

Collaborative notes for Session 4 - “Trustworthy and FAIR-enabling repositories”

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Workshop date: Thursday, November 30, 10.30-12.00 CET

Session overview

In this session we will discuss the current mechanisms and cooperation opportunities for Trustworthy and FAIR-enabling repositories. We will look into the wider range of transparency and trust, and the incremental and sustainable support needed. This session aims to pick up on progress against the three recommendations identified from the 2022 Synchronisation Force session which were to:

- Measure the percentage of repositories in EOSC that will have a certification such as CoreTrustSeal or expose trustworthiness using other mechanisms
- Provide incremental, continuous and sustainable guidance and assistance to repositories, and certification processes
- Contribute to cooperation across the current initiatives to build and sustain a network of trustworthy digital repositories

Questions that participants in this session will explore:

1. What is your project or initiative doing to help define trustworthiness?
2. What is your project or initiative doing to increase the number and visibility of trustworthy, FAIR-enabling and/or certified repositories?
3. In your project, initiative, or community, do you work with repositories that consider themselves to be trustworthy and/or have a certification such as CoreTrustSeal?
4. For those repositories that are not certified, is any support or guidance provided to help them to expose their trustworthiness using other mechanisms?
5. Are you planning to sustain your activities and/or efforts? If so, how? How can we best work together to progress a network of trustworthy digital repositories?

Expected outcomes

This session will provide an update on some of the recent efforts to improve the availability and visibility of trustworthy and FAIR-enabling repositories and to consider whether any of these can be leveraged to assist the ongoing monitoring the repository landscape by the EOSC Association.

Preliminary questions and responses received

Project or initiative	1. What is your project or initiative doing to help define trustworthiness?
OpenAIRE	Compatibility with metadata guidelines, FAIRification, policies.
RDA France	Encourage repositories to use CoreTrustSeal (CTS) criteria through a Working Group common to RDA France and the Data College of the French Open Science Committee. Now that more French repositories have been applying to CTS certification we begin to organise networking activities to gather the certified and candidate repositories, plus those expecting to candidate. The current Second National Plan for Open Science has "continue the certification process (CoreTrustSeal) for data repositories among its actions on "Structuring, sharing and opening up research data". Slides summarizing the history and current status of the project with links: https://drive.google.com/file/d/1pI-y6RoMBD1ujlWN-ABIPsb-SdSCzVQf/view?usp=sharing
GO FAIR Foundation	
Semantics in Astronomy, Planetary Sciences and Heliophysics	Some of the repositories in our communities are that of space agencies or international observatories, which are the source of data for a large fraction of the community. The data is not replicated elsewhere and is unique (e.g., there is only one spacecraft, which has explored Uranus and Neptune). The community considers those repositories as trustworthy. Small providers are considering following the CTS certification. However, the trustworthiness is usually seen as the fact that the repository is online, and the data can be accessed and linked to scientific papers (or original data, when they are mirrored, copied or processed). We push providers to setup related identifiers in DOI metadata for this.
Reactome database of biomolecular pathways	We are participating in FAIR/Trust certification schemes and actively engage with the Global Biodata Coalition.
A CRIS system for Open Science and FAIR publications	
University of Bologna (FAIR Champion + Data Stewards)	
PerSciDo: The French Labex Persyval-Lab	Researchers must be authenticated (authentication delegation via Shibboleth) and provide a set of metadata to share their research data. A restricted committee validates each deposit on PerSciDo before publication.

