

OpenAIRE

The background of the slide features a blue gradient with a circular motion blur effect. In the center, there are dark silhouettes of several people running across a rocky shoreline. The overall aesthetic is dynamic and forward-moving.

Technical services & Dashboards for Institutions and Funders

Paolo Manghi

*Istituto di Scienza e Tecnologie dell'Informazione
Consiglio Nazionale delle Ricerche*

e-infrastructure services

End-User Services

Dashboards:
Fund
ers,
Institutions,
research
communities



Content providers



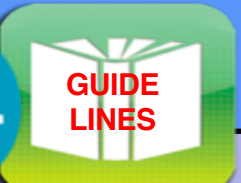
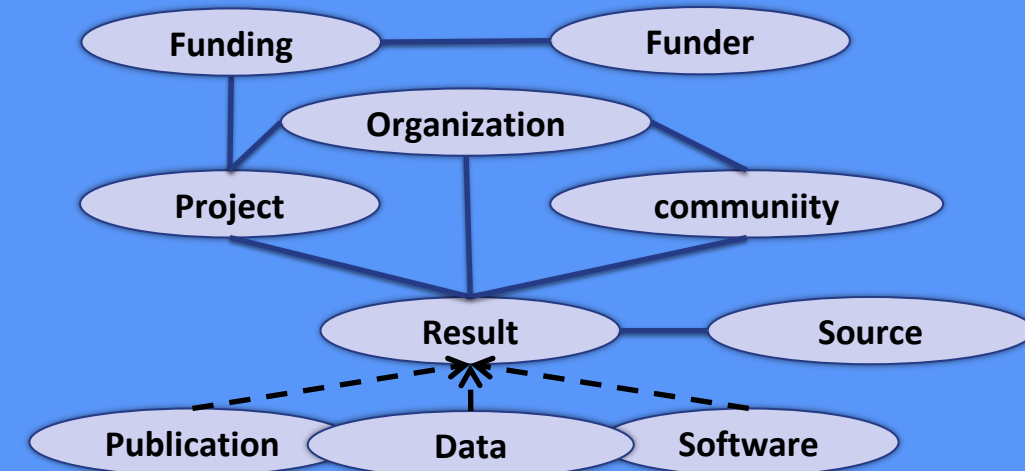
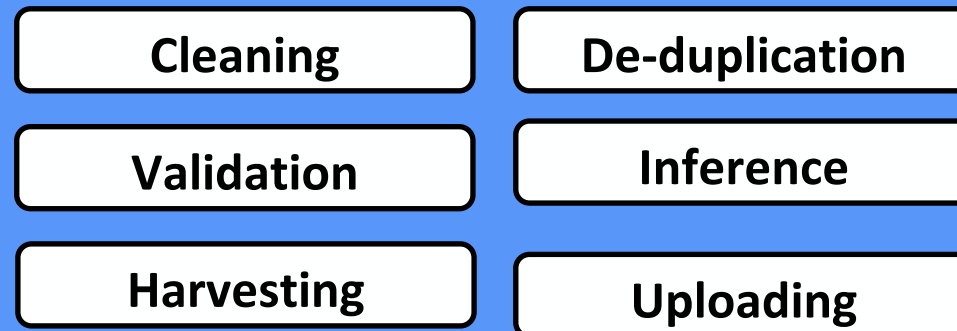
Researchers



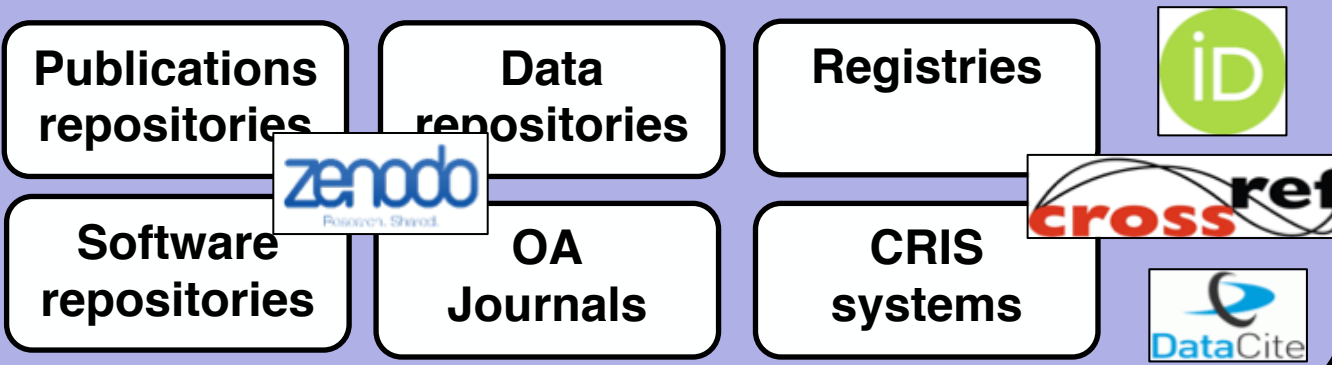
Third-party services
(SMEs)



Info Space Services



Content Providers



EOSC-Hub

Research Infras

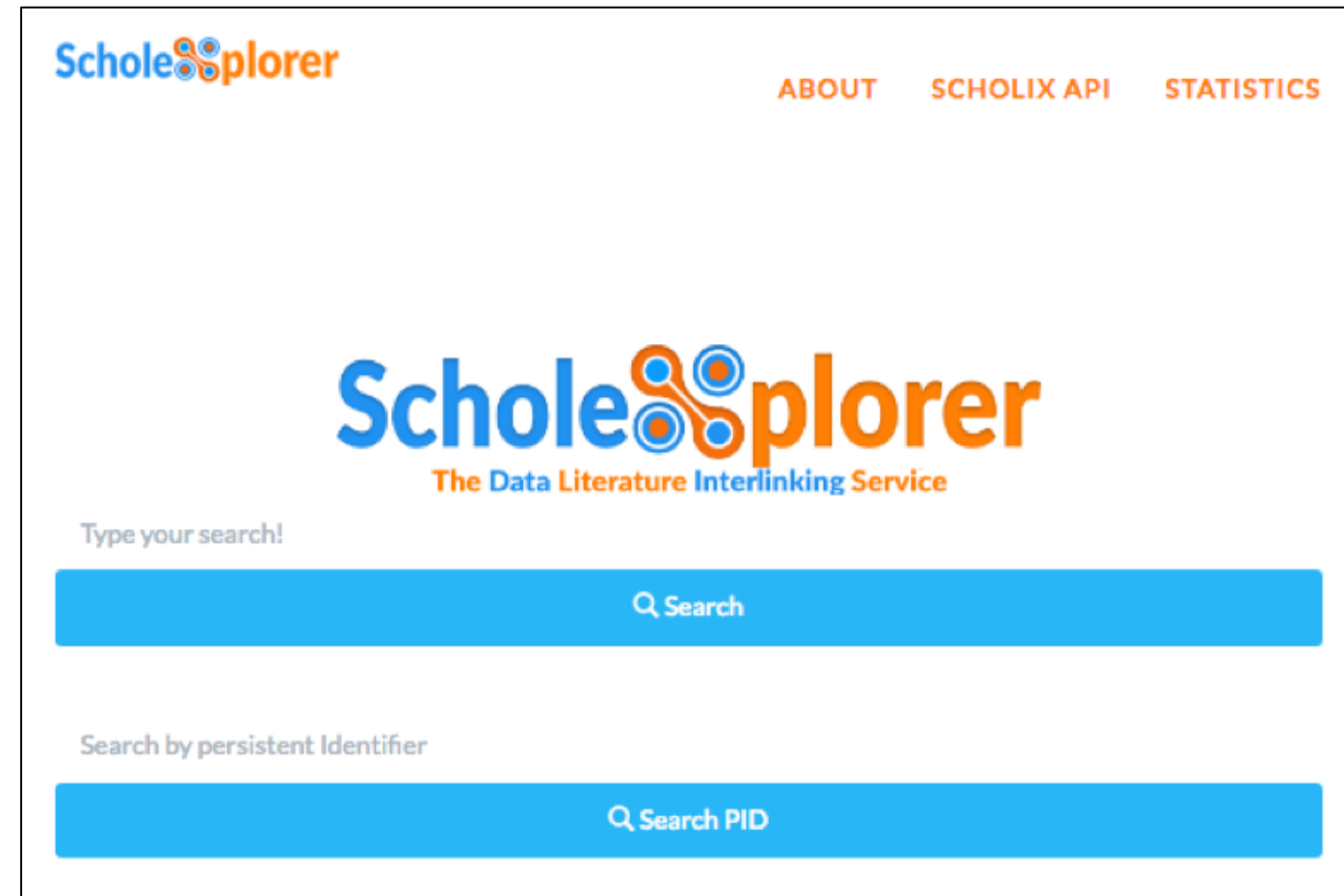
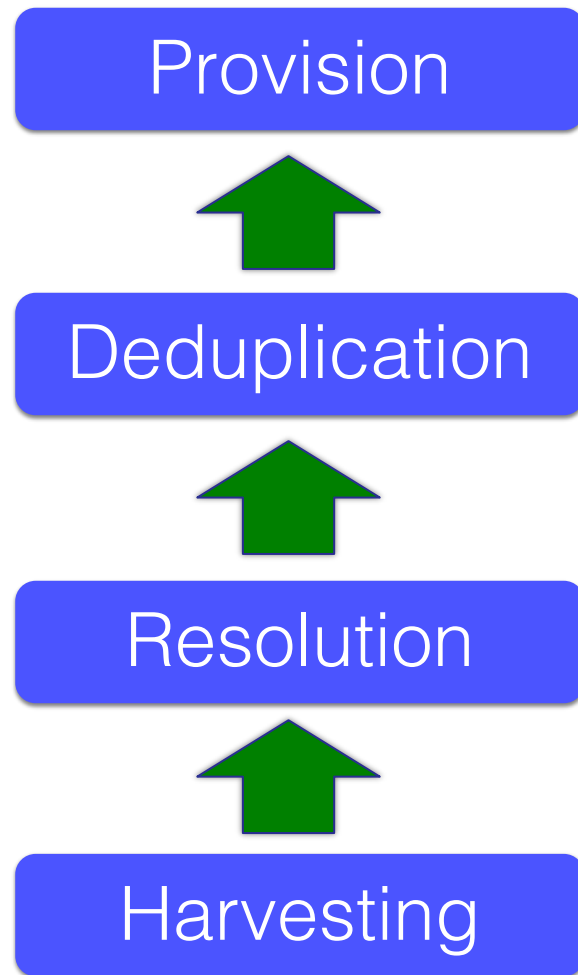
Catch-All Broker Service (CAB)



- **Additions:** New metadata records they were unaware of
- **Enrichments:** Extra information about records they already have
- **Alerts:** Wrong information in the records they already have

Scholexplorer: data-literature links aggregator

LINKS!



Deployment co-funded by RDA

Search and browse in **880.000** literature objects, **5.840.000** datasets, **31.000.0000** bi-directional scholix links, from **13000** publishers, **10** data centers, **CrossRef**, **DataCite**, and **OpenAIRE**.

