

Anbindung und Vernetzung verteilter heterogener Forschungsdaten – das Projekt GeRDI

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Worum geht's?

- Verteilte heterogene Forschungsdaten
- Anbindung
- Vernetzung
- Das Projekt GeRDI

Verteilte heterogene Forschungsdaten...



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https://www.flickr.com/photos/foto_db/14237129160

Verteilte heterogene Forschungsdaten

- Forschungsdaten sind keine Erfindung von Infrastruktureinrichtungen oder Forschungsförderern, sondern beruhen auf langjähriger Praxis und (teilweise) etablierten Strukturen
- ...mitunter hochspezielle Fachanwendungen, mit denen Daten produziert und verarbeitet werden
- ...die größtenteils (auch) auf lokalen Festplatten lagern

DAFFViewer

File Edit Content Settings About

DAFF Reader

File name: Trumpet1.v17.ms.daff
Version: 170
Content type: Magnitude spectrum

DAFF Metadata

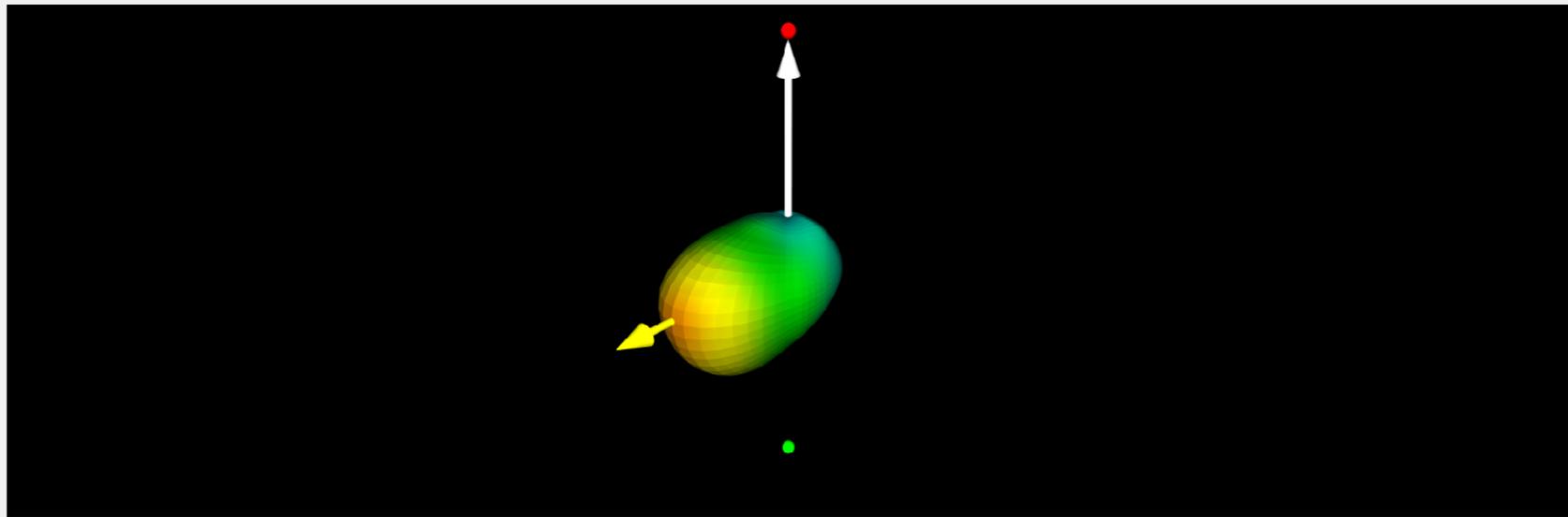
Name	Value	Type
CONVERTER	Converted from DAFF version 1.5	String
DATE OF CONVERSION	22-Jun-2016	String
SESSION	Tobias Lentz directivity measurements	String

DAFF Properties

Name	Value
Number of channels	1
Number of records	2522
Quantization	24-bit signed integer
Alpha points	72

DAFF Content

Name	Value
Number of frequencies	31
Frequency range	20 Hz - 20000 Hz
Overall maximum magnitude	1



