HELMHOLTZ

Open Science

Presentation of the Helmholtz Open Science Office

Speaker

Helmholtz Association
Helmholtz Open Science Office

Event, Date

Content

- Helmholtz Association
- Helmholtz Open Science Office
- Open Access
    - Task Group Open Access Transformation
- Open Research Data
- Open Research Software
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- Indicators
    - Task Group Helmholtz Quality Indicators for Data and Software Products
- Research Assessment
    - Task Group Research Assessment
- National and international Network
- Projects of the Helmholtz Open Science Office
- Dialogue

Helmholtz Association

Helmholtz Research Mission and Strategy
Research for Grand Challenges

- Systems solutions for grand challenges based on:
  - Scientific excellence
  - Interdisciplinarity and critical mass
  - long term research programs
- Helmholtz provides a highly attractive environment for talents and brilliant brains
- Profound expertise in large scale research infrastructure
- Helmholtz as a prime strategic partner at the local, national and international level
- Transfer of knowledge into economy and society
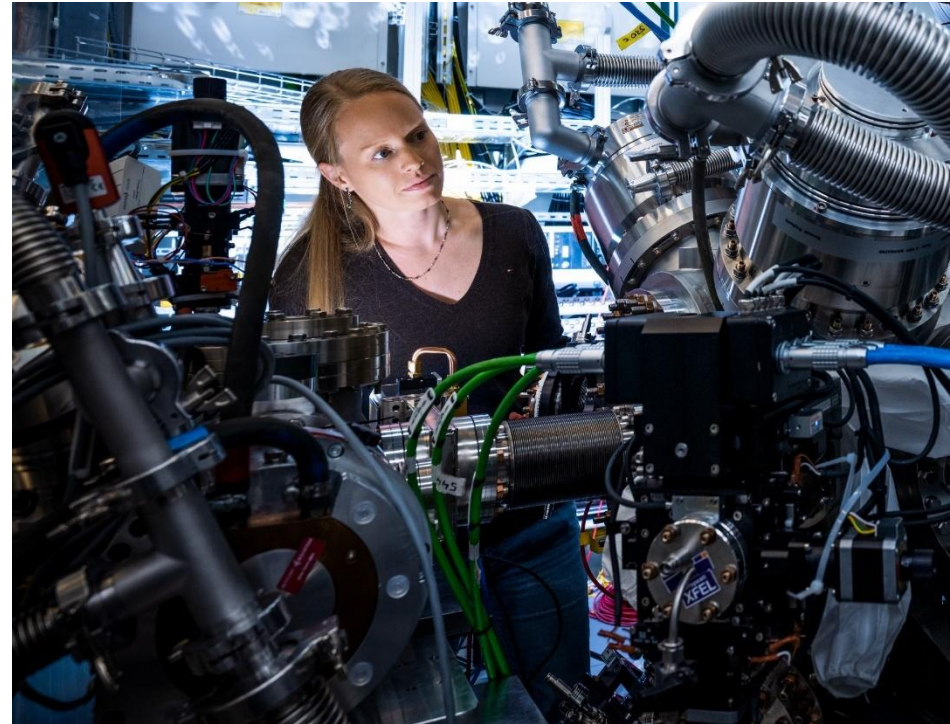
The six research fields
of the Helmholtz Association
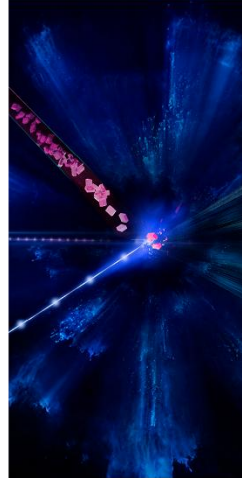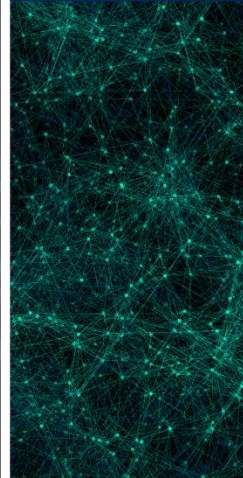

Energy

Earth and Environment

Health

Aeronautics, Space and Transport

Matter

Information

Helmholtz research centers
18 centers in 6 Research Fields

- Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI)
- CISPA – Helmholtz Center for Information Security
- Deutsches Elektronen-Synchrotron DESY
- Forschungszentrum Jülich (FZJ)
- GEOMAR Helmholtz Centre for Ocean Research Kiel
- German Aerospace Center (DLR)
- German Cancer Research Center (DKFZ)
- German Center für Neurodegenerative Diseases (DZNE)
- GSI Helmholtz Center for Heavy Ion Research
- Helmholtz Center Dresden Rossendorf (HZDR)
- Helmholtz Center for Environmental Research – UFZ
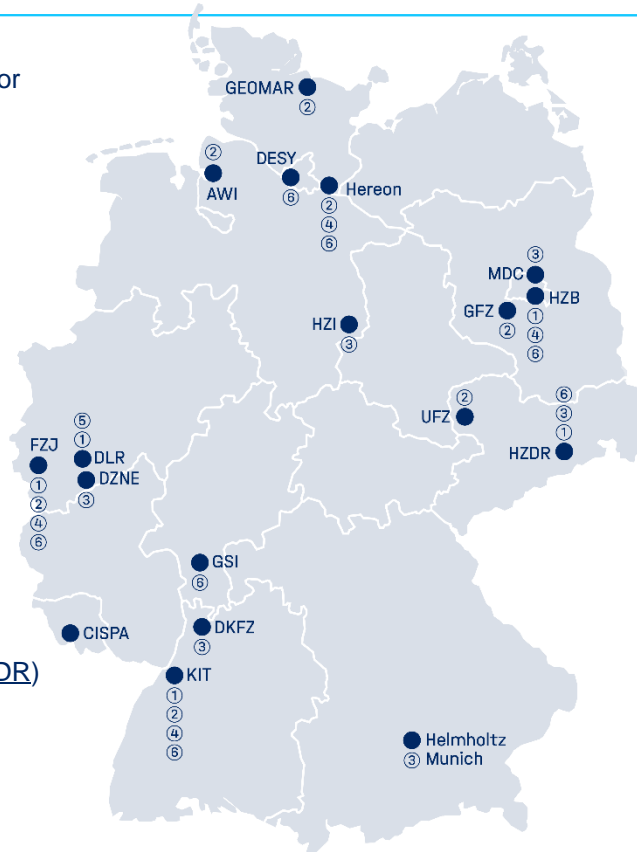
- Helmholtz Center for Infection Research (HZI)
- GFZ Helmholtz Centre for Geosciences
- Helmholtz Munich
- Helmholtz-Zentrum Berlin für Materialien und Energie (HZB)
- Helmholtz-Zentrum Hereon
- Karlsruhe Institute of Technology (KIT)
- Max Delbrück Center (MDC)

