

# HMC Hub Matter

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## Research Field Matter

Physics at large scale facilities including:

Particle and astroparticle physics

Technology of accelerators and detectors

User programs of photon, neutron, laser and ion beam facilities

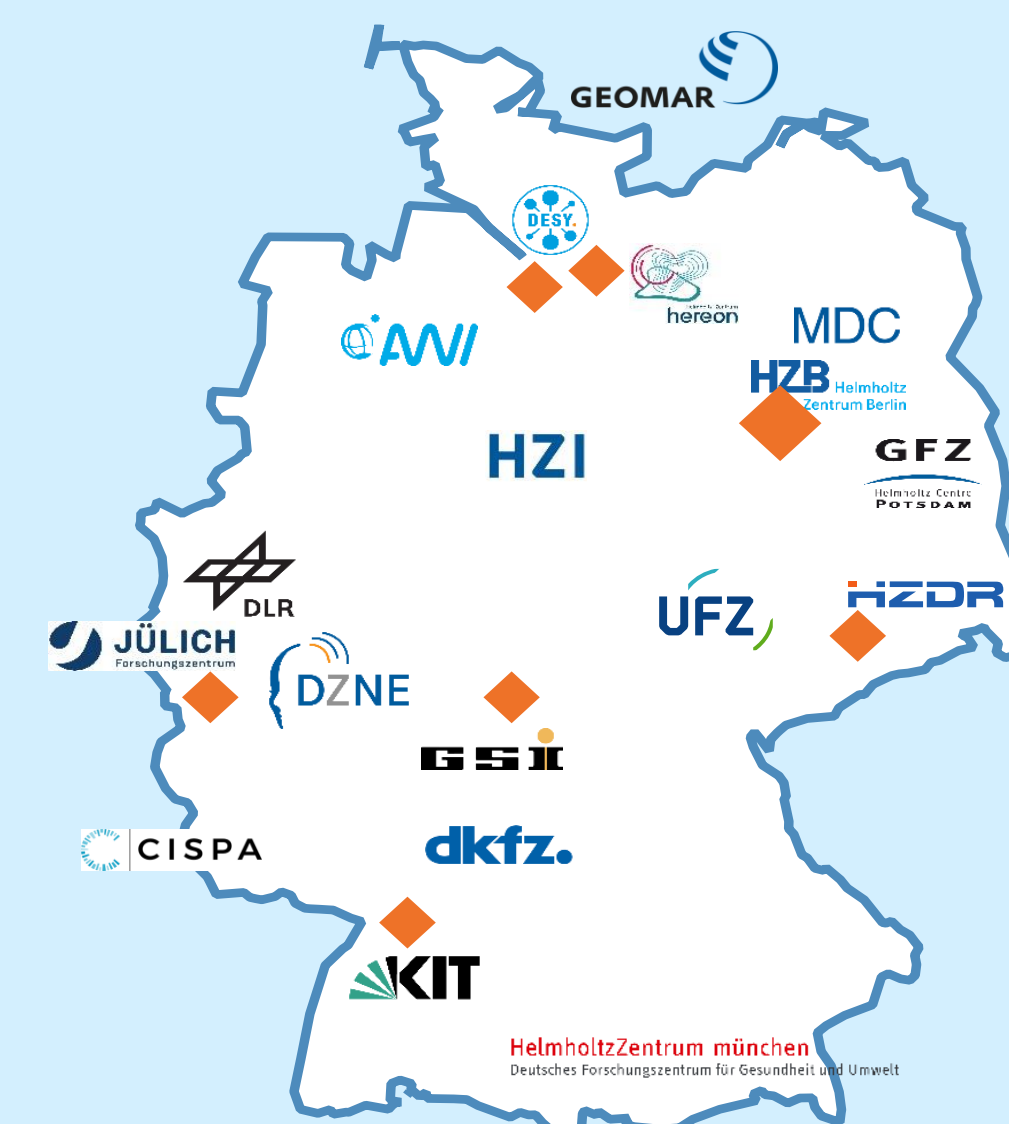
## HMC Hub Matter

Serves (meta)data communities at 7 Helmholtz centres active in research field **Matter** (DESY, FZJ, GSI, HZB, HZDR, HEREON and KIT).

Our team is located at host centre HZB.