User view

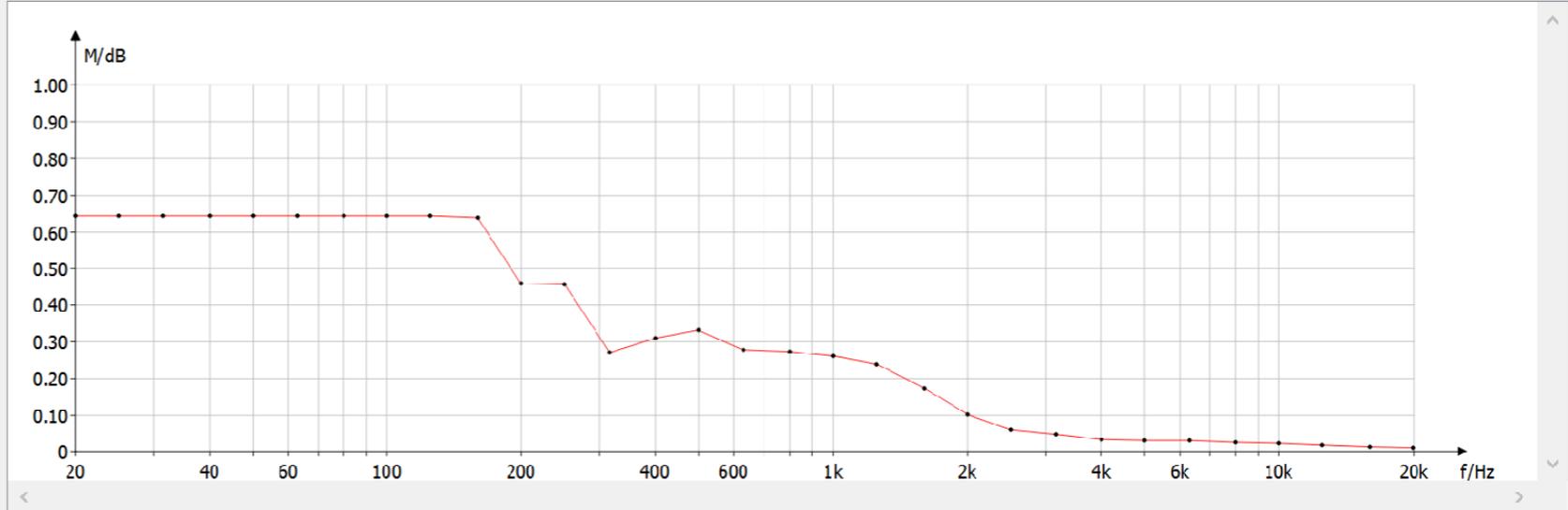
Phi: -130,0 °
Theta: -20,0 °

Data view

Alpha: 230,0 °
Beta: 70,0 °
Index: 983

Frequency

