

FAIR-IMPACT: Expanding FAIR solutions across EOSC

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Expanding FAIR Solutions across Europe

Call
**HORIZON-INFRA-2021-
EOSC-01-05**
*Enabling discovery and
interoperability of federated
research objects across scientific
communities*

**Expanding FAIR
solutions in Europe**

**Partly following up on
FAIRsFAIR**

EU funded project

**Coordination and
Support Action**

10 million euro

**36 months, starting
1 June 2022**

**28 partners and
affiliate entities**

**From 10 EU
member states:
NL, FI, FR, DK, IT,
DE, ES, NO, BE,
RO**

and the UK

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;

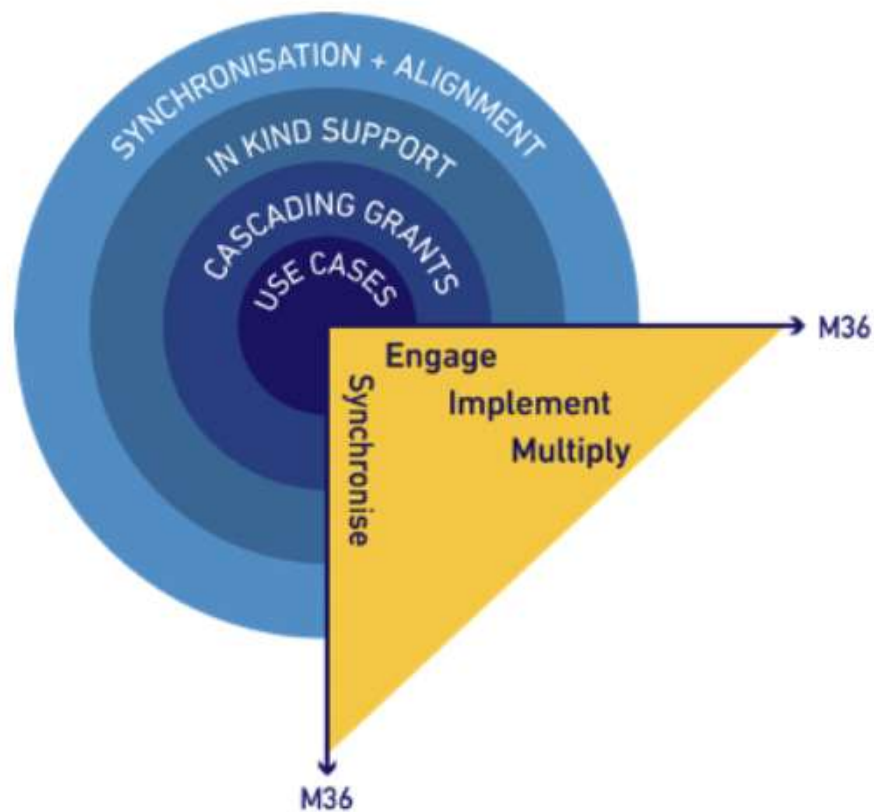
HOW:

- **identifying** current and emerging components for enabling FAIR (practices, policies, tools & technical specifications);
- **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.

FAIR-IMPACT Work Packages



Expected outcomes



Improved FAIRness of data and other research outputs by **coordinating the alignment of FAIR data practices and the implementation of frameworks**

Tier 1: integrated use cases

- Act as a **bridge** to the four scientific domains
- **Provide expertise**
- **Translate** what works for them



