

# Data Spaces Symposium

InGeo-X: Building a horizontal  
dataspace for cross-sectoral  
access to geodata  
in Germany

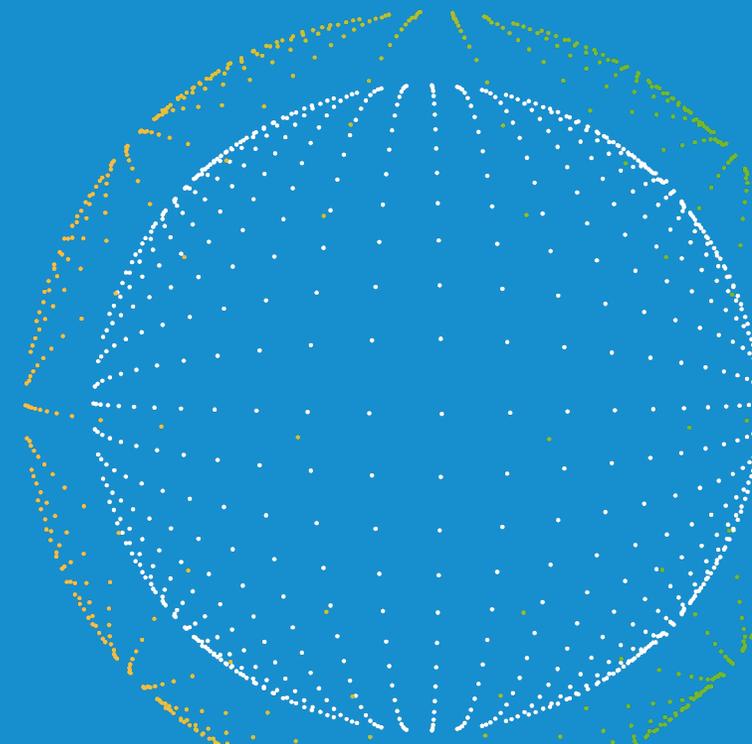
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Dr. Eva Klien

