



FAIR-IMPACT

Expanding FAIR solutions across EOSC

FAIR-IMPACT Synchronisation Force workshop 2022

Introduction session, 8 November 2022

Ingrid Dillo, Vasso Kalaitzi, Sara Pittonet,
Marjan Grootveld

Welcome message

Sara Pittonet, Trust-IT, and Ingrid Dillo, DANS



Synchronisation Force

ONLINE WORKSHOP

2022 Edition

8 November - 12 December

 eosoc

FAIR-IMPACT

Expanding FAIR solutions across EOSC

Welcome!

[10.5281/zenodo.6378823](https://doi.org/10.5281/zenodo.6378823)

The workshop aims to discuss common challenges and priorities related to turning the FAIR principles into practice.

Four online collaborative sessions between the 21st and 24th of November 2022 will assess the implementation of **selected recommendations** and ambitions from the [Turning FAIR into Reality Report \(2018\)](#), [the FAIRsFAIR White Paper \(2021\)](#), [the SRIA \(version June 2021\)](#) and [EOSC Multi-Annual Roadmap \(2023-2024\)](#).

They will be opened by today's **introductory session** and will conclude with a **discussion session on December the 12th**.



Plan for today

- Introduction to FAIR-IMPACT and the Synchronisation Force
- Looking back on the Synchronisation Force workshop in FAIRsFAIR
- Goal of this workshop and intended output
- Stakeholders in this workshop
- What do we expect from you?
- Q&A

FAIR-IMPACT in a Nutshell

Vasso Kalaitzi, DANS

FAIR-IMPACT overall objective



WHAT:

to realise a FAIR EOSC by **supporting the implementation** of FAIR-enabling practices *across scientific communities and research outputs at a European, national, and institutional level;*

How:

- ★ **Engaging** a wide range of stakeholders early and using a matrix of **coordination and support** mechanisms => Optimising cross-collaboration and alignment
- ★ **Identifying** current/emerging FAIR-enabling components (practices, policies, tools, technical specs)
- ★ Translating viable solutions, guidelines and frameworks that have been developed for one domain or research output and **supporting** their application in others
- ★ taking the next step in implementation by **defining** the support, governance, and coordination mechanisms required to ensure the continuous function of FAIR-enabling practices in the EOSC

Expanding FAIR Solutions across Europe

Call HORIZON-INFRA-2021-EOSC-01-05

Enabling discovery and interoperability of federated research objects across scientific communities




**36 Month EU funded
project started in
June 2022**

**28 partners involved
in the project**



**Coordination and
Support Action**



**4 project
management
and governance
bodies**

**3 coordination
mechanisms**

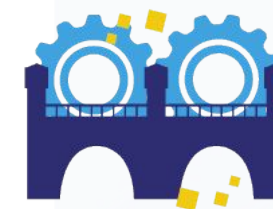
**4 Support Tiers
to enable
adoption and
implementation**



Coordination mechanisms

To build a web of FAIR data and related services, FAIR-IMPACT is supported by three coordination mechanisms:

a [Technical Bridging Team](#), leading and ensuring the technical alignment between FAIR-IMPACT and other strategic initiatives in the framework of the European Open Science Cloud