GEOMAR ②
② DESY
AWI ⑥ Hereon ② ④ ⑥
MDC ③
GFZ HZB
② HZI ① ④ ⑥
③
UFZ ②
⑥ ③ ① HZDR
⑤ ① FZJ DLR
① DZNE
② ③
④ ⑥
GSI ⑥
CISPA DKFZ ③
KIT ① ② ④ ⑥
Helmholtz ③ Munich
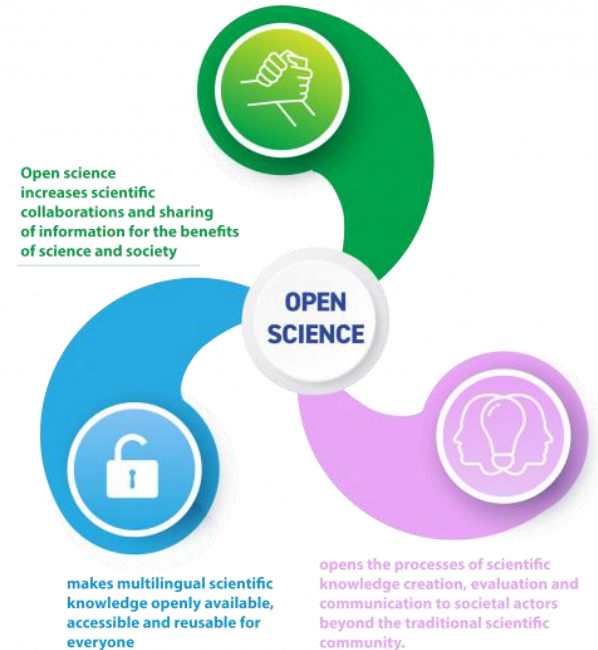
Research Fields:
(1) Energy, (2) Earth and Environment
(3) Health, (4) Information
(5) Aeronautics, Space and Transport, (6) Matter

Open Science

- Cultural change in scientific working methods, organization, and communication.

- Consistently employs digitization to make all components of the scientific process (publications, research data, research software, etc.) open, traceable, reusable, and accessible to everyone (in terms of reducing technical, legal, and financial hurdles).

- Expands transparency and the possibilities for quality assurance, increases the performance of science, and promotes innovations based on scientific findings.

- The development of open science differs in levels of extent in the research fields of the Helmholtz Association, depending on the discipline and respective publication culture.

Open science increases scientific collaborations and sharing of information for the benefits of science and society

OPEN SCIENCE

makes multilingual scientific knowledge openly available, accessible and reusable for everyone

opens the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.

UNESCO Recommendation on Open Science
https://doi.org/10.54677/MNMH8546

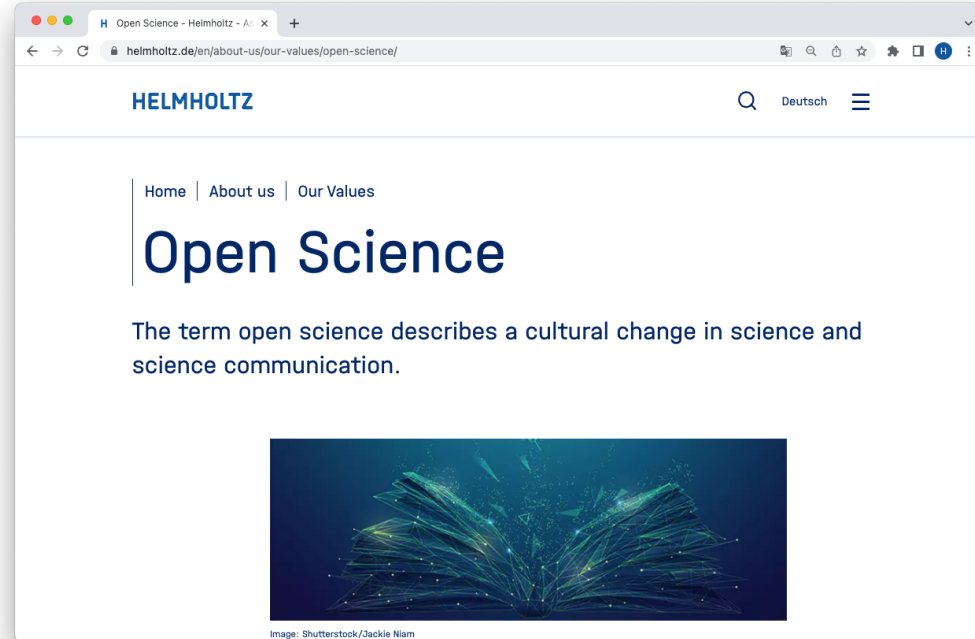# Open Science at Helmholtz

- Open Science is an important cross-cutting topic with numerous points of contact

- In the Centers:
  - Digitalisation, research infrastructures, libraries, data centers, transfer, etc.

- In the entire Association:
  - Digitalisation, KPIs, Helmholtz Inkubator Information & Data Science, Initiative and Networking Fund, transfer, etc.

https://www.helmholtz.de

Helmholtz Open Science Office: Mission

Enabling Open Science practices at Helmholtz!

- The Helmholtz Open Science Office
    - supports the Helmholtz Association and its research Centers in shaping the cultural change towards Open Science
    - promotes dialogue and provides impulses within the Association.
    - offers information and support concerning all aspects of Open Science.
    - cooperates with the centers in the Open Science working group and in joint task groups.
    - represents Helmholtz positions on Open Science on a national and international level.

HELMHOLTZ
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Helmholtz Open Science Office:
Schwerpunktthemen 2025/2026

Publishing Open Science

Open Science Infrastructures

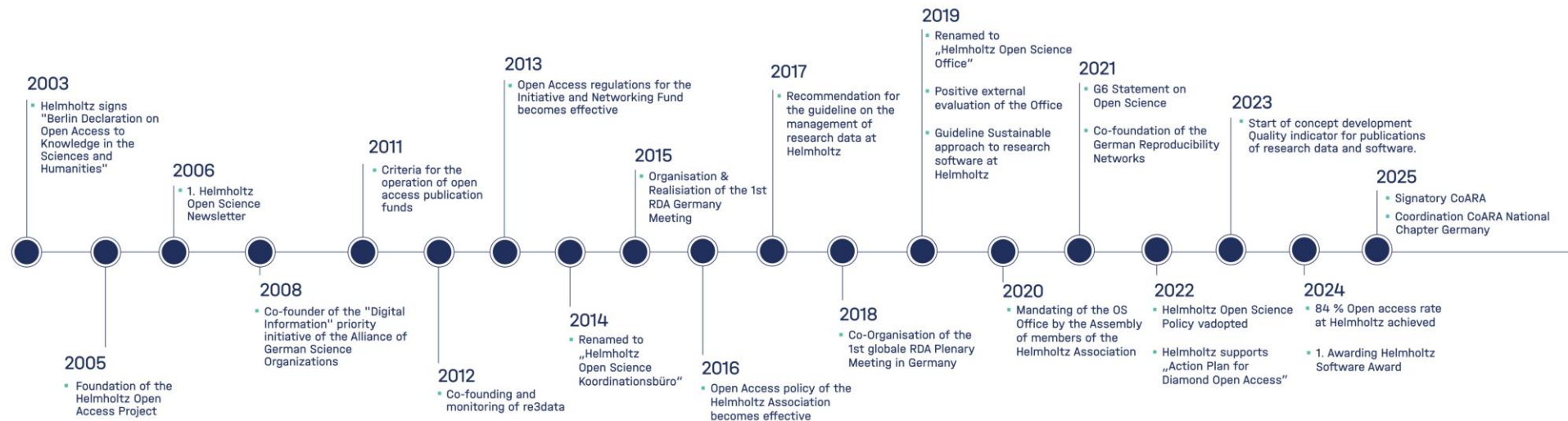Research Assessment

Responsible Science

Milestones

2003
- Helmholtz signs "Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities"

