

The Helmholtz Metadata Collaboration: A platform to foster better metadata in Helmholtz

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The Helmholtz Association of German Research Centres set up the Helmholtz Metadata Collaboration (HMC) platform at the end of 2019 to address the topic of metadata within its organization and continuously increase the connectivity of its distributed research data ecosystem on all levels. To achieve this, HMC aims to provide comprehensive services, consulting, information, and tools for efficient metadata handling through jointly developed, shared, and consolidated resources. The vision is to create a sustainable, distributed, semantically enriched FAIR Helmholtz data space.

To achieve this we focused our work on three key strategic areas (KSA) that cover understanding our Helmholtz communities, the research data ecosystem and their FAIR practices (KSA 1), provide technical solutions on a individual and on a infrastructural level (KSA 2) and enabling our community to improve their FAIR data practices (KSA 3).

KSA 1: Assessing and monitoring the state of FAIR data across Helmholtz



- (1) **Community surveys** address different stakeholders (2021: researchers, 2023: data professionals)
- (2) Automated FAIR assessment, results are available via the **HMC FAIR Data Dashboard**
- (3) Information on repositories, metadata standards, terminologies, ontologies, and the like are accessible via our **Information Portal**

KSA 2: Facilitating connectivity of Helmholtz research data



- (1) **Metadata tools** support specific tasks, like a metadata catalogue, data annotation validating metadata, and more.
- (2) **FAIR Digital Objects (FDO)** increase the liability and interoperability of data sets
- (3) Support for **semantic interoperability** through the development of domain-level semantics
- (4) Semantically enriched data can be connected and visualized in a **Helmholtz Knowledge Graph**

KSA 3: Transforming (meta)data recommendations into implementations



- (1) Easy to digest **documents** for better metadata handling
- (2) **Seminars, workshops, and trainings** provide practical knowledge
- (3) **Moderated community processes**, like EM Glossary
- (4) **HMC Projects** implement specific community solution

Our Stakeholders

- Scientific community producing data
- Data professionals
- Data infrastructures
- Technicians and administration responsible for research infrastructure
- Expert panels, strategists and administrative stakeholders who adopt recommendations and issue policies

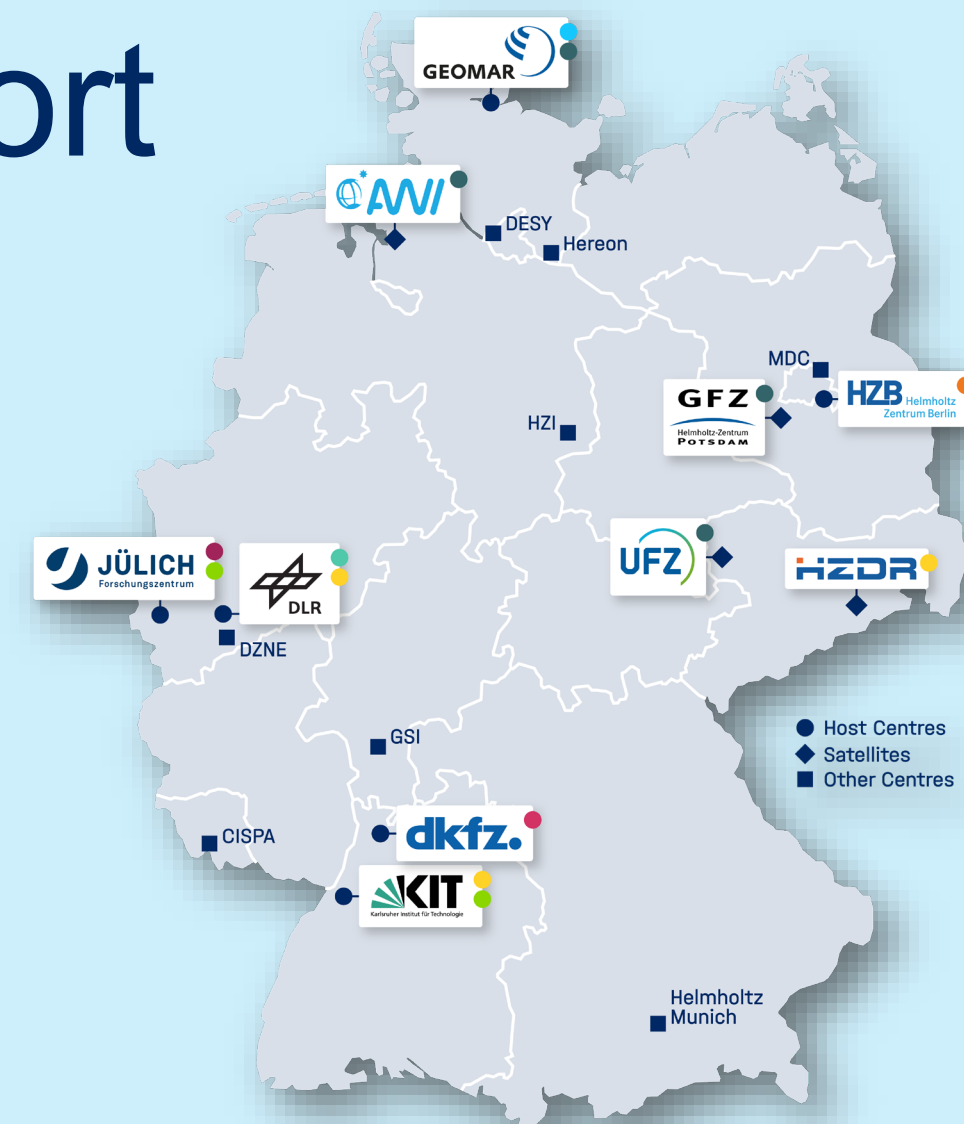
HMC Network

Close alignment with and long-term embedding in leading Research Data Management (RDM) initiatives at the national and international level is thereby essential for HMC to be successful. Therefore, on a national level we work with various NFDI consortia and in sections to ensure our work is aligned and interoperable.



HMC in short

8 HMC Units at 6 host centres
Aeronautics, Space & Transport @ DLR
Earth & Environment @ Geomar
Energy @ KIT
Health @ DKFZ
Information @ FZJ
Matter @ HZB
FAIR Data Commons @ KIT & FZJ
HMC Office @ Geomar



Find out more here:
<http://www.helmholtz-metadaten.de>

Future plans

- (1) Continue and further develop existing measures like project funding line
- (2) Support data infrastructures in getting FAIR ready
- (3) Setting up a Helmholtz ontology base as a interoperability services to harmonise ontologies
- (4) Improve deployment of HMC solutions and their maintenance