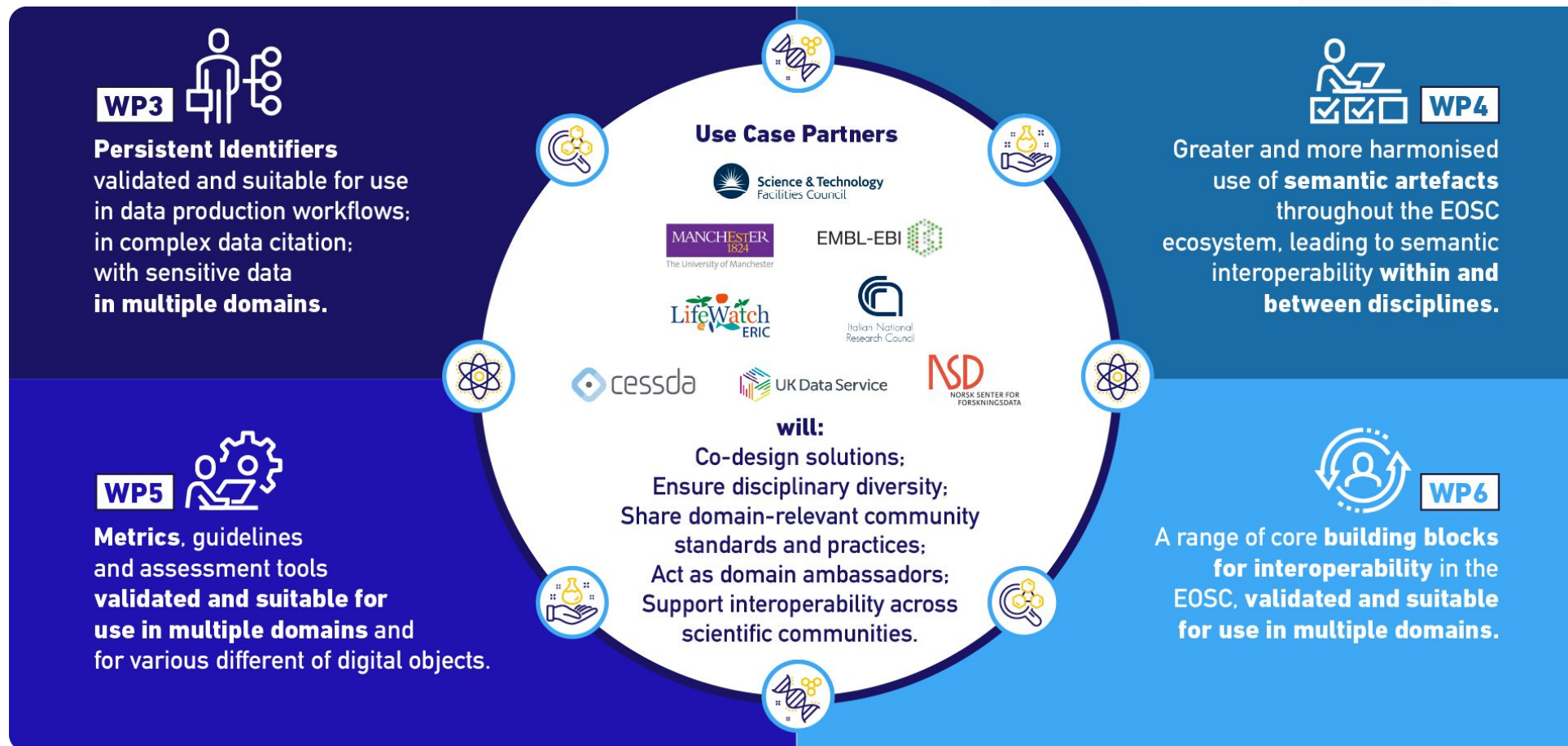


a [FAIR Implementation Team](#), supporting adoption and implementation of FAIR-enabling practices, policies, tools or technical specifications

the [Synchronisation Force](#), in charge of establishing a dialogue among the various projects, initiatives and actors in both EOSC and FAIR ecosystems to reduce redundancy and ensure that solutions are more widely promoted, sustainable and can be transferred to the relevant EOSC Partnership and current and future EOSC stakeholders.



FAIR-IMPACT integrated use cases supporting practical implementation of the FAIR principles



Integrated use cases => Added value

- ★ The “**bridge**” to four scientific domains
- ★ **Provide expertise** in defining requirements, identifying gaps and implementation opportunities across the FAIR-IMPACT focus areas
- ★ Being involved in **translating** what works for them and support adoption beyond their original domains, stakeholder groups and output types

Examples of integrated use cases in FAIR-IMPACT:

Social Sciences and Humanities: The F-UJI tool will be adapted to fit SSH relevant community standards for FAIR

Photon & Neutron science: A range of components for cross-domain research data description will be tested

Life science: Data provenance will be better documented by extending RO-Crate to practices on PID usage

Agri-food: Metadata providers will implement a common API for federating access to semantic artefacts

Adoption & implementation support

- ★ **Support programme** to boost uptake of FAIR data principles and practices by research performing organisations, data service providers and repositories:
 - **Cascading grants**
 - **In-kind support**
 - **Harmonisation for EOSC-readiness** => Contributing to EOSC TFs on
 - Long-term data preservation ✓
 - PID policy and implementation ✓
 - Semantic Interoperability ✓
 - FAIR metrics and data quality ✓
 - Infrastructure for quality research software ✓

5+1 Expected key results to look forward to:

1. A range of **governance, coordination and collaboration mechanisms** necessary for a functioning FAIR research ecosystem;
2. **Adoption of FAIR-enabling components and mechanisms** at multiple levels among a diverse group of stakeholders using a wide range of tools and Support Tiers
3. A **persistent identifier support programme** and guidance for the provision of PID services in EOSC, incl. mechanisms for adoption and implementation;
4. A **semantic framework** for the governance, creation, mapping, sharing, reuse, FAIRness assessment and interoperability of semantic artefacts for EOSC;
5. **Guidelines and prototypes** to support both enabling FAIR and assessing the FAIRness and trustworthiness of different types of digital objects in multiple domains.
6. Components and services for increased **legal, organisation, semantic and technical interoperability** within and across disciplines.