2005
- Foundation of the Helmholtz Open Access Project

2006
- 1. Helmholtz Open Science Newsletter

2008
- Co-founder of the "Digital Information" priority initiative of the Alliance of German Science Organizations

2011
- Criteria for the operation of open access publication funds

2012
- Co-founding and monitoring of re3data

2013
- Open Access regulations for the Initiative and Networking Fund becomes effective

2014
- Renamed to „Helmholtz Open Science Koordinationsbüro"

2015
- Organisation & Realisiation of the 1st RDA Germany Meeting

2016
- Open Access policy of the Helmholtz Association becomes effective

2017
- Recommendation for the guideline on the management of research data at Helmholtz

2018
- Co-Organisation of the 1st globale RDA Plenary Meeting in Germany

2019
- Renamed to „Helmholtz Open Science Office"
- Positive external evaluation of the Office
- Guideline Sustainable approach to research software at Helmholtz

2020
- Mandating of the OS Office by the Assembly of members of the Helmholtz Association

2021
- G6 Statement on Open Science
- Co-foundation of the German Reproducibility Networks

2022
- Helmholtz Open Science Policy vadopted
- Helmholtz supports „Action Plan for Diamond Open Access"

2023
- Start of concept development Quality indicator for publications of research data and software.

2024
- 84 % Open access rate at Helmholtz achieved
- 1. Awarding Helmholtz Software Award

2025
- Signatory CoARA
- Coordination CoARA National Chapter Germany

Helmholtz Open Science Fora

- The OS Office provides forums for the discussion of relevant Open Science topics within the Helmholtz Association

- Objective: Cross-center networking, promotion of opinion-forming and knowledge transfer within the Helmholtz Association

- Knowledge transfer through documentation, briefings & factsheets

Selected topics

- Forschungssoftware
- Research Data Commons
- NFDI
- Open Science und Transfer
- Open Research Information
- Research Evaluation

https://os.helmholtz.de/en/events/fora/

National and international Networking

- Allianz der deutschen Wissenschaftsorganisation: [Schwerpunktinitiative „Digitalität in der Wissenschaft"](Schwerpunktinitiative)

- Confederation of Open Access Repositories [(COAR)](COAR)

- Coalition for Advancing Research Assessment [(CoARA)](CoARA)

- DEAL Consortium

- Deutsche Initiative für Netzwerkinformation [(DINI)](DINI)

- German Reproducibility Network [(GRN)](GRN)

- National Data Infrastructure [(NFDI)](NFDI)

- Research Data Alliance [(RDA)](RDA)

- Research Data Alliance Deutschland [(RDA DE)](RDA DE)

Project participation of the Helmholtz Open Science Office

Current third-party funded projects:

- OA Datenpraxis (DFG)

- Open Access Scenario Analysis, OASA (DGF)

- open-access.network (BMBF)

- PID Network Deutschland (DFG)

- PID4NFDI (BASE4NFDI)

- Transform2Open (DFG)

Completed projects:

Alliance Permanent Access to the Records of Science in Europe Network (APARSEN), DeepGreen,
Ecosystem Data Management (EcoDM), Opportunities for Data Exchange (ODE), Options4OA, ORCID DE, re3data

Helmholtz Open Science Policy

Helmholtz Open Science Policy

Open Science Policy
Adopted by the Helmholtz Association's General Assembly in 09/2022

Strategic Positioning

Monitoring

Implementation

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Open Science

Helmholtz Open Science Policy

Version 1.0

https://doi.org/10.48440/os.helmholtz.056

Helmholtz Open Science Policy

- The Helmholtz Association's General Assembly adopted an Open Science Policy in September 2022.

- The policy stipulates that scientific articles, research data and research software are to be published openly. Open Science thus becomes the standard of publication practice.

- The Helmholtz Open Science Policy is organized into three sections:

  - In the section "A. Strategic Positioning," the Helmholtz Association formulates a commitment to open science in accordance with the principle "as open as possible and as closed as necessary."

  - In the section "B. Monitoring," Helmholtz makes a commitment to open science on the basis of the three current focus areas through specific and verifiable objectives.

  - In the section "C. Implementation and Common Requirements," in line with the funding policy of the European Commission, open science practices are formulated for implementation purposes.
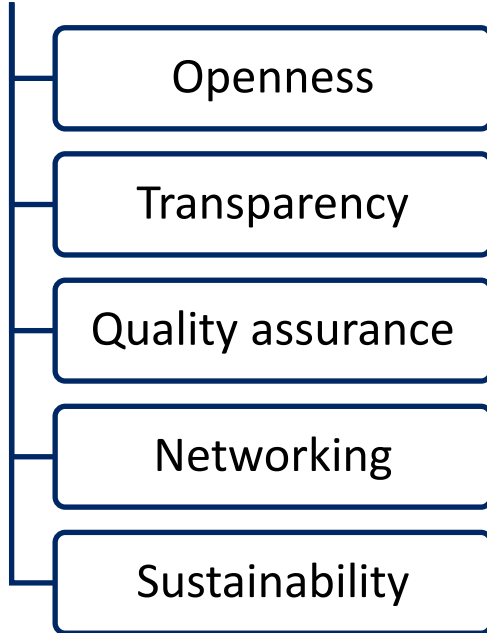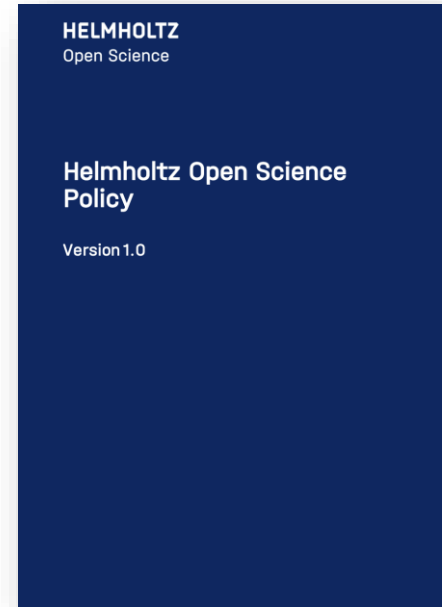
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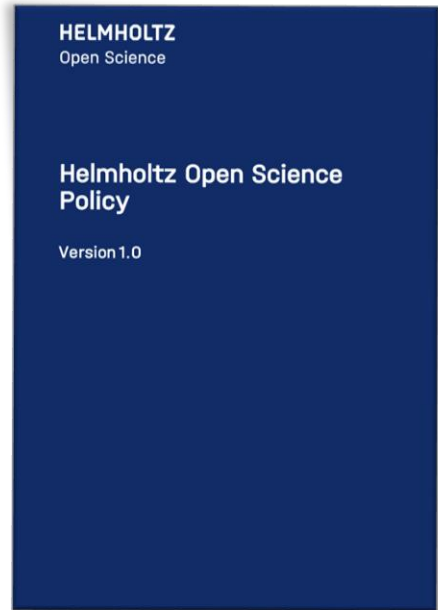
Strategic Positioning: Principles

Principles

- Openness
- Transparency
- Quality assurance
- Networking
- Sustainability

Realisation

- Supporting researchers
- Establish and expand OS infrastructures
- Ensure resources
- Publication services
- Quality assurance
- Research assessment and incentives
- Open science practices

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https://os.helmholtz.de   19

Helmholtz Open Science Policy
Strategic Positioning: Principles

Openness: The results are published openly. Open Access under the Creative Commons license CC BY is the standard publication practice for scientific results to ensure accessibility and reuse of the results.