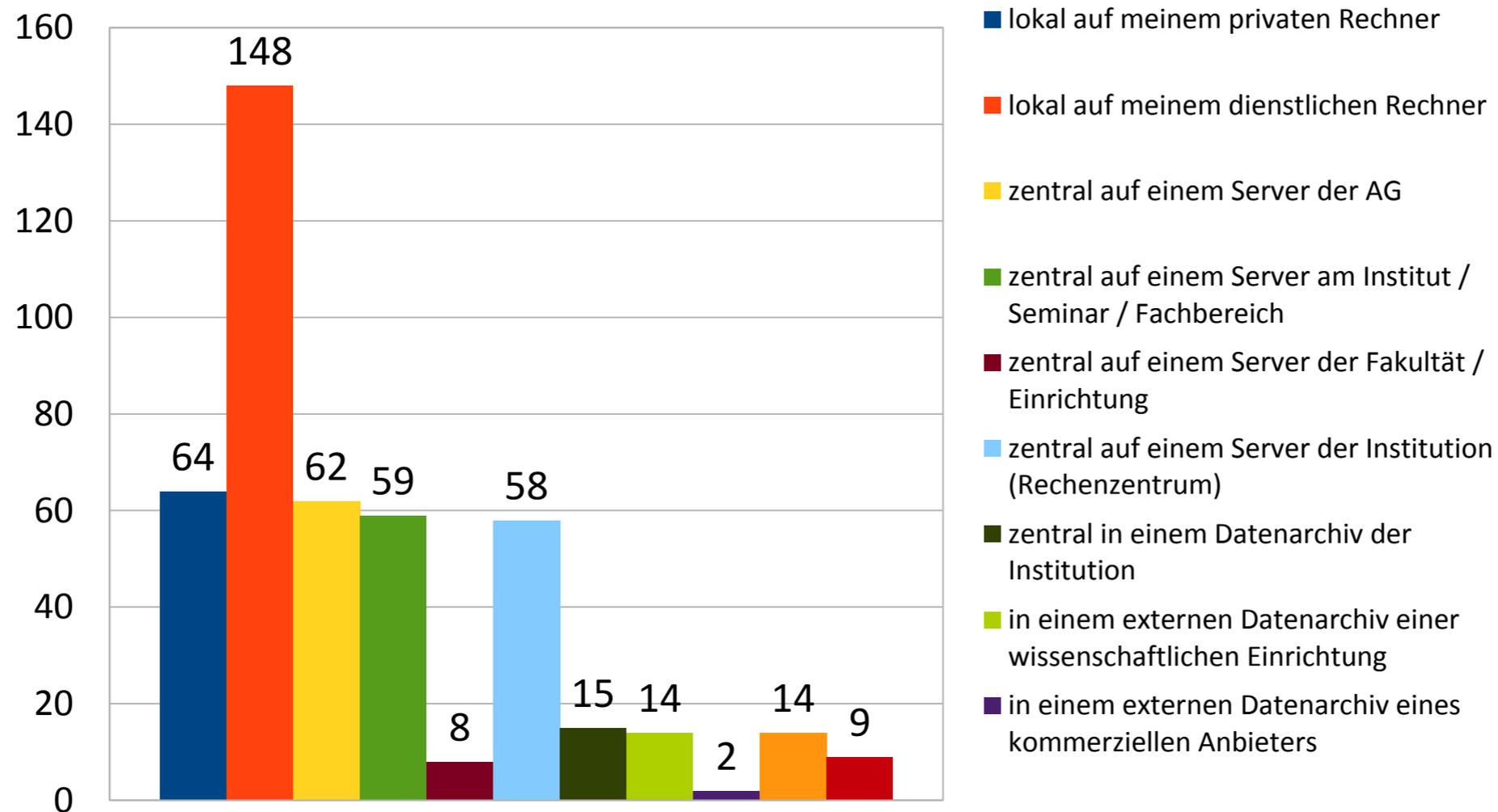
Channel: 0
Index: 17
Frequency: 1000 Hz



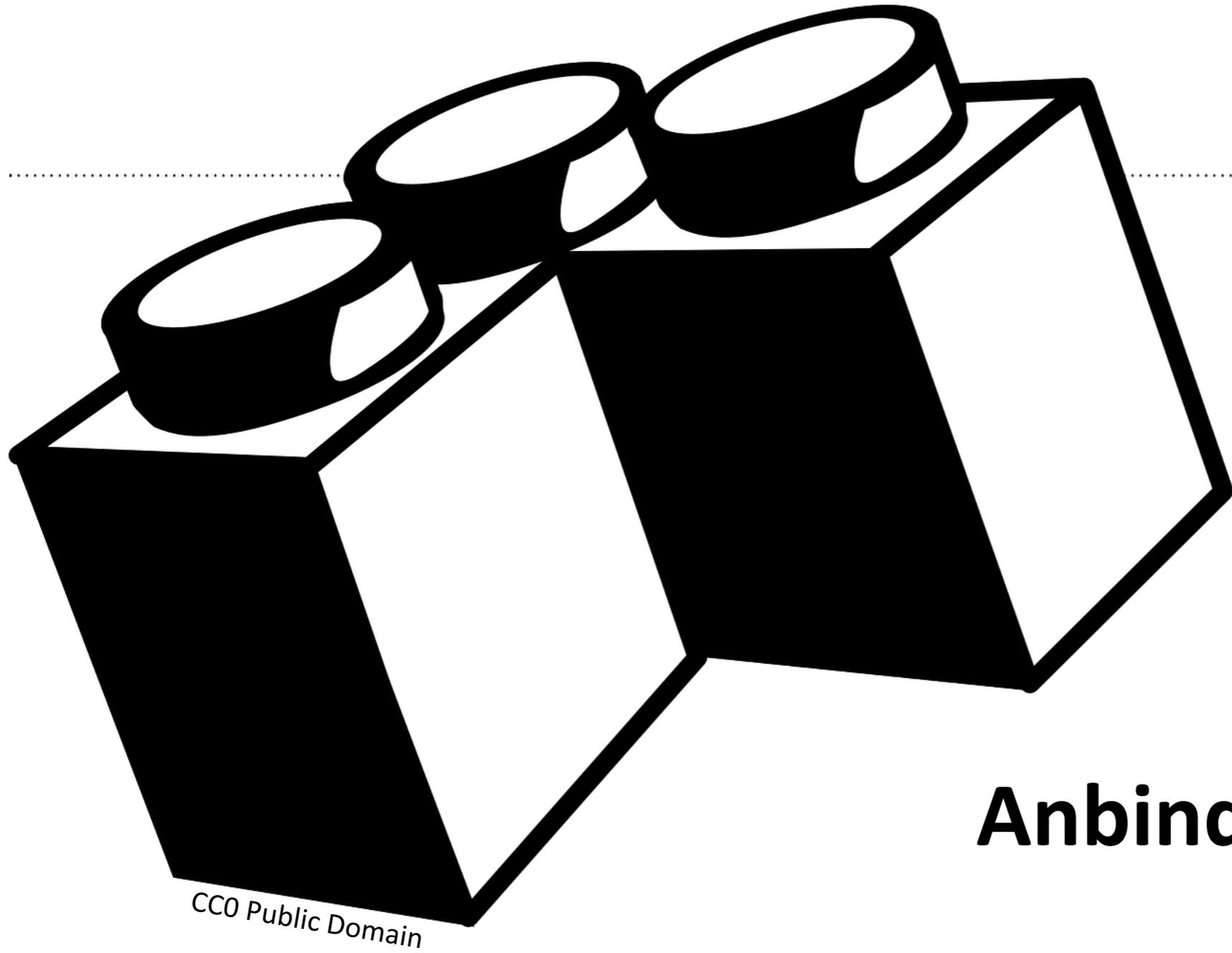
DAFF file 'Trumpet1.v17.ms.daff' successfully loaded.