The Consortium



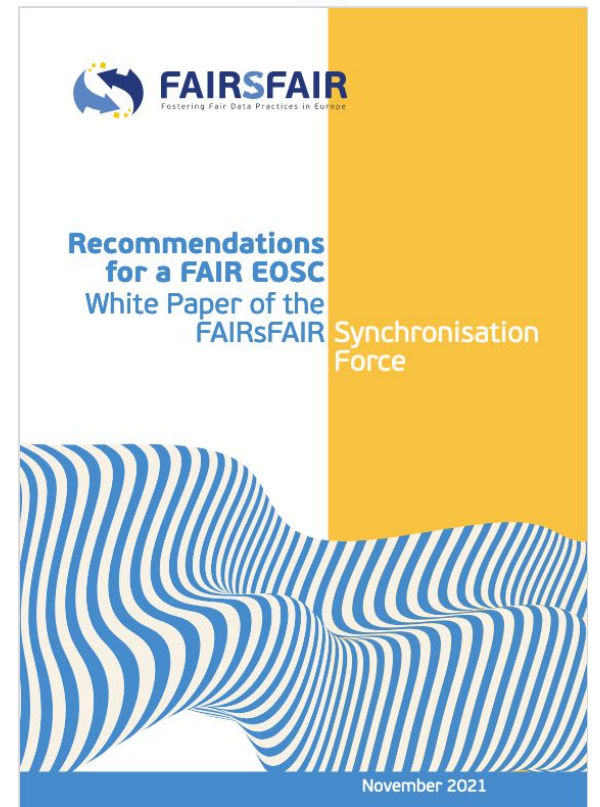
Introduction to the Synchronisation Force 2022 edition

Marjan Grootveld, DANS

The Synchronisation Force is back!

Building on the successful Synchronisation Force approach from the FAIRsFAIR project (2019-2021), FAIR-IMPACT establishes dialogue for collaboration and harmonisation of efforts between FAIR-IMPACT and other EOSC and FAIR-related initiatives. We do this to

1. reduce redundancy;
2. ensure that solutions are more widely promoted, sustainable and can be transferred to the relevant EOSC Partnership and current and future EOSC stakeholders;
3. take the next step in implementing FAIR-enabling practices.



<https://fair-impact.eu/fairsfair-legacy>



EOSC Partnership



EOSC Tripartite collaboration

(European Commission, the EOSC Association, and the Member States and Associated Countries)

- PID policy and implementation
- Researcher engagement and adoption
- FAIR metrics and data quality
- Semantic interoperability
- Technical interoperability of data & services
- Long-term data preservation

Building an EOSC in practice - engaging with solution providers

HORIZON-INFRA-2021-EOSC-01 Projects



WorldFAIR Skills4EOSC EOSC4Cancer
EuroScienceGateway RAISE AI4EOSC

Open Science initiatives



ESFRI Cluster Projects



EOSC Technical Core



EOSC Providers



November 2022

Goal of the workshop and intended output

2022 Workshop

8 November - 12 December

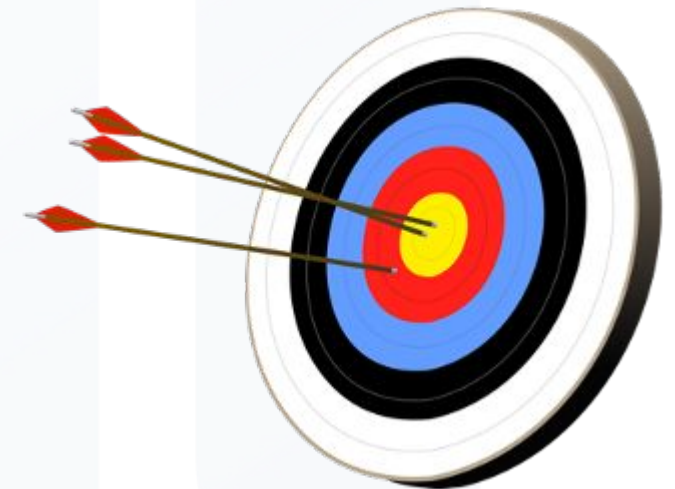
- Goal: chart developments in four areas from the represented projects and initiatives.
- Output of this workshop:
 - Spreadsheet with your input
 - Concise workshop report, to be finalised by February 2023
- Output of the *three* workshops: White Paper with recommendations for how to encourage impact, alignment and synchronisation around FAIR and EOSC

2023 Workshop

I want to stay tuned!

2024 Workshop

I want to stay tuned!