Transparency: The results are communicated transparently. Research data and research software required to evaluate the results are published openly so that they can be classified by third parties (e.g. in the context of reproducibility) at any time.

Quality assurance: Digital research services and open knowledge infrastructures support quality assurance. The quality of the results is ensured at every stage of the research process in line with good scientific practice.

Networking: The FAIR principles guide the processing of knowledge objects and resources. For example, results are addressed with standards such as metadata and persistent identifiers so that findability, accessibility, interoperability and reuse are permanently guaranteed.

Sustainability: Results are published on long-term, secure and trustworthy knowledge infrastructures (including science-driven publication platforms, journals and repositories).

Helmholtz Open Science Policy
Strategic Positioning: Design Principles

In order to shape Open Science on the basis of these principles, Helmholtz:

- Support researchers in implementing these principles by providing infrastructure, services, advice and training,

- Establish and expand central open science infrastructures such as publication platforms, self-publishers, repositories and advisory services and promote their networking at international level

- Ensure the financing of these digital information infrastructures for science

- taking over publication services from publishers and other service providers, subject to appropriate and transparent price and cost structures

- Promote innovative quality assurance procedures such as open peer review

- Embed open science practices in their funding and resource allocation procedures

- Recognize and value the use of open science practices in the assessment of research performance (research assessment) and create incentives for open science practices (open access, open research data, open research software, infrastructure and services)

- Promote networking with other stakeholders to support open science at national and international level.

Helmholtz Open Science Policy
On the Way to Openness by Design

At Helmholtz, the realization of Open Science is supported and promoted with the help of concrete activities, services and offers. These infrastructures are to be understood as dynamically developing socio-technical structures.

Other fields of action that need to be considered in this context are open educational resources, open hardware and open services. With regard to digitalization in the sciences and humanities, the individual components come together to form a digital research ecosystem.

"Openness by design" should be a fundamental maxim that guides future developments.
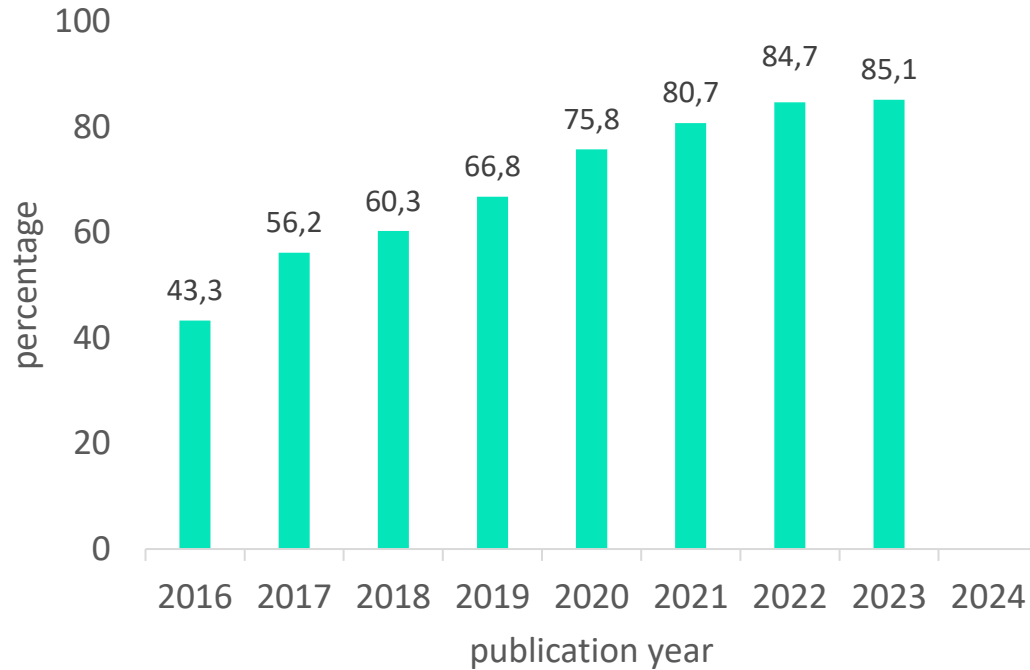
Open Access

Open Access

- The Helmholtz Association was one of the initial signatories of the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities in 2003.

- For open access, one of the Helmholtz Open Science Office's key endeavors is the promotion of the transformation from subscription-based access to open access.

- In 2016, and after preparation by the OS Office, the President signed the "Expression of Interest" of the international OA2020 Initiative.

- In 2016, the Assembly of Members specified the Open Access Policy in concrete terms, offering a framework of action to the Helmholtz Centers for a coordinated transformation towards open access.

- In 2022, the Helmholtz Association's General Assembly adopted the Helmholtz Open Science Policy.

Open Access Percentage at Helmholtz

Open Access percentage of publications at the Helmholtz Association (green) for the publication years 2016 to 2023

# Helmholtz Open Science Policy
Open Access

- „1.1 The employees shall ensure that

  - at the time of publication, at the latest, a machine-readable electronic copy of the published version or the final peer-reviewed manuscript accepted for publication is deposited in the Helmholtz Center's repository for scientific publications.

  - the deposited publication is preferably made freely accessible via the repository im-mediately, namely, under the latest available version of the Creative Commons Attribution International Public License (CC BY) (in the case of monographs and other long-text formats, an alternative license may be chosen),

  - but at the latest 12 months after publication, in accordance with the right of self-archiving (Section 38(4) of the German Act on Copyright and Related Rights [UrhG]).

  - they make available via the repository information on research results as well as tools and auxiliary resources that are necessary to validate the conclusions of the scientific publication.

  For implementation purposes, employees are encouraged to reserve sufficient rights of reuse to fulfil the open access requirements."

