



# Germany in GEO - GEO in Germany

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**D-GEO Office  
German Space Agency at DLR**

**EuroGEO Workshop**

**2 October 2023, Bolzano**

# Elements of German contributions to the GEOSS



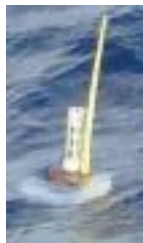
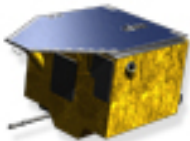
## Infrastructure for Earth Observation

- Operations of national & international networks
- National EO Programme (Space)
- Contributions to European programmes, e.g.: Copernicus, Research Infrastructures (ICOS etc.), ESA, EUMETSAT
- Contributions to international Organizations and programmes, e.g.: ARGO, WMO, CEOS

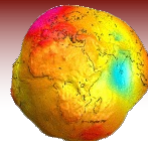
## Research and Development Programmes

## Cooperation for Economic Development

**EnMAP**  
Earth Observing Satellite



ARGO



GRACE Gravity Missions

# Germany in GEO – GEO in Germany



## Germany supports GEO and its objectives

- Technical & scientific contributions and data
- Contribution to GEO Secretariat (Trust Fund etc.)
- Contributions to GEO Initiatives and Working Groups
- National implementation of GEO principles

## BMDV\* is tasked with national Implementation

- National coordination structure “D-GEO”
- National implementation plan
- links to long standing interministerial body for geo-information (IMAGI)
- D-GEO Secretariat at DLR



D-GEO

\*Federal Ministry for Digital & Transport

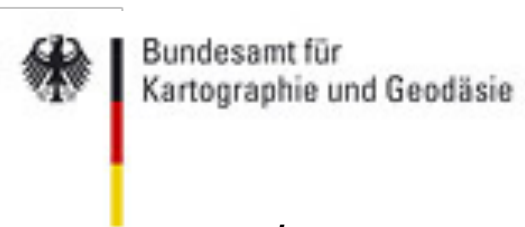
# Why D-GEO?

- **Contributing to the success of GEO and to achieving its goals**
    - Make national observation systems available
    - Bring in German expertise in GEO Initiatives
    - Stimulate and coordinate capacity building activities
    - Pursue GEO data sharing principles at national level
    - Foster European level activities
  - **Engage national users and contributions to GEO**
    - improve public services
    - encourage scientific exploitation
    - stimulate commercial services
  - **Coordinate national interests in EO**
    - research, technology, standards, data policy
  - **Create visibility and opportunities for German activities at global level**
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# D-GEO Working Group



