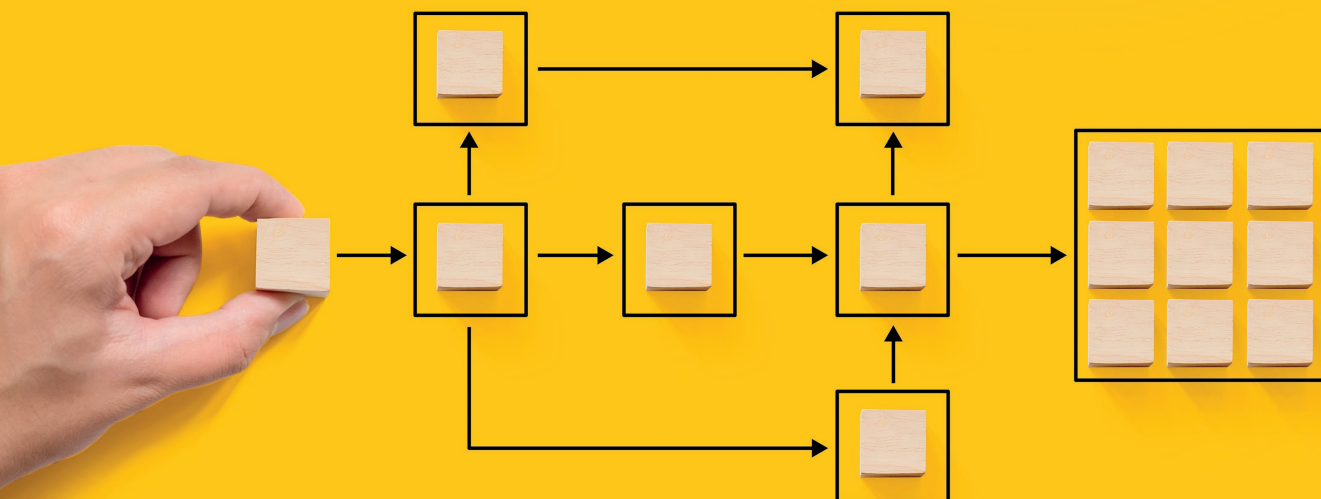
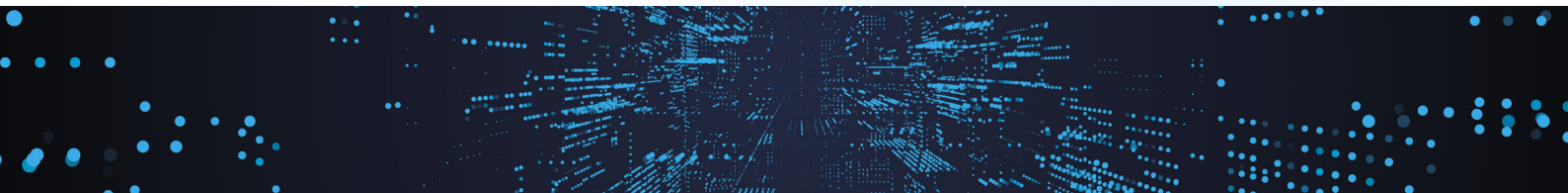




Turning FAIR Principles into Practice: Enhancing Institutional Research Data Services



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Support programme:

FAIR-IMPACT's Support Programme for Repositories and Data Service Providers aimed to help participants better understand their drivers for becoming more FAIR-enabling, self-assess their current FAIR-enabling capacity, develop an action plan with considerations for stakeholder engagement, and to work on implementing this. The support programme ran between September 2024 and March 2025, during which six virtual workshops and continuous dedicated and tailored mentoring support was offered to help participants identify and establish their unique journey toward becoming more FAIR-enabling. This FAIR Implementation Story outlines the specific aims and actions of Helsinki University Library in relation to their participation in this Support Programme.

Keywords:

data catalogue, FAIRification, FAIR assessment

Summary:

During the FAIR-IMPACT support programme, the library advanced preservation planning, improved metadata standards, and increased FAIR alignment. User needs were explored through interviews and testing. Governance gaps were identified and are being addressed. CoreTrustSeal¹ readiness progressed, and internal clarity and external visibility of services significantly improved.

1 <https://www.coretrustseal.org/>



■ Introduction:

In spring 2024, the University of Helsinki launched a new service called Databank¹, for storing static research data for 5–15 years. Databank is a curated service, with curation based on metadata provided by the depositing researchers. During the FAIR-IMPACT support programme, we were also involved in developing a data catalogue to support research dataset metadata at the university. In addition, the university offers a separate Data archive service, dedicated to the long-term preservation of research data.

We invested in rich metadata and adherence to standards, though balancing domain-agnostic service design with disciplinary specificity proved complex. The metadata model is still under development. Benchmarking was found to be highly valuable, and implementing FAIR principles took more time than originally anticipated. Significant progress was made toward CoreTrustSeal readiness, and the programme helped increase both internal clarity and external visibility of our services.

