



FAIR-IMPACT

Expanding FAIR solutions across EOSC

FAIR-IMPACT results: “Are we FAIR yet?!”

Clement Jonquet
INRAE



Funded by
the European Union

FAIR-IMPACT in a nutshell

Expanding FAIR Solutions across Europe

Call
HORIZON-INFRA-2021-E
OSC-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, start 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 consortium



FAIR-IMPACT objective

"The overall objective of FAIR-IMPACT is to realise a FAIR EOSC..."

FAIR-IMPACT supports the implementation of FAIR-enabling practices, tools and services,

- across scientific communities
- across research outputs
- at a European, national, and institutional level
- FAIR-IMPACT is a Coordination and Support Action



FAIR-IMPACT project design



FAIR-IMPACT PROJECT DESIGN - WORK PACKAGES

WP1 PROJECT
MANAGEMENT,
SYNCHRONISATION
AND
SUSTAINABILITY

WP3
PERSISTENT
IDENTIFIERS

WP6 INTEROPERABILITY

WP2 ENGAGEMENT,
ADOPTION & IMPLEMENTATION

WP4 METADATA
AND ONTOLOGIES

WP5 METRICS,
CERTIFICATION
AND GUIDELINES

WP7
DISSEMINATION,
EXPLOITATION
AND
COMMUNICATION



Practical implementation of the FAIR principles starting with integrated use cases on four scientific domains



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

Project outputs

- 4 Key Exploitable Results
- 9 Key Outputs
- 6 Key Functions

 **FAIR-IMPACT**
Expanding FAIR solutions across EOSC

Project Title: Expanding FAIR solutions across EOSC

Project Acronym: FAIR-IMPACT

Grant Agreement No.: 101057344

Start Date of Project: 2022-06-01

Duration of Project: 36 months

Project Website: www.fair-impact.eu

FAIR-IMPACT Sustainability Outputs Inventory

Work Package	WP1, Project management, synchronisation and sustainability
Lead Author (Org)	Ingrid Dillo (KNAW-DANS)
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Version	V1.0

Dissemination Level

☐ PU: Public


☐ PP: Restricted to other programme participants (including the Commission)

☒ RE: Restricted to a group specified by the consortium (including the Commission)

☐ CO: Confidential, only for members of the consortium (including the Commission)

 Funded by the European Union

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September 4, 2025 (v1) Presentation Open

Ontology Portal for astronomy, planetary sciences and heliophysics: towards semantics interoperability.

Cecconi, Baptiste ; Jonquet, Clement ; David, Elsa ; and 3 others

We report on the status of the OntoPortal-Astro project.

Part of EU Open Research Repository , FAIR-IMPACT , OSCARS - Open Science Clusters' Action for Research & Society , OPAL - OSCARS project

Uploaded on September 8, 2025

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September 1, 2025 (V3.0) Other Open

FAIR-IMPACT EOSC Policy Brief for FAIR-IMPACT

Kalaitzi, Vasso ; Dillo, Ingrid ; Ashley, Kevin ; and 15 others

FAIR-IMPACT has the ambitious goal of realising an EOSC of FAIR data and services by supporting the implementation of FAIR-enabling practices, tools and services across scientific communities and at national, European and institutional level. The project places its focus on...

