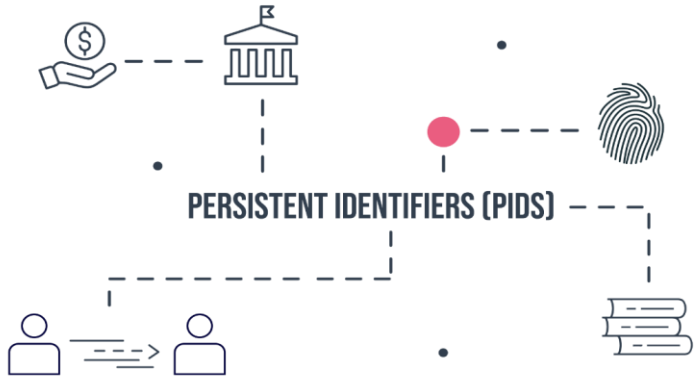
Opportunity Area Expert Group 1: Persistent Identifiers



Gorka Epelde Unanue, RAISE

With the contribution of the OA1 members

2024 Coordination meeting of EOSC-related projects funded under Horizon Europe

June 20-21, 2024

Opportunity Area 1: Persistent Identifiers

Involved projects:

- FAIRCORE4EOSC
  - development of core components for EOSC
  - Supporting a FAIR EOSC and addressing gaps identified in the SRIA
- FAIR-IMPACT
  - identify practices, policies, tools and technical specifications
  - focus on persistent identifiers (PIDs), metadata, ontologies, metrics, certification and interoperability
  - Setting up a coordination mechanism for EOSC PID service providers
  - use cases on SSH, photon and neutron sciences, life sciences and agri-food/environmental sciences.
- RAISE (Research Analysis Identifier SystEm)
  - provide the mechanisms for a distributed crowdsourced data processing system,
  - moving from open data to data open for processing

Opportunity Area 1: Persistent Identifiers

Involved projects - PID related activities:

- FAIRCORE4EOSC - develop core components related to PIDs
  - Compliance Assessment Toolkit
  - Data Type Registry
  - PID Meta Resolver
  - Research Software APIs and Connectors
  - Research Activity Identifier Service
  - PID Graph
  - EOSC Metadata Schema and Crosswalk Registry
  - Software Heritage Mirror
  - Research Discovery Graph
- FAIR-IMPACT - Enable and support a sustainable implementation of PIDs in an EOSC context
  - Identify different EOSC actors and map their existing PID policies
  - PID policy alignment workshops.
  - Implementation support and assists self-assessments of EOSC PID policy compliance
  - Propose coordination mechanism proposed for PID providers in EOSC
  - Align requirements for onboarding PID providers into EOSC, including emerging PIDs
- RAISE (Research Analysis Identifier SystEm)
  - Define and develop the Research Analysis (RAI) PID

Opportunity Area 1: Persistent Identifiers

- Associated EOSC-A Task Forces
  - Former PID Policy & Implementation (TF PID): identify the gaps in the PID ecosystem as mentioned in the SRIA (2021-2023)
  - TF Long-term data retention & TF Fair Metrics & digital objects (2024-2025)

- Areas of overlap and shared interests
  - PIDs are critical for research data infrastructures
  - Legitimacy: assessment of compliance
  - Enabling well orchestrated PID-enabled future open-science research - new scenarios

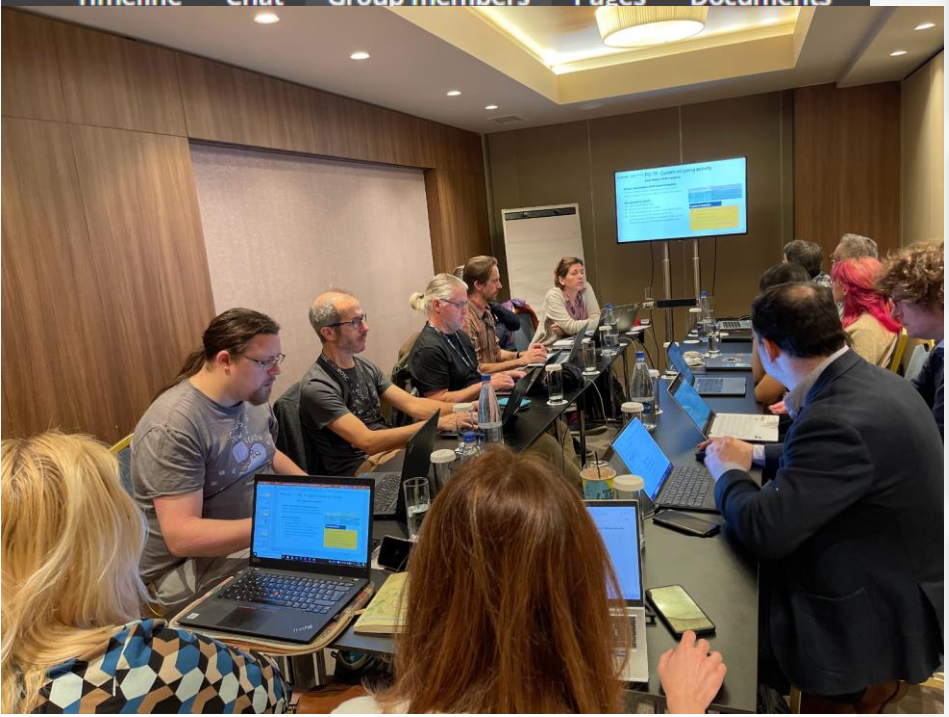
OA1:PIDs

EOSC Forum

Sub group of **Horizon Europe**

OA1: PIDs (Persistent Identifiers)

Timeline | Chat | Group members | Pages | Documents



21 Group members

- Brina Klemenčič — EOSC Association AISBL — Group admin
- Evdokimos Konstantinidis
- Gabi Mejias — TF Participant
- Gorka Epelde — Non-member
- Ilire Hasani-Mavriqi — Member
- Kaori Otsu — Member
- Marek Cebecauer — Observer
- Miguel Rey Mazón — Member
- Mike Bennett
- Natascha Mrs
- Nick Juty Mr
- Paola Ronzino — EOSC Association AISBL
- Stefan Reichmann — Member
- Teodor Ivanoaica — EOSC Association AISBL — Group admin
- Teodor Ivanoaica
- Themis Zamani — Member
- Tibor Kalman
- Tommi Suominen — Member
- Ulriika Vihervalli — External
- Wim Hugo — Member
- Yann Libaers — EOSC Association AISBL — Group admin

Opportunity Area 1: Persistent Identifiers

Outcomes of collaboration

Before winter school @OA1, EOSC Symposium 2023, …	During winter school	After winter school
RAI PID intro - early concept EOSC PID policy & architecture analysis FC4EOSC CAT and D2.1 - CAT Specs discussion - FAIR-IMPact webinars	RAI PID enhancement debate RAI PID self compliance assessment (FC4EOSC D2.1) analysis with OA1 Identification of EOSC PID Policy limitations Consensus on interpretation of the policy, actors' roles and responsibilities	RAI PID updated metadata proposal (considering RAiD, swhid,...) Self Compliance in CAT tool … more to come

Benefits

RAISE: Aligning RAI pid definition to EOSC PID Policy and learning tangible best practices for PID development & PID ecosystem

FC4EOSC: Contrasting Compliance Assessment Specs & CAT tool, awareness of role of other PID-related tools (DTR, PID Meta Resolver, Research Software APIs and Connectors, Research Activity Identifier Service, PID Graph)

FAIR-Impact: Achievement of goal to enable and support a sustainable implementation of PIDs in the EOSC context

eosc | FAIR-IMPACT
Route 2 support
#2: Creating EOSC compliant Persistent Identifier (PID) policies

Main Goals/Challenges in Opportunity Area 1

- Regular EOSC PID policy updates - responsibilities and control/review mechanisms.
- Promote - setup an advisory body with a mandate to agree on standards & assess compliance
- Establish a forum for engagement with PID providers, and as a first objective, discuss EOSC Community consensus on standardisation of APIs and identifier metadata
- Build ecosystem upon existing PID services
  - Promote extension and reuse of existing PIDs (do not reinvent the wheel)
  - Shift focus from creating PID systems to build services on top of them
- Explore the federation of research graphs, and querying over federated graphs defining use cases to visualise value (exploiting the potential of PID graphs)