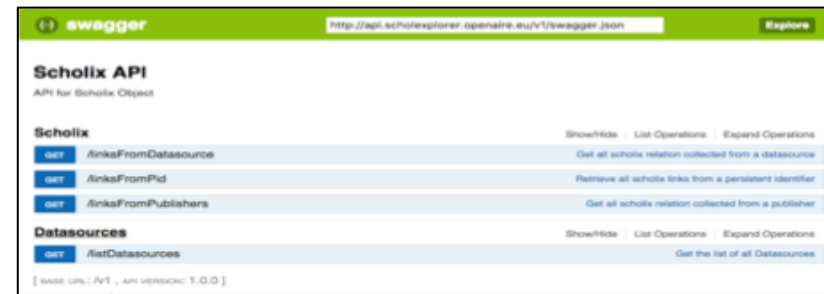
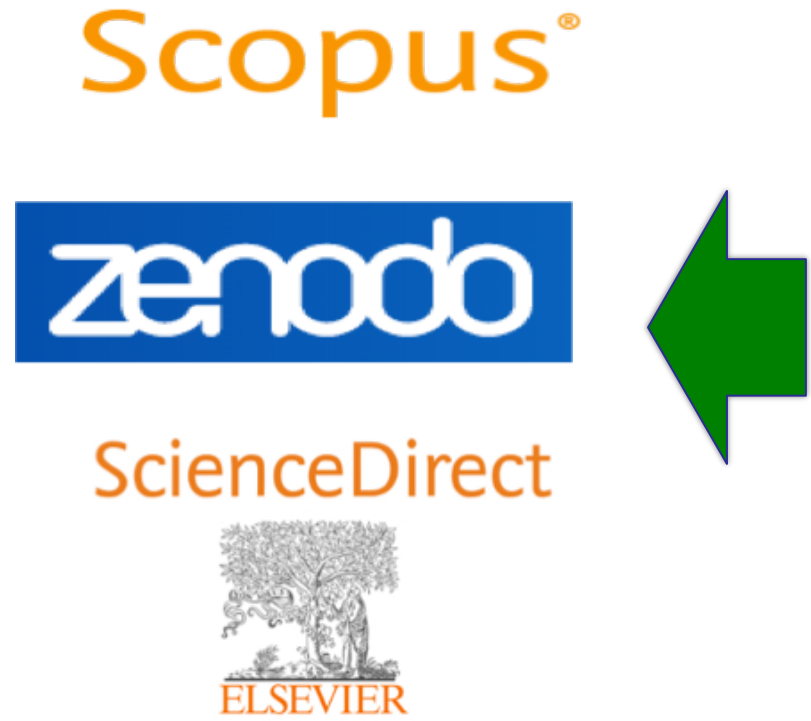
<http://scholexplorer.openaire.eu>



Scholix: use-case

Link search/resolution

Link discovery/navigation

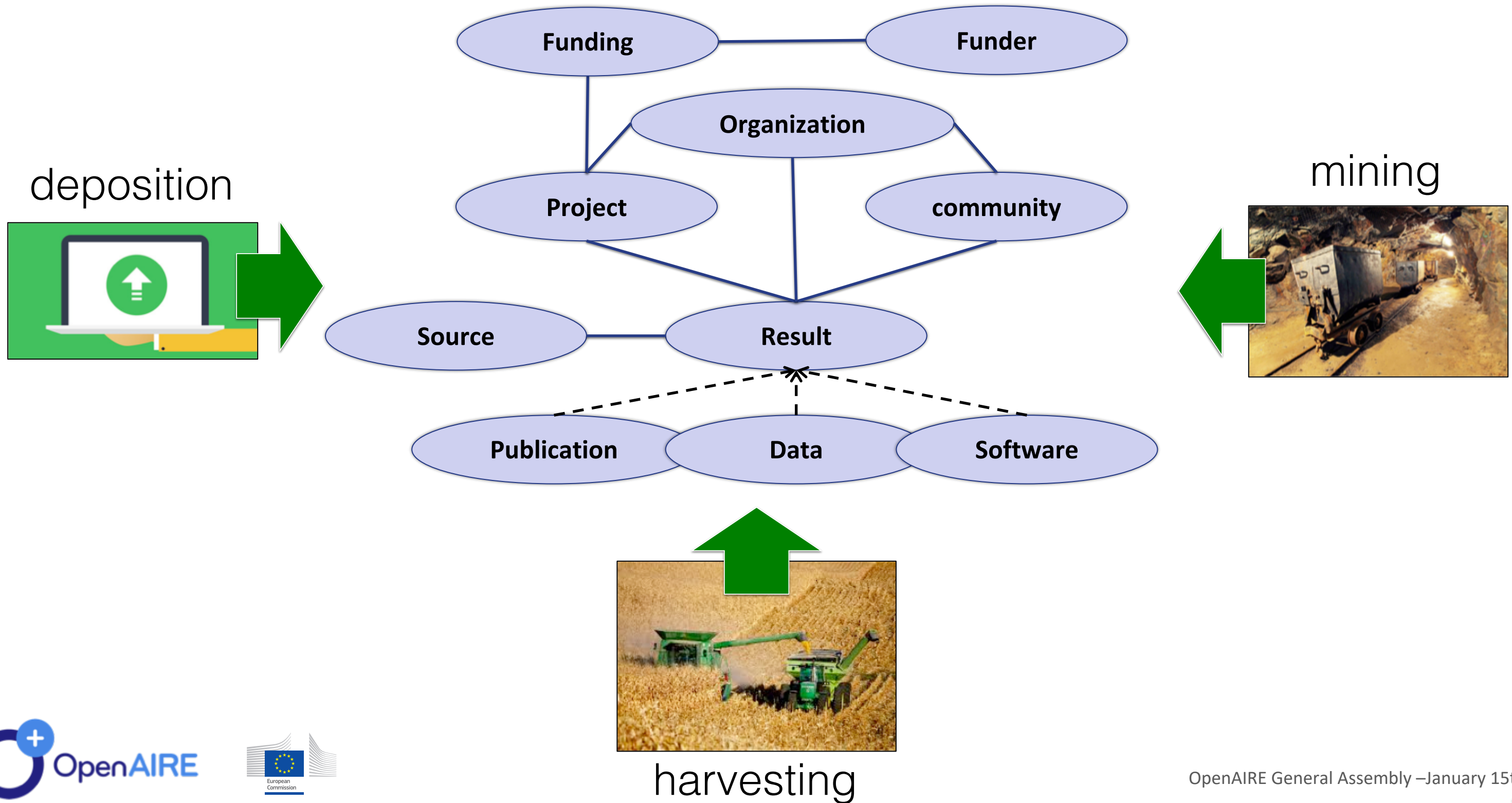


Harvesting of links

SCHOLIX API



OpenAIRE Data Model and Flows



Zenodo: March 2018 report

- **Content (205,000 records)**

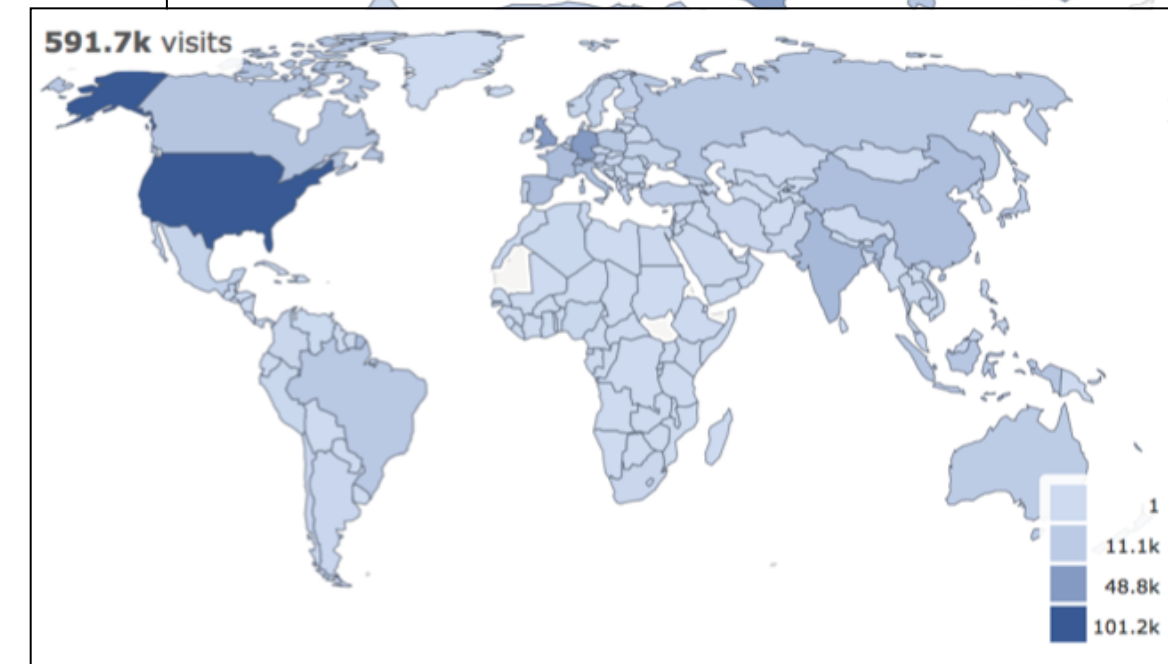
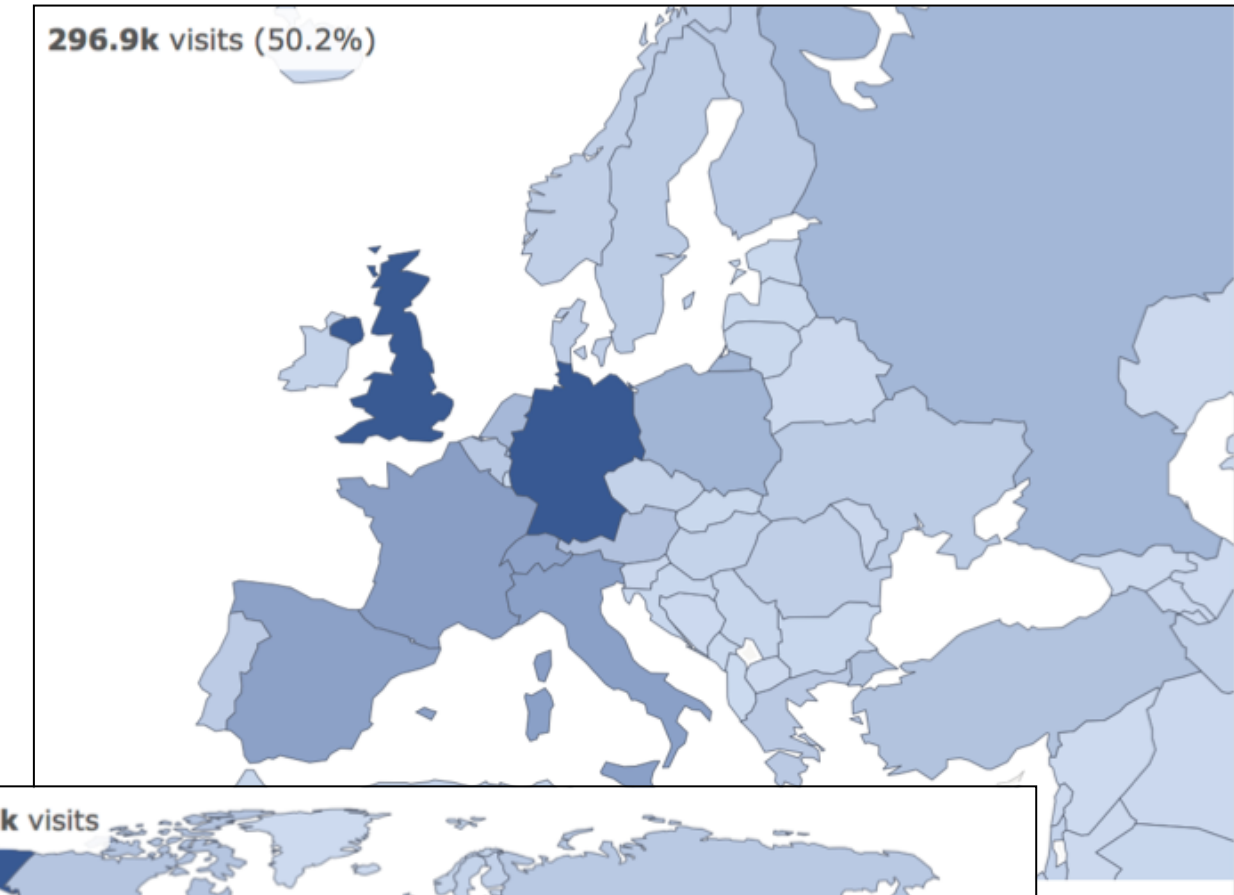
- Datasets: 23,000
- Software: 17,000
- Publications: 137,000
- Images: 178,000
- Other: 7,000