As part of Databank development, we created a metadata submission form to support rich data description and compliance with widely used standards such as DataCite² and DCAT³. Our goal is to integrate the metadata into the shared metadata repository, Metax⁴. Following the launch of Databank, we began developing the University of Helsinki Data Catalogue⁵. The catalogue will index metadata of research datasets produced at the University by harvesting records from various data repositories. It will also include metadata from Databank and enable DOI assignment.

The Data Catalogue is being built on DSpace, a platform widely used for data repositories. As DSpace uses a Dublin Core-based metadata registry, we mapped Databank's metadata fields to DC terms. Benchmarking other DSpace-based catalogues helped us identify ways to enhance FAIR-enabling features, such as improving machine-actionability of metadata records.

■ Approach taken:

Our goal was to develop Databank, Data archive⁶, and Data catalogue in alignment with the FAIR principles. Prior to the programme, our team's familiarity with FAIR varied—some had a theoretical understanding, while others were not familiar with the concept at all. Through the programme, we aimed to gain concrete guidance on how to improve our services.

Our initial assumption was that our strength lay in policy-level FAIRness, while more attention was needed on technical machine-readability. However, during the FAIR-Impact programme, we realised that the policy level also required further work, and in the end, this became one of our main focus areas. Using the tool provided by the programme, we identified our primary driver as serving reusers, followed by serving depositors. These priorities guided our approach when selecting key actions. Our main objective was to draft and publish a mission statement. Our other objectives linked to FAIR assessments and supporting the FAIRness of objects. When it comes to metadata, DSpace largely dictated what was possible to achieve. Finally, our overarching objective was to display trustworthiness to our stakeholders, especially those submitting or reusing data from our institutional services. Therefore, we completed a preservation plan and a mission statement during the programme, and initiated work on a continuity plan for all of our institutional services.

1 <https://www.helsinki.fi/en/research/services-researchers/data-support/preservation-research-data/databank>

2 <https://schema.datacite.org/>

3 <https://www.w3.org/TR/vocab-dcat-3/>

4 <https://www.fairdata.fi/en/metax/>

5 <https://www.helsinki.fi/en/research/services-researchers/data-support/preservation-research-data/data-catalogue>

6 <https://www.helsinki.fi/en/research/services-researchers/data-support/preservation-research-data/data-archive>



■ Challenges encountered and addressed:

While community engagement was not our primary focus during the FAIR-Impact programme, we had interviewed researchers and faculty deans to identify user needs. User testing was also conducted and will continue developing the service based on our findings. Thanks to the programme, we realised that we had already invested quite a lot on community engagement while developing the services, without realising it. In other words, we became aware that community engagement was already one of our strengths and not just creating policies.

Another thing that the programme helped us to become aware of, was the fact that there is a lack of clarity regarding ownership of data preservation and metadata services at our university. This is a very important point and it is now being addressed, with decisions expected later this year.

Overall, the tools provided by the programme made the work smooth and structured. We did not encounter major challenges during the program. However, we still have a long list of actions needing implementation. The workload was somewhat higher than expected, and due to time constraints, some tasks remained unfinished. But despite the programme coming to an end, we are now better equipped to continue developing our FAIR-skills and have gained a systematic way of following through the actions remaining to be implemented.

■ Impact:

Through our newly created Databank and Data catalogue mission statement and preservation plan, we have been able to improve our services by making them more transparent and being more explicit about how our institutional services support researchers in making their research data FAIR. The tools and information provided by the programme have helped us in taking a more systematic approach to understanding the and implementing the various steps needed to enhance the machine-actionability of our services.

Participation in the FAIR-IMPACT programme significantly advanced our FAIR maturity. We improved metadata practices, clarified governance structures, and developed key policy documents including a mission statement and preservation plan. The programme increased our internal awareness, especially regarding community engagement and service ownership, and provided a structured approach for continued FAIRification. We are now better equipped to support both data depositors and reusers through more transparent, trustworthy, and FAIR-aligned services.

Future plans: We will continue to implement the remaining actions. Our focus will now be on FAIR-signposting and testing how to improve some of the machine actionable aspects of the data catalogue. Once the ownership of the services is clarified, we will be able to get final approval on the policies and publish them. Our data catalogue project has garnered interest and there are other Finnish research organisations developing similar services. Hence we will continue to present our work to colleagues both nationally and internationally.

■ Key messages:

- **Peer learning is powerful:** If you notice another service has successfully implemented a FAIR-enhancing feature, don't hesitate to reach out—benchmarking and shared experiences are extremely valuable.
- **Plan for sufficient time:** FAIR implementation is a continuous process and takes more time than expected. We recommend allocating at least one year for planning and executing meaningful FAIR-alignment actions. Completing the programme revealed the scope of work still ahead.



- **Unexpected issues take time to resolve:** FAIR implementation often uncovers hidden challenges—such as unclear responsibilities or technical limitations—that may take longer to address than anticipated. Flexibility and persistence are key.
- **Increased transparency and visibility:** The programme made our work and service development efforts more visible to stakeholders—highlighting our strengths and clearly identifying areas for improvement.
- **From theory to practice:** FAIR discussions are often limited to policy level, but the programme required us to engage more deeply with practical implementation challenges and opportunities.
- **Structured support leads to sustainable change:** The tools and mentoring provided a systematic approach that we can now continue applying independently to further develop our FAIR-enabling services.





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