funding FAIR communities

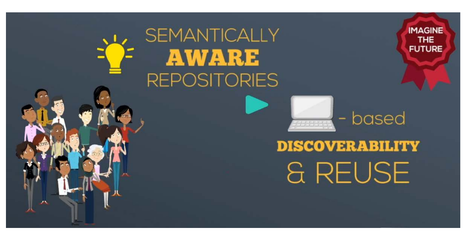
a proposal by the Research Data Management network of University of Basel

https://researchdata.unibas.ch/

Open science aims at making research findings, methodologies and data available freely to scientists and to the society. But as the volume and complexity of data involved in research continues to grow exponentially, **the effort to find, curate and reuse data** made available through open policies **is also increasing rapidly**.

By adopting **FAIR principles,** and using **FAIR services** and **FAIR repositories,** scientific communities can **save curation time, accelerate data reuse, and make research outcomes more accessible, visible, and easily citable**.

Today, however, there are still **gaps in the definition of semantics and interoperability standards** needed to make data truly FAIR. We propose that Swiss funding agencies support national communities and join forces with international initiatives aiming at **accelerating the adoption of FAIR principles**.



Jane needs you!

Meet her in our video: https://tube.switch.ch/videos/17b47881

Linking Swiss research communities with international FAIR initiatives

Our proposal

”Swiss research funding agencies support actively **communities of scientists** who want to **accelerate the adoption of FAIR principles** in their domain.”

In particular by:

- Supporting research with an explicit aim of **harmonizing semantics** in a domain (e.g. to make data interoperable across partners)
- Supporting collaborations of Swiss projects with **international projects advancing implementations of FAIR**
- Supporting **semantic extensions of repositories** on the basis of **active research projects** with multiple partners
- Supporting national and international networking activities in the domain of semantic harmonization in research and FAIR services

shallow-FAIR vs deep-FAIR

- **shallow-FAIR** repositories offer FAIR-compliant metadata description of datasets, but do not enforce machine-interpretable mechanisms to search and access the data (often due to lack of community-accepted FAIR conventions). E.g. Zenodo, Dryad, FigShare, …
- **deep-FAIR** repositories offer FAIR-compliant metadata of both the dataset and the data contents. Data are accessible with a well-defined semantics through an API. E.g. PDB, Swiss-Prot, …

The FAIR principles for scientific data

Findable
Accessible
Interoperable
Reusable

Check them here:

https://www.nature.com/articles/sdata201618

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Impressum: The poster concept and associated video were prepared on behalf of the RDM network by Thierry Sengstag and Sofia Georgakopoulou CC-BY-4.0 2019-09-09

The future

In 5 years: semantics and interoperability concepts exist for all research domains
In 10 years: most research data are uploaded in deep-FAIR repositories
In 15 years: all FAIR data are findable and usable by AI research algorithms

The video and Jane were CREATED USING POWTOON