

# 1<sup>ST</sup> ESFRI STAKEHOLDERS MEETUP

15 September 2022

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## Introduction

After the fully digital [High-Level Launch of the ESFRI Stakeholders Forum](#) that took place on 24 March 2022 to mark its formal establishment, the **1st ESFRI Stakeholders Forum Meetup** took place on **15 September 2022** at the [Royal Belgian Institute \(Museum\) of Natural Sciences](#), in **Brussels**. It was organised as a full-day event with the limited physical presence of around 130 people to set the Stakeholders Forum deliberation and co-design processes in full motion.

The ESFRI Stakeholders Forum Meetup is currently an annual event (bi-annual after 2023) bringing together Research Infrastructures (RIs), decision- and policy-makers, regions, socio-economic actors, research organisations, and higher education institutions which may contribute to or run RIs, or are potential users of RIs. It aims to attract stakeholders of RIs, raise awareness across the whole research and innovation ecosystem and facilitate cooperation and mutual learning between RIs and their stakeholders.

## Summary of key messages

***Engaging with stakeholders is fundamental for Research Infrastructures to provide services that meet evolving user needs and support science in delivering for our society and economy. The Stakeholders Forum aims to engage these actors and facilitate regular discussion among them.***

***Research Infrastructures were called upon to interact with other communities, and increase the impactful role of RIs in fundamental research and in addressing societal challenges. The stakeholders were called to utilise the newly launched [SH platform](#)<sup>[1]</sup> to keep the messages shared alive. The key messages will be further analysed and worked out through the ambitious ESFRI workplan.***

***Topics identified included, among others, how the different stakeholders perceive and interact with each other, where multi- and inter-disciplinarity exists, or can exist, training, education and skills, and where RIs can truly engage with industry. Some key thematic areas were also discussed such as climate, energy, oceans and culture, with diverse messages that need further analysis. Funding mechanisms, pathways to sustainability and potential impact were also highlighted, bringing the experiences of several actors. Identified good practices prescribed a good mix of funding, from public to private, tracking costs (including the rising energy costs), cost-benefit analyses, and links with the local communities and economies. In particular, smart specialisation strategies were highlighted, combining research, educational, industrial, and innovation policies based on the strengths of the different regional areas to boost investments based on the region's strengths and comparative advantages. The speakers and audience also stressed that the two-way communication between ESFRI and its stakeholders needs to be sustained, bringing the experience of the different actors together.***

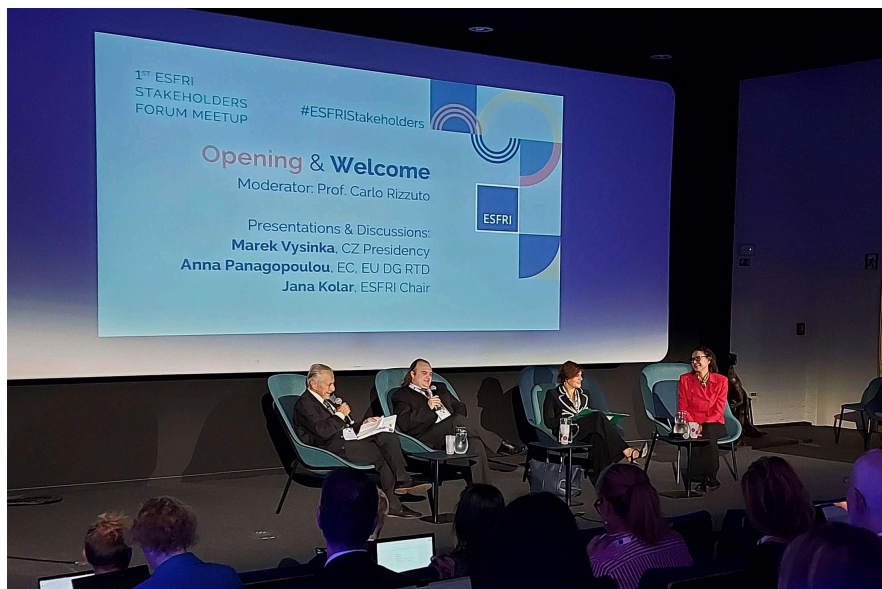
***A strong takeaway message from the workshop was that closer links between RIs are needed in order to bring together and engage stakeholders around RIs and also connect RIs with users, as well as the R&I ecosystem overall. Rationalisation of the landscape is also important, including RIs beyond ESFRI of all sizes and also a connection to the different missions and partnerships. The role of the landscape and gap analyses was stressed, and several stakeholders offered their contributions from their experiences, including good practices, but also challenges and bottlenecks.***

