



# EOSC Task Force FAIR Metrics and Data Quality

EOSC Symposium

Carlo Lacagnina & Mark Wilkinson  
Task Force co-Chairs



# eosc EOOSC Task Force “FAIR Metrics and Data Quality”

- A **multidisciplinary advisory group** of 26 experts in biology, metrology, climatology, data science and management, philosophy, computer sciences, etc. Experts come from 17 different European countries
- Kick-off in December 2021. Two co-chairs coordinate this EOOSC TF: Mark Wilkinson and Carlo Lacagnina
- Bi-weekly meetings over two years in a mixed method approach including virtual discussions workshops organization and participation, use cases collection, and survey dissemination



# eosc Goals of this Task Force

- Explores issues related to the **governance of FAIR** evaluations
- Examine the problem of **inconsistency between** FAIR evaluation **tools**
- Evaluate the applicability and uptake of FAIR Metrics across research communities
- Undertake a state of the art to generate mutual understanding about data quality
- Conduct several case studies to identify common features and dimensions to **define a data quality approach for EOSC.**



# FAIR Metrics group

Current status



# eosc FAIR Metrics Group: Three key objectives

- Explore issues related to the **governance** of FAIR evaluations
  - Who has the authority to decide what should be tested, how, and what is a successful result? There are (at least) 17 different FAIR evaluation systems, and nobody knows which one to trust
  - This is extremely problematic, when agencies and publishers are beginning to demand FAIRness
- Examine the problem of **inconsistency** between FAIR evaluation tools
  - Evaluators are generating dramatically different results
- Evaluate the applicability and **uptake** of FAIR Metrics (specifically RDA Maturity Indicators)
  - Ongoing... Measuring the effect that a well-governed and consistent FAIR assessment ecosystem will have on stakeholders' perceived trust in FAIRness evaluations, and their willingness to be evaluated using these tools.

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## *Outcomes:*

***Whitepaper on Governance** for peer review and to initiate a discussion around governance models for FAIR metrics and testing*

*Objective: a self-sustaining, peer-reviewed mechanism for approving FAIR metrics and tests (including domain-specific!) that is **trusted by the broad community** of stakeholders*

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- Explore issues related to the **governance** of FAIR evaluations

Who has the authority to decide what should be tested, how, and what is a successful result? There are (at least) 17 different tools, each with its own philosophy, and it's not clear which one to trust

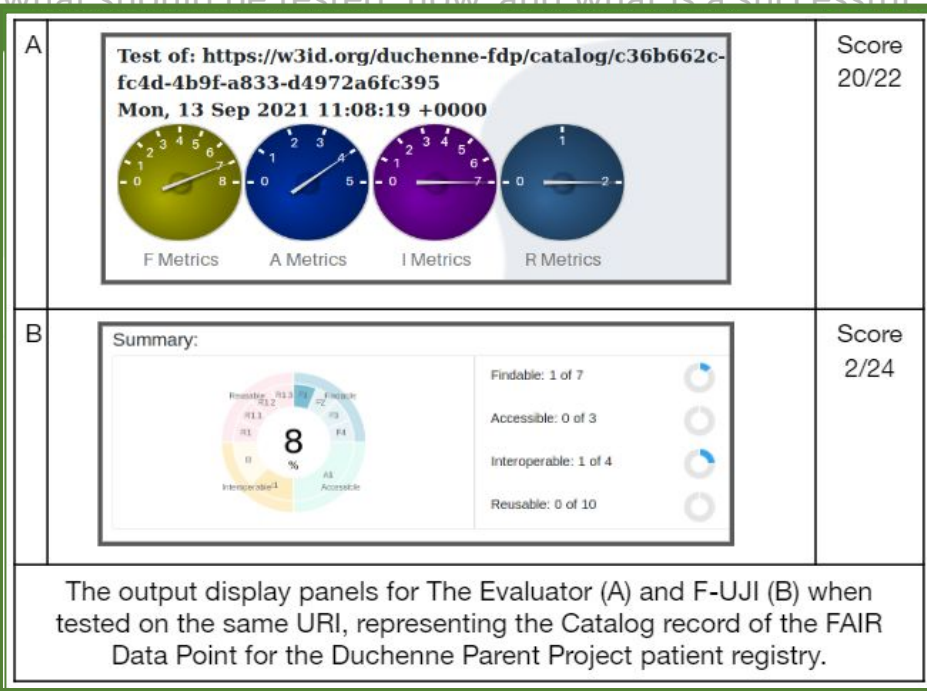
This is extremely problematic, with implications for the overall FAIRness

- Examine the problem of **inconsistency** between different tools

Evaluators are generating dramatic differences in results

- Evaluate the applicability and **uptake** of FAIR evaluations

Ongoing... Measuring the effect of the FAIR ecosystem will have on stakeholders, and their willingness to be evaluated using these tools.





