

63rd ONLINE SEMINAR

The Charité Dashboard on Responsible and Open Research

February 16, 2022

Slides are published under

https://gfzpublic.gfz-potsdam.de/pubman/item/item_5009301

Charité Dashboard on Responsible and Open Research

Nico Riedel

Helmholtz Open Science Webinars

Webinar 63 – 16 February 2022

Slides are published under

https://gfzpublic.gfz-potsdam.de/pubman/item/item_5009301

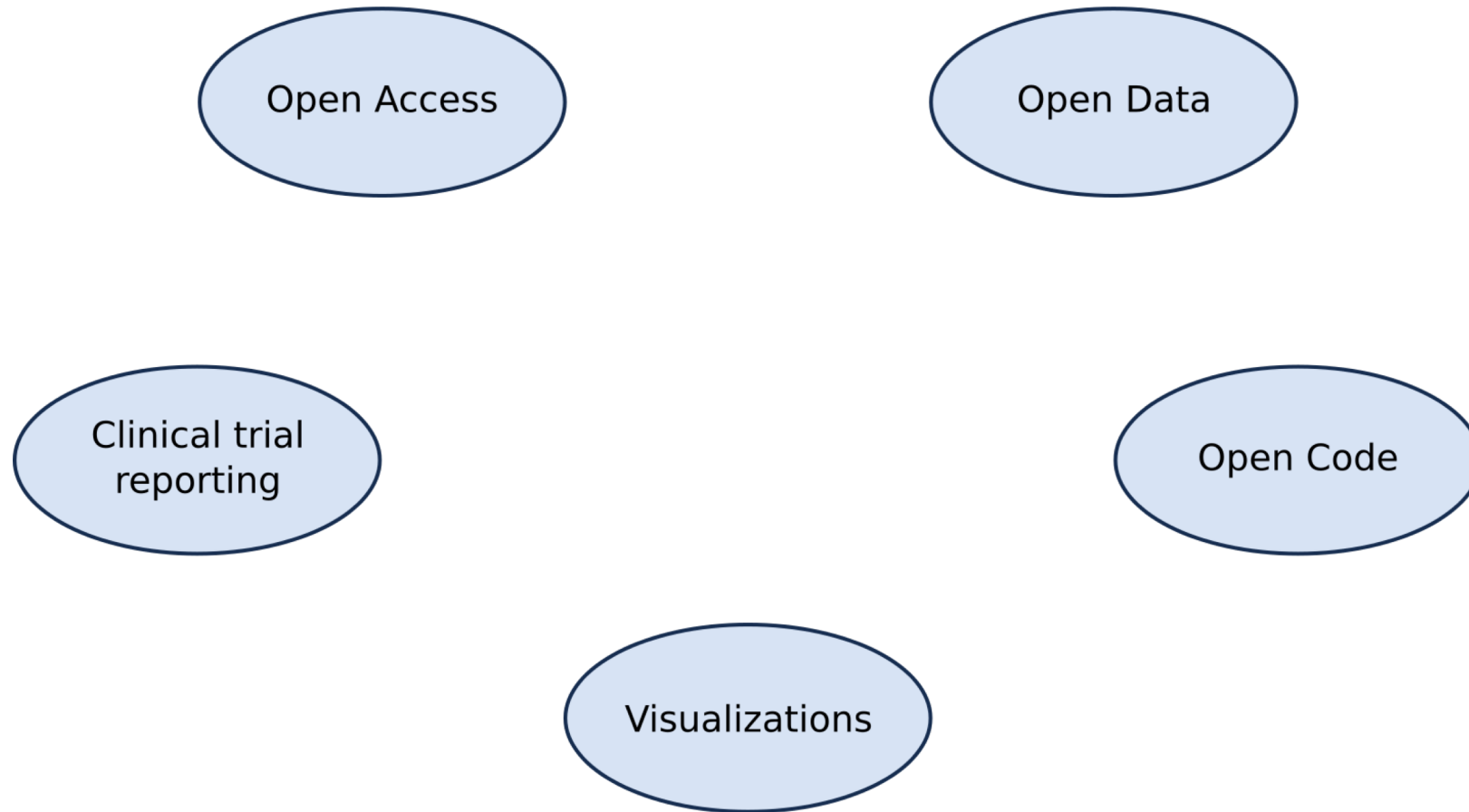
BIH QUEST
Center for Responsible Research

