

Pilot Dashboard for Open and FAIR Data Metrics by HMC Hub Matter

Astrid Gilein¹ // Konstantin Pascal Walter¹ // Tempest Glodowski¹ // Gabriel Preuß^{1,2} // Alexander Schmidt¹ // Vivien Serve¹ // Oonagh Mannix^{1,2} // Markus Kubin^{1,2}

¹ Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany

² Helmholtz Metadata Collaboration

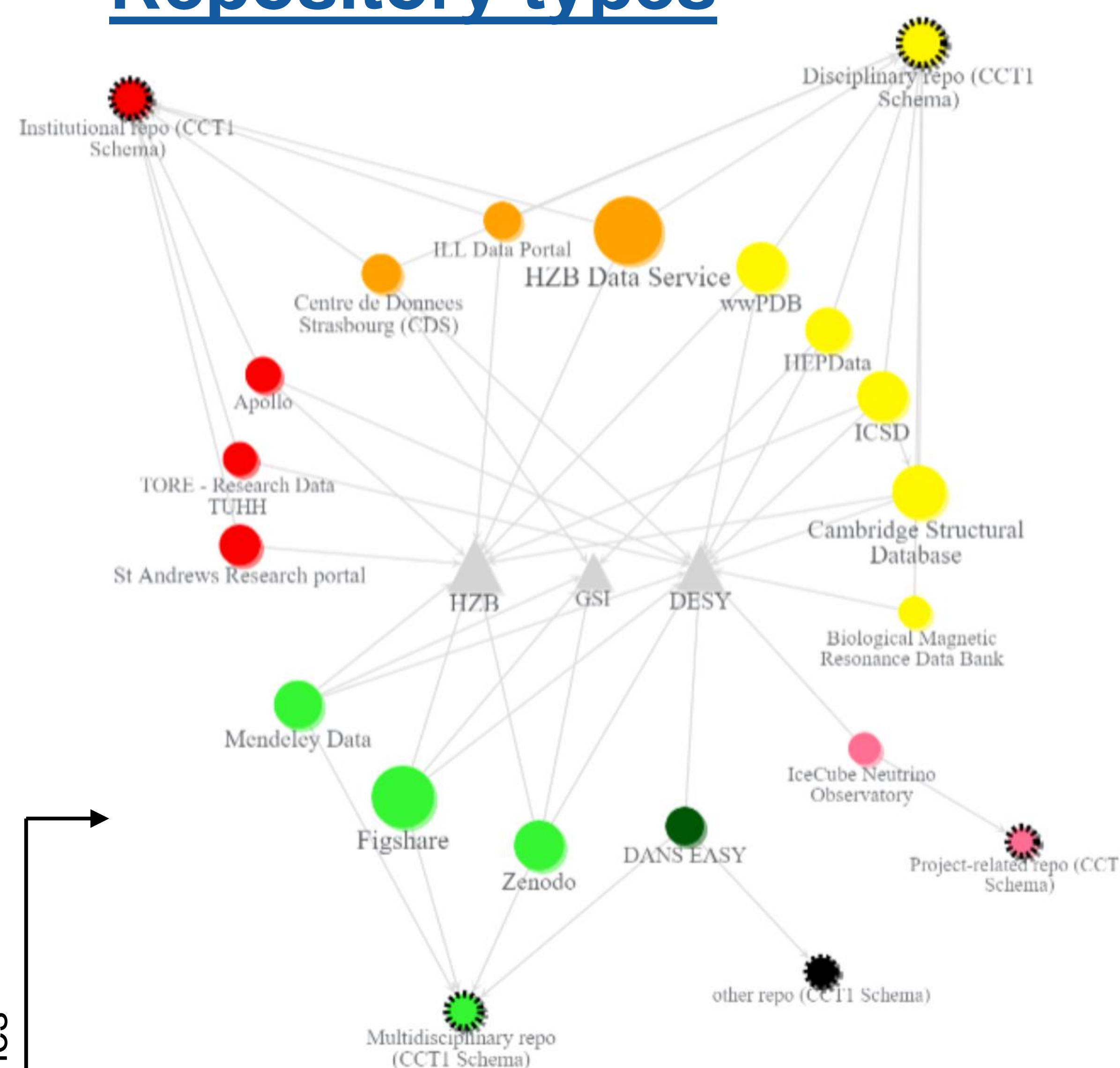
Abstract

Making research data reusable in an open and FAIR¹ way is part of good scientific practice and is increasingly becoming part of the scientific workflow. Where and how "FAIR" research data is published alongside a research paper, is often not yet tracked by research institutes.