- **Infrastructure**

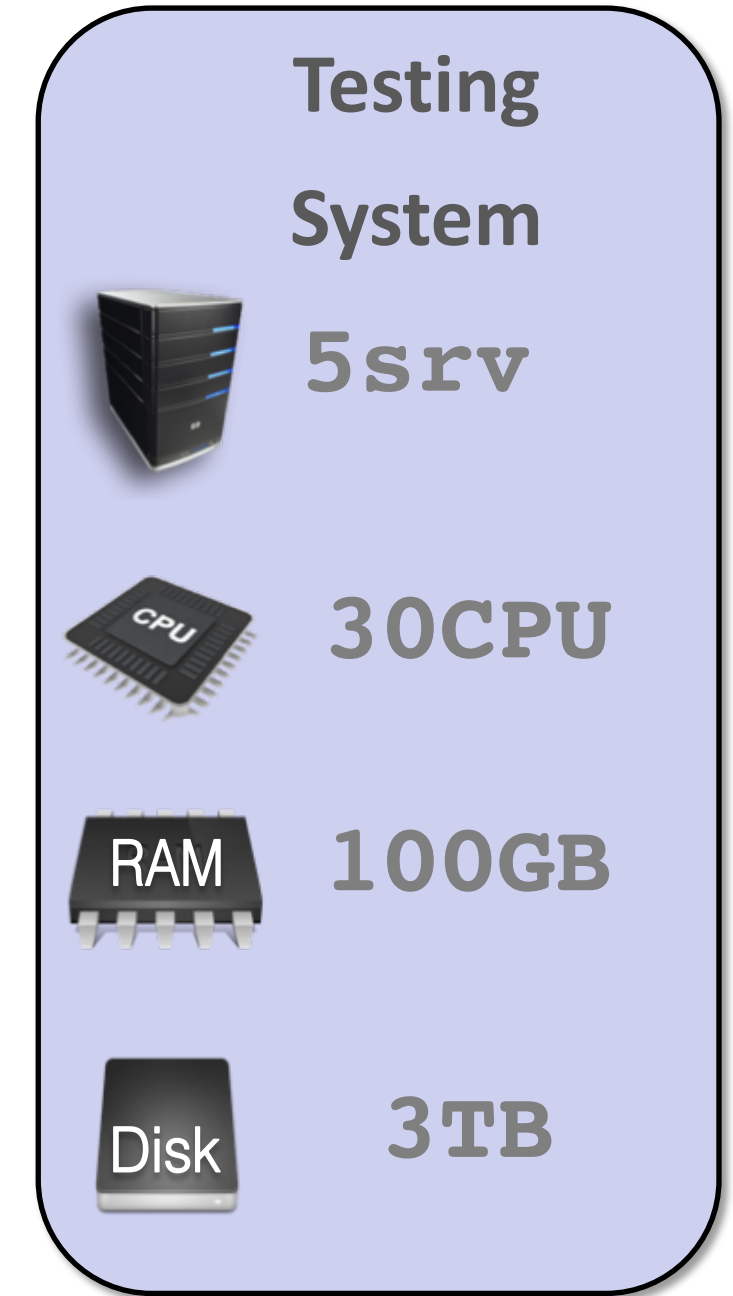
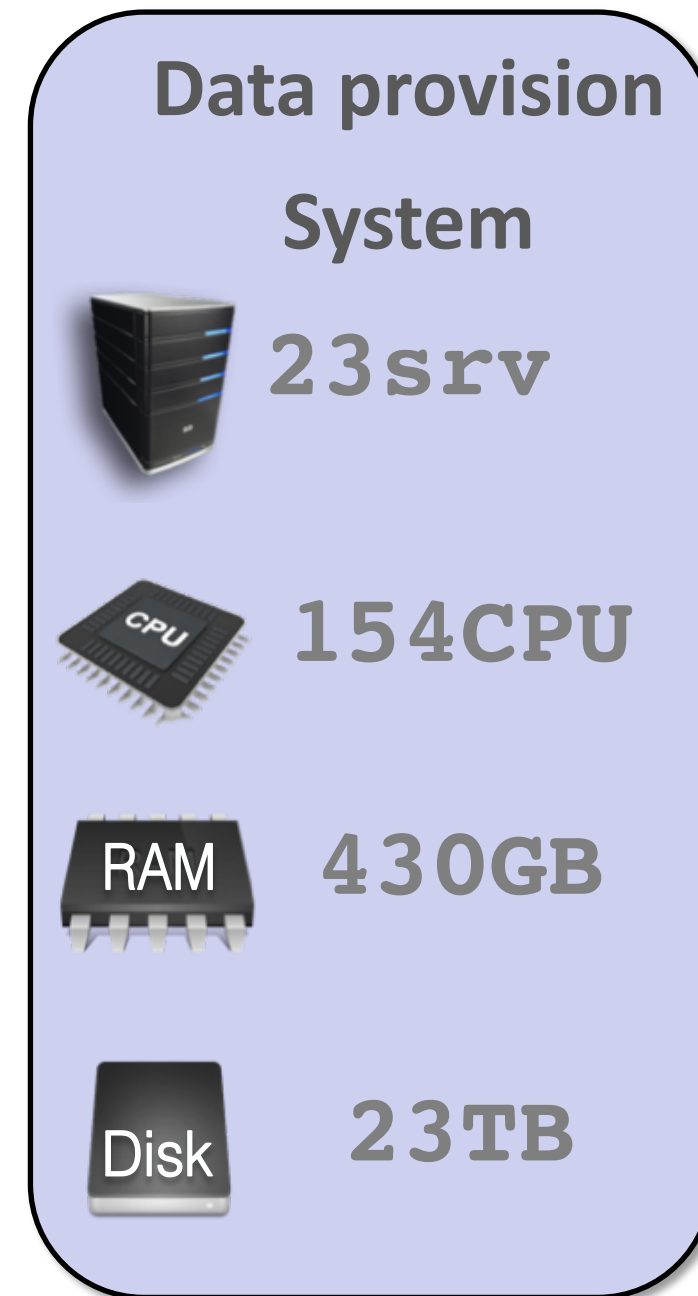
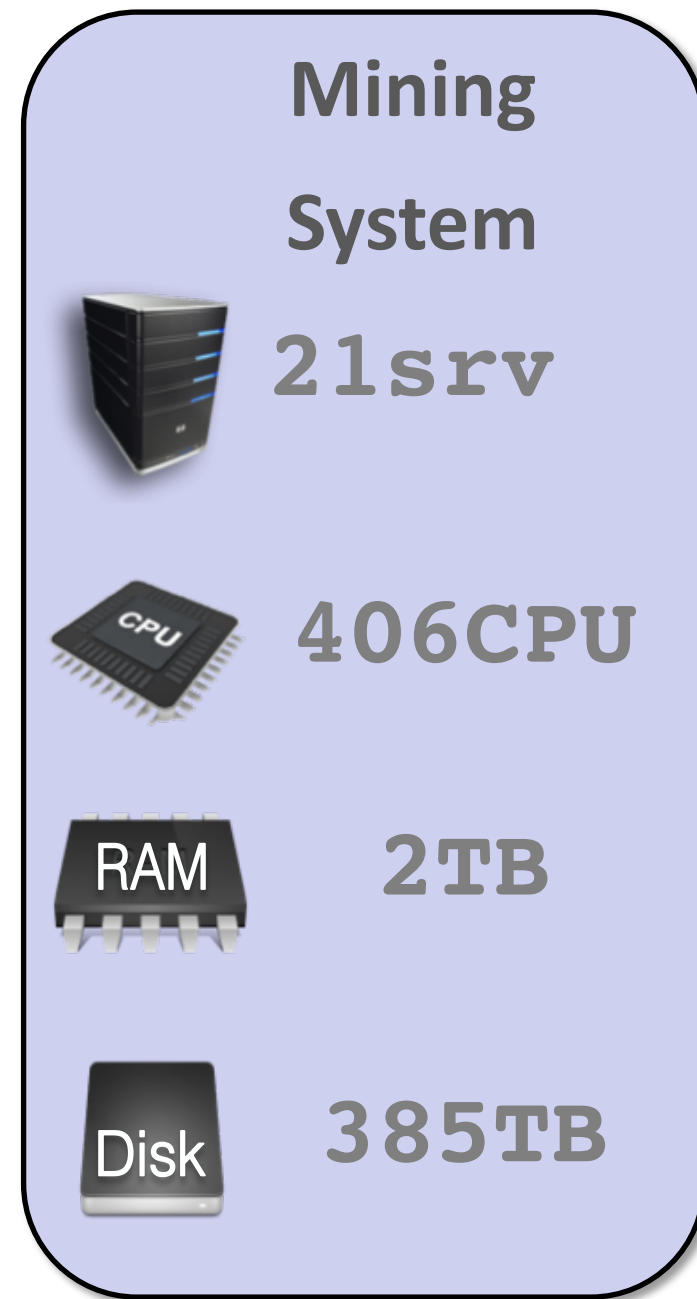
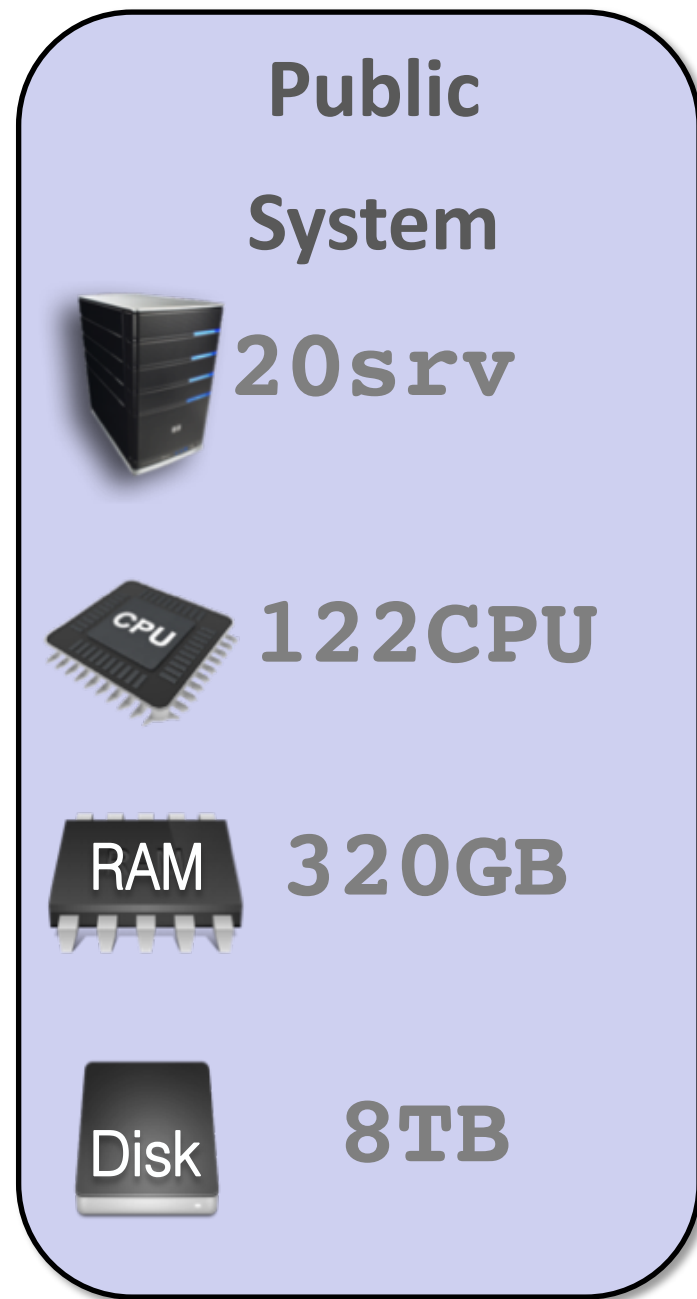
- 30 nodes, 105 TB

- **Usage:**

- 592k visits in 2017



e-infrastructure numbers



Moving towards Researchers *Research Community Dashboard*

Data Publications Software

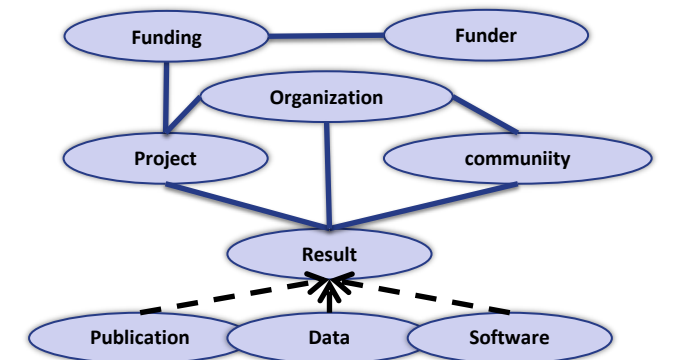


Publishing via RCD and APIs

Accessing via RCD and APIs



Research. Shared.