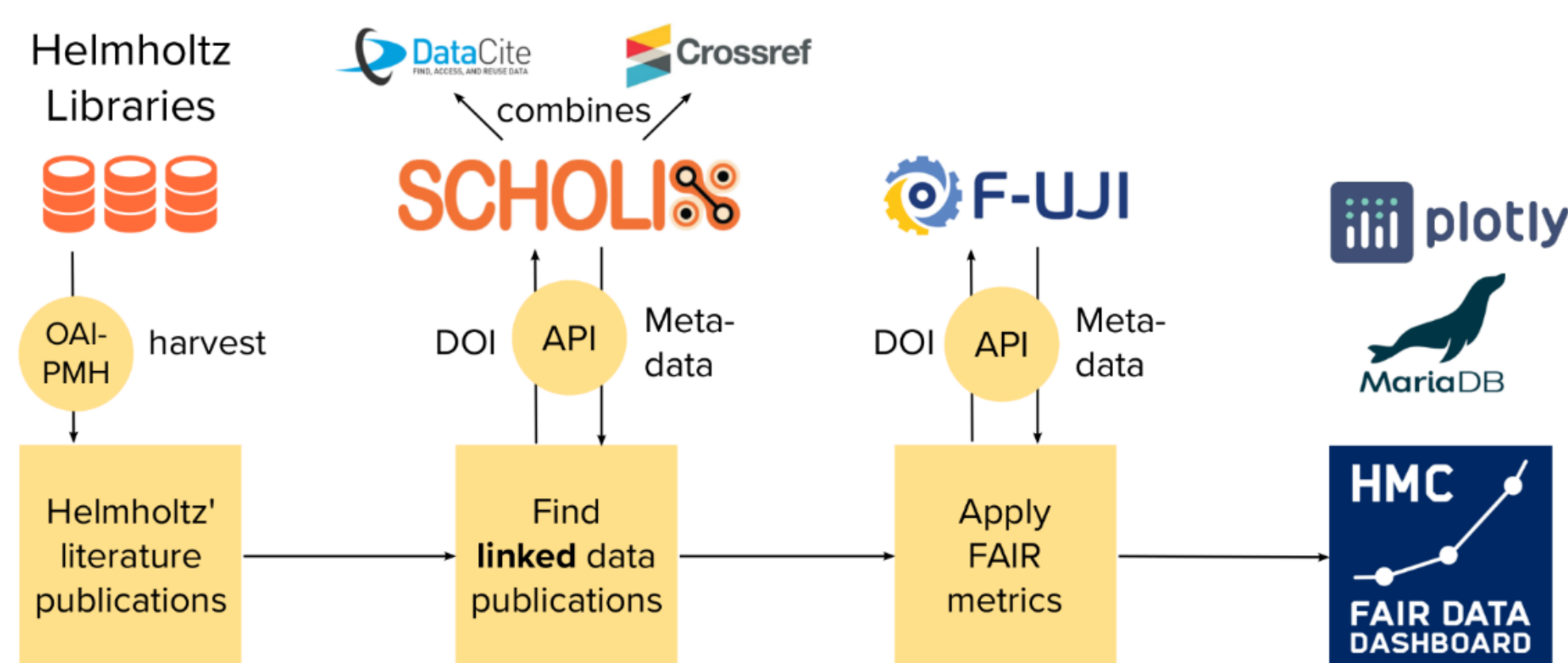
Find out more here:  
<https://helmholtz-metadata.de/en/matter/overview>