Deutscher Wetterdienst

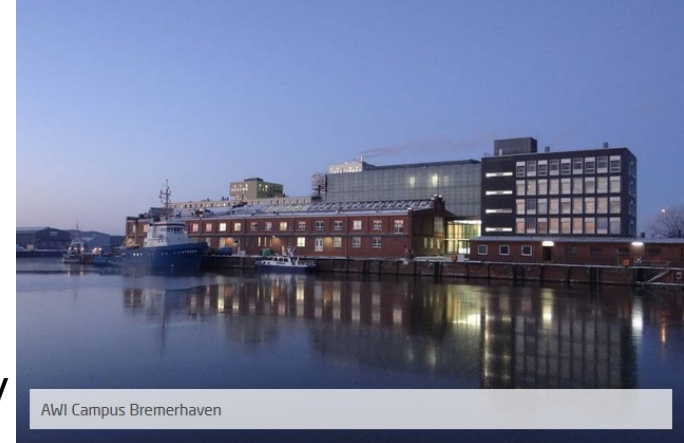


*and many more...*

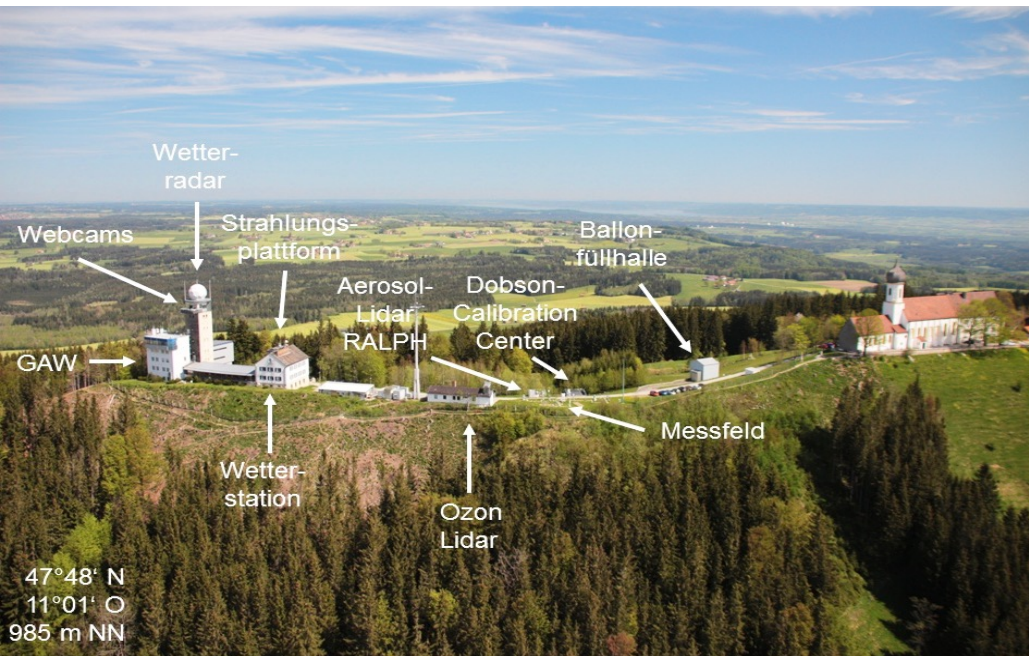


# Three annual Meetings

- D-GEO meets at changing host organisations
  - 6/2022: DWD Mountain weather observatory Hohenpeißenberg
  - 10/2022: GIZ (International Cooperation)
  - 3/2023: Alfred-Wegener Institute (Polar and Ocean Research)
  - 6/2023: Geodatic Observatory Wettzell of the Federal Agency of Cartographie and Geodesy