Part of EU Open Research Repository , FAIR-IMPACT 

Uploaded on September 2, 2025

2 more versions exist for this record

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WP4 goals

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

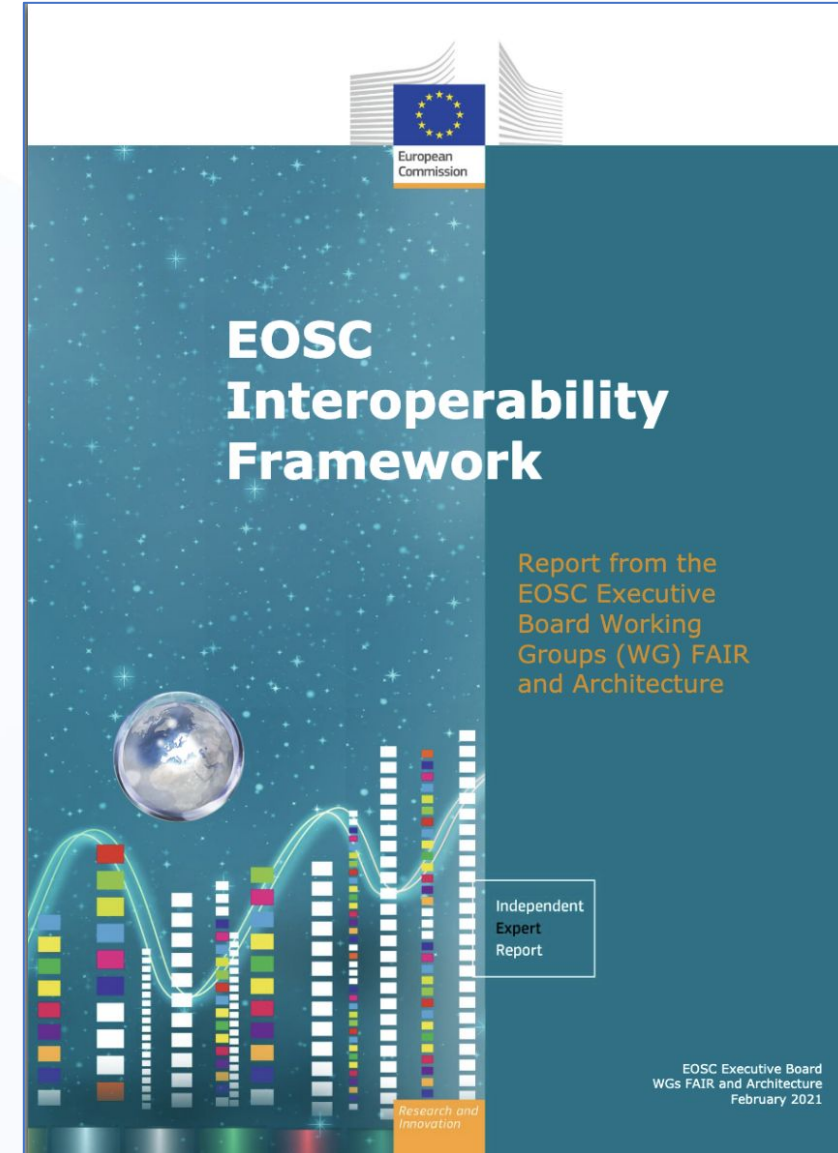
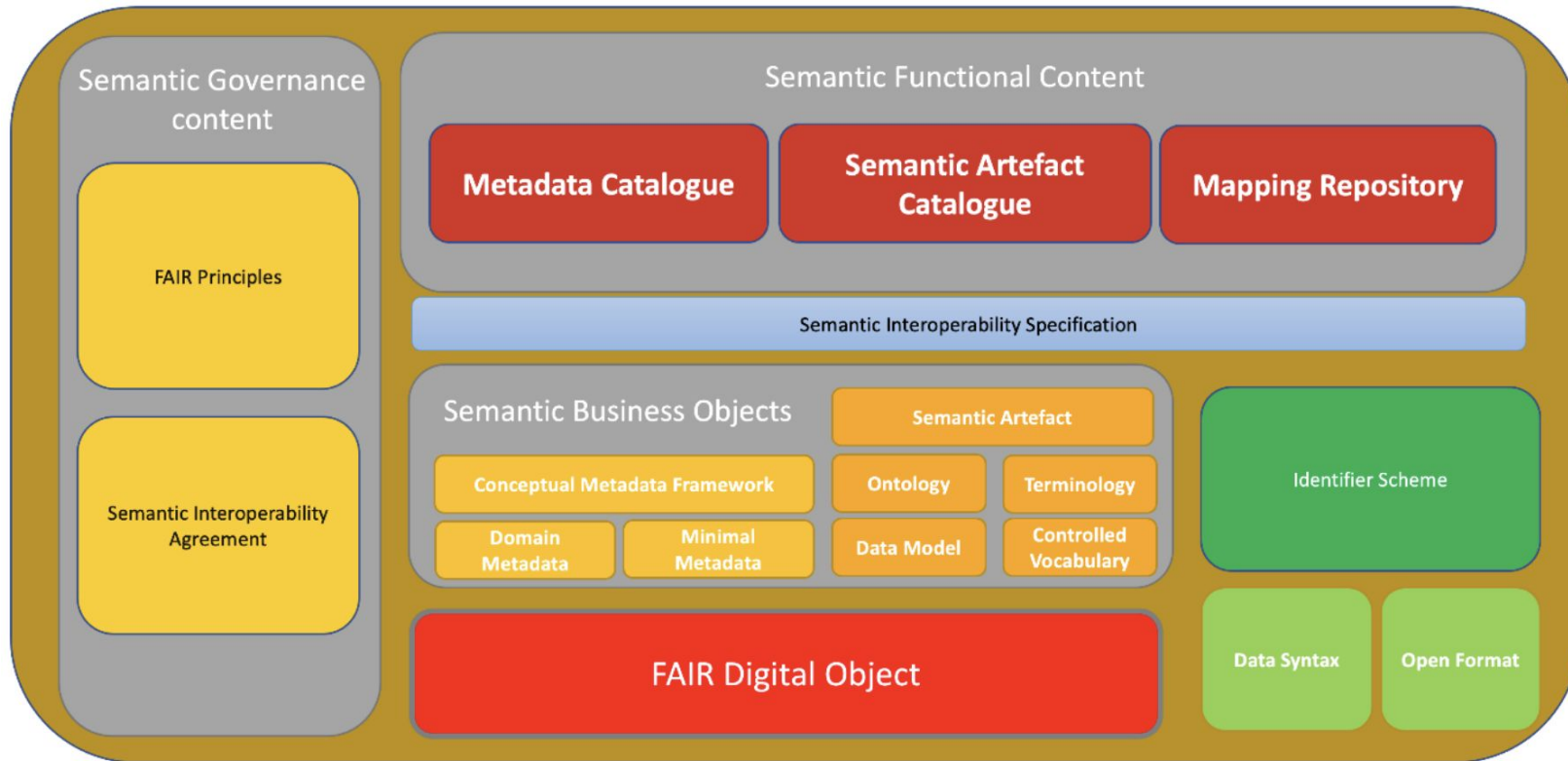
- Broader and **more harmonized use of semantic artefacts** in EOSC.
- Guidelines to collect and curate **research software metadata**.
- A framework for metadata **crosswalks and mappings** between semantic artefacts.
- Use of semantic **artefacts within data repositories** for better data search and indexing.