HELMHOLTZ
Open Science

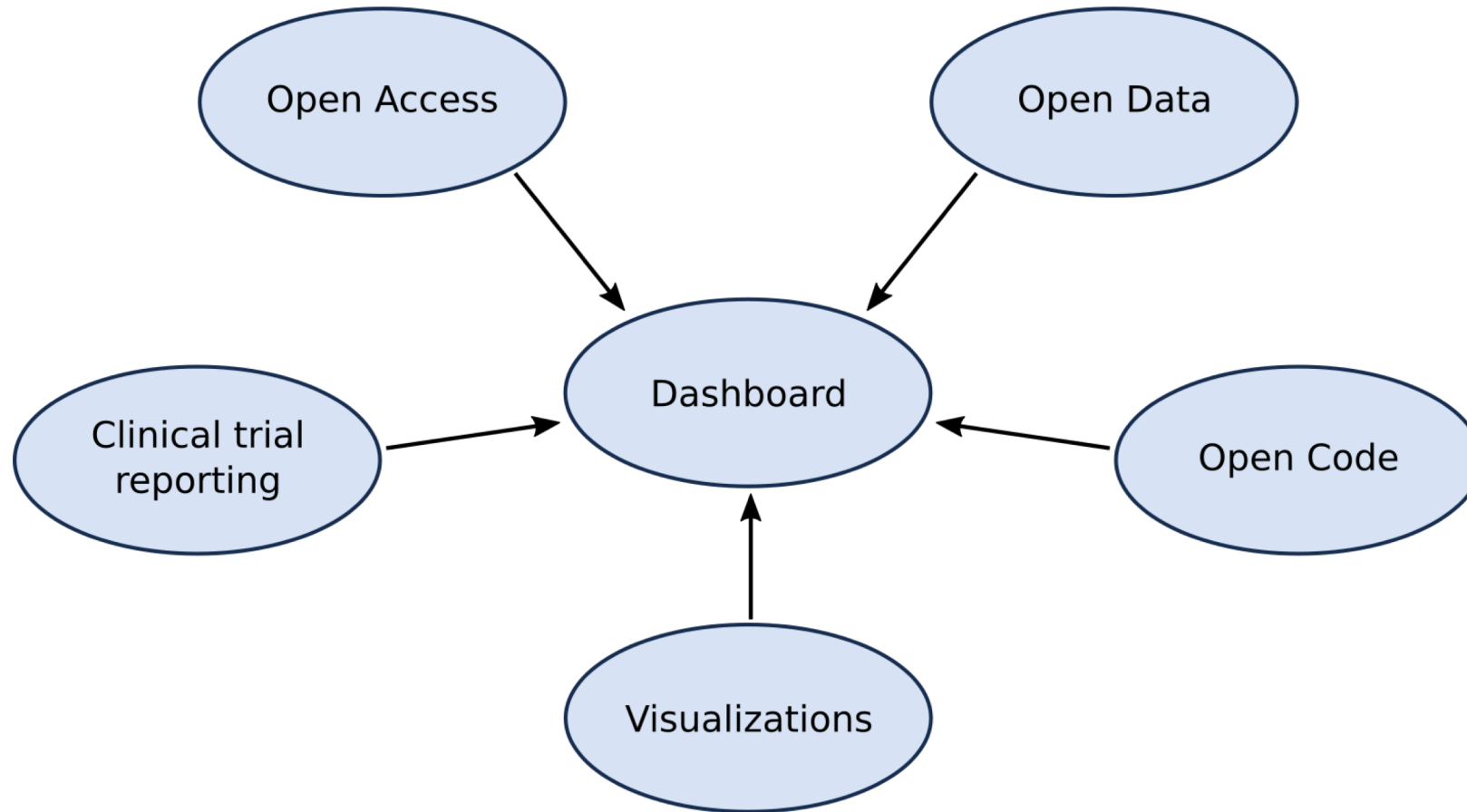


BIH Berlin Institute
of Health
@Charité

Introduction



Introduction





Charité Dashboard on Responsible Research

Charité has committed itself to establish, promote and maintain a research environment which enhances the robustness of research and the reproducibility of results ([Rethinking Health – Charité 2030](#)).

This dashboard gives an overview of several metrics of open and responsible research at the Charité (including the Berlin Institute of Health). For more detailed information on the methods used to calculate those metrics, the dataset underlying the metrics, or resources to improve your own research practices, click one of the following buttons.

This dashboard is a pilot that is still under development. More metrics will be added in the future.

For more detailed open access metrics you can visit the [Charité Open Access Dashboard](#) developed by the Charité Medical Library.

- [See methods](#)
- [See resources](#)
- [See dataset](#)

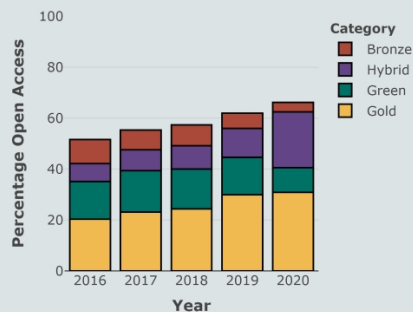
Open Science

- Show absolute numbers
- Zoom in

Open Access

62 %

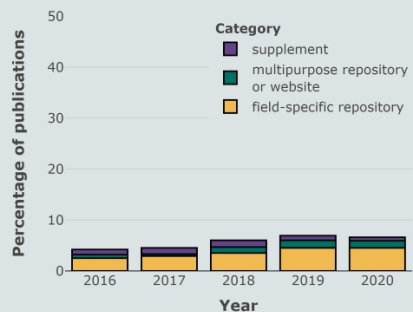
of publications were open access in 2020



Any Open Data

7 %

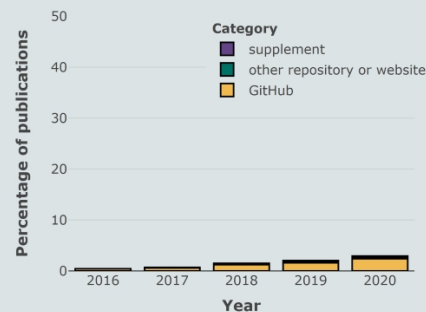
of publications mentioned sharing of data in 2020