**Workshop program structure**

In brief, the workshop program consisted of an open and closing session, 2 plenary sessions and 1 session with parallel tracks and feedback to the plenum. The plenary sessions were focused on meeting stakeholder needs and how to optimise engagement and on fostering collaboration. The parallel tracks were focused on how RIs can address societal challenges in the key areas of Climate, Energy, Oceans and Culture. See Annex I:

**Session summaries**

**Opening Session**



- Engaging with stakeholders is a key feature of the new ERA and fundamental for Research Infrastructures to provide services that meet the evolving user needs and support science in delivering to our society and economy. 24 EU member states and 17 stakeholders have committed to the ERA policy agenda action 8 on Research Infrastructures.
- It is crucial that ESFRI Member States and the Commission engage with the stakeholders and facilitate creation of structural links with RIs.
- Stakeholders are needed to support the overall analysis bringing their knowledge, expertise and needs in order to ensure roadmaps that represent the broader constituency and correspond to user needs.
- We also need to address the methodology: how to work together given the complexity and multitude of stakeholders.
- The ESFRI Chair stressed the need for stakeholder communities to interact with other communities, stepping out of their comfort zones, and think how policies and practices can

support this, highlighting the impactful role of RIs in fundamental research and in addressing societal challenges.

- The Czech Presidency welcomed the initiative and encouraged the stakeholders to actively engage so that practices can be shared and new ideas can be heard on how to optimise the development of RIs and the related research and innovation ecosystem. The outcome of the 1<sup>st</sup> SHF meetup will be further discussed at the [ICRI 2022](#) conference.

## **Plenary Session 1**



- The ERIC Forum is a bottom-up initiative of 24 ERICs in 5 clusters and shares a lot of stakeholders with ESFRI. There are several challenges related to ERICs such as enhancing and operating existing RIs, fostering synergies between communities and also technical challenges (e.g. around VAT exemption).
- The ERF is the Association of European-Level Research Infrastructures Facilities bringing together RIs of pan-European interest that are not in EIROForum. Coordination across platforms is becoming increasingly important.
- G6<sup>1</sup> is an informal network of six research institutions with the objective to urge politicians to fund more, better research, and to collaborate more in emerging fields. G6 stressed the need to rationalise RIs as part of an EU landscape analysis, working on Cost Benefit Analyses and sustainability plans.
- EARTO<sup>2</sup> stressed that engaging with ESFRI and its stakeholders is important and areas such as business models for R&I and Technology Infrastructures, linking research to industry, can be discussed and practices can be shared. The need for better and more coordinated roadmapping at all levels was raised, along with the transition to open science and related governance.
- CEASER<sup>3</sup> stressed that universities are the backbone of RIs for training, education, research,

<sup>1</sup> G6 : Max Planck, France’s CNRS, Germany’s Leibniz and Helmholtz Associations, Italy’s National Research Council (CNR) and Spain’s Council for Scientific Research (CSIC).

<sup>2</sup> EARTO<sup>2</sup> is the European Association of Research and Technology Organisations (RTOs) representing their interests in Europe.

<sup>3</sup> CEASER<sup>3</sup> brings the voice of universities of science and technology in Europe, bringing together 58 leading research-intensive universities.

and services to society. The SHF can help in bringing together different stakeholder to discuss and act on tackling global challenges: sustainable development, socio-economic impact, financial value, change the policy-oriented approach. The role of EOSC was highlighted and that more engagement between EOSC and ESFRI/RIs is required.