Verteilte Forschungsdaten

Speicherorte



T. Paul-Stüve / G. Rasch / S. Lorenz: Ergebnisse der Umfrage zum Umgang mit digitalen Forschungsdaten an der Christian-Albrechts-Universität zu Kiel (2014)



Anbindung...

Anbindung

- ...meint grundsätzlich die Integration von Forschungsdaten in ein übergreifendes Netzwerk, so dass sie hierüber sichtbar und zugänglich gemacht, ferner dann bei Bedarf auch mit fachspezifischen Programmen verarbeitet werden können
- Ggf. Zwischenspeicherung der Daten
- Metadatenmanagement: (regelmäßiges) Harvesting, zentraler Suchindex
- Organisatorisch: Registrierung neuer Datengeber („Onboarding“)

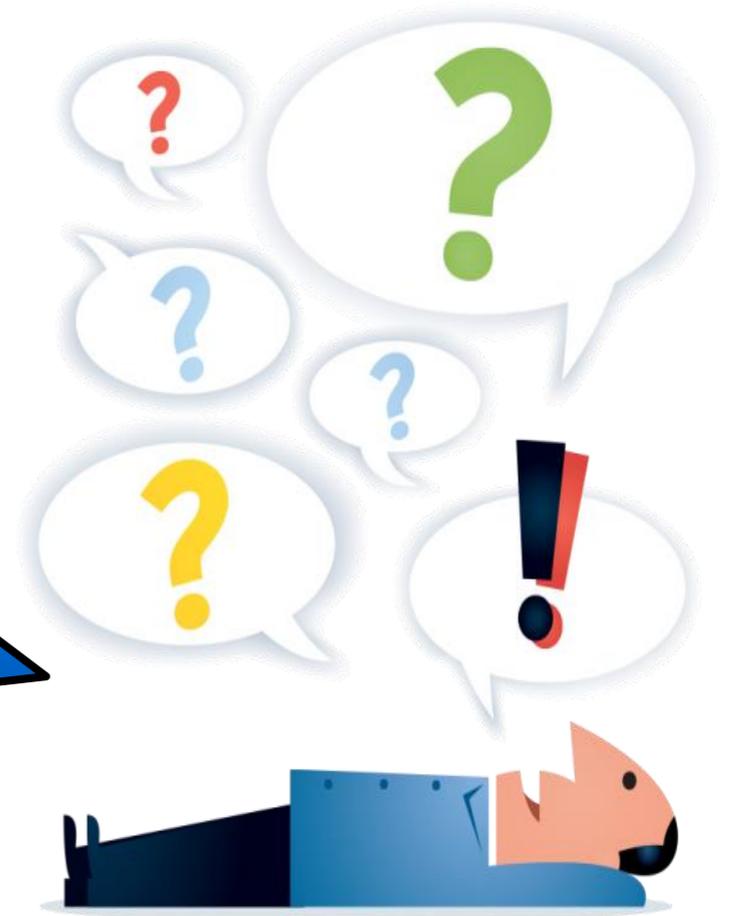
Vernetzung...

Vernetzung

- Maßnahme: Infrastruktur zum Bereitstellen, Veröffentlichen und Teilen von FD
- Ziel aus Sicht der Fachwissenschaften: trans- oder interdisziplinäre Forschungsfragen bearbeiten zu können
- Im Wesentlichen durch Metadatenmanagement:
 - standardisierte Schemata
 - interoperable Beschreibungen
 - Erschließung auf Variablenebene
 - gemeinsamer raum-zeitlicher Bezug
- Geeignetes Suchinterface, Infrastrukturen für Registrierung und (Meta-)Datenaustausch

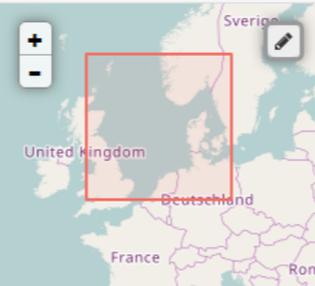
Vernetzung: Forschung wird disziplinenübergreifend

„In welchem Zusammenhang stehen die Regulierung von Fischfang und die Fischpreisentwicklung bei Nordseearten?“



Home / Datasets

Filter by location [Clear](#)



Map data © OpenStreetMap contributors

Filter by time [Clear](#)

Start:

End:

Publication Year [Clear](#)

to

Communities ▼

Tags ▼

Creator ▼

Discipline ▼

Language ▼

10 datasets found for "fishery" Order by:

- Swedish Board of Fisheries (Fiskeriverket) - Swedish Electrofishing Registry**

Observations done by the Swedish Electrofishing Registry (from the Swedish Board of Fisheries). The Swedish Museum of Natural History (NRM)
- Swedish Board of Fisheries (Fiskeriverket) - Institute of Coastal Research**

