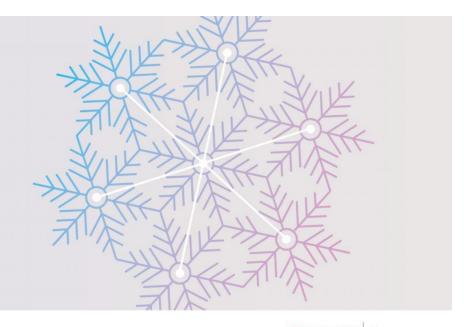


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# Strategic Pillar 1: Sustaining and enhancing the EOSC Federation

Tibor Kálmán OAEG1/TF4:





- Which specific SP priorities or topics have been discussed?
  - 3 sessions: "Status of EOSC PID Policy"; "Position of PIDs in EOSC Federation"; "The position of EOSC Federation in the global research data environment"
  - Scene: PIDs are fundamental component of the infrastructure for the EOSC Federation
  - Main result: new version of "PID Policy" for EOSC Federation (ready for consideration by the Tripartite)
    - Project participation was extremely valuable and important (process)
    - Projects (together with the OA1) validated the Policy
    - Projects developed software (FC4E) and a knowledge base (F-I) to support the PID Policy
  - List of PID services (KERs: functions) of emerging results of projects that will enable and advance the Federation ("making EOSC a better place")
  - Best practices and recommendations
- How do these topics align with the mid-term and long-term objectives defined during the WS 2025
  - Contribute to the definition (and implementation) of policies (PID Policy Revision ✓)
  - Support the nodes with services regarding PIDs
- How do OAEG1 & TF4 contribute to advancing these priorities? (Highlight specific actions, initiatives, or outputs)
  - see above + bringing relevant stakeholders together (incl. global research community)



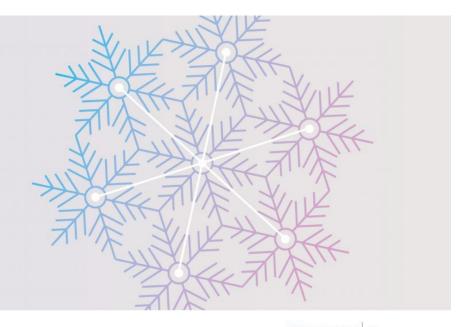


- Governance challenges
  - EOSC Federation PIDs Policy is fundamental for the federation and should have Owner and Authority which is part of the federation
- Technical challenges and alignment
  - Too many KERs to implement with EOSC Federation we need time to prioritise
- Next steps
  - Understand how to bring the PID Policy for consideration to the Tripartite?
  - Broadening OA1 with supply-side. Include more end-users (communities).





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# Strategic Pillar 1: Sustaining and enhancing the EOSC Federation

Agnes Jasinska (DCC-UEDIN) OA2/TF1+TF3

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### Strategic Pillar 1 priorities and topics discussed

#### **Primary focus:**

- SP1.A: Further development of the EOSC Federation model.
- SP1.E: Continue to stimulate the development and maintenance of open interfaces, alignments, guidelines, crosswalks and APIs that enable interoperability

#### Also:

- SP1.B: The user perspective is crucial. Different categories of users (consumers, providers, facilitators; single users vs. users representing projects or communities; non-research users).
- SP1.C: Funding and governance models that will ensure sustainable EOSC Federation.
- SP1.F: National policy should support research infrastructures, e-infrastructures and national service providers to align activities and establish EOSC support.





# Alignment with WS 2024 and TF/OA inputs

#### Topic alignment with Winter School 2024 mid-term objectives:

- To frame inter-project collaboration that allows seamless onboarding of future projects
- Contribute to shaping the vision of SRIA 2.0

#### Topic alignment with WS 2024 long-term objectives:

 Increase the potential of the HE EOSC-related projects to deliver sustainable results that benefit the EOSC deployment and thereby maximise project impact

In what ways does the **Opportunity Area Expert Group (OAEG) & Task Force (TF)** contribute to advancing these priorities? (Highlight specific actions, initiatives, or outputs)

- By sharing solutions, use cases, and user stories
- By working in a common document of interoperability solutions -> yellow interoperability pages





# Challenges

Challenge 1: To identify solutions (currently available or in development) to enable EOSC Interoperability Framework to come into reality

Challenge 2: To identify use cases and user stories that makes sense for the EOSC Nodes Federation





## Semantic interoperability layer - 79 solutions total

S1 problem: Lack of common definitions of terms used by user communities.