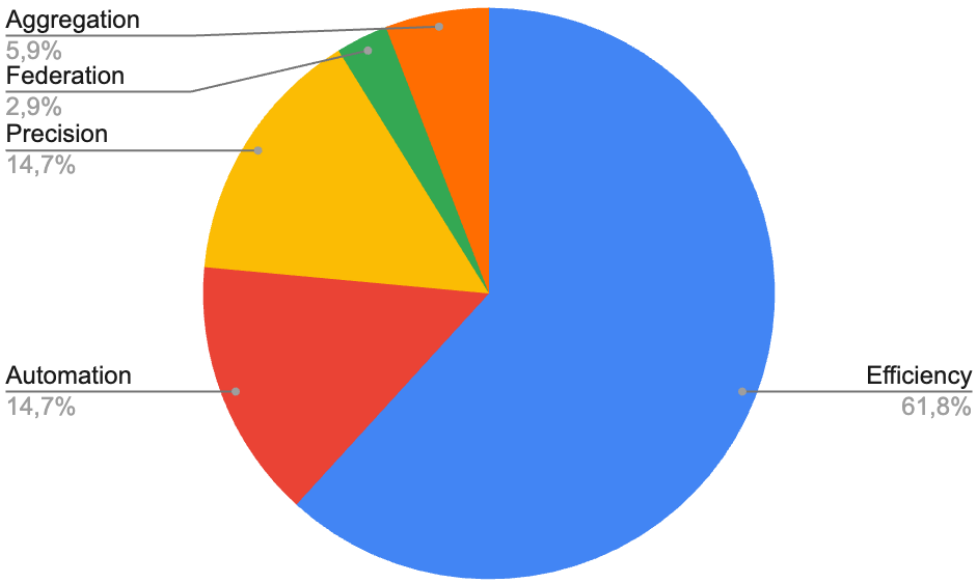
Contributions of OA1

Activities of the OA and next steps

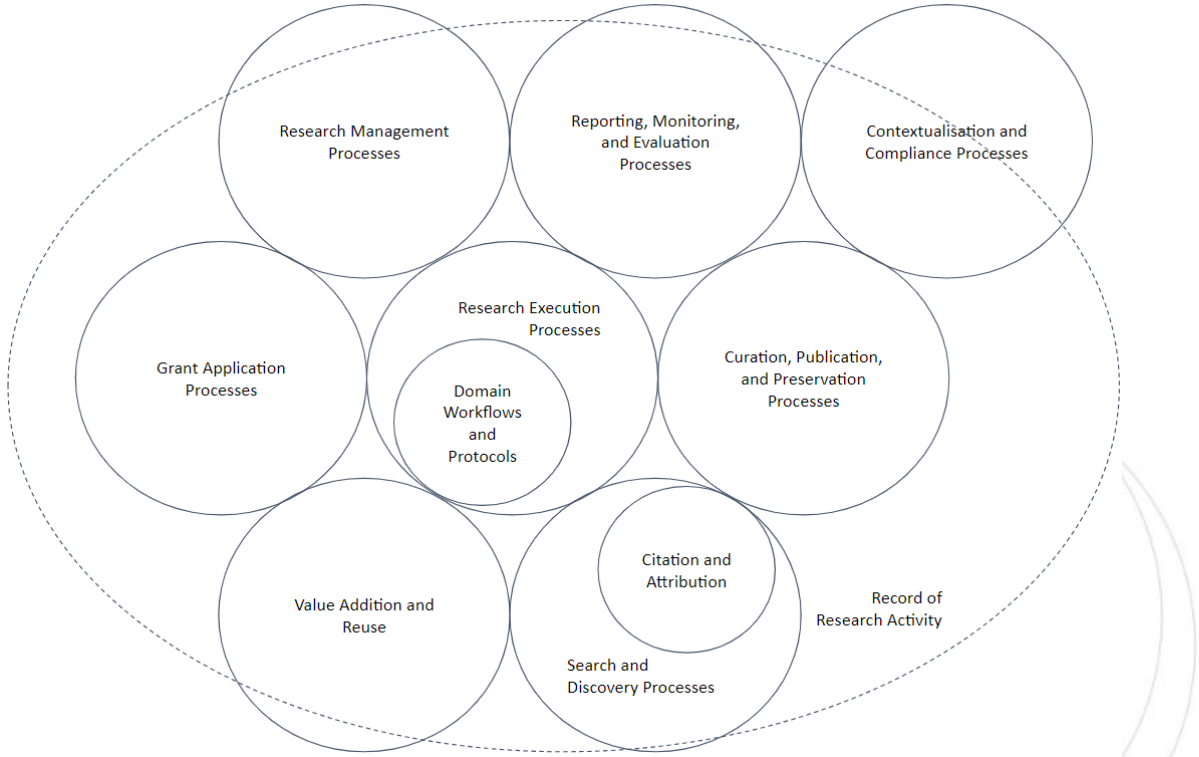
- PID policy updates and mandated authority for interim assessing EOSC PID compliance
  - Clarify how to formalise assessing authority role within EOSC for achieving PID providers' trust
- Drafting document(s) specifying requirements for new projects how to comply with the EOSC PID Policy (for MAR/WPs)
- Landscape of existing PID services and suggestions for their extensions and improvements
- Midterm: exploiting added value of PID graphs and mapping the potential of their federation for the EOSC ecosystem

Key Contributions of OA1 to the EOSC Landscape

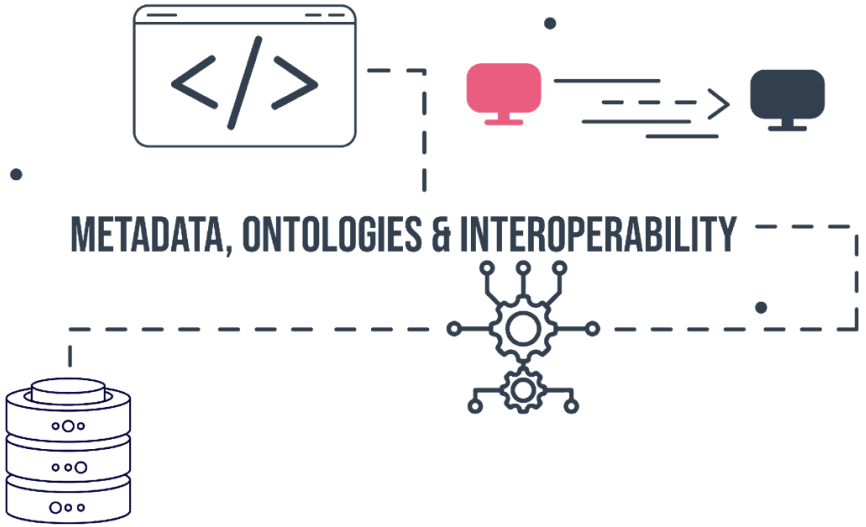
- PIDs support research data management life cycle, and facilitate complex workflows
- PID standards agreement and assessment compliance are key to foster well-orchestrated Open Science research



Benefits of PID Use



Opportunity Area Expert Group 2: Metadata, Ontologies & Interoperability



Simon Hodson, WorldFAIR

Wolmar Nyberg Åkerstrom, Semantic Interoperability TF

2024 Coordination meeting of EOSC-related projects funded under Horizon Europe

June 20-21, 2024

Opportunity Area 2 (OA2)

Metadata, Ontologies and Interoperability

Semantic artefacts, mappings, crosswalks…

Integrate and advance developments around metadata and ontologies to enable data and service level interoperability

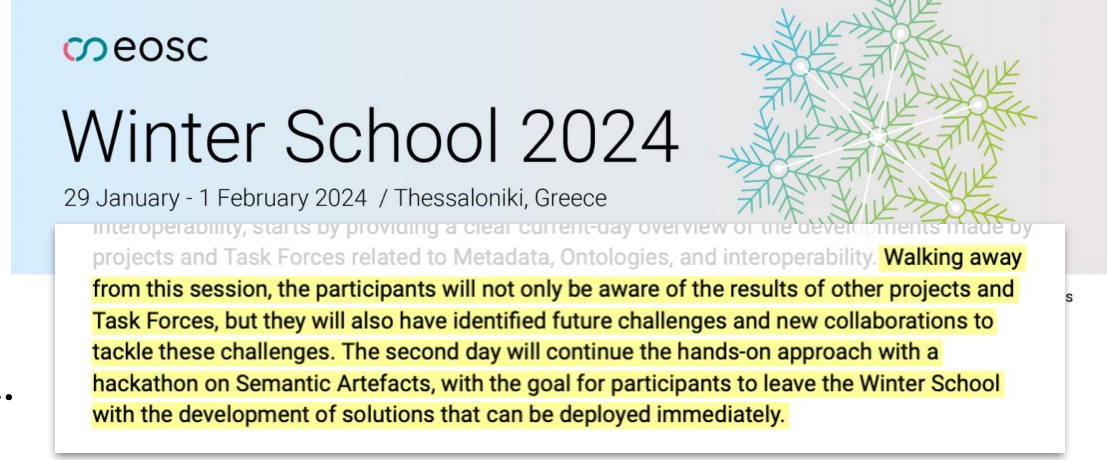
16 of 25 EOSC-related projects involved

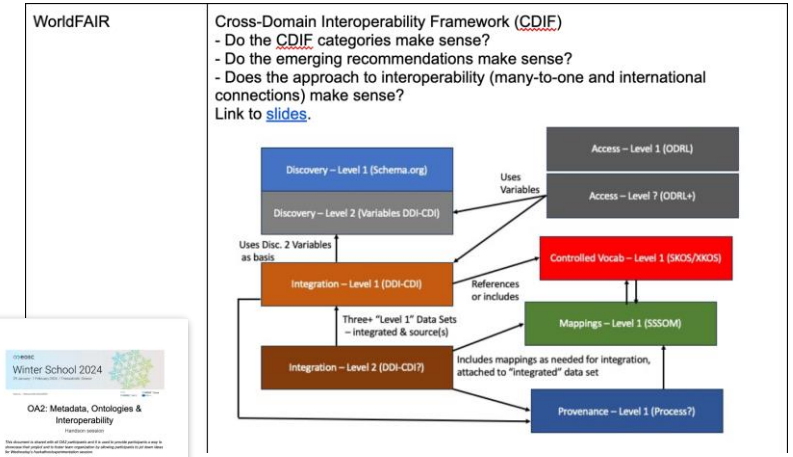
Blue-Cloud 2026	EVERSE	RDA Tiger
BY-COVID	FAIR-EASE	STR-ESFRI
EOSC Focus	FAIR-IMPACT	WorldFAIR
EOSC-ENTRUST	FAIRCORE4EOSC	
EOSC4Cancer	OSTrails	(EOSC Future)
EuroScienceGateway	RAISE	(EOSC-Life)

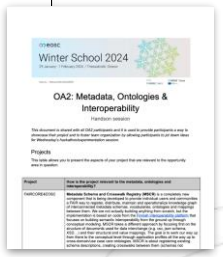
2 of 13 EOSC-A Task Forces (2021–2023)

Semantic Interoperability

Rules of Participation Compliance Monitoring







~20 hands-on topic proposals

Goals and challenges (OA2)

"EOSC approach to metadata and ontologies"

Support Task Force-to-project interactions

Align TF outcomes on interoperability with EOSC projects.
Communicate gaps, challenges, opportunities and results from the implementation in EOSC projects to the related TFs

Track implementation questions & concerns

Commit to find resolutions on behalf of and with the support of EOSC projects, EOSC Association and beyond.