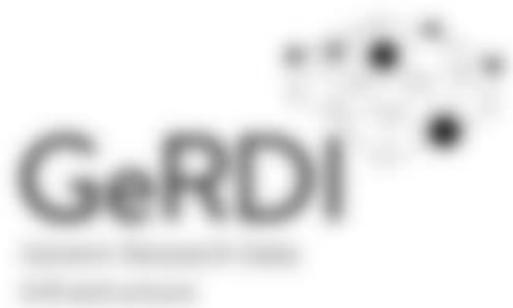
Observations done by the Institute of Coastal Research (from the Swedish Board of Fisheries). The Swedish Museum of Natural History (NRM)
- Integrated Science Data Management (ISDM) - Fisheries and Ocean Canada**

Data management, archival and dissemination of physical oceanographic data and data products are still a key component of ISDM mandate, however it has since been broadened to...
- Swedish Board of Fisheries (Fiskeriverket) - National Register of Survey test...**

Observations done by the National Register of Survey testfishing (from the Swedish Board of Fisheries) The Swedish Museum of Natural History (NRM)
- North Pacific Groundfish Observer (North Pacific Research Board)**

North Pacific Groundfish Observer Program: Database Description The Observer Program database consists of fish, invertebrate, and marine mammal observations collected by fishery...
- Histroical benthic dredge samples from the southern baltic and the North Sea ...**

Histroical benthic dredge samples from the southern baltic and the North Sea. They dataset was digitilised



GeRDI

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About GeRDI

The GeRDI project deals with the development of a German Research Data Infrastructure (GeRDI). The aim is to enable all researchers in the country, especially those who have only small amounts of data, to store their data in an open research data access platform.

Das Projekt GeRDI

In a second phase, the developed solution can be rolled out as a national and - if appropriate funding will be available - serve as a model for other European Research Data Infrastructures. In particular, GeRDI will be able to support universities and research institutions in providing an open data, in linking up their existing data stores and in establishing new research data stores.

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GeRDI provides the data of the European Open Science Cloud, which enables research efforts to implement infrastructure for research data management and linking them to any further.

Generic Research Data Infrastructure



<http://www.gerdi-project.de/>

Gefördert durch die DFG seit Nov. 2016 für drei Jahre

Infrastruktureinrichtungen



GeRDI



Fachgemeinschaften

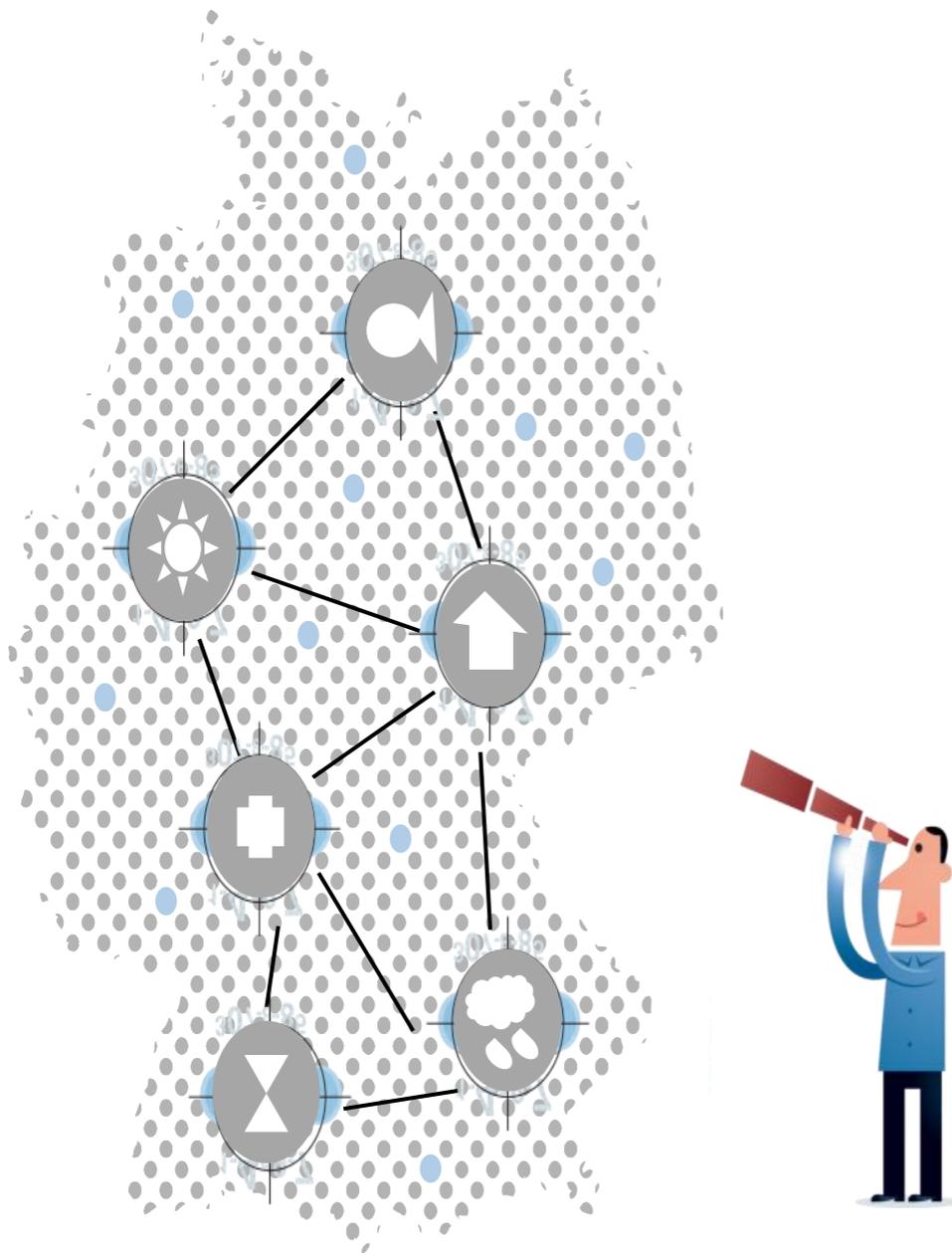
Environmental,
Resource and
Ecological
Economics