- The Coimbra group<sup>4</sup> stressed the need for collaboration. Universities have a large number of small & medium RIs that need to be recognized and included in the ecosystem. ESFRI is the best platform for the engagement of universities and RTOs in the RI business.
- The industrial company Alfa Laval Technologies highlighted the new business opportunities in the energy transition, focusing on green hydrogen energy and CO<sub>2</sub> capture and storage. The challenges of engaging industry in the RI business were also raised, along with notions such as business models, value/profits and the role of people and their skills. Using a research facility is a small piece of the industry business chain now, but this has to change in the future.
- A narrative about what an RI is doing is missing in some cases. Thus, the RI value may not be appropriately described and may not be evident. This may be a problem of education towards various stakeholders, not only users. More effort on communications and training is needed.
- RIs are repositories of knowledge. National research communities may not be too large, but the research community behind an RI is global. RIs are attractive for researchers and can be made attractive also to industry.
- RIs can approach and work closer with industry and work around needs, solution to problems, and required expertise. They can also co-design with industry learning from their operations, including costs and value chains.
- It is important to measure and reduce the carbon footprint of RIs and discuss the challenge of rising energy costs.
- Better communication on the ESFRI roadmap and the Landscape and Gap Analyses would be needed, as it is getting more complicated, and contributions/consultations should be considered.
- RIs can be considered as hubs for capacity development that can have impact at local, regional, and global levels.

### **Parallel Sessions and Plenary session 2 (with feedback from the parallel sessions)**

There were four parallel sessions on Climate, Energy, Oceans and Culture, with the overarching theme being “RIs as pillars in the ecosystem, addressing challenges”. The main arguments raised during each of the parallel sessions, as well as the summary points presented at the Plenary session 2, are presented per topic below.

#### 1. Climate

- The parallel session addressed the involvement of stakeholders in climate with specific focus on climate adaptation mission and the role of RIs, i.e., how RIs could serve policy initiatives?
- Separate discussion on climate and industry is required.
- Collaboration between different levels of research.
- Importance of socio-economic trends.

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<sup>4</sup> The Coimbra Group<sup>4</sup> is an association of long-established European multidisciplinary universities of high international standard

- Social adaptation and impact on the systems → challenge is to understand cultural uptake in sense of climate changes.
- The question of how RIs can support technologies of the future (e.g. Low-Carbon Roadmap and Circular economy Roadmap) → which are the technologies and how to uptake them in the future.
- Climate KIC presented the model on how to engage stakeholders at all levels (local, regional, national etc.).
- Proposed
  - Climate adaptation: organization of ESFRI workshop on missions (e.g. Climate and Cities etc.)
  - Citizens' engagement (more efficiency is needed)

## 2. Energy

- There is the need to consider new methods and technologies to produce energy. Some countries are investing in **nuclear** research. **Hydrogen** has been recognised as one of the vectors that can optimize power production.
- We need RIs and TIs as a support, to test energy production in different environments or **energy storage** in different materials. Fundamental research is crucial in this sector, but the multidisciplinary approach and the collaboration with industry are even more important.
- **Policymakers** play a key role in the energy sector. Many actions have been carried out by the EC, such as the publication of the ERA industrial technology roadmap: others are in the pipeline, such as the establishment of industrial alliances and initiatives for clean energy and low-carbon industries.
- **Energy RIs** collaborate and interact with **industry** (both energy/power and energy intensive industries). For example, industry asks RIs to **develop technologies** together.
- A way to reinforce the collaboration between RIs/TIs and industry is to **increase the investments** for equipment/facilities dedicated to industry and to **increase the access time** dedicated to industry (the most of it is dedicated to academia).
- The existing RIs have already developed different modes of cooperation with industry to help face this and several good practices were mentioned.
- **Collaboration** among RIs, TIs and/or research communities can be optimised in several ways, for example promoting the development of **technology platforms** or implementing some **test facilities** of common interest. We need to identify ways to learn from existing examples and to transfer experiences to other RIs and sectors.
- Results achieved by users accessing an RI should be better promoted and used, duly taking into account IPR issues (**results exploitation**).
- **Multidisciplinary staff** are needed to perform excellent research, with different backgrounds and possibly across RIs.
- It's important to evaluate **social impact**.
- Even though both EC and MS are investing considerable funds to the energy sector, there are **still untapped human and knowledge resources at the RIs** to help in response to the energy crisis.
- Even though both EC and MS are investing considerable funds into the energy sector and important results have been achieved, there is still room for improvement, especially on how

to better exploit human and knowledge resources at the RIs, to help in response to the energy crisis.

