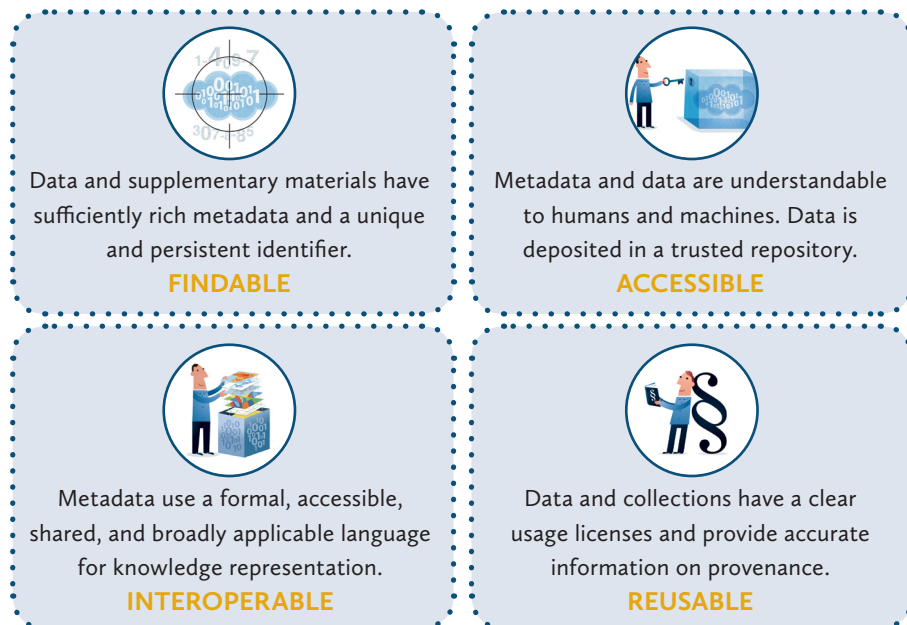


# Implementing FAIR Data Principles: The Role of Libraries

## 1 What are the FAIR Data Principles?

The FAIR Data Principles are a set of guiding principles in order to make data findable, accessible, interoperable and reusable (Wilkinson et al., 2016). These principles provide guidance for scientific data management and stewardship and are relevant to all stakeholders in the current digital ecosystem. They directly address data producers and data publishers to promote maximum use of research data. Research libraries can use the FAIR Data Principles as a framework for fostering and extending research data services.

### What is FAIR DATA?



## 2 Why is FAIR Data important?

The advancement of digital science thrives on the timely sharing and accessibility of digital data. Accordingly, the need for development of infrastructures and services that enable a systemic change of science practices to Open Science is now strongly advocated by both research and funding organizations. The FAIR principles strengthen these developments.

Consequently research institutions, funders and publishers have significantly stepped up their demands on research data management and opening up research data for reuse. In the European Commission's Open Research Data Pilot the FAIR principles are applied in order to encourage funded researchers to ensure that their data is soundly managed and subsequently shared.



### 3 How can libraries get started?

Libraries have a strong tradition in describing resources, providing access and building collections, and providing support for the long-term stewardship of digital resources. Building on their specific knowledge and expertise libraries should feel confident with making research data FAIR. How can libraries get started with the FAIR principles?

- Promote the FAIR principles to local research and IT staff;
- Incorporate the FAIR principles in your Data Management Plans and your digital preservation practices and policies;
- Seek opportunities to curate, enrich, capture and preserve research data that will aid in making data findable, accessible, interoperable and reusable. Good starting points are collections of individual researchers, or a data collection of a research group;
- Train subject and data librarians on disciplinary metadata, vocabularies and tools to make data FAIR;
- Encourage researchers to deposit data with archives that embody the FAIR principles;
- Evaluate the data collections and data management practices at your institution against the FAIR principles.

#### Further Information

LIBER's Research Data Management Working Group<sup>1</sup> can provide further advice and help.

#### References

- Images in the FAIR Data graphic are from Digitalbevaring.dk / Jørgen Stamp (CC BY 2.5 Denmark license).
- European Commission. Guidelines on FAIR Data Management in Horizon 2020, July 2016. Available from: [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf)
- Wilkinson, M. D. et al. (2016). The FAIR Guiding Principles for scientific data management and stewardship. *Scientific Data*, 3, 160018. doi:10.1038/sdata.2016.18
- Are the FAIR Data Principles fair? LIBER webinar, March 2017. Available from: <http://libereurope.eu/blog/2017/03/24/webinar-video-fair-data-guidelines-really-fair>
- A Data Citation Roadmap for Scholarly Data Repositories. LIBER webinar, May 2017 Available from: <http://libereurope.eu/blog/2017/05/30/webinar-video-data-citation-roadmap-scholarly-data-repositories>
- The Royal Society (2012). Science as an Open Enterprise. Available from: <https://royalsociety.org/topics-policy/projects/science-public-enterprise/report>
- Forthcoming: LIBER Data Management Plan Review Library, an annotated set of data management plans and review guidance

1. <http://libereurope.eu/strategy/research-infrastructures/rdm>