In a pilot project of the Helmholtz Metadata Collaboration (HMC) Hub Matter we developed an approach to automatically find and catalogue publicly accessible datasets published by researchers of selected Helmholtz centers. These datasets are assessed with respect to the FAIRsFAIR metrics² using the F-UJI tool³. The results are gathered and visualized in an interactive pilot dashboard.

This assists HMC Hub Matter to identify and characterize repositories used by the Matter community and to identify key actions for engaging with repository infrastructure and research communities. In this poster, we discuss the different steps of the data collection and the first results.

Repository types



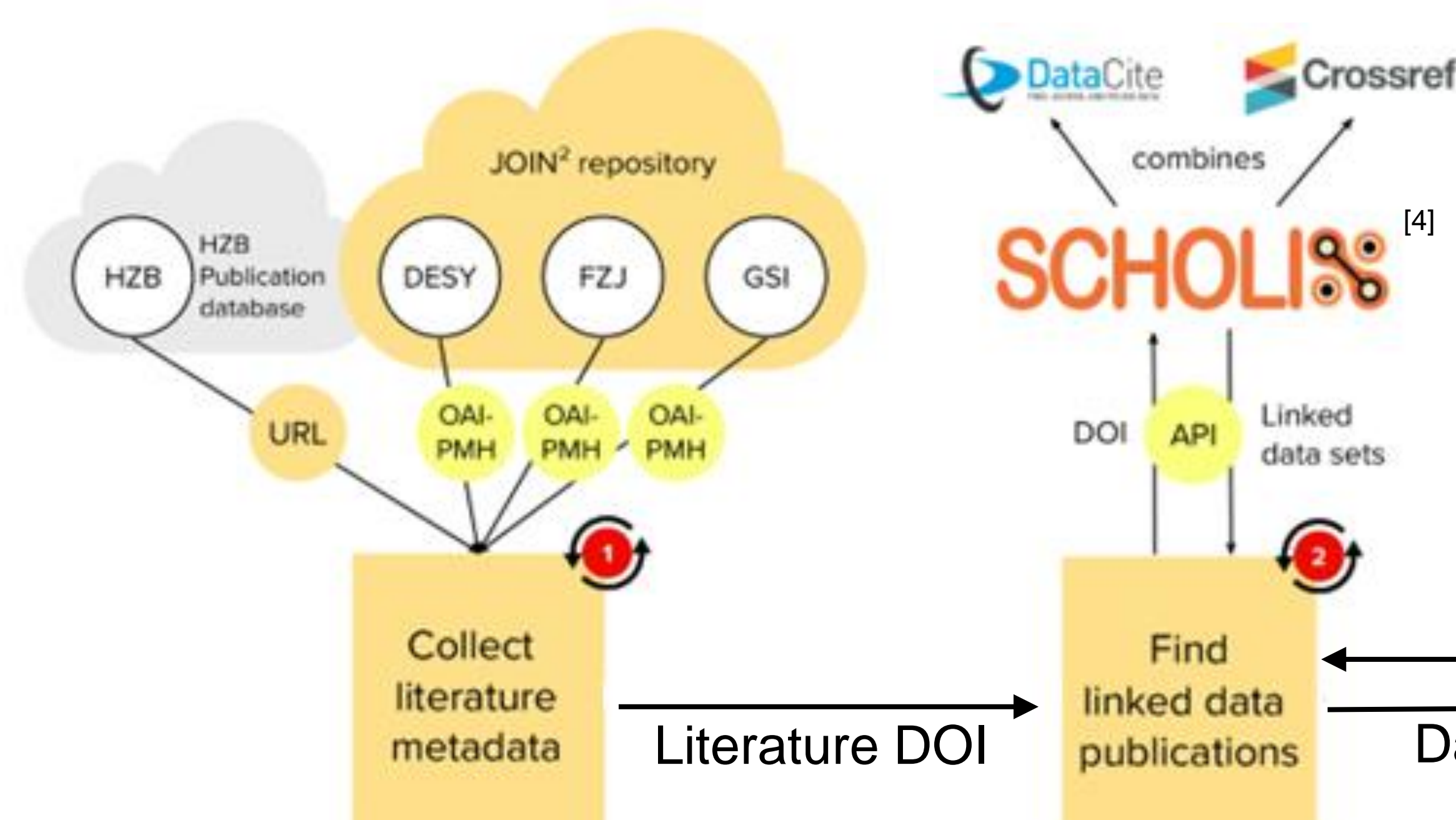
Contact us!