Any Open Code

132

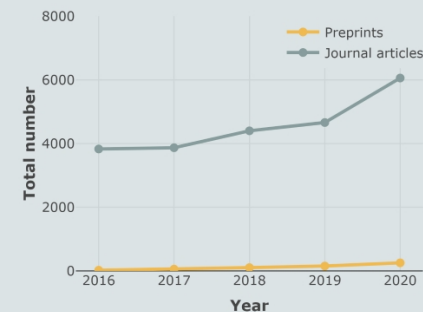
publications mentioned sharing of code in 2020



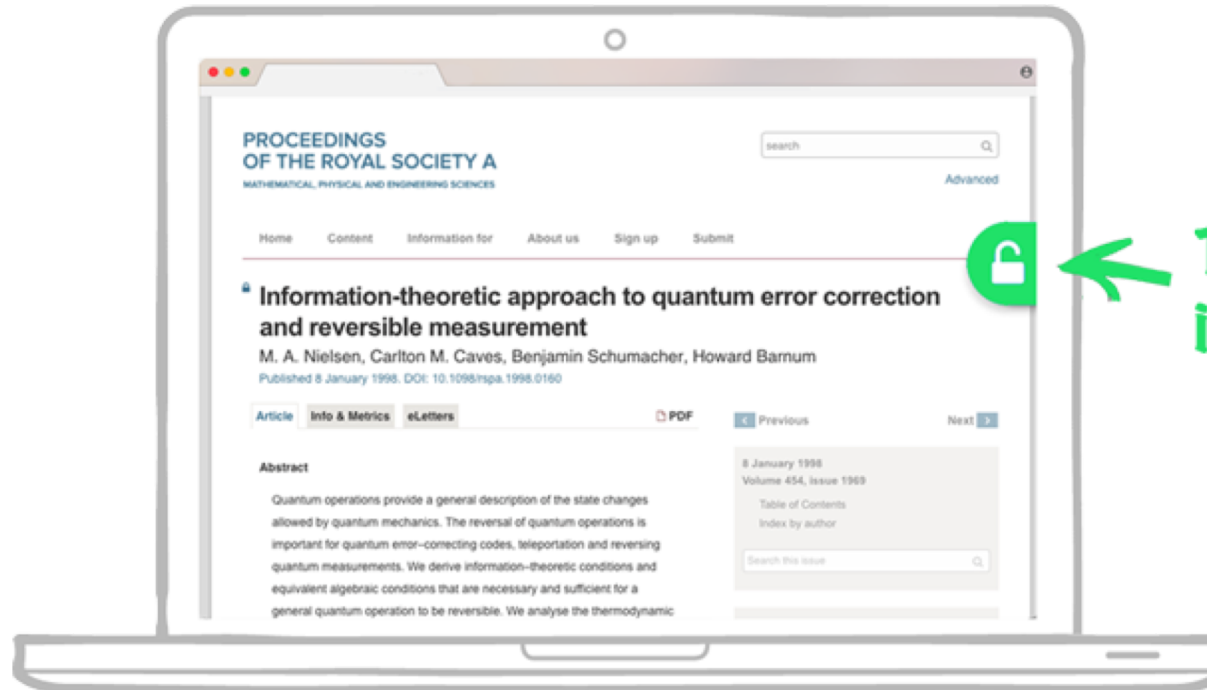
Preprints

254

preprints published in 2020



Open Access - Unpaywall



This means
it's free.

<http://unpaywall.org/>

API with access to OA info & metadata for almost 30 mio articles

Open Data Detection in Publications (ODDPub)

build **passing**  codecov **88%** License **MIT** DOI **10.5281/zenodo.3741404**

ODDPub is a text mining algorithm that parses a set of publications and detects which publications disseminated Open Data or Open Code together with the publication. It is tailored towards biomedical literature.