Research communities

On board

European Marine Sciences
(Pangaea and Atlas community)

Cultural Heritage and Digital
Humanities (the PARTHENOS
research infrastructure)

Neuroinformatics (France Life
Imaging national infrastructure)

Fisheries and aquaculture
management (the BlueBridge and
MARBEC infrastructures)

Environment & Economy
(national/EU node of the United
Nations Sustainable Development
Solutions Network)

EGI (Marios Chatziangelou, Giuseppe
Della Rocca)

INSTRUCT (Evangelia D. Chrysinia,
Antonio Rosato, Chris Morris)

RDA (Daniel Bangert)

AgInfra+ (Panagiotis Zervas)

CLARIN (Maria Eskevich)

Bootstrapping

ELIXIR (Rafael Jimenez, Theodore
Dalamagas, Thanasis Vergoulis)

OpenRiskNet (Haralambos Sarimveis,
Thomas Exner)

Ecology and Evolution (Antica
Culina, KNAW)

EGA (Jordi Rambla, Mauricio Moldes)

DARIAH (Marco Raciti)

SoBigData.eu (Fosca Giannotti)

EPOS (Michele Manunta)

RISIS (Philippe Laredo)

Aggregation as-a-service



Broker as-a-service

OpenAIRE: D-NET Software Toolkit

Technology transfer to third-party organizations



- **National repository aggregation systems**
 - Spain, La Recolecta
 - Poland, CEON
 - Turkey
 - Argentina
 - Ireland (ongoing)
- **Thematic aggregator**
 - World Data System aggregator (ongoing work)
 - EFG, HOPE, ESPAS, EAGLE

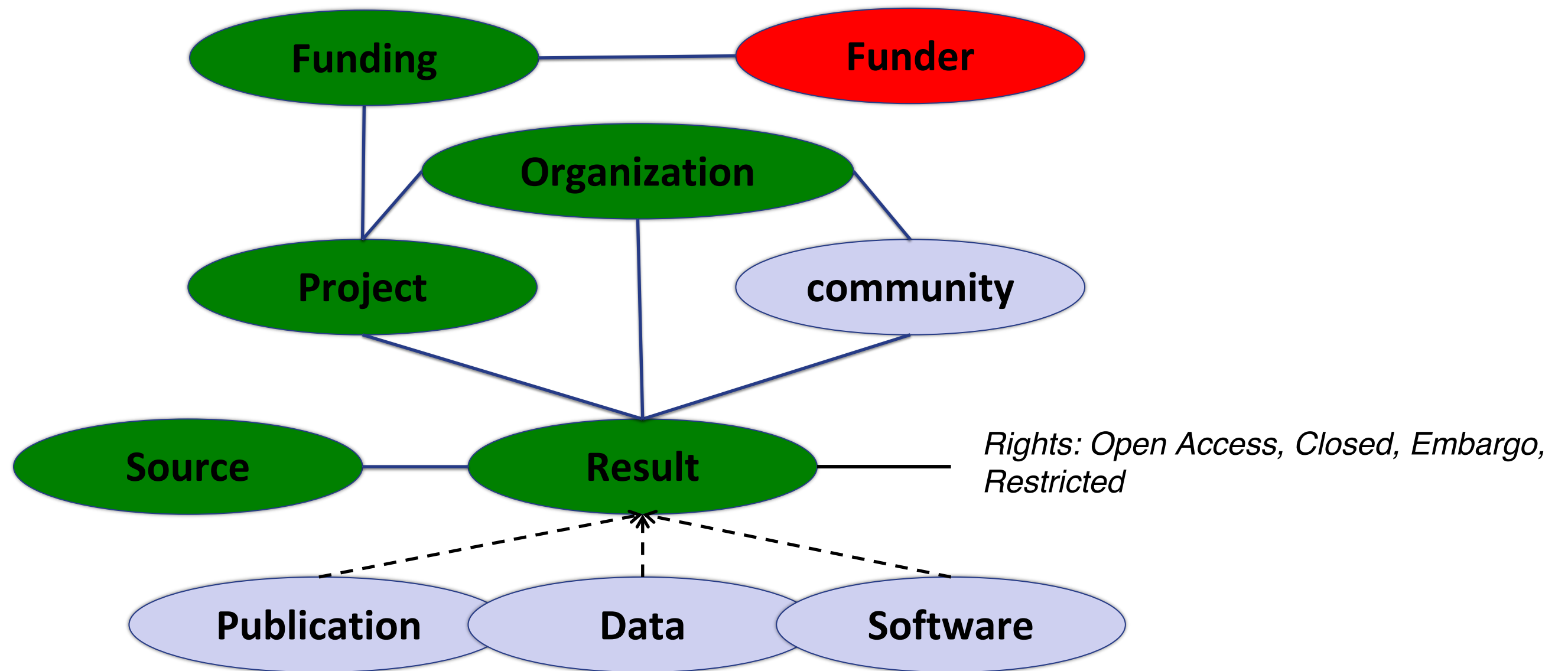
OpenAIRE technical staff (40+ members)



Funder Dashboard



Funders and OpenAIRE Data Model



Aims

Funding Impact

Publications, research data, software published thanks to grants awarded by the funder

Open Access/Science Impact

Monitoring of Open Science impact: data/software
FAIRness, reproducibility trends

Added-value functionalities

- **Funders**

- Trends in research fields: new (multidisciplinary) disciplines

- **Institutions**

- OA/OS behavior, ability to attract cross-funder grants

- **Projects**

- Success, interconnections, possible liaisons

Users

- **Generic users**
 - Search & Browse
 - Visualize Stats
 - Claim (registered users)
- **Managers (registered/authorized users)**
 - Alerts (e.g. violation of OA mandates)
 - Impact propagation

Stats for publications



Funders' page for publications

Openness

Publications Distribution

Publications by Scientific area

Publications per Project

Publications by Document Type

Publications by Language

European Commission - H2020



Openness

Publications Distribution

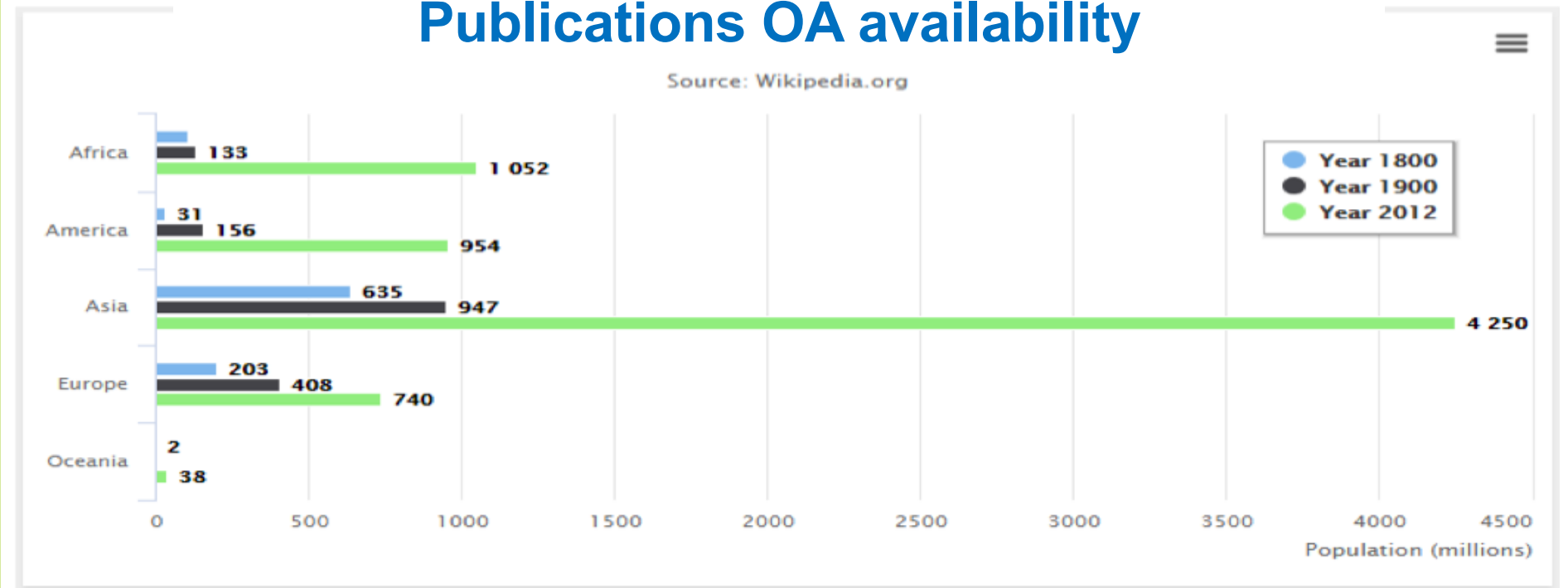
Publications by Scientific area

Publications per Project

Publications by Document Type

Publications by Language

Publications OA availability



- Open
- Restricted
- Embargo



European Commission - H2020



Openness

Publications Distribution

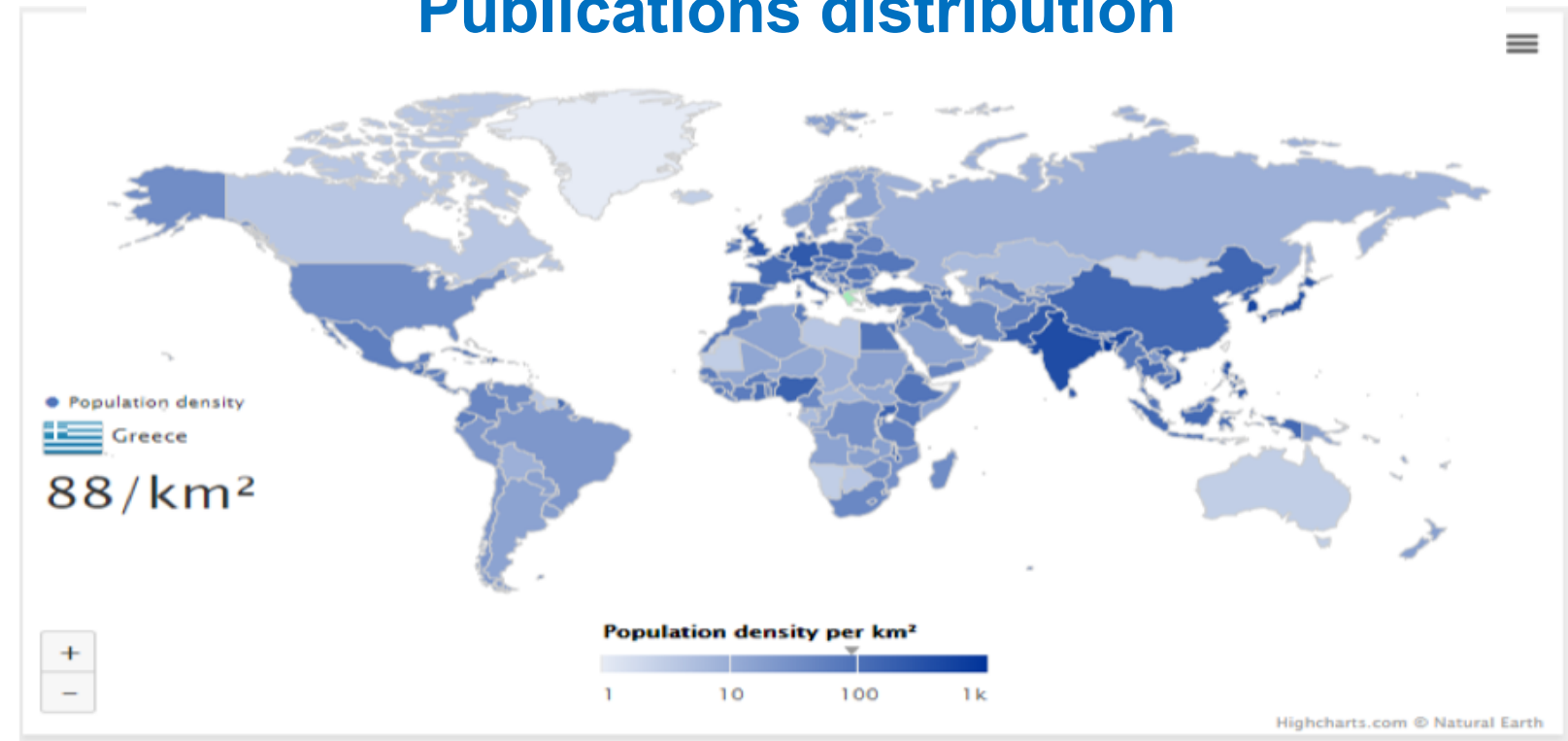
Publications by Scientific area

Publications per Project

Publications by Document Type

Publications by Language

Publications distribution



Country

Search

[select all](#)