WP4

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

Semantic Artefact Catalogue in the EOSC Interoperability Framework



Our work on Semantic Artefacts and their Catalogues

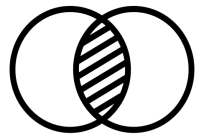
- Existing catalogues being consolidated in communities
- New catalogues being deployed in other communities/projects
- Semantic Artefact « FAIR-by-design » methodology
- FAIRenabling tools and methods being transferred
- Exhaustive review of current and retired catalogues and FAIR-enabling criteria
- Catalogues being exploited in data repositories (9 use cases)
- A metadata standard for semantic artefacts (MOD)
- A standard API for semantic artefact catalogues (MOD-API)
- Early work on federation of 4 catalogues
- 3 possible models for semantic artefact governance
- Toward specifications for FAIR mappings



Semantic Artefact
Catalogues

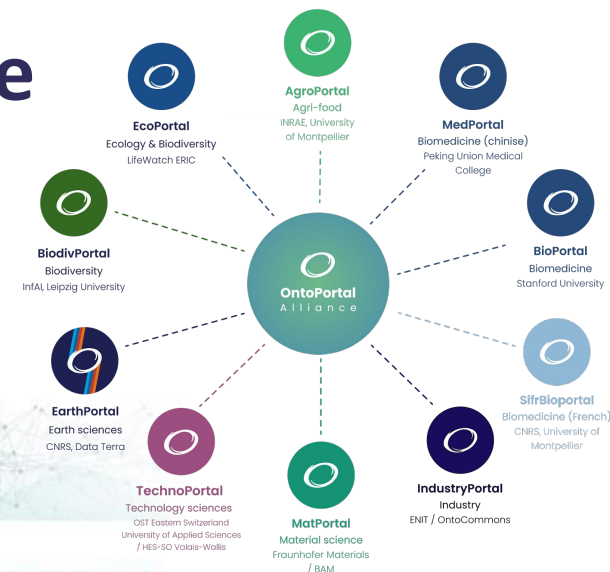
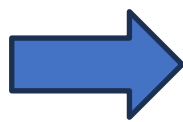
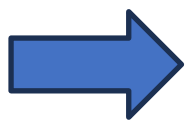


Semantic Artefact



Mappings

A concrete –French relevant– example



Create a collection or a dataset → feeding metadata (keywords)

Expand all fields

Select a term

Arabidopsis - AGROVOC (AGROVOC)

Arabidopsis - INRAE Thesaurus (INRAETHES)

Arabidopsis neglecta - National Center for Biotechnology Information (NCBI) Organismal Classification (NCBITAXON)

Arabidopsis umezawana - National Center for Biotechnology Information (NCBI) Organismal Classification (NCBITAXON)

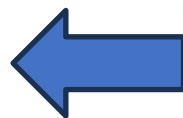
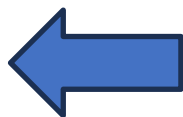
Arabidopsis thaliana - INRAE Thesaurus (INRAETHES)

