

Shaping the German National Research Data Infrastructure (NFDI)

NFDI4Earth Plenary
May 2026

29.05.2026

NFDI4Earth Plenary

The road towards NFDI

2011-2015:
Structured exploration
 Basic recommendations on how to adapt the organisation of scientific information infrastructures in the digital turn

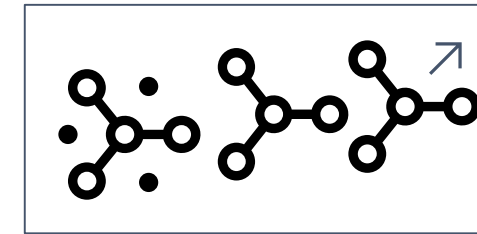
2016-2019
Realisation phase
 Joint Science Minister Conference adapts RfII recommendation; DFG is tasked with the funding process
<https://www.gwk-bonn.de/NFDI.pdf>

KII 2011
 WR 2012
 RfII 2014



GWK 2016-2018

DFG 2019



2020

2021

2022



2028 ff.

Operational phase of 10 years
 3 rounds of funding decisions
 Founding of the NFDI e.V.



Parallel initiatives on the international level

Setup of NFDI

- Joint funding by Federal government and the *Länder* (§91b GG)
- Founding of an association "NFDI e.V", to organise the data landscape
- Funding of up to 30 domain-related "consortia" (science-driven process)
- Scientific institutions join the NFDI association and support its goals

Lesehinweise:
 Berechnungsbasis bilden Einrichtungen mit einer Beteiligung an einem oder mehreren der 19 Konsortien der Nationalen Forschungsdateninfrastruktur (NFDI) mit Stand Juli 2021.



After three selection rounds (2019, 2020, 2021) 26 funded consortia from all major science areas



NFDI in numbers

> 300
Association
members

26
Consortia &
Base4NFDI



> 1.600
Partner in the
Consortia

6
Sections with
900 experts

NFDI in motion....

A very active network

Annual statistics

- Over 1,000 events held (more than half are training events)
- Participation in over 1,500 other events, incl. International level
- Over 1,500 publications, software, educational resources

Scientific review process by DFG:

- Very good to excellent results so far (2/3 of consortia evaluated)
(internationally unique, exceptional portfolio, notable cultural change....)

Purpose of the NFDI Association

The association aims to ...

- a)** guide and coordinate the development of a coordinated, interconnected information infrastructure;
- b)** establish processes and procedures for standardized research data management;
- c)** develop interdisciplinary metadata standards;
- d)** to network with European and international platforms;
- e)** to create a common foundation for the protection, sovereignty, integrity, security, and quality of data.

From the NFDI statutes § 2(3)

NFDI as Germany's contribution to the European Open Science Cloud (EOSC)

EOSC Node | Germany

*NFDI is shaping the EOSC Node Germany
as part of the EOSC Federation*

- Onboarding of a selection of community and basic services into the EOSC Federation
- Seamless access for German researchers to European data resources and services
- Active engagement for a user-driven development of the EOSC



NFDI beyond 2028

July 2025:



**German Science Council recommends
continuation of NFDI beyond the end
of the current state contract in 2028**


Future NFDI

Our communities perspective

- An agile network organization capable of responding quickly to scientific needs
 - With stable, nationwide IT infrastructures
 - With a decentralized range of services to meet technical and methodological needs
 - With a supporting administrative office
 - With attractive opportunities for professional networking among stakeholders
- A central structure for the long-term and short-term financing of community needs in Germany
- Complementary action by NFDI members and sponsors is necessary to anchor FDM across the breadth and depth of the research system as required

Recommendations For scientific infrastructures in Germany

- Consensus on the functions of scientific information infrastructures within the research system
- Establishment of long-term accountability for their operation – backed by funding
- Focus on coordination procedures
- “Productive use of the federal system”
=> Art 91b and Art. 91c Grundgesetz (joint funding)



A successful reorganisation of the landscape
requires more than a structural reform of NFDI

Future scenarios

„NFDI 2029 ff“

Consortia Assembly, January 2026

In December 2026... „Preperation of structural reforms“

- ...the outcome of the GWK negotiations on the second Federal-State Agreement is available
- ...all consortia have been evaluated at least once and have been able to assess the results
- ...a ‘transition team’ has been appointed

By then, the NFDI will have:

- ...formulated strategic objectives up to 2028 (Senate)
- ...made recommendations for an overarching architecture (Section /KV)
- ...made recommendations for general metadata standards
- ...discussed the functions of future departments and a branding concept
- ...prepared information material on the structural reform for member and partner institutions
- ...

