



# HIFIS

HELMHOLTZ  
FEDERATED  
IT SERVICES

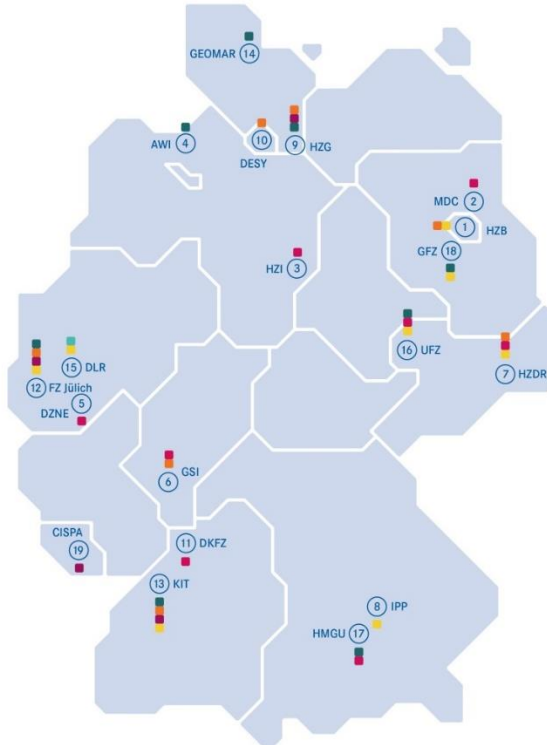
# CLOUD

## Explained.

Andreas Klotz  
Helmholtz-Zentrum Berlin



1. Berlin  
**Helmholtz-Zentrum Berlin für Materialien und Energie (HZB)**
2. Berlin-Buch  
**Max Delbrück Center for Molecular Medicine in the Helmholtz Association (MDC)**
3. Brunswick  
**Helmholtz Center for Infection Research (HZI)**
4. Bremerhaven  
**Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung (AWI)**
5. Bonn  
**German Center for Neurodegenerative Diseases (DZNE)**
6. Darmstadt  
**GSI Helmholtz Center for Heavy Ion Research**
7. Dresden  
**Helmholtz Center Dresden Rossendorf (HZDR)**
8. Garching  
**Max Planck Institute for Plasma Physics (IPP) (Associate Member)**
9. Geesthacht  
**Helmholtz Center Geesthacht Center for Material and Coastal Research (HZG)**



10. Hamburg  
**Deutsches Elektronen-Synchrotron DESY**
11. Heidelberg  
**German Cancer Research Center (DKFZ)**
12. Jülich  
**Forschungszentrum Jülich (FZ Jülich)**
13. Karlsruhe  
**Karlsruhe Institute of Technology (KIT)**
14. Kiel  
**GEOMAR Helmholtz Center for Ocean Research Kiel**
15. Cologne  
**German Aerospace Center (DLR)**
16. Leipzig  
**Helmholtz Center for Environmental Research – UFZ**
17. Munich  
**Helmholtz Center Munich – German Research Center for Health and the Environment (HMGU)**
18. Potsdam  
**Helmholtz Center Potsdam German Research Center for Geosciences GFZ**
19. Saarbrücken  
**Helmholtz Center for Information Security – CISPA**