### 3. Oceans

- **Greening/decarbonisation** of research vessels: shared issue with other sectors i.e. waterborne transport and fishing vessels, (not only large ones but also small vessels); co-programmed partnership on zero-emission technology: also retro-fitting, greening technologies; renewal of the fleets: challenges due to costs (already doubled).
- **Digital twins**: not only for understanding but to address all three objectives of Mission Oceans.
- **Data**: many global initiatives (e.g. Global Biodiversity Information Facility-GBIF), but still efforts needed to access all these data: challenge not only cross-frontiers but also across disciplines. Important to use recognised repositories (GBIF, ELIXIR). RIs need to be more involved in the development of EOSC.
- RIs have a role to play to **help local authorities for local solutions** and decision making; RIs must present themselves as regional actors, increase visibility and build trust. Need to translate RI activities in coastal planning (local authorities): providing data, co-creating solutions, identifying stakeholders' needs. Challenge: being involved in early stage of local/coastal projects.
- **(Being more strategic)** RI communities such as synchrotrons: offer services based on personal relationship, want to do it in a more strategic and structured way.
- Linear **governance** does not fit complex challenges. For example, 22 UN agencies involved in one Sustainable Development Goal (SDG 14): too complex. Green & digital transition requires governance, taxonomy, rules to address (new) global challenges.
- **Challenges identified with regards to**
  - the **connectivity of the RI** in this field with e.g. the EU Mission Ocean and Waters
  - the **fragmentation of the landscape** (both in terms of ocean governance and in terms of ocean observations)
  - the **developments around EOSC**, with a call for more direct involvement of thematic RIs in the environment field. In addition, linkages between RIs and EOSC should also be examined at national level (e.g. example of CZ).
- Several members stated that the **EU mission** was in a start-up phase, with projects on the organisational set-up of 'lighthouses'.

### 4. Culture

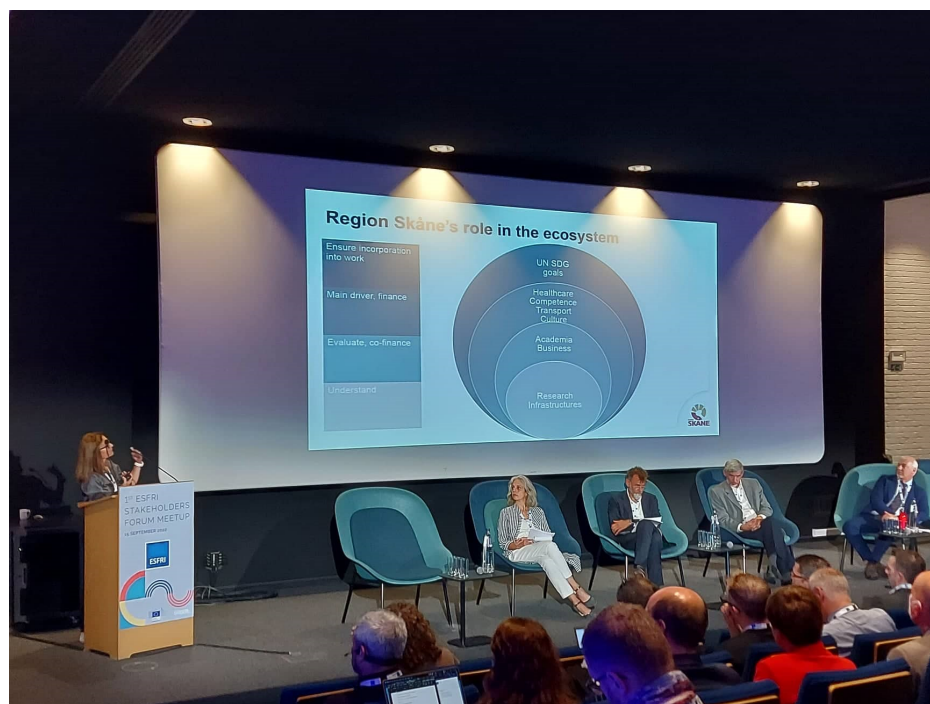
- Discussion of obstacles of **national borders**. Not everyone has access to important RIs. Culture does not obey the borders of countries, therefore limiting it only to national level is problematic.
- **Open science, open data and sensitive data** was discussed. **Privacy** has to be also taken into account in culture.
- Non-academic users are important; therefore **data needs to be adapted to be understood also by the non-academic users**.
- **Cooperation between humanities/social sciences and industry** is important (e.g. museums, gaming industry, film industry, policy makers, etc.).
- **Sharing of good practices and knowledge-transfer** is important.