Facilitate cross-project collaborations

Collaboration/alignment between projects and TFs on OA2 topics, A shared interoperability "story" across EOSC projects, Opportunities to collaborate on approaches and solutions adopted across the EOSC projects: Showcase, Validate, Inquire, Co-create, Reuse

	A	B	C
1	**Draft inventory of Opportunity Area 2 (OA2) activities** This document is a provisionary inventory of opportunities for and existing collaborations across EOSC projects on the high-level themes associated with OA2: Metadata, Ontologies & Interoperability. It should be a light-weight tool to support the proposed actions and shared activities related to the OA in the short-term, medium-term and long-term following the EOSC Winter School. Ultimately contributing to continuing the ambition of the EOSC Winter School to support collaborations, deepen technical understanding, and integreation of deliverables of EOSC-A Task Forces into the HE EOSC-related projects. See Frame of reference for an overview of initatives that shaped the OAs leading up to the EOSC Winter School and it's continued activites.		
2			
3	**Categories of OA2 activities**	**Description**	
4	EOSC-Association & TFs	Support TF-to-project interactions, such as integration of TF recommendations, responses to requests for input from the TFs, and other inquiries from EOSC-A targeting OA2	
5	OA2 Questions & concerns	Questions, concerns or issues that the OA2 commits to find resolutions to on behalf of and with the support of the EOSC projects, EOSC Association and beyond	
6	OA2 Cross-project collaborations	Existing and new opportunities for collaborations and interactions across EOSC-related projects e.g. one project using the results of another, collabortatively producing new resources, cross-project consultations etc.	
7	OA2 Events	Physical or online events of relevance to the OA2 membership and stakeholders, where EOSC projects will/should be engaged, e.g. workshops, conferences, and dissemination/outreach webinars	
8			
9	**Columns**	**Description**	
10	Type		
11	Description/links	Title, short description and link to relevant information about the activity	
12	Contact(s)	Name and contact information to the person who is coordinating for OA2, proposed the activitiy for OA2, or responsible for the activity externally	
13	Status	If relevant, curret status (ongoing, blocked, closed)	
14	Start (date)	When the activity/consultation is expected to open and when projects should be prepared to provide feedback	
15	Finish (date)	When the activity/consultation is expected to close, e.g. final date for providing feedback	
	[Project short name] (from Project and contacts)	Some version of a responsibility assignment (RACI) matrix **From Wikipedia:** *R – Responsible (also recommender):* Those who are responsible for the correct completion of the task. There is at least one role with a participation type of responsible, although	

Activities and next steps (OA2)

Shared point of departure and frame of reference

Integration of project results

Establish effective channels for cross-project collaboration and to explore how different tools and solutions from EOSC-related projects can be integrated, reused and aligned.

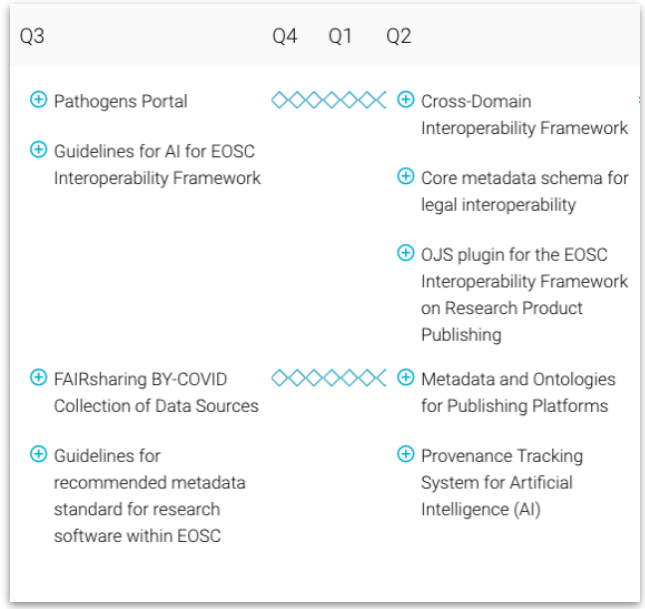
Integration of EOSC-A Task Force outputs

Ensure that EOSC projects adopt, apply or implement, to the extent possible, results and recommendations on interoperability delivered by the TFs.

Onboard projects and new Task Forces

Help current and new members to highlight and discover opportunities for collaborations and establish a modus operandi for exchange with the recently established EOSC Technical and Semantic Interoperability (2024–2025) and Health Data (2024-2025) Task Forces.

Macro-Roadmap 2023-Q3–2024-Q2



Semantic interoperability

DOI 10.5281/zenodo.10843882

Developing and implementing the semantic interoperability recommendations of the EOSC Interoperability Framework

March 27, 2024

EOSC Technical and Semantic Interoperability Task Force

Health Data Task Force

Activities and next steps (OA2)

Macro-Roadmap 2023-Q3–2024-Q2

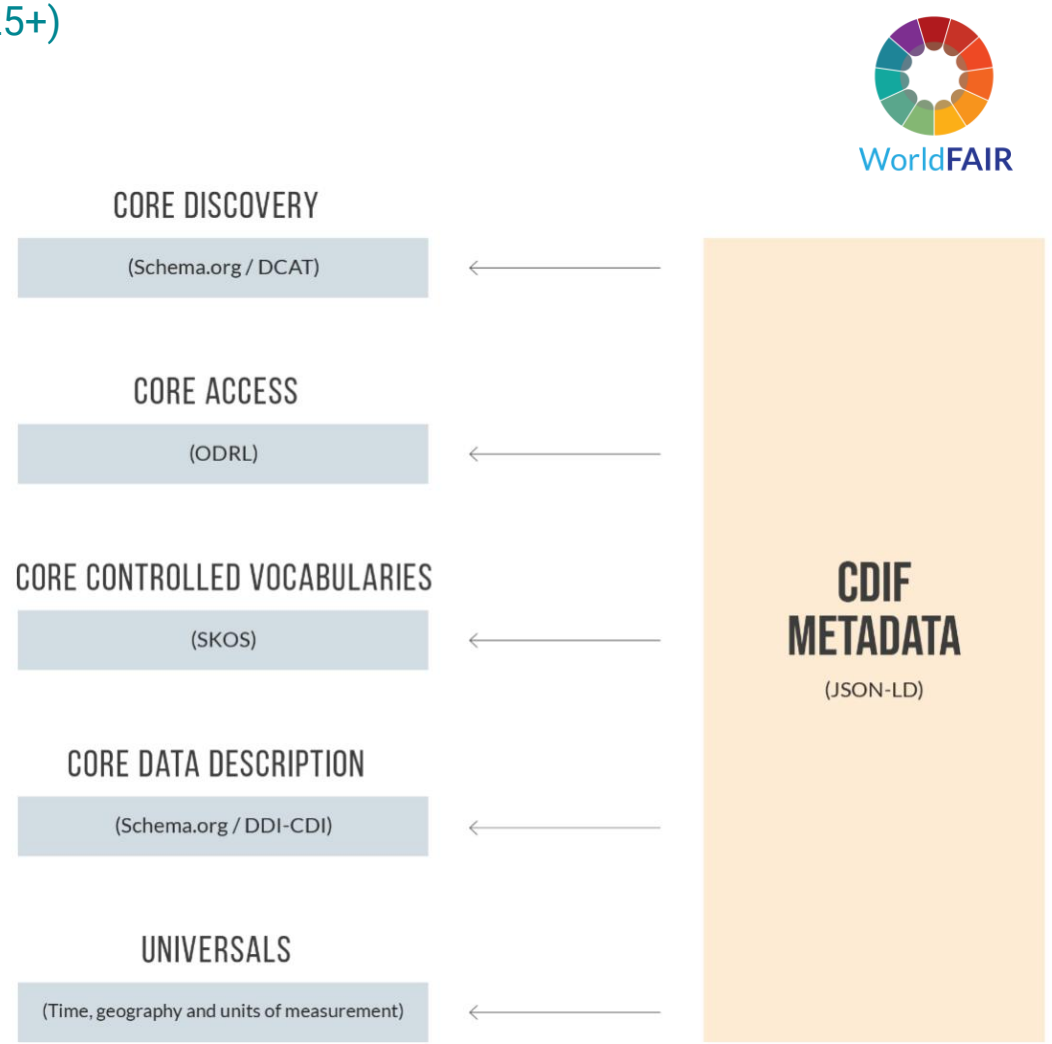
Shared point of departure and frame of reference

Example 1: Integration of project results (one project out of 25+)

WorldFAIR Cross-Domain Interoperability Framework (CDIF):

https://doi.org/10.5281/zenodo.11236871

CDIF is a set of implementation recommendations, based on profiles of common, domain-neutral metadata standards which are aligned to work together to support core functions required by FAIR.

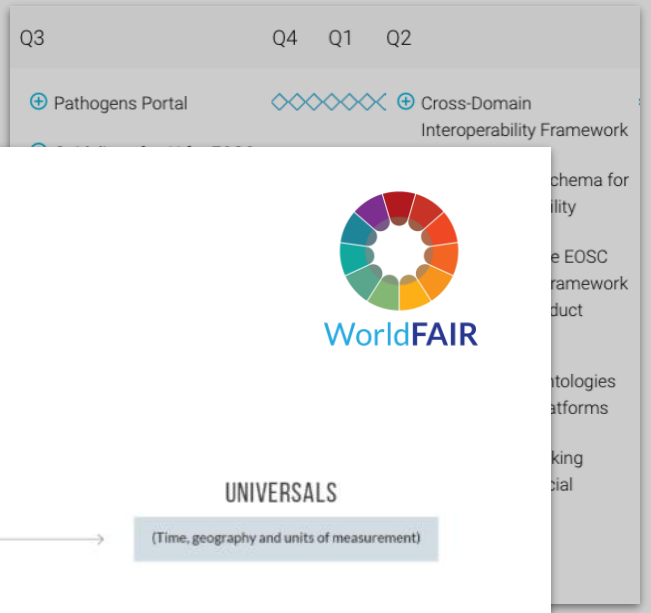


See also:

- ➔ Policy Recommendations https://doi.org/10.5281/zenodo.11242702
- ➔ WorldFAIR's use of FIPs https://doi.org/10.5281/zenodo.11236094
- ➔ Recommendations for FAIR Assessments https://doi.org/10.5281/zenodo.11242737

Activities and next steps (OA2)