■ **group page:** <https://helmholtz-metadaten.de/en/matter/overview>

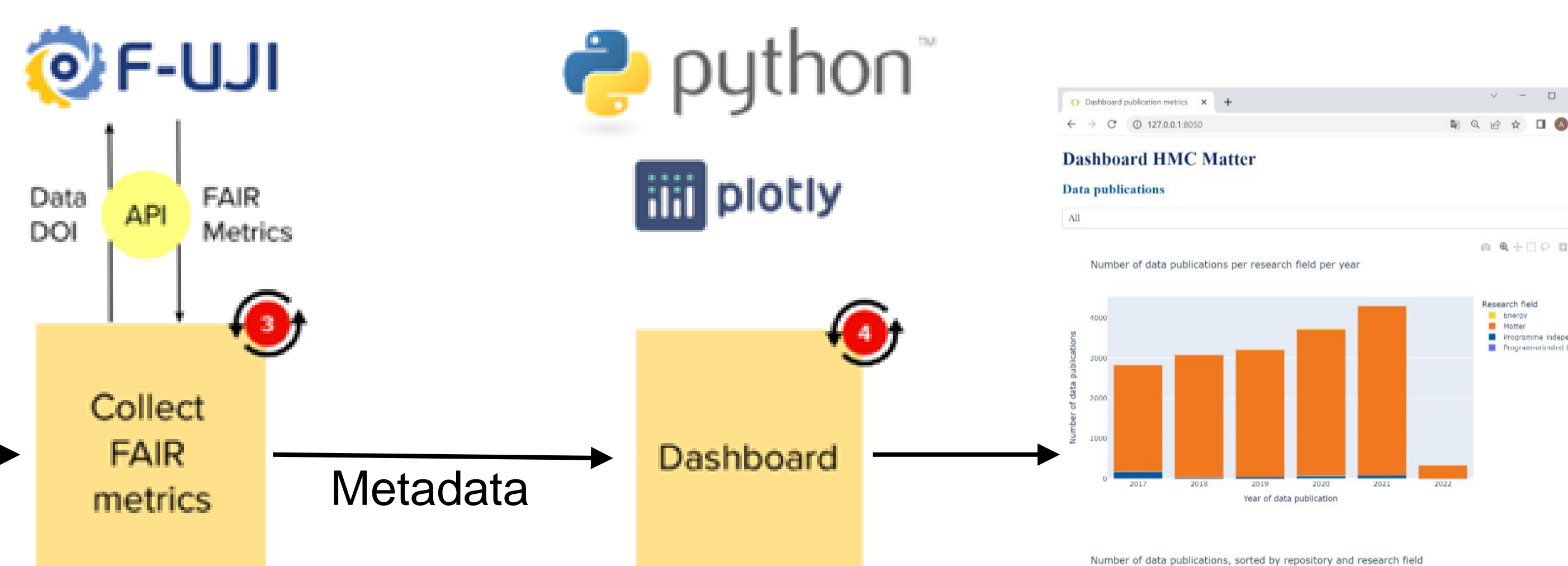
■ **e-mail:** hmc-matter@helmholtz-berlin.de
astrid.gilein@helmholtz-berlin.de
konstantin.walter@helmholtz-berlin.de