**Plenary Session 3**

The main question of the session was about working with other actors and fostering collaboration, along with the main experiences in such collaboration, the challenges and success factors.

The role of the RIs in the regional ecosystem, using the Skåne region in Lund, Sweden as an example, including academia/ businesses, healthcare/skills/transport/culture and ultimately the UN Sustainable Development Goals (SDGs) was highlighted, along with the interplay across local, regional, national and European/global levels.



The small and medium RIs in the universities are open to both the public and private sectors.

The ARIE consortium<sup>5</sup> proposed specific suggestions for the ESFRI Stakeholders Forum:

- For the ESFRI Stakeholder Forum to be useful, communication needs to be two-way. ARIE has an enormous wealth of experience in effective RI operation – what works and what doesn't.
- Vertical: Support RI consortia in the form of (I3s) to exist, be sustainable, efficient and collaborate/coordinate.
- Horizontal: Support these consortia to cross-collaborate (e.g. ARIE) together with other actors in priority theme areas (scientific or other).

Common issues across G6<sup>2</sup> are that they are subject to national/regional funds and they have similar matters of researchers careers (training/assessment/ compete with private sector). Sustainability has a better outlook if it is based on a combination of public national funding (e.g. institutional), European (e.g. Horizon Europe, ESIF) and private (e.g. users, donors). In particular, for less research intensive Regions of the EU, substantial amounts of resources can be available via the European Structural and Investment Funds (ESIF). Links between Partnerships and RIs is also needed to build an homogeneous ecosystem. Finally, some identified priorities include more work on costs and greening of RIs, landscape analyses including RIs beyond ESFRI, funding instruments for the short and long term, the EU charter of access and overall the ERA Policy agenda actions 8 (RIs) and 12 (Tis).

### Closing session

#### Conclusions and close

Apostolia Karamali (EC), Jana Kolar (ESFRI Chair)

The closing featured the Commission and ESFRI Chair highlighting some of many points raised by the speakers and the audience, and in particular the role of the Stakeholders Forum and corresponding platform via which they stakeholders can interact and pass their messages.



The ESFRI Chair stressed that the 1st SHF meetup was not the usual type of event, rather a special one, giving the floor to the stakeholders around RIs to raise their voices. Research Infrastructures were

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<sup>5</sup> The **ARIE consortium** (Analytical Research Infrastructures in Europe) was then presented, which encompasses more than 100 European RIs supporting more than 40,000 researchers from academia and industry



called to step out of their comfort zones, interact with other communities, and increase the impactful role of RIs in fundamental research and in addressing societal challenges. The stakeholders were called to utilize the newly launched SH platform to keep the messages shared alive, and a promise to absorb the key messages and work them out in the ambitious ESFRI workplan. The main purpose of this effort is to lay the foundations for the brighter future for the research & innovation system.

From the Commission side Lia Karamali stated that RIs have a cross-cutting perspective and are closely linked with the whole research and innovation ecosystems, including the public and private sectors, and society overall. The RIs can thus serve major policy initiatives.



