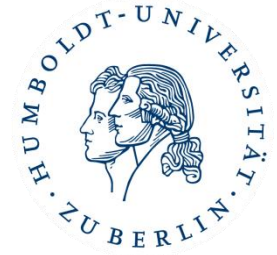


HUMBOLDT-UNIVERSITÄT ZU BERLIN



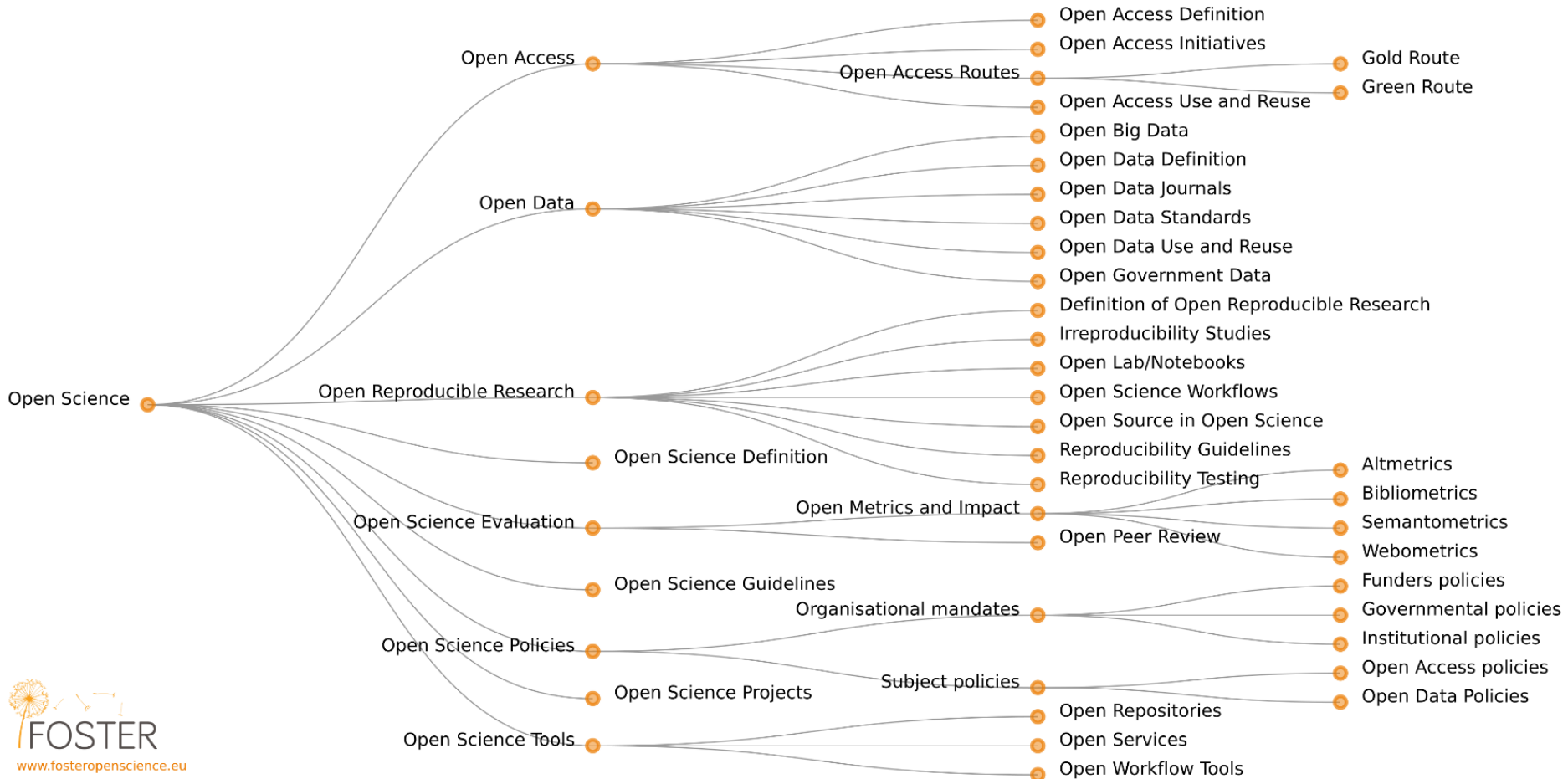
Open Science, Innovation und Nachhaltigkeit