Macro-Roadmap 2023-Q3–2024-Q2



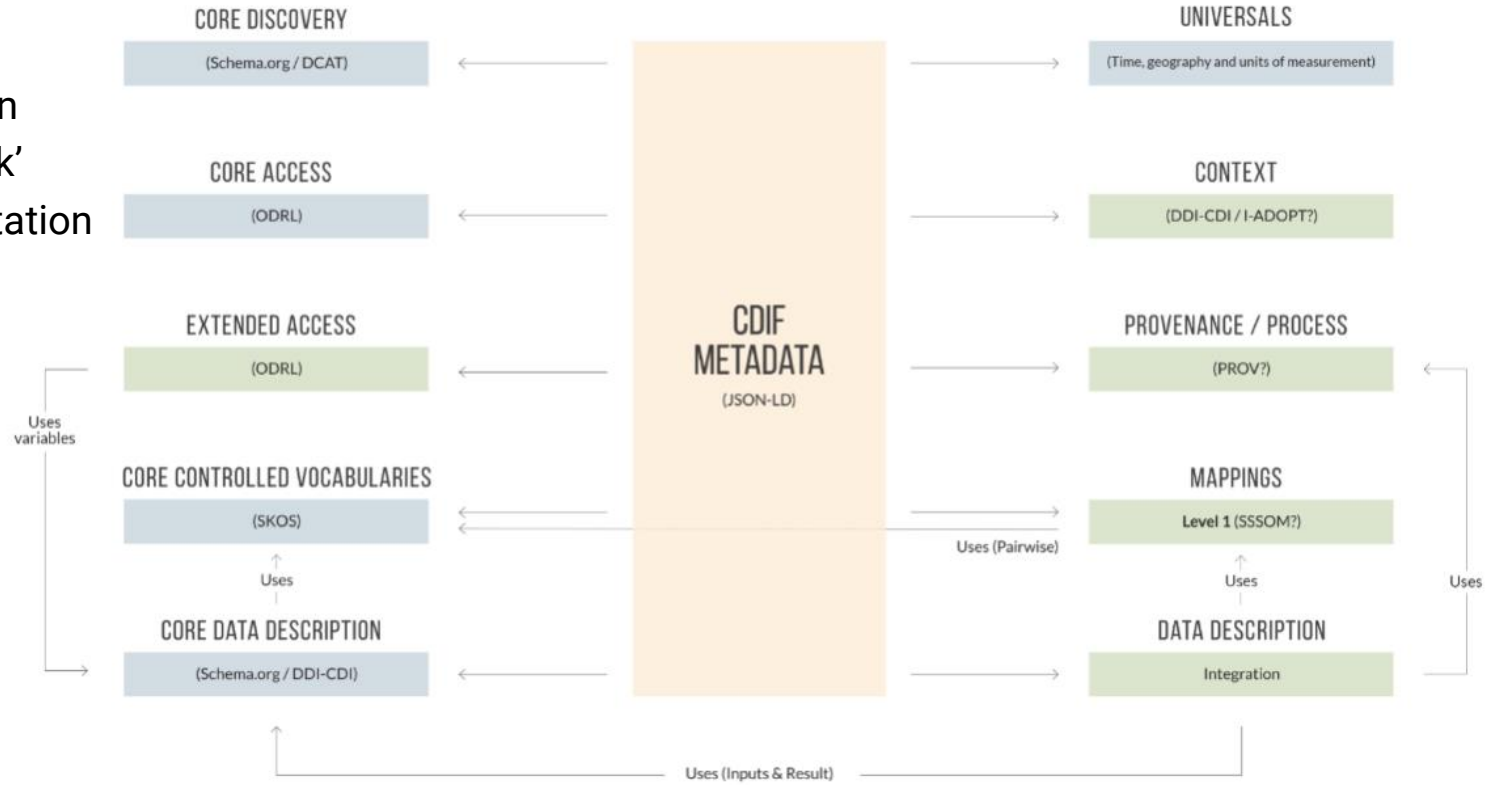
Shared point of departure and frame of reference

Example 1: Integration of project results (one project out of 25+)

CDIF Next Steps:

https://doi.org/10.5281/zenodo.11236871

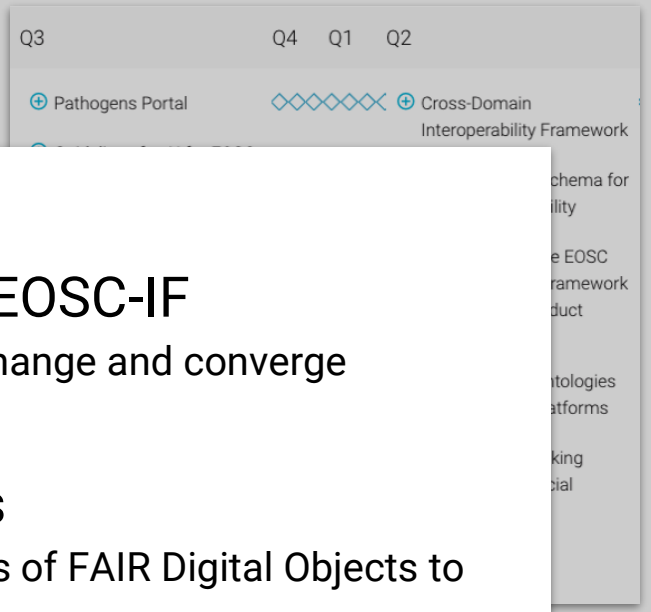
- Additional profiles.
- Implementers guide modeled on Oceans InfoHub and ODIS 'Book'
- Very keen to identify implementation pilots within EOSC.



Activities and next steps (OA2)

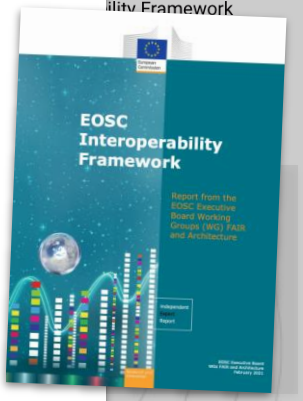
Shared point of departure and frame of reference

Macro-Roadmap 2023-Q3–2024-Q2



Example 2: Integration of EOSC-A Task Force outputs example (one deliverable of 27+)

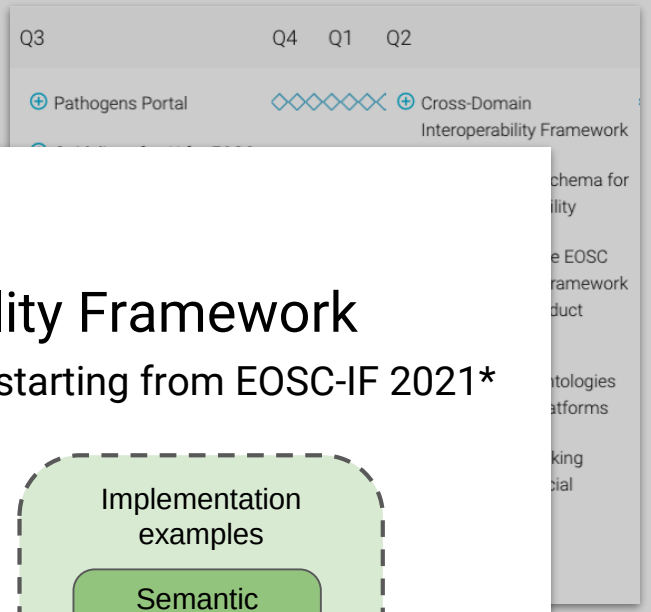
1. **Align implementations with the EOSC-IF**
   Establish a shared frame of reference to exchange and converge on shared practices and solutions
2. **Consolidate FAIR Digital Objects**
   Promote interpretations and implementations of FAIR Digital Objects to support wider adoption
3. **Extend the EOSC-IF with common use cases**
   Promote common use cases and context specific case studies to serve as input to EOSC stakeholders
4. **Artefacts such as mappings and crosswalks** *
   Recognise the importance of mapping and crosswalks to support mediation across semantic artefacts
5. **Recognise semantic artefact catalogues**
   Emphasise the role of the semantic artefact catalogue component to ensure long-term access to semantic artefacts



Activities and next steps (OA2)

Shared point of departure and frame of reference

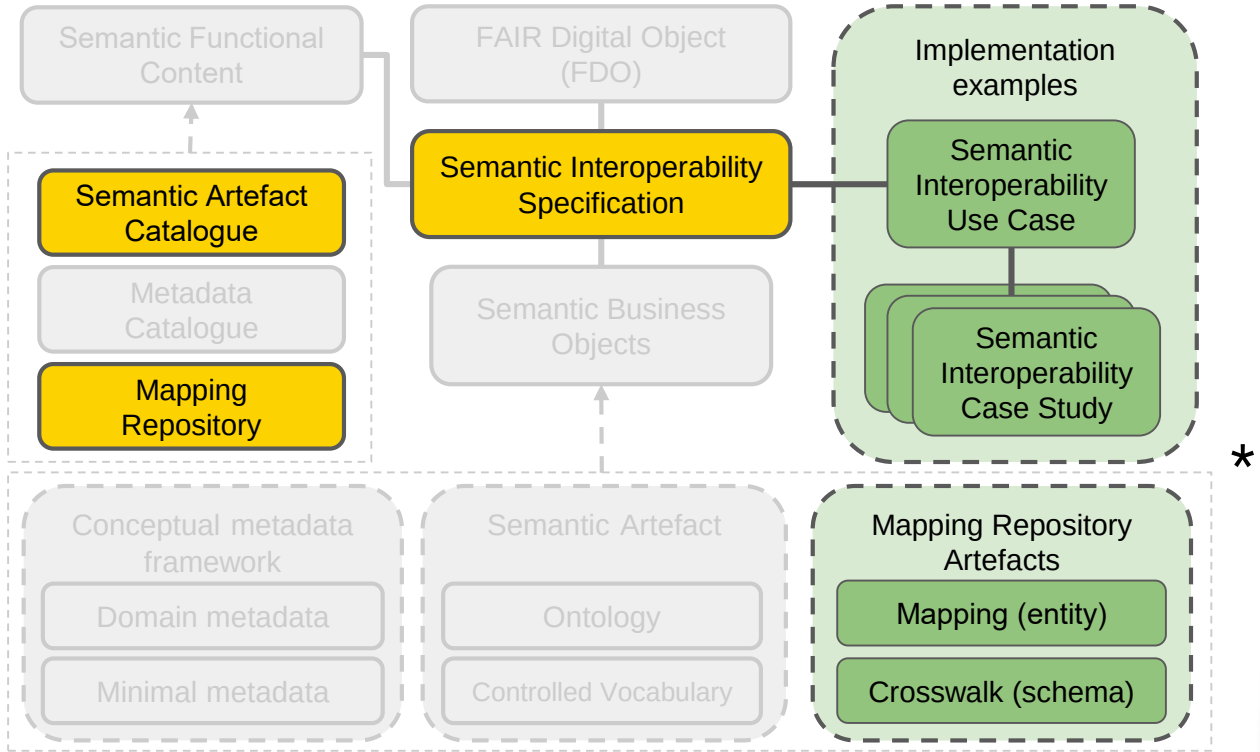
Macro-Roadmap 2023-Q3–2024-Q2



Example 2: Integration of EOSC-A Task Force outputs example (one deliverable of 27+)