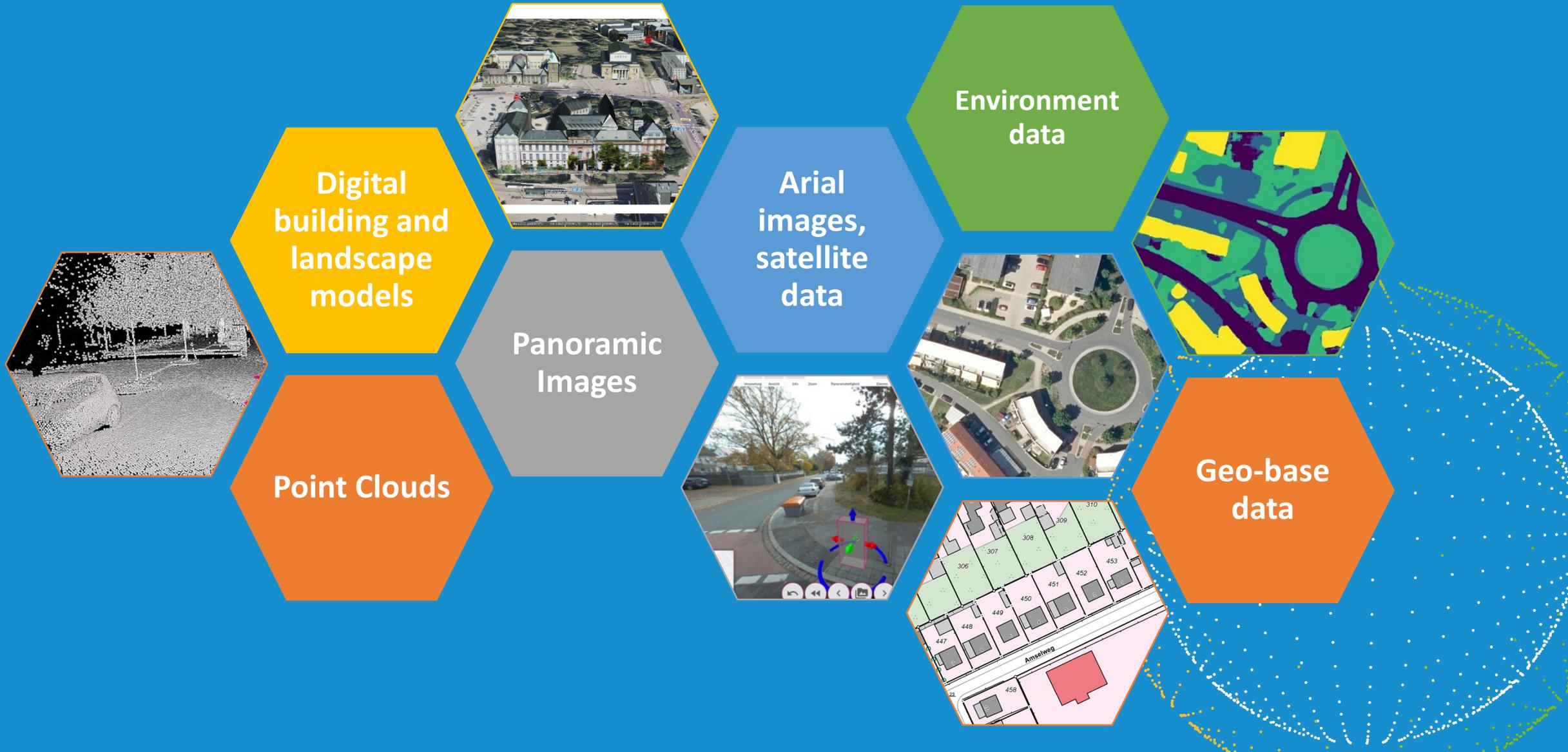


**1. Do we need a geodataspace?**

**2. Who are the users?**



# geodata

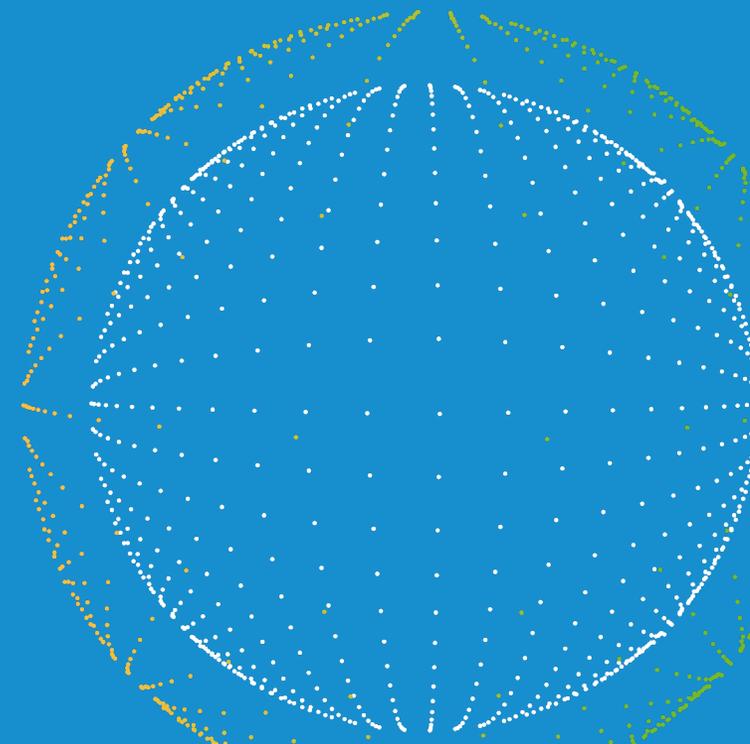


# data and services interoperability

- Open Geospatial Consortium (OGC) – since 1996
- Group on Earth Observation (GEO) – since 2005
- INSPIRE – European Spatial Data Infrastructure – since 2007

