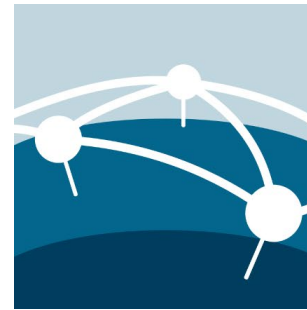


# Explaining NFDI4Earth

Coffee Lecture, 09 Feb. 2023

Andreas Hübner 



# NFDI4Earth

## National Research Data Infrastructure for Earth System Sciences

Veröffentlicht unter: <https://www.geo.fu-berlin.de/bibliotheken/Aktuelles/Coffee-Lectures-SommerSemester-2022.html>



Dieses Werk ist lizenziert unter einer [Creative Commons Namensnennung 4.0 International Lizenz](https://creativecommons.org/licenses/by/4.0/).

# Towards the National Research Data Infrastructure (NFDI)

## RfII recommended to establish a German National Research Data Infrastructure (2016\*):



<http://www.rfii.de/>

- to implement the FAIR principles  
(Findable, Accessible, Interoperable, and Re-usable).
- **Sustainable** (not only project solutions !)
- Internationally integrated
- Driven by **scientific users and consortia of users and providers**

*\* RfII (2016): Enhancing Research Data Management: Performance through Diversity.*

# Towards the National Research Data Infrastructure

## The federal-state program to create the NFDI (11/2018)

- Funding over 10 years with € 90 million p.a.
- Funding of up to 30 consortia in 3 rounds of calls –  
**Managed by the German Science Foundation (DFG)**
- Foundation of the **NFDI Association** (NFDI e.V.)  
and the **NFDI Directorate** in Karlsruhe (10/2020)