- Albania
- Austria
- Belarus
- Belgium
- Bosnia and Herzegovina
- Bulgaria
- Croatia

Years



European Commission - H2020



Openness

Publications Distribution

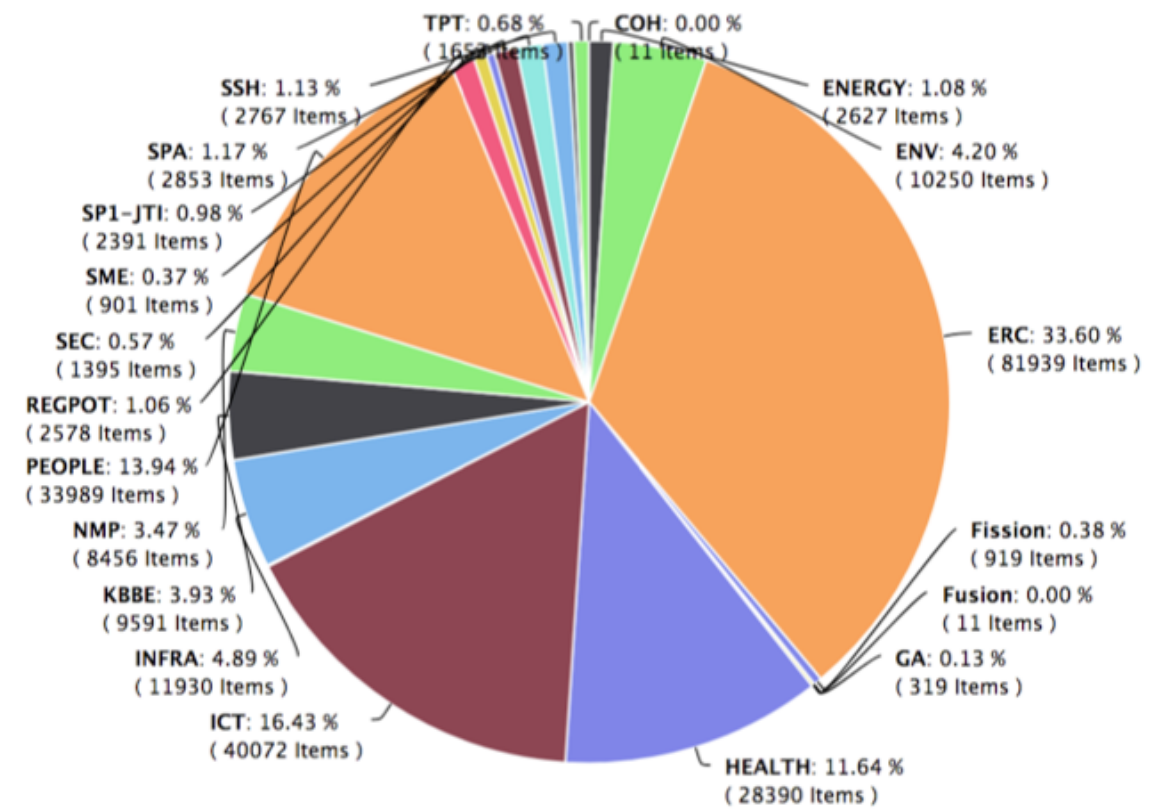
Publications by Scientific area

Publications per Project

Publications by Document Type

Publications by Language

Publications by scientific area



Of projects



Of projects with publications



Of projects with publications beyond their life



Years



European Commission - H2020



Openness

Publications Distribution

Publications by Scientific area

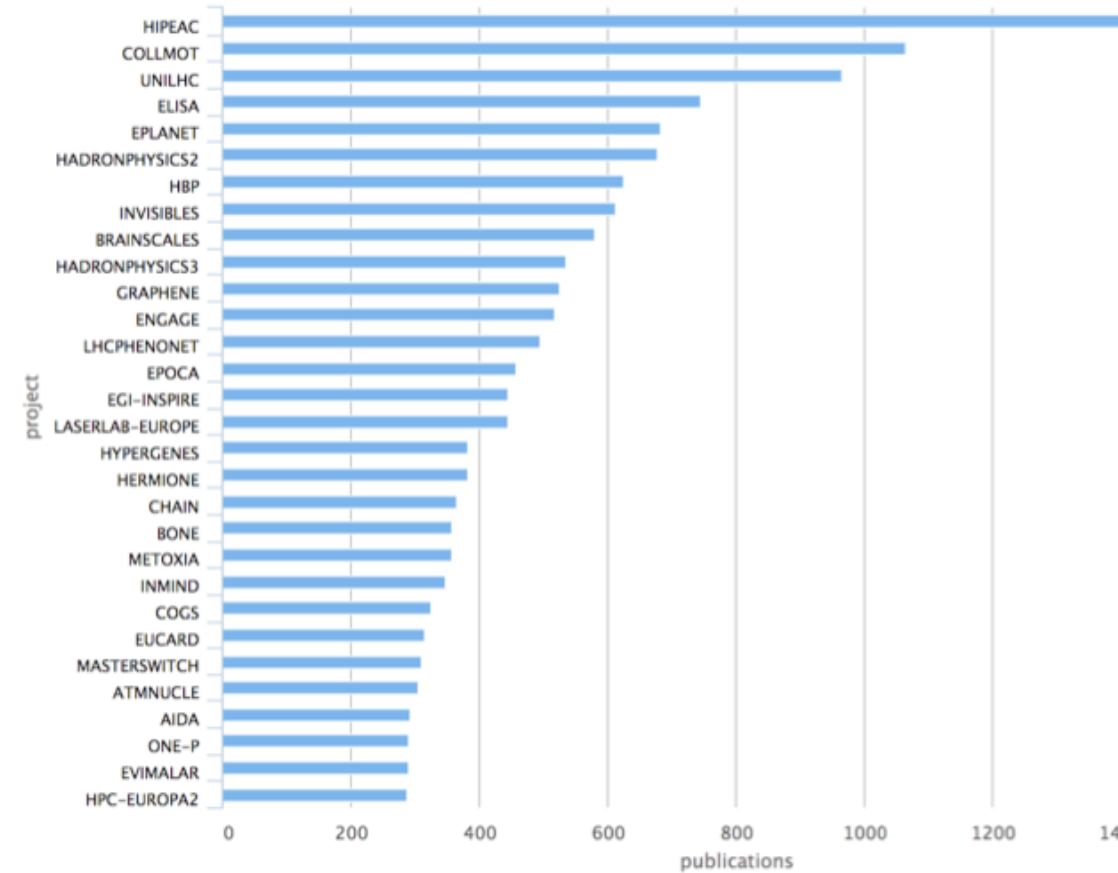
Publications per Project

Publications by Document Type

Publications by Language

Publications per project

FP7 Publications per project (top 30)



Total



Open Access



Years



2000

2014

European Commission - H2020



Openness

Publications Distribution

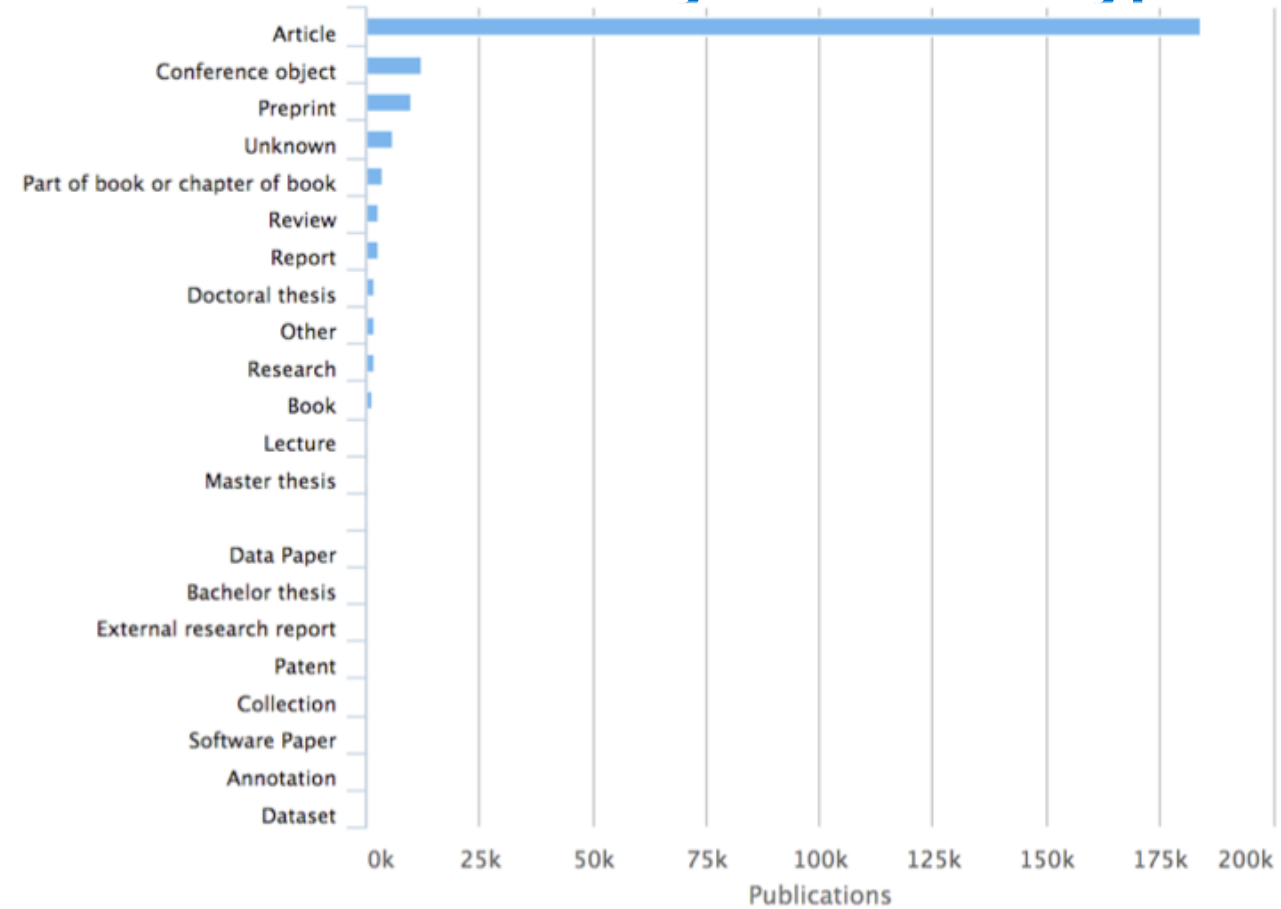
Publications by Scientific area

Publications per Project

Publications by Document Type

Publications by Language

Publications by document type



Year



[Clear all](#)