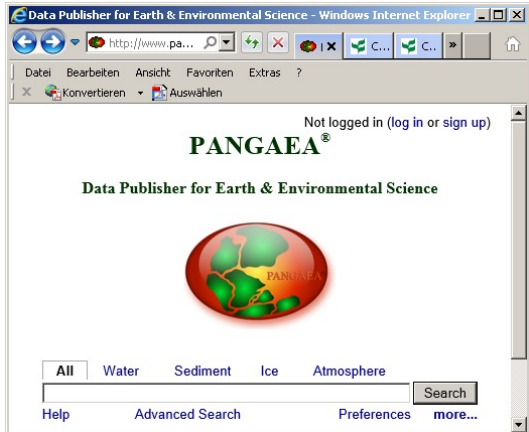
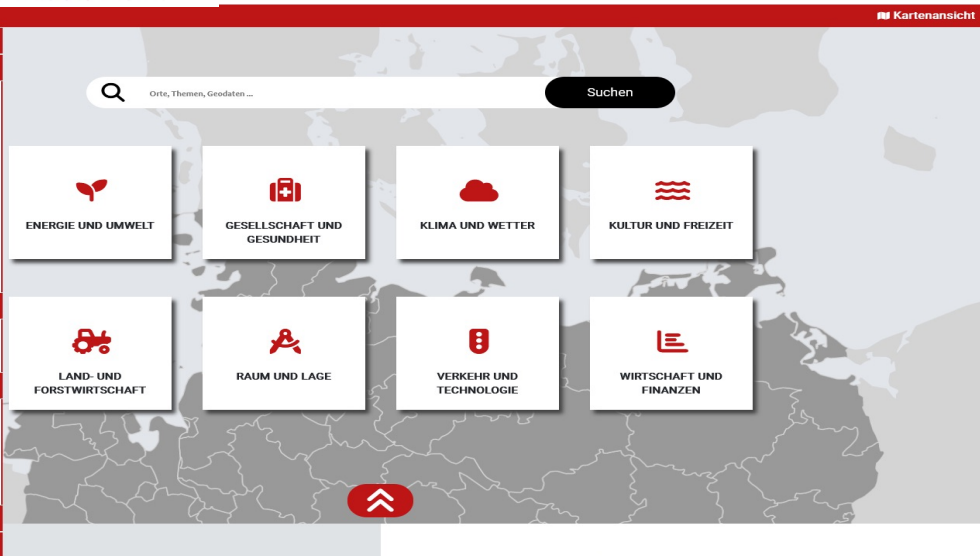
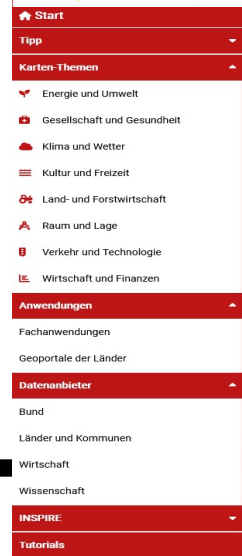
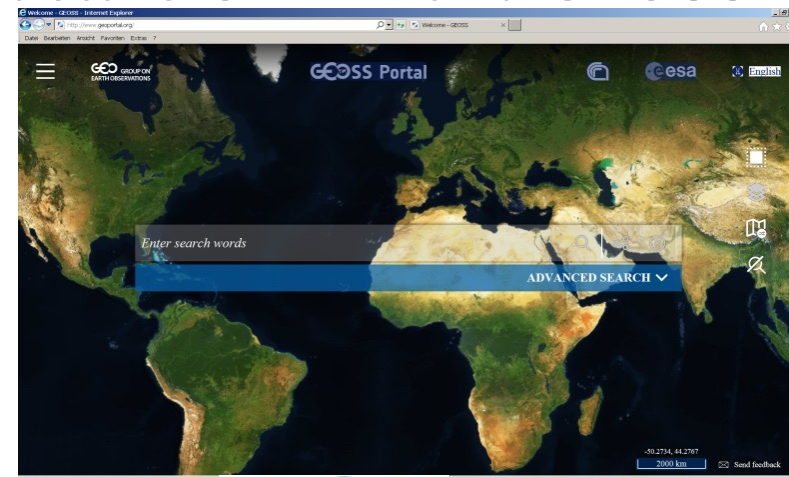
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D-GEO

# Connecting the German Data Infrastructure GDI-DE and GEOSS

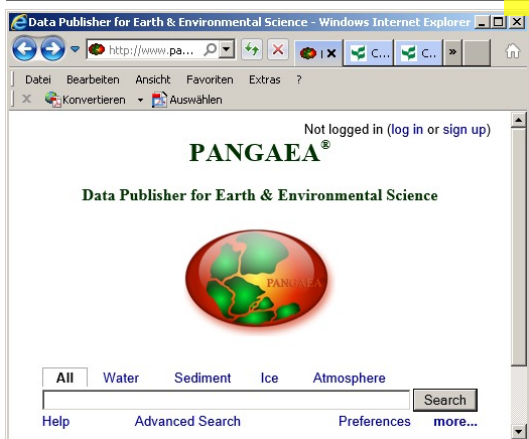
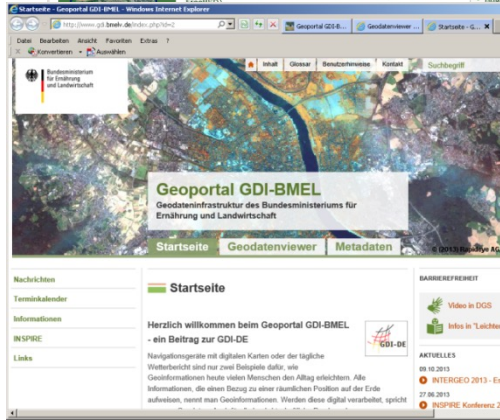
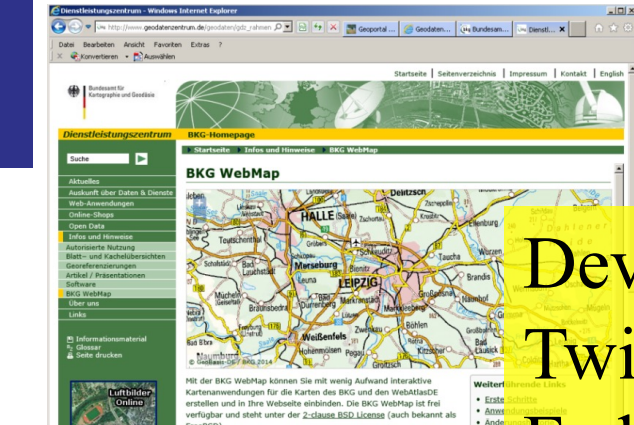