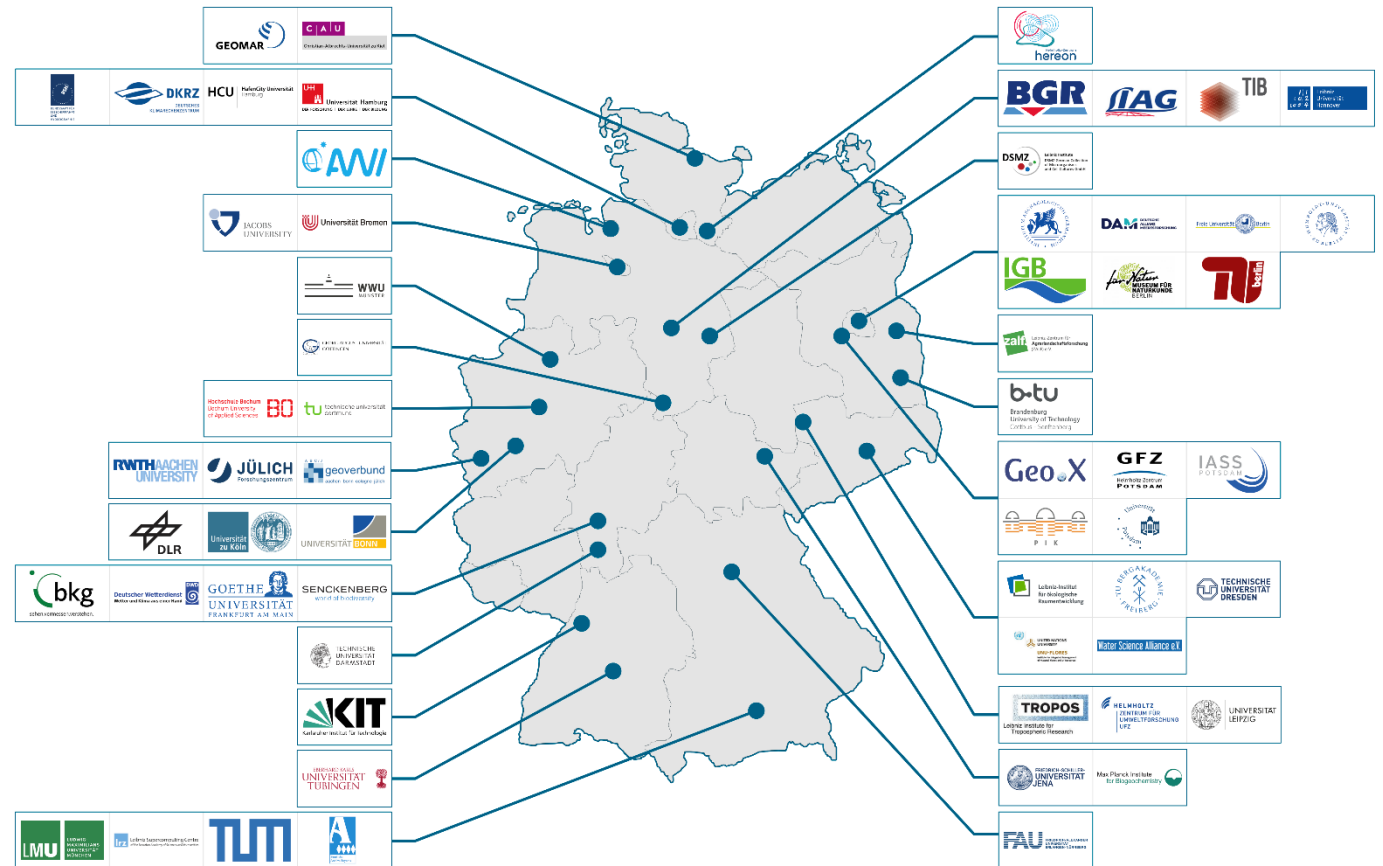


<https://dfg.de/nfdi>

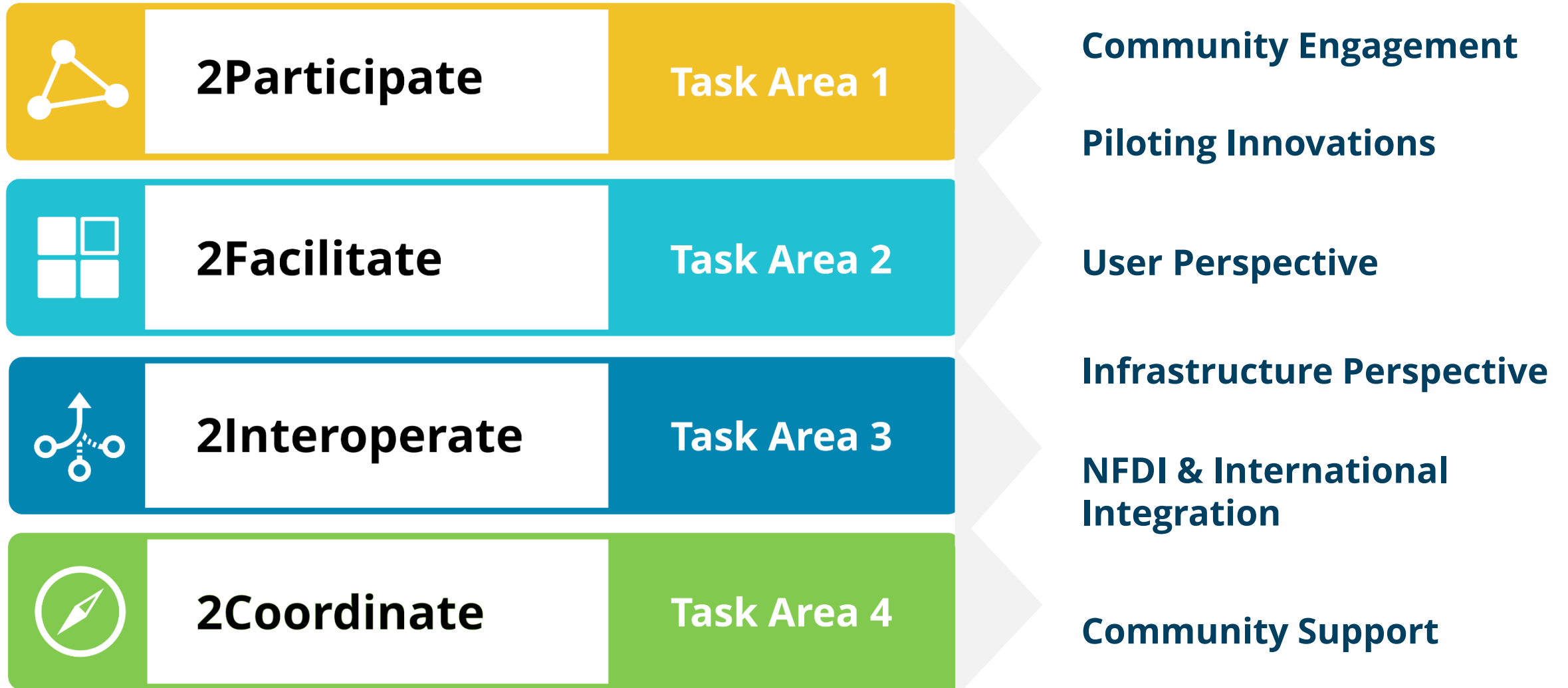
**nfdi**  
<https://www.nfdi.de/>

# Who we are