Chair of Hydrology
and
River Basin
Management



Vernetzung von Repositorien unterschiedlicher Disziplinen



- Disziplinenübergreifendes Forschungsdatenmanagement
- Unterschiedliche Forschungscommunities
- Lebenszyklus von Forschungsdaten
- [Beitrag zur European Open Science Cloud](#) und zur Nationalen Forschungsdateninfrastruktur

<http://www.nature.com/news/don-t-let-europe-s-open-science-dream-drift-1.221179>

The screenshot shows the top of a Nature journal article page. The header includes the 'nature' logo, the tagline 'International weekly journal of science', and a search bar. Navigation links for 'Home', 'News & Comment', 'Research', 'Careers & Jobs', 'Current Issue', 'Archive', 'Audio & Video', and 'For Authors' are visible. Below the header, there are social media sharing options for E-alert, RSS, Facebook, and Twitter. The article title is 'Don't let Europe's open-science dream drift', with a sub-headline: 'Now that the major players have agreed to the giant European Open Science Cloud, it's time to get the project moving.' The date is '20 June 2017'. There are buttons for 'PDF' and 'Rights & Permissions'. A large image of a server room is partially visible. On the right side, there is a sidebar with a featured article 'Underwater threat' and a social media section for 'Science that matters' with a 'Like' button and a share count of 358k.

The European Commission has its critics, but no one can doubt it has ambitious plans. For example, by the year 2020, the commission says, all European researchers will be able to log in to an enormous virtual repository that will eventually provide access to the collective data from all publicly funded research. This European Open Science Cloud would be a safe, cheap and reliable way to store and access data, and getting to it would be as easy as signing into a Netflix account. It would also be a massive boon — encouraging interdisciplinary research and data reuse, reducing duplication and promoting reproducibility. Sounds more like a dream than a plan? Some scientists think so. Few even know the project exists.

Forschungsgemeinschaften

- Sozialwissenschaften
- Wirtschaftswissenschaften
- Medizinische Forschung
- Umweltwissenschaften
- Meereswissenschaften
- Geowissenschaften
- Geisteswissenschaften