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Helmholtz Open Science
Policy

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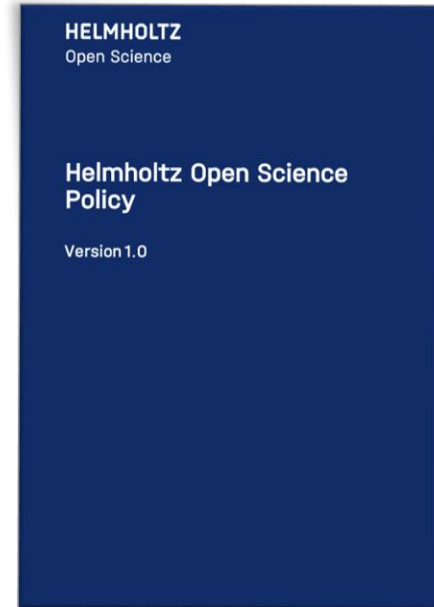
Helmholtz Open Science Policy
Open Access

- „1.2 For implementation purposes, the Centers and their information infrastructure facilities shall ensure that

  - the metadata of the deposited publications are accessible under a Creative Commons Public Domain Dedication (CC0) license or another equivalent license; [...].

  - the information included in the metadata is identified by means of suitable persistent identifiers (e.g., DOI, ORCID iD, ROR ID, etc.).

  - the publication fees incurred for scientific publications that have undergone peer review and are genuinely open access are funded within the framework of in-house regulations. Further information on the payment of costs can be found in the "Criteria for the Operation of Open Access Publication Funds and the Payment of Open Access Publication Fees" and in the respective internal policies of the Helmholtz Centers."

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Open Science

Helmholtz Open Science Policy

Version 1.0
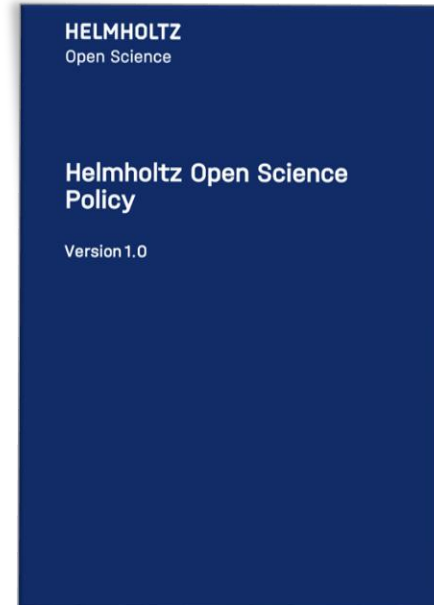
Open Access

- Promotion of the transformation from subscription to open access

- Promotion of scholar-led, Diamond Open Access

- Open Access Green and Open Access Gold are implemented as equal strategies

Open Access Green	Open Access Gold
• Diverse and distributed infrastructure of open access repositories • Participation in disciplin-specific open access infrastructures (e.g., Inspire HEP) • Co-financing of central open access infrastructures (e.g., arXiv.org)	• Framework agreements for the financing of Open Access internationally (e.g., SCOAP^3) • Framework agreements for the financing of Open Access nationally (e.g., DEAL consortia) • Framework agreements for the financing of Open Access in Helmholtz (opt-in contracts) • Self-publishing activities at the Centers (e.g., KIT Scientific Publishing)

- Monitoring:
  - National Open Access Monitor at Forschungszentrum Jülich
  - Monitoring at Helmholtz

Open Access

- The Helmholtz Open Science Office accompanies the transformation process at Helmholtz towards open access with:

- Organization of the Task Group Open Access Transformation

- Events on the subject of open access publishing

    – e.g. Helmholtz Open Science Forum Scholar-Led Publishing at Helmholtz

- Resources on the topic of open access publishing

- FAQs on the topic of "predatory publishing"

- Criteria for the Operation of Open Access Publication Funds and the Payment of Open Access Publication Fees

- Preprints at Helmholtz

- Recommendations for open science publications in the Helmholtz Association

- Memorandum on the Open Access Transformation at the Helmholtz Association

Task group
Open Access Transformation

- Joint Task Group of the Working Group Open Science and the Working Group Library and Information Management to promote the open access transformation at the Helmholtz Association, moderated by the Helmholtz Open Science Office

- The Task Group, among other aspects, works on the following elements of the open access transformation:
  - Monitoring, incentives and metrics
  - Guidelines and policies
  - Cultural change towards open access
  - Sovereignty of scientific communication through Scholar-Led Publishing

Open Access

Project participations

open-access.network

Numerous measures relating to OA transformation

Inclusive information, training and networking opportunities

Open-Access-Helpdesk

Transform2Open

Addresses the financial dimensions of the OA transition

Includes information budget, workflows and responsibilities

OA-Datenpraxis

Supporting the development of structures for OA transformation at scientific institutions in Germany

Promotion and establishment of processes and procedures for sovereign data practice

OASA

OA-Szenarienanalyse

Addressing current challenges of the open access transformation in the area of financial and organizational structure
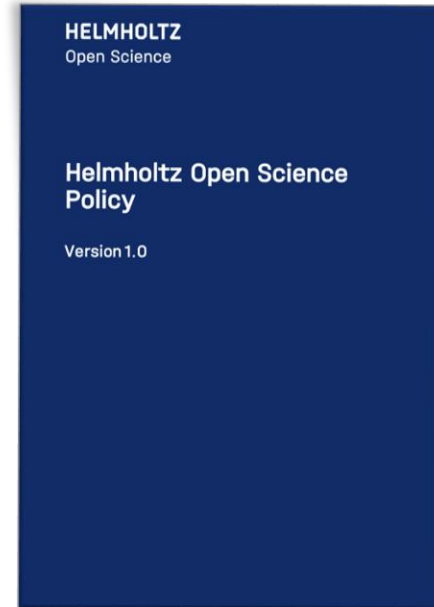
Open Research Data

Open Research Data

- The Helmholtz Association is leading in generating, managing and providing access to research data.

- In 2016, the Helmholtz Association adopted a position paper with the title Making information resources more usable on the handling of research data.

- In 2017, the Helmholtz Association adopted the Recommendations for guidelines of the Helmholtz centers for handling research data which guides the Centers in the formulation of their respective Research Data Policies.

- The Helmholtz Open Science Office promotes the coordination of the Centers and supports them in developing policies and related practices in handling digital research data; esp. concerning the utilization of the FAIR principles at Helmholtz.

- In 2022, the Helmholtz Association's General Assembly adopted the Helmholtz Open Science Policy.

- In July 2025, 17 out of 18 centers have their own research data policy.

- The work of the Helmholtz Open Science Office thus complements the developments of platforms in the Helmholtz Information and Data Science (HIDS) Framework

Helmholtz Open Science Policy

Open Research Data

- „2.1 In addition, the employees shall ensure that the following aspects are adhered to:
  - The digital research data that they generate shall be managed responsibly and in accordance with the FAIR Principles.
  - Especially in the case of EU-funded research projects, the employees shall use the data management plan (DMP) tool, and, in doing so, take into account […]
    - the deposit of research data as early as possible and within the time limits specified in the DMP in a trustworthy repository that is indexed in re3data […]
    - the principle "as open as possible, as closed as necessary," unless the provision of open access would, in particular:
      - prejudice the legitimate interests of the funding recipients, also with regard to commercial exploitation, or
      - be contrary to other constraints. […]"

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Open Science

Helmholtz Open Science
Policy

Version 1.0

Research Data Repositories and Portals at Helmholtz

- [re3data](#) – Registry of Research Data Repositories is an internationally recognized verification tool for research data repositories

- The Helmholtz Open Science Office is a co-founder of the service.