Towards a Semantic Interoperability Framework

A nuanced approach informed by explorations starting from EOSC-IF 2021*



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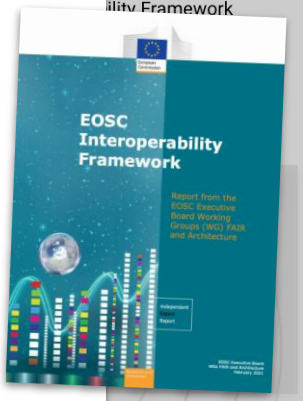
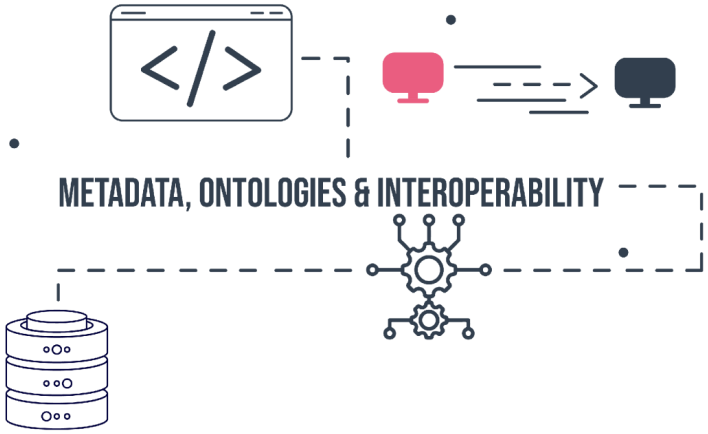


Contributions to EOSC (OA2)

Metadata, Ontologies and Interoperability



Liaison between projects and Task Forces

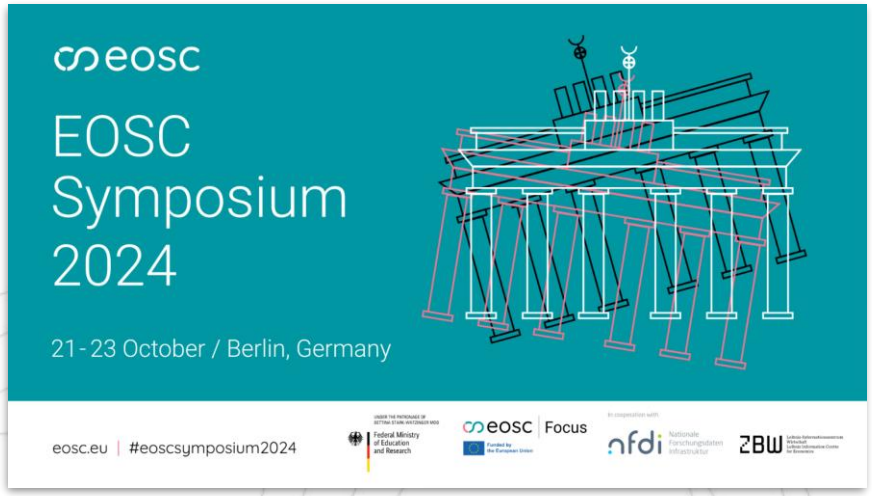
Integration of recommendations and responses to requests for input, and other inquiries concerning implementation aspects of Metadata, Ontologies and Interoperability.

Hands-on community of implementers

Leverage experts from across the EOSC projects to find answers, discover and improve on existing solutions.

“EOSC approach to metadata and ontologies”

Shared point of departure and frame of reference for current and future EOSC projects to support productive discussions, effective integrations and sustainable results across project timelines.



Opportunity Area Expert Group 3: FAIR Assessment & Alignment

Daniel Garijo - Universidad Politécnica de Madrid (UPM)
with slides from **Roxane Wyns**, **Stefan Reichmann** & **Chris Schubert**

2024 Coordination meeting of EOSC-related projects funded under Horizon Europe

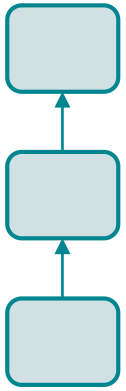
June 20-21, 2024

Opportunity Area 3: FAIR Assessment & Alignment

- **AI4EOSC:** increase the service offer in the EU landscape by expanding the EOSC ecosystem to support AI techniques
- **CRAFT-OA:** create a robust pan-European network of infrastructures that will take into account local capacities
- **EOSC Beyond:** allow researchers to find, compose and access multiple Open Science resources
- **EOSC Focus:** support the co-programmed EOSC Partnership in establishing Open Science as the “new normal”
- **EOSC4Cancer:** make diverse types of cancer data accessible, use and enhance federated and interoperable systems for securely identifying, sharing, processing and reusing FAIR data
- **FAIR-EASE:** customize and operate distributed and integrated services for observation and modelling of the Earth system, environment and biodiversity
- **FAIRCORE4EOSC**: Supporting a FAIR EOSC and addressing gaps identified in the SRIA
- **FAIR-IMPACT:** identify practices, policies, tools and technical specifications; focus on persistent identifiers (PIDs), metadata, ontologies, metrics, certification and interoperability
- **OSTrails:** advance processes and instruments for Planning, Tracking, and Assessing scientific knowledge production beyond state-of-the art
- **RAISE (Research Analysis Identifier SystEm):** provide the mechanisms for a distributed crowdsourced data processing system; adapt open data to the culture of the research community, ensuring FAIR principles
- **SIESTA:** provide a set of tools, services, and methodologies for the effective sharing of sensitive data in the EOSC, following a cloud-based model and approach

Main Goals in Opportunity Area 3

- Identify the limitations of the current FAIR assessment
- Watch and promote initiatives to facilitate the definition of common metadata schemas and their **interoperability**.
- Identify issues on **data privacy**, considering data usage, data access and data licensing and specification for machine-actionable data usage policies
- Analyse the impact of **provenance**, especially in the context of federated environments.
- Identify synergies with the Data Spaces initiative.
- Define FAIR metrics according to the objectives of the task force
- Engage with research clusters, empowering them to implement data quality practices.



Source: https://eosc.eu/wp-content/uploads/2024/03/FAIR-Metrics-TF-ToR.pdf

Opportunity Area 3: FAIR Assessment & Alignment

- Previous EOSC-A Task Forces (2021- 2024):
  - **TF Long-term Data Preservation**
  - **TF FAIR Metrics & Data Quality**
- New Associated EOSC-A Task Forces (2024 - 2026)
  - **TF Long-term Data Preservation**: provide recommendations on the vision and sustainable implementation of long-term data preservation policies and practices
  - **TF FAIR Metrics & Digital Objects TF**: implement the proposed FAIR metrics for EOSC by assessing their applicability across research communities and testing a range of tools to enable uptake
- Areas of overlap and shared interests
  - **Homogeneous FAIR result reporting** (FAIR IMPACT, OSTrails, FAIRCORE4EOSC)
  - **Governance** of FAIR tests (all)
  - Unified mechanisms for metadata retrieval of DOs (**signposting**) (all)
  - FAIR **interpretation and advice** (all)

Long Term Data Preservation Task Force

Link to OA3: FAIR assessment lacks a temporal dimension. As time passes, technologies and the needs of digital object (re)users evolve. This may result in digital objects becoming less FAIR over time. Preservation actions ensure that digital objects remain understandable and usable to their community of users.

Outcomes

- A shared vision and understanding of LTDP and agreement on different curation & preservation levels
- Recommendations for future actions as input to SRIA, INFRAEOSC projects and repository community

Outputs (Zotero group - https://lib.is/LTDP)

- LTDP-TF Final Report & Recommendations https://doi.org/10.5281/zenodo.10820893
- LTDP-TF Recommendations & Assertions https://doi.org/10.5281/zenodo.10848331
- Preservation in the context of EOSC. Sustainable repositories curating digital objects from a long-term FAIR enabling perspective https://doi.org/10.5281/zenodo.10020725
- How a European network of FAIR-enabling Trustworthy Data Repositories can align to the vision of EOSC https://doi.org/10.5281/zenodo.7568400
- Overview discussion paper https://doi.org/10.5281/zenodo.7516259

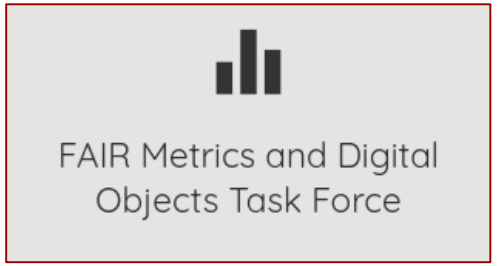
eosc | Long-term Data Preservation Task Force

FAIR Metrics and Digital Objects Task Force

Link to OA3: FAIR assessment and governance strategies. Analysing the issues on the different schemas, access models, domain standards, basic provenance and data usage models to define new FAIR metrics that could assess the suitability for federation of data and repositories.