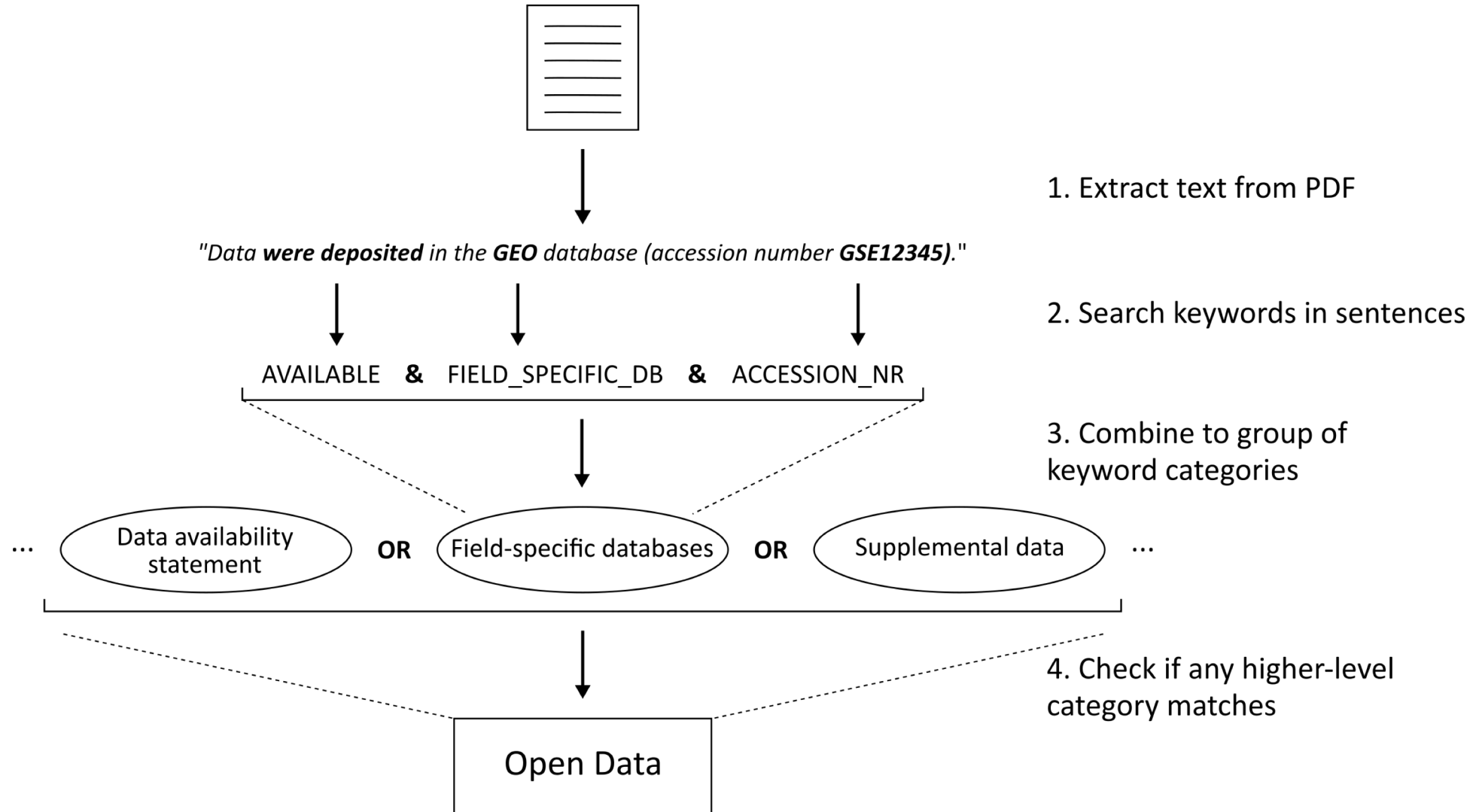
Authors

Nico Riedel (nico.riedel@bihealth.de), Miriam Kip, Evgeny Bobrov - QUEST Center for Transforming Biomedical Research, Berlin Institute of Health

Installation

The latest version of the algorithm is structured as an R package and can easily be installed with the following command:

```
# install.packages("devtools") # if devtools currently not installed
devtools::install_github("quest-bih/oddpub")
```



Preprints - Dimensions

Dimensions
Search: e.g. plastic AND instrument
Save / Export
Workflow Support
Nico Ried...

FILTERS FAVORITES

GROUPS

- MY GROUPS
 - Biomedical Fields
- FUNDER GROUPS
- RESEARCH ORGANIZATION GROUPS
- PUBLICATION YEAR
- RESEARCHER
- FUNDER
- COUNTRY OF FUNDER
- RESEARCH ORGANIZATION
- LOCATION - RESEARCH ORGANIZATION
- RESEARCH CATEGORIES
- PUBLICATION TYPE

<input type="radio"/> Article	94,018,398
<input type="radio"/> Chapter	9,897,163
<input type="radio"/> Proceeding	6,314,700
<input type="radio"/> Preprint	2,526,366
<input type="radio"/> Monograph	812,762
<input type="radio"/> Edited Book	299,211

PUBLICATIONS DATASETS GRANTS PATENTS CLINICAL TRIALS POLICY DOCUMENTS

113,868,652 1,600,038 5,623,964 54,718,053 599,629 561,727

Show abstract Sort by: Publication Date

Title, Author(s), Bibliographic reference - [About the metrics](#)

Bronchoscopic treatment of inoperable nonsmall cell lung cancer.

Christopher M Kniese, Ali I Musani

2020, European Respiratory Review - Article

Patients with unresectable lung cancer range from those with early-stage or pre-invasive disease with comorbidities that preclude surgery to those with advanced stage disease in whom surgery is contra... [more](#)

Altmetric 1 Open Access Add to Library

Management of tracheo-oesophageal fistula in adults.

Hyun S Kim, Danai Khemasuwan, Javier Diaz-Mendoza, Atul C Mehta

2020, European Respiratory Review - Article

Tracheo-oesophageal fistula (TOF) is a pathological connection between the trachea and the oesophagus that is associated with various underlying conditions including malignancies, infections, inhalati... [more](#)

Altmetric 4 Open Access Add to Library

The relationship between Indigenous and allopathic health practitioners in Africa and its implications for collaboration: a qualitative synthesis

Zainab Oseni, Geordan Shannon

2020, Global Health Action - Article

BACKGROUND: There have been increasing calls for collaboration between Indigenous health practitioners (IHPs) and allopathic health practitioners (AHPs) in Africa. Despite this, very few successful sy... [more](#)

Altmetric 2 View PDF Add to Library

Capacity building, local ownership and implementation of a multi-level HIV/AIDS positive health, dignity, and prevention initiative in Mozambique: approach, challenges and lessons learned