Community
Partner



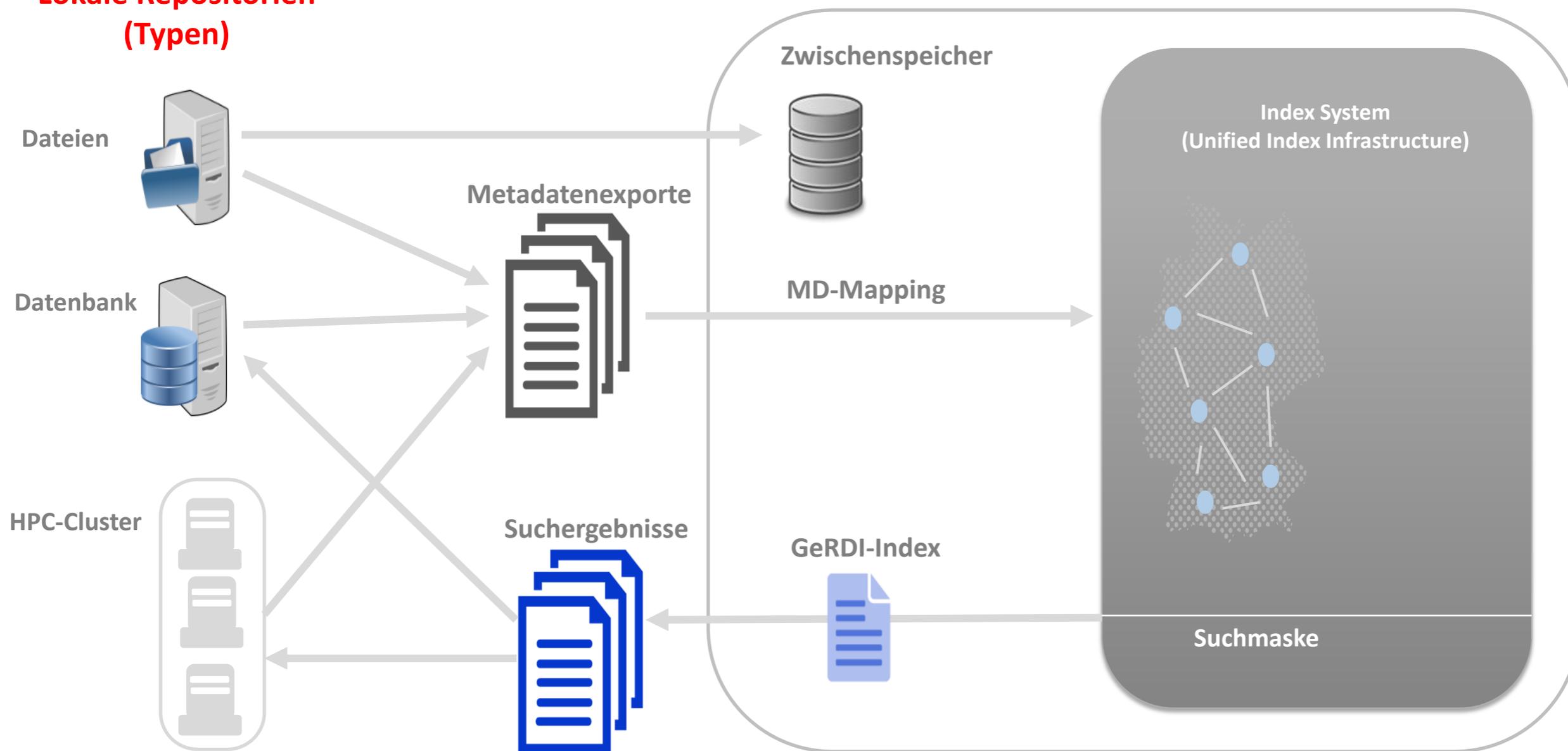
HIOS - Bavarian
Flashflood Map Hydrologie
und Fluss
gebietsmanagement, TUM