Planned outcomes:

- Promote metadata collection (signposting) and sharing mechanisms (e.g., RO-Crate) for interchanging DO metadata
- Identify limitations of current FAIR assessment
- Recommendations for infraEOSC projects (OStrails, FAIRCORE4EOSC, etc)
- Recommendations for data spaces
- Development of DO quality indicators



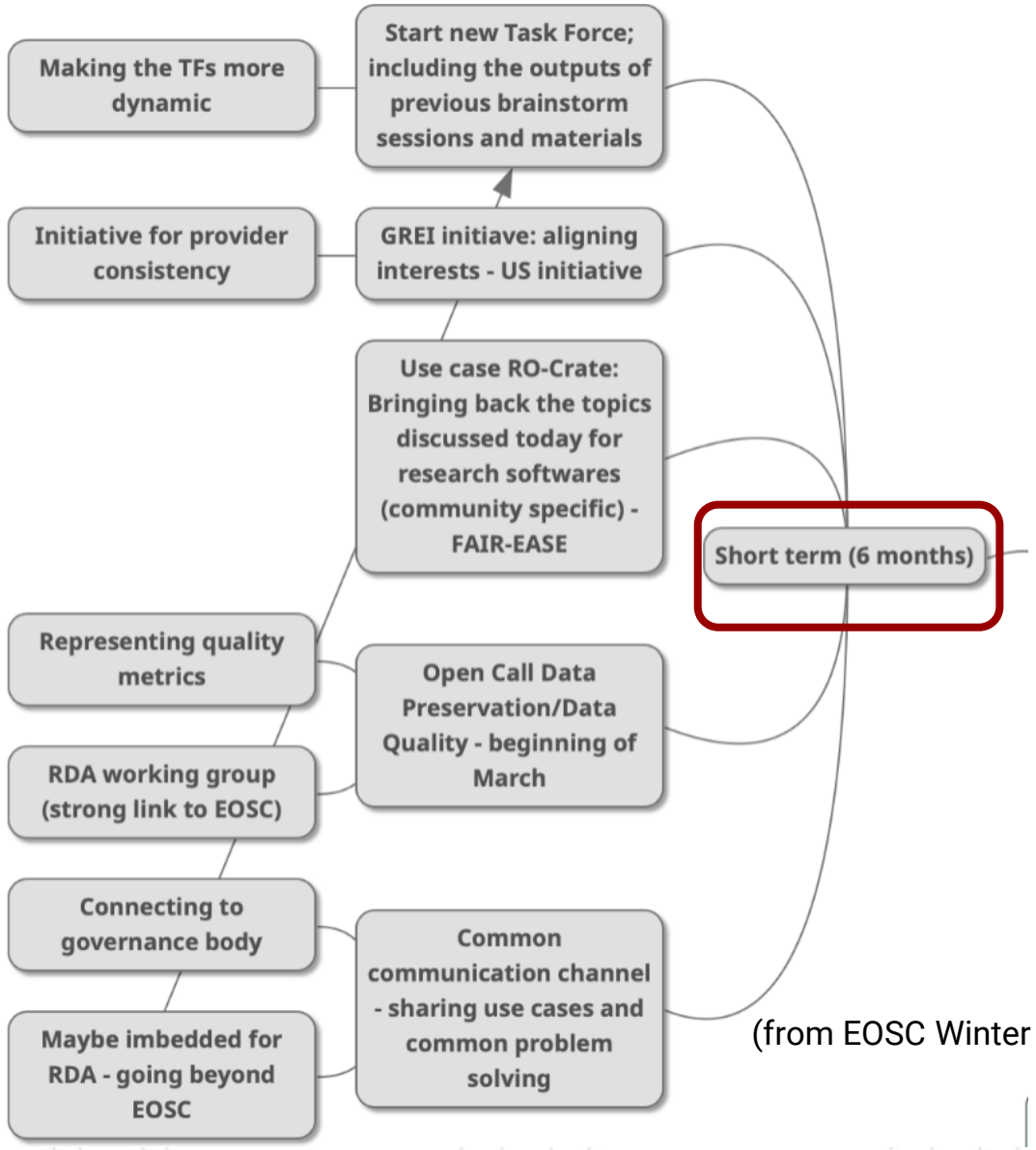
Outputs

- Previous TF: https://eosc.eu/advisory-groups/fair-metrics-and-data-quality
  - Report on FAIR Evaluation community survey (https://zenodo.org/records/10797765)
  - Report on FAIR Signposting and its Uptake by the Community (https://zenodo.org/records/10490289)
  - FAIR Assessment Tools: Towards an "Apples to Apples" Comparisons (https://zenodo.org/record/7463421)
  - TOWARDS A DATA QUALITY FRAMEWORK FOR EOSC (https://doi.org/10.5281/zenodo.7515816)

Contributions of OA3: Next steps

Medium-long term goals:

- Align with different initiatives (GREI, new RDA working groups) & relevant projects (FAIR-IMPACT, OSTrails, FAIRCORE4EOSC, EOSC Beyond, AI4EOSC, EVERSE & SIESTA)
- Align recommendations from TF long term preservation and TF branch data quality
- Development of Commons and **Governance for FAIR tests**
- Discuss sustainable funding mechanisms for FAIR assessment

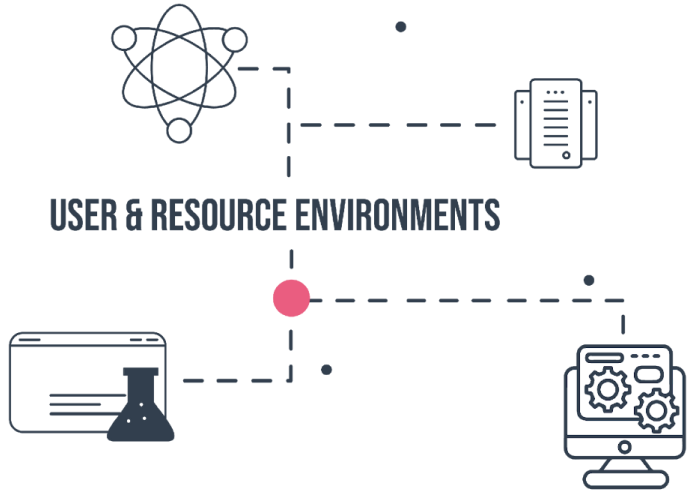


(from EOSC Winter school

Key Contributions of OA3 to the EOSC Landscape

- Assessing the **adoption and impact** of FAIR in diverse DOs
- Defining common mechanisms for defining and **adopting metrics**
- Guidance on mechanisms for **metadata consumption** (signposting) and **interchange** (RO-Crate)
- FAIR **governance** mechanisms
- Clear differentiation between FAIR data, data quality and value assessment and applying this in different environments
- General applicable and specific **recommendations** for data quality
- Development metadata criteria for transparency levels

Opportunity Area Expert Group 4: User & Resource Environments



Björn Grüning, EuroScienceGateway

2024 Coordination meeting of EOSC-related projects funded under Horizon Europe

June 20-21, 2024

Opportunity Area 4: Basic Information

User & Resource Environments

EuroScienceGateway, FAIR-EASE, EOSC Beyond, AquaInfra, AI4EOSC, RAISE

Main objective: providing support to help harmonize and disseminate the progress of systems and VRE services. This helps projects streamline certain developments, join efforts to address bigger challenges or develop state-of-the-art EOSC use-cases.

Following EOSC's key values, following the **"reuse now, rebuild later"** concept.
The OA4 working group, taking into account the common interest regarding the VRE, have all decided to share details about the major challenges, the latest developments, and even to share the challenges that could be addressed through joint efforts.

OA4 team will also be able to act as a technical validator, testing and consolidating solutions to support the activities of EOSC-A Task Forces.

Main Goals/Challenges in Opportunity Area 4

- Inter-project collaboration around VRE
  - ESG, AquaInfra and FAIR-Ease are developing tools and workflows together
  - joined presentation at the World Biodiversity Forum
  - EOSC-Cancer and ESG are working VRE → TRE (🤝 ENTRUST)
  - joined meeting between Skills4EOSC and ESG
  - RAISE and AI4EOSC are working with synthetic data and end-user scripts

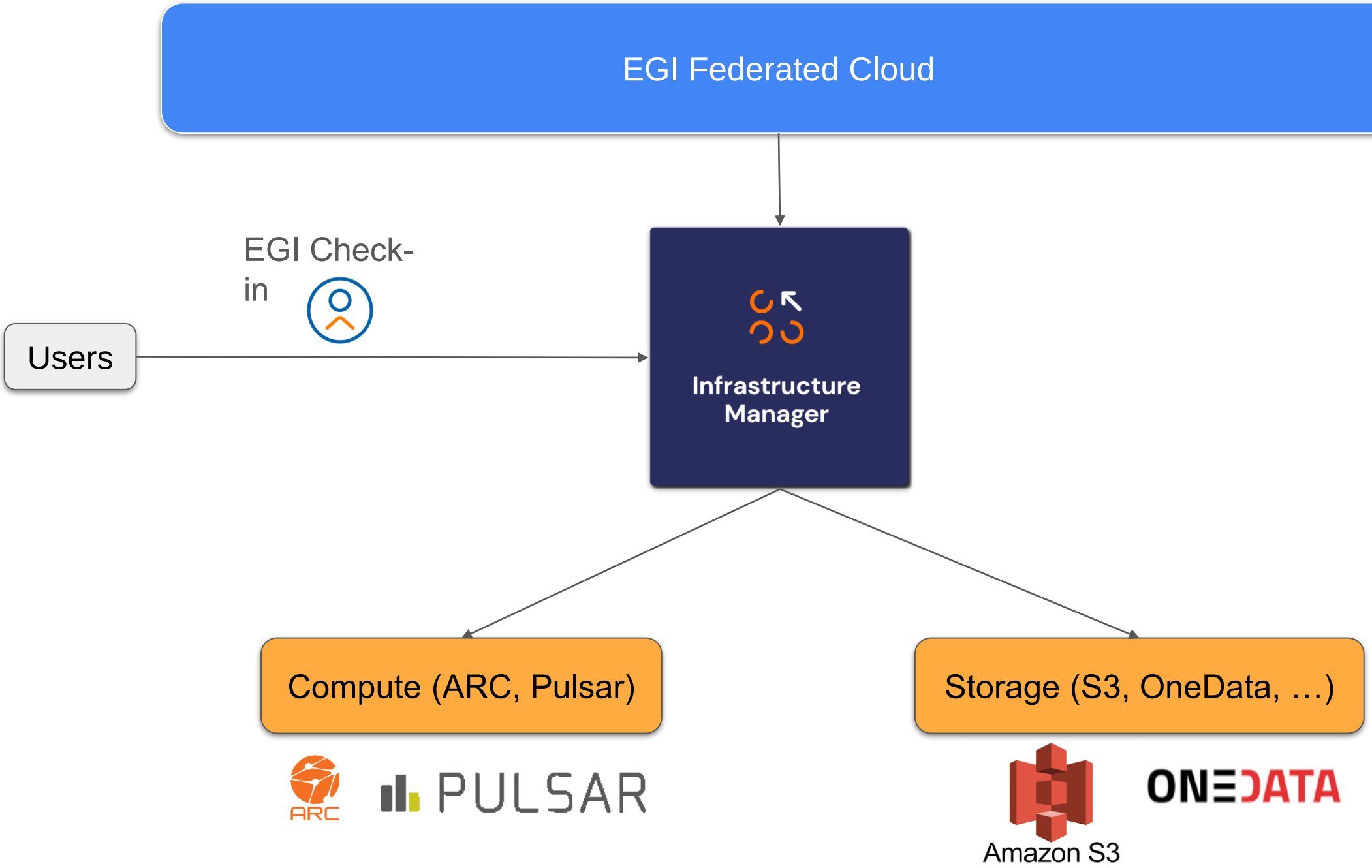
- Increasing user communities
  - Imaging - Analysis around Zarr
  - Humanities - Audio/Video to text and text mining
  - SPUN - protecting the underground
  - Open Geospatial Consortium (OGC)