## Annex I

- **Opening session**
  - Welcome addresses and opening presentations

Moderator: *Prof. Carlo Rizzuto*

### **Welcome addresses**

ESFRI Chair, EC, BE delegation

### **Presentations and discussions:**

- *Marek Vysinka*, CZ Presidency, Head of Unit for research infrastructures at the Ministry of Education, Youth and Sports
- *Anna Panagopoulou*, EC, Director ERA and Innovation, DG RTD
- *Jana Kolar*, ESFRI Chair

- **Plenary Session 1**
  - Meeting stakeholder needs: objectives for stakeholder engagement

Moderator: *Apostolia Karamali*, EC, Head of Unit R&I actors and research careers, DG RTD

### Meeting stakeholder needs: objectives for stakeholder engagement

Views from Research Infrastructures and ERA Stakeholders

- *Francisco Colomer*, ERIC Forum Chair
- *Andrew Harrison*, ERF Chair
- *Antoine Petit*, G6 Chair
- *Muriel Attane*, EARTO, Secretary General
- *David Bohmert*, CESAER, Secretary General
- *Benjamin Martinez Sanchis*, Policy and Advocacy Officer, The Coimbra Group
- *Magnus Fredriksson*, Alfa Laval Technologies AB

- **Parallel Sessions**
  - RIs as pillars in the ecosystem, addressing challenges
- **1. Climate:** *Gelsomina Pappalardo*, ESFRI Executive Board
  - *Valerie Thouret*, IAGOS, Chair of the Executive Board [Download the presentation](#)
  - *Fernando Diaz Lopez*, Climate KIC
  - *Johannes Klumpers*, EC, Senior Expert DG CLIMA and Head of Secretariat for the Climate Adaptation Mission [Download the presentation](#)
  - *Rory Fitzgerald*, European Social Survey ERIC, Director [Download the presentation](#)
  - *Evgeni Evgeniev*, EC, Policy Officer on Industrial Research, Innovation & Investment Agendas, DG RTD [Download the presentation](#)
- **2. Energy:** *Michael Ryan*, ESFRI Executive Board
  - *Louis Mazurkiewicz*, Hydrogen Europe Research, Innovation Manager [Download the presentation](#)
  - *Harald Reichert*, ESRF [Download the presentation](#)
  - *Sverre Quale*, ECCSEL ERIC, Director [Download the presentation](#)
  - *Pauline Sentis*, EC, Policy Officer on Industrial Research, Innovation & Investment Agendas, DG RTD [Download the presentation](#)
- **3. Oceans:** *Jean-Marie Flaud*, Chair of ESFRI Strategy Working Group on Environment
  - *Jan Vanaverbeke*, EMBRC, coordinator of Belgian node [Download the presentation](#)
  - *Juanjo Dañobeitia*, EMSO, Director General [Download the presentation](#)
  - *Andreea Strachinescu*, EC, Head of Unit Maritime innovation, Marine Knowledge and Investment, DG MARE
  - *Margherita Cappelletto*, Sustainable Blue Economy Partnership
- **4. Culture:** *Georg Lutz*, Chair of ESFRI Strategy Working Group on Social and Cultural Innovation
  - *Costanza Miliani*, E-RIHS, Scientific coordinator of access to MOLAB
  - *Toma Tasovac*, DARIAH ERIC, Director
  - *Johanna Leissner*, EIT KIC Culture & Creativity

- *Alison Heritage*, ICCROM
- *Gabi Lombardo*, European Alliance for Social Sciences and Humanities, Director

- Plenary Session 2
  - Feedback from parallel sessions
- Plenary Session 3

Moderator: *David Bohmert*

### **How to foster collaboration**

- *Krisztina Anderberg Halasz*, Regional Development, Region Skåne [Download the presentation](#)
- *Isabelle Kratz*, Secretary General, 4EU+ European University Alliance
- *Robert McGreevy*, ARIE, Member of the Board of Chairs [Download the presentation](#)
- *Luca Moretti*, G6 [Download the presentation](#)

- Conclusions and close