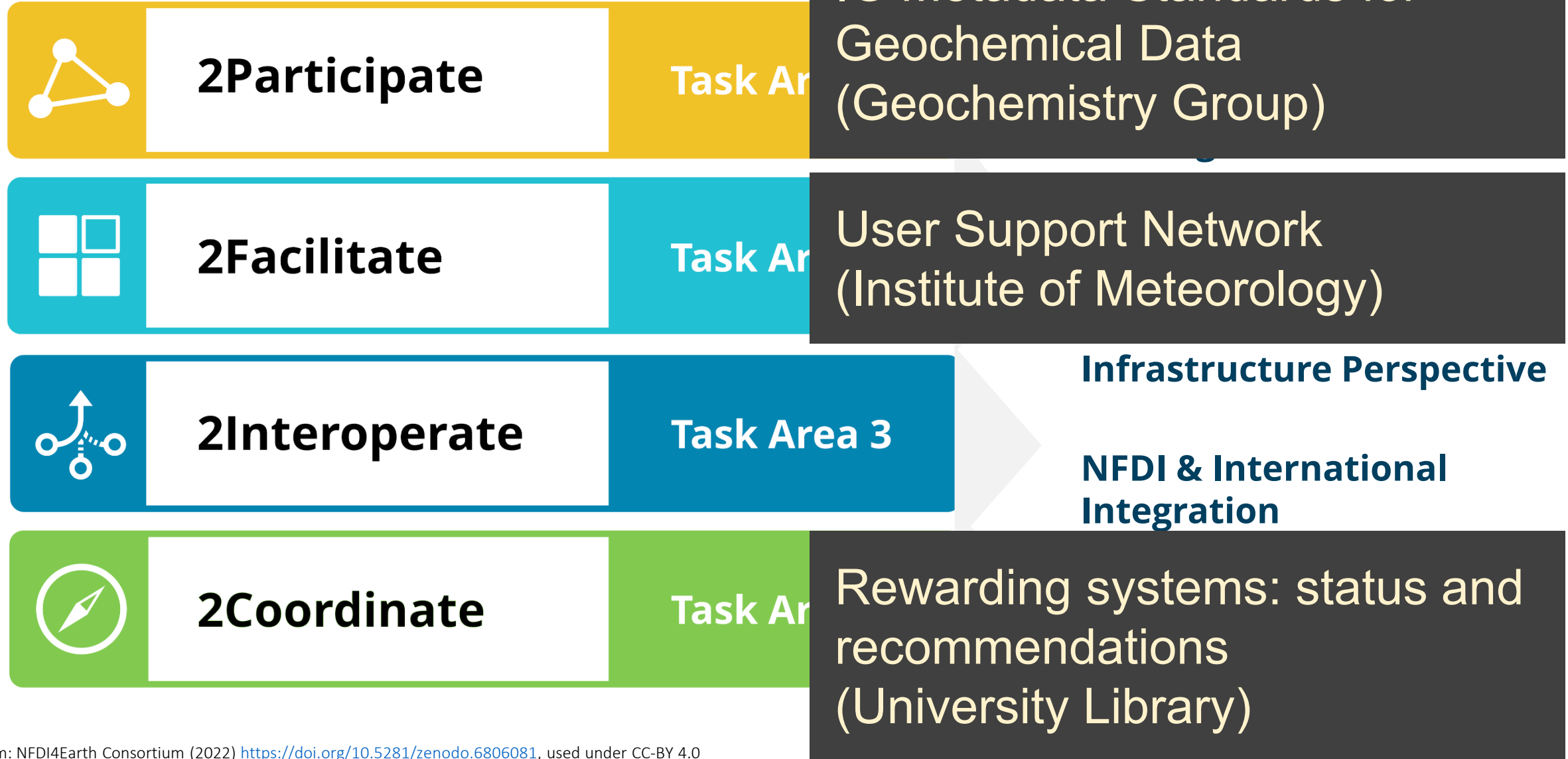
- 59 institutions covering the breadth of Earth System Sciences (ESS)
  - Universities
  - Research Organizations
  - Infrastructure Providers
  - Governmental Institutions
  - Scientific Associations & Networks
- Established 2018 as **Open Consortium** and the ESS branch in the NFDI DFG-Funded since 10/2021