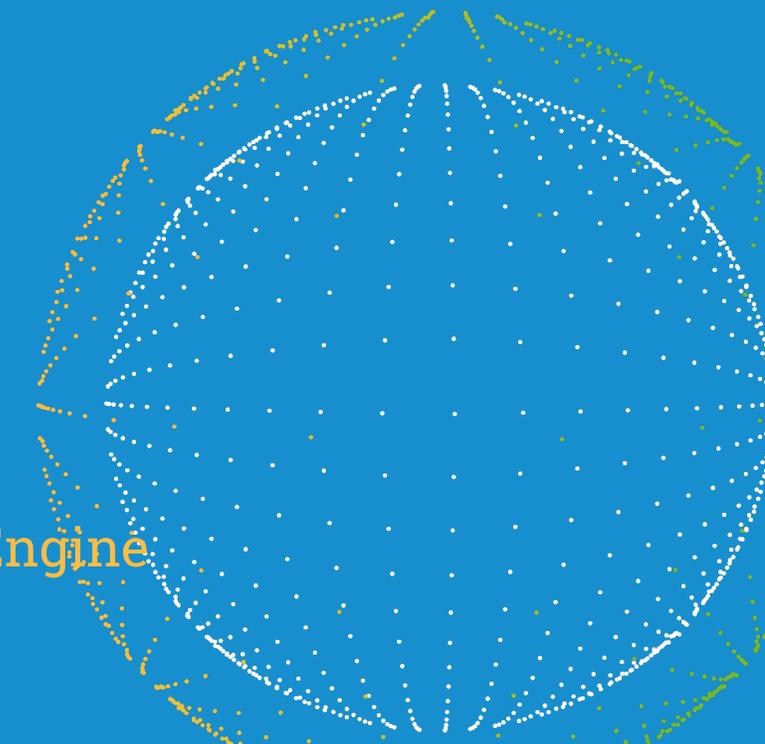
**OGC**<sup>®</sup>  
Making location count.

**GEO** GROUP ON  
EARTH OBSERVATIONS



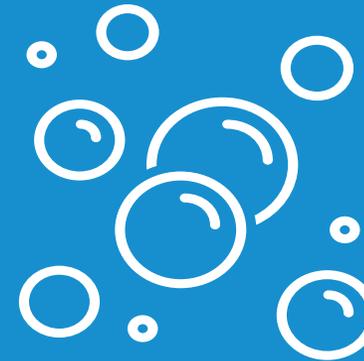
# open data and processing platforms

- **Public Geospatial Data**
  - Spatial Data Infrastructures
  - Open Data Portals
- **Satellite Data**
  - Copernicus Open Access Hubs
  - Copernicus Data Information and Access Services (DIAS)
- **Point Cloud Data**
  - AHN4 LiDAR data: Netherlands Current Height File
  - Digital Twin of Germany
- **Destination Earth (ESA, ECMWF, EUMETSAT)**
  - create a highly accurate digital model of Earth
  - Service platform, Data Lake, Digital Twins and Digital Twin Engine



# private / protectable geodata

- Exact location of critical infrastructure worthy of protection
- Exact location of plant and animal species worthy of protection
- Economic data, e.g. yield data in forestry and agriculture
- Benthic data for the approval of wind farms
- Data from measurement campaigns for geothermal energy
- Data on compensation areas
- Labeled training datasets for AI-models in the environmental sector



*Biodiversity  
monitoring*

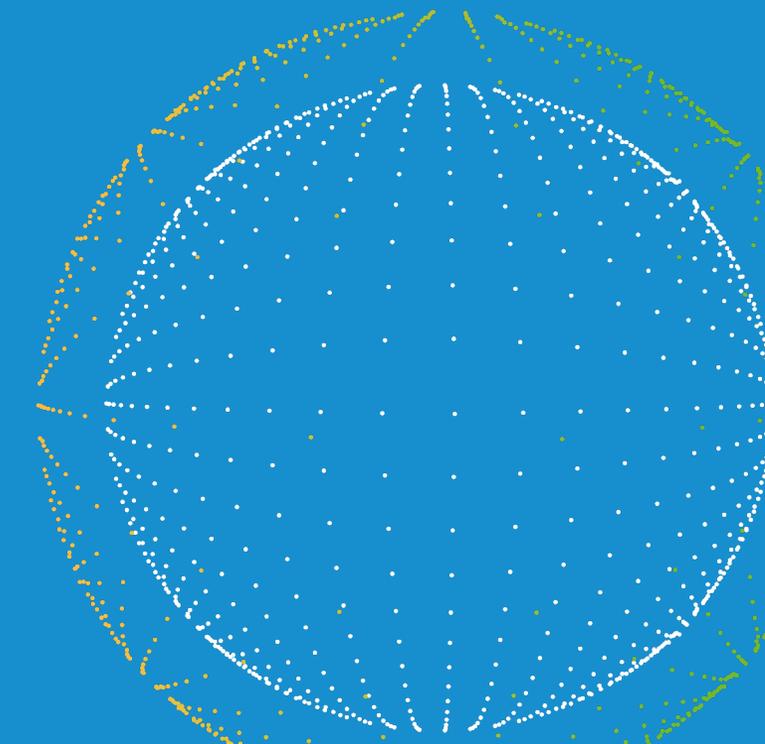
*Efficient planning of  
infrastructure for  
renewable energies*