Schienenwege, Hochwassergefährdung

Landschaften

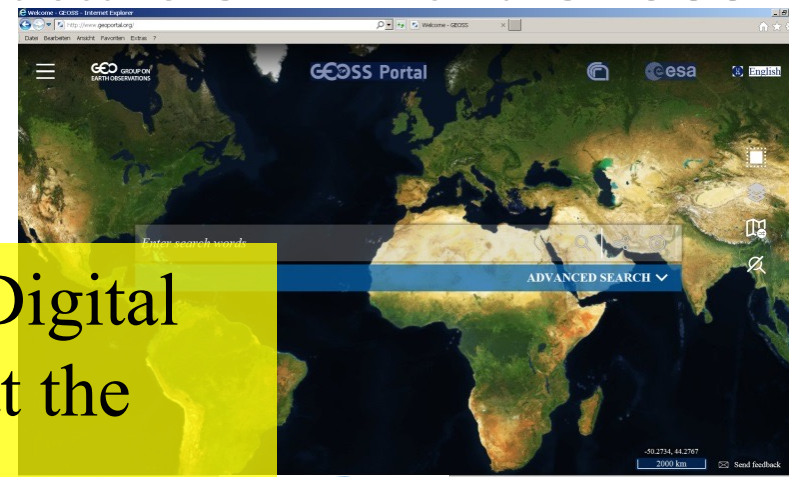


# Connecting the German Data Infrastructure GDI-DE and GEOSS



Development of a Digital Twin of Germany at the Federal Agency of Cartography and Geodesy

➤ Presentation by Patrick Knöfel in Special Session on digital twins





# Contributions to GEO Activities

- **Participation in GEO Programme Board, ExCom (2024/25), GEO WGs**
- **Contributions to GEO Flagships**
  - GIZ hosts the GEO-LDN Secretariat and leads one of three sub-groups together with UNCCD
  - Federal Ministry of Food and Agriculture (BMEL) supports program coordination and a strategy for sustained operations of GEOGLAM
  - Geoscience Institute GFZ hosts GFOI programme office for R&I activities (funded by ESA)
  - iDiv Institute hosts GEOBON Essential Biodiversity Variables (EBV) portal
- **Other contributions**
  - Federal Institute for Hydrology hosts several international data centers (GRDC, ISMN, GEMS)
  - AWI leads ArcticPASSION (Hor2020 project) related to ArcticGEOSS
  - GEOMAR co-chairs GOOS
  - DLR participates in CEOS and its WGs
  - etc.

*Thank you for your attention!*

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# Recommendations of the German Implementation Plan

- Building/expanding the national SDI
- Sustaining information and systems in the long term
- Implementing international standards, linking with GEOSS

***Technical foundations***

- 
- National coordination
  - Acting across disciplines and departments

***National Coordination***

- 
- Using modern EO nationally
  - Developing new EO applications
  - Establish more liberal data policies

***Support EO application***

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- Capacity Building
  - Tie national activities to GEO

***International activities***



# Working methods

- Flexible and open structure
  - Resourced secretariat
  - Annual workplans and reports, implementing the national plan
  - Three annual meetings at different host organizations
    - Pursuing annual workplans
    - Promoting GEO at host organization
    - Workshop with host organization on GEO opportunities
  - No dedicated programme funding – working/coordinating with research and development agencies and funding organizations
  - Close coordination with Copernicus and other programmes at European level
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