Structure of the workshop 2022

Date	Session Topic	Chair & Rapporteur
21st November 16.00-17.30 CET	Metrics and assessing FAIRness	Chair: Mike Priddy, DANS Rapporteur: Maaïke Verburg, DANS
22nd November 11.00-12.30 CET	Persistent Identifiers	Chair: Jessica Parland-von Essen, CSC Rapporteur: Liisi Marjamaa-Mankinen, CSC
22nd November 13.00-14.30 CET	Trustworthy and FAIR-enabling repositories	Chair: Maaïke Verburg, DANS Rapporteur: Ryan O'Connor, DCC
24th November 14.00-15.30 CET	Metadata, semantics and interoperability	Chair: Clément Jonquet, INRAE Rapporteur: Oscar Corcho, UPM
12th December 13.00-14.30 CET	Plenary discussion session	

Same link to join the FAIR-IMPACT Synchronisation Workshop series:

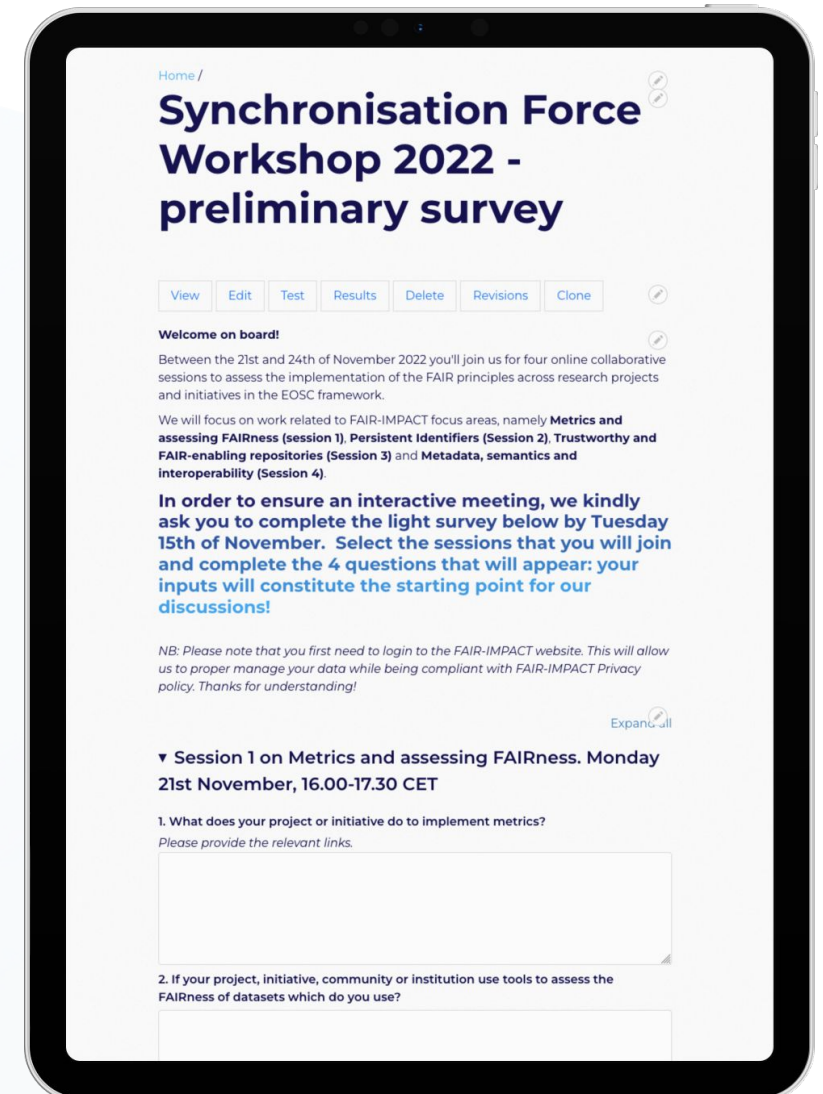
<https://us02web.zoom.us/j/82453074366?pwd=b2Flc25Rd3pVRWhGNW9BNIVTTisxUT09>

Reminders will be sent prior to each session, including details about its structure, chairs and rapporteurs.

What we expect from you

Provide information about topic-related developments and plans in your project, initiative or domain:

1. fill in the **online survey** [here](#) by **15 November**: your inputs will constitute the starting point for our discussions;
2. during the topic sessions, use a shared **Google spreadsheet** to complete the information provided;
3. help in reporting on workshop findings and recommendations in the concluding plenary session.