## Monitoring and Assessment

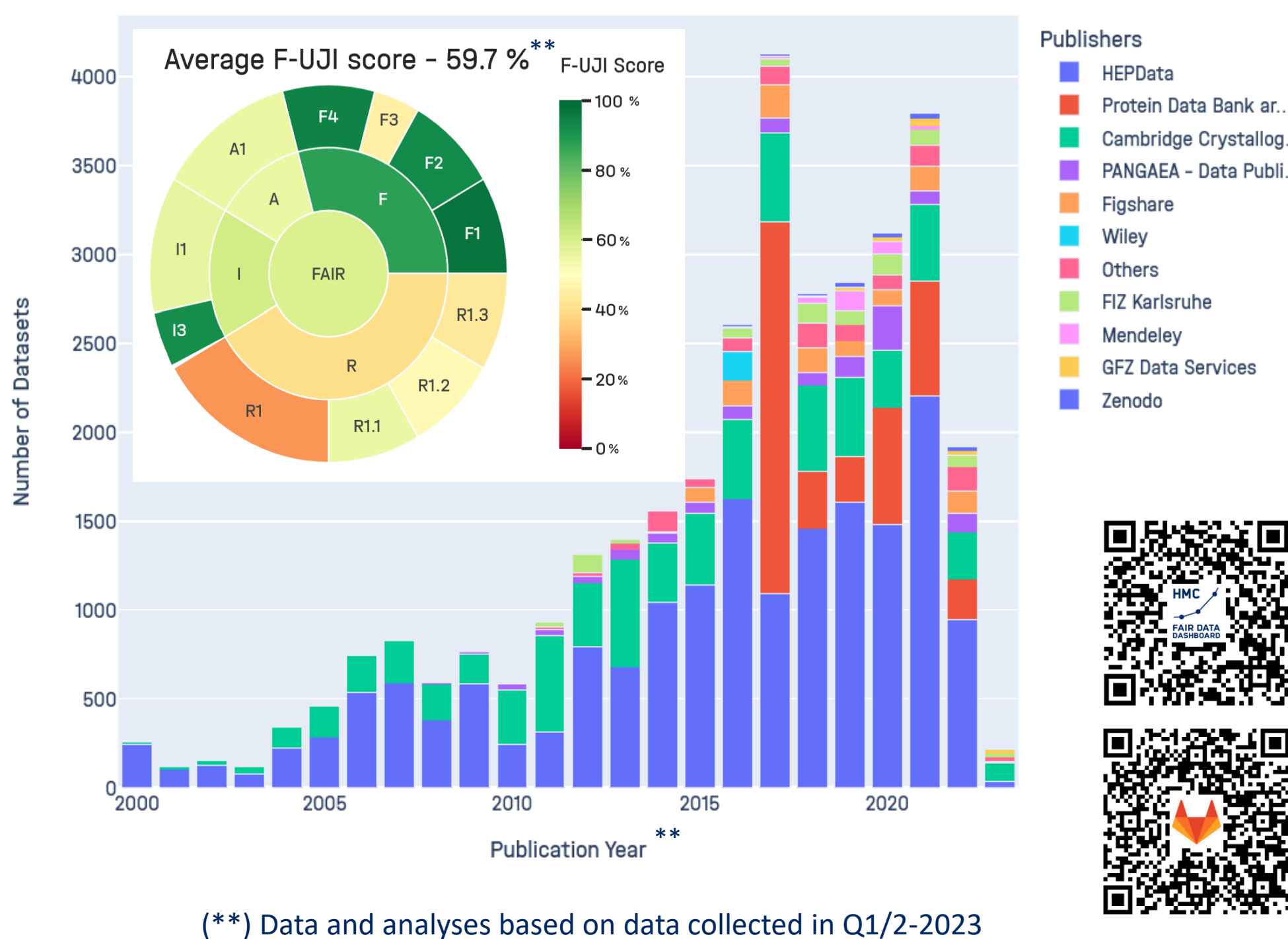
### HMC FAIR Data Dashboard

- Harvest literature metadata from center libraries.
- Find linked data publications via SCHOLIX. [1]
- Automatized FAIR assessment with F-UJI. [2]
- Complementary manual FAIR assessment based on the RDA FAIR Data Maturity Model. [3]
- Data-driven community and infrastructure counselling.



### Dashboard Version 2.0 coming soon with:

- Updated F-UJI Scoring
- Enhanced Assess My Data
- Centralized F-UJI Server at DESY
- Improved User Interface
- Expanded Coverage
- Standard Documentation and Guidelines
- Now with contributions of Hub AST!