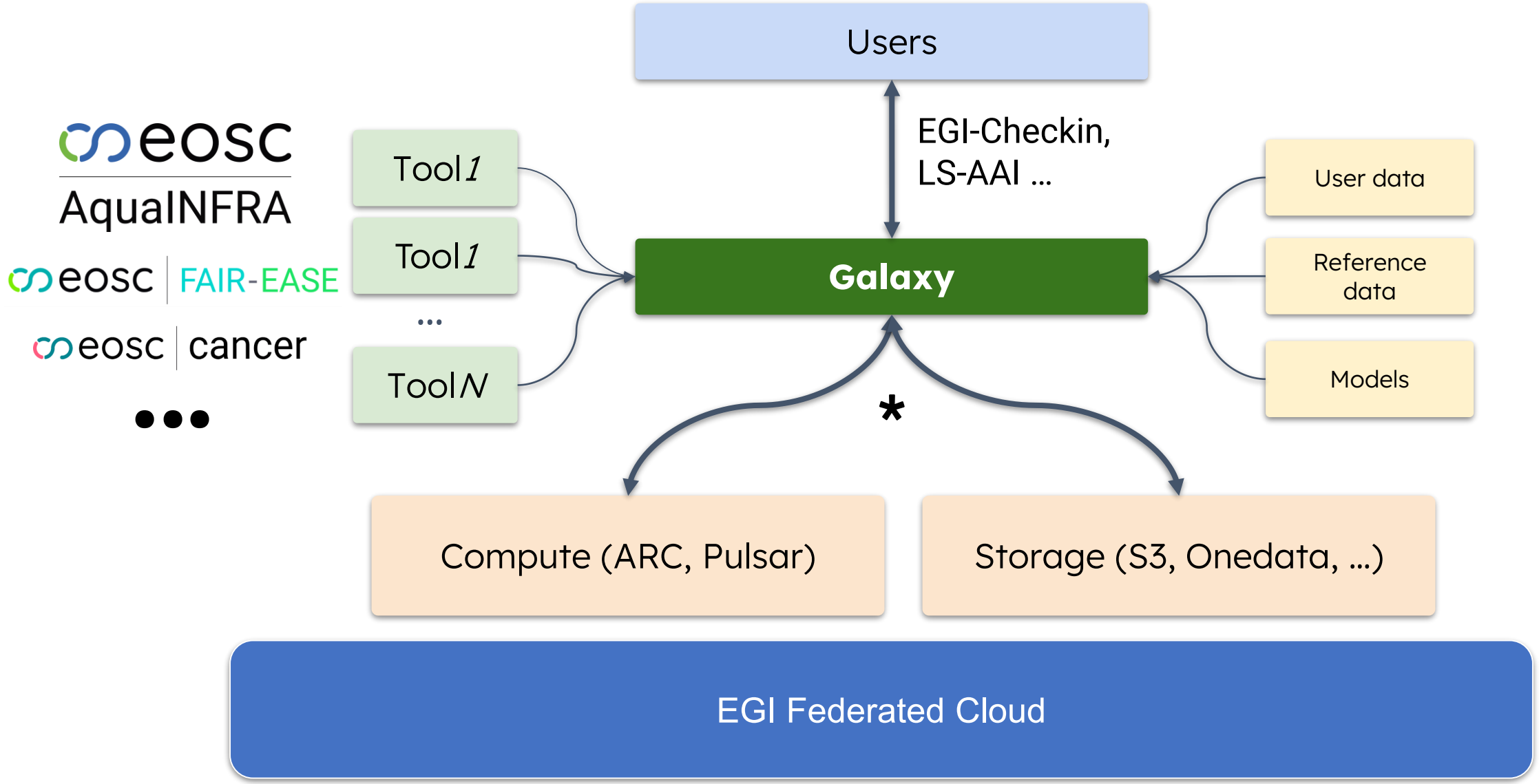
Contributions of OA4

- extending the Galaxy catalogue of tools (250 new tools in the last year - 3497 total)
- EGI Checkin and WLCG IAM integration into python-social-auth
- EGI Checkin and LS-AAI support in Galaxy
- Easy deployment of ARC (CERN Tech) endpoints with Infrastructure Manager
- Easy deployment of Pulsar endpoints with Infrastructure Manager

Infrastructure Manager for the EGI Federated Cloud will now enable:

- extending Galaxy with IM Pulsar (BYOC)
- extending Galaxy with EGI OneData (BYOS)


EGI Federated Cloud
EGI Check-in
Users
Infrastructure Manager
Compute (ARC, Pulsar)
Storage (S3, OneData, …)
ARC
PULSAR
Amazon S3
ONEDATA



* access model geared towards users not projects

Key Contributions of OA4 to the EOSC Landscape

- Improve user environments to increase EOSC **end-users across disciplines** (e.g. Life Sciences, Climate, Biodiversity)
- Leverage resource environments to offer **versatile solutions** through tools, services and infrastructures available from EOSC Providers such as Galaxy and EGI
- Integrate with EOSC Exchange **horizontal services** (i.e. IaaS, SaaS) being procured in the EOSC EU Platform
- Share **guidelines** for VRE and a **common training framework** across INFRAEOSC projects
- Establish **trusted VREs** supported by relevant EOSC projects such as ENTRUST and OSCARS

Opportunity Area Expert Group 5: Skills, Training, Rewards, Recognition and Upscaling

Celia van Gelder (Health-RI) - Co-lead OA5, EOSC4Cancer, TF Data Stewardship Curricula and Career Paths

Sara Di Giorgio (GARR) - Skills4EOSC Coordinator

2024 Coordination meeting of EOSC-related projects funded under Horizon Europe

June 20-21, 2024

Opportunity Area 05: Skills, Training, Rewards, Recognition and Upscaling

Involved projects

Skills 4 eosc

SCIENCE-CLUSTERS.eu
Research Infrastructures for Open Science

eosc | EuroScienceGateway

eosc | EVERSE

eosc | FAIR-IMPACT
Expanding FAIR solutions across EOSC

eosc | Focus

eosc | cancer

Associated TFs

eosc | Data Stewardship Curricula and Career Paths Task Force

eosc | Research Careers, Recognition and Credit Task Force

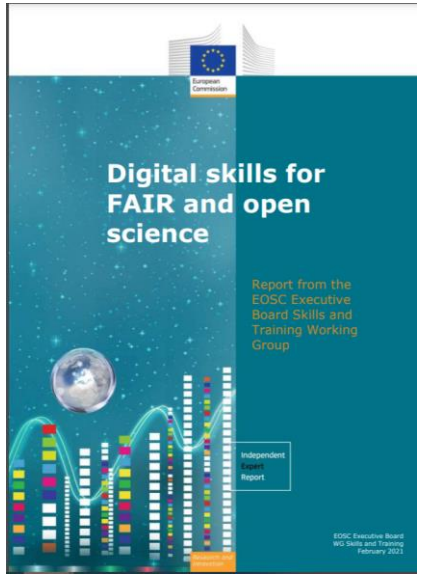
eosc | Upskilling Countries to Engage in EOSC Task Force

eosc | Researcher Engagement and Adoption Task Force

- Together we have quite a good overview about and insight in what has been done, what is going on, what is planned and what is needed for EOSC skills & training and rewards & recognition
- More information after Summer about expanding membership

OA5 - Collaborative effort of experts from projects and EOSC Task Forces

- Building on previous work in EOSC, a.o. the work of the EOSC Working Group Skills & Training
- Bringing together experts from all the member states
  - institutional, national, RI-level, projects
  - from all scientific disciplines/domains
- Combine strength of projects funding and volunteer/in-kind work
- Work towards solving challenges identified in both the national roadmaps as well as in the SRIA
- We work collaboratively on solutions, on adoption of these solutions and on securing embedding and sustainability after the lifetime of the projects



Report "Digital skills for FAIR and open science" published February 2021

Main themes in Opportunity Area 05

1. **Training material, Learning Paths, Curriculum**
   - Support the development of a harmonised & certified data steward curriculum in Europe (MAR2025-2027)
   - Support the visibility of Competence Centres working closely with Skills4EOSC and OSCARS
   - Align existing learning paths methodologies
   - Ensure long-term sustainability of developed EOSC related training resources
2. **Training Catalogue/Training Infrastructure**
   - Ensure findability and accessibility of EOSC related training resources, a.o. by advocating and adopting the RDA developed minimal metadata standards
   - Explore Training as an EOSC Service
3. **Engagement**
   - Support engagement and upskilling of National/thematic communities
   - Connect user support networks to enable professionals to come together and exchange knowledge, best practices and to foster lifelong learning
4. **Accreditation/Recognition/Assessment**
   - Support EOSC-A and relevant EOSC projects to reach CoARA objectives
   - Work towards a quality assurance framework and certification mechanisms for trainers and trainees
5. **EOSC Skills & Training Strategy**
   - Work towards a mechanism to provide strategic oversight, coordination and governance of EOSC Training elements