Need: Harmonization across disciplines.

Recommendation: All communities should generate **clear and precise definitions for the concepts** that they use, as well as their metadata and data schemas. These definitions **should be publicly available**, referenced by a persistent identifier and shared in EOSC.

#### 18 solutions completed or in progress

#### Examples of solutions:

- MOD (Metadata for Ontology Description and Publication Ontology) to capture metadata information for ontologies, vocabularies or semantic resources/artefacts in general.
- CodeMeta Initiative: Translating metadata from one standard, vocabulary or ontology to a harmonized vocabulary. "A Rosetta Stone" for software metadata.
- I-ADOPT: a structured description of content / terms, instead of multiplying the number of concepts.
- Pilot Quantum-EOSC Node (QUEX) in upcoming European Quantum Excellence Centre.





# Technical interoperability layer - 54 solutions total

T1 problem: Authentication and authorisation often needs to be performed separately for each community/service.

Need: The process of authenticating to and obtaining the rights to use the services offered by EOSC should be as unobtrusive as possible.

Recommendation: Use open specifications, where available, to ensure technical interoperability when establishing EOSC services.

#### 13 solutions completed or in progress

#### Examples of solutions:

- EduGAIN: Federating AAI; federated authentication across the EOSC Federation.
- MyAccessID: Provide consistent authentication and identification for researchers across all the RIs and EOSC/EuroHPC services.
- EOSC AAI Architecture: How to set up the EOS AAI Federation and requirements for joining.





# Understanding the users of EOSC Federation

#### Participants generated:

- 40 interoperability use cases from diverse scientific communities
- 32 interconnected user stories
- a methodology to register use cases and user stories to identify gaps and requirements in EOSC Federation

#### Examples of use cases:

- integration of multimodal data sources;
- create a data dictionary;
- automatically update DMP;
- automatically deposit data in repository;
- multilingual search of databases;
- voice search; connect data space to a node





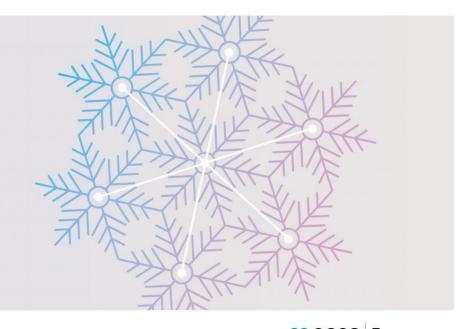
### Recommendations and Next Steps

- General recommendations
  - We need a clear map of solutions towards EOSC projects and TFs
  - We need more focus on the user perspective
  - We need more synchronization & collaboration meetings
- Next steps
  - Continue the started work in the OAEG2 and TFs
  - Alignment with the EOSC IF Registry (EOSC Beyond)





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# Strategic Pillar 1: Sustaining and enhancing the EOSC Federation

Chris Schubert OA3/TF2/TF4





- Which specific SP priorities or topics have been discussed?
  - the landscape of tools (FAIR Assessments), Metadata, Schemes & responsibilities
- How do these topics align with the mid-term and long-term objectives defined during the WS 2024
  - continue (the early stages actions) TFs, FAIR-Impact, CTS, EOSC EDEN, FIDELIS, OS Trails
- In what ways does the Opportunity Area Expert Group (OAEG) & Task Force (TF) contribute to advancing these priorities? (Highlight specific actions, initiatives, or outputs)





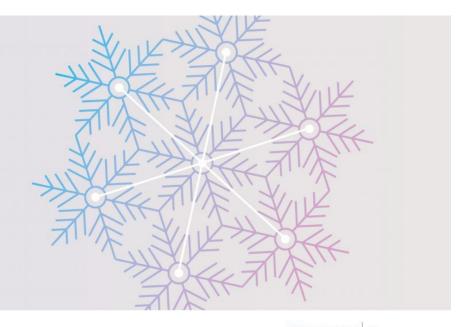
- Technical challenges and alignment
  - Metadata Challenges, Whose responsibilities is it? (on the repositories, on authors of a deposits, Standardisation Organisation, etc.)
  - Transparency for Trust
- Recommendations
  - Customized the advises on FAIRness [TF FMDO, TF LTDR],
  - Aligning repositories & objects perspectives [TF LTDR]
- Next steps