*Heat protection  
planning in cities*

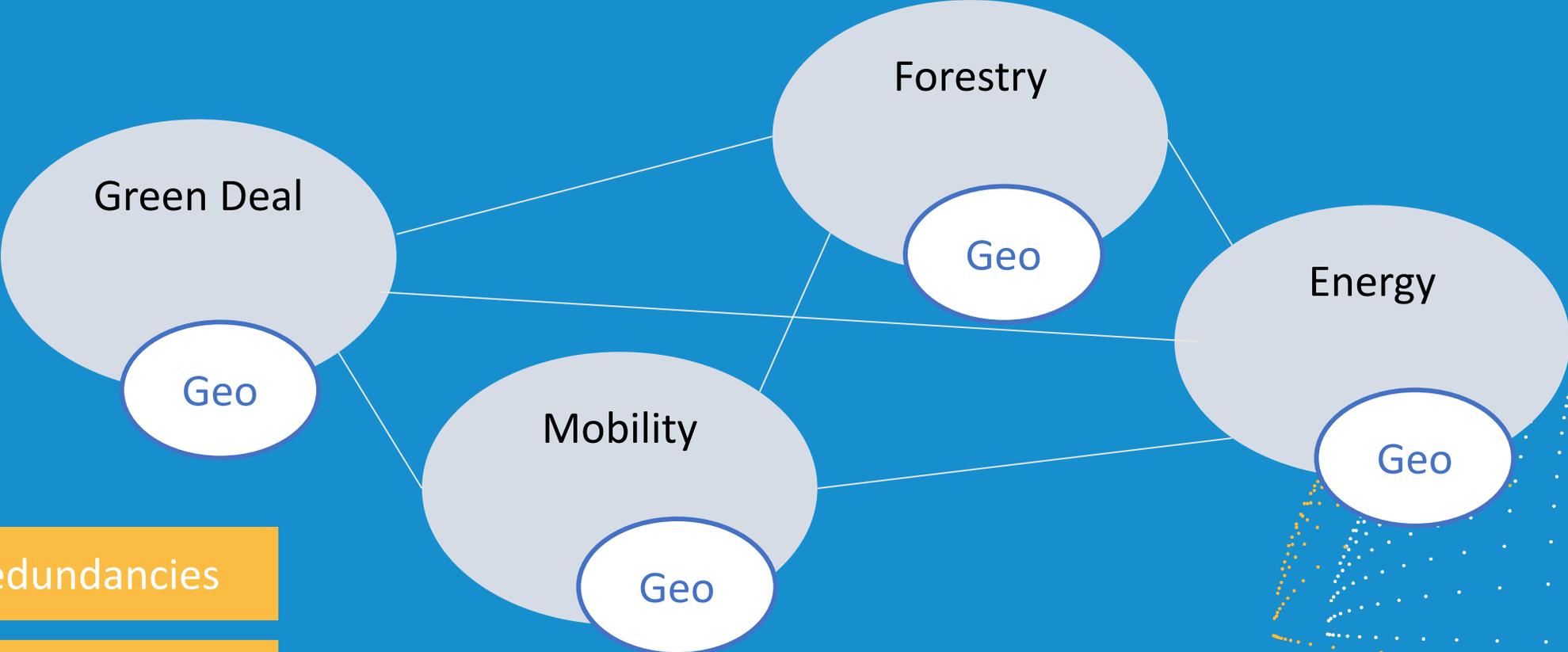
# do we need a geodataspace?

- Personal and safety-critical data can be used under controlled conditions
- Pooling of small data sets leads to better AI models
- Sovereignty at data and processing level