Social Sciences
and Humanities



Photon and
neutron science



Life science

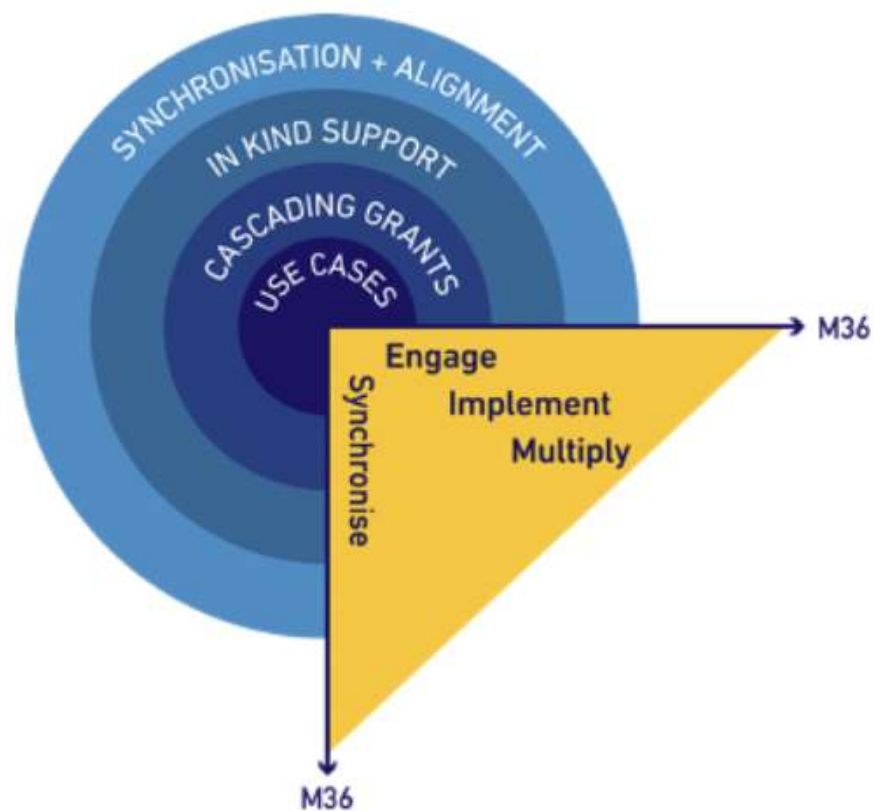


Agri-food
Environmental

Tier 1: integrated use cases



Expected outcomes



Wide uptake of and compliance with FAIR data principles and practices by national and European research data and metadata providers and repositories

Tier 2 and 3: cascading grants and in-kind support



The first Open Call is open!

Two support actions to enhance the FAIRness of data, semantic artefacts and data-related services.

[Learn more and apply!](#)

Cascading grants

- open calls to support
- €500,000
- ca 50 organisations

In-kind support

Provision of in-kind support by the partners through open calls

Home /

FAIR-IMPACT Open calls for support

In recent years, a number of tools, solutions and approaches have been developed to help different stakeholders implement the FAIR principles. Many of these have been developed through European Commission supported activities such as the [regional](#) and [thematic](#) INFRAEOSC projects and international initiatives such as the Research Data Alliance.

It can be challenging to know which tools and/or approaches to use for different purposes and how they should be implemented most effectively. To help take some of the guesswork out of implementing FAIR, the FAIR-IMPACT project will provide a set of clearly defined support actions that will help successful applicants learn how to use specific tools/methods/approaches which will help them start (or continue) their journey to becoming more FAIR-enabling and active contributors to the European Open Science Cloud.

Visit <https://fair-impact.eu/fair-impact-open-calls-support> for more details/webinars/FAQs and to submit your application before June 1st 2023!

31st March 2023: the two first support actions launched

Applicants will be able to apply to join the first two support actions, which are designed to enhance the FAIRness of data, semantic artefacts and data-related services from March 31st, 2023, through our [grants platforms](#). For a brief summary of the open call and details on the first two support offers, please read [this blog post](#). Detailed information about each of the support offers is provided below. On March 27, FAIR-IMPACT hosted a webinar to introduce potential applicants to the open call and to provide details about the two support actions on offer.

The support actions

#1: FAIRness assessment challenge

More harmonised use of semantic artefacts such as ontologies, terminologies, taxonomies, thesauri, vocabularies, metadata schemas and standards is a key element to achieving a high level of FAIRness. However, it can often be difficult to find and use semantic artefacts as they themselves are not always FAIR.

This targeted support action will help a cohort of dataset providers or semantic artefact developers to self-assess and work towards maximising the level of FAIRness of their resources. Successful applicants will be supported to employ a variety of assessment tools and methods, including [F-UJI](#), [GFAIR](#) and [FOOPS](#). FAIR-IMPACT mentors will provide guidance and advice on how to interpret their scores and to improve the overall FAIRness of their resources. The duration of effort required, including attendance at mandatory virtual workshops and completing the assigned 'homework', will be approximately five days.