European Commission - H2020



Openness

Publications Distribution

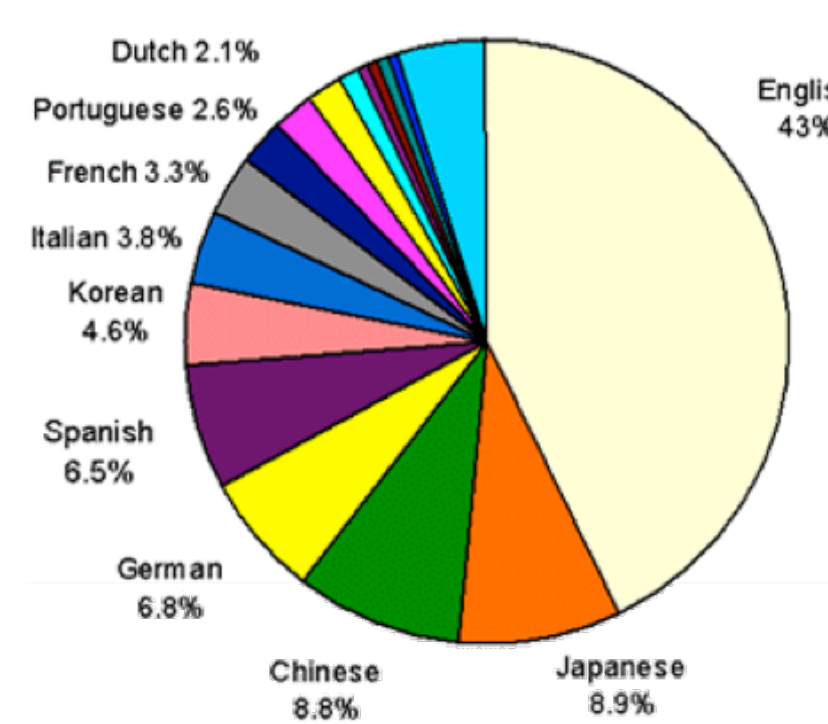
Publications by Scientific area

Publications per Project

Publications by Document Type

Publications by Language

Publications by document language



Language

[select all](#)

- Albania
- Austria
- Belarus
- Belgium
- Bosnia and Herzegovina
- Bulgaria
- Croatia

Years

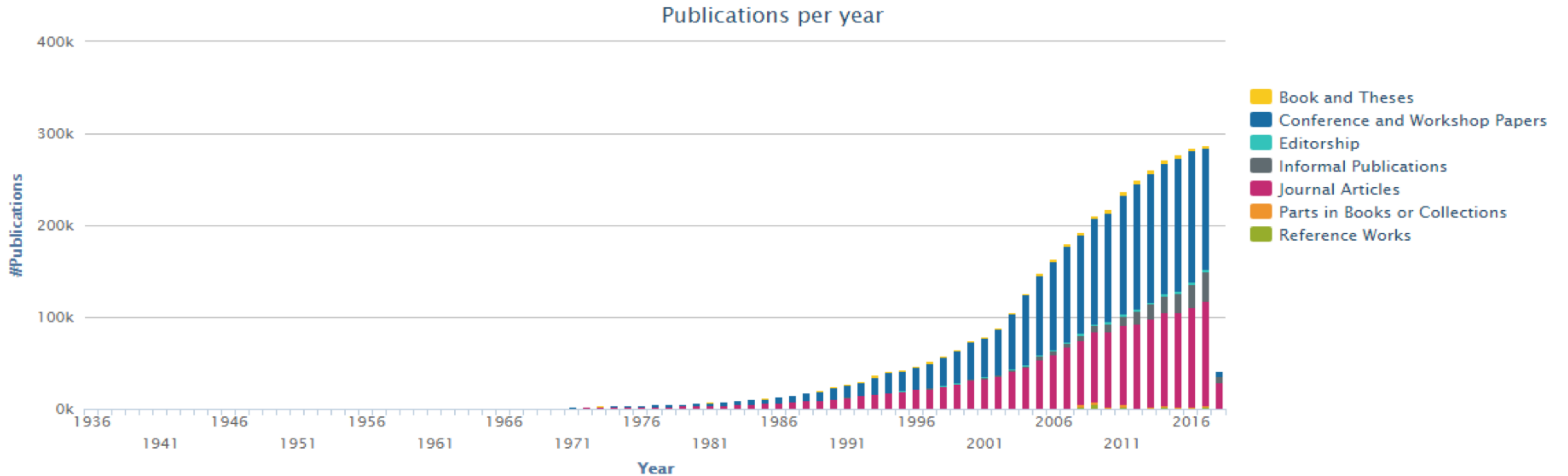


[Clear all](#)

Combined statistics for publications



Publications per year by document type



New products per year by document type

- **Stack bar combined content**

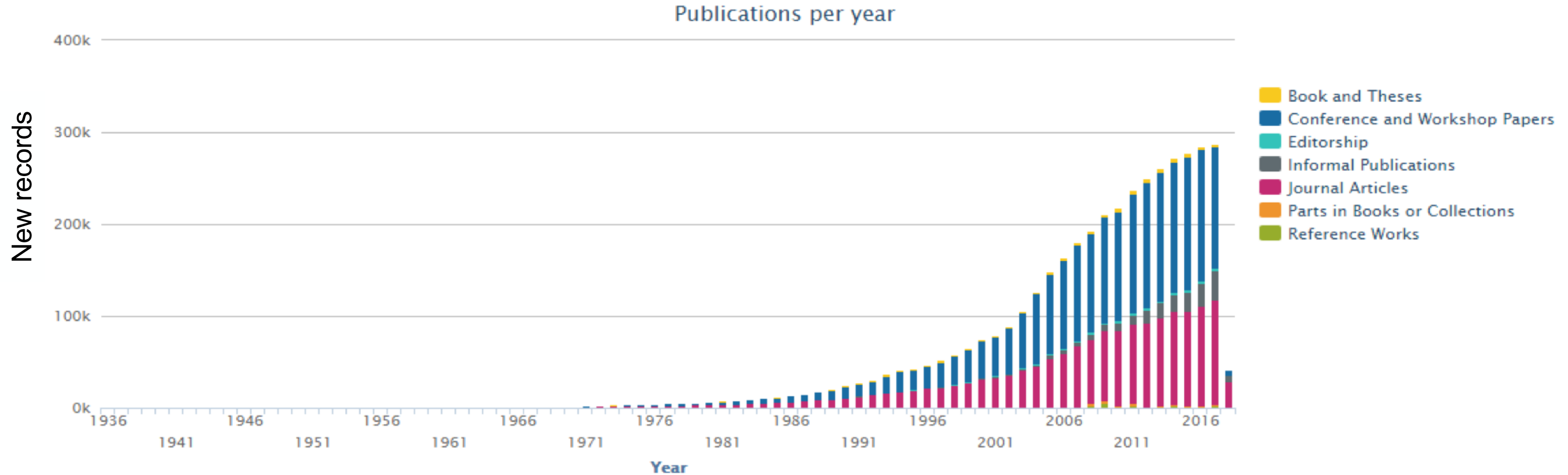


Table combined content

Publications by project per year			
List of projects	2017	2016	2015
Project 1	12	50	47
Project 2	35	85	68
Project 3	20	9	23

Table combined content

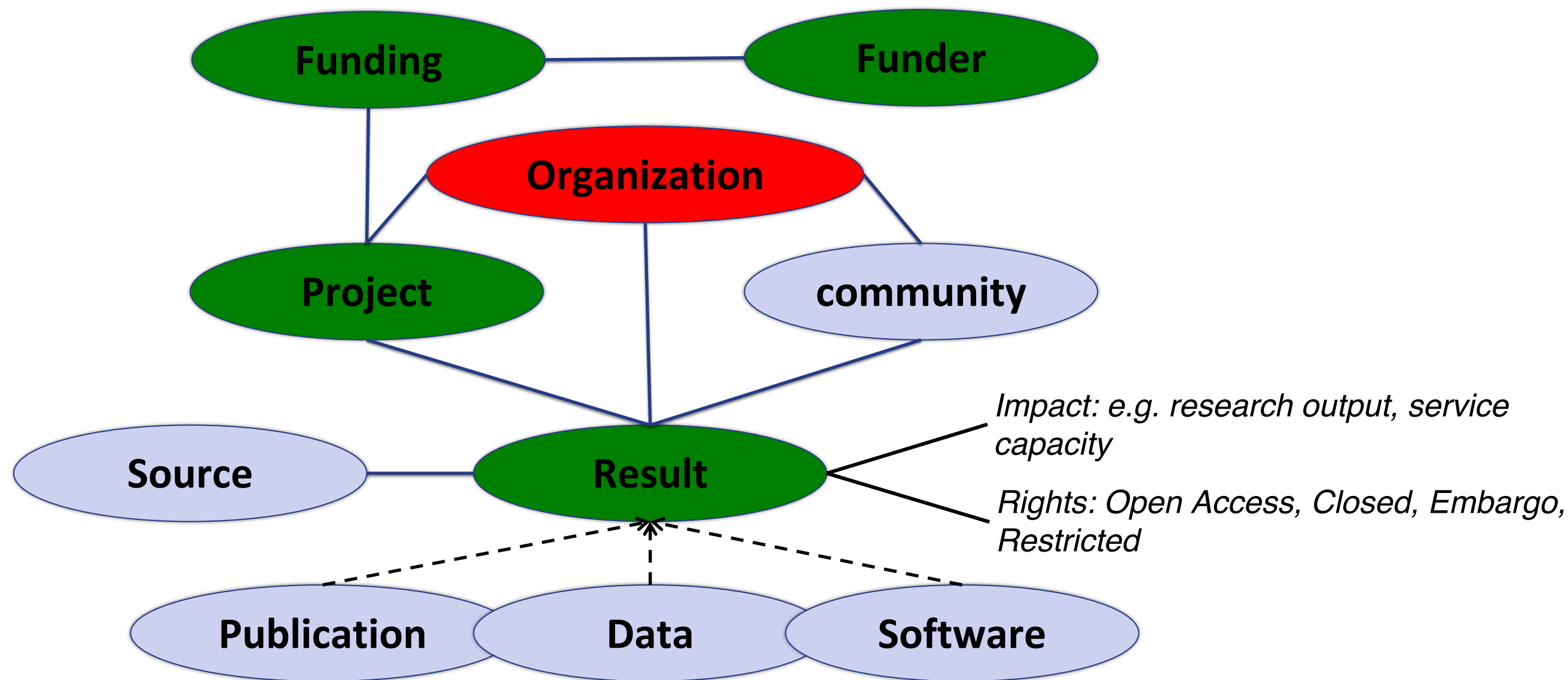
Publications by scientific area by articles, chapter in book and by no. of projects			
Scientific area	Articles	Chapter in Book	No. of Projects
Bioscience	5	35	2863
Mathematics	45	20	1852
Chemical Engineering	2	88	7514
Medicine	59	14	6528

Table combined content

Publications by scientific area by articles, chapter in book and by no. of projects			
Scientific area	Articles	Chapter in Book	No. of Projects
Bioscience	5	35	2863
Mathematics	45	20	1852
Chemical Engineering	2	88	7514
Medicine	59	14	6528

Institutional Dashboard

Institutions and OpenAIRE Data Model



Aims

Research Impact

Ability of researchers affiliated with the institution to produce innovative and quality scientific products

Service capacity impact

Ability of services maintained and operated by the institution to support researchers at producing or storing scientific products

Funding impact

Ability of institution to reach funding from different funders and disciplines

Added-value functionalities

- **Funders**

- Recent and past EC and other funders' activities (representing various funding levels)
- Checking compliance to funder mandates