- In July 2025, re3data lists over 3400 research data repositories.

- The Helmholtz Centers operate 138 data infrastructures in the Association in which unique and valuable digital research data is curated (status 05/2025).

re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES

https://os.helmholtz.de/en/open-research-data/research-data-repositories

Open Research Data
NFDI Participation

- Numerous consortia of the National Research Data Infrastructure (NFDI) are being implemented with substantial Helmholtz participation.

- All Helmholtz Centers are members of the NFDI.

Participation of the Helmholtz Centers in the National Research Data Infrastructure (NFDI)

GEOMAR Helmholtz Centre for Ocean Research Kiel
⑨ ⑫

German Electron Synchrotron DESY
⑤ ⑧ ⑨

Alfred-Wegener-Institut, Helmholtz Centre for Polar and Marine Research (AWI)
① ⑭

Helmholtz Centre Hereon
① ⑨ ⑬

④ ⑩ ⑫

Max Delbrück Center (MDC)
Ⓑ Ⓒ ⑨ ⑫ ⑱

Helmholtz-Zentrum Berlin (HZB)
① ③

Centre for Infection Research (HZI)

Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences
④ ⑫ ⑲

Helmholtz Centre for Environmental Research (UFZ)
⑤ ⑦ ⑨ ⑫
⑯ ⑰ ⑳

Forschungszentrum Jülich
⑨ ⑪ ⑫ ⑭

German Aerospace Centre (DLR)
① ⑬
② ⑭
③ ⑮
⑨ ⑯
⑪ ⑰
⑫ ㉑

Helmholtz-Zentrum Dresden-Rossendorf (HZDR)
① ③ ⑭

German Centre for Neurodegenerative Diseases (DZNE)
④

GSI Helmholtzzentrum für Schwerionenforschung
⑭

CISPA – Helmholtz Center for Information Security
④

German Cancer Reserch Center (DKFZ)
④ ⑰ ⑲

Karlsruhe Institut of Technology (KIT)
① ⑪
③ ⑬
⑥ ⑭
⑦ ⑱
⑨ ㉑
⚠

Helmholtz Munich
④ ⑫

NFDI consortia

1: DAPHNE4NFDI	12: NFDI4Microbiota
2: DataPLANT	13: NFDI-MatWerk
3: FAIRmat	14: PUNCH4NFDI
4: GHGA	15: Text+
5: NFDI4BioDiversity	16: FAIRagro
6: NFDI4Cat	17: NFDI4BIOIMAGE
7: NFDI4Chem	18: NFDI4Energy
8: NFDI4DataScience	19: NFDI4Immuno
9: NFDI4Earth	20: NFDI4Objects
10: NFDI4Health	21: NFDIxCS
11: NFDI4Ing	

Basic Services (Base4NFDI)

A: IAM4NFDI
B: PID4NFDI
C: nfdi.software

● All Helmholtz Centers are members of the National Research Data Infrastructure (NFDI) association

Open Research Data

Helmholtz NFDI Participation

- Base4NFDI (GFZ, KIT, OS Office)

- DAPHNE4NFDI (DESY, FZJ, HZB, HZDR, HEREON, KIT)

- DataPLANT (FZJ)

- FAIRagro (FZJ, UFZ)

- FAIRmat (FZJ, HZB, HZDR, KIT)

- GHGA (CISPA, DKFZ, DZNE, HMGU, HZI, MDC)

- NFDI4BioDiversity (AWI, UFZ)

- NFDI4BIOIMAGE (DKFZ, FZJ, UFZ)

- NFDI4Cat (KIT)

- NFDI4Chem (KIT, UFZ)

- NFDI4DataScience (AWI)

- NFDI4Earth (AWI, DLR, FZJ, GEOMAR, GFZ, HEREON, KIT, UFZ)

- NFDI4Energy (GFZ/RIFS, KIT)

- NFDI4Health (MDC)

- NFDI4Immuno (DKFZ, HZI)

- NFDI4Ing (FZJ, DLR, KIT)

- NFDI4Microbiota (DLR, FZJ, GFZ, HMGU, HZI, MDC, UFZ)

- NFDI-MatWerk (FZJ, HEREON, KIT)

- NFDI4Objects (UFZ)

- NFDIxCS (KIT, FZJ)

- PUNCH4NFDI (DESY, DLR, FZJ, GSI, HZDR, KIT)

- Text+ (FZJ)

Open Research Data
EOSC-Beteiligungen

- The European Open Science Cloud (EOSC) has been started in 2015 as a project of the European Commission to make it easier for European researchers to access scientific data, platforms, and services for data processing.

- Participation of Helmholtz Centers in 9 ongoing EOSC projects (July 2025):

  AI4EOSC: KIT   EVERSE: HZDR

  AquaINFRA: Hereon, KIT   FAIR-EASE: AWI

  Blue-Cloud 2026: AWI   O.S.C.A.R.S: DESY, FZJ

  EOSC-Beyond: DESY, FZJ, KIT   Skills4EOSC: KIT

  EOSC data commons: FZJ

Open Research Data
EOSC EU Node

- Official launch of the EOSC EU Node services in October 2024

- This is the first node of the envisioned "system of systems" for FAIR data and data services in the European Open Science Cloud (EOSC)

- The EU node is focused on data management and infrastructure services

- NFDI represents Germany as a mandated member of the EOSC

- Base4NFDI (NFDI basic services) as a connection point to the EU Node

https://open-science-cloud.ec.europa.eu/

Open Research Software

Open Research Software

- The topic of Open Research Software continues to gain importance; while open science calls for reuse and reproducibility of scientific results, in many research areas, this can only be ensured if source code is made openly accessible in addition to the corresponding research data.

- Diverse initiatives:

  - 2017: position paper Access to and re-use of research software

  - 2019: Model Policy on Sustainable Software at the Helmholtz Centers

  - 2021: Checklist for the Implementation of Software Policies at the Helmholtz Centers (German only)

  - 2022: Helmholtz Open Science Policy & Beteiligung am campusSOURCE Award 2022 für Forschungssoftware

  - 2023: Helmholtz Research Software Directory & Helmholtz Software Award

Helmholtz Centers with guidelines/policies on the use of research software

AWI
GFZ
FZJ
DLR
DZNE
HZDR
GSI

● Location of the Helmholtz Centers

# Helmholtz Open Science Policy
Open Research Software

- „3.1 The employees shall ensure that
  - wherever possible, the program code that is necessary for reusing and/or validating the published data is made openly accessible in a repository.
- 3.2 For implementation purposes, the Centers and their information infrastructure facilities shall ensure that
  - researchers are supported in publishing research software;
  - the metadata of the deposited software/the deposited code are published under a Creative Commons Public Domain Dedication License (CC0) or an equivalent license (insofar as legitimate interests or constraints are respected) and in accordance with the FAIR Principles (especially machine-readability), and that they include at least information about the following: program code (description, date of deposit, version, authors, repository); name, acronym, and number of the funding project; licensing conditions; persistent identifiers and, if possible, organizations and funding. If applicable, the metadata must also include persistent identifiers for related publications and other research results."