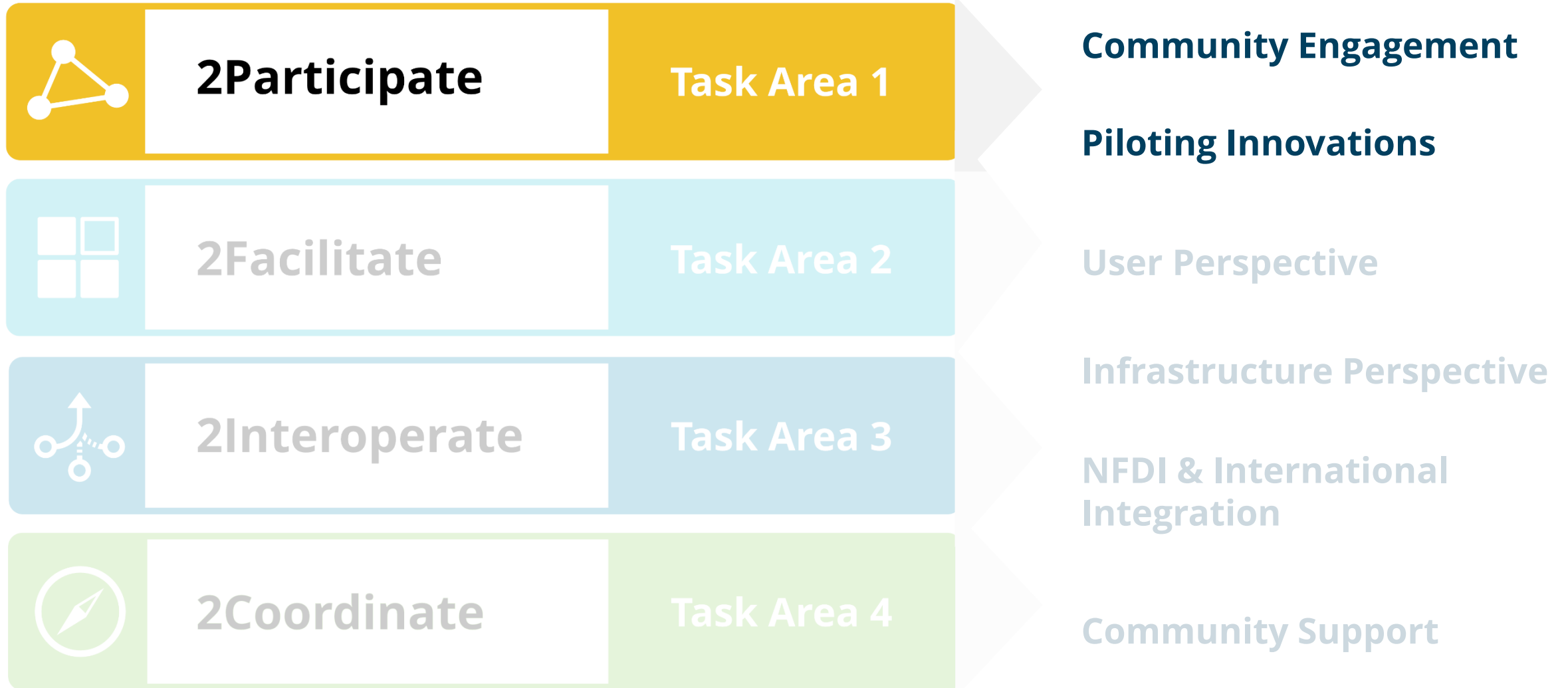
# NFDI4Earth – Strategy 2021-26



# NFDI4Earth – Strategy 2021-26

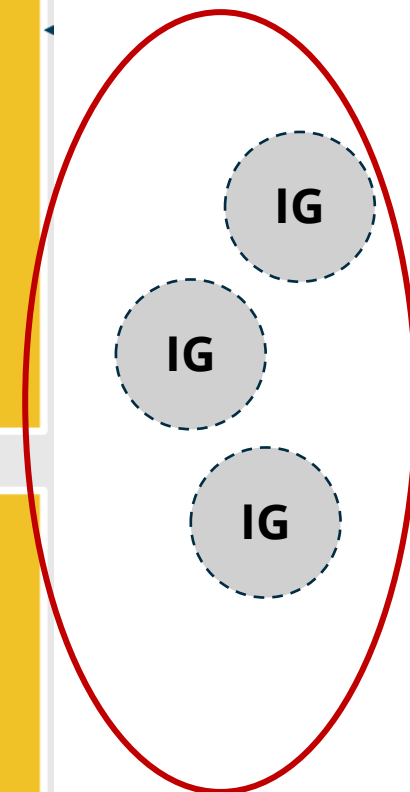
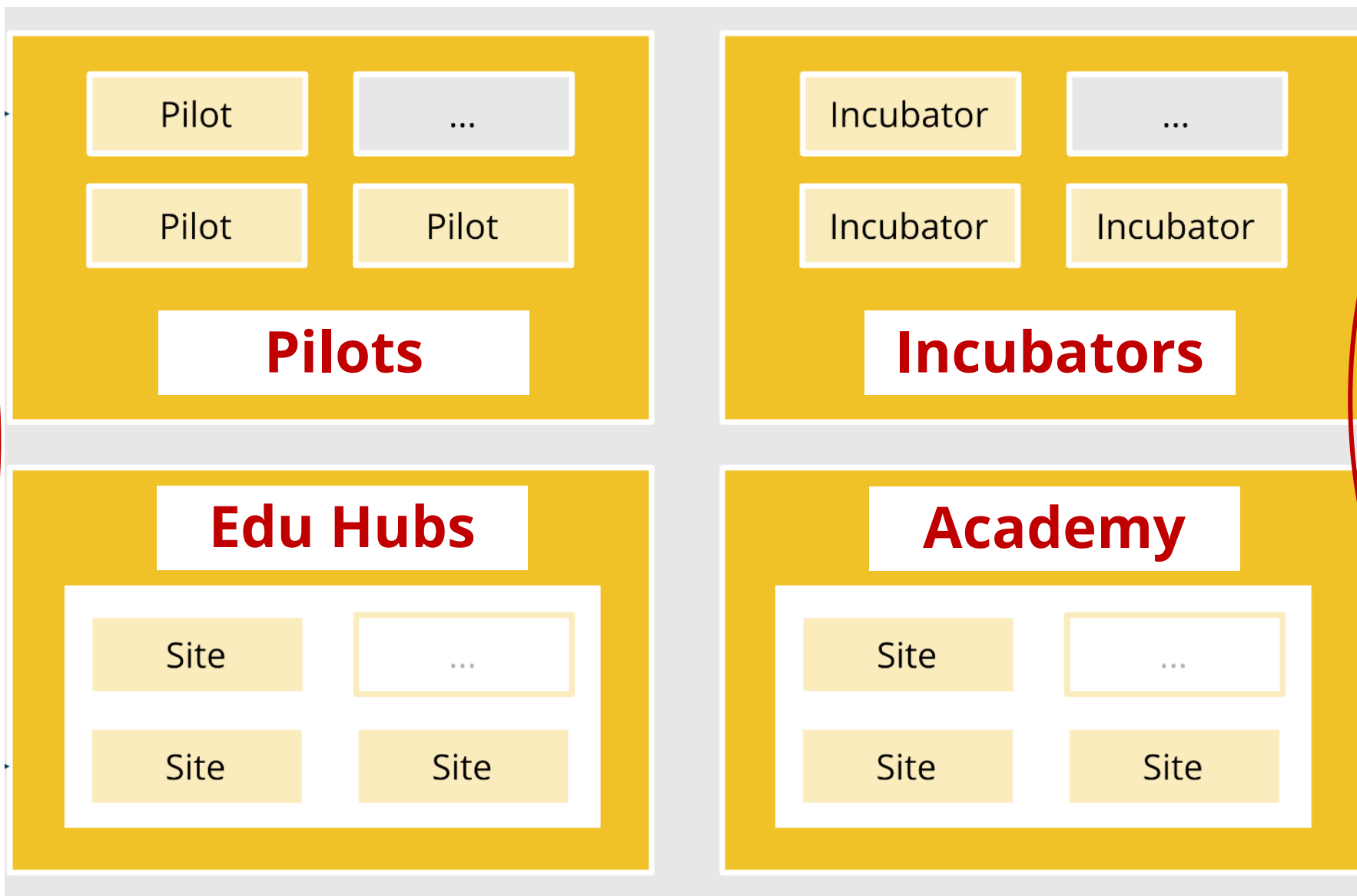
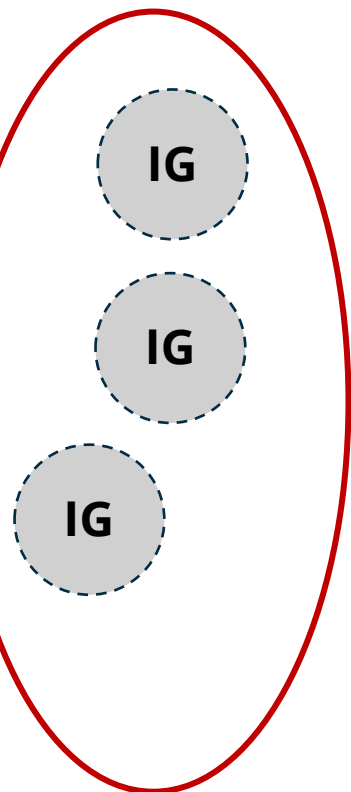


# NFDI4Earth – Strategy 2021-26



# TA1 – Engage with the community, foster innovation

## Interest Groups





# 2<sup>nd</sup> Open Call for Earth System Science Pilots (2023)



- **Timeline:** The call for Pilots will be open February 1st **until March 31st, 2023**. Decision will be announced on June 1st, 2023.
- **Funding:** We provide 12 months funding (1FTE, approx. TVöD/L E13). In total 7 pilot projects will be funded.

Explore under: <https://www.nfdi4earth.de/2participate/pilots>

We are looking for **tools and practices** that support Earth System researchers in their **research data management and analysis workflows** and facilitate an easy uptake of the Open Science and FAIR principles in their everyday work.

The Incubator Lab fosters novel **data science** developments.