(\*\*) Data and analyses based on data collected in Q1/2-2023

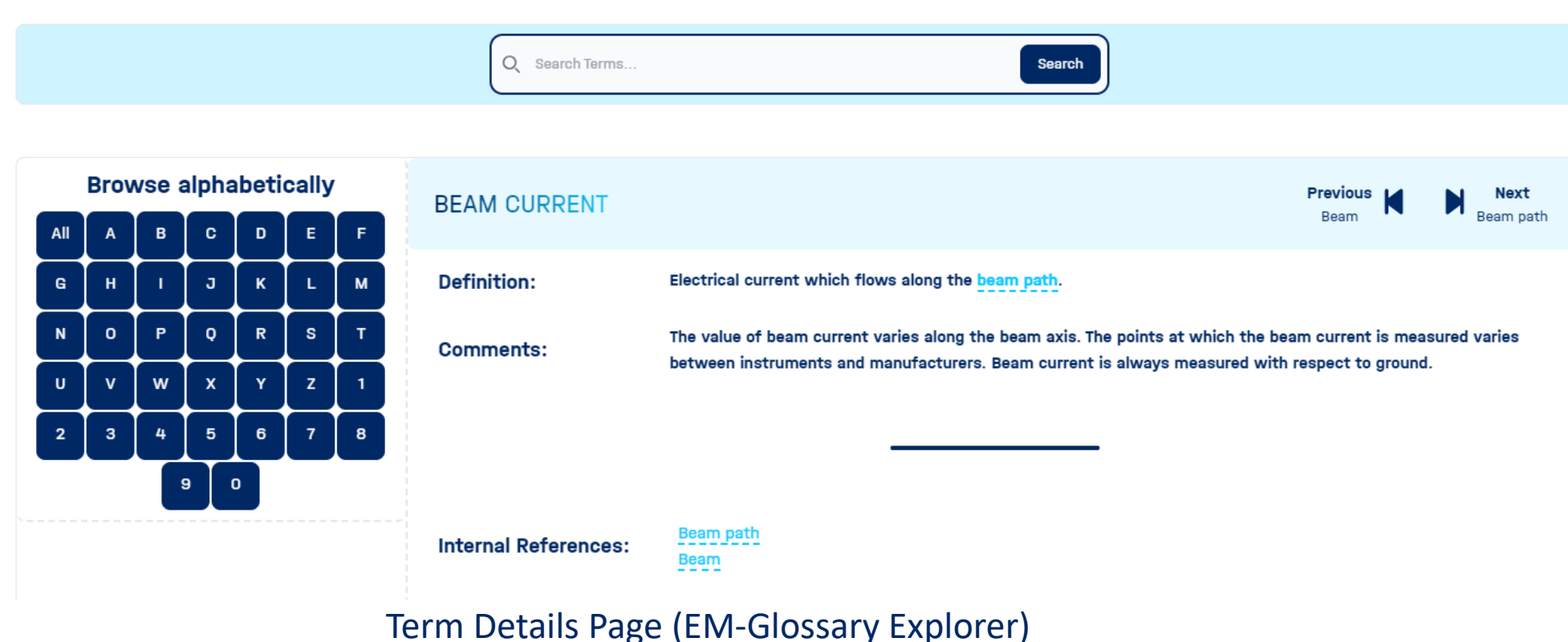
## Connecting Communities

### Capacity building in the (meta)data communities

- Together with Hub Information community development of an interdisciplinary electron microscopy glossary.

#### Version 1.0. launched with:

- A machine readable OWL Artifact
- A web-app base EM-Glossary Explorer
- Terminology adoption by NFDI FAIRmat, Helmholtz Joint Lab MDMC, NFDI MatWerk, and Platform MaterialDigital

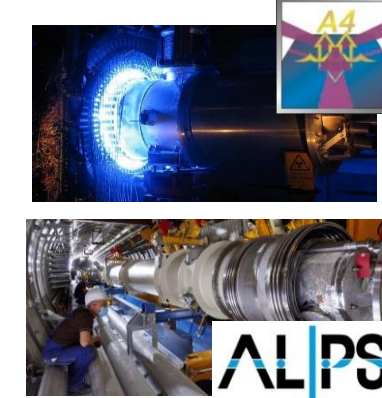


Term Details Page (EM-Glossary Explorer)



- Use cases: Building metadata communities.

- A4 experiment at GSI/HIM.
- ALPS II experiment at DESY.
- Community support in data curation for instruments at large scale facilities.
- Formats: root, HDF5, NeXus, ASCII, xml. [4]
- Sustainable community formation.



- Training:

- With Hub Info adopted and ran Fundamentals of Scientific Metadata course for Research Field Matter (21 people attended).