## who are the users?



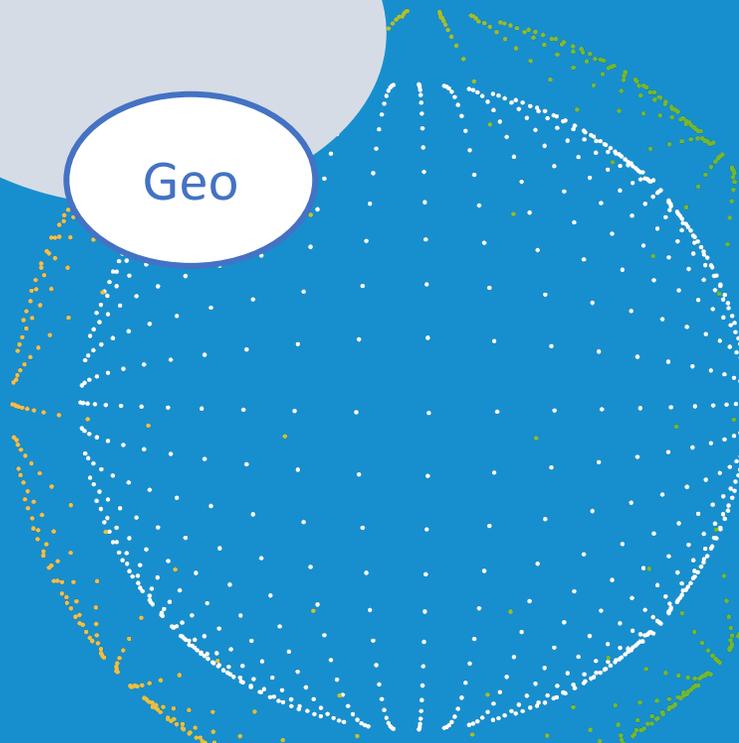
# domain dataspace



Redundancies

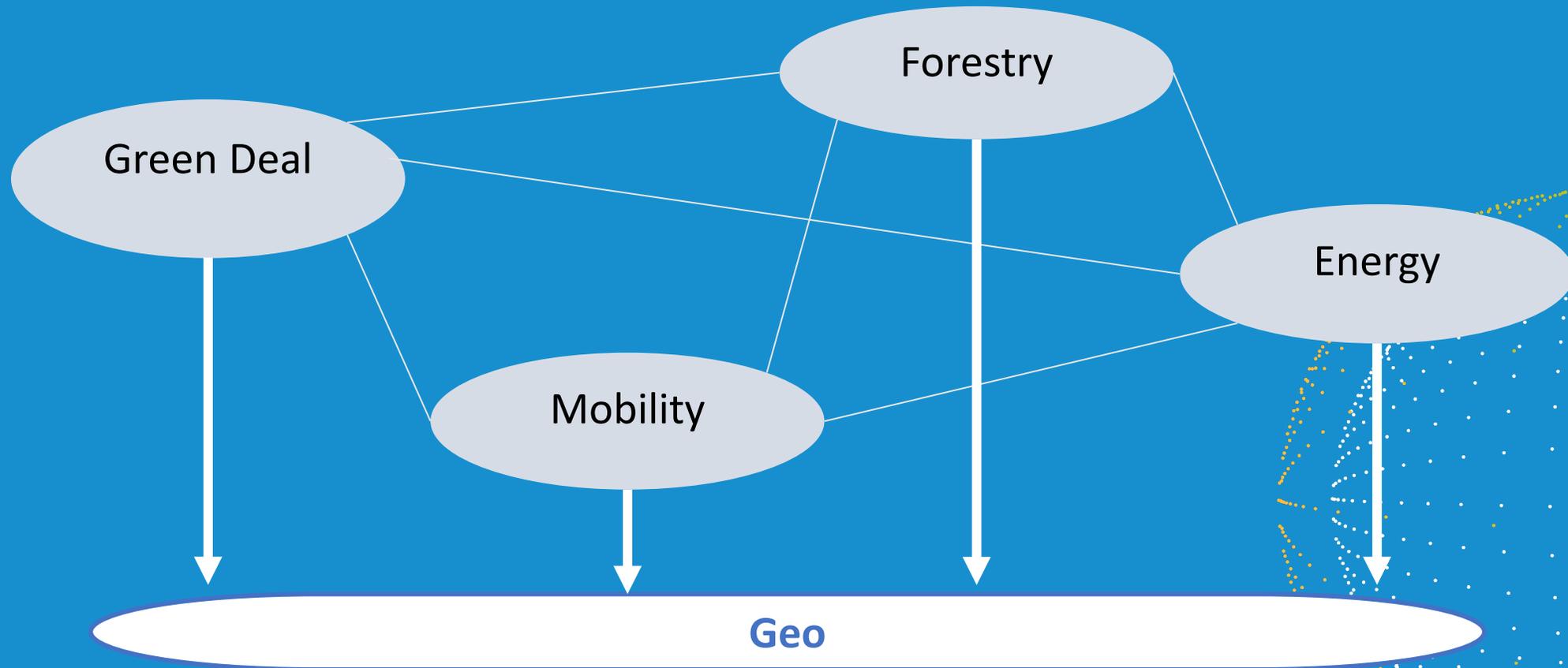
Incompatibility

Inefficiency



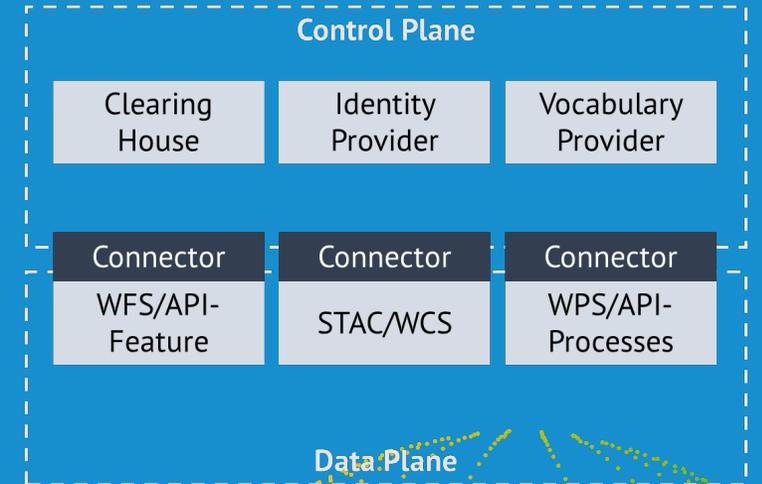
# horizontal geodataspace

Set up as a horizontal structure that is able to fulfil cross-domain data requirements



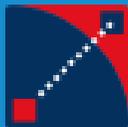
# InGeo-X roadmap

- Concretise approaches of GAIA-X and ISDA for geodata
- Identify intersections of small and large data spaces and offer solutions
- Testbed for trialling
- Define governance for certain data categories (e.g. procedure for anonymising location data of natural persons)
- Blueprint of a federated geodataspace incl. selection of standards for APIs and data
  - FutureForest