Project or initiative	1. What is your project or initiative doing to help define trustworthiness?
Integrated Carbon Observation System (ICOS)	Not sure what is meant here? ICOS is not involved in any initiatives (at RDA or EOSC level, for example) that are working to create definitions of trust and/or trustworthiness. However, we are actively following discussions and aspire to implement best practices as per standards in the Earth and Environmental Sciences domain. Thus, our intention is to be a trustable repository of data and metadata for our user communities (uploaders and downloaders alike).
ELIXIR	In FAIRsharing, we present metadata about repositories and let the community decide for themselves according to their needs
re3data COREF	
Blue-Cloud 2026	
RDA Working Group - Community-based catalogue of requirements for trustworthy Technical Repository Service Providers (TRSPs)	(responding on behalf of WG co-chairs) This WG, which is in its early planning stage, aims to develop existing CTS requirements to produce a community-based catalogue of requirements for trustworthy Technical Repository Service Providers (TRSPs).
OpenAIRE	OpenAIRE Metadata Validator: A rule-based service that provides metrics on the compatibility with the OpenAIRE Guidelines and on the FAIRness of the data sources (repositories, OA journals, CRIS) based on the metadata of the research output.
EMODnet, Blue-Cloud2026, Copernicus Marine Service, ...	Marine data integrator projects (EMODnet, CMEMS, ...) relay on TRUST repositories and help supporting the schema to define what is a TRUST repository
BY-COVID	We enable FAIR and trustworthy publication of end-to-end infectious diseases data analyses and results, and target the provenance of data and analysis workflows as provenance information is critical for trustworthy and reproducible research. BY-COVID contributes to improving trust in science through increased FAIRness, openness and quality of scientific research.
Virtual Atomic and Molecular Data Centre	We have an internal quality policy, with resources curated and evaluated by scientific experts
FAIR-IMPACT	

Project or initiative	2. What is your project or initiative doing to increase the number and visibility of trustworthy, FAIR-enabling and/or certified repositories?
OpenAIRE	Use of proper directories for repositories registration. Validation of metadata, analysing metadata quality, and enriching metadata records.
RDA France	Regular workshops to present CTS repository certification. Support to CTS administrative fees with funds obtained from the National Fund for Open Science. Beginning to network the relevant repositories. Please note that one aim is to disseminate knowledge about CTS criteria so that the community can use them to improve their data management practices, even if they do not finally apply for certification.
GO FAIR Foundation	
Semantics in Astronomy, Planetary Sciences and Heliophysics	Spreading the word in meetings and during workshops.
Reactome database of biomolecular pathways	We work intensively with FAIR peer resources through cross-wise data exchange and referencing.
A CRIS system for Open Science and FAIR publications	
University of Bologna (FAIR Champion + Data Stewards)	
PerSciDo: The French Labex Persyval-Lab	The current operation has not posed any trustworthy issues. Therefore, no other initiatives are planned for our field of application.
Integrated Carbon Observation System (ICOS)	Within the cluster of European environment and Earth science research infrastructures (the ENVRI Community), ICOS promotes the standards and quality criteria that we are ourselves applying to our data repository, the Carbon Portal. In addition, we also push for the adoption of FAIR research data management in international contexts such as the World Meteorological Organisation (WMO), the Group of Earth Observations (GEOSS) and the Research Data Alliance (RDA).
ELIXIR	We describe databases in the FAIRsharing registry, and how they are interconnected to standards and data policies

Project or initiative	2. What is your project or initiative doing to increase the number and visibility of trustworthy, FAIR-enabling and/or certified repositories?
re3data COREF	
Blue-Cloud 2026	
RDA Working Group - Community-based catalogue of requirements for trustworthy Technical Repository Service Providers (TRSPs)	The WG will look to extend the notion of trustworthiness to the providers of services (technical or otherwise) to repositories, producing a catalogue of requirements and assessment process(es), including compliance levels/minimum expectations for TRSPs.
OpenAIRE	Use of well-known registries (OpenDOAR, re3data, FAIRsharing) for repositories registration. Validation of metadata on compatibility with the OpenAIRE Guidelines, which are based on well-known metadata schemas (DC, Datacite) and vocabularies (COAR vocabulary) enhancing interoperability and FAIRness. Analysing and enhancing metadata quality by enriching metadata records of data sources.
EMODnet, Blue-Cloud2026, Copernicus Marine Service, ...	the projects adopts the FAIR concepts and develops thematic data model to use common standards and vocabularies. They also promote the adoption of these standards and provide basic support and training to facilitate the adoption of these best practises
BY-COVID	Not directly in scope of project. FAIRsharing (https://fairsharing.org/3773) provides detailed descriptions of the data sources and their relationships, including data types and their mechanisms of access. FAIRsharing also: (i) assists with the selection, documentation and visualisation of the standards implemented by the data sources, (ii) maintains a curated record of the data sources indexed in the COVID-19 Data Portal, and (iii) provides additional information on the BY-COVID data sources in the European Open Science Cloud (EOSC) ecosystem.
Virtual Atomic and Molecular Data Centre	We do not have any activity in this sense
FAIR-IMPACT	FAIR-IMPACT provides a support programme for repositories to become more FAIR-enabling: https://fair-impact.eu/2nd-open-call-support-opens-30-august#3SupportProgrammeforRepositoriesandDataServiceProviders