Carol Dawson-Rose, Sarah A Gutin, Elsa Hunguana, Florindo Mudender, Sebastian Kevany

2020, Global Health Action - Article

ANALYTICAL VIEWS

RESEARCH CATEGORIES

11 Medical and Health Sciences	29,440,240
09 Engineering	11,901,975
1103 Clinical Sciences	10,907,081
06 Biological Sciences	8,813,690
03 Chemical Sciences	7,701,741

OVERVIEW

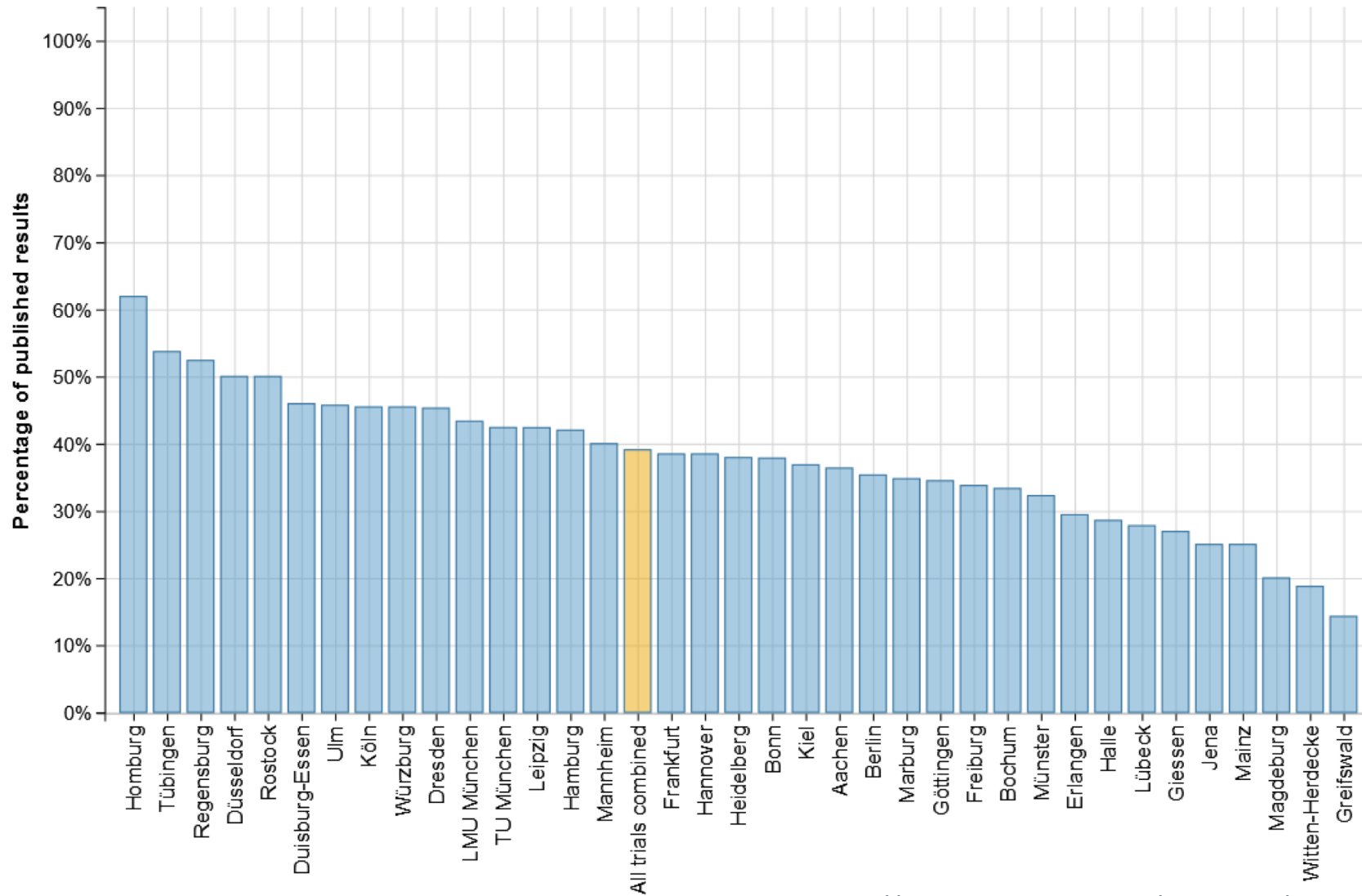
Citations: **1.3 B** Citations (Mean): **11.38**

Publications (total)