## Helmholtz Incubator

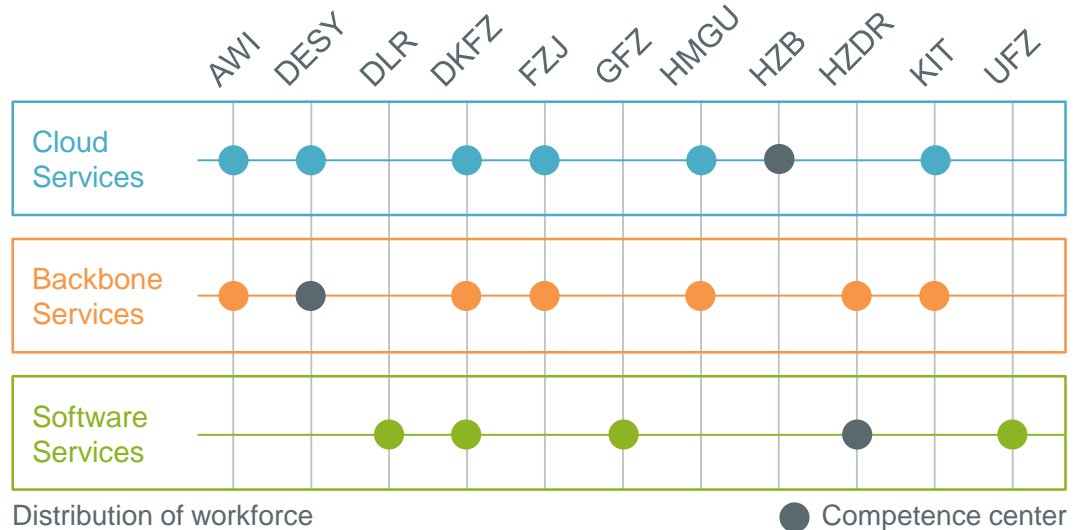


### Creating Synergies

- Combine existing expertise
- Integrating existing services of common interest
- Using local solutions, distributed at centers

### Growing together

- Federation of Helmholtz compute centers



### Education & Training

- Basic Courses
- Advanced Courses
- Workshops
- Hackathons
- Guidelines & Handouts



### Technology

- Development & Test Infrastructure
- Repository
- Publication Service
- Project Management



### Consulting

- SW Architecture
- Usability
- Licensing
- Code Review
- SW Engineering



### Community

- Exchange Network
- Communities for  
Scientific Domains  
Organizations  
SW Technology



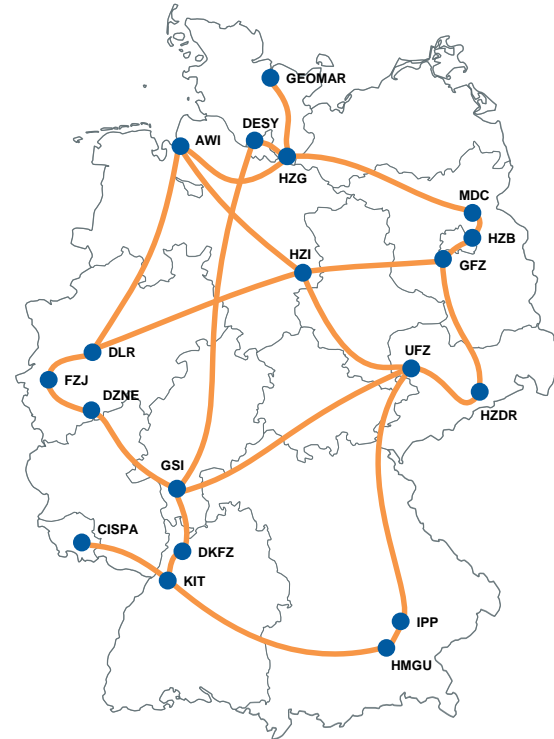
## Backbone Services

### Physical Layer

- Helmholtz VPN

### Services

- Trust and Security
- Compatibility, nationally and internationally
- Common Authentication and Authorization Infrastructure (AAI)
- Backup and data transfer services
- Operational Services



## Cloud Services

### Infrastructure Services

- On demand Cloud Storage
- Cloud Computing



### Scientific Services

- Experiment Frameworks
- Data and Software Repositories
- Analysis Pipelines
- Simulation & Visualisation