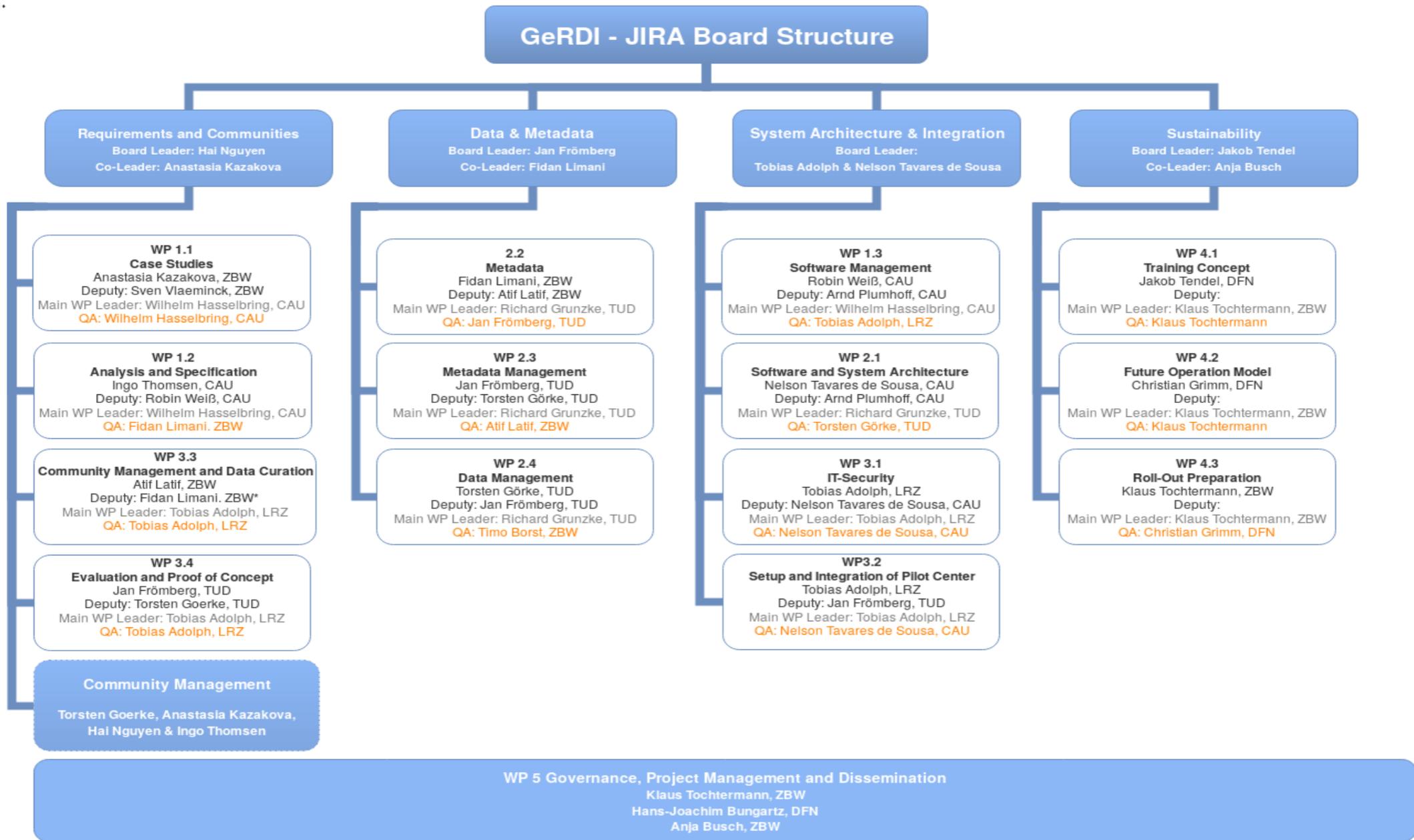
Architektur

Lokale Repositorien (Typen)

GeRDI-Dienste

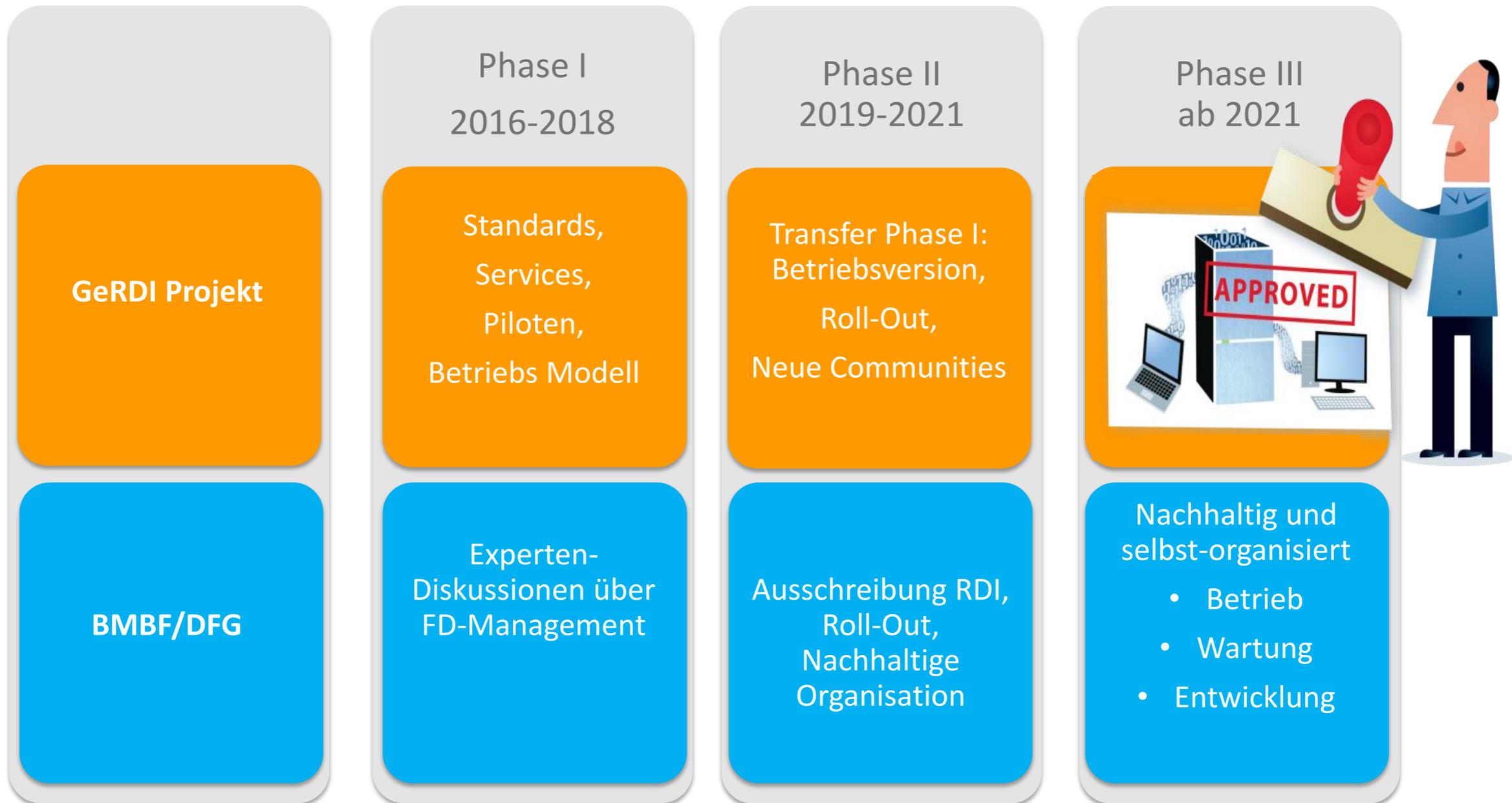


GeRDI -Arbeitspakete



* Substitute

GeRDI Ausblick





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 [@redsys](https://twitter.com/redsys)

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