- **Institutions**

- Collaboration network (by institution) via projects and products

- **Projects**

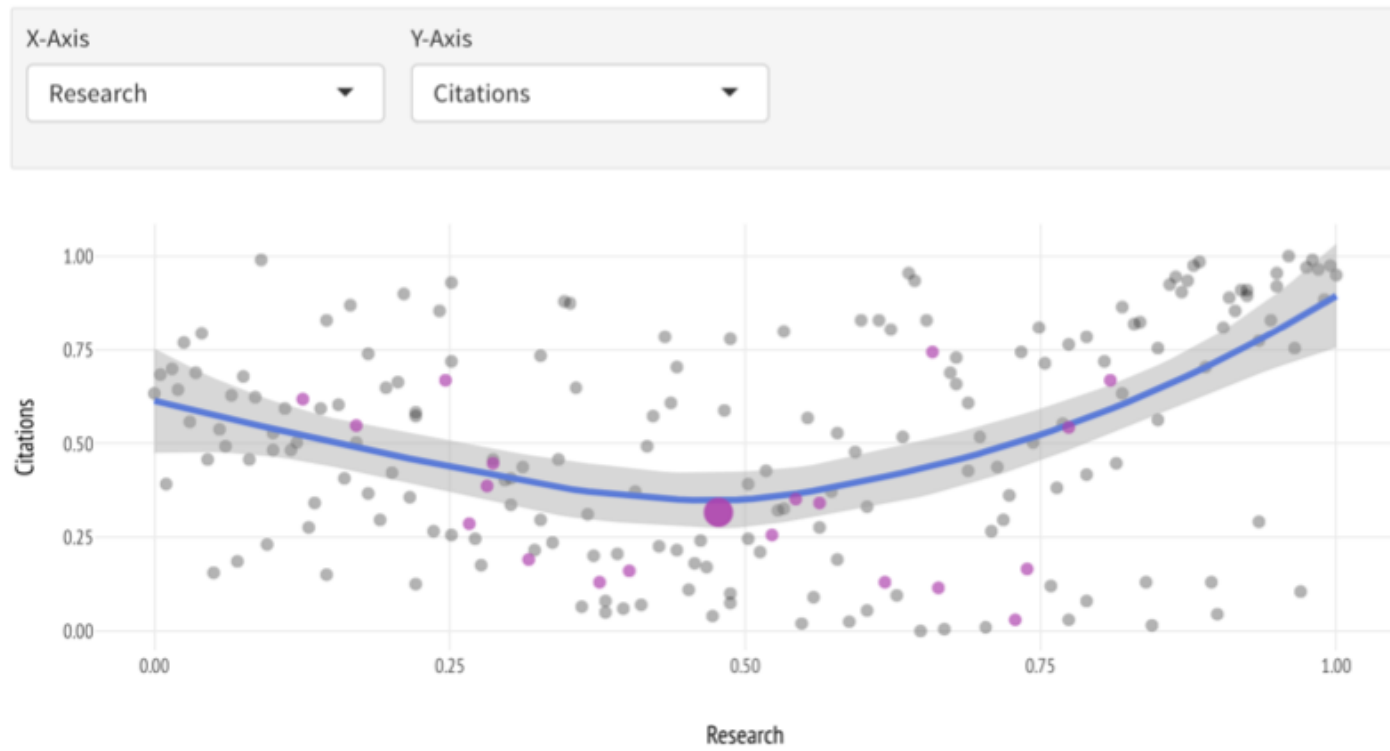
- Check if projects are eligible for Post-Grant APC funding
- Compare project portfolio against that of other similar institutions (anonymized)

Users

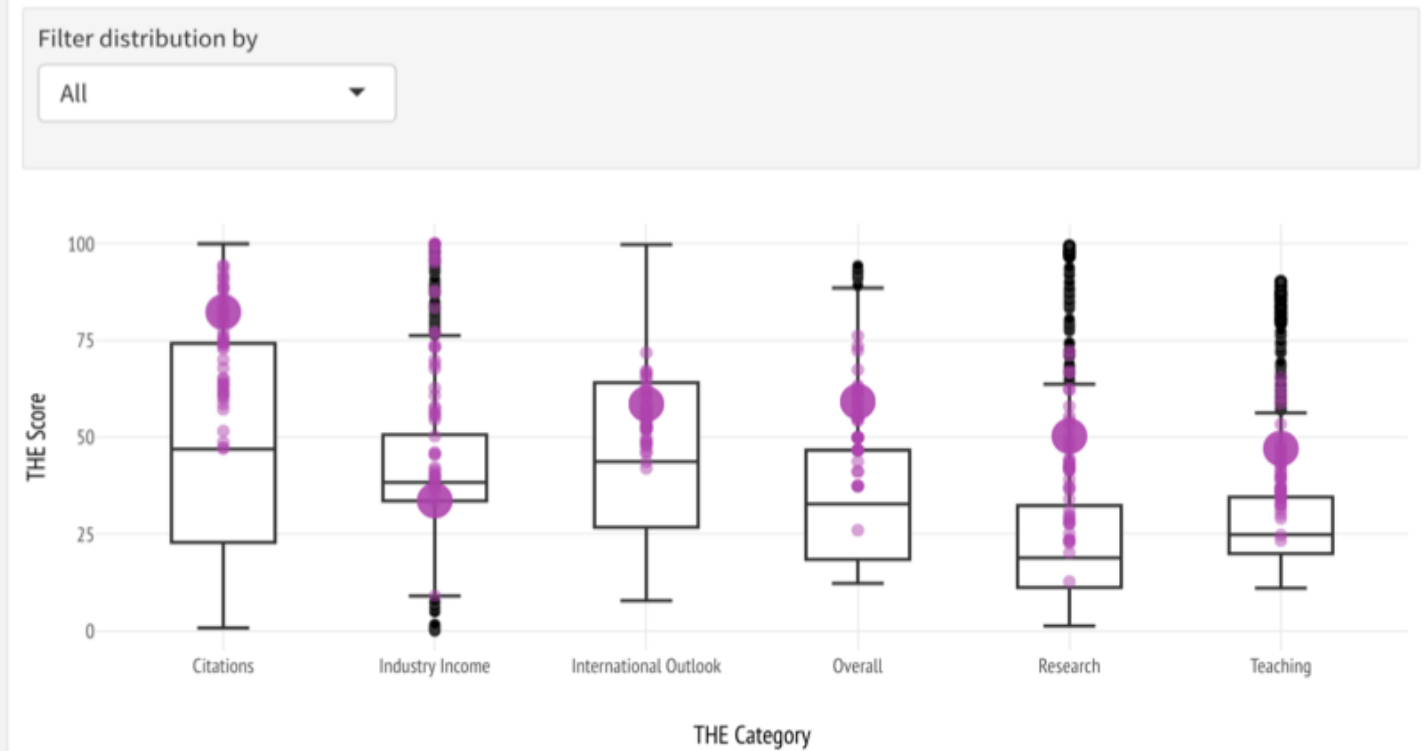
- **Generic users**
 - Search & Browse
 - Visualize Stats
 - Claim (registered users)
- **Managers (registered/authorized users)**
 - Services to be monitored (harvesting)
 - Continuous monitoring (service APIs)
 - Alerts (e.g. violation of OA mandates)
 - Impact propagation

Examples of other dashboards

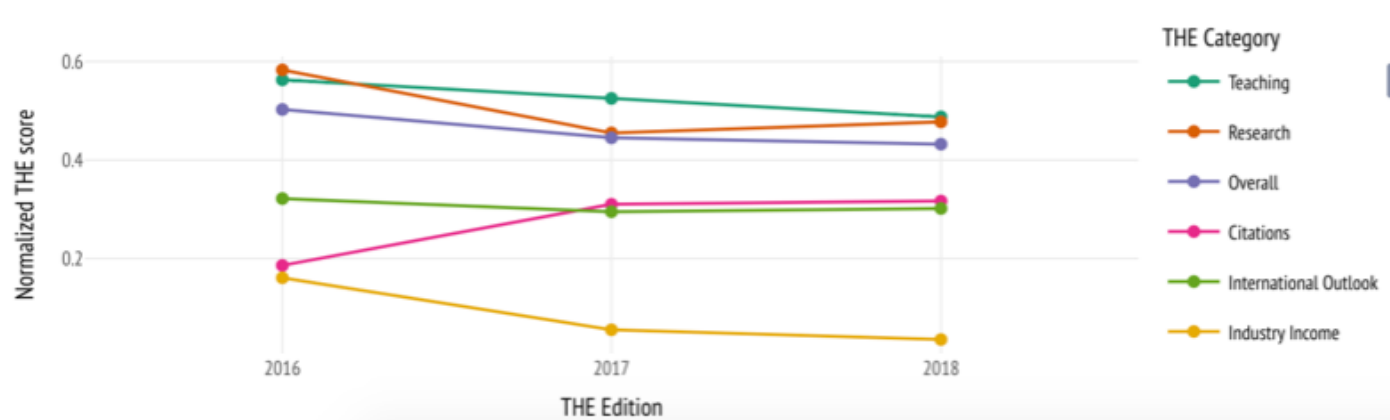
Cross-metrics comparison by THE Category (Percentile Rank Top 200)



How is the university ranked against others across the THE Categories in 2018?



University of Göttingen by THE Category (Percentile Rank Top 200)



THE Category definitions

- Teaching (the learning environment):** 30%
 - Research (volume, income and reputation):** 30%
 - Citations (research influence):** 30%
 - International outlook (staff, students, research):** 7.5%
 - Industry income (knowledge transfer):** 2.5%
- Source: [THE World University Rankings 2018 methodology](#)

Publisher

- All
- All
- Elsevier BV
- Springer Nature
- Wiley-Blackwell
- American Chemical Society (ACS)
- Institute of Electrical and Electronics Engineers (IEEE)

publishers shared licensing information about fulltext accessibility and re-use rights with [Crossref](#).

Data sources:



Metadata from **Crossref**



open@APC Open Data on Article Charges

31
Publishers selected



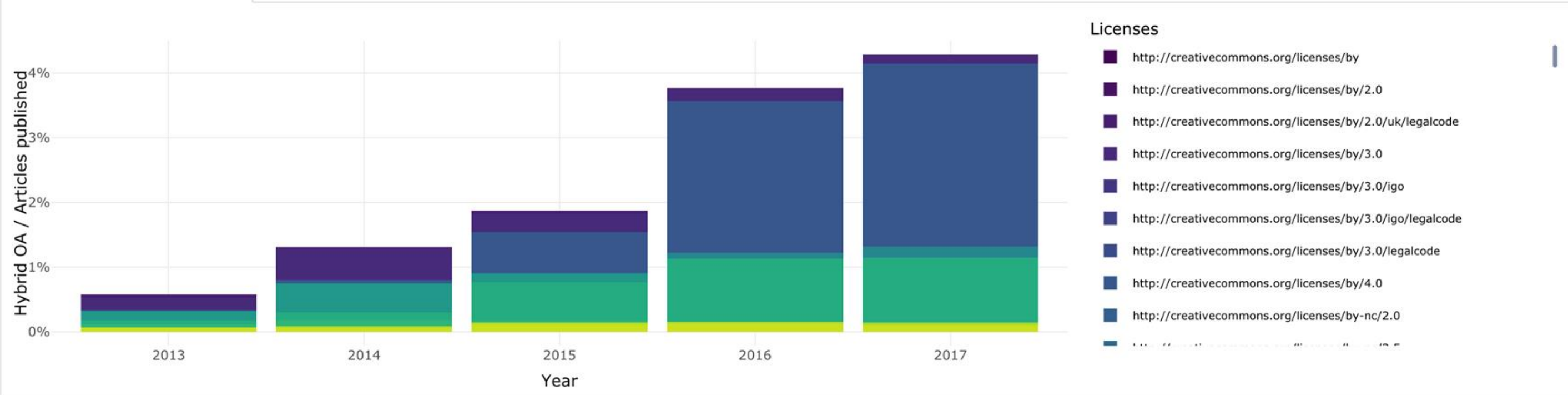
2919
Journals selected



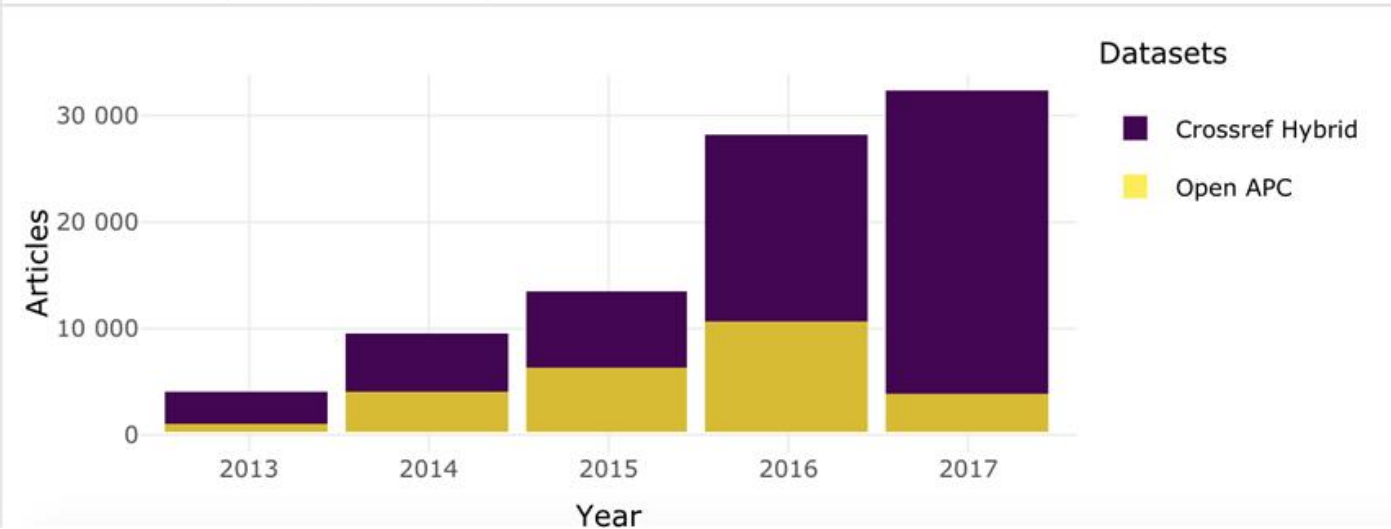
86639
Hybrid OA articles indexed in Crossref