Beispiele aus der HU

Malte Dreyer

Open Science Forum, 23.1.2018

Open Science Taxonomy



Nachhaltigkeit und Transparenz der Daten



**\$\$\$LOST: MY
ENTIRE THESIS**

**ONE BLACK RISD LOGO
BINDER FILLED WITH
NEGATIVES**

**TWO LACIE HARD DRIVES:
ONE ORANGE, ONE BLACK**

**REWARD: \$\$\$\$\$, ALL THE
ALCOHOL YOU CAN DRINK**






Altmetric: 2488 Citations: 63

[More detail >>](#)Perspective | [OPEN](#)

A manifesto for reproducible science

Marcus R. Munafò , Brian A. Nosek, Dorothy V. M. Bishop, Katherine S. Button, Christopher D. Chambers, Nathalie Percie du Sert, Uri Simonsohn, Eric-Jan Wagenmakers, Jennifer J. Ware & John P. A. Ioannidis

Nature Human Behaviour **1**,
Article number: 0021 (2017)
doi:10.1038/s41562-016-0021
[Download Citation](#)

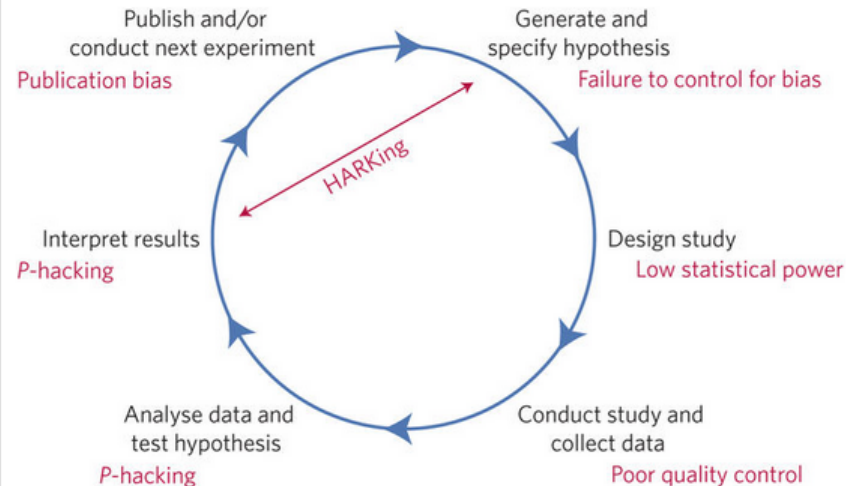
[Social sciences](#)

Published online: 10 January 2017

Abstract

Improving the reliability and efficiency of scientific research will increase the credibility of the published scientific literature and accelerate discovery. Here we argue for the adoption of measures to optimize key elements of the scientific process: methods, reporting and dissemination, reproducibility, evaluation and incentives. There is some evidence from both simulations and empirical studies supporting the likely effectiveness of these measures, but their broad adoption by researchers, institutions, funders and journals will require iterative

Figure 1: Threats to reproducible science.



An idealized version of the hypothetico-deductive model of the scientific method is shown. Various potential threats to this model exist (indicated in red), including lack of replication⁵, hypothesizing after the results are known (HARKing)⁷, poor study design, low statistical power², analytical flexibility⁵¹, P-hacking⁴, publication bias³ and lack of data sharing⁶. Together these will serve to undermine the robustness of published research, and may also impact on the ability of science to self-correct.

[Full size image >>](#)