Metrics and assessing FAIRness

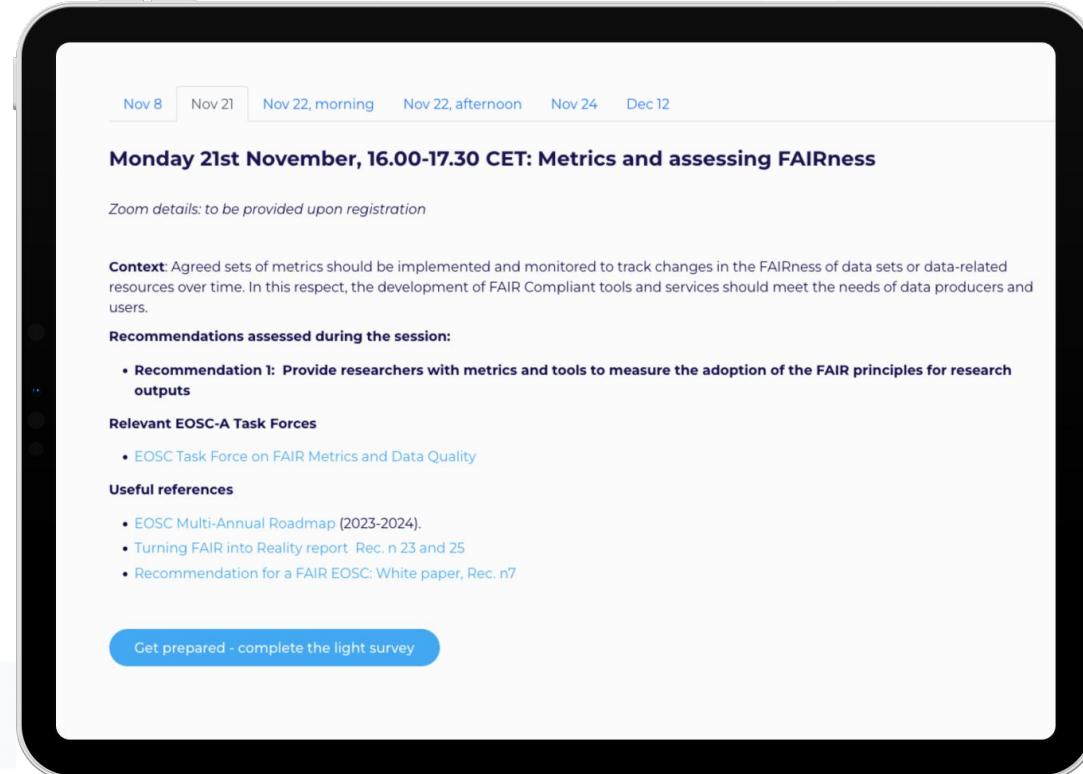
21 November 16.00-17.30 CET

Key questions, to be answered in the survey:

1. What does your project or initiative do to implement metrics?
2. If your project, initiative, community or institution uses tools to assess the FAIRness of **datasets**: which do you use?
3. Are you aware of tools and metrics that are used to assess **software** FAIRness and are you utilising them in your project or initiative? Which tool(s) and metrics?
4. Are you aware of tools and metrics that are used to assess **semantic artefacts** FAIRness and are you utilising them in your project or initiative? Which tool(s) and metrics?

Chair: Mike Priddy (DANS)

Rapporteur: Maaïke Verburg (DANS)



Nov 8 Nov 21 Nov 22, morning Nov 22, afternoon Nov 24 Dec 12

Monday 21st November, 16.00-17.30 CET: Metrics and assessing FAIRness

Zoom details: to be provided upon registration

Context: Agreed sets of metrics should be implemented and monitored to track changes in the FAIRness of data sets or data-related resources over time. In this respect, the development of FAIR Compliant tools and services should meet the needs of data producers and users.

Recommendations assessed during the session:

- Recommendation 1: Provide researchers with metrics and tools to measure the adoption of the FAIR principles for research outputs

Relevant EOSC-A Task Forces

- EOSC Task Force on FAIR Metrics and Data Quality

Useful references

- EOSC Multi-Annual Roadmap (2023-2024).
- Turning FAIR into Reality report Rec. n 23 and 25
- Recommendation for a FAIR EOSC: White paper, Rec. n7