  - Soilwise
  - Marispace-X
  - .....



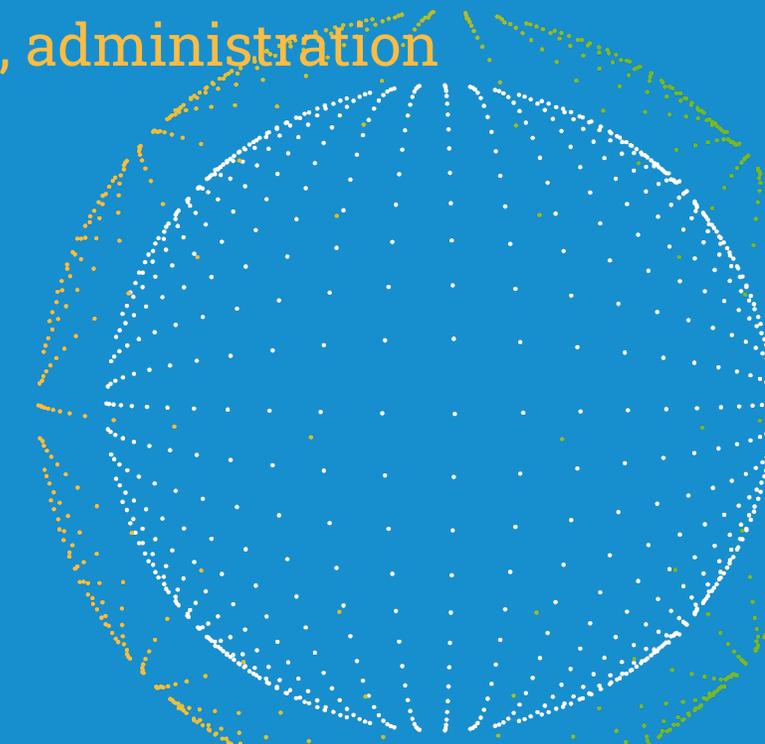
# InGeo-X as data trustee / intermediary

- is a recognised neutral institution and therefore meets the requirements of an intermediary/data trustee
- has an organisation that is trusted by its members (one of the key factors for setting up and operating successful data spaces)
- is well networked with the data providers that could contribute to the InGeo-X data space in Germany
- pools the expertise of member organisations from research, administration and industry at a technical and organisational level



InGeoForum

InGeoForum e.V. ([www.ingeoforum.de](http://www.ingeoforum.de))



# Thank you

InGeo-X is an initiative of the  
InGeoForum Network driven by