HELMHOLTZ
Open Science

Helmholtz Open Science Policy

Version 1.0
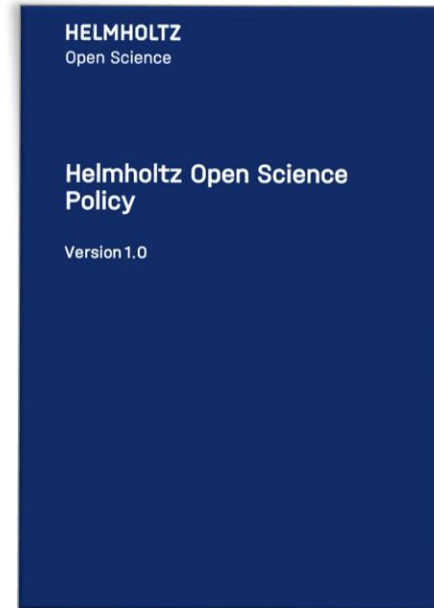
Task Group
Forschungssoftware

- Close cooperation with HIFIS, Helmholtz Research Software Directory

- Since 2023: Helmholtz Software Award

- Regular fora on Research Software Policies

- Various links to the work of de-RSE
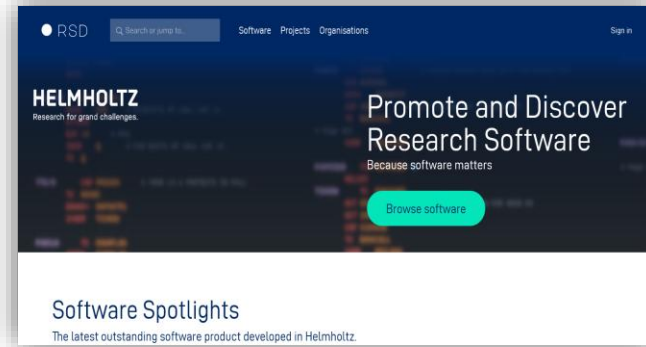
Research Assessment

Research Evaluation and Incentives at Helmholtz

Program-Oriented Funding (PoF)

"The scientific evaluation is focused on scientific quality. The results serve to provide a review of the performance of both the Helmholtz Center and the individual, usually cross-center programs. Both aspects are equally important: The centers are the driving force behind the Association, since this is where research is carried out and where new insights are gained…"[1]

OS Office strategic goals

Create awareness and recognition for the diversity of research outputs and activities

Align assessment of research to the conditions of digitalization and open science

Improve data and software publications related to specific quality criteria

https://os.helmholtz.de

Task Group
Helmholtz Quality Indicators for Data and Software Products

- Since March 2022: [Task Group Helmholtz Quality Indicators for Data and Software Products](#)

- Objective: Development of incentives and indicators to promote Open Science in the Helmholtz Association

- 2023: Establish basic indicator within the framework of the PoF as an incentive for the presentation of citable research data publications .

- Next step: Quality indicators for data and software will replace the basic indicator

  - Defined quality dimensions based on FAIR and FAIR4RS

  - Test introduction for the reporting years 2026- 2027

  - Implementation from reporting year 2028 (PoF-V)
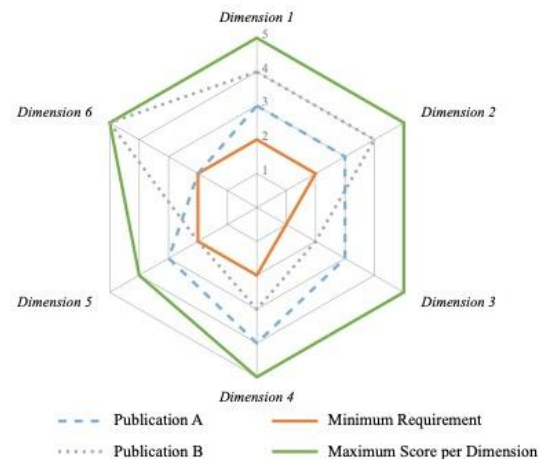
Discussion paper: Towards a Quality Indicator for Research Data publications and Research Software publications-- A vision from the Helmholtz Association: https://doi.org/10.48550/arXiv.2401.08804

Research Assessment

- The San Francisco Declaration on Research Assessment (DORA) deals with the reform of research assessment and contains recommendations for funders, organizations and individuals.
  - Helmholtz signatories: DKFZ, FZJ, GFZ, KIT, MDC

- Reforming the practice of research assessment in the Coalition for Advancing Research Assessment (CoARA)
  - Recognizing diverse outcomes, practices, and activities in the assessment of research, researchers, and research institutions
  - Helmholtz signatories: MDC, Helmholtz OS Office
  - Since March 2025: OS Office coordinates the CoARA German National Chapters

Blueprint about DORA and CoARA

Research Assessment

Task Group Research Assessment

- Task Group active since March 2025
- Objective: The goal of the group is to engage with quality-oriented assessment practices, compare the current approaches at the centers with recommendations from ongoing expert discussions, and develop proposals for advancing research assessment in the Helmholtz Association.
- Website: https://os.helmholtz.de/en/open-science-in-helmholtz/working-group-open-science/task-group-research-assessment/
- Planned priorities:
  - Criteria and practices for evaluating individual researchers
  - Evaluation criteria and KPIs at center level

National and International Cooperations

National and international Networking

- Allianz der deutschen Wissenschaftsorganisation: Schwerpunktinitiative „Digitalität in der Wissenschaft"

- Confederation of Open Access Repositories (COAR)

- Coalition for Advancing Research Assessment (CoARA)

- DEAL Cnsortium

- Deutsche Initiative für Netzwerkinformation (DINI)

- German Reproducibility Network (GRN)

- National Data Infrastructure (NFDI)

- Research Data Alliance (RDA)

- Research Data Alliance Deutschland (RDA DE)

Cooperations

Priority Initiative "Digital Information"

- From 2023, continuation of the cooperation of the Alliance of German Science Organizations with a focus on "Digitality in Science".

- The guiding principle of the cooperation is: Shaping digitality - promoting openness and sovereignty

- 2008 - 2022 Helmholtz cooperates with other research institutions as part of the Alliance of German Science Organizations in the priority initiative "Digital Information".

Cooperations

OS Office and the Research Data Alliance (RDA)

- Support for global and national research data initiatives

- Networking in research data management

- Promotion of the international Research Data Alliance (RDA)

- The Helmholtz OS Office is co-organizer of the RDA-DE conference (since 2016)

- Helmholtz as an organizational RDA member

- 2018: Organization of the international RDA Plenary Meeting in Germany

RESEARCH **DATA ALLIANCE**
Deutschland

Projects of the Helmholtz Open Science Office

Project participation of the Helmholtz Open Science Office

The Helmholtz Open Science Office participates in relevant third-party funded projects.

