ESFRI's contribution to FAIR research data
Open Science Day, Slovenia

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Outline

- About ESFRI

- ESFRI and EOSC

- Lessons learnt, key challenges and areas for future actions

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About ESFRI (1)

- European Strategy Forum on Research Infrastructures (ESFRI)
  - brings together national representatives and European Commission
  - supports a coherent & **strategy-led approach to policy-making on RIs** in Europe
  - Its outputs include an **ESFRI Roadmap** for RIs of pan-European interest.
  - €25 billion investment agenda in new facilities or major upgrades
    - spanning all scientific domains, enabling curiosity-driven, responsible and socially relevant research

About ESFRI – Mandate and activities

- Facilitates **coordination & implementation of EU RI policies**, by:
  - strategic analysis of EU **RI landscape**
    - identifying scientific and political needs, enabling gap analysis and priority setting
  - development of periodic **RI Roadmaps**
    - state-of-the-art landscape of EU RIs and supporting their shared use
  - monitoring **RI performance**
    - insights into their outputs/impacts and supporting their further development
  - regular **exchanges with RIs** and their broad **user communities**
  - **policy exchanges/coordination** supporting further development of the RI ecosystem:
    - on topics such as international cooperation, open access to data, open science, financing, industry cooperation, energy crisis, impact assessment..

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ESFRI and EOSC

➢ ESFRI is a strategic partner in EOSC **co-creation** process

➢ **ESFRI Task Force on EOSC**: May 2019 – March 2021

➢ Working at:

- **Policy/strategic levels**: MS/AC, EC, horizontal policy makers
- **Operational/community levels**:
  - EOSC Association, Science clusters and thematic RIs, e-Infrastructure/EOSC initiatives and projects

➢ **Informal liaison** with EOSC Association

- EOSC Association Advisory Groups/Task Forces

➢Organised targeted meetings & workshops

ESFRI and EOSC - ESFRI TF on EOSC

- Main tasks
  - Follow-up EOSC developments and build relationships with different EOSC structures to **prioritize the RI community needs**
    - ESFRI/EOSC science cluster projects, EOSC Association and EOSC Future
  - Coordinate **ESFRI inputs to EOSC activities**, fostering active role in EOSC
  - Organise **meetings and events** showcasing the importance of ESFRI and the RI community in EOSC

ESFRI and EOSC (1) – Key messages from ESFRI

- The RI community **drives data quality** and leads the change of **culture towards open science and FAIR data/services**.

- The **thematic RIs and their communities** are key stakeholders for EOSC, its uptake and sustainability.
    - **RIs as providers** of thematic quality data and services.
    - **RIs as users** of EOSC horizontal data and services.

- **The broader the federation of thematic RIs in EOSC and the uptake of horizontal services, the better the chances for EOSC to be sustained in the longer term**
    - The EOSC concept & priorities have to be developed in close collaboration with RIs
    - EOSC needs to address the actual research community needs. Either a strong forum or a role in governance is needed to solicit user / research community needs & inputs

- The **national** building blocks of both thematic and horizontal infrastructures and engagement of related Research RPOs are key for the success of EOSC.

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ESFRI and EOSC (2) – Key messages from ESFRI

- Still more effort needed for thematic communities to get **added value** from EOSC
- Call for **user-friendly** paradigms, catalogue of services, dashboards:
  - Including **use cases, success stories and demos**
- **Training and guidance** on the use of the EOSC services, including an EOSC helpdesk are critical to support users' uptake and engagement
- **A clearer vision of the EOSC services** towards the users including the EOSC marketplace is needed
  - to understand what they should expect and why they should connect and engage with EOSC
- **Trade-off between young researchers** who want adopt modern personalized tools, **and the older generation** who want to sustain the well-known tools & classical working environments
  - EOSC providers should cope with both types of demands, which may be challenging and slow

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New challenges: energy crises (growth of data)

- Steady growth of data now challenged by **energy crisis**:
  - **High energy bills** jeopardize the sustained operation of RIs/e-Infrastructures
  - Low-end data centres (universities, research centres, small RIs) are in danger
  - →Move data from low-end data centres to **centralized high-end data centres**
    - → Especially to **green, low-energy/cost data centres** (with fast connectivity)
    - → Centralised renewable plants
  - Should all data be kept on disks → Move older data to tapes?

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New challenges: accessibility of data

- Council conclusion on Global approach to R&I
  - Openness....while pursuing a level playing field and balanced reciprocal openness in R&I, in cooperation with partner countries, based o shared fundamental values and principles.
- Fair data are common goods, but geopolitical and socioeconomic contexts are relevant – need for elaboration (based on evidence of use)
- Approaches to be elaborated with the relevant communities, particularly the EOSC SB

Lessons learnt, key challenges & areas for action

- RIs are pivotal for EOSC success

- ESFRI should continue working with EOSC at the proper levels
  - The TF worked more **at an operational level**
    - Liaising with the EOSC Association, the ESFRI Clusters and key projects (EOSC Future)
  - More work with Member States **at policy level** needed
    - A strong need to work also **top-down at policy level linking ESFRI with EOSC, e.g. with EOSC Steering Board**
      - **ERA Action No 8 also foresees "increased cooperation between RIs, e-infrastructures and stakeholders, including through EOSC"**

- **Conclusion:** Work on EOSC is a high priority for ESFRI, maintaining the links at the operational level & more links at the policy level

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Thank you