Unique search box

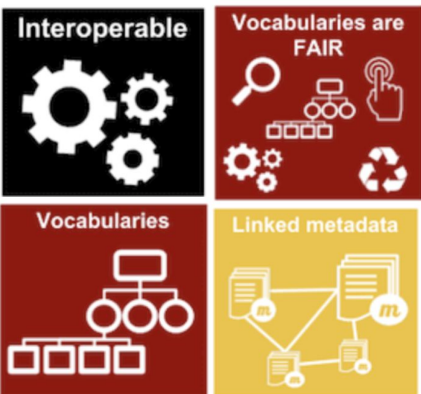
- Search a term in AgroPortal via API
- Import term, URIs, Vocabulary
- Same ID for all languages

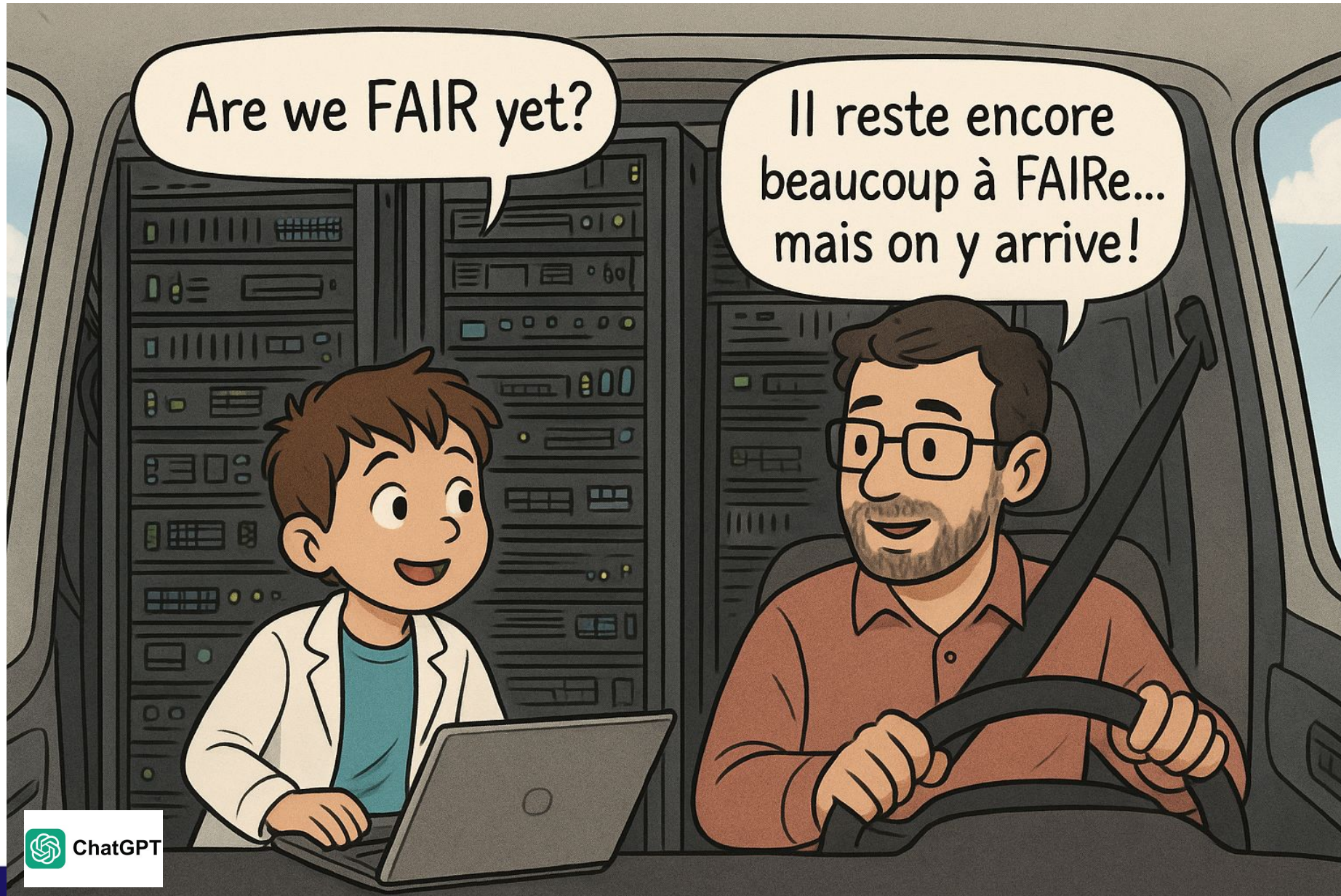


Description
& indexing
with
controlled
vocabularies



Term ?	Term URI ?
Arabidopsis	http://opendata.inrae.fr/thesaurus/INRAE/
Controlled Vocabulary Name ?	Controlled Vocabulary URL ?
INRAETHES	http://opendata.inrae.fr/thesaurus/INRAE/





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