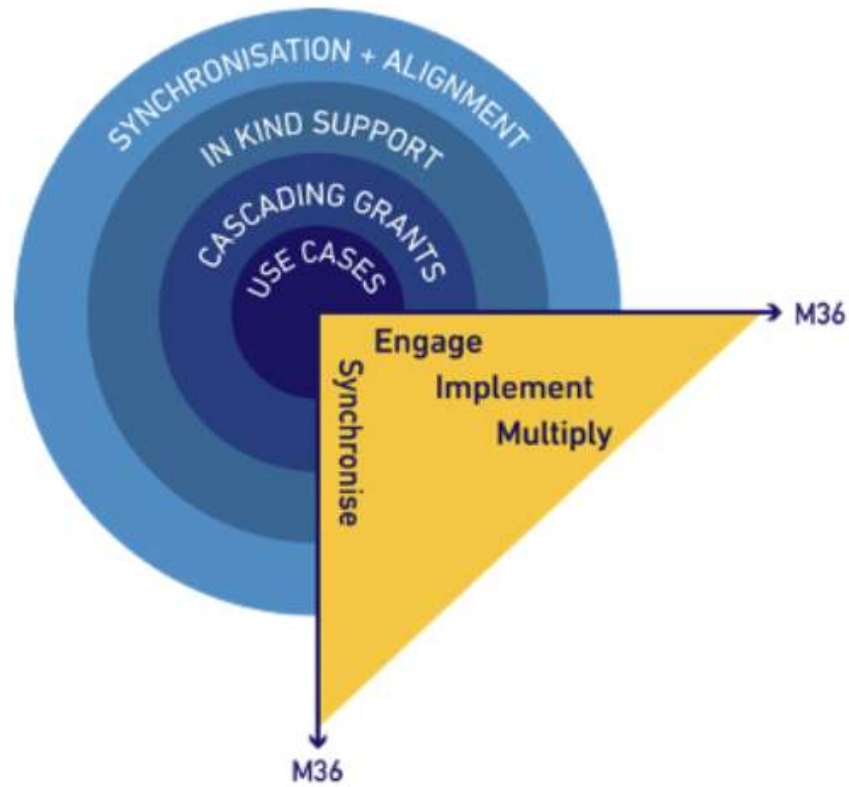
[Learn more & apply before 1 June 2023](#)

#2: Enabling FAIR Signposting and RO-Crate for content/metadata discovery and consumption

The findability of both data and metadata is central to the FAIR principles. In this support action, FAIR-IMPACT will provide a method to increase the discoverability of the metadata and content. It will do so using a combination of two approaches; RO-Crate and Signposting. These two approaches are being used in combination as a pragmatic approach to making digital scholarly/research objects more FAIR. The duration of effort required to take part in this one will be five days of effort over a one-month period, again most likely in early autumn 2023.

[Learn more & apply before 1 June 2023](#)

Expected outcomes



Contribution to the Horizon Europe Partnership



Technical Bridging

Synchronisation Force 1st Workshop - November 2022

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 assessed 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 were opened by an **introductory session on the 8th of November** and concluded with a **discussion session on December the 12th**.

More than 120 people registered for the series; attendance in individual sessions ranged from 40 to over 60 people. Based on the workshop input and discussions, a report was produced providing supporting recommendations for each topic.

[Download and read the report](#)



| [Synchronisation Force events](#)

- 12 EOSC FAIR Champions, selected via an [Open Call](#)
- Ambassadors for FAIR, engage their communities, advocate for adoption of the project results
- National roadshows in their country



Visit: <https://fair-impact.eu/eosc-fair-champions>
to meet our EOSC FAIR Champions!

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.

Metadata and Ontologies

Semantic artefacts* are a key elements to achieving FAIR and these artefacts and their catalogues have to be FAIR too

*ontologies, terminologies, taxonomies, thesauri, vocabularies, metadata schemas and standards...

WP4 will develop and foster the uptake of a semantic framework for the governance, creation, mapping, sharing, reuse, FAIRness assessment and interoperability of semantic artefacts for EOSC.



WP4

Greater and more harmonised use of **semantic artefacts** throughout the EOSC ecosystem, leading to semantic interoperability **within and between disciplines.**

Semantic Framework

- Semantic Artefact governance
- Semantic Artefact Life Cycle and Catalogues
- Minimum metadata for Semantic Artefacts and Common API
- FAIR Mappings and Crosswalks
- Harmonisation of FAIRness evaluation of Semantic Artefacts

*...implementation
of FAIR-enabling
practices across
communities and
research outputs*



WP4's use case include

- Agri-food (INRAE with AgroPortal, EMPHASIS, ANAEE)
- Ecology/biodiversity (LifeWatch with EcoPortal)
- Earth sciences (CNRS with DataTerra EarthPortal)
- Astronomy/materials science/physics (UKRI-STFC)

*...projecting
the FAIR
principles to
other types of
research
objects*



WP4's research objects

- *semantic artefacts, research software,
crosswalks & mappings*

Minimum metadata schema for Semantic Artefacts

F2 - Data are described with rich metadata

NOT FAIR

FAIR?