Get prepared - complete the light survey

Persistent Identifiers

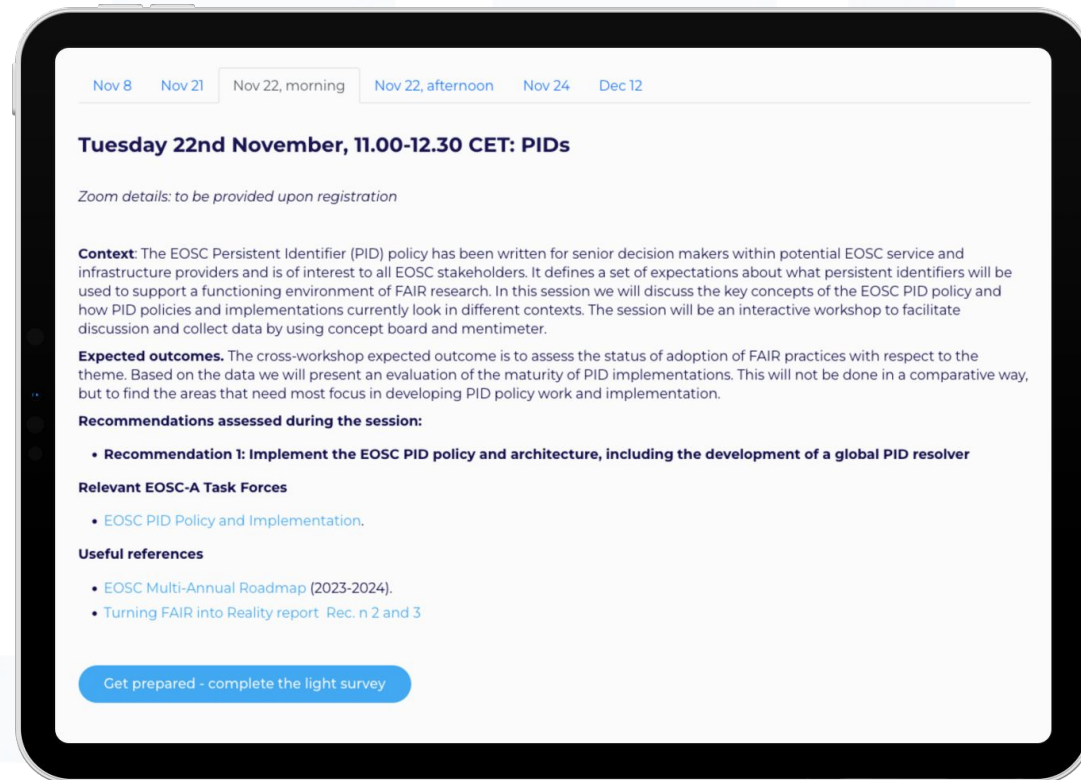
22 November 11.00-12.30 CET

Key questions, to be answered in the survey:

1. What does your project or initiative do to implement PIDs? Please provide any relevant links.
2. Do you use persistent identifiers in your project / community?
3. Which are the roles and responsibilities in your organisation regarding PID management?
4. Do you have a PID policy in your organisation?

Chair: Jessica Parland-von Essen (CSC)

Rapporteur: Liisi Marjamaa-Mankinen (CSC)



Nov 8 Nov 21 Nov 22, morning Nov 22, afternoon Nov 24 Dec 12

Tuesday 22nd November, 11.00-12.30 CET: PIDs

Zoom details: to be provided upon registration

Context: The EOSC Persistent Identifier (PID) policy has been written for senior decision makers within potential EOSC service and infrastructure providers and is of interest to all EOSC stakeholders. It defines a set of expectations about what persistent identifiers will be used to support a functioning environment of FAIR research. In this session we will discuss the key concepts of the EOSC PID policy and how PID policies and implementations currently look in different contexts. The session will be an interactive workshop to facilitate discussion and collect data by using concept board and mentimeter.

Expected outcomes. The cross-workshop expected outcome is to assess the status of adoption of FAIR practices with respect to the theme. Based on the data we will present an evaluation of the maturity of PID implementations. This will not be done in a comparative way, but to find the areas that need most focus in developing PID policy work and implementation.

Recommendations assessed during the session:

- **Recommendation 1: Implement the EOSC PID policy and architecture, including the development of a global PID resolver**

Relevant EOSC-A Task Forces

- [EOSC PID Policy and Implementation.](#)

Useful references

- [EOSC Multi-Annual Roadmap \(2023-2024\).](#)
- [Turning FAIR into Reality report. Rec. n 2 and 3](#)

[Get prepared - complete the light survey](#)

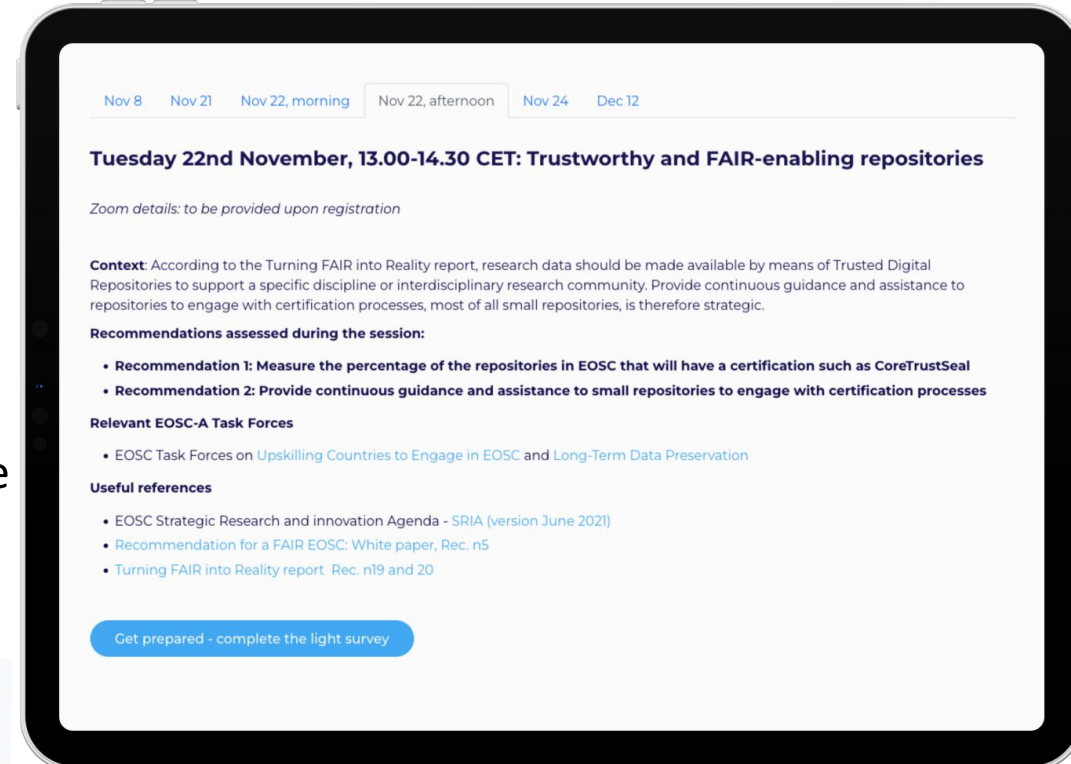
Trustworthy and FAIR-enabling repositories