Infrastruktur für die Wissenschaft



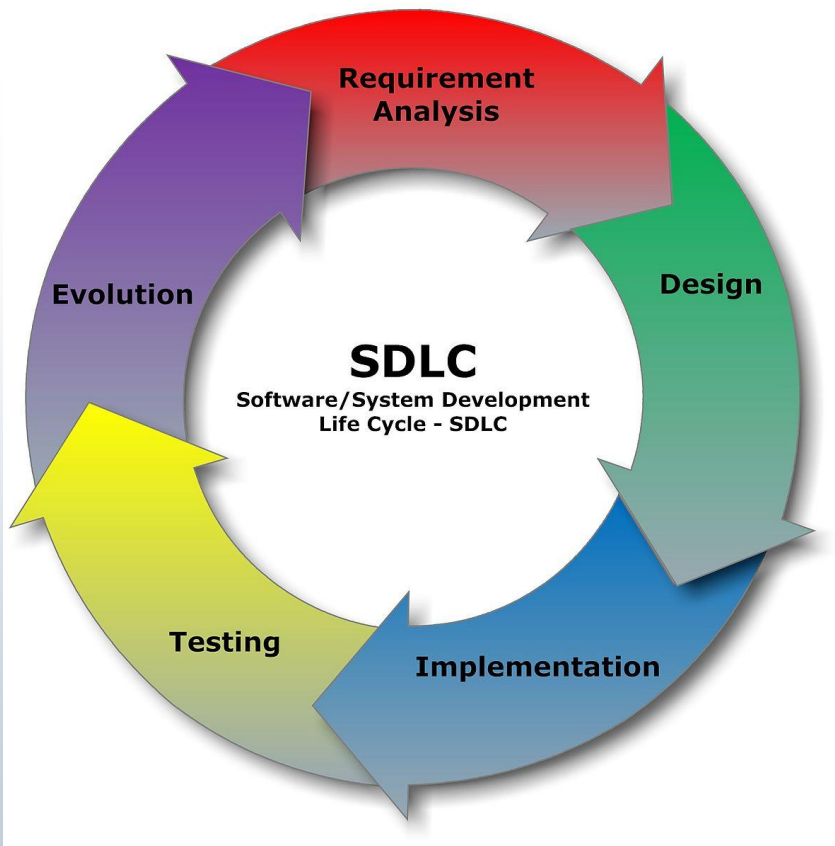
Forschungsschiff Sonne (1968-2014)

- 47 Jahre im Einsatz
- 3 größere Umbauten
- Winden und Kräne
- Sonar und Echolot
- 18 Labore

Serverraum (2011)

Digitale Forschungsinfrastruktur

Systeme, Software und Daten bilden eine Einheit



```
<?xml version="1.0" encoding="utf-8"?>
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:dc="http://purl.org/dc/elements/1.1/">
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    <dc:creator>Orwell, George,1903-1950.</dc:creator>
    <dc:type>text</dc:type>
    <dc:publisher>London, Secker and Warburg</dc:publisher>
    <dc:date>[1938]</dc:date>
    <dc:language>eng</dc:language>
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</rdf:RDF>
```

Seite wurde nicht gefunden

Die Verbindung mit dem Server `important-repository.university.de` schlug fehl.



Falls die Adresse korrekt ist, können Sie noch Folgendes versuchen:

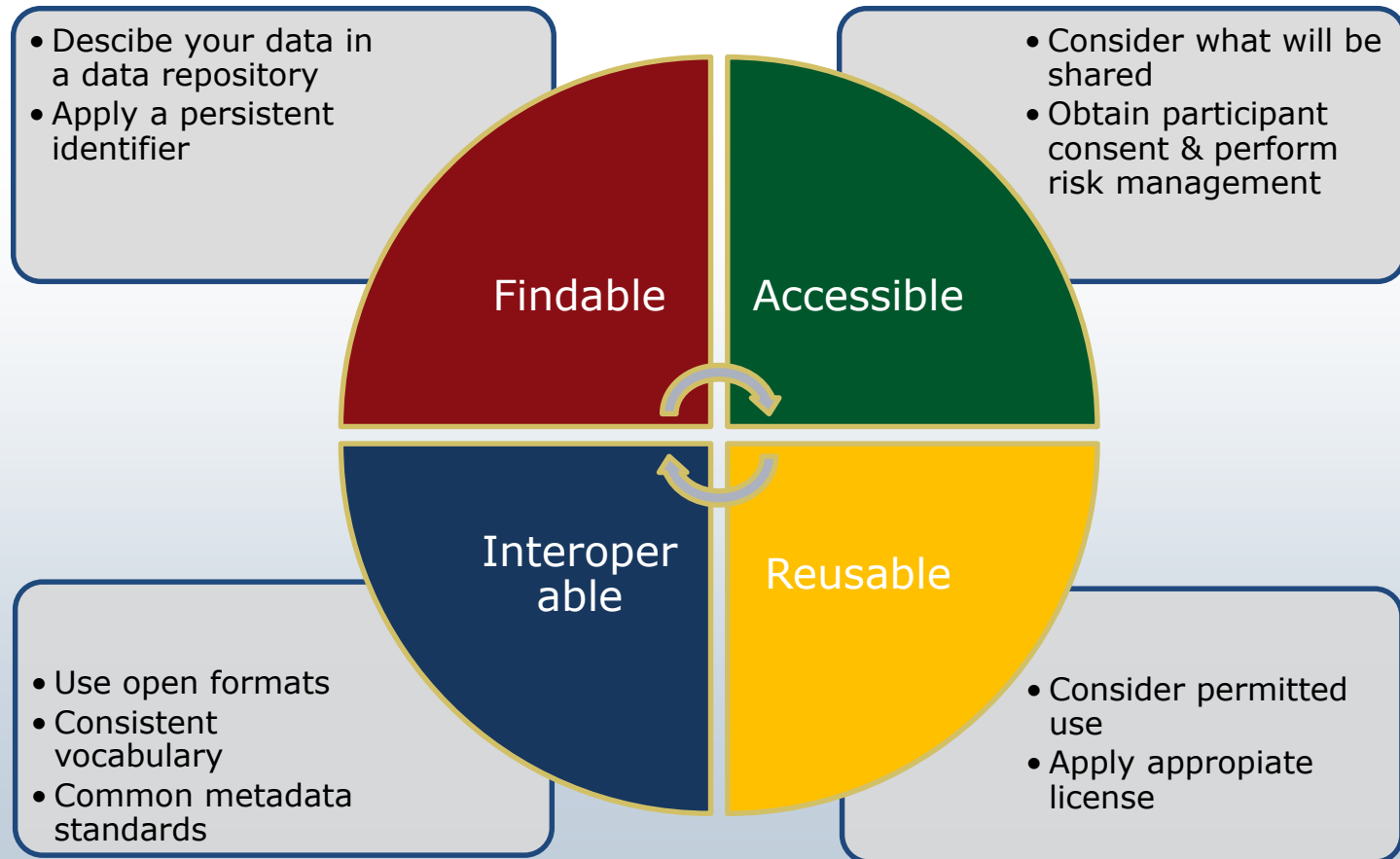
- Die Seite später noch einmal aufrufen.
- Die Netzwerkverbindung überprüfen.
- Falls der Computer sich hinter einer Firewall befindet, überprüfen Sie bitte, ob Firefox der Internetzugriff erlaubt wurde.

[Nochmals versuchen](#)

Der Google Graveyard: Nachhaltigkeit der Software

Name	Days of Operation	Name	Days of Operation
iGoogle	3.106	Google Friend Connect	1.400
Reader	2.824	Knol	1.377
Google Video	2.769	Google Code Search API	1.370
Google Desktop	2.539	Google Health	1.340
Google Bookmarks Lists	2.252	Places Directory app (Android)	1.308
Picasa for Linux	2.162	Google Maps API for Flash	1.206
Google Notebook	2.006	Wave	1.095
Google Sync for BlackBerry	1.858	Buzz	980
Image Labeller	1.827	Classic Plus	884
Google Pack	1.706	Google Listen	883
Google Answers	1.702	Google Sidewiki	803
Google Spreadsheet			
Gadgets	1.645	Fast Flip	730
EAS sync for Gmail	1.603	Google Search Timeline	640
Google Talk Chatback	1.589	Google News Badges	458
Jaiku	1.583	+1 Reporting for webmaster tools	458
Google Video for Business	1.521	Google One Pass	367
Google Adsense for Feeds	1.492	Google Aardvark	365
Google Gears	1.468	Google Lively	175
Google Apps for Teams	1.461		

FAIR data



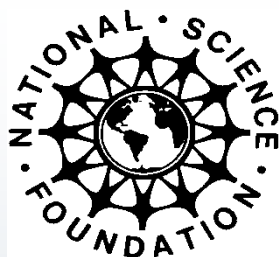
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http://www.dfg.de/foerderung/antragstellung_begutachtung_entscheidung/antragstellende/antragstellung/nachnutzung_forschungsdaten/



“[...] Horizon 2020 funded projects, projects must also aim to deposit the research data needed to validate the results presented in the deposited scientific publications, known as "underlying data". In order to effectively supply this data, projects need to consider at an early stage how they are going to manage and share the data [...]”

http://www.dfg.de/foerderung/antragstellung_begutachtung_entscheidung/antragstellende/antragstellung/nachnutzung_forschungsdaten/