EOSC Winterschool report: https://zenodo.org/doi/10.5281/zenodo.11165099

Connection to GOs and SRIA priorities

GO1: Ensure that Open Science practices and skills are rewarded and taught, becoming the 'new normal'

SRIA Priorities	O5 Contributions
Priority 1: Developing the **next generation** of Open Science and data **professionals**	**Facilitate discussion** to harmonise existing learning paths; supporting Competence Centres
Priority 2: Bridging the education gap: **coordinating and aligning curricula** for students and researchers	**Support and advice** the development of a harmonised & certified data steward curriculum
Priority 3: Building a trusted and long-lasting **knowledge hub of learning materials** and related tools	**Support and advice** the definition and creation of the Catalogue&Training infrastructure of the new EU Node
Priority 4: Influencing National Open Science **policy for skills** by supporting strategic leaders	**Organising** workshops, meetings, ambassadors for Tripartite events
Priorities on rewards and recognition	**Support** EOSC-A and relevant EOSC projects to reach CoARA objectives

Highlight 1- Curricula

- Work ongoing in projects (Skills4EOSC, OSCARS, ..) and in the MS and institutes
  - **Skills4EOSC** developed the **Minimum Viable Skillset (MVS)** for diverse roles involved in Open Science such as Data Steward, Legal and Ethics Expert, Knowledge Broker, Masters Student, Researcher, Policymaker and Research Infrastructure Professional Currently published MVS are here: https://zenodo.org/records/8101903
  - Based on the Data Steward MVS **Skills4EOSC** is developing an **harmonised curriculum for Data Steward - OA5** will contribute through the ongoing co-creation process

- Recommendations for Data Stewardship Skills, Training and Curricula with Implementation Examples from European Countries and Universities (2024)
  https://zenodo.org/doi/10.5281/zenodo.10573891

Data Stewardship Curricula and Career Paths Task Force

Highlight 2 - Competence Centres

- Skills4EOSC and OSCARS Competence Centre definitions aligned: Skills4EOSC CC Charter
- Skills4EOSC Competence Centres Registry
- Skills4EOSC CCs Network will be launched 25 June: join the public event!
- Increase awareness and visibility of CCs: 05 experts act as ‘Ambassadors’
- Facilitating the discussion with EOSC actors: EOSC Symposium 2024
  - 21 Oct. Participating in the first in-person meeting of the Skills4EOSC CCs Network
  - Unconference session: Open Science Competence Centres in the EOSC and beyond
- Investigating the relations with the EOSC Nodes
- Working towards a sustainability model

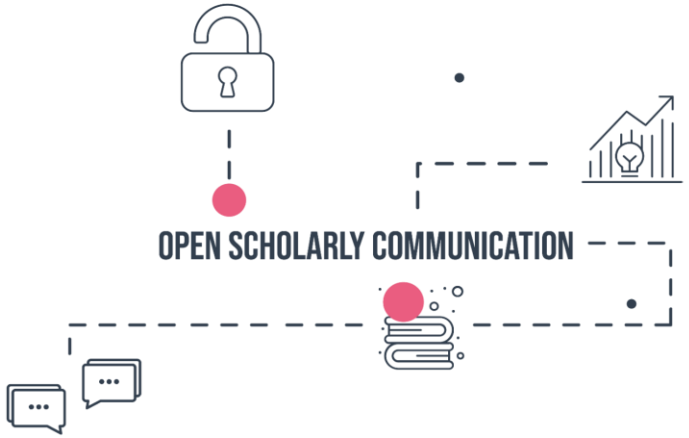
Take home message & Key Contributions of OA5

- The OA5 Expert group will:
  - Support a robust network of Competence Centres operating at both national/local levels (Skills4EOSC & beyond) and within Research Infrastructures (OSCARS & beyond).
  - Work towards harmonizing curricula for Data Stewards and other professional roles involved in Open Science, connecting EOSC-related projects as Skills4EOSC and Task Forces.
  - Further discussion on aligning **quality assurance framework and certification** mechanisms for trainers and trainees, building on efforts that are going on in Skills4EOSC, ELIXIR, GTN etc.
  - Support a catalogue of FAIR-by-Design Training resources federated with National/regional/thematic catalogues.
  - Help establishing a governance model to maintain the updated Network of Competence Centres and their products.
  - Work with EOSC-A to establish an **Advisory Group** on Training and define recommendations about how to connect Competence Centres and EOSC nodes.

Questions?

Celia van Gelder - celia.vangelder@health-ri.nl
Sara Di Giorgio - sara.digiorgio@garr.it
Helen Clare - helen.clare@jisc.ac.uk

Opportunity Area Expert Group 6: Open Scholarly Communication



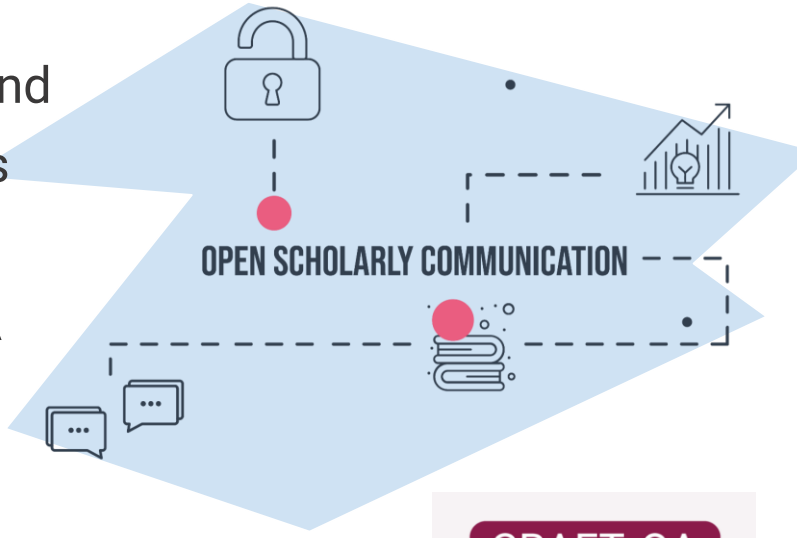
***Johan Rooryck**, CraftOA*
Margo Bargheer, CraftOA
Suzanne Dumouchel, CraftOA

2024 Coordination meeting of EOSC-related projects funded under Horizon Europe
June 20-21, 2024

Opportunity Area 6: Open Scholarly Communication

Projects involved:

- **CRAFT-OA:** create a resilient and robust pan-European network of Diamond OA infrastructures that takes into account local capacities and leverages existing systems.
- **DIAMAS:** deliver an aligned, high-quality, and sustainable institutional OA scholarly publication ecosystem for the ERA, setting a new standard for Diamond OA publishing, shared and co-designed with all stakeholders.
- **EuroScienceGateway:** leverage a distributed computing network, facilitating access to compute and storage infrastructures across Europe as well as to data, tools, workflows and services.
- **OSTrails:** advance processes and instruments for Planning, Tracking, and Assessing scientific knowledge production beyond the state-of-the art, working with various national and thematic contexts, improving existing infrastructure, and connecting key components.
- **SciLake:** Build a research ecosystem where scientific knowledge is contextualized, interconnected, interoperable, and accessible.



Opportunity Area 6: Basic Information

OA6 is related to the following EOSC-A Task Forces:

- **EOSC Technical and Semantic Interoperability**
  => to prepare the interoperability with the services developed in the OA6-related projects
- **FAIR Metrics and Digital Objects**
  => to secure proper linking of metadata schema between data and publications
- **Upskilling countries to engage in EOSC Task Forces**

Via the developments in the EOSC-related projects, the OA 6 *Open Scholarly Communication* (OSC) aims to:

a) **Deepen the understanding of the current landscape of Open Scholarly Communication** (open access, open science practices in publishing and research assessment, open data on scholarly records, connectivity to other research outputs such as data),
b) **Identify potential areas of need or opportunity** from this specific field,
c) Facilitate **recommendations for now and for the future**, around open access and open sciences practices,
d) **Prepare the strategic contributions of the related projects to the EOSC Federation**

Main Goals/Challenges in Opportunity Area 6

- Role of machine actionability of the digital objects in Open Scholarly Communication (what are our observable data points?)
- Explore AI opportunities and risks for Open Scholarly Communication
- EOSC Support for Diamond OA: putting Diamond Open Access high on the stakeholders' agenda as it is still very underfunded.
- Position Diamond Open Access as an equitable, scholar-led, and cost-controlled model for the future of Open Scholarly Communication
- Address the challenge that a higher level of bibliodiversity (disciplines, languages, publishing and research assessment practices) will correlate for some time with lower levels of standardisation and integration.

Contributions of OA6

Short/Medium-term Actions:

- Explore organisation of webinars with all relevant projects after Summer 2024
- Gather materials for the EOSC Symposium
- Work on concrete actions that require a collective approach (i.e. cannot be tackled by a single project) and further define and understand:
  - The role of machine actionability of Digital Objects in OSC.
  - How can data peer review and quality assessment be improved?
  - AI opportunities and risks
  - Metadata schema to describe open access journals as data containers
  - The preparation of the OA6 contribution to the EOSC Federation, especially through setting up future EOSC nodes

Contributions of OA6

Long-term actions:

- The role of machine actionability of the digital objects in open scholarly communication (what are our observable data points?)
- Ways to aid the peer review and quality assessment of such data points
- Diversity of OSC “outputs” and improve how they can be assessed / processed / monitored either as or comparable to publications
- Enabling an operational and inclusive technical infrastructure for institutional scholarly publishing in the ERA:
  - Development of interoperable tools and services for ensuring and improving the quality and inclusiveness of institutional open scholarly publishing in the ERA
  - Integration of institutional open scholarly communication tools and services within EOSC.

Key contributions of OA6 to the EOSC landscape

- Better inclusion of scholarly communication and publication topics in the FAIRisation perspective (metadata are needed in any case and securing
  the link between data and publications)
- Addressing the research careers and training
  related to EOSC
- **The Diamond node provided to the EOSC Federation (DIAMAS, CRAFT-OA)**
- **To be discussed: An open scholarly communication node** provided to EOSC Federation (OS Trails and SCI-Lake + in the perspective of the collaboration between OpenAIRE and OPERAS)