22 November 13.00-14.30 CET

Key questions, to be answered in the survey:

1. What is your project or initiative doing to increase the number of trustworthy, FAIR-enabling and/or certified repositories? Please provide any relevant links.
2. In your project, initiative, or community, do you work with repositories that have a certification such as CoreTrustSeal?
3. What guidance and assistance is needed to enable repositories to engage with certification processes or to become more FAIR-enabling? Think most of all of small repositories.
4. What challenges do Trustworthy Digital Repositories face in maintaining certification and becoming more FAIR-enabling?

Chair: Maaike Verburg (DANS)
Rapporteur: Ryan O'Connor (DCC)



Nov 8 Nov 21 Nov 22, morning Nov 22, afternoon Nov 24 Dec 12

Tuesday 22nd November, 13.00-14.30 CET: Trustworthy and FAIR-enabling repositories

Zoom details: to be provided upon registration

Context: According to the Turning FAIR into Reality report, research data should be made available by means of Trusted Digital Repositories to support a specific discipline or interdisciplinary research community. Provide continuous guidance and assistance to repositories to engage with certification processes, most of all small repositories, is therefore strategic.

Recommendations assessed during the session:

- Recommendation 1: Measure the percentage of the repositories in EOSC that will have a certification such as CoreTrustSeal
- Recommendation 2: Provide continuous guidance and assistance to small repositories to engage with certification processes

Relevant EOSC-A Task Forces

- EOSC Task Forces on [Upskilling Countries to Engage in EOSC](#) and [Long-Term Data Preservation](#)

Useful references

- EOSC Strategic Research and innovation Agenda - SRIA (version June 2021)
- Recommendation for a FAIR EOSC: White paper, Rec. n5
- Turning FAIR into Reality report Rec. n19 and 20

Get prepared - complete the light survey

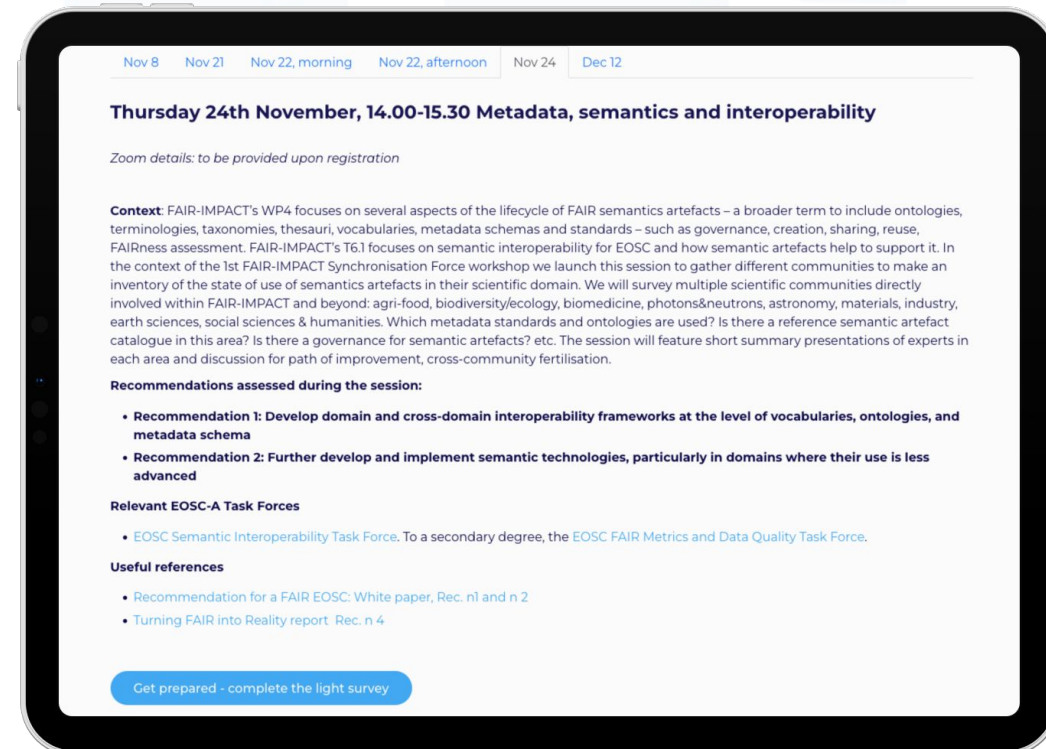
Metadata, semantics and interoperability - 24 November 14.00-15.30 CET