**Examples** are tools for automatic metadata extraction and annotation, semantic mapping and harmonization, machine learning, data fusion, visualization, and interaction.

## Incubator Projects 2022

IPFS Pinning Service for Open Climate Research Data

scrAiber: Data Mining Driven Microscopic Reference Data Acquisition

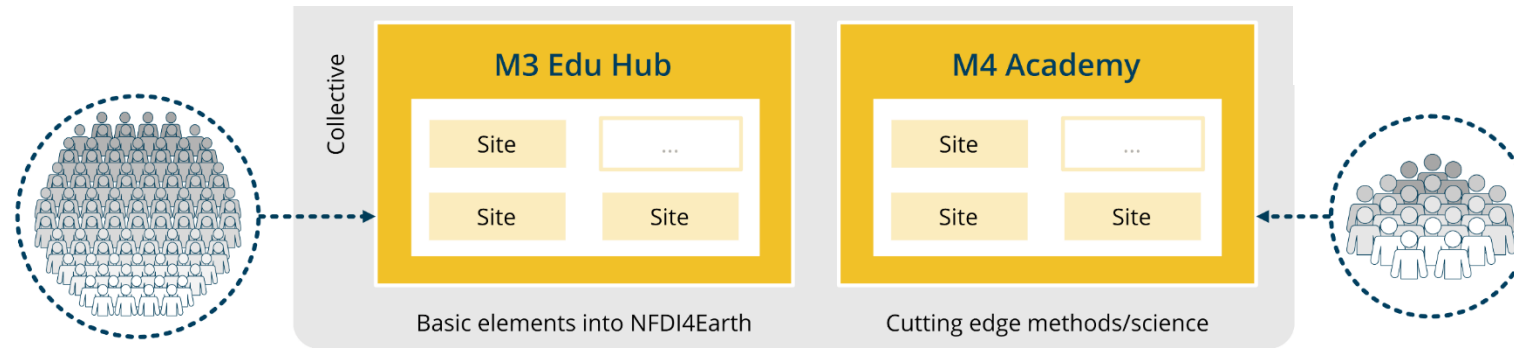
New framework for analysis of aquatic ecosystems

Hierarchical Data Format for Water-related Big Geodata (HDF4Water)

Explore under: <https://www.nfdi4earth.de/2participate/incubator-lab>

**New call launched in 2023.  
Stay tuned !**

# TA1 – Education at all Levels



## Edu Hub: Develops competences in RDM and spatiotemporal data literacy

- Wide range of ready to use open educational resources
- New Qualification Profiles (e.g. *research data curator*)
- **Network Education & Training Sites**




## Academy: Explore novel approaches

- Interconnect junior researchers in data driven applications as users of NFDI4Earth resources
- Trigger proofs of concept
- **Network Academy Sites**

# Get Involved !

- Join the annual **NFDI4Earth Plenary Meetings**
- Join the Consortium !
- Join or launch an [Interest Group](#) !
- Apply for
  - an NFDI4Earth Incubator or
  - an NFDI4Earth Pilot or
  - an NFDI4Earth Edu Pilot or
  - the NFDI4Earth Academy
- **Calls will be launched regularly !**



Become part of the  
NFDI4Earth activities!

NFDI4Earth is designed as an open consortium. If you are interested in participating and shaping NFDI4Earth, we invite you to initiate an Interest Group or join an existing one:

[Read the guidelines for detailed information](#)

The following interest groups are endorsed by the Steering Group of NFDI4Earth (as at April 2022)

- ✦ **Geology & Geophysics**
- ✦ **High-performance Computing in Earth System Sciences**
- ✦ **Machine Learning**

and others are being prepared or currently under review

- ✦ **(Geo)Research Software and Reproducibility**
- ✦ **FAIR Data**
- > **Standardisation of geochemical Analysis Data**

Further ideas were considered at an early stage during the 4th plenary in Potsdam, but have not yet been implemented

- > **Data Management Plan**
- > **Industry & Company Data**

If you are interested in one of the topics and interest group resp. mentioned above please click on the corresponding IG!