# Inconsistency between FAIR evaluation tools

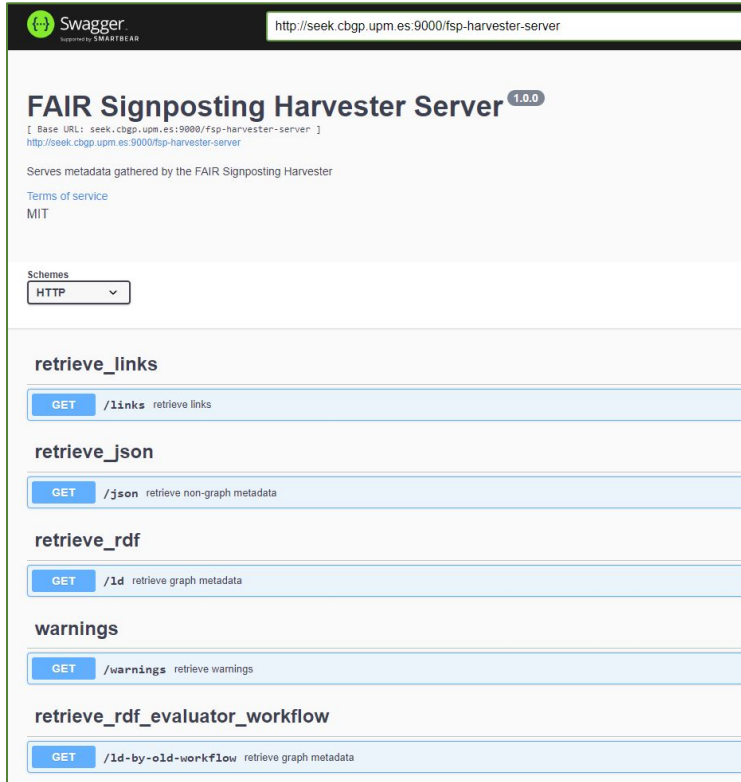
*Evaluator harmonization: find a common workflow*

FAIR Signposting: a no-guesswork, unambiguous specification for pointing between a canonical identifier, the data it represents, and the metadata about that data

<b>Table 1: Link Relations used by FAIR Signposting</b>	
<b>Relation</b>	<b>Usage</b>
cite-as	A one-to-one relationship between the entity and its globally unique identifier
describedby	A one-to-many relationship between the entity and all known metadata records about that entity
item	A one-to-many relationship between an entity representing a deposit and the data file(s) it contains.

Four TF-hosted Hackathons → specification and reference environment for checking that all evaluators are behaving identically when faced with a FAIR Signposting-compliant site

*Evaluator harmonization: find a common workflow*



Swagger  
Support by SMARTBEAR

http://seek.cbgp.upm.es:9000/fsp-harvester-server

## FAIR Signposting Harvester Server <sup>1.0.0</sup>

[ Base URL: seek.cbgp.upm.es:9000/fsp-harvester-server ]  
<http://seek.cbgp.upm.es:9000/fsp-harvester-server>

Serves metadata gathered by the FAIR Signposting Harvester

Terms of service  
MIT

Schemes  
HTTP

**retrieve\_links**  
GET /links retrieve links

**retrieve\_json**  
GET /json retrieve non-graph metadata

**retrieve\_rdf**  
GET /ld retrieve graph metadata

**warnings**  
GET /warnings retrieve warnings

**retrieve\_rdf\_evaluator\_workflow**  
GET /ld-by-old-workflow retrieve graph metadata

A FAIR Signposting-compliant metadata harvesting engine has now been published @ UPM that can be used by all Evaluator systems.



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# Thank you!

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