



# Semantic Interoperability in FAIR-IMPACT



## **FAIR-IMPACT Work Packages**

WP1 PROJECT
MANAGEMENT,
SYNCHRONISATION
AND
SUSTAINABILITY

WP3 PERSISTENT IDENTIFIERS WP6 INTEROPERABILITY

WP2 ENGAGEMENT, ADOPTION & IMPLEMENTATION

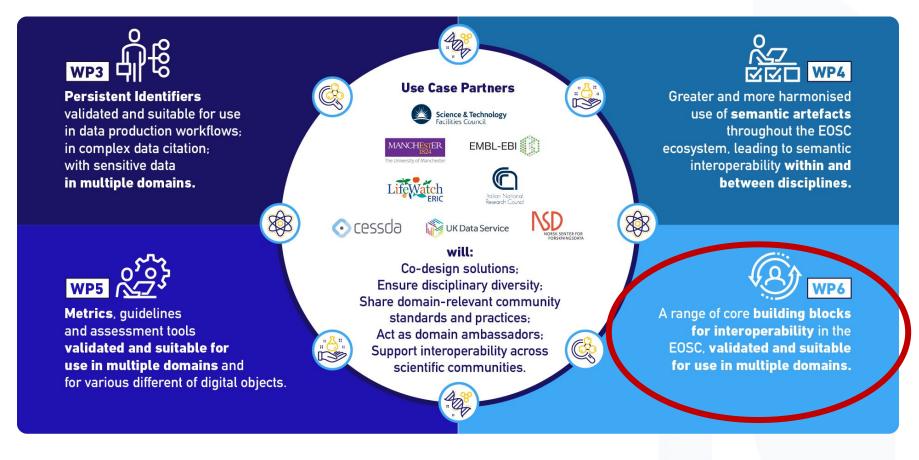
WP4 METADATA
AND ONTOLOGIES

WP5 METRICS, CERTIFICATION AND GUIDELINES WP7
DISSEMINATION,
EXPLOITATION
AND
COMMUNICATION

**FAIR-IMPACT Workplan** 



## 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



### Our current steps...

Identify semantic interoperability practices in our use cases (in parallel)

- Start with one of our domains (social sciences, photon and neutron science, life sciences, agri-food) and write down a short story on how data/software is searched for and used, so as to identify the current "technical and semantic interoperability pains" of researchers.
  - Once this initial short story (a day in the life of a researcher) is released, look for others.
- Map needs into technical and semantic components

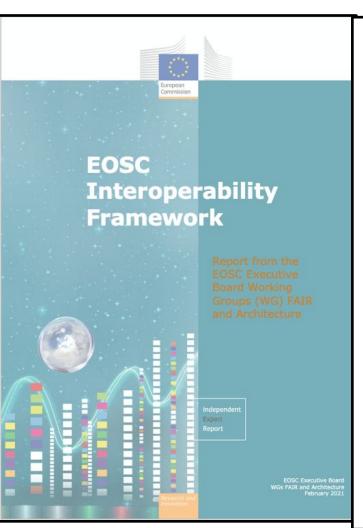
A catalogue of components and their functionalities

- Take the components from the EOSC Interoperability Framework and start identifying their functionalities (based on their current use, not on our own design ideas)
- Why not taking some of the developments from FAIRCORE4EOSC?

Explore metadata models for data, software and other research artefacts



## **EOSC Interoperability Framework**



EUROPEAN COMMISSION

#### EOSC Interoperability Framework

Report from the EOSC Executive Board Working Groups FAIR and Architecture

> Edited by: the EOSC Executive Board February 2021

#### Authors

Oscar Corcho, Universidad Politécnica de Madrid, 0000-0002-9260-0753

Magnus Eriksson, Swedish Research Council, 0000-0003-1877-6168

Krzysztof Kurowski, Poznań Supercomputing and Networking Center IBCH PAS, 0000-0002-4478-6119

Milan Ojsteršek, University of Maribor, 0000-0003-1743-8300

Christine Choirat, Swiss Data Science Center, ETH Zürich and EPFL, 0000-0002-3745-9718