Project or initiative	3. In your project, initiative, or community, do you work with repositories that consider themselves to be trustworthy and/or have a certification such as CoreTrustSeal?
OpenAIRE	Yes, in our plans.
RDA France	Increasing number of repositories based in France got CTS certification, are applying to get it or working on an application.
GO FAIR Foundation	
Semantics in Astronomy, Planetary Sciences and Heliophysics	Yes;; for instance, NASA/PDS (https://pds.nasa.gov), CDS (http://cds.unistra.fr/)...
Reactome database of biomolecular pathways	We are working on an CoreTrustSeal application. However, I would like to point out the danger of "Bumper sticker inflation". Each new certification scheme requires additional effort, and is usually unfunded. A notable exception are the NIH administrative supplements to funded database resources, which explicitly fund the additional work for CoreTrustSeal and similar certifications.
A CRIS system for Open Science and FAIR publications	
University of Bologna (FAIR Champion + Data Stewards)	
PerSciDo: The French Labex Persyval-Lab	No collaboration at the moment. However, it would be relevant to add metadata in PerSciDo (Knowledge Base) to provide information on these certifications. The effort is minimal, and datasets certified as trustworthy would be highlighted, motivating researchers to have their data certified.
Integrated Carbon Observation System (ICOS)	Yes. The ICOS Carbon Portal is currently in the process of evaluation to obtain Core Trust Seal certification. (If you want more detailed information, please contact Maggie directly.)
ELIXIR	
re3data COREF	
Blue-Cloud 2026	

Project or initiative	3. In your project, initiative, or community, do you work with repositories that consider themselves to be trustworthy and/or have a certification such as CoreTrustSeal?
RDA Working Group - Community-based catalogue of requirements for trustworthy Technical Repository Service Providers (TRSPs)	The WG won't be working with repositories or service providers initially, but will be seeking to demonstrate the implementability of the requirements closer to the end of the lifecycle of the WG (circa mid-2025)
OpenAIRE	Yes, planning phase.
EMODnet, Blue-Cloud2026, Copernicus Marine Service, ...	Yes
BY-COVID	Not in scope of project. However, the COVID-19 Data Portal sources include several certified repositories.
Virtual Atomic and Molecular Data Centre	In our wider community (space & astronomy) we sometimes work with colleagues maintaining certified repositories
FAIR-IMPACT	yes

Project or initiative	4. Are you planning to sustain your activities and/or efforts? If so, how?
OpenAIRE	Yes, via the OpenAIRE AMKE organization.
RDA France	RDA France is supported by the National Fund for Open Science. The Certification Working Group is common to RDA France and the National Committee for Open Science.
GO FAIR Foundation	
Semantics in Astronomy, Planetary Sciences and Heliophysics	All coordination/standardization work in IVOA, IPDA of IHDEA is voluntary work, and is specific development may be partly funded by projects.

Project or initiative	4. Are you planning to sustain your activities and/or efforts? If so, how?
Reactome database of biomolecular pathways	Yes. Reactome has been a publicly funded, open community resource since 2002, and we hope to continue to provide our services without and restrictions. This will require sustained public funding.
A CRIS system for Open Science and FAIR publications	
University of Bologna (FAIR Champion + Data Stewards)	
PerSciDo: The French Labex Persyval-Lab	See above
Integrated Carbon Observation System (ICOS)	ICOS takes trust and trustworthiness very seriously, and is continuously looking at how we can ensure that all our stakeholders (funders, policy makers, end user communities as well as data providers) remain confident that the data we provide are of high quality, follow community standards and are safeguarded against any manipulation or loss.
ELIXIR	
re3data COREF	
Blue-Cloud 2026	
RDA Working Group - Community-based catalogue of requirements for trustworthy Technical Repository Service Providers (TRSPs)	
OpenAIRE	Yes, via OpenAIRE.
EMODnet, Blue-Cloud2026, Copernicus Marine Service, ...	yes, via the projects

