(Geo)wissenschaftliches Publizieren: Trends, Strategien und Praxis
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NFDI₄Earth

Data Literacy & Community Engagement

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The NFDI$_4$Earth Community

Currently 58 partners from:

- Universities
- Research Organizations
  Helmholtz, Leibniz, Max Planck Society
- Infrastructure Providers
  Research Infrastructures, Repositories,
  High Performance Computing Centers,
  Libraries
- Governmental Institutions
- Scientific Associations

Established 2018 as an Open Consortium and the ESS branch of NFDI
Key Goals

• *One Community* approach to sustainable, Open and FAIR Research Data Management in Earth System Sciences (ESS)

• Community driven agile development of innovative platforms for data integration and collaborative data analysis

• Qualification for people, data, tools and services as a basis for FAIR RDM and viability

• *OneStop4All* and *User Support Network* for ESS RDM as integral part of NFDI and International Infrastructures

• Key-driver of the build-up and operation of the NFDI
NFDI4Earth – Strategy 2021-26

- **2Participate**
  - Task Area 1
  - Community Engagement
  - Piloting Innovations

- **2Facilitate**
  - Task Area 2
  - User Perspective

- **2Interoperate**
  - Task Area 3
  - Infrastructure Perspective
  - NFDI & International Integration

- **2Coordinate**
  - Task Area 4
  - Community Support
TA1 – Engage with the community, foster innovation

2Participate

Individual

M1 Pilots
- Pilot
- Pilot
- Pilot

M2 Incubators
- Incubator
- Incubator
- Incubator

Collective

M3 Edu Hub
- Site
- Site
- Site

M4 Academy
- Site
- Site
- Site

Basic elements into NFDI4Earth
Cutting edge methods/science

Integration into NFDI

Geo.X Network for Geosciences in Berlin and Potsdam
www.geo-x.net
Training/Education

Development of a wide range of ready to use open educational resources:

- Comprising bachelor and master students, scientists, lecturers, data and infrastructure providers
- Developing specific curricula for i.a. **ES Data Scientists** and **ES Data stewards**
- Addressing needs of specific target groups
- Developing EDU-packages like course material, MOOCs, teachlets, videos, ...
- Modules can be **integrated into existing university or professional training curricula**

How will education and training programs be scaled?

- Providing **onsite and online courses / workshops** etc.
- Providing **Open Online Education Resources** allowing self-instruction (in a common learning platform)
- **Activating multipliers** by train the trainer events, integration into (under-) graduate courses and permanent education and training offers provided by **EduHubs**
NFDI4Earth EduHubs

• NFDI4Earth organisations providing **permanent education and training** offers
  • Well-defined scope reflecting the organisation’s expertise and interests
  • Typically re-using and advancing NFDI4Earth education and training material and curricula
• Initial NFDI4Earth EduHubs in Bochum, Münster, Hamburg, Leipzig, Dresden, München
• In perspective: New Education & Training Sites
  >> NFDI4Earth EduHub Network
NFDI₄Earth Academy

- **NFDI₄Earth Academy's backbone:** Research networks ABC/J, DAM, and Geo.X
- **Think tank** to connect young researchers from all ESS sub-disciplines and their data-driven research
- Diversity-sensitive and criteria-based recruitment process of Academy fellows at each site
- Open and complementary Academy program on Data Science
- Initial proof of concepts for further implementation
- Connectivity to the HiDA HELMHOLTZ Information & Data Science Academy
- **Open call** to initiate additional NFDI₄Earth Academy sites (also virtual)
  >> NFDI₄Earth Academy Network
NFDI\textsubscript{4}Earth Academy program

• Reflects the spectrum of the geoscience key research fields of each Academy site
• Modules will be defined and co-organized by the fellows
• Program elements are
  • hands-on and peer-exchange formats such as (virtual) talk series, workshops on self-chosen topics, autumn school, and Hackathons
• Elaborated Curriculum includes:
  • focus points on advanced data analysis e.g. Data Science and Machine Learning applications
  • basic principles of RDM and data workflows aligned with NFDI\textsubscript{4}Earth standards (link to the EduHubs)
• Expected outcome:
  • publications, new projects, use case documentation, data sets, software, tools etc.
  • Advanced scientific profile of fellows
Engage with the community & foster innovation

Applying Open and FAIR ESS RDM:
- One-year termed projects reflecting the variety of use cases, complexities, and different FDM maturity levels in the ESS community

Exploring new ES data science methods
- Small, short termed innovation projects

Developing competences in RDM and spatiotemporal data literacy
- Providing ready to use open educational resources

Linking-in next generation researchers
- Think tank to connect young researchers from all ESS sub-disciplines and their data-driven research

Interest Groups (IGs) – developing common topics
- Group around technical or community topics
How to get in touch?

nfdi4earth.de

@nfdi4earth

Apply for an Interest Group

Apply for a Pilot in 2022

Next call: Academy fellow recruitment