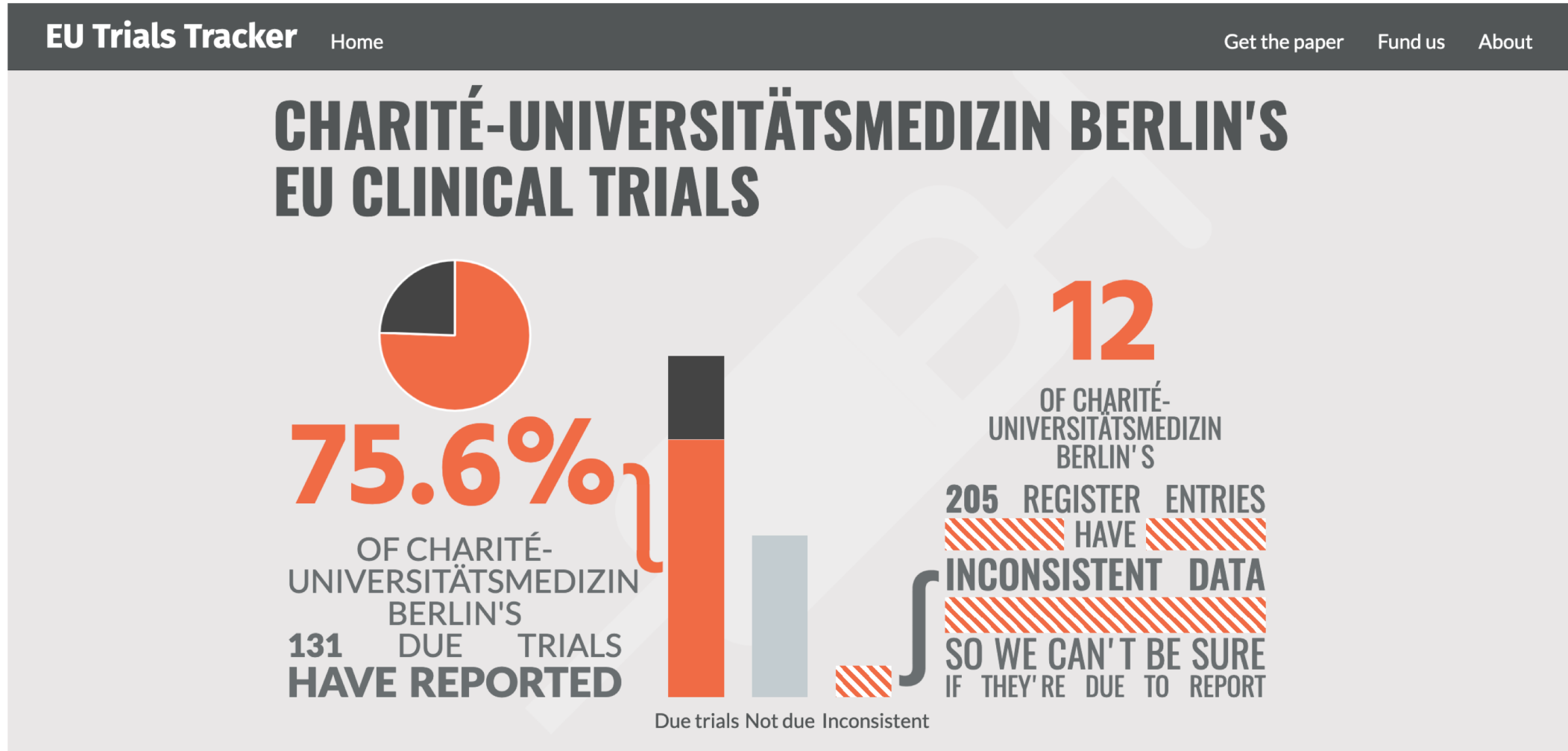
OPEN ACCESS

Closed	81,934,414
All OA	31,934,204
Bronze	13,179,400
Green, Submitted	6,513,583
Pure Gold	5,669,479