Aligne, Adapt, improve Criteria





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# Strategic Pillar 1: Sustaining and enhancing the EOSC Federation

Diego Scardaci OA4/TF3





- Which specific SP priorities or topics have been discussed?
  - Presented current work on the EOSC Federation Architecture and Node enrollment/Resource
     Onboarding (Handbook and Beyond)
  - Discussion on the requirements to enroll Nodes and onboard resources
  - Experience on EOSC EU Node usage (AI4EOSC, ESG/Galaxy)
- How do these topics align with the mid-term and long-term objectives defined during the WS 2024
  - Collect feedback and requirements from resource providers on the EOSC Federation
- In what ways does the Opportunity Area Expert Group (OAEG) & Task Force (TF) contribute to advancing these priorities? (Highlight specific actions, initiatives, or outputs)
  - Identify new multi-node use cases for the EOSC Federation (data sharing/transfer, federation of compute and storage resources, etc.)
  - Piloting use cases and integration scenarios



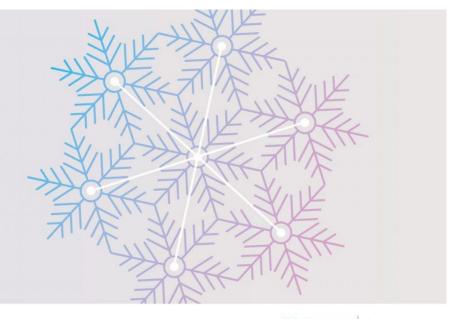


- Technical challenges and alignment
  - Work with a shared model for the EOSC Technical Architecture
    - Common vocabulary (Handbook definitely helps on this!)
  - EOSC EU Node:
    - More automation is needed
    - Not enough credits for meaningful research
- Recommendations
  - Communicate clearly the current objectives and the target users
- Next steps





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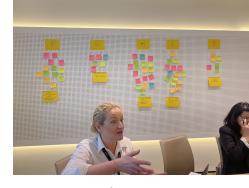
# Strategic Pillar 1: Sustaining and enhancing the EOSC Federation

Celia van Gelder





# Contribution to SP1 Priorities (work in progress)



- Which specific SP priorities or topics have been discussed?
  - Since skills & engagement are horizontal to EOSC so we have started discussing all SP1 priorities from the perspective of OAEG5;
  - We mapped the 4 current Workstreams of OA5EG (Engagement & Strategy, Training Catalogue/Training infrastructure, Training Material/Learning Path/Curriculum, Accreditation/Recognition/Assessment) to the SP1 priorities
- Main topics that emerged/ areas OA5EG can contribute, the majority is relevant for european, national and institute level OA5EG can be the linking pin
  - Related to adoption/harmonization/standardization: Collecting and sharing best practices, use cases and approaches from country/institute/project perspective (competences, curricula, certification, etc)
  - (Support) Progress on/with (defining and implementing) Competence Centers & relation to EOSC Nodes
  - Support in dissemination/raising awareness about the EOSC Federation with the stakeholders, which will help enhance adoption
    of EOSC
  - Enhancing visibility of OA5 themes/activities in the EOSC ecosystem. (potential KER: a (FAIR) one-stop-shop to find all relevant skills & engagement resources, including EOSC Training Catalogue)
  - Funding, metrics, reward & recognition for OS practices
  - Work further on curricula (data stewards, OSPOs, etc)
  - Sustainability and embedding: working towards capturing skills & engagement outputs of EOSC projects and other activities





#### Challenges

the European Union

- Still in process of defining actual role of OA5EG, esp in the context of the EOSC Federation build-up
  - Note: OA5 does not have an accompanying Task Force
- Lack of funding for OA5 related activities hampers progress and adoption