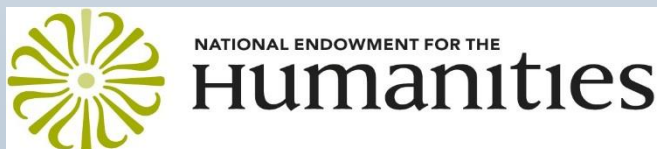
“Investigators are **expected to share** with other researchers, at no more than incremental cost and within a reasonable time, **the primary data, samples, physical collections and other supporting materials** created or gathered in the course of work under NSF grants”

http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/aag_6.jsp#VID4



“NIH expects the **timely release and sharing of data** to be no later than the acceptance for publication of the main findings from the final dataset”

http://grants.nih.gov/grants/policy/data_sharingdata_sharing_guidance.htm#time



“NEH is committed to **timely and rapid data distribution**”

http://www.neh.gov/files/grants/data_management_plans_2012.pdf



af, besta der züngling, mit hieß der vrent offen gefen,
 all halle der vrent vhan d' fimmillione.

kapuze nifufe
 von magolochi (Kafu).

Medien-Repository

Interview with Mr Caleb Bopape

← View all results



Resource tools

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Alternative files		
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Resource details

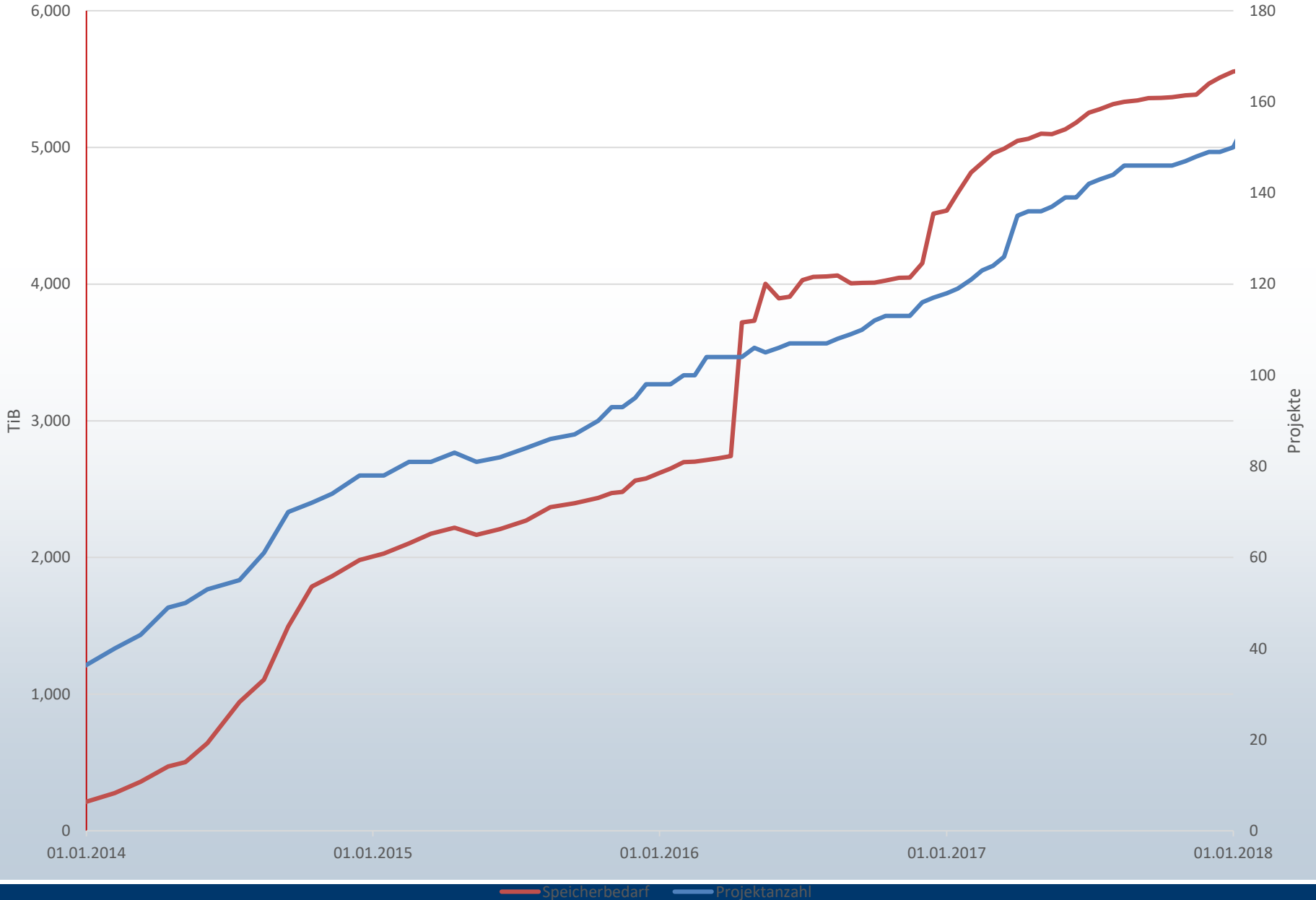
Resource ID 4320	Access Open	Category Footage, Field Research (Footage), 2014 (Footage)	Created by Dr Annekie Joubert	Length 00:02:13	Usage terms Creative Commons Namensnennung 4.0 International Lizenz
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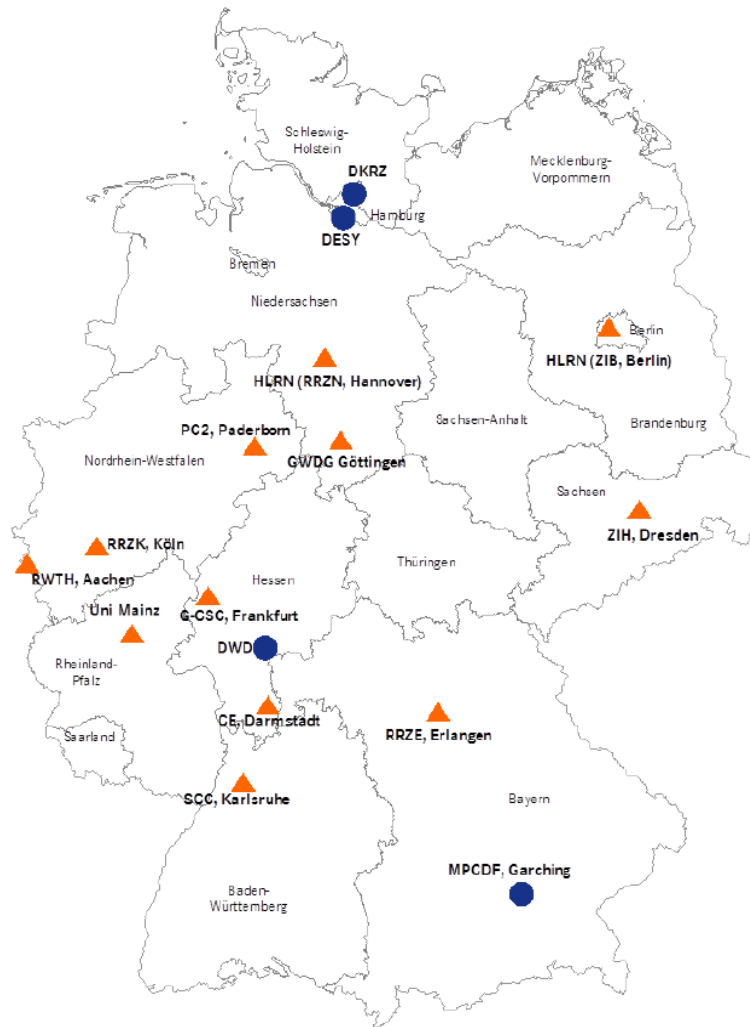


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Entwicklung des Medienrepositoriums an der HU



Struktur Nationales Hochleistungsrechnen



Tier 1: National
Tier 2: Regional
Tier 3: Lokal

Wünsche an eine NFDI

- Berücksichtigt die Fragen und Probleme vor Ort
 - Benötigt intensive Support-Strukturen
- Orientiert an „Open Science“
 - Betreibt einen offenen Prozess für neue Anforderungen
 - Hat ein offenes Beteiligungsmodell
 - Misst und zeigt die Nutzung ihrer Komponenten offen
 - Wird offen evaluiert



.....Fragen.....

malte.dreyer@cms.hu-berlin.de