Metadata richness

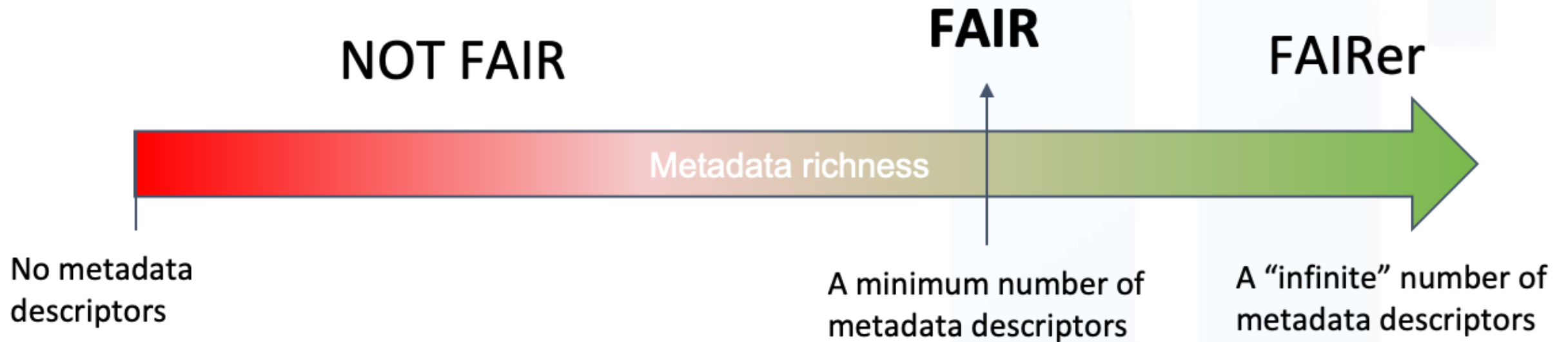
No metadata
descriptors

A “inifinite” number
of metadata
descriptors



Minimum metadata schema for Semantic Artefacts

F2 - Data are described with rich metadata



Minimum metadata schema for Semantic Artefacts

Workshop jointly organised by FAIRsFAIR and RDA VSSIG

- 76 participants from 17 different communities
- Were presented the MOD2 new proposition
- Discussed a minimum metadata profile for Semantic Artefacts
- Voted on most important metadata properties for artefacts and their catalogues

⇒ Initial DCAT profile using standards metadata properties and enriched with 12 properties from MOD

⇒ Profile formalisation (OWL/SHACL) on its way



Minimum metadata schema for Semantic Artefacts in FAIR Impact

- Extend the first version proposed by FAIRsFAIR
- Define Common API structure based on this model.
- Implement API in Semantic Artefact catalogues

FAIR Mappings and Crosswalks

[Home](#) / [Events](#) /

Why Mappings Matter and how to make them FAIR?

When: Thursday 13 April 2023 14:00 – 18:00 CEST

Semantic artefacts – a broader term to include ontologies, terminologies, taxonomies, thesauri, vocabularies, metadata schemas and standards – are key to achieving data interoperability and are therefore essential to the implementation of the FAIR principles. With the growing number of semantic artefacts and their diversified uses, interconnecting these artefacts becomes critical but also more challenging. To achieve interoperability and integration, one solution is to identify/generate mappings/crosswalks between different artefacts of the same domain or used to represent the same type of information. This process, known in the semantic web domain as ontology matching or ontology alignment, should be applied to the whole spectrum of semantic artefacts.

As any other type of data, we need a strategy to deal with mappings and ensure mappings are made available following the FAIR principles in relevant mapping repositories where they can be curated, integrated and rendered for reuse. Recent initiatives like the [SEMAF study](#) or the [SSSOM format](#) or the activities within the FAIR-IMPACT and FAIRCORE4EOSC projects have highlighted the needs of communities to find, access and reuse mappings and crosswalks in a machine actionable format which is not currently addressed.

FAIR-IMPACT is starting a series of workshops to discuss issues around mappings and crosswalks and how they can become shareable and reusable, i.e. FAIR, elevating them to “first class” citizens in the FAIR data world.



Why Mappings Matter and how to make them FAIR?

14.00 - 18.00 CEST
13 April 2023 *Online*

Organised jointly by   

Funded by the European Union

[FAIRIMPACT events](#)

When

Thu, Apr 13 2023

 *Online*

We'll stay in touch:
wp4@fair-impact.eu

eosc | FAIR-IMPACT
Expanding FAIR solutions across EOSC



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