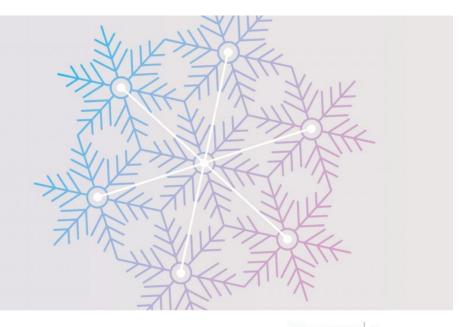
#### Recommendations & next steps

- Close the communication gap about the EOSC Skills & Engagement & Adoption between OA5EG & EOSC-A Board; reinstall liaison role
- Progress on/with (defining and implementing) Competence Centers & relation to EOSC Nodes;
  - · next step: Convene discussion around relationship between Competence Centres and Nodes
- Work towards listing/registering existing Training Catalogues in the EU Node (as first step towards federating Training Catalogues)
- Support new recognition and reward practices and infra that incentivize adoption of EOSC (OS practices). This entails cataloging and analyzing emerging recognition and rewarding infrastructure(s) and pilots.

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# Strategic Pillar 1: Sustaining and enhancing the EOSC Federation

Margo Bargheer/Elli Papadopoulou OA6 & TF2

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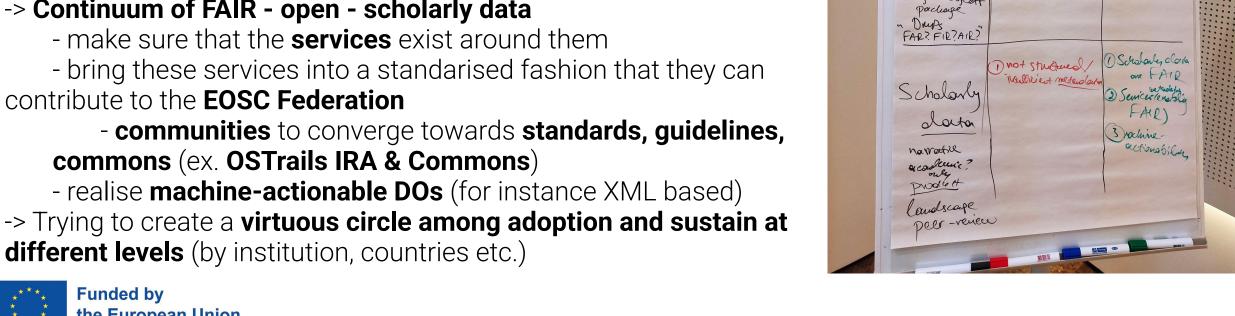


#### Presentation on FAIR practices and how they connect to Open **Scholarly Communication:**

-> Addressing **FAIR principles for DOs** in EOSC and identifying the challenges in **scholarly data**. Push and pull effort. SO4: Increased FAIR by design & SO5: EOSC Interoperability Framework of FAIR digital objects (DO).

#### Actions, Outputs, Next Steps:

- -> Continuum of FAIR open scholarly data
- contribute to the **EOSC Federation** 
  - commons (ex. OSTrails IRA & Commons)
- different levels (by institution, countries etc.)







- Margo (Diamond OA) and Leonidas (OSC and EOSC nodes) presentation:
- Which specific SP priorities or topics have been discussed?
  - -> diversifying a set of national, regional, thematic and other EOSC nodes, and adopting open standards
- In what ways does the OAEG6 contribute to advancing these priorities? (Highlight specific actions, initiatives, or outputs)
  - Supporting content providers such as publishers to use standardised processes (eg, how do I prepare my paper), services, that can allow the level of diversity of scientific outputs by adoption of an EOSC node, contributing to EOSC federation
  - facilitate the potential of community owned publishing infrastructures to become contributors / service providers for EOSC nodes and the federation





#### Technical challenges and alignment

- use cases in open scholarly communication vary a lot and involved stakeholders are to a high degree not (yet) connected to the concept of the EOSC, let alone to the implementation
- to address the sustainability of meta frameworks such as EOSC federation we need to address practicalities such as user uptake of standards in publishing and OSC
- nevertheless many standards and process in OSC rely on existing standards (f.e. use of established PIDs)

#### Recommendations

- spell out how EOSC nodes and their connected services already cover OSC or parts of it
- identify OSC-related standards, established processes and controlled vocabularies

#### Next Steps

practical stuff, hopefully becoming more clear when working on the SP2, SP3, SP4