Project or initiative	4. Are you planning to sustain your activities and/or efforts? If so, how?
BY-COVID	Sustainability of project results will be sought to ensure impact is maximised. Individual project outputs will be identified and evaluated to select the best approach on ensuring their sustainability considering the IP of project partners. It is expected that project results comprising methods, guidelines, standards, training and tools will be made accessible through ELIXIR related services and platforms and open licenses will be adopted (e.g CC BY).
Virtual Atomic and Molecular Data Centre	The VAMDC consortium is active since 2009. It is founded to sustain the Atomic and Molecular interoperable sharing activity.
FAIR-IMPACT	FAIR-IMPACT will repeat its support programme

Project or initiative	5. How can we best work together to progress a network of TDRs?
OpenAIRE	Build on top of the existent national repositories networks and support institutions and repository managers.
RDA France	As explained we recently begun networking activities for the relevant French repositories. We would be interested to participate in a wider (European?) initiative and we could encourage the repositories we are in touch with to join.
GO FAIR Foundation	
Semantics in Astronomy, Planetary Sciences and Heliophysics	
Reactome database of biomolecular pathways	Focus on relevant, community-level TDR recognition, with appropriate funding. Do not overcomplicate things with general, "one size fits all" schemes.
A CRIS system for Open Science and FAIR publications	

Project or initiative	5. How can we best work together to progress a network of TDRs?
University of Bologna (FAIR Champion + Data Stewards)	
PerSciDo: The French Labex Persyval-Lab	By producing documents and organizing seminars aimed at informing and motivating researchers about certifying their data. Researchers are just starting to understand the utility of a Persistent Identifier (DOI), and there is still work to be done to have certified datasets. PerSciDo can engage in communication efforts by displaying a message to motivate certification and showcasing relevant links.
Integrated Carbon Observation System (ICOS)	ICOS is not necessarily interested in being part of a federation of (European) trusted repositories, with common sets of rules-of-participation, required certifications and possibly also aligned policies etc. However, we would be happy to participate in knowledge and experience exchange, perhaps in the form of a Community of Practice for repository managers.
ELIXIR	Create a collection in FAIRsharing listing those that your project considers trustworthy. Volunteer as a FAIRsharing Community Champion to help progress this work, and the accurate representation of FAIR-IMPACT-related standards, databases and data policies within FAIRsharing.
re3data COREF	
Blue-Cloud 2026	
RDA Working Group - Community-based catalogue of requirements for trustworthy Technical Repository Service Providers (TRSPs)	We are inviting people to contribute to the draft Case Statement (link available through this page: https://www.rd-alliance.org/community-based-catalogue-requirements-trustworthy-technical-repository-service-providers) and welcoming people to sign up to the WG. When the WG starts up 'officially' we would be happy to work with FAIR-Impact on this topic.
OpenAIRE	Build on top of the existing national repositories networks and initiatives. Support institutions and their repository managers. OpenAIRE Guidelines are a well-designed schema that enhances and promotes FAIRness as the rules are based on the interoperability and FAIRness of the metadata. Moreover, OpenAIRE is the entry/gateway of repositories to EOSC. If a repository is compatible with the versions 3.0 or 4.0 of the OpenAIRE Guidelines, then it will be onboarding the EOSC Portal Catalogue and Marketplace integrated platform.

Project or initiative	5. How can we best work together to progress a network of TDRs?
EMODnet, Blue-Cloud2026, Copernicus Marine Service, ...	Build on top of the existing national repositories networks and initiatives. Support institutions and their repository managers. Facilitate the dissemination and adoption of the developed best practices by joint documentation, seminars, ... training material
BY-COVID	
Virtual Atomic and Molecular Data Centre	TDR??
FAIR-IMPACT	EC's funding call