Mark van de Sanden, SURF, 0000-0002-2718-8918

Frederik Coppens, VIB-UGent Center for Plant Systems Biology, 0000-0001-6565-5145

With contributions from the EOSC FAIR WG chairs (Sarah Jones, Françoise Genova) and on legal interoperability from: Ohad Graber-Soudry, Timo Minssen, Daniel Nilsson, Marcelo Corrales, Jakob Wested, Bénédicte Illien



Directorate-General for Research and Innovation

2021

#### How to cite:

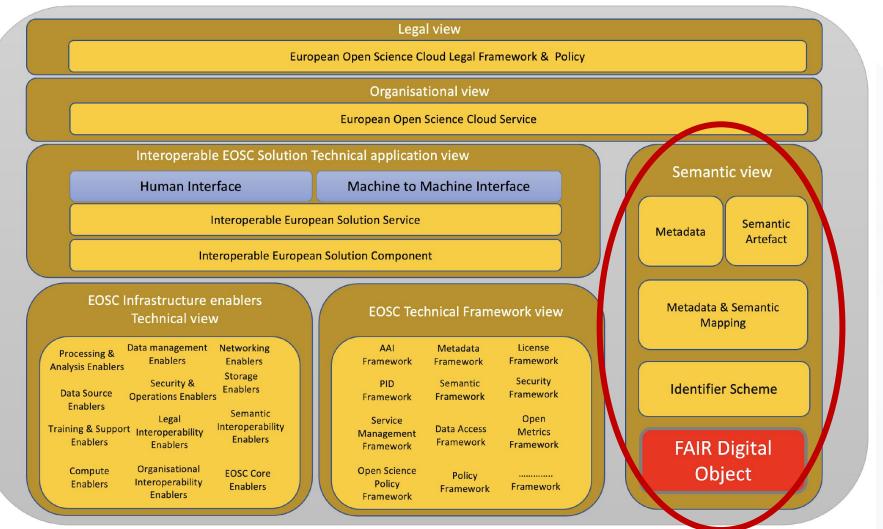
European Commission, Directorate-General for Research and Innovation, Corcho, O., Eriksson, M., Kurowski, K., et al., *EOSC interoperability* framework: report from the EOSC Executive Board Working Groups FAIR and Architecture, Publications Office, 2021

https://data.europa.eu/doi/10.2777/620649

1	INTRODUCTION6			
	1.1	Context and definitions		6
		1.1.1	The European Open Science Cloud (EOSC)	6
		1.1.2	FAIR principles and the role of Interoperability	6
		1.1.3	The European Interoperability Framework as a Starting Point	7
		1.1.4	Definitions of relevant terms used in this document	7
	1.2 Purpose and scope			
	1.3	1.3 How to read this document		9
2	INTEROPERABILITY LAYERS			
	2.1	Technical interoperability11		
	2.2	Semantic interoperability		
	2.3	Organisational interoperability		
	2.4			

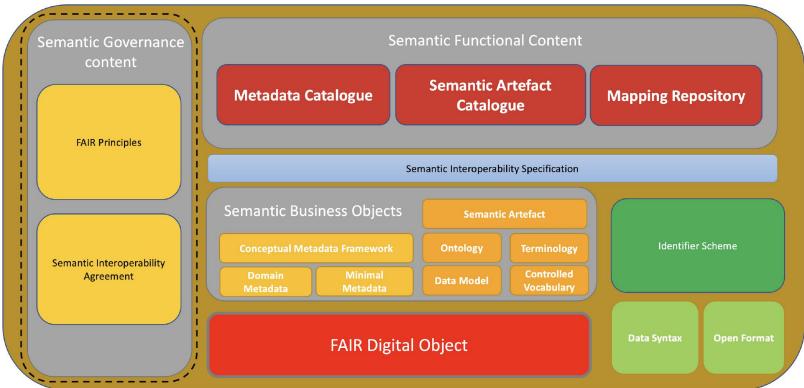


## Which ones are those components? (I)





## Which ones are those components? (II)



 Start thinking about them for the co-design session that we will have later.







@fairimpact\_eu /company/fair-impact-eu-project