Clinical Trials timely publication - IntoValue



Clinical Trials summary results – EU TrialsTracker

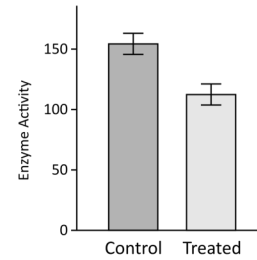


eu.trialstracker.net

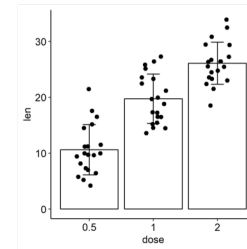
Visualizations - Barzooka

Suboptimal visualization types

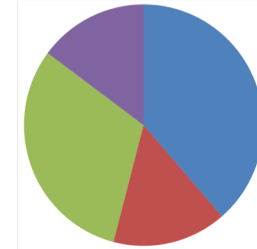
**Bar graph:
Continuous data**



**Bar graph with
dot plot**

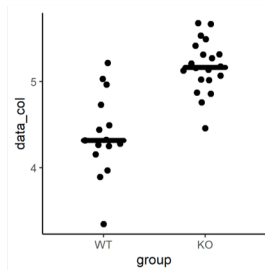


**Pie or donut
chart**

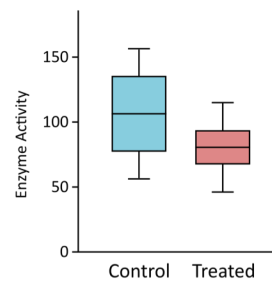


More informative alternatives

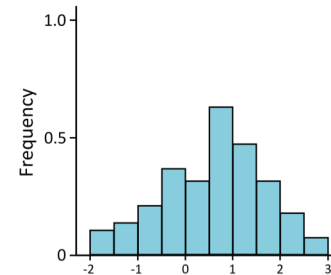
Dot plot



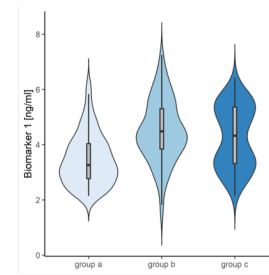
Box plot



Histogram

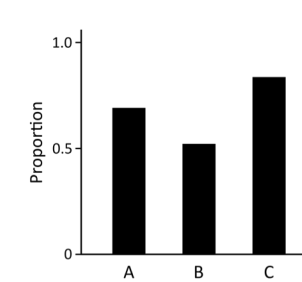


Violin plot



Appropriate bar graphs

Not continuous data



Visualizations - Barzooka

Input: Publication PDF

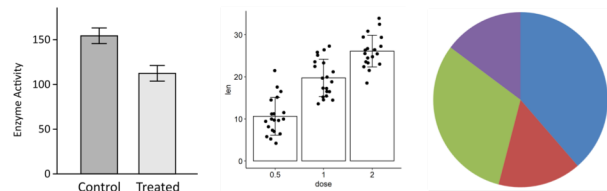


Convert each page to an image

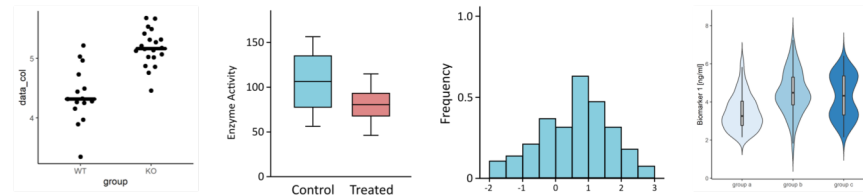


Neural network detects graph types

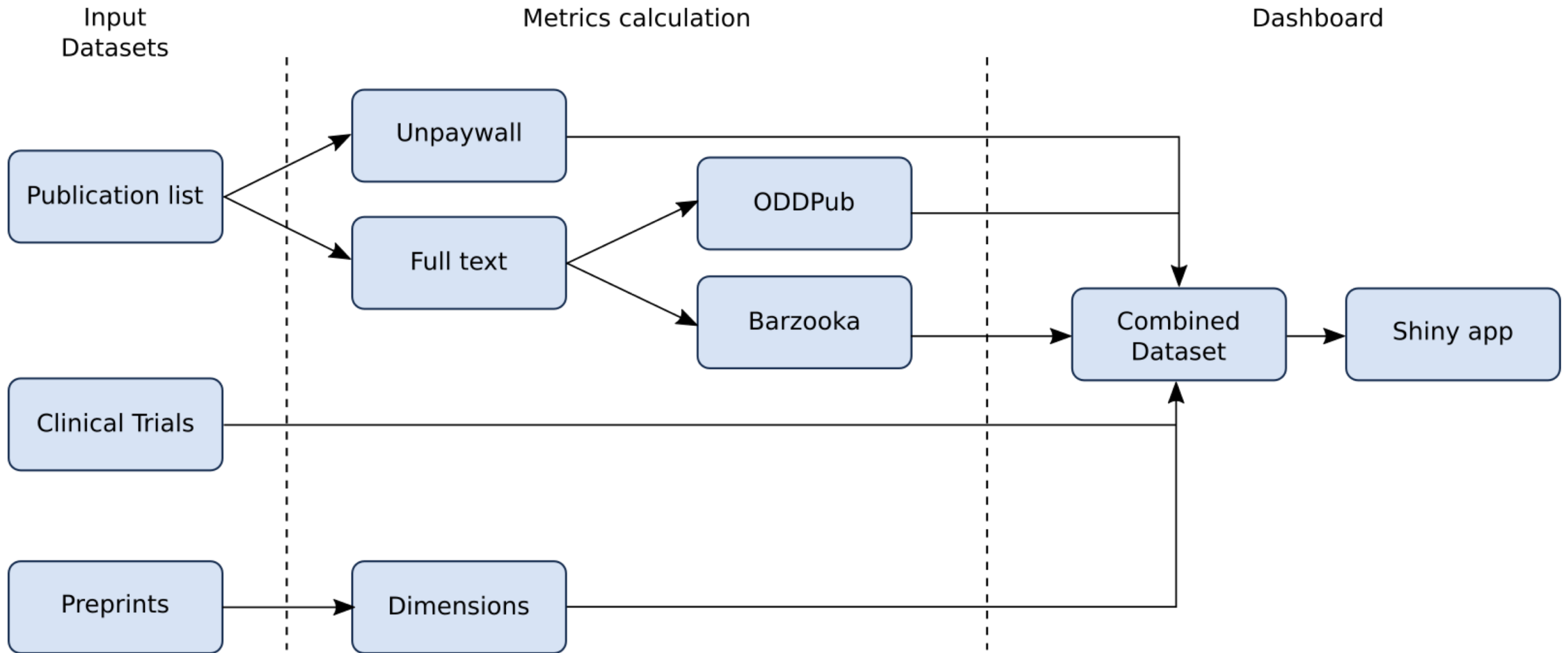
Suboptimal visualization types



More informative alternatives



Workflow



BUA Open Science Dashboards

Part of BUA Objective 3: Advancing Research Quality and Value

Objectives

Systematic monitoring of open science practices

Utilization and further development of (semi-)automated screening tools

Presentation of open science indicators in dashboards

Project period

10/2021—09/2023

Institutions

BIH QUEST Center at Charité and Open-Access-Büro Berlin (OABB)