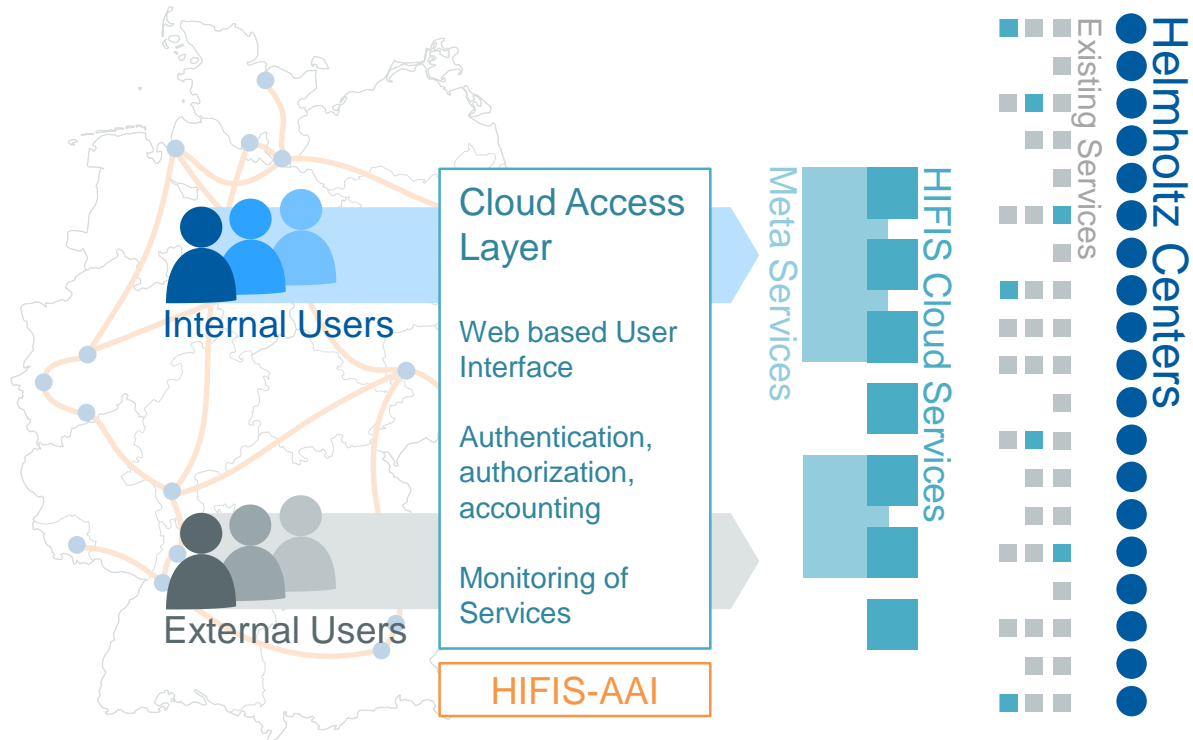


### Collaborative Services

- Sync&Share
- Tools



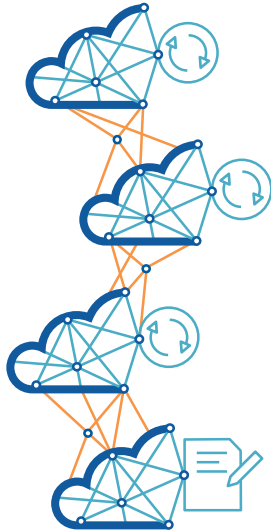
## Cloud Services



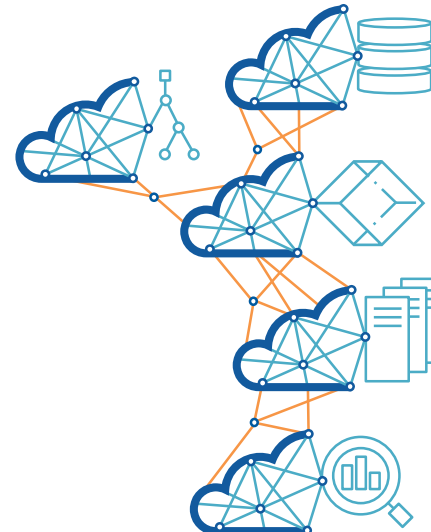


## Why Mesh

Mesh of Sync&Share and Collaboration



Mesh for Scientific Workflows



## Current Progress

### Recruiting

- Ongoing

### Service Survey

- First round finished, second round in preparation

### Legal Framework

- Work in progress

### Technical implementation

- Starting this year

# HIFIS

Thank you.

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<https://www.hifis.net>

HZB HIFIS Cloud Team Management

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