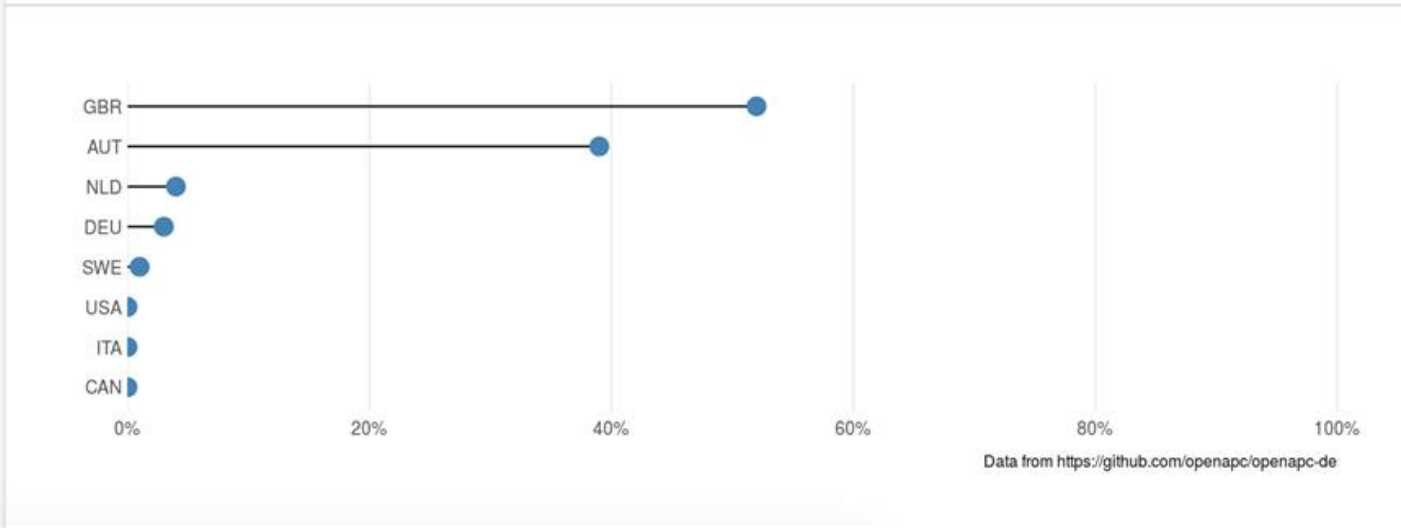
Hybrid OA Licenses found (relative) Hybrid OA Licenses found (absolute)



Crossref Indexing Coverage vs Spending Information available via Open APC



Institutional spending per country (in percent)



Today's Indicators

493 - Publications to date, where: [?]

26.8% - Verified Publicly Accessible on Publishers Site [?]

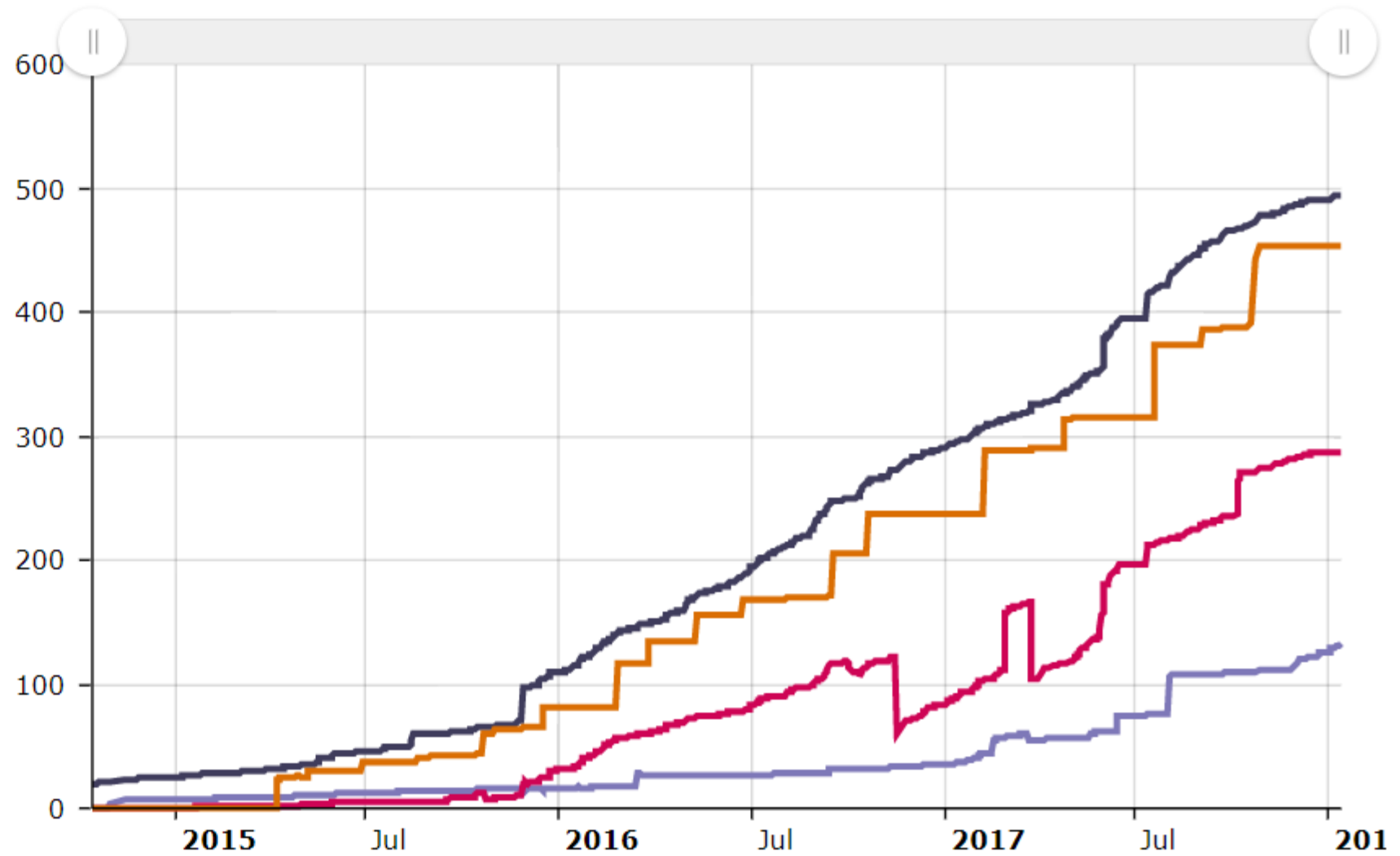
58.0% - Reuse terms available [?]

91.9% - Archived [?]

Key Performance Indicators - History

Click on colored dots in legend to show or hide key indicator lines

- Total
- Publicly Accessible on Publishers Site
- Reuse Terms Available
- Archived



cran.rstudio.com

The streaming data is a 1-week-delayed livestream of download logs from cran.rstudio.com. The server code for that service is at [jcheng5/cransim](#).

Warn when rate exceeds:



Recent downloads window:

50

22.9

Downloads per sec (last 5 min)



211

Total downloads

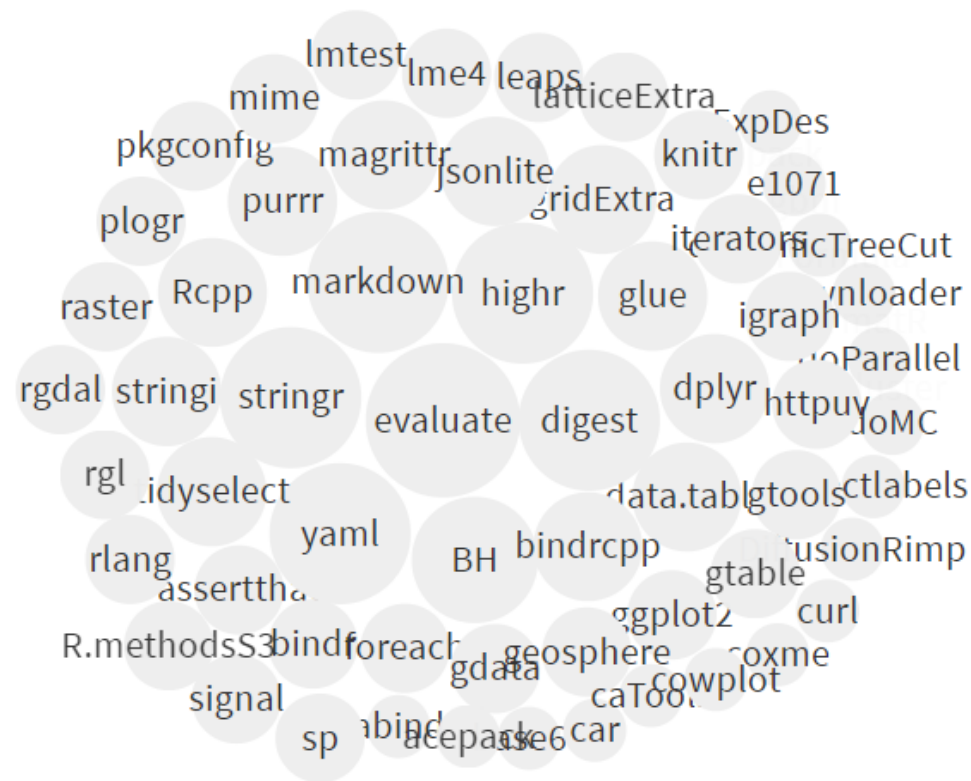


65

Unique users



Popularity by package (last 5 min)



Percent of downloads (last 5 min)

Package	Percent
1 evaluate	2.8
2 digest	2.4
3 highr	2.4
4 markdown	2.4
5 stringr	2.4
6 yaml	2.4
7 BH	1.9
8 bindrcpp	1.4
9 data.table	1.4
10 dplyr	1.4
11 glue	1.4

Based on UGOE EC-funded research activities, we will

- **Collect use-cases** and analytical demands for institutional dashboards
- Explore how and to what extent **OpenAIRE data streams** (REST API) can be **meaningfully represented for analytical purposes** at academic institutions
- Create a **mock-up** with interactive visualisations and reporting functionalities
- Plan a **stakeholder testbed** to prove dashboard's usefulness and effectiveness with research administrators, and other stakeholders including SHARE.

- Use the OpenAIRE Network for the testing phase, and the **NOADs to test and promote the dashboard**

How will this happen?



Questions?