These are currently:

- OA Datenpraxis (DFG)
- Open Access Szenarienanalysen - OASA (DFG)
- open-access.network (BMBF)
- Transform2Open (DFG)
- PID4NFDI (BASE4NFDI)
- PID Network Deutschland (DFG)

Completed projects:

Alliance Permanent Access to the Records of Science in Europe Network (APARSEN), DeepGreen, Ecosystem Data Management (EcoDM), Opportunities for Data Exchange (ODE), Options4OA, ORCID DE und re3data.

DFG Project
OA Datenpraxis

- Title: OA Datenpraxis

- Project partners: Humboldt-University of Berlin

  Göttingen State and Regional Library of Lower Saxony

- Grant period: 02/2024 bis 02/2026

- Project website: https://oa-datenpraxis.de/

  https://os.helmholtz.de/aktuelles/projekte/oa-datenpraxis/

- Contact persons: Heinz Pampel & Johannes Schneider

  Supporting the formation of structures for the open access transformation at scientific institutions in Germany

  Promotion and establishment of processes and procedures for sovereign data practice

DFG Project
OA Datenpraxis

With a view to the Open Access transformation at scientific institutions in Germany the project pursues the following goals:

- Improvement of data-based governance

- Strengthening of collaborations

- Development of standards for collaborative data practice

- Minimizing dependencies on commercial data sources

- Improvement of information provision

The focus is on promoting and establishing processes and procedures for sovereign data practice in shaping the open access transformation.

DFG-Projekt

OASA

- Title: Open Access Szenarienanalysen

- Project partner: Forschungszentrum Jülich
  Humboldt-Universität zu Berlin
  RWTH Aachen,
  Leipzig University

- Grant period: project start planned for Jan. 2026

- Website: http://hu.berlin/oasa

- Contact person: Heinz Pampel

- Topics:

  – Addressing current challenges of the open access transformation in the area of financial and organizational structure

  – Analysis and evaluation of the financial development prospects of open access

  – Recommendations for further addressing the open access transformation in Germany

Basic Services for NFDI
PID4NFDI

- Title: Persistent Identifier Services for the German National Research Data Infrastructure – PID4NFDI

- Project partner: DataCite

  Gesellschaft für wissenschaftliche Datenverarbeitung Göttingen (GWDG)

  Technical Information Library (TIB) Hannover

- Grant period
  initial phase: 01/2025 to 12/2026

- More information: https://base4nfdi.de/projects/pid4nfdi

- Contact persons: Steffi Genderjahn & Antonia Schrader

Basic Services for NFDI
PID4NFDI

- PID4NFDI is currently funded in the integration phase as part of Base4NFDI.

- Objective: Establishment of a basic service to support the NFDI consortia in the application, use and implementation of persistent identifiers (PIDs)

- Main areas of work in the current phase:

  - Development of a comprehensive strategy for the selection and integration of PIDs

  - Development of use cases, guidelines and tools to improve the metadata quality and interoperability of PID systems within the NFDI

  - Establishment of a PID Coordination Hub as an entry point for the NFDI on PID-related topics

  - Development of training and support concepts for the use and application of PIDs

  - Public relations and networking activities

- Close cooperation between PID4NFDI and the PID Network Germany

BMBF Project
open-access.network

- Title: open-access.network

- Projekt partners: Communication, Information and Media Center (KIM) of the University of Konstanz
  Open Access Office Berlin at Freie Universität Berlin
  Technical Information Library (TIB) Hannover
  University Library Bielefeld
  Göttingen State and University Library of Lower Saxony

- Grant period: 12/2019 to 12/2025

- Information: https://open-access.network
  https://os.helmholtz.de/aktuelles/projekte/open-accessnetwork

- Contact persons: Christoph Bruch & Paul Schultze-Motel

BMBF Project
open-access.network

In 2022, the project was evaluated in detail on behalf of the BMBF:

The evaluation report recommended follow-up funding.

Participation of the Helmholtz Open Science Office in six work packages:

- Editorial expansion and consolidation of content (web editing)
- New approaches to Open Access funding (workshops and handouts)
- Helpdesk (consulting services)
- Services for small institutions and departmental research (workshops and report)
- Specialist services in cooperation with learned societies (workshops and handout)
- oa.atlas (data collection, data maintenance and reporting)
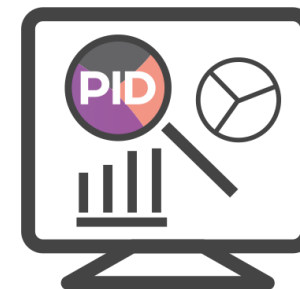
DFG Project
PID Network Deutschland

- Title: PID Network Deutschland –

  Netzwerk für die Förderung von persistenten Identifikatoren in Wissenschaft und Kultur

- Project partners: DataCite

  German National Library

  Technical Information Library (TIB) Hannover

  University Library Bielefeld

- Grant period: 03/2023 bis 03/2026
- Informations: https://www.pid-network.de
  https://os.helmholtz.de/aktuelles/projekte/pid-network-deutschland
- Contact persons: Steffi Genderjahn & Antonia Schrader

DFG Project
PID Network Deutschland

Objective: Establishment of a network of existing and new actors in science and culture to promote and consolidate the application, implementation, standardization and international networking of PID systems at local, national and international level and development of a national PID roadmap.

The 10 PID application areas on which the project will focus.

Research Data | Instruments | Cultural Objects | Organisations & Projects | Persons
Physisal Objects | Publication Services & CRIS | Software | Text Publications | Events

Icons for 10 PID Use Cases: https://doi.org/10.5281/zenodo.15173234

https://pid-monitor.org/

DFG Project
Transform2Open

- Title: Transform2Open

- Project partners: Research Center Jülich, Central Library

  University of Potsdam, University Library

- Grant period: 01/2023 to 01/2026

- Informations: https://www.transform2open.de

  https://os.helmholtz.de/aktuelles/projekte/transform2open

- Contact persons: Lea Maria Ferguson & Marcel Meistring

DFG Project
Transform2Open

- The aims of Transform2Open are
    - Development of strategies, concepts and measures for shaping the open access transformation
    - Further development of budgets, criteria, competencies and associated processes with regard to the financial aspects of the open access transformation
- The target group for the results of Transform2Open are universities and non-university research institutions
- The project organizes dialogue forums and workshops with various target groups and ensures interaction with other projects and activities in the field of open access transformation (e.g. open-access.network, openCost, information budget focus group, open access data practice)
- Social Media:
    - Mastodon: https://openbiblio.social/@Transform2Open

Dialogue

Team

- Mathijs Vleugel (Head)

- Christoph Bruch

- Lea Maria Ferguson

- Steffi Genderjahn

- Marc Lange

- Heinz Pampel

- Johannes Schneider

- Antonia C. Schrader

- Paul Schultze-Motel

- Leonie Voland (student assistant)

HELMHOLTZ
Open Science

Keep in touch

open-science@helmholtz.de

https://os.helmholtz.de

Open Science Newsletter

LinkedIn Mastodon Bluesky

Publications and recommended readings: Zotero

Mailing list for members at Helmholtz – Helmholtz Open Science Professionals and Mattermost