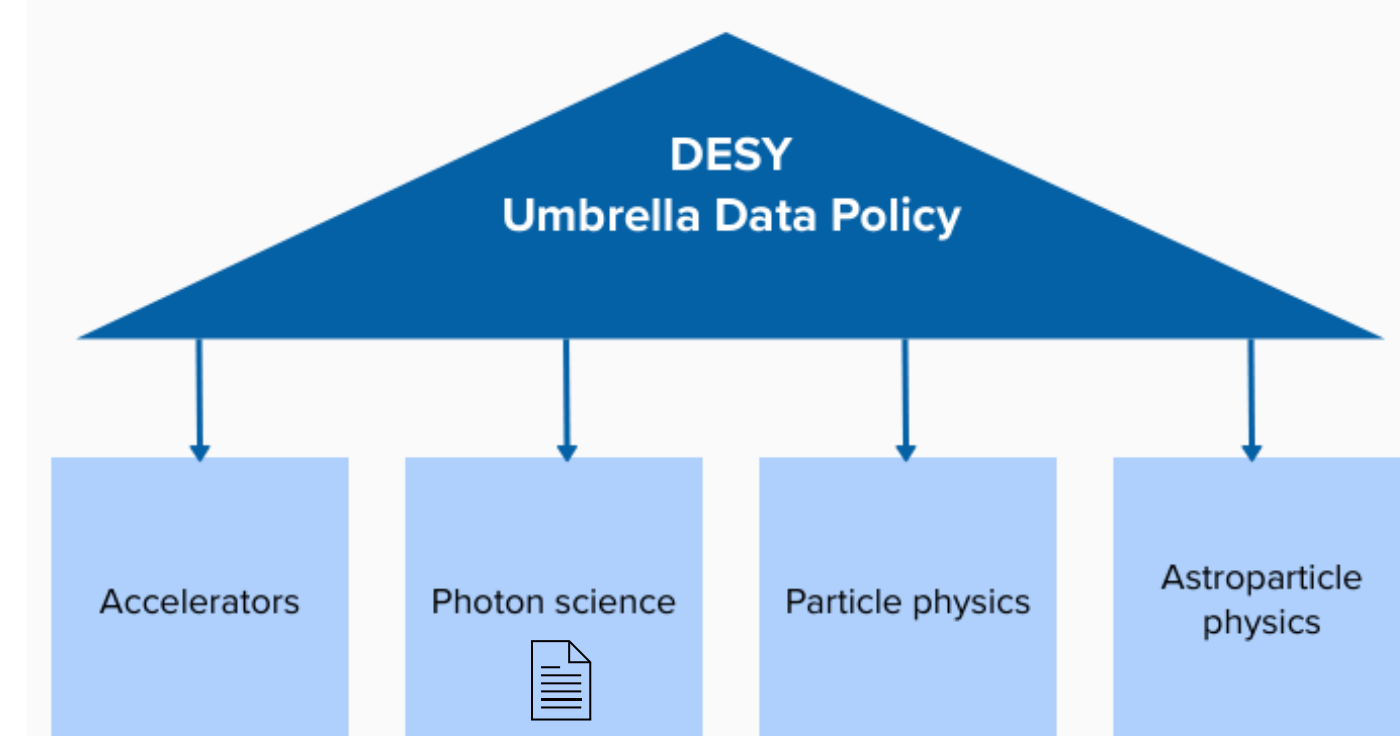
- Reusability of Scientific Data course: this is a collaboration with Helmholtz AI and will be presented during Helmholtz Summer School 2024.



## Policy consultation and Guidance

### From Policy Frameworks to Data Policies

- Data policy development and consultation.
- Co-creation of an umbrella data policy for DESY (adaptable for specific needs of institutional divisions).



- Co-development and consultation on institutional data policies (GSI, HZDR, CERN, and FZJ).
- Policy specification based on FAIR-enabling Data Policy Checklist by FAIRsFAIR [5] and ExPaNDS Data Policy Framework. [6]

### Co-development with RDM @ HZB

- SEPIA (Sample Essentials, Persistent Identifier & Attributes System) is designed to centralize and manage sample information in a database. It integrates with ICAT [7] and is currently in progress.



### References

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