Evgeny
Bobrov
Project Lead
BIH QUEST



Maaïke
Duine
Research Fellow
OABB



Anastasiia
Iarkaeva
Student Assistant
BIH QUEST



Maxi
Kindling
Project Lead
OABB



Maike
Neufend
Deputy Project Lead
OABB



Jan
Taubitz
Research Fellow
BIH QUEST

BUA Open Science Dashboards

Work package 1

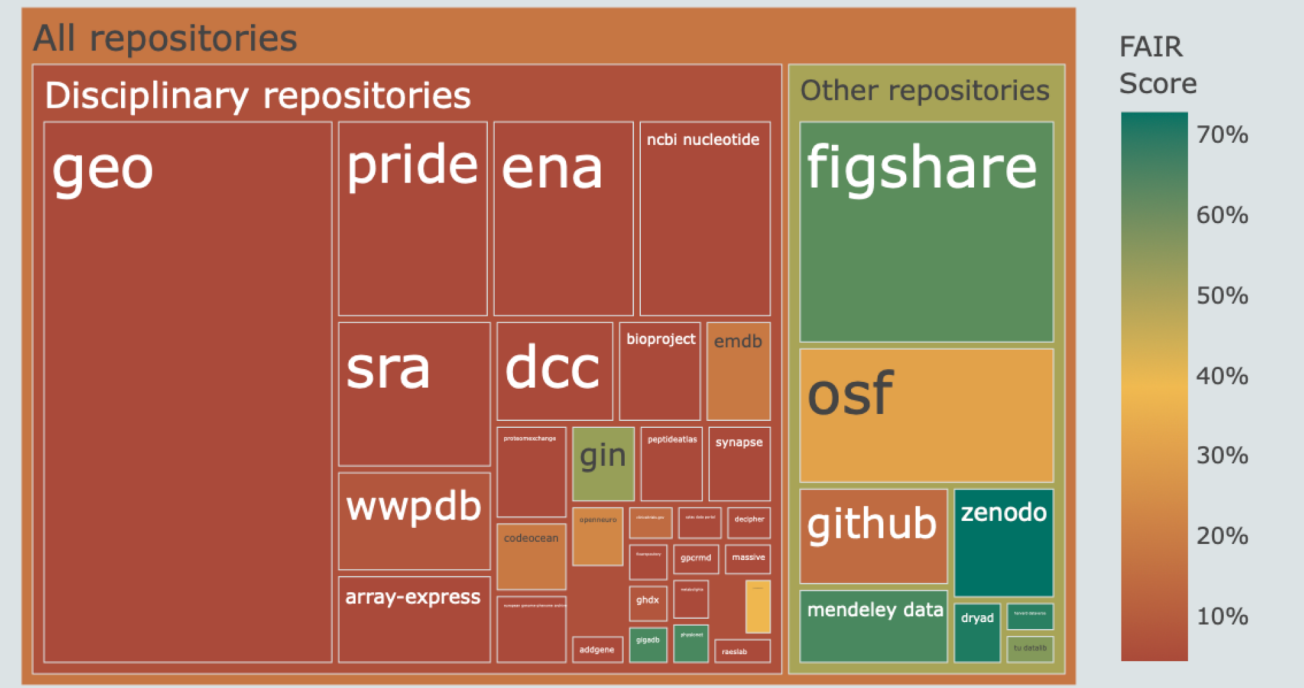
- Headed by BIH QUEST Center
- Expansion of the [Charité Dashboard on Responsible Research](#) to include indicators of data reusability, based on the FAIR criteria
- Application and adaptation of (semi-)automated screening tools
- Development and validation of workflows for FAIR assessment by humans

FAIR repository



18 %

is the average FAIR score of datasets from 2020



Possible extension of the existing dashboard with FAIR assessment

BUA Open Science Dashboards

Work package 2

- Headed by Open-Access-Büro Berlin
- Development of new and/or adaptation of existing open science indicators with other fields of scholarship
- These open science indicators may be linked e.g. to the following practices:
 - Open Access of monographs and textbooks
 - Open Data
 - Open Code/Open Software
 - Open Educational Ressources
- Development of pilot dashboards for the monitoring of the open science indicators of the participating fields of scholarship

Thank you

Nico Riedel
Data Scientist

**QUEST Center -
Berlin Institute of Health
(BIH)**

nico.riedel@bihealth.org

www.bihealth.org/quest

BIH QUEST
Transforming Biomedical Research

BIH Berlin Institute
of Health
Charité & MDC

Aus Forschung wird Gesundheit

Helmholtz Open Science Office

- Mail – open-science@helmholtz.de
- Website – <https://os.helmholtz.de>
- [Open Science Newsletter](#)
- Mailing list (only for members of Helmholtz) – [Helmholtz Open Science Professionals](#)
- Twitter – [@helmholtz_os](#)
- LinkedIn – [Helmholtz Open Science Office](#)

Thank you for your interest!

Helmholtz Open Science Office:

Lea Maria Ferguson,

<https://orcid.org/0000-0002-7060-3670>

Antonia C. Schrader,

<https://orcid.org/0000-0001-7080-634X>

Nina Leonie Weisweiler,

<https://orcid.org/0000-0001-6967-9443>

All texts in this presentation, except citations, are licenced under
Attribution 4.0 International (CC BY 4.0):

<https://creativecommons.org/licenses/by/4.0/deed.de>