Key questions, to be answered in the survey:

1. Which are the semantic artefacts that you develop or use in your scientific domain and how are they governed (developed and maintained)?
2. What limitations do you see in your scientific domain with respect to the use of semantic artefacts to describe and/or search/find research datasets?
3. Is there any type of semantic artefact catalogue (vocabulary or terminology service, ontology library or repositories, etc.) in your scientific domain, where some (or all) of these semantic artefacts are catalogued?
4. Is there a strategy to deal with crosswalk and mappings between semantic artefacts in your scientific domain?

Chair: Clément Jonquet (INRAE)

Rapporteur: Oscar Corcho (UPM)



Nov 8 Nov 21 Nov 22, morning Nov 22, afternoon Nov 24 Dec 12

Thursday 24th November, 14.00-15.30 Metadata, semantics and interoperability

Zoom details: to be provided upon registration

Context: FAIR-IMPACT's WP4 focuses on several aspects of the lifecycle of FAIR semantics artefacts – a broader term to include ontologies, terminologies, taxonomies, thesauri, vocabularies, metadata schemas and standards – such as governance, creation, sharing, reuse, FAIRness assessment. FAIR-IMPACT's T6.1 focuses on semantic interoperability for EOSC and how semantic artefacts help to support it. In the context of the 1st FAIR-IMPACT Synchronisation Force workshop we launch this session to gather different communities to make an inventory of the state of use of semantics artefacts in their scientific domain. We will survey multiple scientific communities directly involved within FAIR-IMPACT and beyond: agri-food, biodiversity/ecology, biomedicine, photons&neutrons, astronomy, materials, industry, earth sciences, social sciences & humanities. Which metadata standards and ontologies are used? Is there a reference semantic artefact catalogue in this area? Is there a governance for semantic artefacts? etc. The session will feature short summary presentations of experts in each area and discussion for path of improvement, cross-community fertilisation.

Recommendations assessed during the session:

- **Recommendation 1: Develop domain and cross-domain interoperability frameworks at the level of vocabularies, ontologies, and metadata schema**
- **Recommendation 2: Further develop and implement semantic technologies, particularly in domains where their use is less advanced**

Relevant EOSC-A Task Forces

- [EOSC Semantic Interoperability Task Force](#). To a secondary degree, the [EOSC FAIR Metrics and Data Quality Task Force](#).

Useful references

- [Recommendation for a FAIR EOSC: White paper, Rec. n1 and n 2](#)
- [Turning FAIR into Reality report Rec. n 4](#)

Get prepared - complete the light survey

Virtual, interactive sessions and a collaborative spreadsheet

From **FAIRsFAIR Pan-European Uptake FinalReport**:

The interactive approach turned out to be effective. The active engagement of participants before and during the event was really high, and several attendees kept up with this during the six consecutive sessions

Asking attendees to provide information about their projects' deliverables in a joint spreadsheet works well

Asking the project representatives to summarise the most important outcomes and reports facilitated the analysis and was a good way to survey any relevant work

doi.org/10.5281/zenodo.5786729

Session 1 on Metrics and assessing FAIRness. Monday 21st November, 16.00-17.30 CET																					
Serial number	Name	Surname	Affiliation	Organisation type	Country	1. What does your project or initiative do to implement metrics?	2. If your project, initiative, community or institution use tools to assess the FAIRness of datasets which do you use?	2.a. What successes and challenges in using the tool have you discovered?	2.b. Have you experienced any limitations in their usage?	2.c. What suggestions do you have to improve the tools and /or their usage?	2.d. Have undertaken comparative analysis between the tools available for FAIR data assessment and is documentation available?	2.e. Is your project, initiative or community developing a tool or set of metrics for research data assessment and if so, why?	3. Are you aware of tools and metrics that are used to assess software FAIRness and are you utilising them in your project or initiative?	3.a. Is the tool the same as that used for data assessments?	3.b. If your project or initiative uses a tool what successes and challenges in using the tool have you discovered?	3.c. Have you experienced any limitations in their usage?	4. Are you aware of tools and metrics that are used to assess semantic artefacts FAIRness and are you utilising them in your project or initiative?	4.a. Is your project, initiative or infrastructure developing a tool or metrics?	4.b. What successes and challenges in using the tool have you discovered?	4.c. Have you experienced any limitations in their usage?	
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Questions for you! Questions for us?



Thank you for filling out the survey
and see you in the topic sessions!



@fairimpact_eu /company/fair-impact-eu-project



Funded by
the European Union
Synchronisation Force