- In **CCT1** (another HMC-wide working group) a more complete **overview of the Helmholtz metadata landscape** is gathered, which can be connected to such quantitative approaches
- The graphic on the left **maps the "publisher names"**, of the data coming from SCHOLIX, **to the corresponding repositories** as recorded by CCT1
- This **yields further insights into the types of repositories** (as defined by the CCT1 schema) commonly used by the different centers for their data publications
- The Information gathered by CCT1 can be used to further **enrich the pipelines outputs with context info**, which in turn can benefit a dashboard visualization like the one proposed below

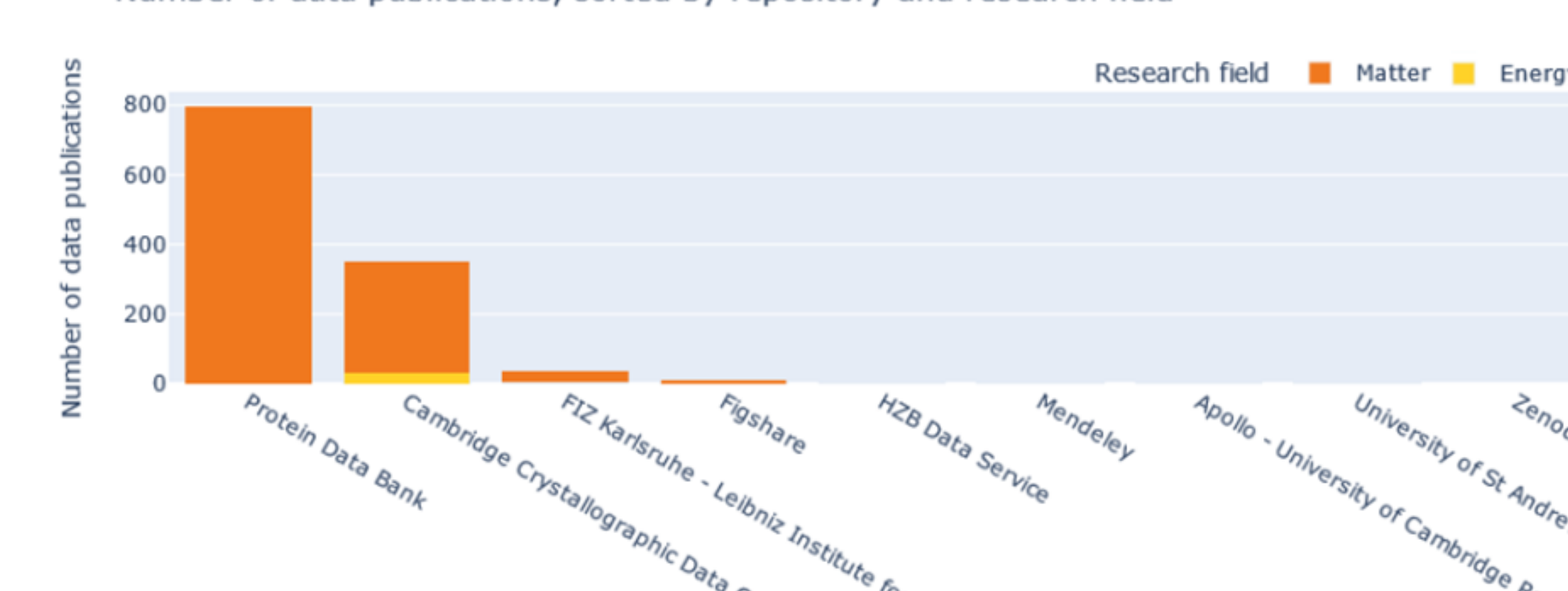
Collection of publications



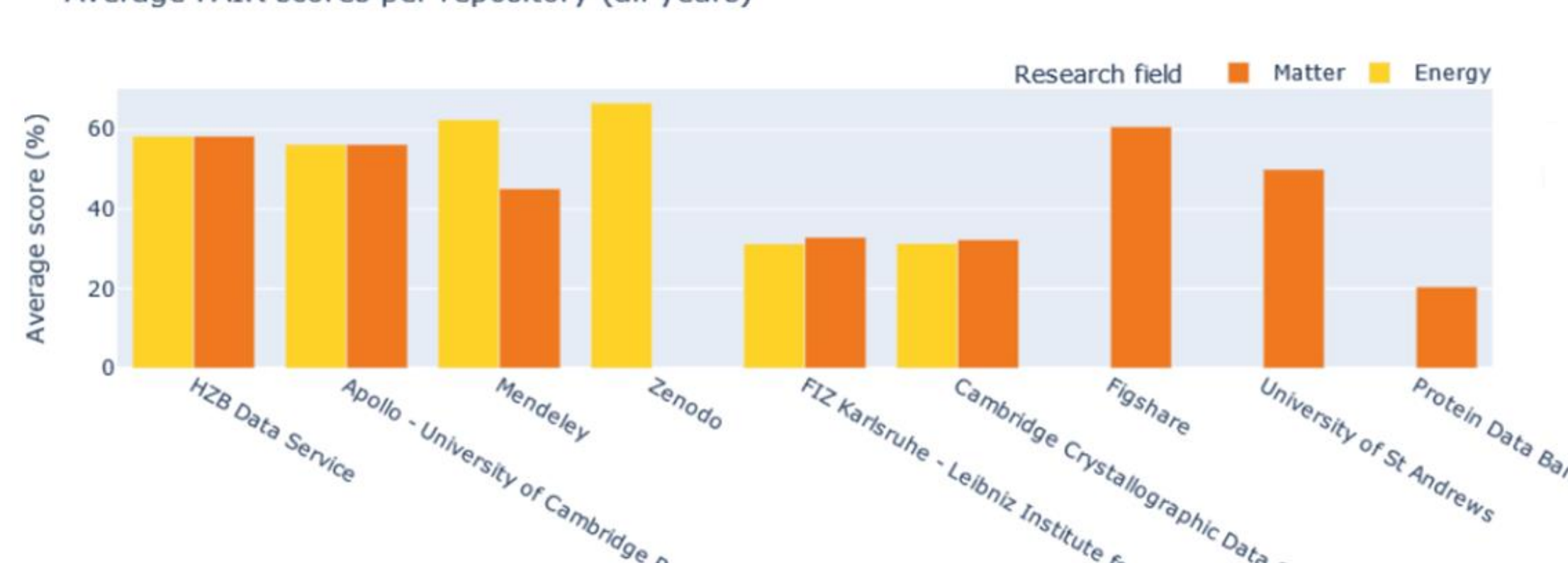
FAIR scores and visualization



Number of data publications, sorted by repository and research field



Average FAIR scores per repository (all years)



References

- [1] M Wilkinson et al. (2016). The FAIR Guiding Principles for scientific data (...). *Sci Data* 3, 160018. DOI: 10.1038/sdata.2016.18
- [2] A Devaraju et al. (2020). FAIRsFAIR Data Object Assessment Metrics (0.5). *Zenodo*. DOI: 10.5281/zenodo.6461229
- [3] A Devaraju & R Huber. (2020). F-UJI - An Automated FAIR Data Assessment Tool (v1.0.0). *Zenodo*. DOI: 10.5281/zenodo.4063720
- [4] SCHOLIX, "A Framework for Scholarly Link eXchange." <http://www.scholix.org/> (accessed 28/09/2022)

- Pilot Dash-board on Open and FAIR data
- More Helmholtz centers will be included
- Most data in few repositories
- User experience will be improved