In January 2029 „New state contract“

- ...there is a new funding mechanism for the NFDI's ongoing tasks
- ...there is a new management structure within the association and new posts
- ...fewer funds are available for the work of the current consortium members
- ...competition for scarce federal and state funding has intensified further

By then, the NFDI will have:

- ...amended the association's articles of association
- ...renegotiated the remit of the association's departments
- ...clarified the interaction with other infrastructure initiatives (NHR, de.NBI, Helmholtz)
- ...designed a service life cycle and a portfolio management framework

In October 2035 „Celebrating 15 years of NFDI Association“

- ...the possibilities offered by AI have rapidly accelerated the digital transformation in science
- ...we can realistically assess the downsides of AI
- ...data publications are more significant than traditional journal articles

By then, the NFDI will have:

- ...managed to double the number of staff in its office
- ...generally responded well to the needs of the communities (agile)
- ...made itself indispensable in research
- ...driven forward urgently needed standardisation within the academic system

Where are we?

Future scenarios & consortia

December 2026

- Result of GWK negotiations known
- Structural reforms start (2-4 years of transition)

NFDI

January 2029

- New financing streams in NFDI
- Smaller budgets for actors in the consortia
- Tight government budgets
- ...

NFDI

October 2035

- Digital turn has been massively accelerated by AI
- New status of data
- ...

