

# A PRACTICAL GUIDE TO FAIR PRACTICES IN RESEARCH LIBRARIES



Below you will find tangible first actions that research libraries or librarians can do to move towards FAIR practices. These guidelines have been compiled by LIBER's [Research Data Management Working Group](#).

## Findable

In order to make research data more 'findable', research libraries can:

- Raise awareness and provide guidance and support to researchers on the topic of persistent identifiers (PIDs).
- Clarify and communicate what your metadata service offers for research data, e.g. provide a rich set of FAIR recommended descriptive metadata.
- Check whether your research organisation's archiving solutions include indexing by scholarly aggregators and search engines (e.g. OpenAIRE, DataCite, Google).
- Ensure your repository uses Persistent Identifiers (PIDs) such as DOIs. (<https://project-thor.readme.io/docs/project-glossary>)
- Ensure your data repository can be found in the Re3data repository browser (<https://www.re3data.org/>). If the repository you use or recommend to use is missing, register the repository with re3data.org by filling out the suggestion form: <https://www.re3data.org/suggest>.



## Accessible

In order to make research data more 'accessible' research libraries can:

- Guide researchers on the difference between FAIR and open data and ways to make data (at least partially) FAIR.
- Provide clear guidance on which research data are accessible under what conditions.
- Make your repository as accessible as possible for humans and machines (e.g. interfaces for retrieval, harvesting, and indexing).
- Share your repository's metadata under an open licence (e.g. Creative Commons Dedication CC0).

Secure reliable and continuous access to metadata and data, and implement related standards (e.g. CoreTrustSeal, <https://www.coretrustseal.org/>).

## Interoperable

In order to make research data more 'interoperable', research libraries can:

- Build up expertise on metadata standards for research data, controlled vocabularies, and ontologies in your library (e.g. [DCC Metadata Guidance](#), [RDA Metadata Catalog](#)).
- Implement good practice standards for data repositories, regarding metadata, and more generally (e.g. OpenAIRE or COAR).
- In your repository guidelines, ask users to make clear what can be retrieved under what conditions, i.e. access the readme file.
- Link your research data to other scholarly relevant entities via persistent identifiers (e.g. publications, data, pre-registration, software, ORCID).

## Reusable

- In order to make research data increasingly 'reusable' research libraries can:
- Raise awareness of existing data sources and promote the reuse of data.
- Liaise with the communities of practice as part of various disciplines at your university to build institutional expertise for reusable data.
- Take the lead in advocating best practices for data documentation and building curation services.
- Provide guidance for data licensing, data publication, and data citation.

## Other actions to work towards FAIR

- Enable and provide training to data stewards and librarians on aspects of making data FAIR(er).



- Provide clear guidance to researchers on how to document and publish datasets, i.e. minimal metadata, a readme file, and information on how to access the data.
- Join a library working group on research data management and FAIR data ([LIBER](#), [RDA](#)).
- Test FAIRness of a data set in your repository through a FAIR metrics tool (or tools) and derive advice from the evaluation result (e.g. F-UJ tool: <https://www.f-uj.net/>).

## References

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- Engelhardt, C. et al. (2022). How to be FAIR with your data: A teaching and training handbook for higher education institutions. Göttingen University Press. <https://doi.org/10.17875/gup2022-1915>
- The FAIR Cookbook: a deliverable of the FAIRplus project (grant agreement 802750), funded by the IMI programme, a private-public partnership that receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA Companies. <https://fairplus.github.io/the-fair-cookbook/content/home.html>
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- Hilse, H.-W., & Kothe, J. (2006). Implementing Persistent Identifiers: Overview of Concepts, Guidelines and Recommendations. London / Amsterdam: Consortium of European Libraries and European Commission on Preservation and Access. ISBN 90-6984-508-3. Download PDF version (persistent identifier): <http://nbn-resolving.de/urn:nbn:de:gbv:7-isbn-90-6984-508-3-8>
- The RDA Metadata Standards Catalog. <https://rdamsc.bath.ac.uk/>
- Registry of Research Data Registry. <https://www.re3data.org/>
- THOR. What is a DOI, Handle, ARK, URL, URI, ...? <https://project-thor.readme.io/docs/project-glossary>

For further questions about implementing FAIR at your research library, please contact LIBER's [Research Data Management Working Group](#).

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