transnational services, education and skills</td>
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<td>2)</td>
<td>RIs as strategic investments</td>
<td>(National commitment, HEU, ESIF,...)</td>
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<td>=&gt; Research with impact that addresses complex societal challenges</td>
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<td>3)</td>
<td>RIs as knowledge and Innovation hubs</td>
<td>(Research with impact)</td>
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<td>=&gt; Basis of European competitiveness, with regional impact and global outreach</td>
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<td>4)</td>
<td>Coherence of European, national and regional priorities</td>
<td>(Cross-sectorial outreach)</td>
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<td>=&gt; Research Infrastructures for sustainable development and funding</td>
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<td>5)</td>
<td>Infrastructures as major promoters of Open Science Research</td>
<td>(Data Quality)</td>
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<td>=&gt; Interconnected services providing FAIR and quality certified Open Data</td>
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<td>6)</td>
<td>ESFRI´s contribution to RIs policy</td>
<td>(Openness, Monitoring, ERA governance ...)</td>
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<td>=&gt; Ensure appropriate capacity</td>
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What we are aiming for
ESFRI Roadmap 2021

Content of the Roadmap

• Landscape of RIs in Europe and globally
  • Gaps in European RI ecosystem
  • Links between and integration of RIs towards a global RI ecosystem
  • e-Infrastructure needs and integration of RI in open e-networks (EOSC)
• List new pan-European RI projects and operational RIs (Landmarks)
  • Continuous upgrade, long-term sustainability and end of lifecycle perspectives (if necessary)
  • Synergies with regional, national, European and international RI and strategies and beyond for optimal use
• ESFRI strategic perspective
  • Innovation potential and socio-economic benefit analysis
  • Global opportunities and science diplomacy aspects – where appropriate
• Methodology: Iteration with ESFRI, feedback form SWGs and RIs community

1. Update of the Landscape analyses
3. Evaluate new proposals and decide upon new Projects 2021
4. Monitoring and evaluation of the methods and procedures
Landscape Analyses (2021 ESFRI Roadmap)

The Landscape Analysis is a key ingredient of the Roadmap 2021

The Landscape Analysis is broadening the view of ESFRI beyond the RIs in its Roadmap. It provides an overview of the European RI ecosystem by identifying the main RIs operating transnational access in Europe, in all fields of research, and major new or ongoing projects, as well as an outlook to the global landscape of relevance. (Strategic positioning)

The thorough knowledge of the RI Landscape and of its dynamics is a prerequisite for developing optimal strategies in the field of RI aimed at strengthening the competitiveness and value (excellence and impact) of European research and building ERA.

But yet a disclaimer - The Landscape Analysis is a reference document and does not imply a prioritisation by ESFRI nor any national financial and political commitments.
# Landscape Analyses (2021 ESFRI Roadmap)

LA will be more strategic oriented report

## SECTION 1: Short analysis of the RI landscape and gaps in each domain (SWG, RIs)

- Identified more general scientific trends within domains => research directions
- Identified scientific challenges that require optimization of the European landscape

## SECTION 2: Identified interconnections among RIs across the six fields (SWG, RIs)

- Indication of the areas where the different RIs are linked / could work together, and their needs/deficits can be addressed
- Identify and understand scientific trends

## SECTION 3: Focus on the Pan EU RIs’ services and their broader impacts (ESFRI, RIs)

- The analysis of the relevance of ESFRI RIs for Sustainable Development Goals (SDGs)
- The analysis of capacity of RIs to respond to emergencies (eg. the COVID-19 crisis)
- The contribution of ESFRI RIs to the digital transformation (incl. EOSC)
Monitoring

THE OBJECTIVE: Evaluation description of the scientific case and of the implementation case and the Projects on the Roadmap

- Monitoring of ESFRI projects (2010, 2016) – tasks:
  - Check the overall progress towards implementation (the minimal key requirements for the phases of lifecycle; plans for reaching full implementation)
  - Addressing the conclusions and following up on the recommendations from the previous evaluation
  - Conclusions and recommendations on the Projects (incl. the possible transition from Project to Landmark)
- Monitoring of ESFRI Landmarks => start autumn 2021
  - Decision on implementation of monitoring taken
  - Working Group on Monitoring implementation proposal established by the ESFRI Forum in December 2020,
  - Gather experience on RIs using the KPIs from the MG report (Taylor made solutions)
- MoS+
  - The monitoring system for the management of the new proposals and the existing ESFRI projects
ESFRI Stakeholder Forum

ESFRI White Paper, 2020:

1) The dialogue and the exchange of knowledge, experience and good practice between ESFRI and European RIs at all levels contributing to Europe’s competitiveness, tackling the SDGs

2) Organization of a platform for the regular discussion among the different European RI stakeholders

Objectives

To build a structural dialogue of ESFRI with the RIs and between RIs;

To share ideas, necessities and good practices between stakeholders;

To increase understanding and cooperation between different stakeholders;

To improve the overall satisfaction of stakeholders with the operation and performance of the RIs;

To identify and effectively solve common problems of RIs including the communication between stakeholders and RIs;

To gather comments of RIs to overall strategic considerations on the development of the research landscape.

(ESFRI) to better communicate, explain and ask for feedback on its strategy and way of working.
ESFRI Stakeholder Forum

- The 1st Stakeholder Forum will be organized in the 4Q 2021 during the Slovenian presidency
- Stakeholder Forum meetings are preferred F2F but hybrid/online meeting will be an option

- **Identification of the stakeholders** for various domains (RIs, Clusters, ERICs, ...)
- **Examples of the topics to be selected:**
  - *The RIs in new ERA*: financing mechanisms; long term sustainability; all aspects of human resources; responds of priorities of ERA (e.g. Green Deal)
  - *Impact on the RIs*
  - *Open Science* – to built on the outcomes of the previous ESFRI workshops:
    - ESFRI WS on the Future of RIs in the ERA, La Palma, 6/2020
    - ESFRI RIs and EOSC WS, London 1/2019
Consolidation, socioeconomic benefits and impacts of RIs

Research
• Extending RDI capabilities
• Increasing the attractiveness of the ERA for researchers, industrial users and international partners

Innovation
• Accelerate the exploitation of European RIs as knowledge and innovation hubs
• Boosting RIs role as drivers of economic growth, social and environmental transitions, and place-based innovation

Education
• Engage RIs and higher education institutions in specialized training of students, young academics and industrial scientists on next-generation technologies, inter-disciplinary methodologies and data management skills

Policies
• Increase coherence between European, national and regional priorities and policies for RIs development and funding
• Effective synergies with other European policies and funding instruments

Data
• Exploit the data science and data engineering expertise of RIs for the development of the EOSC
Long term research sustainability

- Contribution to the economies of scale
- Sustainable resources use
  - financial resources + people + management of RIs + data management
- Open science as a solution for more effective science
  - speed up sharing knowledge
  - support the transparency and reproducibility
  - produce comparable and reusable data
  - support the science quality
- Connect RIs together and use what have been already created
- Added value is interdisciplinary research – needs of all research disciplines should be included
- Secure and regulated working environment
- Minimum restriction and obstacles to keep EOSC open for all researchers
Thank you for your attention.