NFDI

- Adjustments in work programmes
- Consolidation in larger departments
-

Biodiv/Life sciences

- Continuity paths for project-based services ?
-

Biodiv/Life sciences

- Reliable (Infra) Structure available at NFDI
-

Biodiv/Life sciences

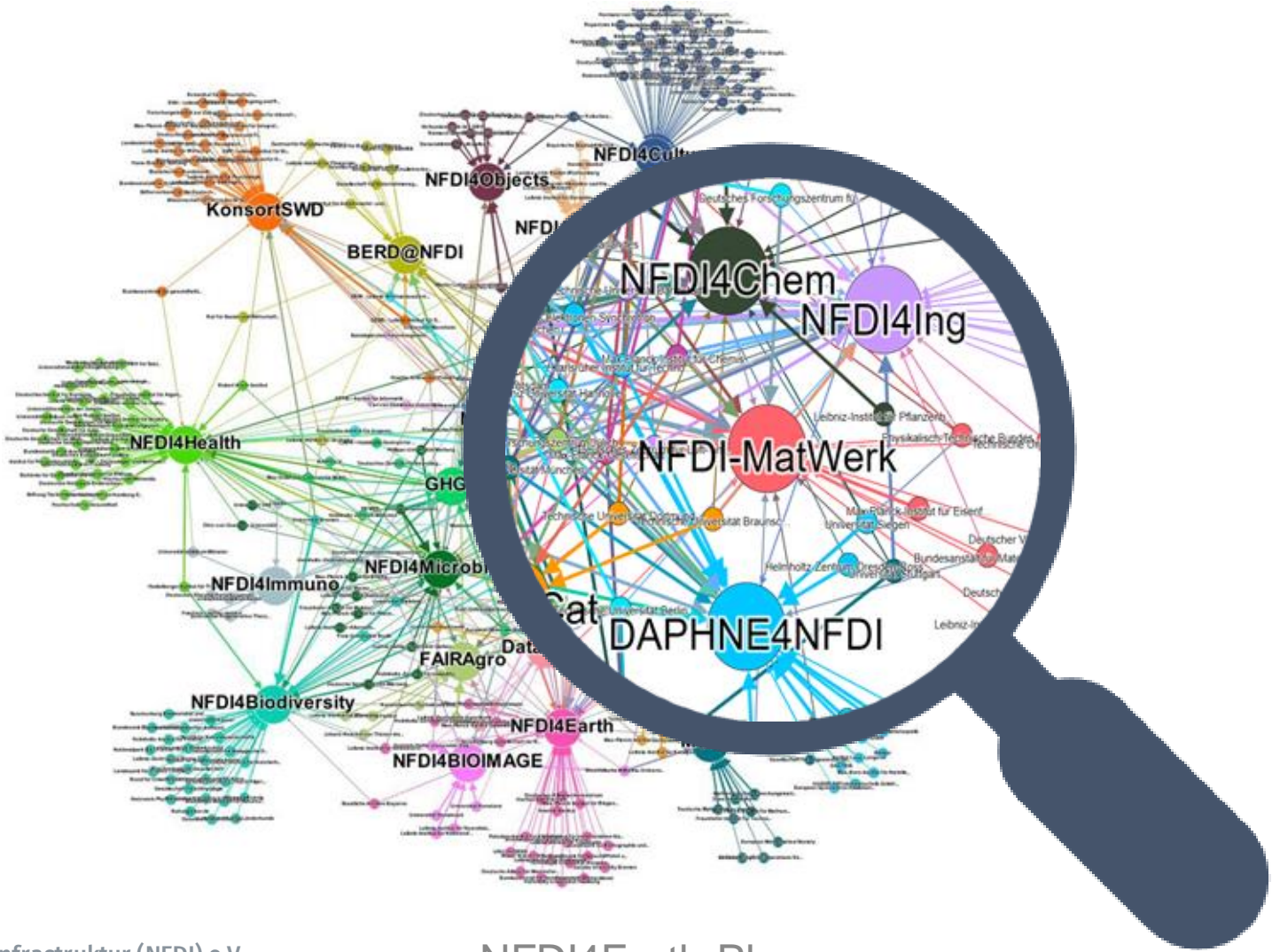
Consortia assembly

Representing scientific communities in the NFDI association

**Thank
you!**



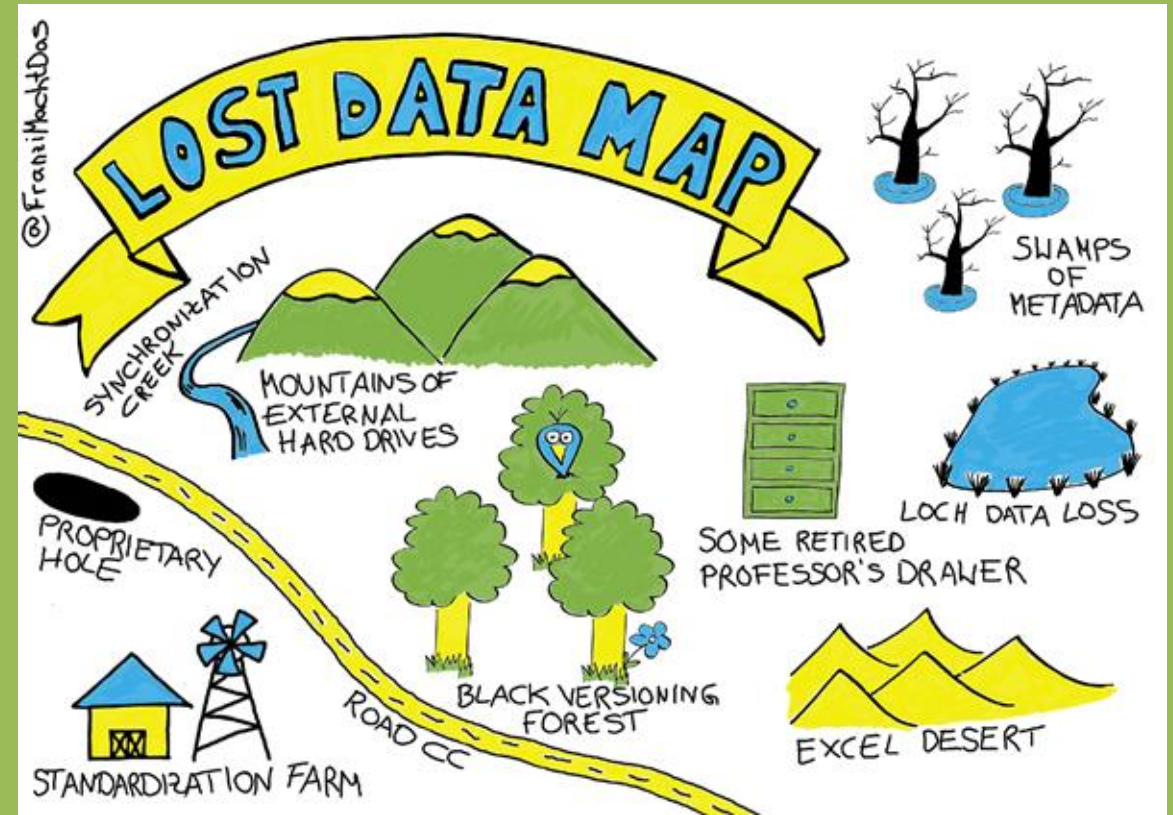
Gemeinsame Herausforderungen, gemeinsame Lösungen



Source:
Wikidata
(07.11.2022)
Nationale Forschungsdateninfrastruktur (NFDI) e.V.
29.05.2026


Gemeinsame Klammer: Die FAIR-Prinzipien

| | |
|----------|---------------|
| F | FINDABLE |
| A | ACCESSIBLE |
| I | INTEROPERABLE |
| R | REUSABLE |




Strukturevaluation Wissenschaftsrat (WR)

Orientierung an langfristigen strategischen Zielen

1. Förderung der Datennutzung innerhalb und außerhalb der Wissenschaft
2. Zugängliche und nachhaltige Gestaltung des Forschungsdaten-Ökosystems über alle Disziplinen hinweg
3. Verankerung der NFDI und des FDM in der Breite und Tiefe der Wissenschaftscommunity und –verwaltung 
4. Steigerung der Wettbewerbsfähigkeit und Souveränität im globalen Kontext

Strukturevaluation Wissenschaftsrat (WR)

Wichtigste Empfehlungen aus dem Bericht

- NFDI soll als Enabler und Katalysator zur Unterstützung von Forschung mit KI fungieren.
- **Anpassung der Governance:**
 - NFDI-Verein als Mittelempfänger mit **hochqualifiziertem Personal auf verstetigten Stelle**
 - **dreiköpfiges hauptamtliches Präsidium**
 - Überleitung der Aktivitäten der Konsorten in **bis zu acht wiss. Fachbereiche mit gewählten Sprecher:innen**
 - Bildung eines **methodenorientiertes Betriebsnetzwerks** zur Seite gestellt wird.
- Befristete Forschungsaktivitäten zu FDM-Themen sollen über ein **ergänzendes Innovationsprogramm** (von der DFG) gefördert werden.
- Verein soll befähigt werden, **Dienste nachhaltig bereitzustellen** und den Übergang in eine dynamische Betriebsphase zu meistern. 
- NFDI soll **führende und gestaltende Rolle** beim Aufbau der EOSC übernehmen

Erste Reaktion auf die WR-Empfehlungen

Perspektive der Fachcommunities



- Verstetigung
- Reform der überkomplexen Governance
- Zusätzliche Mittel für Rechenleistung, Speicher und Langzeitarchivierung



- Partner und Fachpersonal fanden sich in den vorgeschlagenen Strukturen nicht wieder
- bereits erreichte Reorganisation der Servicelandschaft erfordert ein breiter aufgestelltes Betriebsnetzwerk
- Anreize für Eigenleistungen der Wissenschaftseinrichtungen fehlen
- dezentrale Finanzierung von Aufgaben muss weiter möglich sein
- Unbalanciertes Verhältnis zwischen Präsidium und Fachbereichen
 - der digitale Wandel erfordert Agilität und geteilte Verantwortung

For a FAIR data future.

www.nfdi.de



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